

**USE OF SYSTEM IDENTIFICATION TECHNIQUES FOR IMPROVING  
AIRFRAME FINITE ELEMENT MODELS USING TEST DATA**

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**Prepared by**

*Sathya V. Hanagud  
Weiyu Zhou  
James I. Craig  
Neil J. Weston*

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**GEORGIA INSTITUTE OF TECHNOLOGY  
School of Aerospace Engineering  
Atlanta, Georgia 30332-0150**

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## SUMMARY

A method for using system identification techniques to improve airframe finite element models using test data has been developed and demonstrated. The method uses linear sensitivity matrices to relate changes in selected physical parameters to changes in the total system matrices. The values for these physical parameters were determined using constrained optimization with singular value decomposition. The method was confirmed using both simple and complex finite element models for which pseudo-experimental data was synthesized directly from the finite element model. The method was then applied to a real airframe model which incorporated all of the complexities and details of a large finite element model and for which extensive test data was available. The method was shown to work, and the differences between the identified model and the measured results were considered satisfactory.



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## NOMENCLATURE

$c$	: coefficient matrix
$C$	: damping matrix
$C_A$	: damping matrix for analytical model
$c_i$	: grouped element damping matrix
$f(\lambda)$	: lambda matrix
$K$	: stiffness matrix
$K_A$	: stiffness matrix for analytical model
$k_i$	: grouped element stiffness matrix
$M$	: mass matrix
$M_A$	: mass matrix for analytical model
$m_i$	: grouped element mass matrix
$q(t)$	: displacements at the $n$ degrees of freedom
$Q(t)$	: $n$ independent forces applied at each DOF
$U$	: $Z_1 \Lambda$
$U_I$	: imaginary component of $U$
$U_R$	: real component of $U$
$V$	: $Z_2 \Lambda$
$V_I$	: imaginary component of $V$
$V_R$	: real component of $V$
$W$	: $Z_2$
$W_I$	: imaginary component of $W$
$W_R$	: real component of $W$
$y(t)$	: redefined displacement vector
$Y(t)$	: redefined applied force vector
$Y_1$	: $-(dU_R^T M_A + dV_R^T C_A + dW_R^T K_A)$
$Y_2$	: $-(dU_I^T M_A + dV_I^T C_A + dW_I^T K_A)$
$Z_1, Z_2$	: special modal matrices defined in this paper
$\alpha$	: eigenvalue
$\alpha_i$	: adjustable physical mass quantities
$\beta_i$	: adjustable physical damping quantities
$\gamma_i$	: adjustable physical stiffness quantities
$\delta$	: real component of the complex eigenvalue
$\lambda$	: eigenvalue
$\phi$	: modal matrix
$\Omega$	: imaginary component of the complex eigenvalue
$\phi^{(r)}$	: $r$ th modal column
$\Psi$	: $n \times 2n$ rectangular modal matrix
$\eta$	: modal coordinates matrix
$\Phi$	: modal matrix
$d( )$	: differences between experimental data and analytical data



## INTRODUCTION

### **Background**

The vast bulk of the work reported to date on identification of structural dynamic systems has focused on identifying mathematical models that reproduce test results, but little consideration has been given to the physical basis for the identified system equations. Typically, the identification procedures make systematic adjustments to the system equation, commonly to the stiffness and/or mass matrices but also to the damping matrix, so that the identified eigenvalues and eigenvectors reproduce as closely as possible the results measured in tests. The result of this process is almost inevitably identified mass, stiffness and damping matrices that are fully populated, that is, which have nonzero values for almost all elements. Such matrices, while capable of producing plausible eigenvalues and eigenvectors, can nonetheless be physically implausible in the sense that the large numbers of nonzero elements throughout the system matrices implies direct connectivity among the degrees of freedom that does not exist physically.

Identified mathematical models that are based on physically implausible system matrices may be quite acceptable if the objective of the study is to develop a *simulation* model. However, such results for analysis purposes are generally unsatisfactory because it is difficult or impossible to relate specific features of the physical system to the analysis results. This problem is particularly troublesome when the objective of the identification of a system model from experimental measurements is an accurate system model that, in turn, will be used to make modifications to or improvements in the original physical system. Such an example might be the modification of an existing aircraft structure to accommodate a new mission. In this case it would be desirable to formulate a structural model for the present structure, verify its accuracy against experimental measurements, and then use it as the basis for the modifications. When the verification process yields identified system matrices that are mathematically acceptable but physically implausible, the resulting model may be useless as the basis for future structural modifications.

The objective of the present work was to develop a method for identifying physically plausible finite element system models of airframe structures from test data. The assumed models were based on linear elastic behavior with general (nonproportional) damping. Physical plausibility of the identified system matrices was insured by restricting the identification process to designated physical parameters only and not simply to the elements of the system matrices themselves. For example, in a large finite element model the identified parameters might be restricted to the moduli for each of the different materials used in the structure. In the case of damping, a restricted set of damping values might be assigned to finite elements based on the material type and on the fabrication processes used. In this case, different damping values might be associated with riveted, bolted and bonded elements.

The method itself is developed first, and several approaches are outlined for computing the identified parameter values. The method is applied first to a simple structure for which the "measured" response is actually synthesized from an assumed model. Both stiffness and damping parameter values are accurately identified. The true test, however, is the application to a full-scale airframe structure. In this case, a NASTRAN model and actual measured modal parameters formed the basis for the identification of a restricted set of physically plausible stiffness and damping parameters.

### **Review of Previous Pertinent Work**

Airframes are generally modelled using powerful finite element analysis packages such as NASTRAN that are capable of representing quite detailed aspects of the structural system. The accuracy of such models is determined by comparing the analytical results with flight or ground vibration test results. In the case of helicopter airframes, several recent efforts have focused on the correlation of NASTRAN model data with ground vibration test data<sup>1-3</sup>. The conclusions reached in these studies suggest that in cases where there is some degree of correlation, the model frequencies compare favorably with test frequencies, but generally only in the low frequency range



below about 15 Hz<sup>1-2</sup>. The frequency response functions at selected locations also compare reasonably well in this range. Outside this range the comparisons are generally unsatisfactory, and the eigenvectors do not usually compare favorably in either range.

Although there have been numerous contributions to the literature in the area of the identification of structural dynamic systems<sup>4-25</sup>, the majority of reported methods are based on simply adjusting the elements of one or more of the **K**, **M**, and **C** matrices. While this approach is capable of yielding a system matrix whose eigenvalues and eigenvectors suitably match measured results, the methods generally lose all physical interpretability inherent in the original **K**, **M** and **C** matrices by not maintaining relationships among elements dictated by the model topology. These difficulties are compounded for large-scale models with thousands of degrees of freedom.

Kuo and Wada<sup>25</sup> used nonlinear sensitivity coefficients (NSC) in the identification procedure. Their sensitivity coefficients are between the system parameters and eigenvalues. In the present work the interest is in the change of system matrices as a function of physical variables of the structure. A different type of sensitivity coefficient between system matrices and physical variables has therefore been developed.

The most significant achievement in the present work<sup>30</sup> is to preserve the physical interpretability of the **M**, **C**, **K** matrices so that the identification can provide evidence of possible sources of erroneous modeling and point to specific regions of the model that are unduly sensitive and need additional consideration in modeling. The identification procedure developed in this paper is capable of adjusting physical quantities such as boundary conditions, moments of inertia, stiffnesses, damping or other selected physical parameters.

## **Mathematical Model**

### **Basic Equations**

Any linearly elastic structural system with  $n$  discrete degrees of freedom and with general viscous damping (either proportional or nonproportional) can be represented by  $n$  coupled ordinary differential equations that can be written in the following form<sup>27</sup>:

$$\mathbf{M}\ddot{\mathbf{q}}(t) + \mathbf{C}\dot{\mathbf{q}}(t) + \mathbf{K}\mathbf{q}(t) = \mathbf{Q}(t) \quad (1)$$

where **M**, **C**, and **K** are symmetric  $n \times n$  inertia, damping, and stiffness matrices, respectively. In this formulation,  $\mathbf{q}(t)$  are the displacements at the  $n$  degrees of freedom and  $\mathbf{Q}(t)$  are the  $n$  independent forces applied at each degree of freedom.

In the case of undamped or proportionally damped systems, there are  $n$  complex conjugate pairs of eigenvalues and  $n$  distinct modes which are orthogonal with respect to **M** and **K**. Using a transformation matrix of the form:

$$\mathbf{q}(t) = \mathbf{\Psi}\boldsymbol{\eta}(t)$$

will allow decomposition of the original system equations (Eq. 1) into  $n$  decoupled equations that are straightforward to solve.

This transformation cannot be applied to the general nonproportionally damped problem in the same manner because for this case there are  $2n$  complex modes,  $\phi^{(r)}$ , and consequently  $2n$  modal coordinates,  $\eta_r(t)$ , but there are only  $n$  physical coordinates,  $q_i(t)$ .

One can overcome this difficulty by writing Eq. (1) as a set of  $2n$  ordinary differential equations in the form:

$$\begin{bmatrix} \mathbf{0} & \mathbf{M} \\ \mathbf{M} & \mathbf{C} \end{bmatrix} \begin{Bmatrix} \dot{\mathbf{q}}(t) \\ \mathbf{q}(t) \end{Bmatrix} + \begin{bmatrix} -\mathbf{M} & \mathbf{0} \\ \mathbf{0} & \mathbf{K} \end{bmatrix} \begin{Bmatrix} \mathbf{q}(t) \\ \mathbf{q}(t) \end{Bmatrix} = \begin{Bmatrix} \mathbf{0} \\ \mathbf{Q}(t) \end{Bmatrix} \quad (2)$$

If one then defines:  $\mathbf{y}(t) = \begin{Bmatrix} \dot{\mathbf{q}}(t) \\ \mathbf{q}(t) \end{Bmatrix}$  and  $\mathbf{Y}(t) = \begin{Bmatrix} \mathbf{0} \\ \mathbf{Q}(t) \end{Bmatrix}$ , the above equations can be written as a set of  $2n$  first order ordinary differential equations:



$$\begin{bmatrix} \mathbf{0} & \mathbf{M} \\ \mathbf{M} & \mathbf{C} \end{bmatrix} \dot{\mathbf{y}}(t) + \begin{bmatrix} -\mathbf{M} & \mathbf{0} \\ \mathbf{0} & \mathbf{K} \end{bmatrix} \mathbf{y}(t) = \mathbf{Y}(t). \quad (3)$$

This formulation has the advantage that the modes obtained from the solution of the homogeneous equations, obtained by letting  $\mathbf{Y}(t)=\mathbf{0}$  in Eqs. (3), are orthogonal, and hence can be used in conjunction with the expansion theorem to obtain the solution of the nonhomogeneous problem. The solution of the homogeneous equations is obtained by assuming as before a solution in the form:

$$\mathbf{y}(t) = \Phi e^{\alpha t} \quad (4)$$

where  $\Phi$  represents the spatial component of the solution and is a vector consisting of  $2n$  constant elements. The corresponding eigenvalue problem can be written as:

$$\alpha \begin{bmatrix} \mathbf{0} & \mathbf{M} \\ \mathbf{M} & \mathbf{C} \end{bmatrix} \Phi + \begin{bmatrix} -\mathbf{M} & \mathbf{0} \\ \mathbf{0} & \mathbf{K} \end{bmatrix} \Phi = \begin{bmatrix} \mathbf{0} \\ \mathbf{0} \end{bmatrix} \quad (5)$$

The solution of the eigenvalue problem yields  $2n$  eigenvalues,  $\alpha_r$ , and  $2n$  eigenvectors

$$\Phi_r^T = \begin{Bmatrix} \alpha_r \phi_r^T \\ \phi_r^T \end{Bmatrix}, \quad r=1,2,\dots,2n. \quad (6)$$

Equations (5) and (6) provide the solution to Eq. (1), but in order to simplify the computational work, it is convenient to formally separate these complex equations into real and imaginary pairs. Following the approach introduced by Cheng<sup>10</sup>, the real and imaginary components of the eigenvalues and eigenvectors are defined, respectively, as:

$$\begin{aligned} \lambda_r &= \delta_r + j\Omega_r \\ \Phi_r &= \Phi_{Rr} + j\Phi_{Ir} \end{aligned} \quad (7)$$

and in addition the following modal matrices are defined:

$$\begin{aligned} \mathbf{Z}_1 &= (\text{Re}(\alpha_1 \phi_1), \text{Im}(\alpha_1 \phi_1), \text{Re}(\alpha_2 \phi_2), \text{Im}(\alpha_2 \phi_2), \dots, \\ &\quad \text{Re}(\alpha_n \phi_n), \text{Im}(\alpha_n \phi_n)) \\ \mathbf{Z}_2 &= (\text{Re}(\phi_1), \text{Im}(\phi_1), \text{Re}(\phi_2), \text{Im}(\phi_2), \dots, \\ &\quad \text{Re}(\phi_n), \text{Im}(\phi_n)) \end{aligned} \quad (8)$$

Then the new system equation, Eq. (5), can now be rewritten with purely real terms in the form:

$$\Lambda \begin{bmatrix} \mathbf{0} & \mathbf{M} \\ \mathbf{M} & \mathbf{C} \end{bmatrix} \begin{Bmatrix} \mathbf{Z}_1 \\ \mathbf{Z}_2 \end{Bmatrix} + \begin{bmatrix} -\mathbf{M} & \mathbf{0} \\ \mathbf{0} & \mathbf{K} \end{bmatrix} \begin{Bmatrix} \mathbf{Z}_1 \\ \mathbf{Z}_2 \end{Bmatrix} = \begin{bmatrix} \mathbf{0} \\ \mathbf{0} \end{bmatrix} \quad (9)$$

where the eigenvector matrix,  $\Lambda$ , is a block diagonal matrix with blocks

$$\Lambda_r = \begin{bmatrix} \delta_r & \Omega_r \\ -\Omega_r & \delta_r \end{bmatrix} \quad (10)$$

along the diagonal and zeros elsewhere. Equation (9) can be further simplified by the introduction of  $\mathbf{U}$ ,  $\mathbf{V}$ , and  $\mathbf{W}$  as follows:

$$\mathbf{M}\mathbf{U} + \mathbf{C}\mathbf{V} + \mathbf{K}\mathbf{W} = \mathbf{0} \quad (11)$$

where  $\mathbf{U} = \mathbf{Z}_1 \Lambda$ ,  $\mathbf{V} = \mathbf{Z}_2 \Lambda$  and  $\mathbf{W} = \mathbf{Z}_2$  or explicitly:

$$\begin{aligned} \mathbf{U} &= (\text{Re}(\alpha_1^2 \phi_1), \text{Im}(\alpha_1^2 \phi_1), \text{Re}(\alpha_2^2 \phi_2), \text{Im}(\alpha_2^2 \phi_2), \dots, \\ &\quad \dots, \text{Re}(\alpha_n^2 \phi_n), \text{Im}(\alpha_n^2 \phi_n)) \\ \mathbf{V} &= (\text{Re}(\alpha_1 \phi_1), \text{Im}(\alpha_1 \phi_1), \text{Re}(\alpha_2 \phi_2), \text{Im}(\alpha_2 \phi_2), \dots, \end{aligned}$$



$$\begin{aligned} & \text{Re}(\alpha_n \phi_n), \text{Im}(\alpha_n \phi_n) \\ \mathbf{W} = & (\text{Re}(\phi_1), \text{Im}(\phi_1), \text{Re}(\phi_2), \text{Im}(\phi_2), \dots, \text{Re}(\phi_n), \\ & \text{Im}(\phi_n)) \end{aligned} \quad (12)$$

Finally, Eq. (11) can be separated into explicit real and imaginary equations in the form of the following two equations.

$$\mathbf{M}\mathbf{U}_R + \mathbf{C}\mathbf{V}_R + \mathbf{K}\mathbf{W}_R = \mathbf{0} \quad (13)$$

$$\mathbf{M}\mathbf{U}_I + \mathbf{C}\mathbf{V}_I + \mathbf{K}\mathbf{W}_I = \mathbf{0} \quad (14)$$

These equations are same as Eqs. (5), but they do not include complex variables. For the identification procedure, it is much easier to use these equations than to use Eqs. (5) directly.

### Identification Procedure

To begin, suppose that the mass, damping and stiffness matrices for the initial analytical model are given by  $\mathbf{M}_A$ ,  $\mathbf{C}_A$  and  $\mathbf{K}_A$ , respectively, and the identified mass, damping and stiffness matrices are given by  $\mathbf{M}$ ,  $\mathbf{C}$  and  $\mathbf{K}$ . In a similar manner, the eigenvectors and eigenvalues for the analytical model are given by  $\mathbf{U}_A$ ,  $\mathbf{V}_A$  and  $\mathbf{W}_A$ , while  $\mathbf{U}_E$ ,  $\mathbf{V}_E$  and  $\mathbf{W}_E$  are the eigenvectors and eigenvalues determined from test data. From these definitions it follows that the relationship between the identified model (based on the test data) and the analytical model can be written as:

$$\mathbf{M} = \mathbf{M}_A + d\mathbf{M}, \quad \mathbf{C} = \mathbf{C}_A + d\mathbf{C}, \quad \mathbf{K} = \mathbf{K}_A + d\mathbf{K} \quad (15)$$

$$\mathbf{U}_E = \mathbf{U}_A + d\mathbf{U}, \quad \mathbf{V}_E = \mathbf{V}_A + d\mathbf{V}, \quad \mathbf{W}_E = \mathbf{W}_A + d\mathbf{W} \quad (16)$$

where  $d\mathbf{M}$ ,  $d\mathbf{C}$ ,  $d\mathbf{K}$ ,  $d\mathbf{U}$ ,  $d\mathbf{V}$  and  $d\mathbf{W}$  are the changes. The identified model satisfies equations (13) and (14), so substituting equations (15) and (16) into equation (13) and (14), yields:

$$\begin{aligned} & d\mathbf{U}_R^T \mathbf{M}_A + d\mathbf{V}_R^T \mathbf{C}_A + d\mathbf{W}_R^T \mathbf{K}_A = \\ & -(\mathbf{U}_{ER}^T, \mathbf{V}_{ER}^T, \mathbf{W}_{ER}^T)(d\mathbf{M}, d\mathbf{C}, d\mathbf{K})^T \end{aligned} \quad (17)$$

$$\begin{aligned} & d\mathbf{U}_I^T \mathbf{M}_A + d\mathbf{V}_I^T \mathbf{C}_A + d\mathbf{W}_I^T \mathbf{K}_A = \\ & -(\mathbf{U}_{EI}^T, \mathbf{V}_{EI}^T, \mathbf{W}_{EI}^T)(d\mathbf{M}, d\mathbf{C}, d\mathbf{K})^T \end{aligned} \quad (18)$$

These equations can be combined into the following form:

$$\begin{bmatrix} \mathbf{U}_{ER}^T & \mathbf{V}_{ER}^T & \mathbf{W}_{ER}^T \\ \mathbf{U}_{EI}^T & \mathbf{V}_{EI}^T & \mathbf{W}_{EI}^T \end{bmatrix} \begin{Bmatrix} d\mathbf{M} \\ d\mathbf{C} \\ d\mathbf{K} \end{Bmatrix} = \begin{Bmatrix} \mathbf{Y}_1 \\ \mathbf{Y}_2 \end{Bmatrix}, \quad (19)$$

where

$$\begin{aligned} \mathbf{Y}_1 &= -(d\mathbf{U}_R^T \mathbf{M}_A + d\mathbf{V}_R^T \mathbf{C}_A + d\mathbf{W}_R^T \mathbf{K}_A) \\ \mathbf{Y}_2 &= -(d\mathbf{U}_I^T \mathbf{M}_A + d\mathbf{V}_I^T \mathbf{C}_A + d\mathbf{W}_I^T \mathbf{K}_A). \end{aligned} \quad (20)$$

The right side of these equations is known, since  $\mathbf{M}_A$ ,  $\mathbf{C}_A$ , and  $\mathbf{K}_A$  are given by the analytical model and  $d\mathbf{U}_R^T$ ,  $d\mathbf{V}_R^T$ ,  $d\mathbf{W}_R^T$ ,  $d\mathbf{U}_I^T$ ,  $d\mathbf{V}_I^T$ , and  $d\mathbf{W}_I^T$ , which are the differences of the eigenvalues and eigenvectors between the analytical model and the experimental data, are known. Finally, the matrix

$$\begin{bmatrix} \mathbf{U}_{ER}^T & \mathbf{V}_{ER}^T & \mathbf{W}_{ER}^T \\ \mathbf{U}_{EI}^T & \mathbf{V}_{EI}^T & \mathbf{W}_{EI}^T \end{bmatrix}$$

contains only experiment data.

The solution to these equations are the changes of  $d\mathbf{M}$ ,  $d\mathbf{C}$  and  $d\mathbf{K}$ . Because of matrix symmetry, the number of unknowns in Eq. (19) is  $3n(n+1)/2$ . The number of equations depends on the number of known experimental modes. Suppose this number is  $m$ , then the number of



equations are  $m \times n$ . If the number of the equations is larger than or equal to the number of unknowns and the rank of this matrix is equal to  $3n(n+1)/2$ , normal least square methods can be used to solve these equations. Otherwise, singular value decomposition, or constrained optimization can be used to solve Eq. (19) for the changes  $dM$ ,  $dC$  and  $dK$ , and these results can then be substituted into Eq. (15) to determine the identified  $M$ ,  $C$  and  $K$  matrices. It should be noted that this approach is capable of handling nonproportional damping and underdetermined problems in which fewer modes are measured than are computed from the analytical model.

At this stage the usual identification procedure can be performed. The values of  $M$ ,  $C$  and  $K$  can be put into the system equation, Eq. (1), and the experimental data can then be reproduced. However the identified  $M$ ,  $C$  and  $K$  cannot be related to particular physical quantities in the actual airframe, because the changes occur throughout the entire  $M$ ,  $C$  and  $K$  matrices. In order to preserve the physical interpretability of the identified system, it is necessary to develop a relationship between  $dM$ ,  $dC$  and  $dK$  and adjustable physical quantities such as boundary conditions, moments of inertia, stiffnesses or other selected physical parameters. To this end, assume that each of the system matrices can be decomposed into the form:

$$M = \sum_{i=1}^{N_m} m_i \alpha_i, \quad C = \sum_{i=1}^{N_c} c_i \beta_i, \quad \text{and} \quad K = \sum_{i=1}^{N_k} k_i \gamma_i \quad (21)$$

where  $\alpha_i$ ,  $\beta_i$  and  $\gamma_i$  are adjustable physical quantities and  $m_i$ ,  $c_i$  and  $k_i$  are grouped element matrices with common physical quantities.

For example, in the finite element model of actual airframe, there is an  $e_j$ -th element, (see Fig. 1). The portion of the stiffness matrix that describes bending in the  $xz$  plane of an element, assumed to be a principal plane (Fig. 2), in NASTRAN, is given by

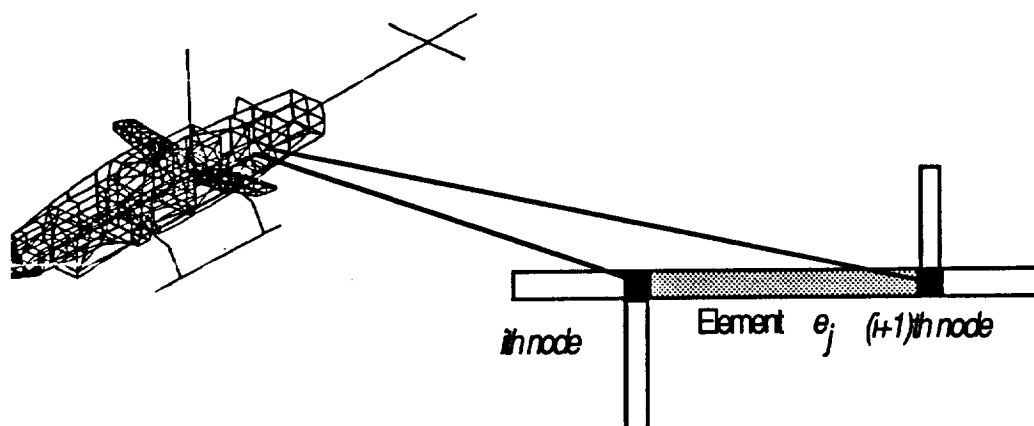


Fig. 1 Typical Bar Element,  $e_j$ , in Airframe Model



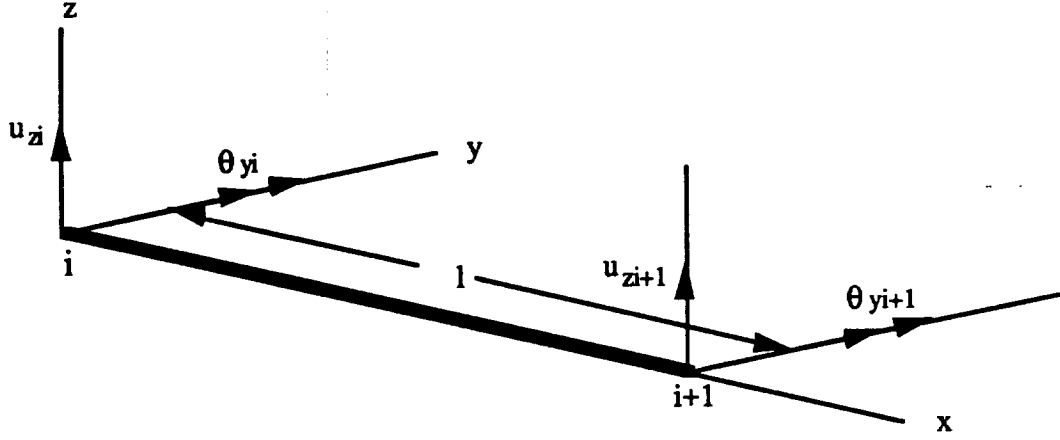


Fig. 2. Degrees of Freedom for Bending in the xz Plane

$$\begin{Bmatrix} F_{zi} \\ M_{zi} \\ F_{zi+1} \\ M_{zi+1} \end{Bmatrix} = \begin{bmatrix} R & -\frac{1}{2}R & -R & -\frac{1}{2}R \\ \frac{l^2}{4}R + \frac{EI_y}{1} & \frac{1}{2}R & \frac{l^2}{2}R - \frac{EI_y}{1} & \\ \text{sym} & R & \frac{1}{2}R & \\ & \frac{l^2}{4}R + \frac{EI_y}{1} & & \end{bmatrix} \begin{Bmatrix} u_{zi} \\ \theta_{zi} \\ u_{zi+1} \\ \theta_{zi+1} \end{Bmatrix}$$

where  $R = \left( \frac{1}{k_z AG} + \frac{l^3}{12EI_y} \right)^{-1}$ . If the modulus of elasticity,  $E$ , is taken here as an adjustable physical quantity,  $\gamma_k$ , then

$$\begin{aligned} K_{ej} &= \begin{bmatrix} R & -\frac{1}{2}R & -R & -\frac{1}{2}R \\ \frac{l^2}{4}R + \frac{EI_y}{1} & \frac{1}{2}R & \frac{l^2}{2}R - \frac{EI_y}{1} & \\ \text{sym} & R & \frac{1}{2}R & \\ & \frac{l^2}{4}R + \frac{EI_y}{1} & & \end{bmatrix} \\ &= \begin{bmatrix} r & -\frac{1}{2}r & -r & -\frac{1}{2}r \\ \frac{l^2}{4}r + \frac{I_y}{1} & \frac{1}{2}r & \frac{l^2}{2}r - \frac{I_y}{1} & \\ \text{sym} & r & \frac{1}{2}r & \\ & \frac{l^2}{4}r + \frac{I_y}{1} & & \end{bmatrix} \gamma_k = k_{ej} \gamma_k \end{aligned} \quad (23)$$



where  $\gamma_k = E$  and  $r = \left( \frac{2(1+\nu)l}{k_z A} + \frac{l^3}{12I_y} \right)^{-1}$ . Suppose there are  $n$  elements which have the same  $E$  so that it is possible to express the stiffness as:

$$k_k = \sum_{e_j=1}^n k_{ej}$$

When the modulus changes from  $E$  to  $E+dE$ , the corresponding change in  $\gamma_k$  is to  $\gamma_k+d\gamma_k$ . Considering all different  $\gamma_k$ ,  $K$  changes from  $K$  to  $K+dK$  where

$$dK = \sum_{k=1}^{N_k} k_k d\gamma_k$$

Similar procedures can be generalized to include the damping, other stiffness parameters, and mass.

$$\begin{aligned} dM &= \sum_{i=1}^{N_m} \frac{\partial M}{\partial \alpha_i} d\alpha_i = \sum_{i=1}^{N_m} m_i d\alpha_i \\ dC &= \sum_{i=1}^{N_c} \frac{\partial C}{\partial \beta_i} d\beta_i = \sum_{i=1}^{N_c} c_i d\beta_i \\ dK &= \sum_{i=1}^{N_k} \frac{\partial K}{\partial \gamma_i} d\gamma_i = \sum_{i=1}^{N_k} k_i d\gamma_i \end{aligned} \quad (24)$$

Substituting these into Eq. (19) yields a set of linear algebra equations with unknowns  $d\alpha_i$ ,  $d\beta_i$  and  $d\gamma_i$ :

$$\left[ \begin{array}{ccc} U_R^T \frac{\partial M}{\partial \alpha_1} & \dots & V_R^T \frac{\partial C}{\partial \beta_1} \dots W_R^T \frac{\partial K}{\partial \gamma_1} \dots \\ U_I^T \frac{\partial M}{\partial \alpha_1} & \dots & V_I^T \frac{\partial C}{\partial \beta_1} \dots W_I^T \frac{\partial K}{\partial \gamma_1} \dots \end{array} \right] \left\{ \begin{array}{c} d\alpha_1 \\ \vdots \\ d\alpha_{N_m} \\ d\beta_1 \\ \vdots \\ d\beta_{N_c} \\ d\gamma_1 \\ \vdots \\ d\gamma_{N_k} \end{array} \right\} = \left\{ \begin{array}{c} Y_1 \\ Y_2 \end{array} \right\} \quad (25)$$

The number of unknowns in this equation is much less than the number of unknowns in Eq. (19), and also all the unknowns in this equation have physical meaning in the real structure.

However, neither Eq. (19) or Eq. (25) can be solved directly since the numbers of unknowns and equations are not equal in most of the cases. There exists a number of techniques for dealing with sets of equations that are under or over-determined or with matrices that are either singular or else poorly conditioned. The singular value decomposition, or SVD method<sup>26</sup>, is one of the most



powerful ways to handle these problems. In the present study it was employed to compute solutions to Eq's. (19) and (25) which are highly under-determined for most practical situations. In this case the SVD method provides a least square type of solution to the problem.

In most cases, the selected physical parameters must also be restricted to positive values in order to make sense physically. However, the identification procedure outlined above cannot guarantee that the identified values will all be positive. This is of particular concern when the parameters are proportional to mass, an elastic modulus or a damping coefficient, all of which must be positive for the systems typically considered. Using a constrained optimization method, this problem can be eliminated. The present problem can be posed as one of minimizing

$$f = d\alpha_1 + d\alpha_2 + \dots + d\alpha_{N_m} + d\beta_1 + \dots + d\beta_{N_c} + d\gamma_1 + \dots + d\gamma_{N_k} \quad (26)$$

subject to the constraints

$$\left[ \begin{array}{c} U_R^T \frac{\partial M}{\partial \alpha_1} \dots V_R^T \frac{\partial C}{\partial \beta_1} \dots W_R^T \frac{\partial K}{\partial \gamma_1} \dots \\ U_I^T \frac{\partial M}{\partial \alpha_1} \dots V_I^T \frac{\partial C}{\partial \beta_1} \dots W_I^T \frac{\partial K}{\partial \gamma_1} \dots \end{array} \right] \left\{ \begin{array}{c} d\alpha_1 \\ \vdots \\ d\alpha_{N_m} \\ d\beta_1 \\ \vdots \\ d\beta_{N_c} \\ d\gamma_1 \\ \vdots \\ d\gamma_{N_k} \end{array} \right\} = \left\{ \begin{array}{c} Y_1 \\ Y_2 \end{array} \right\}$$

and

$$d\alpha_1 \geq 0, d\alpha_2 \geq 0, \dots, d\alpha_{N_m} \geq 0, d\beta_1 \geq 0, \dots, d\beta_{N_c} \geq 0, d\gamma_1 \geq 0, \dots, d\gamma_{N_k} \geq 0$$

The feasible solution  $(d\alpha_1, d\alpha_2, \dots, d\alpha_{N_m}, d\beta_1, \dots, d\beta_{N_c}, d\gamma_1, \dots, d\gamma_{N_k})$  to this problem yields the identified selected physical parameters.



## APPLICATIONS

### System Identification Procedures

The method described above was applied to several practical examples. For these cases, the analytical finite element model for the structures was assumed correct and was developed using the NASTRAN finite element analysis package<sup>28</sup>. Then, values for selected physical parameters in the model were identified on the basis of measured experimental data (eigenvalues and eigenvectors) so that the analytical model more accurately represented the real structure. The assumption for this procedure was that the identification process could be applied in an iterative fashion by making successive small modifications to the selected physical parameters until satisfactory agreement with experimental results was obtained. For the  $i$ -th iteration, there are the following relationships:

$$\begin{aligned} \mathbf{M}^i &= \mathbf{M}^{i-1} + d\mathbf{M}, \mathbf{C}^i = \mathbf{C}^{i-1} + d\mathbf{C}, \mathbf{K}^i = \mathbf{K}^{i-1} + d\mathbf{K} \\ \mathbf{U}^i &= \mathbf{U}^{i-1} + d\mathbf{U}, \mathbf{V}^i = \mathbf{V}^{i-1} + d\mathbf{V}, \mathbf{W}^i = \mathbf{W}^{i-1} + d\mathbf{W}, \end{aligned} \quad (27)$$

Substitute these into equation (25), we can obtain

$$\begin{bmatrix} \mathbf{U}_R^T \frac{\partial \mathbf{M}^{i-1}}{\partial \alpha_1} \dots \mathbf{V}_R^T \frac{\partial \mathbf{C}^{i-1}}{\partial \beta_1} \dots \mathbf{W}_R^T \frac{\partial \mathbf{K}^{i-1}}{\partial \gamma_1} \dots \\ \mathbf{U}_I^T \frac{\partial \mathbf{M}^{i-1}}{\partial \alpha_1} \dots \mathbf{V}_I^T \frac{\partial \mathbf{C}^{i-1}}{\partial \beta_1} \dots \mathbf{W}_I^T \frac{\partial \mathbf{K}^{i-1}}{\partial \gamma_1} \dots \end{bmatrix} \begin{Bmatrix} d\alpha_1^i \\ \vdots \\ d\alpha_{N_m}^i \\ d\beta_1^i \\ \vdots \\ d\beta_{N_c}^i \\ d\gamma_1^i \\ \vdots \\ d\gamma_{N_k}^i \end{Bmatrix} = \begin{Bmatrix} \mathbf{Y}_1' \\ \mathbf{Y}_2' \end{Bmatrix} \quad (28)$$

where

$$\begin{aligned} \mathbf{Y}_1' &= -(\mathbf{dU}_R^T \mathbf{M}^{i-1} + \mathbf{dV}_R^T \mathbf{C}^{i-1} + \mathbf{dW}_R^T \mathbf{K}^{i-1}) \\ \mathbf{Y}_2' &= -(\mathbf{dU}_I^T \mathbf{M}^{i-1} + \mathbf{dV}_I^T \mathbf{C}^{i-1} + \mathbf{dW}_I^T \mathbf{K}^{i-1}) \end{aligned} \quad (29)$$

The convergence criteria was formulated as follows:

- (1) Check the physical parameter differences  $d\alpha_1, d\alpha_2, \dots, d\alpha_{N_m}, d\beta_1, \dots, d\beta_{N_c}, d\gamma_1, \dots, d\gamma_{N_k}$  either manually or programmatically. If these physical parameter differences are smaller than a tolerance value, the identified physical parameters are obtained.
- (2) Check the differences of the experimental eigenvalues and the  $i$ -th iteration analytical results which are obtained after running NASTRAN. If the differences are smaller than a tolerance value, the identified system is obtained.

### Simple Numerical Example

In order to verify the proposed approach, the identification procedure developed above was applied first to a very simple finite element model with only a few degrees of freedom. It is a simple variable cross section straight rod with fixed ends, and it contains all the desired parameters



to be identified such as mass, stiffness and damping. It was modeled using 9 rod elements with lumped masses at each node as shown in Fig. 3, and representative values were assumed for all elements and mass properties. For the purpose of defining the damping, the elements were segregated into 4 groups and a different damping coefficient was specified for each group.

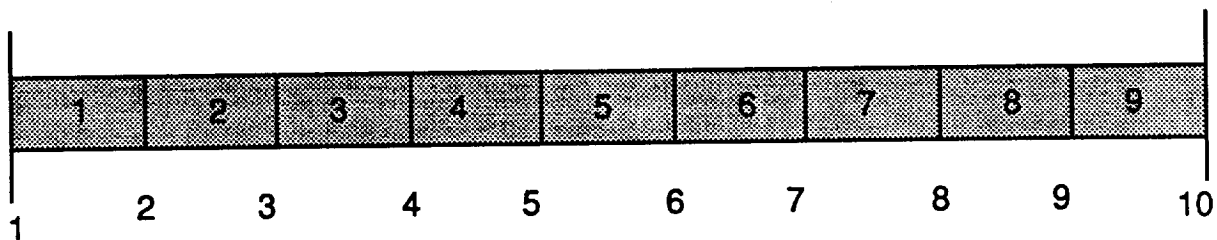


Figure 3. Simple Numerical Example

The assumed physical properties were defined to be typical of an aluminum rod. The length was 228.6 mm (9") and the modulus  $E = 68.9$  GPa ( $10 \times 10^6$  psi). The concentrated masses at each node were those given in Table 1. This model was then employed to generate eigenvalues and eigenvectors which were used to represent "measured" test results. In all the cases presented in this report, the calculations were done in US customary units and the results converted to SI units. As a result, some of the percentage figures may be slightly in error due to numerical roundoff in the conversion of units.

TABLE 1.  
ASSUMED PHYSICAL PROPERTIES FOR SIMPLE NUMERICAL EXAMPLE

Index	Mass at Node (kg)	Element Stiffness (MN/m)	Element Damping Coefficient (kN s/m)
1	21.89	367.7	28.34
2	22.76	369.5	28.34
3	23.64	371.3	28.34
4	24.51	373.0	27.58
5	25.39	374.8	27.58
6	26.26	376.5	27.14
7	27.14	378.3	27.14
8	28.01	380.0	26.27
9	28.89	381.8	26.27
10	29.76		

The objective of the identification was to determine the physical parameters such as damping constants ( $c$  or  $\zeta$ ) and the cross section area for each rod element. There are three different cases to start to consider with this system. In the first case, the mass and the stiffness matrices were assumed to be accurate, and four damping parameters were identified assuming zero as initial analytical values of the damping matrix. The identified damping parameters are listed in Table 2.



**TABLE 2.**  
**CASE I: IDENTIFYING THE DAMPING PARAMETERS**

Damping Parameter	Exact Value	Initial Value	Identified Value	Error (%)
c1	28.34	0.	28.3420	-0.0029
c2	28.34	0.	28.3420	-0.0029
c3	28.34	0.	28.3420	-0.0029
c4	27.58	0.	27.5805	-0.0022
c5	27.58	0.	27.5805	-0.0022
c6	27.14	0.	27.1431	-0.0006
c7	27.14	0.	27.1431	-0.0006
c8	26.27	0.	26.2676	-0.0005
c9	26.27	0.	26.2676	-0.0005

The second case was to identify the stiffness parameters assuming accurate values of mass and damping parameters which were the same for all elements  $k_i = 376.5$  MN/m. The identified stiffness parameters are listed below.

**TABLE 3.**  
**CASE II: IDENTIFYING STIFFNESS PARAMETERS**

Stiffness Parameter	Exact (MN/m)	Initial (MN/m)	Identified (MN/m)	Error (%)
k1	367.7	376.5	367.7	0.0000
k2	369.5	376.5	369.5	-0.0005
k3	371.3	376.5	371.3	0.0000
k4	373.0	376.5	373.0	0.0000
k5	374.8	376.5	374.8	0.0000
k6	376.5	376.5	376.5	0.0000
k7	378.3	376.5	378.3	0.0000
k8	380.0	376.5	380.0	0.0000
k9	381.8	376.5	381.8	0.0000

In the third case, both the damping and the stiffness parameters were identified under the assumption of accurate mass value alone. The elements of the initial damping matrix were assumed to be zero, and the stiffness parameters were assumed to be the same for all elements ( $k_i = 376.5$  MN/m). The identified damping and stiffness parameters are listed in Tables 4 and 5.



**TABLE 4.**  
**CASE III(A): DAMPING PARAMETERS**

Damping Parameter	Exact	Initial	Identified	Error (%)
c1	28.34	0.	28.34	0.0000
c2	28.34	0.	28.34	0.0000
c3	28.34	0.	28.34	0.0000
c4	27.58	0.	27.5812	0.0004
c5	27.58	0.	27.5812	0.0004
c6	27.14	0.	27.1437	0.0015
c7	27.14	0.	27.1437	0.0015
c8	26.27	0.	26.2679	0.0008
c9	26.27	0.	26.2679	0.0008

**TABLE 5.**  
**CASE III(B): STIFFNESS PARAMETERS**

Stiffness Parameter	Exact (MN/m)	Initial (MN/m)	Identified (MN/m)	Error (%)
k1	367.7	376.5	367.700	0.0000
k2	369.5	376.5	369.492	-0.0019
k3	371.3	376.5	371.285	0.0094
k4	373.0	376.5	373.044	0.0112
k5	374.8	376.5	374.763	0.0028
k6	376.5	376.5	376.521	0.0047
k7	378.3	376.5	378.290	0.0093
k8	380.0	376.5	379.964	-0.0111
k9	381.8	376.5	381.908	0.0394

All the results were obtained after only one iteration. For these simple cases the method accurately identified the selected physical parameter values (damping and cross section areas).

#### **Application to AH-1G Model**

A NASTRAN finite element model (FEM) for the AH-1G helicopter airframe has existed for a long time and was originally developed by Bell Helicopter Textron Inc. It is basically composed of two parts, one is stiffness modeling for idealizing the structures and the other is weight modeling for distributing weights to grid points. There are 4405 different elements with a total of 2764 degrees of freedom in the basic full model. A reduced model, based on Guyan reduction, contains only a total of 63 physical degrees of freedom.

Normally, the input and output data files from NASTRAN dynamic analyses are specially formatted and are quite large for a large finite element model such as the full AH-1G model. For convenience and accuracy, the present system identification programs were designed to automatically read NASTRAN output files and create NASTRAN input data deck files. At each step in the iterative identification procedure, the new modified physical parameters were put into the NASTRAN model bulk data in order to generate the required analytical results, such as eigenvalues, eigenvectors and other parameters, for the next iteration.

The mass, stiffness and damping matrices defined with respect to the internal degrees of freedom are not normal NASTRAN output data. However, such results can be developed by



using appropriate Direct Matrix Abstraction Programming (DMAP) utilities so that the identification program can automatically get this NASTRAN output data (see Appendix B).

### **Results Using Simulated Test Data**

The NASTRAN model of an AH-1G airframe includes 4405 different elements with a total of 2764 degrees of freedom. In order to make sure that the identification procedure was appropriate to a such big model, the use simulation has been chosen to begin with. For this identification, the mass and stiffness properties of the analytical model were considered to be accurate, and nonproportional damping properties were identified. The physical damping parameters were associated with 8 distinctly different types of materials and structural fabrication techniques used in the airframe (e.g., aluminum, steel, riveted, welded, bolted, etc.) and one of these damping values was associated with each of the model elements using Eq. (11).

For this case, the test data were synthesized from the original NASTRAN model assuming small values for the extension and rotation viscous damping coefficients (kN-s/m and N-s/rad units):

**TABLE 6. ASSUMED INITIAL PHYSICAL DAMPING VALUES**

Extension	Rotation
C <sub>1</sub> = 5.253	C <sub>5</sub> = 93.4
C <sub>2</sub> = 8.756	C <sub>6</sub> = 155.7
C <sub>3</sub> = 1.751	C <sub>7</sub> = 31.14
C <sub>4</sub> = 1.226	C <sub>8</sub> = 21.80

The synthesized data included 24 modes of which 6 were rigid body modes, and the frequency range was from 0.0 to 30.2 Hz. The dimension of the mass, stiffness and damping matrices was 2764 x 2764. The initial values of the physical damping parameters for the analytical NASTRAN model were taken to be zero, and the results for the identified values are shown below:

**TABLE 7. IDENTIFIED PHYSICAL DAMPING PARAMETERS**

Parameter	Initial	Identified
C <sub>1</sub>	5.253	5.429
C <sub>2</sub>	8.756	10.490
C <sub>3</sub>	1.751	1.746
C <sub>4</sub>	1.226	6.069
C <sub>5</sub>	93.4	55.91
C <sub>6</sub>	155.7	160.35
C <sub>7</sub>	31.14	65.96
C <sub>8</sub>	21.80	55.91

The error in the identified damping parameters as a function of the number of matrix elements for each of the 8 damping types is shown in Fig. 4. The error for those element types with more than 100 elements present is quite low, but it is much larger for those types with only a few elements present in the complete finite element model. The largest error was associated with what appeared to be elastomeric materials.



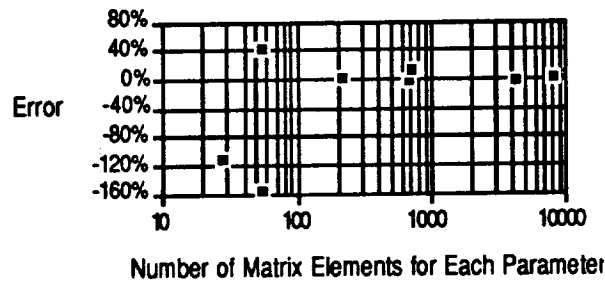


Fig. 4. Error in Damping Estimate as a Function of Number of Matrix Elements in Model

This simulation confirms the identification procedure for a complicated but yet well-defined example. If the assumptions such as nonproportional damping are correct for the airframe and if the experimental data are of high quality, the physical damping parameters can be identified from the test data.

#### **Actual AH-1G Data**

Actual test data for an AH-1G airframe were provided by Bell Helicopter Textron Inc. based on ground vibration tests and included both resonance dwell and FRF (frequency response function) data. The experimental data were available for 8 different configurations of the AH-1G that were tested. The principal difference between the tests concerned the degree of complexity of the actual airframe tested. At one extreme, the bare airframe without most attachments was tested while at the other extreme the complete airframe with all attached mechanical components was tested. The test data from the most complex airframe configuration (with all difficult components present) showed the poorest agreement with the corresponding analytical model, while the data from the simplest test airframe showed the best agreement.

For this study, the test data from the most complex airframe configuration was used. Only the FRF data were employed, and the complex eigenvalues and eigenvectors for some 7 triaxial modes were obtained from the FRF data by using the TDAS<sup>®</sup> curvefitting program<sup>29</sup>. The experimental data were provided as FRF's in TDAS universal file format, and the results generated by TDAS were complex eigenvalues and eigenvectors.

Before use in the identification program, the eigenvectors were normalized. Two options were used to normalize both experimental and analytical eigenvectors. One was to normalize the eigenvectors to the same point, and the other was to normalize based on the minimum deviation between the analytical and experimental eigenvectors.

The full finite element model for AH-1G airframe, as mentioned in the previous section, has a total of 2764 degrees of freedom which is very large for the identification procedure. In order to keep the problem tractable, a Guyan reduction was used in the present application to reduce the analytical model to a total of 63 degrees of freedom, which corresponded to the 23 distinct locations on the airframe at which experimental measurement were made. The error due to the reduction in degrees of freedom from 2764 to 63 is shown in Table 8.

<sup>®</sup> TDAS (Test Data Analysis) is a part of I-DEAS which is a computer-aided engineering product of Structural Dynamical Research Corporation (SDRC).



**TABLE 8.**  
**EIGENVALUES (FREQUENCY) (WITHOUT ANY DAMPING)**

Test	Full Model	Error (%)	Reduced Model	Error (%)
7.2475	7.6734	5.877	7.6932	6.150
8.0458	8.3467	3.740	8.4026	4.435
15.9539	14.6722	-8.034	15.825	-0.810
17.2174	17.3701	0.887	17.784	3.294
23.7396	20.7955	-12.392	22.881	-3.606
24.6675	25.7955	4.573	28.238	14.475
32.6848	31.7526	-2.852	33.786	3.369

Initially, both the full and the reduced models were used as analytical models. Using the actual experimental data, the physical parameters in the analytical models were obtained using the iterative procedure outlined earlier. The initial results for both the full model and the reduced model included several negative identified damping parameters which were obtained using the singular value decomposition method when either zero or positive initial guess values were assumed for the analytical model. Physically of course, the damping parameters should be greater than zero, but mathematically, the identification procedure is oblivious to this constraint. The constrained optimization procedure outlined earlier was therefore used in order to overcome this problem. In addition, the reduced model was used in most of the identification cases, except when otherwise stated, because of the small error and big savings in computational time.

The complete system identification was carried out in two steps. The first step was to identify the stiffness, and for this process the initial damping values were assumed to be zero. The second step was to use the stiffness values obtained from the first step to identify the damping values. This was done under the assumption that the greatest change in natural frequency can be obtained by changing the stiffness parameter, while changes in the damping parameters will only fine-tune the eigenvalues but will obtain accurate modal damping estimates for the structure.

At the first step, four stiffness parameters associated with elastic moduli for four principal materials used in the airframe were selected to be identified. After two iterations, the differences between the identified and the initial moduli and the analytical and experimental eigenvalues were those shown in the following tables:

**TABLE 9.**  
**IDENTIFIED MODULUS VALUES**

	Initial (GPa)	After first iteration (GPa)	Change from initial value (%)	After second iteration (GPa)	Change from initial value(%)
mat.-1	22.1	21.7	-1.81	3.937	23.03
mat.-2	72.4	72.5	0.19	9.417	-10.41
mat.-3	200.0	190.5	-4.75	28.435	-1.95
mat.-4	120.7	112.2	-7.01	19.396	10.83



TABLE 10.  
IDENTIFIED EIGENVALUES (FREQUENCY)

Test	Original	Error (%)	After first iteration	Error (%)	After second iteration	Error (%)
7.247	7.693	6.15	7.686	6.05	7.426	2.47
8.046	8.403	4.43	8.394	4.33	8.064	0.22
15.95	15.82	-0.81	15.795	-0.99	15.302	-4.09
17.22	17.78	3.29	17.762	3.16	17.180	-0.22
23.74	22.88	-3.61	22.899	-3.53	21.819	-8.08
24.67	28.24	14.5	28.195	14.3	27.544	11.6
32.68	33.79	3.37	33.805	3.43	32.481	-0.62

As the second step, the damping parameters were identified for the previously identified stiffness conditions. Initial estimates for the damping parameters were developed by assuming a nominal damping ratio,  $\zeta=5\%$ . For the extensional elements, it was therefore assumed that the initial viscous damping values would be  $c_E=17.5$  for all extensional viscous damping, and that for the rotational elements (assuming the cross section area to be a circle) it would be  $c_R=222$  for all rotational damping.

After one iteration, the results shown in Table 11 were obtained.

TABLE 11.  
FINAL RESULTS FOR AH-1G MODEL

Mode	Test		NASTRAN (original)	NASTRAN (final)	
	$\omega_n$ (Hz)	$\zeta$ (%)	$\omega_n$ (Hz)	$\omega_n$ (Hz)	$\zeta$ (%)
First Lat Bending	7.247	2.19	7.693	7.425	3.00
First Vert Bending	8.046	1.56	8.403	8.057	4.55
Second Lat Bending	15.954	3.05	15.82	15.41	1.70
Second Vert Bending	17.217	1.02	17.78	17.12	7.48
Fuselage Torsion	23.737	1.70	22.88	21.83	0.24
Third Vert Bending	24.667	1.31	28.24	27.702	6.25
Third Lat Bending	32.685	1.95	33.74	32.498	0.97



## CONCLUSIONS AND RECOMMENDATIONS

A structural dynamic system identification procedure that is capable of identifying physical parameter changes has been developed. The changes in physical parameters of the system can therefore be related to observed experimental data. In the examples considered, physical parameters, such as the damping constant of a material that will result in a nonproportionally damped system, the modulus of elasticity of a material, and the dynamic stiffness of a beam element have been identified by using the experimentally obtained frequency response functions, modes and eigenvalues.

Following the validation of the developed procedures by using synthesized data on a small model, the method was applied to a large-scale NASTRAN finite element model of a helicopter airframe. Both synthesized data and observed experimentally identified modal data were used. Again, modulus of elasticity, stiffness and damping constants were the parameters considered for the four representative materials used in the airframe. With the exception of one material that had been used to construct a very small number of components, other material constants were identified reasonably accurately where synthesized data were used. When experimental modal data were used, the modal parameters calculated from the identified model did not yield the experimentally observed modes only in cases where the initial *a priori* finite element model output and the experimental model output differed considerably. When experimental output and the *a priori* model output were reasonably close, the results of the identification were satisfactory.

Even though the method was shown to work and the difference between the identified model and the experimental observations were considered satisfactory in some cases, there are some other cases that need improvement to make the procedure applicable to a structural dynamic design process:

- (1) While the numerical processes were improved and refined, no similar improvements in the quality of the test data could be realized. One result of this problem was that it was relatively difficult to match measured eigenvalues and eigenvectors with corresponding analytical values. Quite often, the measured and initial eigenvalues matched closely while the eigenvectors differed considerably, and the identified eigenvectors were not significantly closer in agreement. For this reason it is necessary to consider other experimental data, such as the AH-1G dwell data, which have been acquired by other means.
- (2) In cases where selected portions of experimental data and *a priori* analytical data differ significantly while a large amount of experimental and analytical data are close together, it is necessary to minimize first the large errors by using  $H_{\infty}$  type of identification before using the least square analysis with singular value decomposition.
- (3) It is important that a larger group of identifiable parameters be considered.
- (4) It is necessary that we examine the convergence and accuracy of the complete process.
- (5) We have used linear sensitivity coefficients. Accuracy and convergence may require nonlinear sensitivity coefficients.
- (6) The real damping in a structural dynamic system may not be linear viscous damping with a nonproportional behavior. It is necessary to include other types of damping mechanisms.
- (7) As pointed out by Bell's DAMVIBS conclusions<sup>1</sup>, nonlinearity is important in considering selected components of the airframe.
- (8) We should also examine the experimental parameter estimation processes used to determine modal parameters used as inputs to the identification process.



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## APPENDIX A

### SYSTEM IDENTIFICATION PROGRAM LISTING

The following pages contain a listing of the current version of the program used to carry out the structural system identification described in this report. The program is written in the CDC version of Fortran 77 and was run on a CDC Cyber 180-990 running under the NOS/VE operating system. The program requires the use of the IMSL Scientific Library (Version 11) in order to carry out the singular value decomposition and the constrained optimization procedures.

The program was used with Version 66C of MSC/NASTRAN which was also run on the same computer system and was used to solve the structural dynamic eigenvalue problems. MSC/NASTRAN was used to run the initial eigenvalue problem and all subsequent iterative solutions. As a result, the program listing also includes the necessary I/O calls needed to operate directly with MSC/NASTRAN input and output data files. The program also requires the experimentally determined eigenvalues and eigenvectors to be present in separate input files for each eigenvalue.

#### A. Summary of Parameters Used by the Program

Parameter	Dimension	Definition
LAMBDR, LAMBDI	MD	real and imaginary parts of analytical eigenvalues $\lambda_A$
LAMBDTR, LAMBDTI	MD	real and imaginary parts of test eigenvalues $\lambda$
WAR, WAI	ND $\times$ MD	real and imaginary parts of analytical eigenvectors $W_A$
WTR, WTI	ND $\times$ MD	real and imaginary parts of test eigenvectors $W$
VTR, VTI	ND $\times$ MD	real and imaginary parts of $V_A$
DUR, DUI	ND $\times$ MD	real and imaginary parts of $U-U_A$
DVR, DVI	ND $\times$ MD	real and imaginary parts of $V-V_A$
DWR, DWI	ND $\times$ MD	real and imaginary parts of $W-W_A$
MASS	NV	mass matrix
STIFF	NV	stiffness matrix
DAMP	NV	damping matrix
DC, $D^k$	NV	$c_i$ matrix
DK	NV	$k_i$ matrix
COEFF	NM $\times$ ID	coefficient matrix
Y	NM	vector of the right hand side of the equations
WK	ID2	work vector
BETA	ID	damping parameters
GAMMA	ID	stiffness parameters
MODES	22 $\times$ 2	test eigenvector
NTESTk (k=1,2,5)	20 $\times$ 4	test measurement location definitions
NT	7	numbers of test eigenvectors corresponding to the eigenvectors of NASTRAN model
IRTYPE simple	12	vector indicating the type of constraints exclusive of bounds, where IRTYPE(I)=0,1,2,3 indicates .EQ., .LE., .GE., and range constraints respectively
BL,BU general	12	vectors containing the lower and upper limits of the constraints
A	12 $\times$ 12	matrix containing the coefficients of the constraints
C	12	vector containing the coefficients of the objective function



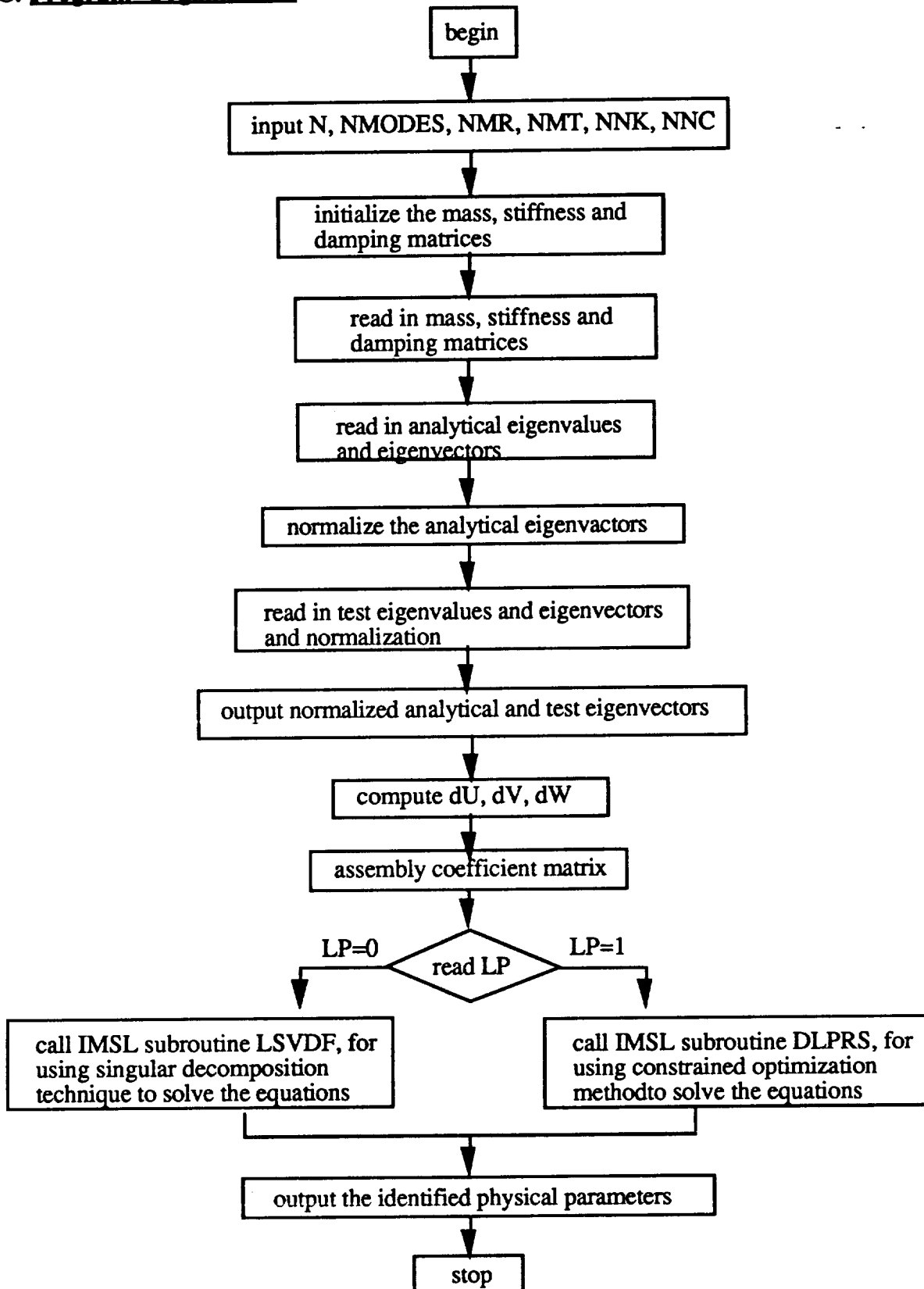
OBJ		value of the objective function
XLB, XUB	12	vectors containing the lower and upper bounds on the variables
XSOL, DSOL	12	vectors containing the primal and the dual solutions
ND		order of the system, default = 63
N		order of the system, (input)
MD		modes used in the identification, default = 25
NMODES		modes used in the identification, (input)
ID		number of physical parameters, default = 12
NUNK		number of unknowns to be identified (input)
NNK		number of stiffness unknowns
NNC		number of damping unknowns
NMR		number of rigid body motion modes
NMT		number of test modes
LP		choice of solving techniques LP=0, singular value decomposition LP=1, constrained optimization

## **B. Definition of Input and Output Files**

<b>File Name</b>	<b>Definition</b>
TEST1, TEST2, TEST5	files containing 3 different test measurement location definitions
GUYAN_DAMP_F06	NASTRAN output data file including analytical mass, stiffness, damping matrices, eigenvalues and eigenvectors
GUYAN_KCOUT	output file including results
GUYAN_ELECDAT	NASTRAN output data file including the grouped element matrices $c_i$
GUYAN_ELEKDAT	NASTRAN output data file including the grouped element matrices $k_i$
TEST_EIGENV1, ..., TEST_EIGENV7	files containing the test eigenvectors
TEST_EIGENVAL	file containing the test eigenvalues



### C. Program Organization





-----  
 -----  
 This program is to identify the stiffness or damping parameters  
 by using AHIG NASTRAN finite element models. The solution can  
 be accomplished using singular value decomposition or constrained  
 optimization.

-----  
 Written by Weiyu Zhou, March, 1990.  
 -----  
 -----  
 -----

```

PROGRAM DATAPP (INP,OUTP,TAPE5=INP,TAPE6=OUTP)
PARAMETER (ND=63,MD=25,ID=12,
*          NV=ND*(ND+1)/2,ID2=2*ID,NM=ND*MD*2)
REAL      LAMBDR (MD),LAMBDI (MD),LAMBDTR (MD),LAMBDTI (MD),
*          WTR (ND,MD),WTI (ND,MD),WAR (ND,MD),WAI (ND,MD),
*          DUR (ND,MD),DUI (ND,MD),DVR (ND,MD),DVI (ND,MD),
*          DWR (ND,MD),DWI (ND,MD),VTR (ND,MD),VTI (ND,MD),
*          MASS (NV),STIFF (NV),DAMP (NV),DC (NV),DK (NV),
*          COEFF (NM,ID),Y (NM),WK (ID2),BETA (ID),GAMMA (ID)
REAL CC (8),CK (4),DA (6),MODES (22,2)
INTEGER NTEST1 (20,4),NTEST2 (20,4),NTEST5 (22,4),NT (7),IRTYPE (12)
REAL BL (12),BU (12),C (12),A (12,12),OBJ
REAL XLB (12),XUB (12),XSOL (12),DSOL (12)
DOUBLE PRECISION R,FI,RJ,FIJ,A1,A2
CHARACTER *132 IDATA
CHARACTER *66 MATID
COMPLEX SQU,SQUT,C1,C2,C3,C4
EQUIVALENCE (DC (1),DK (1))

```

-----  
 OPEN NASTRAN OUTPUT DATA FILE AND OTHER FILES  
 -----

```

OPEN (UNIT=7,FILE='TEST1',STATUS='OLD')
OPEN (UNIT=8,FILE='TEST2',STATUS='OLD')
OPEN (UNIT=9,FILE='TEST5',STATUS='OLD')
OPEN (UNIT=10,FILE='GUYAN_DAMP_F06',FORM='FORMATTED',IOSTAT=IOS)
OPEN (UNIT=12,FILE='GUYAN_KCOUT',STATUS='UNKNOWN')
OPEN (UNIT=14,FILE='GUYAN_ELECDAT',STATUS='OLD')
OPEN (UNIT=15,FILE='GUYAN_ELEKDAT',STATUS='OLD')
OPEN (UNIT=21,FILE='TEST_EIGENV1',STATUS='OLD')
OPEN (UNIT=22,FILE='TEST_EIGENV2',STATUS='OLD')
OPEN (UNIT=23,FILE='TEST_EIGENV3',STATUS='OLD')
OPEN (UNIT=24,FILE='TEST_EIGENV4',STATUS='OLD')
OPEN (UNIT=25,FILE='TEST_EIGENV5',STATUS='OLD')
OPEN (UNIT=26,FILE='TEST_EIGENV6',STATUS='OLD')
OPEN (UNIT=27,FILE='TEST_EIGENV7',STATUS='OLD')
OPEN (UNIT=28,FILE='TEST_EIGENVAL',STATUS='OLD')
IF (IOS.NE.0) WRITE (12, '( " ERROR IN OPENING F06 FILE"/) ' )

```

```

READ (5,*) N
WRITE (12, '(1X,"ORDER OF THE SYSTEM - ",14) ') N
READ (5,*) NMODES
WRITE (12, '(1X,"NO. OF MODES USED IN IDENTIFICATION  ",14) ') NMODES
READ (5,*) NMR
WRITE (12, '(1X,"NO. OF MODES OF RIGID BODY MOTION  ",14) ') NMR
READ (5,*) NMT
WRITE (12, '(1X,"NO. OF MODES OF TOTAL READ IN  ",14) ') NMT
READ (5,*) NNK
READ (5,*) NNC
NUNK=NNC+NNK

```



```

WRITE(12, '(1X, "NO. OF UNKNOWN TO BE IDENTIFIED  ", 14) ') NUNK
READ(5, *) (NT(I), I=1, 7)
WRITE(12, '(1X, "TEST EIGEN NUMBER: "/, 715) ') (NT(I), I=1, 7)
NELEM=N*(N+1)/2
NCOEFF=NUNK
NC=NMODES*N
NC2=NMODES*N*2

```

```

C-----
C READ IN THE MASS, STIFFNESS, AND DAMPING MATRICES
C-----

```

```

      DO 1 I=1, NELEM
        MASS(I)=0.0
        DAMP(I)=0.0
        STIFF(I)=0.0
1      CONTINUE

```

```

C-----
C READ IN THE UPPER TRIANGULAR ELEMENTS
C-----

```

```

      READ(5, *) NN
      DO 2 I1=1, 3
3      READ(10, '(A)') IDATA
      IF(IDATA(51:62).NE.'INTERMEDIATE') GOTO 3
      IF(IDATA(75:76).EQ.'MA') NU=7
      IF(IDATA(75:76).EQ.'KA') NU=8
      IF(IDATA(75:76).EQ.'BA') NU=9
      IF(NN.NE.0) THEN
        IF(NU.EQ.7) WRITE(12, '( "      MASS MATRIX" ) ')
        IF(NU.EQ.8) WRITE(12, '( "      STIFFNESS MATRIX" ) ')
        IF(NU.EQ.9) WRITE(12, '( "      DAMPING MATRIX" ) ')
      ENDIF
      READ(10, '(A)') IDATA
4      READ(10, '(16,E21.6,5E19.6,19)', ERR=5) I1, (DA(I), I=1, 6), I2
      IF(I1.EQ.0) THEN
        READ(10, '(A66,17)', ERR=5) MATID, i3
        GOTO 4
      ENDIF
      GOTO 7
5      DO 6 I=1, 4
6      READ(10, '(A)') IDATA
      GOTO 4
7      DO 8 K=1, 6
      IF(DA(K).EQ.0.0) GOTO 8
      IF((I1+K-1).LT.13) GOTO 8
      IF(NN.NE.0) WRITE(12, '(216,E19.6)') I3, I1+K-1, DA(K)
      J1=13
      J2=I1+K-1
      IF(NU.EQ.7) MASS((J1-1)*N+J2-(J1-1)*J1/2)=DA(K)
      IF(NU.EQ.8) STIFF((J1-1)*N+J2-(J1-1)*J1/2)=DA(K)
      IF(NU.EQ.9) DAMP((J1-1)*N+J2-(J1-1)*J1/2)=DA(K)
8      CONTINUE
      IF(12.NE.63.OR.13.NE.63) GOTO 4
2      CONTINUE

```

```

C-----
C READ IN ANALYTICAL EIGENVALUES AND EIGENVECTORS
C-----

```

```

10     READ(10, '(A)') IDATA
      IF(IDATA(18:21).NE.'ROOT') GOTO 10
      READ(10, '(A)') IDATA
      J=0
11     J=J+1

```



```

      READ (10, ' (123,112,E22.6,E17.6,2E22.6) ',ERR=12)
*      11,12,LAMBDR(J),LAMBDI(J),DA(1),DA(2)
      IF (J.LT.NMT) GOTO 11
      GOTO 20
12     WRITE (12, ' ("ERROR IN READING EIGENVALUES") ')
C
20     READ (10, ' (A) ') IDATA
      IF (IDATA(51:62) .NE. ' INTERMEDIATE ') GOTO 20
      DO 21 I=1,4
21     READ (10, ' (A) ') IDATA
      J=0
22     J=J+1
23     DO 24 K=1,21
      READ (10, ' (16,E21.6,5E19.6,19) ',ERR=26)
*      11,(WAR(11+I-1,J),WAI(11+I-1,J),I=1,3),12
24     CONTINUE
25     READ (10, ' (A) ') IDATA
      IF (IDATA(5:6) .NE. ' 1 ') GOTO 25
      BACKSPACE 10
      IF (J.LT.NMT) GOTO 22
      GOTO 28
26     WRITE (12, ' ("ERROR IN READING EIGENVALUES") ')
28     CONTINUE
      CLOSE (10)

```

```

C
C-----
C      EIGENVECTORS NORMALIZATION
C-----
C

```

```

      DO 100 I=1,NMT
      A1=WAR(16,I)
      A2=WAI(16,I)
      R=DSQRT(A1**2+A2**2)
      FI=DATAN2(A2,A1)
      DO 101 J=1,N
      A1=WAR(J,I)
      A2=WAI(J,I)
      IF (A1.EQ.0.0.AND.A2.EQ.0.0) GOTO 101
      RJ=DSQRT(A1**2+A2**2)
      FIJ=DATAN2(A2,A1)
      RJ=RJ/R
      FIJ=FIJ-FI
      WAR(J,I)=RJ*DCOS(FIJ)
      WAI(J,I)=RJ*DSIN(FIJ)
101     CONTINUE
100     CONTINUE

```

```

C
C-----
C      TEST EIGENVALUES AND EIGENVECTORS
C-----
C

```

```

C
C-----TEST DATA FIT IN
C

```

```

      DO 200 I=1,20
      READ (7,*) (NTEST1(I,J),J=1,4)
200     CONTINUE
      DO 201 I=1,20
      READ (8,*) (NTEST2(I,J),J=1,4)
201     CONTINUE
      DO 202 I=1,22
      READ (9,*) (NTEST5(I,J),J=1,4)
202     CONTINUE
      DO 203 II=1,NMT
      LAMBDTR(II)=LAMBDR(II)
      LAMBDTI(II)=LAMBDI(II)

```



```

IF (11.EQ.NT(1)) THEN
  READ(28,*) LAMBDTR(11),LAMBDTI(11)
  READ(21,*) ((MODES(I,J),J=1,2),I=1,22)
  DO 212 KK=1,N
    DQ 211 JJ=1,22
    IF (NTEST5(JJ,4).EQ.KK) THEN
      R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
      RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
      IF (ABS((R-RJ)/R).GT.0.2) GOTO 251
      WTR(KK,11)=MODES(JJ,1)
      WTI(KK,11)=MODES(JJ,2)
      GOTO 212
    ENDIF
211    CONTINUE
251    WTR(KK,11)=WAR(KK,11)
    WTI(KK,11)=WAI(KK,11)
212    CONTINUE
    GOTO 203
  ENDIF
IF (11.EQ.NT(2)) THEN
  READ(28,*) LAMBDTR(11),LAMBDTI(11)
  READ(22,*) ((MODES(I,J),J=1,2),I=1,20)
  DO 214 KK=1,N
    DO 213 JJ=1,20
      IF (NTEST1(JJ,4).EQ.KK) THEN
        R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
        RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
        IF (ABS((R-RJ)/R).GT.0.2) GOTO 252
        WTR(KK,11)=MODES(JJ,1)
        WTI(KK,11)=MODES(JJ,2)
        GOTO 214
      ENDIF
213    CONTINUE
252    WTR(KK,11)=WAR(KK,11)
    WTI(KK,11)=WAI(KK,11)
214    CONTINUE
    GOTO 203
  ENDIF
IF (11.EQ.NT(3)) THEN
  READ(28,*) LAMBDTR(11),LAMBDTI(11)
  READ(23,*) ((MODES(I,J),J=1,2),I=1,22)
  DO 216 KK=1,N
    DO 215 JJ=1,22
      IF (NTEST5(JJ,4).EQ.KK) THEN
        R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
        RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
        IF (ABS((R-RJ)/R).GT.0.2) GOTO 253
        WTR(KK,11)=MODES(JJ,1)
        WTI(KK,11)=MODES(JJ,2)
        GOTO 216
      ENDIF
215    CONTINUE
253    WTR(KK,11)=WAR(KK,11)
    WTI(KK,11)=WAI(KK,11)
216    CONTINUE
    GOTO 203
  ENDIF
IF (11.EQ.NT(4)) THEN
  READ(28,*) LAMBDTR(11),LAMBDTI(11)
  READ(24,*) ((MODES(I,J),J=1,2),I=1,20)
  DO 218 KK=1,N
    DO 217 JJ=1,20
      IF (NTEST1(JJ,4).EQ.KK) THEN
        R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
        RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
        IF (ABS((R-RJ)/R).GT.0.2) GOTO 254

```



```

        WTR(KK,11)=MODES(JJ,1)
        WTI(KK,11)=MODES(JJ,2)
        GOTO 218
    ENDIF
217    CONTINUE
254    WTR(KK,11)=WAR(KK,11)
        WTI(KK,11)=WAI(KK,11)
218    CONTINUE
        GOTO 203
ENDIF
IF(11.EQ.NT(5)) THEN
    READ(28,*) LAMBDTR(11),LAMBDTI(11)
    READ(25,*)((MODES(I,J),J=1,2),I=1,22)
    DO 220 KK=1,N
        DO 219 JJ=1,22
            IF(NTEST5(JJ,4).EQ.KK) THEN
                R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
                RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
                IF(ABS((R-RJ)/R).GT.0.2) GOTO 255
                WTR(KK,11)=MODES(JJ,1)
                WTI(KK,11)=MODES(JJ,2)
                GOTO 220
            ENDIF
219    CONTINUE
255    WTR(KK,11)=WAR(KK,11)
        WTI(KK,11)=WAI(KK,11)
220    CONTINUE
        GOTO 203
ENDIF
IF(11.EQ.NT(6)) THEN
    READ(28,*) LAMBDTR(11),LAMBDTI(11)
    READ(26,*)((MODES(I,J),J=1,2),I=1,20)
    DO 222 KK=1,N
        DO 221 JJ=1,20
            IF(NTEST2(JJ,4).EQ.KK) THEN
                R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
                RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
                IF(ABS((R-RJ)/R).GT.0.2) GOTO 256
                WTR(KK,11)=MODES(JJ,1)
                WTI(KK,11)=MODES(JJ,2)
                GOTO 222
            ENDIF
221    CONTINUE
256    WTR(KK,11)=WAR(KK,11)
        WTI(KK,11)=WAI(KK,11)
222    CONTINUE
        GOTO 203
ENDIF
IF(11.EQ.NT(7)) THEN
    READ(28,*) LAMBDTR(11),LAMBDTI(11)
    READ(27,*)((MODES(I,J),J=1,2),I=1,22)
    DO 224 KK=1,N
        DO 223 JJ=1,22
            IF(NTEST5(JJ,4).EQ.KK) THEN
                R=SQRT(WAR(KK,11)**2+WAI(KK,11)**2)
                RJ=SQRT(MODES(JJ,1)**2+MODES(JJ,2)**2)
                IF(ABS((R-RJ)/R).GT.0.2) GOTO 257
                WTR(KK,11)=MODES(JJ,1)
                WTI(KK,11)=MODES(JJ,2)
                GOTO 224
            ENDIF
223    CONTINUE
257    WTR(KK,11)=WAR(KK,11)
        WTI(KK,11)=WAI(KK,11)
224    CONTINUE
        GOTO 203

```



```

        ENDIF
        DO 550 IJ=1,N
            WTR(IJ,II)=WAR(IJ,II)
            WTI(IJ,II)=WAI(IJ,II)
550     CONTINUE
203     CONTINUE
C
C-----MODES EXTRACTION
C
        IF (NMR.EQ.0) THEN
            DO 300 II=1,NMODES
                LAMBDR(II)=LAMBDR(NT(II))
                LAMBDI(II)=LAMBDI(NT(II))
                LAMBDTR(II)=LAMBDTR(NT(II))
                LAMBDTI(II)=LAMBDTI(NT(II))
                DO 300 JJ=1,N
                    WAR(JJ,II)=WAR(JJ,NT(II))
                    WAI(JJ,II)=WAI(JJ,NT(II))
                    WTR(JJ,II)=WTR(JJ,NT(II))
                    WTI(JJ,II)=WTI(JJ,NT(II))
300     CONTINUE
            ENDIF
            IF (NMR.GT.0) THEN
                IF (NMR.GT.6) THEN
                    DO 301 II=1,6
                        LAMBDR(II)=LAMBDR(NMR-6+II)
                        LAMBDI(II)=LAMBDI(NMR-6+II)
                        LAMBDTR(II)=LAMBDTR(NMR-6+II)
                        LAMBDTI(II)=LAMBDTI(NMR-6+II)
                        DO 301 JJ=1,N
                            WAR(JJ,II)=WAR(JJ,NMR-6+II)
                            WAI(JJ,II)=WAI(JJ,NMR-6+II)
                            WTR(JJ,II)=WTR(JJ,NMR-6+II)
                            WTI(JJ,II)=WTI(JJ,NMR-6+II)
301     CONTINUE
                    ENDIF
                    DO 302 II=NMR+1,NMODES
                        LAMBDR(II)=LAMBDR(NT(II-NMR))
                        LAMBDI(II)=LAMBDI(NT(II-NMR))
                        LAMBDTR(II)=LAMBDTR(NT(II-NMR))
                        LAMBDTI(II)=LAMBDTI(NT(II-NMR))
                        DO 302 JJ=1,N
                            WAR(JJ,II)=WAR(JJ,NT(II-NMR))
                            WAI(JJ,II)=WAI(JJ,NT(II-NMR))
                            WTR(JJ,II)=WTR(JJ,NT(II-NMR))
                            WTI(JJ,II)=WTI(JJ,NT(II-NMR))
302     CONTINUE
                    ENDIF
                C
                C-----
                C   OUTPUT THE EIGENVALUES AND EIGENVECTORS
                C-----
                C
                WRITE(12,' (/1X,"ANALYTICAL EIGENVALUES (REAL IMAGINARY) "',
*                  1X,"TEST EIGENVALUES (REAL IMAGINARY) ",/)' )
                WRITE(12,' (5X,2E15.7,12X,2E15.7)' )
                *      (LAMBDR(I),LAMBDI(I),LAMBDTR(I),LAMBDTI(I),I=1,NMODES)
C
                READ(5,*) NN
                IF (NN.EQ.0) GOTO 410
                WRITE(12,' (/1X,"ANALYTICAL EIGENVECTORS (REAL IMAGINARY) "',
*                  1X,"TEST EIGENVECTORS (REAL IMAGINARY) ",/)' )
                DO 400 J=1,NMODES
                    WRITE(12,' (/1X,"MODE NO. ",13,/)' ) J
                    WRITE(12,' (5X,2E15.7,12X,2E15.7)' )
                    *      (WAR(I,J),WAI(I,J),WTR(I,J),WTI(I,J),I=1,N)

```



```

400  CONTINUE
410  CONTINUE
C
C-----
C    COMPUTATION OF V,DU,DV,DW
C-----
C
DO 1000 I=1,NMODES
SQU=CMPLX(LAMBDR(I),LAMBDI(I))*CMPLX(LAMBDR(I),LAMBDI(I))
SQU=CMPLX(LAMBDTR(I),LAMBDTI(I))*CMPLX(LAMBDTR(I),LAMBDTI(I))
DO 1000 J=1,N
C1=CMPLX(LAMBDR(I),LAMBDI(I))*CMPLX(WAR(J,I),WAI(J,I))
C2=CMPLX(LAMBDTR(I),LAMBDTI(I))*CMPLX(WTR(J,I),WTI(J,I))
C3=SQU*CMPLX(WAR(J,I),WAI(J,I))
C4=SQU*CMPLX(WTR(J,I),WTI(J,I))
VTR(J,I)=REAL(C2)
VTI(J,I)=AIMAG(C2)
DUR(J,I)=REAL(C4)-REAL(C3)
DUI(J,I)=AIMAG(C4)-AIMAG(C3)
DVR(J,I)=VTR(J,I)-REAL(C1)
DVI(J,I)=VTI(J,I)-AIMAG(C1)
DWR(J,I)=WTR(J,I)-WAR(J,I)
DWI(J,I)=WTI(J,I)-WAI(J,I)
1000 CONTINUE
C
C-----
C    INITIALIZE
C-----
C
DO 1010 I=1,NC2
Y(I)=0.0
DO 1010 J=1,NCOEFF
COEFF(I,J)=0.0
1010 CONTINUE
C
C-----
C    RIGHT HAND SIDE Y
C-----
C
DO 1100 I=1,N
DO 1110 J=1,NMODES
DO 1120 KK=1,N
IK=N*(KK-1)+I-(KK-1)*KK/2
IF(KK.GT.1) IK=N*(I-1)+KK-(I-1)*I/2
Y((I-1)*NMODES+J)=Y((I-1)*NMODES+J)-DUR(KK,J)*MASS(IK)
*          -DVR(KK,J)*DAMP(IK)
*          -DWR(KK,J)*STIFF(IK)
Y(NC+(I-1)*NMODES+J)=Y(NC+(I-1)*NMODES+J)-DUI(KK,J)*MASS(IK)
*          -DVI(KK,J)*DAMP(IK)
*          -DWI(KK,J)*STIFF(IK)
1120 CONTINUE
1110 CONTINUE
1100 CONTINUE
C
C-----
C    ASSEMBLY OF COEFFICIENT MATRIX
C-----
C
DO 1200 II=1,NNC
READ(14,*)NUM,BETA(II)
DO 1210 JJ=1,NELEM
DC(JJ)=0.0
1210 CONTINUE
DO 1220 JJ=1,NUM
READ(14,*)J,K,DC((J-1)*N+K-(J-1)*J/2)

```



```

1220 CONTINUE
DO 1230 I=1,N
DO 1230 J=1,NMODES
DO 1240 KK=1,N
IK=N*(KK-1)+I-(KK-1)*KK/2
IF (KK.GT.1) IK=N*(I-1)+KK-(I-1)*I/2
COEFF ((I-1)*NMODES+J,I)=COEFF ((I-1)*NMODES+J,I)
*      +VTR (KK,J)*DC (IK)
COEFF (NC+(I-1)*NMODES+J,I)=COEFF (NC+(I-1)*NMODES+J,I)
*      +VTI (KK,J)*DC (IK)
1240 CONTINUE
1230 CONTINUE
1200 CONTINUE
DO 1201 II=1,NNK
READ (15,*) NUM,GAMMA (II)
DO 1202 JJ=1,NELEM
DK (JJ)=0.0
1202 CONTINUE
DO 1203 JJ=1,NUM
READ (15,*) J,K,DK ((J-1)*N+K-(J-1)*J/2)
1203 CONTINUE
DO 1204 I=1,N
DO 1204 J=1,NMODES
DO 1205 KK=1,N
IK=N*(KK-1)+I-(KK-1)*KK/2
IF (KK.GT.1) IK=N*(I-1)+KK-(I-1)*I/2
COEFF ((I-1)*NMODES+J,II+NNC)=COEFF ((I-1)*NMODES+J,II+NNC)
*      +WTR (KK,J)*DK (IK)
COEFF (NC+(I-1)*NMODES+J,II+NNC)=COEFF (NC+(I-1)*NMODES+J,
*      II+NNC)+WTI (KK,J)*DK (IK)
1205 CONTINUE
1204 CONTINUE
1201 CONTINUE
DO 1300 I=1,NCOEFF
BL (I)=0.0
DO 1310 K=1,NC2
1310 BL (I)=BL (I)+COEFF (K,I)*Y (K)
1300 CONTINUE
DO 1330 I=1,NCOEFF
DO 1320 J=1,NCOEFF
A (I,J)=0.0
DO 1320 K=1,NC2
1320 A (I,J)=A (I,J)+COEFF (K,I)*COEFF (K,J)
1330 CONTINUE
C
C-----
C CHOICE OF SVD OR LP (LP=0, SINGULAR VALUE DECOMPOSITION
C LP=1, CONSTRAINED OPTIMIZATION)
C-----
C
READ (5,*) LP
IF (LP.EQ.1) GOTO 1401
C
C-----
C SINGULAR VALUE DECOMPOSITION SOLUTION
C-----
C
CALL LSVDF (A,12,NCOEFF,NCOEFF,BL,12,1,BU,WK,IER)
C
C-----
C CALL LSVDF (A,1A,M,N,B,1B,NB,S,WK,IER)
C REMARKS 1. LSVDF COMPUTES THE SINGULAR VALUE DECOMPOSITION OF
C A REAL M BY N MATRIX
C A = U * Q * V** (T) WHERE
C U IS AN M BY M ORTHOGONAL MATRIX,
C V IS AN N BY N ORTHOGONAL MATRIX, AND

```



```

C      Q IS AN M BY N MATRIX WITH ALL ELEMENTS ZERO EXCEPT
C       $Q(I,I) = S(I) \quad I=1, \dots, \min(M,N)$ .
C      V IS RETURNED IN THE FIRST N ROWS OF A.
C      U IS OBTAINED BY SETTING Y TO THE M BY M IDENTITY
C      MATRIX, ON INPUT, AND SETTING NB=M. ON OUTPUT, B IS
C      REPLACED BY  $U^{**}(T)$ .
C      2. THE NOTATION  $U^{**}(T)$  AND  $V^{**}(T)$  REPRESENTS U
C      TRANSPOSE AND V TRANSPOSE, RESPECTIVELY.  $Q^{**}(+)$ 
C      DENOTES THE GENERALIZED INVERSE OF Q.
C      3. LSVDF IS USEFUL IN ANALYZING AND SOLVING THE LEAST
C      SQUARES PROBLEM  $A \cdot X \cdot \text{APPR.} B$  (WHERE .APPR. MEANS
C      APPROXIMATELY EQUALS). IN THIS CASE B IS A VECTOR OF
C      LENGTH M AND LSVDF IS CALLED WITH IB=M, NB=1. THE
C      SOLUTION IS  $X = V \cdot Q^{**}(+) \cdot U^{**}(T) \cdot B$ .  $U^{**}(T) \cdot B$  REPLACES
C      B ON OUTPUT. THE SOLUTION X IS OBTAINED AS FOLLOWS...
C-----

```

```

      IF (IER .EQ. 129) THEN
        WRITE (14, ' (2X, "THE CONVERGENCE NOT OBTAINED BY LSVDF") ')
        STOP
      ENDIF

```

```

      IF (IER .EQ. 33 ) THEN

```

```

        KRANK=-1
        RHO=10E-16

```

```

        IF (KRANK .LE. 0) THEN

```

```

          TAU=RHO*BU(1)
          IF (TAU.LE.1.0E-15) TAU=1.0E-12
          DO 2105 I=1, NCOEFF
            IF (BU(I) .LE. TAU) GO TO 2106
2105      CONTINUE
          GO TO 2107
2106      KRANK=I-1
2107      CONTINUE

```

```

        ELSE
          TAU=0.
        ENDIF

```

```

      WRITE (12, ' (2X, "ABSOLUTE PSEUDORANK TOLERLANCE, TAU=",
*      E13.6, 5X, "PSEUDORANK =", 15) ') TAU, KRANK

```

```

      WRITE (12, *)
      WRITE (12, ' (5 (1X, E13.6)) ') (BU(I), I=1, KRANK)
      IF (KRANK .LT. NCOEFF) THEN
        WRITE (12, ' (5 (1X, E13.6)) ') (BU(I), I=KRANK+1, NCOEFF)
      ENDIF

```

```

      IF (KRANK .NE. NC2) THEN

```

```

        RES=0.
        DO 2125 I=KRANK+1, NCOEFF
2125      RES=RES+BL(I)*BL(I)
        RES=SQRT(RES)
        WRITE (12, ' (2X, "RESIDUAL VECTOR LENGTH IS", E13.6) ') RES
      END IF

```

```

      ELSE

```

```

        KRANK=NCOEFF
        WRITE (12, *)
        WRITE (12, ' (5 (1X, E13.6)) ') (BU(I), I=1, KRANK)
      ENDIF

```

```

      DO 2330 I=1, KRANK
2330 BL(I)=BL(I)/BU(I)

```



```

C
C-----COMPUTE V*Q** (+) *U** (T) *B
C
      DO 2340 I=1,NNC
        DO 2350 K=1,KRANK
2350    BETA (I)=BETA (I)+A (I,K) *BL (K)
2340    CONTINUE
        DO 2360 I=1,NNK
          DO 2370 K=1,KRANK
2370    GAMMA (I)=GAMMA (I)+A (I+NNC,K) *BL (K)
2360    CONTINUE
C-----PRINT THE NEW DAMPING MATRIX
      WRITE (12,' (/3X,"IDENTIFIED DAMPING VARIABLES") ')
      WRITE (12,' (5(1X,E14.7)) ') (BETA (J),J=1,NNC)
C-----PRINT THE NEW STIFFNESS MATRIX
      WRITE (12,' (/3X,"IDENTIFIED STIFFNESS VARIABLES") ')
      WRITE (12,' (5(1X,E14.7)) ') (GAMMA (J),J=1,NNK)
      STOP
C
C-----
C    CONSTRAINED OPTIMIZATION SOLUTION
C-----
C
1401 DO 1400 I=1,NCOEFF
      C (I)=1.0
      IRTYPE (I)=3
      READ (5,*) EC
      BL (I)=BL (I) * (1.0-EC)
      BU (I)=BL (I) * (1.+EC) / (1.-EC)
      IF (BU (I) .LT. BL (I)) THEN
        AC=BL (I)
        BL (I)=BU (I)
        BU (I)=AC
      ENDIF
1400 CONTINUE
      READ (5,*) WUDAMP,WLDAMP
      READ (5,*) WUSTIFF,WLSTIFF
      DO 1410 I=1,NNC
        XLB (I)=(-1) *WLDAMP*BETA (I)
        XUB (I)=WUDAMP*BETA (I)
1410 CONTINUE
        DO 1420 I=1,NNK
          XLB (I+NNC)=(-1) *WLSTIFF*GAMMA (I)
          XUB (I+NNC)=WUSTIFF*GAMMA (I)
1420 CONTINUE
        DO 1430 I=1,NCOEFF
          IF (XUB (I) .EQ.0.0) XUB (I)=300.
1430 CONTINUE
        CALL DLPRS (NCOEFF,NCOEFF,A,12,BL,BU,C,IRTYPE,XLB,XUB,
          *          OBJ,XSOL,DSOL)
C-----
C    OUTPUT
C-----
C
      DO 1560 I=1,NCOEFF
        C (I)=0.0
        DO 1560 J=1,NCOEFF
          C (I)=C (I)+A (I,J) *XSOL (J)
1560    CONTINUE
      DO 1600 I=1,NNC
        BETA (I)=BETA (I)+XSOL (I)
1600 CONTINUE
      DO 1610 I=1,NNK
        GAMMA (I)=GAMMA (I)+XSOL (I+NNC)
1610 CONTINUE
C-----PRINT THE NEW DAMPING MATRIX

```



```
WRITE (12, ' (/3X, "IDENTIFIED DAMPING VARIABLES") ' )  
WRITE (12, ' (5 (1X, E14.7)) ' ) (BETA (J), J=1, NNC)  
C-----PRINT THE NEW STIFFNESS MATRIX  
WRITE (12, ' (/3X, "IDENTIFIED STIFFNESS VARIABLES") ' )  
WRITE (12, ' (5 (1X, E14.7)) ' ) (GAMMA (J), J=1, NNK)  
STOP  
END
```



## **APPENDIX B**

### **MSC/NASTRAN INPUT FOR FINAL AH-1G SYSTEM IDENTIFICATION RUN**

The following pages include the listings of the input file for the final MSC/NASTRAN runs used to compute the structural eigenvalues and eigenvectors for the identified AH-1G structural model.





GRID	6147	0	61.25	-10.00	54.16	0	456
GRID	6149	0	61.25	-14.64	54.16	0	456
GRID	6161	0	61.25	15.06	60.00	0	456
GRID	6163	0	61.25	10.00	60.00	0	456
GRID	6167	0	61.25	-10.00	60.00	0	456
GRID	6169	0	61.25	-15.06	60.00	0	456
GRID	6171	0	53.95	10.00	68.42	0	456
GRID	6179	0	53.95	-10.00	68.42	0	456

\$  
\$ STA 70.79 PSEUDO-BULKHEAD  
\$ FORWARD TURRET ATTACH POINTS  
\$

GRID	7031	0	70.79	15.04	46.00	0	3456
GRID	7033	0	70.79	10.00	46.00	0	456
GRID	7037	0	70.79	-10.00	46.00	0	456
GRID	7039	0	70.79	-15.04	46.00	0	3456
GRID	7043	0	70.79	10.00	54.38	0	2456
GRID	7047	0	70.79	-10.00	54.38	0	2456
GRID	7061	0	70.79	15.80	60.38	0	456
GRID	7063	0	70.79	10.00	60.38	0	456
GRID	7067	0	70.79	-10.00	60.38	0	456
GRID	7069	0	70.79	-15.80	60.38	0	456
GRID	7071	0	70.79	15.80	61.84	7071	2456
GRID	7079	0	70.79	-15.80	61.84	7079	2456

\$  
\$ XM-28 ARMAMENT SUBSYSTEM  
\$ 717000  
\$

GRID	1002	0	75.50	0.0	29.00	0	0
------	------	---	-------	-----	-------	---	---

\$  
\$ STA 85.26 PSEUDO-BULKHEAD  
\$ AFT TURRET ATTACH POINTS  
\$

GRID	8531	0	85.26	16.90	46.00	0	3456
GRID	8533	0	85.26	10.00	46.00	0	456
GRID	8537	0	85.26	-10.00	46.00	0	456
GRID	8539	0	85.26	-16.90	46.00	0	3456
GRID	8543	0	85.26	10.00	54.72	0	2456
GRID	8547	0	85.26	-10.00	54.72	0	2456
GRID	8561	0	85.26	16.865	60.96	0	456
GRID	8563	0	85.26	10.00	60.96	0	456
GRID	8567	0	85.26	-10.00	60.96	0	456
GRID	8569	0	85.26	-16.865	60.96	0	456
GRID	8571	0	85.26	16.865	64.64	7071	2456
GRID	8579	0	85.26	-16.865	64.64	7079	2456

\$  
\$ STA 93.00 BULKHEAD  
\$ 209-030-102-323  
\$

GRID	9303	0	93.00	10.00	21.77	0	456
GRID	9307	0	93.00	-10.00	21.77	0	456
GRID	9313	0	93.00	10.00	27.00	0	456
GRID	9317	0	93.00	-10.00	27.00	0	456
GRID	9331	0	93.00	17.89	46.00	0	456
GRID	9333	0	93.00	10.00	46.00	0	456
GRID	1003	0	93.00	-10.00	46.00	0	456
GRID	9339	0	93.00	-17.89	46.00	0	456
GRID	9341	0	95.41	17.89	55.00	9373	1456
GRID	9343	0	95.41	10.00	55.00	0	456
GRID	9347	0	95.41	-10.00	55.00	0	456

GRID	9349	0	95.41	-17.99	55.00	9373	1456
GRID	9361	0	97.14	17.84	61.44	0	456
GRID	9363	0	97.14	10.00	61.44	0	456
GRID	9367	0	97.14	-10.00	61.44	0	456
GRID	9369	0	97.14	-17.84	61.44	0	456
GRID	9371	0	98.69	17.90	67.23	0	456
GRID	9373	0	98.69	10.00	67.23	9373	1456
GRID	9377	0	98.69	-10.00	67.23	9373	1456
GRID	9379	0	98.69	-17.90	67.23	0	456

\$  
\$ STA 115.58 PSEUDO-BULKHEAD  
\$ FORMER-FWD FACE OF INST. PANEL / MAIN BEAM REF PLANE INTERSECT  
\$

GRID	11503	0	115.58	10.00	27.00	0	3456
GRID	11507	0	115.58	-10.00	27.00	0	3456
GRID	11531	0	115.58	17.91	46.00	0	3456
GRID	11533	0	115.58	10.00	46.00	0	456
GRID	11537	0	115.58	-10.00	46.00	0	456
GRID	11539	0	115.58	-17.91	46.00	0	3456
GRID	11543	0	115.58	10.00	55.00	0	456
GRID	11547	0	115.58	-10.00	55.00	0	456
GRID	11561	0	115.58	17.91	62.172	0	456
GRID	11563	0	115.58	10.00	62.172	0	456
GRID	11567	0	115.58	-10.00	62.172	0	456
GRID	11569	0	115.58	-17.91	62.172	0	456
GRID	11571	0	114.04	17.91	70.19	11571	2456
GRID	11579	0	114.04	-17.91	70.19	11579	2456

\$  
\$ STA 138.70 BULKHEAD  
\$ 209-030-103-159  
\$

GRID	13801	0	138.70	15.81	28.00	0	456
GRID	13803	0	138.70	10.00	27.00	0	456
GRID	13807	0	138.70	-10.00	27.00	0	456
GRID	13809	0	138.70	-15.81	28.00	0	456
GRID	13821	0	138.70	17.68	35.97	0	456
GRID	13823	0	138.70	10.00	35.97	0	456
GRID	13827	0	138.70	-10.00	35.97	0	456
GRID	13829	0	138.70	-17.68	35.97	0	456
GRID	13831	0	138.70	17.84	46.00	0	456
GRID	13833	0	138.70	10.00	46.00	0	456
GRID	1004	0	138.70	-10.00	46.00	0	456
GRID	13839	0	138.70	-17.84	46.00	0	456
GRID	13841	0	138.70	17.99	55.00	0	1456
GRID	13843	0	138.70	10.00	55.00	0	456
GRID	13847	0	138.70	-10.00	55.00	0	456
GRID	13848	0	135.29	-10.00	54.903	0	456
GRID	13849	0	135.29	-17.99	54.903	13849	1456
GRID	13861	0	138.70	18.00	63.09	0	456
GRID	13863	0	138.70	10.00	63.09	0	456
GRID	13867	0	132.25	-10.00	62.84	0	456
GRID	13869	0	132.25	-18.00	62.84	0	456
GRID	13871	0	138.70	18.00	74.95	11571	2456
GRID	13879	0	128.37	-17.95	72.96	11579	2456

\$  
\$ CENTER FUSELAGE SUBASSEMBLY  
\$ \* \* \*  
\$

\$  
\$ STA 148.60 BULKHEAD  
\$ 209-030-104-011  
\$

ORIGINAL PAGE IS  
OF POOR QUALITY

GRID	14801	0	148.50	15.81	28.00	0	456
GRID	14803	0	148.50	10.00	27.00	0	456
GRID	14807	0	148.50	-10.00	27.00	0	456
GRID	14809	0	148.50	-15.81	28.00	0	456
GRID	14821	0	148.50	17.87	35.97	0	456
GRID	14823	0	148.50	10.00	35.97	0	456
GRID	14827	0	148.50	-10.00	35.97	0	456
GRID	14829	0	148.50	-17.87	35.97	0	456
GRID	14831	0	148.50	17.94	46.00	0	456
GRID	14833	0	148.50	10.00	46.00	0	456
GRID	14837	0	148.50	-10.00	46.00	0	456
GRID	14839	0	148.50	-17.94	46.00	0	456
GRID	14841	0	148.50	17.99	55.00	0	1456
GRID	14843	0	148.50	10.00	55.00	0	456
GRID	14847	0	148.50	-10.00	55.00	0	456
GRID	14849	0	148.50	-17.99	55.00	0	1456
GRID	14851	0	148.50	17.99	63.49	0	456
GRID	14853	0	148.50	10.00	63.49	0	456
GRID	14857	0	148.50	-10.00	63.49	0	456
GRID	14859	0	148.50	-17.99	63.49	0	456
GRID	14861	0	152.27	18.00	77.57	0	456
GRID	14863	0	152.27	10.00	77.57	0	456
GRID	14867	0	152.27	-10.00	77.57	0	456
GRID	14869	0	152.27	-18.00	77.57	0	456

FORWARD SKID GEAR ATTACH POINT / RIGHT SIDE

GRID	15212	0	152.45	13.50	30.34	0	0
GRID	15212	0	152.45	13.50	30.34	0	0

FORWARD SKID GEAR ATTACH POINT / LEFT SIDE

GRID	15218	0	152.45	-13.50	30.34	0	0
GRID	15218	0	152.45	-13.50	30.34	0	0

STA 156.41 BULKHEAD  
209-030-105-001

GRID	15601	0	156.41	16.38	29.00	0	456
GRID	15603	0	156.41	10.00	27.00	0	456
GRID	15607	0	156.41	-10.00	27.00	0	456
GRID	15609	0	156.41	-16.38	29.00	0	456
GRID	15621	0	156.41	17.64	35.97	0	456
GRID	15623	0	156.41	11.582	35.97	0	456
GRID	15625	0	156.41	0.0	35.97	0	456
GRID	15627	0	156.41	-11.582	35.97	0	456
GRID	15629	0	156.41	-17.64	35.97	0	456
GRID	15633	0	156.41	11.582	46.00	15633	2456
GRID	15637	0	156.41	-11.582	46.00	15637	2456

STA 164.00 BULKHEAD  
209-030-106-027

GRID	16481	0	164.00	17.64	77.57	0	456
GRID	16483	0	164.00	12.375	77.57	0	3456
GRID	16485	0	164.00	0.0	77.57	0	3456
GRID	16487	0	164.00	-12.375	77.57	0	3456
GRID	1005	0	164.00	-17.64	77.57	0	456

STA 186.25 BULKHEAD  
209-030-107-009

FORWARD WING CARRY-THRU SPAR  
209-030-140

GRID	18601	0	186.25	15.61	29.00	0	456
GRID	18603	0	186.25	9.31	27.00	0	456
GRID	18607	0	186.25	-9.31	27.00	0	456
GRID	18609	0	186.25	-15.61	29.00	0	456
GRID	18621	0	186.25	17.55	35.97	0	456
GRID	18623	0	186.25	10.00	35.97	0	456
GRID	18625	0	186.25	0.0	35.97	0	456
GRID	18627	0	186.25	-10.00	35.97	0	456
GRID	18629	0	186.25	-17.55	35.97	0	456
GRID	18631	0	186.25	17.55	46.00	0	456
GRID	18633	0	186.25	10.00	46.00	0	1456
GRID	18635	0	186.25	0.00	46.00	0	1456
GRID	18637	0	186.25	-10.00	46.00	0	1456
GRID	18639	0	186.25	-17.55	46.00	0	456
GRID	18641	0	186.25	17.850	56.20	0	0
GRID	18642	0	186.25	16.850	56.20	0	0
GRID	18643	0	186.25	12.375	56.20	0	4
GRID	18644	0	186.25	5.790	56.20	0	45
GRID	18645	0	186.25	0.0	56.20	0	45
GRID	18646	0	186.25	-5.790	56.20	0	45
GRID	18647	0	186.25	-12.375	56.20	0	4
GRID	18648	0	186.25	-15.850	56.20	0	0
GRID	18649	0	186.25	-17.850	56.20	0	0
GRID	18651	0	186.25	17.850	56.39	0	0
GRID	18652	0	186.25	15.850	56.39	0	0
GRID	18653	0	186.25	-15.850	56.39	0	0
GRID	18654	0	186.25	-17.850	56.39	0	0
GRID	18656	0	186.25	17.850	63.12	0	0
GRID	18657	0	186.25	15.850	63.12	0	0
GRID	18658	0	186.25	-15.850	63.12	0	0
GRID	18659	0	186.25	-17.850	63.12	0	0
GRID	18661	0	186.25	17.850	65.60	0	0
GRID	18662	0	186.25	15.850	65.60	0	0
GRID	18663	0	186.25	12.375	65.60	0	0
GRID	18664	0	186.25	5.790	65.60	0	45
GRID	18665	0	186.25	0.0	65.60	0	45
GRID	18666	0	186.25	-5.790	65.60	0	0
GRID	18667	0	186.25	-12.375	65.60	0	0
GRID	18668	0	186.25	-15.850	65.60	0	0
GRID	18669	0	186.25	-17.850	65.60	0	0
GRID	18673	0	186.25	9.00	67.07	0	0
GRID	18677	0	186.25	-9.00	67.07	0	0
GRID	18681	0	186.25	17.65	77.57	0	456
GRID	18683	0	186.25	12.375	77.57	0	0
GRID	18685	0	186.25	0.0	77.57	0	456
GRID	18687	0	186.25	-12.375	77.57	0	0
GRID	18689	0	186.25	-17.65	77.57	0	456

STA 189.94 PSEUDO-BULKHEAD  
CENTERLINE OF FWD MAIN ROTOR PYLON MOUNTS

GRID	18983	0	189.94	12.375	77.57	0	4
GRID	18983	0	189.94	12.375	77.57	0	4
GRID	18987	0	189.94	-12.375	77.57	0	4

STA 191.24 PSEUDO-BULKHEAD  
CENTERLINE OF CYCLIC CONTROL BOOST CYLINDER PIVOT POINTS

ORIGINAL PAGE IS  
OF POOR QUALITY

ORIGINAL PAGE IS  
OF POOR QUALITY

GRID	25069	O	250.00	-16.20	64.07	O	456
\$							
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\$							
\$							
GRID	26801	O	268.25	7.80	28.06	O	456
GRID	26809	O	268.25	-5.21	28.06	O	456
GRID	26821	O	268.25	14.56	35.97	O	456
GRID	26825	O	268.25	0.0	35.97	O	456
GRID	26829	O	268.25	-14.56	35.97	O	456
GRID	26841	O	268.25	14.69	51.49	O	456
GRID	26845	O	268.25	0.00	51.49	O	1456
GRID	26849	O	268.25	-14.69	51.49	O	456
GRID	26861	O	268.25	14.79	63.59	O	456
GRID	26865	O	268.25	0.00	63.59	O	456
GRID	1008	O	268.25	-14.79	63.59	O	456

TAILBOOM JUNCTION BULKHEAD  
209-030-113-001

GRID	29905	O	300.37	0.0	31.67	O	456
GRID	29921	O	300.37	11.92	35.97	O	456
GRID	29925	O	300.37	0.0	35.97	O	456
GRID	29929	O	300.37	-11.92	35.97	O	456
GRID	29941	O	299.53	14.28	49.38	O	456
GRID	29945	O	299.53	0.0	49.38	29945	1456
GRID	29949	O	299.53	-14.28	49.38	O	456
GRID	29961	O	298.70	12.29	62.80	O	456
GRID	29965	O	298.70	0.0	62.80	O	456
GRID	1009	O	298.70	-12.29	62.80	O	456

BS 41.32 BULKHEAD

OLD ELEVATOR CONNECTION POINT KEPT FROM ELASTIC LINE FEM

BS 143.28 BULKHEAD

GRID	1011	O	401.333	0.0	55.910	O	0
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OLD T/R MAST CONNECTION POINT KEPT FROM ELASTIC LINE FEM

FS 0.00 BULKHEAD

GRID	52045	O	520.67	0.0	118.27	O	0
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ELEVATOR  
209-020-800

GRID	1012	O	401.33	31.25	55.910	O	0
GRID	40142	O	401.33	20.87	55.910	O	0
GRID	40143	O	401.33	9.68	55.910	O	0
GRID	40147	O	401.33	-9.68	55.910	O	0
GRID	40148	O	401.33	-20.87	55.910	O	0
GRID	1013	O	401.33	-31.25	55.910	O	0

WING / RIGHT SIDE  
209-020-001

WS 19.19 RIB

GRID	61912	O	186.25	19.19	65.60	O	0
GRID	61913	O	186.25	19.19	64.31	O	0
GRID	61914	O	186.25	19.19	63.12	O	0
GRID	61916	O	186.25	19.19	58.39	O	0
GRID	61917	O	186.25	19.19	57.39	O	0
GRID	61918	O	186.25	19.19	56.20	O	0
GRID	61922	O	186.90	19.19	63.04	O	0
GRID	61923	O	186.90	19.19	62.16	O	0
GRID	61924	O	186.90	19.19	61.35	O	0
GRID	61926	O	186.90	19.19	56.07	O	0
GRID	61927	O	186.90	19.19	55.39	O	0
GRID	61928	O	186.90	19.19	54.37	O	0
GRID	61934	O	213.94	19.19	55.42	O	0
GRID	61935	O	213.94	19.19	54.78	O	0
GRID	61936	O	213.94	19.19	54.08	O	0

WS 22.19 RIB

GRID	62211	O	186.93	22.19	66.05	O	456
GRID	62213	O	186.93	22.19	64.31	O	0
GRID	62217	O	186.93	22.19	57.39	O	0
GRID	62219	O	186.93	22.19	56.00	O	456
GRID	62221	O	197.44	22.19	63.95	O	0
GRID	62224	O	197.44	22.19	61.35	O	0
GRID	62226	O	197.44	22.19	56.07	O	0
GRID	62229	O	197.44	22.19	54.10	O	0
GRID	62231	O	213.94	22.19	56.35	O	0
GRID	62239	O	213.94	22.19	54.08	O	0

WS 28.00 RIB

GRID	62811	O	188.25	28.00	66.05	O	456
GRID	62819	O	188.25	28.00	56.73	O	456
GRID	62821	O	198.48	28.00	63.95	O	456
GRID	62829	O	198.48	28.00	54.79	O	456
GRID	62831	O	213.94	28.00	56.91	O	456
GRID	62839	O	213.94	28.00	54.71	O	456

WS 34.00 RIB

GRID	63411	O	189.62	34.00	66.05	O	456
GRID	63419	O	189.62	34.00	57.49	O	456
GRID	63421	O	199.56	34.00	63.95	O	456
GRID	63429	O	199.56	34.00	55.50	O	456
GRID	63431	O	213.94	34.00	57.49	O	456
GRID	63439	O	213.94	34.00	55.36	O	456

WS 42.50 RIB

GRID	64211	O	191.55	42.50	66.05	O	456
GRID	64219	O	191.55	42.50	58.58	O	456
GRID	64221	O	201.08	42.50	63.95	O	456
GRID	64229	O	201.08	42.50	55.50	O	0
GRID	64231	O	213.94	42.50	58.31	O	456
GRID	64239	O	213.94	42.50	56.28	O	456

WS 50.75 RIB

GRID	65011	O	193.42	50.75	66.05	O	456
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ORIGINAL PAGE IS  
OF POOR QUALITY

GRID	65019	0	193.42	50.75	59.60	0	456
GRID	65021	0	202.56	50.75	63.95	0	456
GRID	65029	0	202.56	50.75	57.48	0	456
GRID	65031	0	213.94	50.75	59.11	0	456
GRID	65039	0	213.94	50.75	57.17	0	456

\$  
\$ WS 59.00 RIB

GRID	65911	0	195.30	59.00	66.05	0	456
GRID	65919	0	195.30	59.00	60.64	0	456
GRID	1017	0	204.04	59.00	63.95	0	456
GRID	65929	0	204.04	59.00	58.45	0	456
GRID	65931	0	213.94	59.00	59.91	0	456
GRID	65939	0	213.94	59.00	58.06	0	456

\$  
\$ WING / LEFT SIDE  
\$ 209-020-001

\$  
\$ WS -19.19 RIB

GRID	71912	0	186.25	-19.19	65.60	0	0
GRID	71913	0	186.25	-19.19	64.31	0	0
GRID	71914	0	186.25	-19.19	63.12	0	0
GRID	71916	0	186.25	-19.19	58.39	0	0
GRID	71917	0	186.25	-19.19	57.39	0	0
GRID	71918	0	186.25	-19.19	56.20	0	0
GRID	71922	0	186.90	-19.19	63.04	0	0
GRID	71923	0	186.90	-19.19	62.16	0	0
GRID	71924	0	186.90	-19.19	61.35	0	0
GRID	71926	0	186.90	-19.19	56.07	0	0
GRID	71927	0	186.90	-19.19	55.39	0	0
GRID	71928	0	186.90	-19.19	54.37	0	0
GRID	71934	0	213.94	-19.19	55.42	0	0
GRID	71935	0	213.94	-19.19	54.78	0	0
GRID	71936	0	213.94	-19.19	54.08	0	0

\$  
\$ WS -22.19 RIB

GRID	72211	0	186.93	-22.19	66.05	0	456
GRID	72213	0	186.93	-22.19	64.31	0	0
GRID	72217	0	186.93	-22.19	57.39	0	0
GRID	72219	0	186.93	-22.19	56.00	0	456
GRID	72221	0	197.44	-22.19	63.95	0	0
GRID	72224	0	197.44	-22.19	61.35	0	0
GRID	72226	0	197.44	-22.19	56.07	0	0
GRID	72229	0	197.44	-22.19	54.10	0	0
GRID	72231	0	213.94	-22.19	56.35	0	0
GRID	72239	0	213.94	-22.19	54.08	0	0

\$  
\$ WS -28.00 RIB

GRID	72811	0	188.25	-28.00	66.05	0	456
GRID	72819	0	188.25	-28.00	56.73	0	456
GRID	72821	0	198.48	-28.00	63.95	0	456
GRID	72829	0	198.48	-28.00	54.79	0	456
GRID	72831	0	213.94	-28.00	56.91	0	456
GRID	72839	0	213.94	-28.00	54.71	0	456

\$  
\$ WS -34.00 RIB

GRID	73411	0	189.62	-34.00	66.05	0	456
GRID	73419	0	189.62	-34.00	57.49	0	456
GRID	73421	0	199.56	-34.00	63.95	0	456
GRID	73429	0	199.56	-34.00	55.50	0	456
GRID	73431	0	213.94	-34.00	57.49	0	456
GRID	73439	0	213.94	-34.00	55.36	0	456

\$  
\$ WS -42.50 RIB

GRID	74211	0	191.55	-42.50	66.05	0	456
GRID	74219	0	191.55	-42.50	58.56	0	456
GRID	74221	0	201.08	-42.50	63.95	0	456
GRID	74229	0	201.08	-42.50	56.50	0	0
GRID	74231	0	213.94	-42.50	58.31	0	456
GRID	74239	0	213.94	-42.50	56.28	0	456

\$  
\$ WS -50.75 RIB

GRID	75011	0	193.42	-50.75	66.05	0	456
GRID	75019	0	193.42	-50.75	59.60	0	456
GRID	75021	0	202.56	-50.75	63.95	0	456
GRID	75029	0	202.56	-50.75	57.48	0	456
GRID	75031	0	213.94	-50.75	59.11	0	456
GRID	75039	0	213.94	-50.75	57.17	0	456

\$  
\$ WS -59.00 RIB

GRID	75911	0	195.30	-59.00	66.05	0	456
GRID	75919	0	195.30	-59.00	60.64	0	456
GRID	1018	0	204.04	-59.00	63.95	0	456
GRID	75929	0	204.04	-59.00	58.45	0	0
GRID	75931	0	213.94	-59.00	59.91	0	456
GRID	75939	0	213.94	-59.00	58.06	0	456

\$  
\$ MAIN ROTOR MAST  
\$ 209-010-450  
\$ MAIN ROTOR TRANSMISSION  
\$ 204-040-009

GRID	200070	0	200.00	0.0	70.00	0	0
GRID	200078	0	200.00	0.0	77.57	0	0
GRID	200079	0	200.00	0.0	78.05	0	0
GRID	1021	0	200.00	0.0	88.25	0	0
GRID	200087	0	200.00	0.0	86.25	0	0
GRID	200095	0	200.00	0.0	95.00	0	0
GRID	200088	0	200.00	0.0	95.00	0	0
GRID	200101	0	200.00	0.0	100.675	0	0
GRID	200106	0	200.00	0.0	105.70	406	0
GRID	200112	0	200.00	0.0	111.50	0	0
GRID	200114	0	200.00	0.0	114.00	0	0
GRID	200121	0	200.00	0.0	121.00	0	0
GRID	200129	0	200.00	0.0	129.00	0	0
GRID	200137	0	200.00	0.0	137.00	0	0
GRID	200145	0	200.00	0.0	145.00	0	0
GRID	200153	0	200.00	0.0	152.76	0	0
GRID	1022	0	200.00	0.0	164.97	0	0
GRID	200162	0	200.00	0.0	162.00	0	0

\$  
\$ MAIN ROTOR TRANSMISSION CASE SUPPORT ASSEMBLY

ORIGINAL PAGE IS  
OF POOR QUALITY

204-040-354-009

GRID	189073	0	189.94	12.375	77.57	0	0
GRID	189077	0	189.94	-12.375	77.57	0	0
GRID	211073	0	211.72	12.375	77.57	0	0
GRID	211077	0	211.72	-12.375	77.57	0	0
GRID	214075	0	214.50	0.0	77.57	0	0

MAIN ROTOR CYCLIC CONTROL LEVER  
209-010-402

GRID	192111	0	192.05	7.96	111.50	0	0
GRID	193111	0 <td>192.05 <td>-7.96 <th>111.50</th> <th>0</th> <th>0</th> </td></td>	192.05 <td>-7.96 <th>111.50</th> <th>0</th> <th>0</th> </td>	-7.96 <th>111.50</th> <th>0</th> <th>0</th>	111.50	0	0
GRID	200111	0 <td>200.00</td> <td>0.0 <th>111.50</th> <th>0</th> <th>0</th> </td>	200.00	0.0 <th>111.50</th> <th>0</th> <th>0</th>	111.50	0	0

MAIN ROTOR COLLECTIVE CONTROL LEVER  
209-010-406

GRID	194106	0	194.28	2.78	106.25	0	0
GRID	200105	0 <td>200.00</td> <td>0.0 <th>105.70</th> <th>406</th> <th>0</th> </td>	200.00	0.0 <th>105.70</th> <th>406</th> <th>0</th>	105.70	406	0
GRID	211104	0 <td>211.64</td> <td>-5.68 <th>104.57</th> <th>0</th> <th>0</th> </td>	211.64	-5.68 <th>104.57</th> <th>0</th> <th>0</th>	104.57	0	0

TAIL ROTOR MAST  
204-040-402

TAIL ROTOR GEARBOX  
204-040-012

GRID	520018	0	520.67	1.80	118.27	0	0
GRID	520024	0	520.67	2.42	118.27	0	0
GRID	520057	0	520.67	5.69	118.27	0	0
GRID	520065	0	520.67	6.45	118.27	0	0
GRID	520068	0	520.67	6.82	118.27	0	0
GRID	1027	0	520.67	7.90	118.27	0	0
GRID	520135	0	520.67	13.47	118.27	0	0
GRID	520138	0	520.67	13.88	118.27	0	0
GRID	520152	0	520.67	15.18	118.27	0	0
GRID	1028	0	520.67	18.49	118.27	0	0

SKID LANDING GEAR  
209-050-002

GRID	1024	0	110.20	40.00	7.35	0	0
GRID	214902	0	149.63	40.00	7.35	0	0
GRID	222002	0	220.37	40.00	7.35	0	0
GRID	1026	0	234.82	40.00	7.35	0	0
GRID	215102	0	151.85	29.00	26.00	0	0
GRID	215202	0	152.45	13.50	30.34	0	0
GRID	222202	0	222.67	29.00	26.00	0	0
GRID	222302	0	223.29	13.50	31.00	0	0
GRID	1023	0	110.20	-40.00	7.35	0	0
GRID	214901	0	149.63	-40.00	7.35	0	0
GRID	222001	0	220.37	-40.00	7.35	0	0
GRID	1025	0	234.82	-40.00	7.35	0	0
GRID	215101	0	151.85	-29.00	26.00	0	0
GRID	215201	0	152.45	-13.50	30.34	0	0
GRID	222201	0	222.67	-29.00	26.00	0	0
GRID	222301	0	223.29	-13.50	31.00	0	0

ENGINE MOUNTS  
209-060-106/107/108/109

GRID	123467	0	234.069	-9.48	81.750	0	456
GRID	125363	0 <td>253.326 <th>11.731</th> <th>80.438</th> <th>0</th> <th>456</th> </td>	253.326 <th>11.731</th> <th>80.438</th> <th>0</th> <th>456</th>	11.731	80.438	0	456
GRID	125367	0 <td>253.326 <th>-11.731</th> <th>80.438</th> <th>0</th> <th>456</th> </td>	253.326 <th>-11.731</th> <th>80.438</th> <th>0</th> <th>456</th>	-11.731	80.438	0	456
GRID	123467	0 <td>234.420 <th>-12.931</th> <th>65.308</th> <th>0</th> <th>456</th> </td>	234.420 <th>-12.931</th> <th>65.308</th> <th>0</th> <th>456</th>	-12.931	65.308	0	456
GRID	126867	0 <td>267.474 <th>-9.889</th> <th>64.451</th> <th>0</th> <th>456</th> </td>	267.474 <th>-9.889</th> <th>64.451</th> <th>0</th> <th>456</th>	-9.889	64.451	0	456
GRID	125067	0 <td>250.163 <th>-13.008</th> <th>64.901</th> <th>0</th> <th>456</th> </td>	250.163 <th>-13.008</th> <th>64.901</th> <th>0</th> <th>456</th>	-13.008	64.901	0	456
GRID	125065	0 <td>250.168 <th>-1.937</th> <th>64.901</th> <th>0</th> <th>456</th> </td>	250.168 <th>-1.937</th> <th>64.901</th> <th>0</th> <th>456</th>	-1.937	64.901	0	456
GRID	125063	0 <td>250.163 <th>13.008</th> <th>64.901</th> <th>0</th> <th>456</th> </td>	250.163 <th>13.008</th> <th>64.901</th> <th>0</th> <th>456</th>	13.008	64.901	0	456
GRID	126863	0 <td>267.474 <th>9.889</th> <th>64.451</th> <th>0</th> <th>456</th> </td>	267.474 <th>9.889</th> <th>64.451</th> <th>0</th> <th>456</th>	9.889	64.451	0	456

ENGINE  
209-060-005

GRID	1019	0	224.10	0.0	86.00	0	0
GRID	1029	0 <td>248.00</td> <th>0.0</th> <th>86.00</th> <th>0</th> <th>0</th>	248.00	0.0	86.00	0	0
GRID	1020	0 <td>272.80</td> <th>0.0</th> <th>86.00</th> <th>0</th> <th>0</th>	272.80	0.0	86.00	0	0

GUNNER CG

GRID	08300	0	83.00	0.0	70.00	0	456
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INSTRUMENTATION PACKAGE IN AMMO BAY

GRID	11700	0	116.00	0.0	35.00	0	123456
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PILOT CG

GRID	13500	0	135.00	0.0	78.00	0	456
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FORWARD FUEL CG

GRID	17100	0	169.00	0.0	53.00	0	0
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AFT FUEL CG

GRID	23100	0	232.00	0.0	51.00	0	0
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END  
GRID POINT DATA

BEGIN  
WEIGHTS DATA (COMM2 CARDS)

BASIC MISSION WEIGHT EMPTY  
5759.9 LB

FUSELAGE

COMM2	83331	3331	1.892
COMM2	83338	3338	3.221

ORIGINAL PAGE IS  
OF POOR QUALITY

CONM2	93341	3341	1.962
CONM2	93349	3349	2.701
CONM2	94531	4631	0.922
CONM2	94633	4633	4.425
CONM2	91001	1001	5.541
CONM2	94639	4639	2.676
CONM2	94641	4641	0.621
CONM2	94649	4649	0.925
CONM2	94651	4651	8.249
CONM2	94659	4659	6.663
CONM2	96123	6123	3.694
CONM2	96127	6127	3.545
CONM2	96131	6131	1.113
CONM2	96133	6133	6.058
CONM2	96137	6137	5.058
CONM2	96139	6139	0.755
CONM2	96141	6141	1.950
CONM2	96143	6143	5.711
CONM2	96147	6147	3.897
CONM2	96149	6149	0.821
CONM2	96161	6161	2.947
CONM2	96163	6163	9.863
CONM2	96167	6167	6.505
CONM2	96169	6169	2.029
CONM2	96171	6171	7.951
CONM2	96179	6179	5.502
\$ REMOVE MASSES FROM UNSUPPORTED EXTERIOR GRIDS (7031,7039)			
\$ ON THE GUNNER FLOOR AND REDISTRIBUTE TO GRIDS			
\$ (7033 AND 7037 RESPECTIVELY) AT INTERSECTING POINTS			
\$ R.V. DMPKA 9/9/87			
CONM2	97031	7031	2.284
CONM2	97033	7033	8.434
CONM2	97033	7033	10.718
CONM2	97037	7037	6.885
CONM2	97037	7037	8.337
CONM2	97039	7039	1.452
\$ REMOVE MASSES FROM UNSUPPORTED EXTERIOR GRIDS (7031,7039)			
\$ ON THE GUNNER FLOOR AND REDISTRIBUTE TO GRIDS			
\$ (7033 AND 7037 RESPECTIVELY) AT INTERSECTING POINTS			
\$ R.V. DMPKA 9/9/87			
CONM2	97043	7043	9.812
CONM2	97047	7047	7.798
CONM2	97061	7061	3.578
CONM2	97063	7063	14.650
CONM2	97067	7067	13.585
CONM2	97069	7069	2.574
CONM2	97071	7071	2.818
CONM2	97079	7079	1.882
\$ REMOVE MASSES FROM UNSUPPORTED EXTERIOR GRIDS (8531,8539)			
\$ ON THE GUNNER FLOOR AND REDISTRIBUTE TO GRIDS			
\$ (8533 AND 8537 RESPECTIVELY) AT INTERSECTING POINTS			
\$ R.V. DMPKA 9/9/87			
CONM2	98531	8531	2.399
CONM2	98533	8533	10.570
CONM2	98533	8533	12.569
CONM2	98537	8537	9.864
CONM2	98537	8537	12.267
CONM2	98539	8539	2.403
\$ REMOVE MASSES FROM UNSUPPORTED EXTERIOR GRIDS (8531,8539)			
\$ ON THE GUNNER FLOOR AND REDISTRIBUTE TO GRIDS			

\$ (8533 AND 8537 RESPECTIVELY) AT INTERSECTING POINTS			
\$ R.V. DMPKA 9/9/87			
CONM2	98543	8543	9.724
CONM2	98547	8547	8.931
CONM2	98561	8561	4.317
CONM2	98563	8563	22.532
CONM2	98567	8567	24.136
CONM2	98569	8569	5.718
CONM2	98571	8571	6.222
CONM2	98579	8579	8.408
CONM2	99303	9303	3.970
CONM2	99307	9307	3.957
CONM2	99313	9313	8.087
\$ SEE BELOW FOR MASS REDISTRIBUTION TO 9313 AND 9317			
CONM2	99317	9317	8.088
CONM2	99331	9331	3.170
CONM2	99333	9333	13.873
CONM2	91003	1003	13.744
CONM2	99339	9339	3.144
CONM2	99341	9341	2.554
CONM2	99343	9343	11.084
CONM2	99347	9347	10.863
CONM2	99349	9349	2.147
CONM2	99361	9361	2.380
CONM2	99363	9363	8.351
CONM2	99367	9367	9.072
CONM2	99369	9369	2.335
\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRID ON BULKHEAD STA 93			
\$ AND REDISTRIBUTE TO GRIDS AT INTERSECTIONS			
\$ R.V. DMPKA 9/9/87			
CONM2	99371	9371	56.072
CONM2	99371	9371	6.911
CONM2	99373	9373	49.161
CONM2	99377	9377	54.894
CONM2	99379	9379	12.037
CONM2	99378	9378	66.931
\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRID ON BULKHEAD STA 93			
\$ AND REDISTRIBUTE TO GRIDS AT INTERSECTIONS			
\$ R.V. DMPKA 9/9/87			
\$			
\$ REMOVE MASSES FROM UNSUPPORTED GRIDS ON AMMO FLOOR(11503,11507			
\$ AND UNSUPPORTED GRIDS ON AMMO COVER(11531,11539)			
\$ AND REDISTRIBUTE TO GRIDS(11503--9313,13803,11507--9317,13807)			
\$ AND REDISTRIBUTE TO GRIDS(11531--11533,11539--11537)			
\$ R.V. DMPKA 9/9/87			
CONM2	101503	11503	9.083
CONM2	101507	11507	9.128
CONM2	99313	9313	12.629
CONM2	99317	9317	12.652
CONM2	103803	13803	9.680
CONM2	103807	13807	9.566
CONM2	101531	11531	5.859
CONM2	101533	11533	19.722
CONM2	101533	11533	25.581
CONM2	101537	11537	21.508
CONM2	101537	11537	29.381
CONM2	101539	11539	7.873
\$ REMOVE MASSES FROM UNSUPPORTED GRIDS ON AMMO FLOOR(11503,11507			
\$ AND UNSUPPORTED GRIDS ON AMMO COVER(11531,11539)			
\$ AND REDISTRIBUTE TO GRIDS(11503--9313,13803,11507--9317,13807)			

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\$ AND REDISTRIBUTE TO GRIDS(11531--11533; 11539--11537)  
\$ R.V. DOMPKA 9/9/87

CONM2	101543	11543	14.344
CONM2	101547	11547	14.791
CONM2	101561	11561	9.470
CONM2	101563	11563	21.696
CONM2	101567	11567	18.154
CONM2	101569	11569	5.917
CONM2	101571	11571	5.538
CONM2	101579	11579	8.826
CONM2	103801	13801	1.113
CONM2	103803	13803	5.138

\$ SEE ABOVE FOR MASS REDISTRIBUTION TO 13803 AND 13807

CONM2	103807	13807	5.002
CONM2	103809	13809	1.052
CONM2	103821	13821	1.512
CONM2	103823	13823	5.508
CONM2	103827	13827	5.708
CONM2	103829	13829	1.649
CONM2	103831	13831	3.656
CONM2	103833	13833	13.472
CONM2	103837	1004	15.662
CONM2	103839	13839	6.126
CONM2	103841	13841	1.887
CONM2	103843	13843	7.291
CONM2	103847	13847	9.530
CONM2	103848	13848	4.869
CONM2	103849	13849	2.018
CONM2	103861	13861	9.669
CONM2	103863	13863	40.084
CONM2	103867	13867	14.571
CONM2	103869	13869	3.301
CONM2	103871	13871	16.714
CONM2	103879	13879	10.322
CONM2	104801	14801	1.098
CONM2	104803	14803	4.057
CONM2	104807	14807	4.022
CONM2	104809	14809	1.092
CONM2	104821	14821	1.980
CONM2	104823	14823	7.770
CONM2	104827	14827	8.254
CONM2	104829	14829	2.424
CONM2	104831	14831	4.886
CONM2	104833	14833	14.738
CONM2	104837	14837	15.388
CONM2	104839	14839	5.566
CONM2	104841	14841	3.991
CONM2	104843	14843	15.512
CONM2	104847	14847	17.832
CONM2	104849	14849	5.932
CONM2	104861	14861	5.066
CONM2	104863	14863	33.238
CONM2	104867	14867	36.138
CONM2	104869	14869	8.171
CONM2	104881	14881	4.845
CONM2	104883	14883	17.626
CONM2	104887	14887	18.186
CONM2	104889	14889	5.338
CONM2	105601	15601	1.680

CONM2	105603	15603	6.578
CONM2	105607	15607	7.003
CONM2	105609	15609	2.088
CONM2	105621	15621	2.569

\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRIDS (15633,15637)  
\$ ON THE MAIN BEAMS STA 156 AND REDISTRIBUTE TO GRIDS  
\$ (15623 AND 15627 RESPECTIVELY) AT INTERSECTING POINTS  
\$ R.V. DOMPKA 9/9/87

CONM2	105623	15623	2.463
CONM2	105625	15625	8.074
CONM2	105627	15627	10.568
CONM2	105629	15629	8.355
CONM2	105631	15631	3.439
CONM2	105633	15633	3.449
CONM2	105637	15637	5.611
CONM2	105639	15639	5.916

\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRIDS (15633,15637)  
\$ ON THE MAIN BEAMS STA 156 AND REDISTRIBUTE TO GRIDS  
\$ (15623 AND 15627 RESPECTIVELY) AT INTERSECTING POINTS  
\$ R.V. DOMPKA 9/9/87

\$ REMOVE MASSES FROM UNSUPPORTED FUEL CELL COVER  
\$ AND REDISTRIBUTE TO GRIDS AT INTERSECTIONS  
\$ R.V. DOMPKA 9/9/87

CONM2	106481	16481	27.568
CONM2	106483	16483	8.756
CONM2	106485	16485	8.759
CONM2	106487	16487	20.106
CONM2	106489	16489	10.054
CONM2	106491	16491	9.779
CONM2	106493	16493	28.886

\$ REMOVE MASSES FROM UNSUPPORTED FUEL CELL COVER  
\$ AND REDISTRIBUTE TO GRIDS AT INTERSECTIONS  
\$ R.V. DOMPKA 9/9/87

CONM2	108601	18601	1.073
CONM2	108603	18603	4.885
CONM2	108607	18607	4.556
CONM2	108609	18609	1.926
CONM2	108621	18621	3.665
CONM2	108623	18623	13.694
CONM2	108625	18625	20.981
CONM2	108627	18627	22.897
CONM2	108629	18629	5.952
CONM2	108631	18631	5.946
CONM2	108633	18633	16.895
CONM2	108635	18635	22.634
CONM2	108637	18637	26.279
CONM2	108639	18639	7.945
CONM2	108641	18641	1.289
CONM2	108642	18642	1.285
CONM2	108643	18643	2.285
CONM2	108644	18644	8.294
CONM2	108645	18645	8.960
CONM2	108646	18646	8.135
CONM2	108647	18647	2.578
CONM2	108648	18648	1.705
CONM2	108649	18649	1.870
CONM2	108651	18651	1.396
CONM2	108652	18652	1.415

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CONM2	108653	18653	1.854
CONM2	108654	18654	1.813
CONM2	108656	18656	1.288
CONM2	108657	18657	1.305
CONM2	108658	18658	1.739
CONM2	108659	18659	1.703
CONM2	108661	18661	2.124
CONM2	108662	18662	2.138
CONM2	108663	18663	7.944
CONM2	108664	18664	8.778
CONM2	108665	18665	13.016
CONM2	108666	18666	8.161
CONM2	108667	18667	7.302
CONM2	108668	18668	2.013
CONM2	108669	18669	1.998
CONM2	108681	18681	8.693
CONM2	108683	18683	32.324
CONM2	108685	18685	60.323
CONM2	108687	18687	27.285
CONM2	108689	18689	9.604
CONM2	109741	19741	2.346
CONM2	109742	19742	4.409
CONM2	109743	19743	5.156
CONM2	109745	19745	11.232
CONM2	109747	19747	4.231
CONM2	109748	19748	3.642
CONM2	109749	19749	2.399
CONM2	109751	19751	2.757
CONM2	109752	19752	5.133
CONM2	109758	19758	3.995
CONM2	109759	19759	2.844
CONM2	109761	19761	2.221
CONM2	109762	19762	4.633
CONM2	109763	19763	5.632
CONM2	109765	19765	12.896
CONM2	109767	1006	4.155
CONM2	109768	19768	3.600
CONM2	109769	19769	2.303
CONM2	111321	21321	6.658
CONM2	111323	21323	9.994
CONM2	111325	21325	20.033
CONM2	111327	21327	18.946
CONM2	111329	21329	7.634
CONM2	111341	21341	4.530
CONM2	111343	21343	5.686
CONM2	111345	21345	11.857
CONM2	111347	21347	5.713
CONM2	111349	21349	4.679
CONM2	111361	21361	17.886
CONM2	111363	21363	23.858
CONM2	111364	21364	23.001
CONM2	111366	21366	27.471
CONM2	111367	21367	28.406
CONM2	111369	21369	21.681
CONM2	111383	21383	48.827
CONM2	111387	21387	54.371
CONM2	111801	21801	1.894
CONM2	111803	21803	3.639
CONM2	111807	21807	3.893
CONM2	111809	21809	1.953

CONM2	111821	21821	5.997
CONM2	111823	21823	7.188
CONM2	111825	21825	10.613
CONM2	111827	21827	7.871
CONM2	111828	21828	6.220
CONM2	112701	22701	2.043
CONM2	112703	22703	3.681
CONM2	112707	22707	3.687
CONM2	112709	22709	1.998
CONM2	112721	22721	7.817
CONM2	112723	22723	11.922
CONM2	112725	22725	15.296
CONM2	112727	22727	12.589
CONM2	112729	22729	7.921
CONM2	115001	25001	1.933
CONM2	115003	25003	2.877
CONM2	115007	25007	3.006
CONM2	115009	25009	1.526
CONM2	115021	25021	6.318
CONM2	115025	25025	12.787
CONM2	115029	25029	6.632
CONM2	115041	25041	10.475
CONM2	115045	25045	22.789
CONM2	115049	25049	10.010
CONM2	115061	25061	25.414
CONM2	115085	1007	56.155
CONM2	115089	25089	31.959
CONM2	116801	26801	2.583
CONM2	116809	26809	2.896
\$ **** CONFIG #1 *** INITIAL CONFIGURATION--REMOVE BATTERY ACC PAN			
CONM2	116821	26821	7.918
CONM2	116821	26821	6.969
\$ **** CONFIG #1 *** INITIAL CONFIGURATION--REMOVE BATTERY ACC PAN			
CONM2	116825	26825	26.633
CONM2	116829	26829	18.380
CONM2	116841	26841	7.840
CONM2	116845	26845	17.307
CONM2	116849	26849	8.427
CONM2	116881	26881	17.863
CONM2	116885	26885	37.880
CONM2	116889	1008	17.941
CONM2	119905	29905	2.139
\$ **** CONFIG #1 *** INITIAL CONFIGURATION--REMOVE BATTERY ACC PAN			
CONM2	119921	29921	8.430
CONM2	119921	29921	7.480
\$ **** CONFIG #1 *** INITIAL CONFIGURATION--REMOVE BATTERY ACC PAN			
CONM2	119925	29925	22.918
CONM2	119929	29929	13.202
\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRID (29945)			
\$ AT THE TAILROOM JUNCTION BULKHEAD AND PUT AT OUTER			
\$ INTERSECTING POINTS (29941,29949)			
\$ R.V. DMPKA 9/8/87			
CONM2	119941	29941	10.447
CONM2	119941	29941	24.158
CONM2	119945	29945	27.421
CONM2	119949	29949	28.984
CONM2	119949	29949	15.273
CONM2	119961	29961	10.173
CONM2	119965	29965	21.300
CONM2	119989	1008	10.763

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\$ REMOVE MASSES FROM UNSUPPORTED INTERIOR GRID (29945)  
 \$ AT THE TAILBOOM JUNCTION BULKHEAD AND PUT AT OUTER  
 \$ INTERSECTING POINTS (29941,29949)  
 \$ R.V. DMPKA 9/9/87

\$ ELEVATOR

CONM2	130141	1012	3.541
CONM2	130142	40142	5.937
CONM2	130143	40143	10.107
CONM2	130147	40147	9.503
CONM2	130148	40148	5.887
CONM2	130149	1013	3.541

\$ RIGHT WING

CONM2	151912	61912	0.201
CONM2	151913	61913	0.201
CONM2	151914	61914	0.201
CONM2	151916	61916	0.184
CONM2	151917	61917	0.179
CONM2	151918	61918	0.174
CONM2	151922	61922	0.774
CONM2	151923	61923	0.589
CONM2	151924	61924	0.610
CONM2	151926	61926	0.305
CONM2	151927	61927	0.285
CONM2	151928	61928	0.259
CONM2	151934	61934	0.164
CONM2	151935	61935	0.160
CONM2	151936	61936	0.157
CONM2	152211	62211	0.463
CONM2	152213	62213	0.480
CONM2	152217	62217	0.476
CONM2	152219	62219	0.462
CONM2	152221	62221	1.537
CONM2	152224	62224	1.539
CONM2	152226	62226	1.135
CONM2	152229	62229	0.865
CONM2	152231	62231	0.393
CONM2	152239	62239	0.374
CONM2	152811	62811	0.960
CONM2	152819	62819	1.111
CONM2	152821	62821	1.904
CONM2	152829	62829	1.798
CONM2	152831	62831	0.612
CONM2	152839	62839	0.595
CONM2	153411	63411	1.969
CONM2	153419	63419	2.323
CONM2	153421	63421	3.041
CONM2	153429	63429	2.881
CONM2	153431	63431	1.144
CONM2	153439	63439	1.118
CONM2	154211	64211	2.314
CONM2	154219	64219	3.090
CONM2	154221	64221	3.275
CONM2	154229	64229	3.561
CONM2	154231	64231	1.265
CONM2	154239	64239	1.243

CONM2	155011	65011	1.382
CONM2	155019	65019	2.036
CONM2	155021	65021	1.737
CONM2	155029	65029	2.148
CONM2	155031	65031	0.796
CONM2	155039	65039	0.790
CONM2	155911	65911	0.693
CONM2	155919	65919	0.967
CONM2	155921	1017	1.009
CONM2	155929	65929	1.298
CONM2	155931	65931	0.517
CONM2	155939	65939	0.509

\$ LEFT WING

CONM2	161912	71912	0.251
CONM2	161913	71913	0.249
CONM2	161914	71914	0.245
CONM2	161916	71916	0.216
CONM2	161917	71917	0.208
CONM2	161918	71918	0.189
CONM2	161922	71922	0.866
CONM2	161923	71923	0.723
CONM2	161924	71924	0.623
CONM2	161926	71926	0.314
CONM2	161927	71927	0.294
CONM2	161928	71928	0.269
CONM2	161934	71934	0.171
CONM2	161935	71935	0.167
CONM2	161936	71936	0.164
CONM2	162211	72211	0.517
CONM2	162213	72213	0.530
CONM2	162217	72217	0.506
CONM2	162219	72219	0.488
CONM2	162221	72221	1.708
CONM2	162224	72224	1.528
CONM2	162226	72226	1.141
CONM2	162229	72229	0.874
CONM2	162231	72231	0.400
CONM2	162239	72239	0.381
CONM2	162811	72811	0.960
CONM2	162819	72819	1.111
CONM2	162821	72821	1.904
CONM2	162829	72829	1.798
CONM2	162831	72831	0.812
CONM2	162839	72839	0.595
CONM2	163411	73411	1.869
CONM2	163419	73419	2.323
CONM2	163421	73421	3.041
CONM2	163429	73429	2.881
CONM2	163431	73431	1.144
CONM2	163439	73439	1.118
CONM2	164211	74211	2.314
CONM2	164219	74219	3.090
CONM2	164221	74221	3.275
CONM2	164229	74229	3.561
CONM2	164231	74231	1.265
CONM2	164239	74239	1.243
CONM2	165011	75011	1.382
CONM2	165019	75019	2.036

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CONM2	165021	75021	1.737
CONM2	165029	75029	2.148
CONM2	165031	75031	0.796
CONM2	165039	75039	0.790
CONM2	165911	75911	0.693
CONM2	165919	75919	0.667
CONM2	165921	1018	1.008
CONM2	165929	75929	1.296
CONM2	165931	75931	0.517
CONM2	165939	75939	0.509

\$  
\$ SKID LANDING GEAR

CONM2	301002	1024	4.953
CONM2	304902	214902	13.024
CONM2	312002	222002	9.744
CONM2	312002	222002	6.744
CONM2	313402	1026	5.142
CONM2	305102	215102	3.158
CONM2	305202	215202	0.961
CONM2	312202	222202	9.554
CONM2	312202	222202	6.554
CONM2	312302	222302	4.635
CONM2	312302	222302	1.635
CONM2	301001	1023	4.953
CONM2	304901	214901	13.024
CONM2	312001	222001	9.744
CONM2	312001	222001	6.744
CONM2	313401	1025	5.142
CONM2	305101	215101	3.676
CONM2	305201	215201	0.952
CONM2	312201	222201	9.554
CONM2	312201	222201	6.554
CONM2	312301	222301	4.619
CONM2	312301	222301	1.619

\$  
\$ MAIN ROTOR MAST AND TRANSMISSION

CONM2	290070	200070	34.465
CONM2	290078	200078	22.740
CONM2	290079	200079	51.046
CONM2	290086	1021	60.052
CONM2	290087	200087	60.052
CONM2	290095	200095	64.933
CONM2	290096	200096	64.933
CONM2	290101	200101	57.277
CONM2	290108	200108	47.013
CONM2	290114	200114	66.626
CONM2	290121	200121	54.350
CONM2	290129	200129	13.810
CONM2	290137	200137	8.253
\$	****	CONFIG #1 *** INITIAL CONFIGURATION--REMOVE PITCH LINKS	
CONM2	290145	200145	12.065
CONM2	290145	200145	8.065
\$	****	CONFIG #1 *** INITIAL CONFIGURATION--REMOVE PITCH LINKS	
CONM2	290153	200153	5.852
CONM2	291153	200153	458.000
CONM2	292153	200153	489.500
CONM2	290155	1022	6.124

MR BLADE  
MR HUB

\$  
\$ TAIL ROTOR MAST

CONM2	610018	520018	5.862
CONM2	610024	520024	5.537
\$	****	CONFIG #1 *** INITIAL CONFIGURATION--REMOVE GEARBOX FAIRING	
CONM2	610057	520057	4.420
CONM2	610057	520057	3.020
\$	****	CONFIG #1 *** INITIAL CONFIGURATION--REMOVE GEARBOX FAIRING	
CONM2	610065	520065	0.0
CONM2	610068	520068	0.819
CONM2	610079	1027	4.374
CONM2	610135	520135	1.007
CONM2	610139	520139	0.249
CONM2	710139	520139	16.500
CONM2	610152	520152	0.568
CONM2	710152	520152	14.300
CONM2	610185	1028	1.583

TR HUB  
TR BLADE

\$  
\$ XM-28 WEAPONS INSTALLATION

CONM2	91002	1002	1.000
CONM2	97505	1002	124.500
CONM2	97505	1002	124.500
+TURRET 7.00+4		8.00+4	8.96+4
CONM2	97507	1002	2.300
CONM2	97508	1002	2.300
CONM2	97509	1002	0.100
CONM2	97510	1002	40.800
CONM2	97511	1002	10.300
CONM2	97512	1002	9.100
CONM2	97513	1002	48.300
CONM2	97514	1002	1.000
CONM2	97515	1002	1.500
CONM2	97516	1002	7.700
CONM2	97517	1002	4.500

FLUID  
TURRET  
TURRET  
CLOSURE  
CLOSURE  
TUB STOP  
LAUNCHER  
CRADLE  
G/B MOTOR  
MINIGUN  
CABLE  
GEARBOX  
MOTOR  
FEEDTRAY

\$  
\$ ENGINE AND ENGINE-SUPPORTED WEIGHT ITEMS

CONM2	124800	1029	530.000
+ENGINE 1.78+4		1.10+5	9.43+4
CONM2	124801	1029	48.000
CONM2	124802	1029	5.000
CONM2	124803	1029	1.550
CONM2	124804	1029	0.800

ENGINE  
STARTER  
RESFLUID  
1/2 DS  
TACHMTR

\$  
\$ USEFUL LOADS ON SHIP 59-16444/20876 AT TIME OF BAILMENT (12-18-86)

\$  
\$ TRANSMISSION OIL

CONM2	9200070	200070	22.500
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\$  
\$ ENGINE OIL

CONM2	124805	1029	21.200
CONM2	124806	1029	2.200

\$  
\$ 42 AND 80 DEGREE GEAR BOX FLUIDS

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\$				
CONM2	946445	2629		0.150
CONM2	946446	2642		0.150
CONM2	952045	52045		0.400

WING PYLONS

RIGHT WING-OUTBOARD

CONM2	965929	85929		20.000
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LEFT WING-OUTBOARD

CONM2	975929	75929		20.000
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RIGHT WING-INBOARD

CONM2	964229	64229		34.000
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LEFT WING-INBOARD

CONM2	974229	74229		34.000
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USEFUL LOADS ON SHIP 69-16444/20876 FOR SHAKE TEST VEHICLE CONFIG-#1

GUNNER CG

CONRDD	0020081	7033	08300	2014	1.0
CONRDD	0020082	7037	08300	2014	1.0
CONRDD	0020083	9333	08300	2014	1.0
CONRDD	0020084	1003	08300	2014	1.0
CONM2	908300	08300			175.000
CONM2	908533	08533			25.000
CONM2	908537	08537			25.000

PILOT CG

CONRDD	0010091	14843	13500	2014	1.0
CONRDD	0010092	14847	13500	2014	1.0
CONRDD	0010093	14863	13500	2014	1.0
CONRDD	0010094	14867	13500	2014	1.0
CONM2	913500	13500			175.000
CONM2	911543	11543			25.000
CONM2	911547	11547			25.000

FORWARD FUEL CG

CONRDD	0031071	14823	17100	2014	1.0
CONRDD	0031072	14827	17100	2014	1.0
CONRDD	0031073	18621	17100	2014	1.0
CONRDD	0031074	18629	17100	2014	1.0
CONM2	917100	17100			285.000
CONM2	1017100	17100			4.250

AFT FUEL CG

CONRDD	0031081	21321	23100	2014	1.0
CONRDD	0031082	21329	23100	2014	1.0
CONRDD	0031083	25021	23100	2014	1.0
CONRDD	0031084	25029	23100	2014	1.0
CONM2	923100	23100			280.000
CONM2	1023100	23100			4.250

END

WEIGHTS DATA (CONM2 CARDS)

ELEMENT DATA

BEGIN

UPPER MAIN BEAM CAP / RIGHT-HAND SIDE

209-030-157-003  
STA 61.25 TO STA 186.25  
209-030-160-008  
STA 186.25 TO STA 298.75

CONRDD	1570031	6163	7063	7075	0.198
CONRDD	1570032	7063	8563	7075	0.195
CONRDD	1570033	8563	9363	7075	0.192
CONRDD	1570034	9363	11563	7075	0.325
CONRDD	1570035	11563	13863	7075	0.284
CONRDD	1570036	13863	14863	7075	0.301
CONRDD	1570037	14863	18561	7075	0.285
CONRDD	1800091	18661	19761	7075	0.411
CONRDD	1800092	19761	21361	7075	0.444
CONRDD	1800093	21361	25061	7075	0.404
CONRDD	1800094	25061	26861	7075	0.390
CONRDD	1800095	26861	29861	7075	0.847

LOWER MAIN BEAM CAP / RIGHT-HAND SIDE

209-030-158-004  
STA 61.25 TO STA 148.50

CONRDD	1580041	6133	7033	7075	0.247
CONRDD	1580042	7033	8533	7075	0.243
CONRDD	1580043	8533	9333	7075	0.249
CONRDD	1580044	9333	11533	7075	0.344
CONRDD	1580045	11533	13833	7075	0.347
CONRDD	1580046	13833	14833	7075	0.227

LOWER MAIN BEAM CAP / RIGHT-HAND SIDE

209-030-159-007  
STA 138.70 TO STA 186.25  
209-030-161-028  
STA 186.25 TO STA 300.42

CONRDD	1590071	13823	14823	7075	0.284
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CONROD	1590072	14823	15623	7075	0.285	
CONROD	1590073	15623	18621	7075	0.309	
CONROD	1610291	18621	21321	7075	0.513	
CONROD	1610292	21321	21821	7075	0.545	
CONROD	1610293	21821	22721	7075	0.640	
CONROD	1610294	22721	25021	7075	0.420	
CONROD	1610295	25021	28821	7075	0.410	
CONROD	1610296	28821	29921	7075	0.450	
\$						
\$	LOWER MAIN BEAM AUXILLARY CAP / RIGHT-HAND SIDE					
\$	209-030-161-015					
\$	STA 138.70 TO STA 186.25					
\$						
CONROD	1610151	13821	14821	7075	0.128	
CONROD	1610152	14821	15621	7075	0.128	
CONROD	1610153	15621	18621	7075	0.128	
\$						
\$	LOWER MAIN BEAM AUXILLARY CAP / RIGHT-HAND SIDE					
\$	209-030-211-010					
\$	STA 46.00 TO STA 148.50					
\$						
CONROD	2110101	4633	6131	7075	0.059	
CONROD	2110102	6131	7031	7075	0.187	
CONROD	2110103	7031	8531	7075	0.189	
CONROD	2110104	8531	9331	7075	0.193	
CONROD	2110105	9331	11531	7075	0.243	
CONROD	2110106	11531	13831	7075	0.248	
CONROD	2110107	13831	14831	7075	0.174	
\$						
\$	UPPER MAIN BEAM AUXILLARY CAP / RIGHT-HAND SIDE					
\$	209-030-250-017/091/171					
\$	STA 61.25 TO STA 186.25					
\$						
CONROD	2500171	6161	7061	7075	0.054	
CONROD	2500172	7061	8561	7075	0.054	
CONROD	2500173	8561	9361	7075	0.054	
CONROD	2500811	9361	11561	7075	0.053	
CONROD	2500812	11561	13861	7075	0.050	
CONROD	2500813	13861	14861	7075	0.067	
CONROD	2501711	14861	18661	7075	0.104	
\$						
\$	COWLING ATTACH ANGLES - RIGHT SIDE					
\$	209-030-136-071					
\$	STA 186.25 TO BS 41.32					
\$						
CONROD	1360711	18661	19761	2024	0.378	
CONROD	1360712	19761	21361	2024	0.399	
CONROD	1360713	21361	25061	2024	0.162	
CONROD	1360714	25061	26861	2024	0.082	
CONROD	1360715	26861	29961	2024	0.071	
\$						
\$	MAIN BEAM CHANNEL - RIGHT SIDE					
\$	209-030-182-005					
\$	STA 186.25 TO STA 213.94					
\$						
CONROD	1820051	18641	19741	7075	0.288	
CONROD	1820052	19741	21341	7075	0.288	
\$						
\$	MAIN BEAM WEB / RIGHT-HAND SIDE					
\$	209-030-129-207					

\$						
\$	STA 61.25 TO STA 93.00					
\$						
\$	DOUBLERS					
CONROD	1290231	6163	7063	7075	0.048	
CONROD	1290232	7063	8563	7075	0.047	
CONROD	1290233	8563	9363	7075	0.046	
CONROD	1290251	6133	7033	7075	0.072	
CONROD	1290252	7033	8533	7075	0.075	
CONROD	1290253	8533	9333	7075	0.077	
CONROD	1290211	6133	6143	7075	0.035	
CONROD	1290212	6143	6163	7075	0.035	
CONROD	1290271	9333	9343	7075	0.098	
CONROD	1290272	9343	9363	7075	0.098	
\$	INNER SKIN 209-030-129-209 .025 ALUMINUM					
CSHEAR	1290280	0257075	6133	7033	7043	6143
CONROD	1290801	6133	7033	7075	0.073	
CONROD	1290802	6143	7043	7075	0.122	
CONROD	1290811	6133	6143	7075	0.118	
CONROD	1290813	7033	7043	7075	0.118	
CSHEAR	1290801	0257075	6143	7043	7063	6163
CONROD	1290803	6143	7043	7075	0.122	
CONROD	1290804	6163	7063	7075	0.033	
CONROD	1290812	6143	6163	7075	0.118	
CONROD	1290814	7043	7063	7075	0.118	
CSHEAR	1290802	0257075	7033	8533	8543	7043
CONROD	1290921	7033	8533	7075	0.076	
CONROD	1290922	7043	8543	7075	0.126	
CONROD	1290931	7033	7043	7075	0.181	
CONROD	1290933	8533	8543	7075	0.181	
CSHEAR	1290933	0257075	7043	8543	8563	7063
CONROD	1290923	7043	8543	7075	0.126	
CONROD	1290924	7063	8563	7075	0.034	
CONROD	1290932	7043	7063	7075	0.181	
CONROD	1290934	8543	8563	7075	0.181	
CSHEAR	1290934	0257075	8533	9333	9343	8543
CONROD	1290941	8533	9333	7075	0.078	
CONROD	1290942	8543	9343	7075	0.130	
CONROD	1290951	8533	8543	7075	0.123	
CONROD	1290953	9333	9343	7075	0.123	
CSHEAR	1290953	0257075	8543	9343	9363	8563
CONROD	1290943	8543	9343	7075	0.130	
CONROD	1290944	8563	9363	7075	0.035	
CONROD	1290952	8543	8563	7075	0.123	
CONROD	1290954	9343	9363	7075	0.123	
\$	INTERIOR SKIN 209-030-129-041 .015 ALUMINUM					
CSHEAR	1290411	0157075	7033	8533	8543	7043
CONROD	1294121	7033	8533	7075	0.011	
CONROD	1294122	7043	8543	7075	0.057	
CONROD	1294131	7033	7043	7075	0.116	
CONROD	1294133	8533	8543	7075	0.116	
CSHEAR	1290412	0157075	7043	8543	8563	7063
CONROD	1294123	7043	8543	7075	0.057	
CONROD	1294124	7063	8563	7075	0.001	
CONROD	1294132	7043	7063	7075	0.116	
CONROD	1294134	8543	8563	7075	0.116	
\$	INTERIOR SKIN 209-030-129-159 .015 ALUMINUM					
CSHEAR	1291591	0157075	7033	8533	8543	7043
CONROD	1295901	7033	8533	7075	0.024	
CONROD	1295902	7043	8543	7075	0.071	
CONROD	1295911	7033	7043	7075	0.116	

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CNRDD	1295913	8533	8543	7075	0.116	
CSHEAR	1291582	0167075	7043	8543	8563	7063
CNRDD	1295903	7043	8543	7075	0.071	
CNRDD	1295904	7063	8563	7075	0.001	
CNRDD	1295912	7043	7063	7075	0.116	
CNRDD	1295914	8543	8563	7075	0.116	
\$ BUTER SKIN 209-030-129-183 .016 ALUMINUM						
CSHEAR	1291831	0167075	6133	7033	7043	6143
CNRDD	1298301	6133	7033	7075	0.026	
CNRDD	1298302	6143	7043	7075	0.071	
CNRDD	1298311	6133	6143	7075	0.065	
CNRDD	1298313	7033	7043	7075	0.065	
CSHEAR	1291832	0167075	6143	7043	7063	6163
CNRDD	1298303	6143	7043	7075	0.071	
CNRDD	1298304	6163	7063	7075	0.003	
CNRDD	1298312	6143	6163	7075	0.065	
CNRDD	1298314	7043	7063	7075	0.065	
CSHEAR	1291833	0167075	7033	8533	8543	7043
CNRDD	1298321	7033	8533	7075	0.028	
CNRDD	1298322	7043	8543	7075	0.074	
CNRDD	1298331	7033	7043	7075	0.116	
CNRDD	1298333	8533	8543	7075	0.116	
CSHEAR	1291834	0167075	7043	8543	8563	7063
CNRDD	1298323	7043	8543	7075	0.074	
CNRDD	1298324	7063	8563	7075	0.003	
CNRDD	1298332	7043	7063	7075	0.116	
CNRDD	1298334	8543	8563	7075	0.116	
CSHEAR	1291835	0167075	8533	9333	9343	8543
CNRDD	1298341	8533	9333	7075	0.033	
CNRDD	1298342	8543	9343	7075	0.079	
CNRDD	1298351	8533	8543	7075	0.062	
CNRDD	1298353	9333	9343	7075	0.062	
CSHEAR	1291836	0167075	8543	9343	9363	8563
CNRDD	1298343	8543	9343	7075	0.079	
CNRDD	1298344	8563	9363	7075	0.007	
CNRDD	1298352	8543	8563	7075	0.062	
CNRDD	1298354	9343	9363	7075	0.062	
\$						
\$ MAIN BEAM WEB / RIGHT-HAND SIDE						
\$ 209-030-129-207						
\$ STA 93.00 TO STA 138.70						
\$						
\$ DOUBLERS						
CNRDD	1290234	9363	11563	7075	0.024	
CNRDD	1290235	11563	13863	7075	0.024	
CNRDD	1290231	9343	11543	7075	0.090	
CNRDD	1290271	11533	13833	7075	0.044	
CNRDD	1290254	9333	11533	7075	0.046	
CNRDD	1291972	11543	13843	7075	0.080	
CNRDD	1290273	9333	9343	7075	0.043	
CNRDD	1290274	9343	9363	7075	0.043	
CNRDD	1291373	13833	13843	7075	0.054	
CNRDD	1291374	13843	13863	7075	0.054	
\$ INNER SKIN 209-030-129-209 .025 ALUMINUM						
CSHEAR	1292096	0257075	9333	11533	11543	9343
CNRDD	1290961	9333	11533	7075	0.079	
CNRDD	1290962	9343	11543	7075	0.134	
CNRDD	1290971	9333	9343	7075	0.256	
CNRDD	1290973	11533	11543	7075	0.256	
CSHEAR	1292097	0257075	9343	11543	11563	9363

CNRDD	1290963	9343	11543	7075	0.134	
CNRDD	1290964	9363	11563	7075	0.042	
CNRDD	1290972	9343	9363	7075	0.256	
CNRDD	1290974	11543	11563	7075	0.256	
CSHEAR	1292098	0257075	11533	13833	13843	11543
CNRDD	1290981	11533	13833	7075	0.077	
CNRDD	1290982	11543	13843	7075	0.140	
CNRDD	1290993	11533	11543	7075	0.289	
CNRDD	1290995	13833	13843	7075	0.289	
CSHEAR	1292099	0257075	11543	13843	13863	11563
CNRDD	1290983	11543	13843	7075	0.140	
CNRDD	1290984	11563	13863	7075	0.054	
CNRDD	1290984	11543	11563	7075	0.289	
CNRDD	1290986	13843	13863	7075	0.289	
\$ BUTER SKIN 209-030-129-149 .016 ALUMINUM						
CSHEAR	1291491	0167075	9333	11533	11543	9343
CNRDD	1294901	9333	11533	7075	0.030	
CNRDD	1294902	9343	11543	7075	0.080	
CNRDD	1294911	9333	9343	7075	0.155	
CNRDD	1294913	11533	11543	7075	0.155	
CSHEAR	1291492	0167075	9343	11543	11563	9363
CNRDD	1294903	9343	11543	7075	0.080	
CNRDD	1294904	9363	11563	7075	0.007	
CNRDD	1294912	9343	9363	7075	0.155	
CNRDD	1294914	11543	11563	7075	0.155	
CSHEAR	1291493	0167075	11533	13833	13843	11543
CNRDD	1294921	11533	13833	7075	0.028	
CNRDD	1294922	11543	13843	7075	0.084	
CNRDD	1294931	11533	11543	7075	0.176	
CNRDD	1294933	13833	13843	7075	0.176	
CSHEAR	1291494	0167075	11543	13843	13863	11563
CNRDD	1294923	11543	13843	7075	0.084	
CNRDD	1294924	11563	13863	7075	0.014	
CNRDD	1294932	11543	11563	7075	0.176	
CNRDD	1294934	13843	13863	7075	0.176	
\$						
\$ MAIN BEAM WEB / RIGHT-HAND SIDE						
\$ 209-030-129-207						
\$ STA 138.70 TO STA 148.50						
\$						
\$ DOUBLERS						
CNRDD	1291985	13863	14863	7075	0.075	
CNRDD	1291984	13843	14843	7075	0.163	
CNRDD	1291273	13833	14833	7075	0.084	
CNRDD	1291274	13833	13843	7075	0.044	
CNRDD	1291986	13843	13863	7075	0.087	
CNRDD	1291275	14833	14843	7075	0.036	
CNRDD	1291987	14843	14863	7075	0.083	
\$ INNER SKIN 209-030-129-209 .025 ALUMINUM						
CSHEAR	1292101	0257075	13803	14803	14823	13823
CNRDD	1291001	13803	14803	7075	0.056	
CNRDD	1291002	13823	14823	7075	0.158	
CNRDD	1291011	13803	13823	7075	0.120	
CNRDD	1291015	14803	14823	7075	0.120	
CSHEAR	1292102	0257075	13823	14823	14833	13833
CNRDD	1291003	13823	14823	7075	0.158	
CNRDD	1291004	13833	14833	7075	0.088	
CNRDD	1291012	13823	13833	7075	0.120	
CNRDD	1291018	14823	14833	7075	0.120	
CSHEAR	1292103	0257075	13833	14833	14843	13843

CONROD	1291005	13833	14833	7075	0.078	
CONROD	1291006	13843	14843	7075	0.144	
CONROD	1291013	13833	14843	7075	0.120	
CONROD	1291017	14833	14843	7075	0.120	
CSHEAR	1292104	0257075	13843	14843	14863	13863
CONROD	1291007	13843	14843	7075	0.144	
CONROD	1291008	13863	14863	7075	0.063	
CONROD	1291014	13843	13863	7075	0.120	
CONROD	1291016	14843	14863	7075	0.120	
\$ INTERIOR SKIN 209-030-129-197 .040 ALUMINUM						
CSHEAR	1291981	0407075	13803	14803	14823	13823
CONROD	1299801	13803	14803	7075	0.167	
CONROD	1299802	13823	14823	7075	0.167	
CONROD	1299811	13803	13823	7075	0.191	
CONROD	1299814	14803	14823	7075	0.191	
CSHEAR	1291982	0407075	13823	14823	14833	13833
CONROD	1299803	13823	14823	7075	0.201	
CONROD	1299804	13833	14833	7075	0.201	
CONROD	1299812	13823	13833	7075	0.191	
CONROD	1299815	14823	14833	7075	0.191	
CSHEAR	1291983	0407075	13833	14833	14843	13843
CONROD	1299805	13833	14833	7075	0.142	
CONROD	1299806	13843	14843	7075	0.142	
CONROD	1299813	13833	13843	7075	0.191	
CONROD	1299816	14833	14843	7075	0.191	
\$ OUTER SKIN 209-030-129-127 .020 ALUMINUM						
CSHEAR	1291271	0207075	13803	14803	14823	13823
CONROD	1292701	13803	14803	7075	0.047	
CONROD	1292702	13823	14823	7075	0.122	
CONROD	1292711	13803	13823	7075	0.096	
CONROD	1292713	14803	14823	7075	0.096	
CSHEAR	1291272	0207075	13823	14823	14833	13833
CONROD	1292703	13823	14823	7075	0.122	
CONROD	1292704	13833	14833	7075	0.034	
CONROD	1292712	13823	13833	7075	0.096	
CONROD	1292714	14823	14833	7075	0.096	
\$ OUTER SKIN 209-030-129-017 .016 ALUMINUM						
CSHEAR	1290171	0167075	13843	14843	14863	13863
CONROD	1291701	13843	14843	7075	0.035	
CONROD	1291702	13863	14863	7075	0.035	
CONROD	1291703	13843	13863	7075	0.055	
CONROD	1291704	14843	14863	7075	0.055	
\$ OUTER SKIN 209-030-129-019 .016 ALUMINUM						
CSHEAR	1290191	0167075	13833	14833	14843	13843
CONROD	1291901	13833	14833	7075	0.013	
CONROD	1291902	13843	14843	7075	0.013	
CONROD	1291903	13833	13843	7075	0.055	
CONROD	1291904	14833	14843	7075	0.055	
\$ MAIN BEAM WEB / RIGHT-HAND SIDE						
\$ 209-030-130-005						
\$ STA 148.50 TO STA 186.25						
\$ DOUBLERS						
CONROD	1300231	14863	14861	7075	0.062	
CONROD	1300352	14823	15623	7075	0.095	
CONROD	1300271	15623	14821	7075	0.097	
CONROD	1300353	14823	14833	7075	0.109	
CONROD	1300411	14833	14843	7075	0.109	
CONROD	1300412	14843	14863	7075	0.109	

CONROD	1300211	14821	14831	7075	0.108	
CONROD	1300212	14831	14841	7075	0.108	
CONROD	1300213	14841	14851	7075	0.108	
CONROD	1300214	14851	14861	7075	0.108	
CONROD	1300215	14861	14871	7075	0.108	
\$ INNER SKIN 209-030-130-039 .020 GLASS FABRIC						
CSHEAR	1300391	0200076	14823	15623	15633	14833
CONROD	1303901	14823	15623	0076	0.096	
CONROD	1303902	14833	15633	0076	0.096	
CONROD	1303903	14823	14833	0076	0.074	
CONROD	1303904	15623	15633	0076	0.074	
CSHEAR	1300392	0200076	15623	14821	14831	15633
CONROD	1303911	15623	14821	0076	0.096	
CONROD	1303912	15633	14831	0076	0.096	
CONROD	1303921	14823	15633	0076	0.282	
CONROD	1303924	14821	14831	0076	0.282	
CTRMEN	1300393	0200076	14833	15633	14843	
CSHEAR	1300394	0200076	15633	14831	14841	14843
CONROD	1303913	15633	14831	0076	0.096	
CONROD	1303914	14843	14841	0076	0.096	
CONROD	1303922	15633	14843	0076	0.320	
CONROD	1303925	14831	14841	0076	0.320	
CSHEAR	1300395	0200076	14843	14851	14861	14863
CONROD	1303915	14843	14851	0076	0.083	
CONROD	1303916	14853	14861	0076	0.083	
CONROD	1303923	14843	14863	0076	0.357	
CONROD	1303926	14851	14861	0076	0.357	
\$ INTERIOR SKIN 209-030-130-029 .025 TITANIUM						
CSHEAR	1300291	0259046	14823	15623	15633	14833
CONROD	1302901	14823	15623	9046	0.050	
CONROD	1302902	14833	15633	9046	0.050	
CONROD	1302903	14823	14833	9046	0.044	
CONROD	1302904	15623	15633	9046	0.044	
\$ INTERIOR SKIN 209-030-130-036 .032 TITANIUM						
CSHEAR	1300351	0329046	14823	15623	15633	14833
CONROD	1303501	14823	15623	9046	0.089	
CONROD	1303502	14833	15633	9046	0.089	
CONROD	1303503	14823	14833	9046	0.090	
CONROD	1303504	15623	15633	9046	0.090	
\$ OUTER SKIN 209-030-130-033 .012 TITANIUM						
CSHEAR	1300331	0129046	14823	15623	15633	14833
CONROD	1303301	14823	15623	9046	0.057	
CONROD	1303302	14833	15633	9046	0.057	
CONROD	1303303	14823	14833	9046	0.045	
CONROD	1303304	15623	15633	9046	0.045	
CSHEAR	1300332	0129046	15623	14821	14831	15633
CONROD	1303311	15623	14821	9046	0.057	
CONROD	1303312	15633	14831	9046	0.057	
CONROD	1303321	15623	15633	9046	0.189	
CONROD	1303324	14821	14831	9046	0.189	
CTRMEN	1300333	0129046	14833	15633	14843	
CSHEAR	1300334	0129046	15633	14831	14841	14843
CONROD	1303313	15633	14831	9046	0.058	
CONROD	1303314	14843	14841	9046	0.058	
CONROD	1303322	15633	14843	9046	0.192	
CONROD	1303325	14831	14841	9046	0.192	
CSHEAR	1300335	0129046	14843	14851	14861	14863
CONROD	1303315	14843	14851	9046	0.050	
CONROD	1303316	14853	14861	9046	0.050	
CONROD	1303323	14843	14863	9046	0.214	

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CONR00 1303326 18651 18656 9046 0.214  
\$  
\$ MAIN BEAM WEB / RIGHT-HAND SIDE  
\$ 209-030-137-032  
\$ STA 186.25 TO STA 213.94  
\$

\$ DOUBLERS

CONR00 1370364 19741 21341 7075 0.089  
CONR00 1370365 19761 21361 7075 0.067  
CONR00 1370366 19741 19751 7075 0.156  
CONR00 1370367 19751 19761 7075 0.156  
CONR00 1370368 21341 21361 7075 0.089  
\$ INNER SKIN 209-030-137-024 012 ALUMINUM  
CSHEAR 1370241 0127075 19741 21341 21361 19751  
CONR00 1372401 19741 21341 7075 0.020  
CONR00 1372402 19751 21361 7075 0.020  
CONR00 1372403 19741 19751 7075 0.076  
CONR00 1372404 21341 21361 7075 0.076  
CTRMEM 1370242 0127075 19751 21361 19761  
\$ INNER SKIN 209-030-137-036 040 ALUMINUM  
CTRMEM 1370361 0407075 18641 19741 18651  
CSHEAR 1370362 0407075 18651 19741 19751 18656  
CONR00 1373601 18651 19741 7075 0.139  
CONR00 1373602 18656 19751 7075 0.117  
CONR00 1373611 18651 18656 7075 0.213  
CONR00 1373613 19741 19751 7075 0.213  
CSHEAR 1370363 0407075 18656 19751 19761 18661  
CONR00 1373603 18656 19751 7075 0.117  
CONR00 1373604 18661 19761 7075 0.001  
CONR00 1373612 18656 18661 7075 0.213  
CONR00 1373614 19751 19761 7075 0.213  
\$ OUTER SKIN 209-030-137-006 040 ALUMINUM  
CTRMEM 1370061 0407075 18641 19741 18651  
CSHEAR 1370062 0407075 18651 19741 19751 18656  
CONR00 1370601 18651 19741 7075 0.143  
CONR00 1370602 18656 19751 7075 0.095  
CONR00 1370611 18651 18656 7075 0.213  
CONR00 1370613 19741 19751 7075 0.213  
CSHEAR 1370063 0407075 18656 19751 19761 18661  
CONR00 1370603 18656 19751 7075 0.095  
CONR00 1370604 18661 19761 7075 0.109  
CONR00 1370612 18656 18661 7075 0.213  
CONR00 1370614 19751 19761 7075 0.213  
CSHEAR 1370064 0407075 19741 21341 21361 19751  
CONR00 1370621 19741 21341 7075 0.148  
CONR00 1370622 19751 21361 7075 0.148  
CONR00 1370623 19741 19751 7075 0.341  
CONR00 1370624 21341 21361 7075 0.341  
CTRMEM 1370065 0407075 19751 21361 19761

\$  
\$ MAIN BEAM WEB / RIGHT-HAND SIDE  
\$ 209-030-180-019  
\$ STA 186.25 TO STA 213.94  
\$

CONR00 1800191 21321 18641 2024 0.491  
\$  
\$ MAIN BEAM WEB / RIGHT-HAND SIDE  
\$ 209-030-120-027  
\$ STA 213.94 TO STA 250.00  
\$

\$ DOUBLERS

CONR00 1200133 21321 21821 7075 0.279  
CONR00 1200134 21821 22721 7075 0.294  
CONR00 1200135 22721 25021 7075 0.351  
CONR00 1200151 21361 25061 7075 0.238  
CONR00 1200136 21321 21341 7075 0.178  
CONR00 1200137 21341 21361 7075 0.178  
CONR00 1200091 25021 25041 7075 0.163  
CONR00 1200092 25041 25061 7075 0.163  
\$ INNER SKIN 209-030-120-007 020 GLASS FABRIC  
CTRMEM 1200071 0200076 21321 21821 21341  
CTRMEM 1200072 0200076 21821 22721 21341  
CSHEAR 1200073 0200076 22721 25021 25041 21341  
CONR00 1200701 22721 25021 0076 0.131  
CONR00 1200702 21341 25041 0076 0.203  
CONR00 1200711 22721 21341 0076 0.292  
CONR00 1200713 25021 25041 0076 0.292  
CSHEAR 1200074 0200076 21341 25041 25061 21361  
CONR00 1200703 21341 25041 0076 0.203  
CONR00 1200704 21361 25061 0076 0.034  
CONR00 1200712 21361 21361 0076 0.361  
CONR00 1200714 25041 25061 0076 0.361  
\$ INTERIOR SKIN 209-030-120-013 032 TITANIUM  
CTRMEM 1200131 0328046 21321 21821 21341  
CTRMEM 1200132 0328046 21821 22721 21341  
\$ OUTER SKIN 209-030-120-011 016 TITANIUM  
CTRMEM 1200111 0169046 21321 21821 21341  
CTRMEM 1200112 0169046 21821 22721 21341  
CSHEAR 1200113 0169046 22721 25021 25041 21341  
CONR00 1201101 22721 25021 9046 0.105  
CONR00 1201102 21341 25041 9046 0.162  
CONR00 1201111 22721 21341 9046 0.234  
CONR00 1201113 25021 25041 9046 0.234  
CSHEAR 1200114 0169046 21341 25041 25061 21361  
CONR00 1201103 21341 25041 9046 0.162  
CONR00 1201104 21361 25061 9046 0.027  
CONR00 1201112 21341 21361 9046 0.288  
CONR00 1201114 25041 25061 9046 0.288

\$  
\$ MAIN BEAM WEB / RIGHT-HAND SIDE  
\$ 209-030-118-063  
\$ STA 250.00 TO STA 41.32  
\$

\$ INNER SKIN 209-030-118-071 008 ALUMINUM  
CSHEAR 1180711 0082024 25021 26821 26841 25041  
CONR00 1187101 25021 26821 2024 0.034  
CONR00 1187102 25041 26841 2024 0.074  
CONR00 1187111 25021 25041 2024 0.061  
CONR00 1187113 26821 26841 2024 0.061  
CSHEAR 1180712 0082024 25041 26841 26861 25061  
CONR00 1187103 25041 26841 2024 0.074  
CONR00 1187104 25061 26861 2024 0.011  
CONR00 1187112 25041 25061 2024 0.061  
CONR00 1187114 26841 26861 2024 0.061  
\$ INNER SKIN 209-030-118-045 008 ALUMINUM  
CSHEAR 1180451 0082024 26821 29921 29941 28841  
CONR00 1184501 28821 29921 2024 0.023  
CONR00 1184502 28841 29941 2024 0.069  
CONR00 1184511 28821 28841 2024 0.118  
CONR00 1184513 29921 29941 2024 0.118

CSHEAR	1180452	0082024	26841	29941	29961	26861
CONROD	1184503	26841	29941	2024	0.069	
CONROD	1184504	26861	29961	2024	0.014	
CONROD	1184512	26841	26861	2024	0.118	
CONROD	1184514	29941	29961	2024	0.118	
\$ OUTER SKIN 209-030-118-069-118-071 ALUMINUM						
CSHEAR	1180681	0717075	26021	26821	26841	25041
CONROD	1188901	25021	26821	7075	0.415	
CONROD	1186902	25041	26841	7075	0.676	
CONROD	1186911	25021	25041	7075	0.646	
CONROD	1186913	26821	26841	7075	0.646	
CSHEAR	1180692	0717075	25041	26841	26861	25061
CONROD	1186903	25041	26841	7075	0.676	
CONROD	1186904	25061	26861	7075	0.209	
CONROD	1186912	25041	25061	7075	0.646	
CONROD	1186914	26841	26861	7075	0.646	
CSHEAR	1180693	0717075	26821	29921	29941	26841
CONROD	1186921	26821	29921	7075	0.356	
CONROD	1186922	26841	29941	7075	0.649	
CONROD	1186931	26821	26841	7075	1.109	
CONROD	1186933	29921	29941	7075	1.109	
CSHEAR	1180694	0717075	26841	29941	29961	26861
CONROD	1186923	26841	29941	7075	0.649	
CONROD	1186924	26861	29961	7075	0.276	
CONROD	1186932	26841	26861	7075	1.109	
CONROD	1186934	29941	29961	7075	1.109	
\$						
\$ SIDE PANELS AND FRAMES / RIGHT SIDE						
\$ STA 61.25 TO STA 186.25						
\$						
\$ CANOPY FRAME						
\$ 209-030-500-309						
\$						
CONROD	5003111	6161	7071	7075	0.234	
CONROD	5003112	7071	8571	7075	0.230	
CONROD	5003113	8571	9371	7075	0.227	
CONROD	5003114	9371	11571	7075	0.213	
CONROD	5003115	11571	13871	7075	0.201	
CONROD	5003116	13871	14881	7075	0.200	
\$						
\$ SKIN						
\$ 209-030-179-161						
\$						
CTRMEM	1791611	0322024	6161	7071	7061	
CSHEAR	1791612	0322024	7061	7071	8571	8561
CONROD	1796101	7061	8561	2024	0.040	
CONROD	1796102	7071	8571	2024	0.040	
CONROD	1796103	7061	7071	2024	0.232	
CONROD	1796104	8561	8571	2024	0.232	
CSHEAR	1791613	0322024	8561	8571	9371	9361
CONROD	1796111	8561	9361	2024	0.072	
CONROD	1796112	8571	9371	2024	0.072	
CONROD	1796113	8561	8571	2024	0.202	
CONROD	1796114	9361	9371	2024	0.202	
CSHEAR	1791614	0322024	9361	9371	11571	11561
CONROD	1796121	9361	11561	2024	0.102	
CONROD	1796122	9371	11571	2024	0.102	
CONROD	1796123	9361	9371	2024	0.270	
CONROD	1796124	11561	11571	2024	0.270	
\$						
\$						
CSHEAR	1791615	0322024	11561	11571	13871	13861
CONROD	1796131	11561	13861	2024	0.140	
CONROD	1796132	11571	13871	2024	0.140	
CONROD	1796133	11561	11571	2024	0.382	
CONROD	1796134	13861	13871	2024	0.382	
CSHEAR	1791616	0322024	13861	13871	14881	14861
CONROD	1796141	13861	14861	2024	0.195	
CONROD	1796142	13871	14881	2024	0.195	
CONROD	1796143	13861	13871	2024	0.187	
CONROD	1796144	14861	14881	2024	0.187	
\$						
\$ PANEL						
\$ 209-030-125-143						
\$						
\$ DOUBLERS						
CONROD	1251481	14861	18861	2024	0.140	
CONROD	1251571	14881	16481	2024	0.112	
CONROD	1251572	18481	18681	2024	0.111	
CONROD	1251511	14861	14881	2024	0.121	
CONROD	1251561	18661	18681	2024	0.121	
\$ INNER SKIN 209-030-125-027 008 ALUMINUM						
CTRMEM	1250271	0082024	14861	14881	16481	
CSHEAR	1250272	0082024	14861	16481	18681	18661
CONROD	1252701	14861	18661	2024	0.035	
CONROD	1252702	16481	18681	2024	0.035	
CONROD	1252703	14861	16481	2024	0.120	
CONROD	1252704	18661	18681	2024	0.120	
\$ OUTER SKIN 209-030-379-001 021 ALUMINUM						
CTRMEM	3790011	0212024	14861	14881	16481	
CSHEAR	3790012	0212024	14861	16481	18681	18661
CONROD	3790101	14861	18661	2024	0.121	
CONROD	3790102	16481	18681	2024	0.121	
CONROD	3790103	14861	16481	2024	0.315	
CONROD	3790104	18661	18681	2024	0.315	
\$						
\$ FRAME						
\$ 209-030-125-057						
\$						
CONROD	1250571	14881	16481	2024	0.115	
CONROD	1250572	16481	18681	2024	0.115	
\$						
\$ UPPER MAIN BEAM CAP / LEFT-HAND SIDE						
\$ 209-030-157-001						
\$ STA 61.25 TO STA 186.25						
\$ 209-030-180-005						
\$ STA 186.25 TO STA 298.75						
\$						
CONROD	1570011	6167	7067	7075	0.198	
CONROD	1570012	7067	8567	7075	0.194	
CONROD	1570013	8567	9367	7075	0.191	
CONROD	1570014	9367	11567	7075	0.326	
CONROD	1570015	11567	13867	7075	0.285	
CONROD	1570016	13867	14867	7075	0.275	
CONROD	1570017	14867	18667	7075	0.346	
CONROD	1800081	14889	19789	7075	0.407	
CONROD	1800082	19789	21389	7075	0.441	
CONROD	1800083	21389	25069	7075	0.392	
CONROD	1800084	25069	1008	7075	0.390	
CONROD	1800085	1008	1009	7075	0.638	
\$						

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\$ LOWER MAIN BEAM CAP / LEFT-HAND SIDE  
\$ 209-030-158-003  
\$ STA 61.25 TO STA 148.50  
\$

CONROD	1580031	6137	7037	7075	0.247
CONROD	1580032	7037	8537	7075	0.248
CONROD	1580033	8537	1003	7075	0.249
CONROD	1580034	1003	11537	7075	0.344
CONROD	1580035	11537	1004	7075	0.346
CONROD	1580036	1004	14837	7075	0.221

\$ LOWER MAIN BEAM CAP / LEFT-HAND SIDE  
\$ 209-030-159-005  
\$ STA 138.70 TO STA 186.25  
\$ 209-030-161-018  
\$ STA 186.25 TO STA 300.42  
\$

CONROD	1590051	13827	14827	7075	0.274
CONROD	1590052	14827	15627	7075	0.303
CONROD	1590053	15627	18629	7075	0.315
CONROD	1610191	18629	21329	7075	0.412
CONROD	1610192	21329	21829	7075	0.445
CONROD	1610193	21829	22729	7075	0.522
CONROD	1610194	22729	25029	7075	0.348
CONROD	1610195	25029	26829	7075	0.341
CONROD	1610196	26829	29929	7075	0.351

\$ LOWER MAIN BEAM AUXILLARY CAP / LEFT-HAND SIDE  
\$ 209-030-161-013  
\$ STA 138.70 TO STA 186.25  
\$

CONROD	1610131	13829	14829	7075	0.128
CONROD	1610132	14829	15629	7075	0.128
CONROD	1610133	15629	18629	7075	0.128

\$ LOWER MAIN BEAM AUXILLARY CAP / LEFT-HAND SIDE  
\$ 209-030-211-053  
\$ STA 46.00 TO STA 148.50  
\$

CONROD	2110531	1001	6139	7075	0.059
CONROD	2110532	6139	7039	7075	0.187
CONROD	2110533	7039	8539	7075	0.190
CONROD	2110534	8539	9339	7075	0.193
CONROD	2110535	9339	11539	7075	0.243
CONROD	2110536	11539	13839	7075	0.247
CONROD	2110537	13839	14839	7075	0.166

\$ UPPER MAIN BEAM AUXILLARY CAP / LEFT-HAND SIDE  
\$ 209-030-210-045/055/071  
\$ STA 61.25 TO STA 186.25  
\$

CONROD	2100451	6159	7069	7075	0.055
CONROD	2100452	7069	8569	7075	0.054
CONROD	2100453	8569	9369	7075	0.054
CONROD	2100551	9369	11569	7075	0.054
CONROD	2100552	11569	13869	7075	0.054
CONROD	2100553	13869	14869	7075	0.064
CONROD	2100711	14869	18669	7075	0.119

\$ COWLING ATTACH ANGLES - LEFT SIDE  
\$

\$ 209-030-136-069  
\$ STA 186.25 TO BS 41.32  
\$

CONROD	1360691	18669	19769	2024	0.386
CONROD	1360692	19769	21369	2024	0.411
CONROD	1360693	21369	25069	2024	0.162
CONROD	1360694	25069	1008	2024	0.062
CONROD	1360695	1008	1009	2024	0.071

\$ MAIN BEAM CHANNEL - LEFT SIDE  
\$ 209-030-182-001  
\$ STA 186.25 TO STA 213.94  
\$

CONROD	1820011	18649	19749	7075	0.288
CONROD	1820012	19749	21349	7075	0.288

\$ MAIN BEAM WEB / LEFT-HAND SIDE  
\$ 209-030-129-199  
\$ STA 61.25 TO STA 93.00  
\$

\$ DOUBLERS

CONROD	1290754	6167	7067	7075	0.033
CONROD	1290755	7067	8567	7075	0.033
CONROD	1290731	8567	9367	7075	0.034
CONROD	1290756	6137	7037	7075	0.039
CONROD	1290991	7037	8537	7075	0.041
CONROD	1290992	8537	1003	7075	0.042
CONROD	1290757	6137	6147	7075	0.035
CONROD	1290758	6147	6167	7075	0.035
CONROD	1290791	1003	9347	7075	0.122

CONROD	1290792	9347	9367	7075	0.122
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\$ INNER SKIN 209-030-129-205 025 ALUMINUM

CSHEAR	1292050	0257075	6137	7037	7047	6147
CONROD	1290501	6137	7037	7075	0.072	
CONROD	1290502	6147	7047	7075	0.122	
CONROD	1290511	6137	6147	7075	0.118	
CONROD	1290513	7037	7047	7075	0.118	
CSHEAR	1292051	0257075	6147	7047	7067	6167
CONROD	1290503	6147	7047	7075	0.122	
CONROD	1290504	6167	7067	7075	0.033	
CONROD	1290512	6147	6167	7075	0.118	
CONROD	1290514	7047	7067	7075	0.118	
CSHEAR	1292052	0257075	7037	8537	8547	7047
CONROD	1290521	7037	8537	7075	0.075	
CONROD	1290522	7047	8547	7075	0.126	
CONROD	1290531	7037	7047	7075	0.181	
CONROD	1290533	8537	8547	7075	0.181	
CSHEAR	1292053	0257075	7047	8547	8567	7067
CONROD	1290523	7047	8547	7075	0.126	
CONROD	1290524	7067	8567	7075	0.034	
CONROD	1290532	7047	7067	7075	0.181	
CONROD	1290534	8547	8567	7075	0.181	
CSHEAR	1292054	0257075	8537	1003	9347	8547
CONROD	1290541	8537	1003	7075	0.078	
CONROD	1290642	8547	9347	7075	0.130	
CONROD	1290551	8537	8547	7075	0.123	
CONROD	1290553	1003	9347	7075	0.123	
CSHEAR	1292055	0257075	8547	9347	9367	8567
CONROD	1290543	8547	9347	7075	0.130	
CONROD	1290544	8567	9367	7075	0.035	

CONROD	1290552	8547	8567	7075	0.123	
CONROD	1290554	9347	9367	7075	0.123	
\$	INTERIOR SKIN 209-030-129-075 .016 ALUMINUM					
CSHEAR	1290751	0167075	6137	7037	7047	6147
CONROD	1297501	6137	7037	7075	0.023	
CONROD	1297502	6147	7047	7075	0.069	
CONROD	1297511	6137	6147	7075	0.061	
CONROD	1297513	7037	7047	7075	0.061	
CSHEAR	1290752	0167075	6147	7047	7067	6167
CONROD	1297503	6147	7047	7075	0.069	
CONROD	1297504	6167	7067	7075	0.061	
CONROD	1297512	6147	6167	7075	0.061	
CONROD	1297514	7047	7067	7075	0.061	
CSHEAR	1290753	0167075	7047	8547	8567	7067
CONROD	1297521	7047	8547	7075	0.011	
CONROD	1297522	7067	8567	7075	0.011	
CONROD	1297523	7047	7067	7075	0.102	
CONROD	1297524	8547	8567	7075	0.102	
\$	INTERIOR SKIN 209-030-129-077 .012 ALUMINUM					
CSHEAR	1290771	0127075	7047	8547	8567	7067
CONROD	1297701	7047	8547	7075	0.008	
CONROD	1297702	7067	8567	7075	0.008	
CONROD	1297703	7047	7067	7075	0.058	
CONROD	1297704	8547	8567	7075	0.058	
\$	OUTER SKIN 209-030-129-201 .016 ALUMINUM					
CSHEAR	1292011	0167075	6137	7037	7047	6147
CONROD	1290101	6137	7037	7075	0.026	
CONROD	1290102	6147	7047	7075	0.071	
CONROD	1290111	6137	6147	7075	0.065	
CONROD	1290113	7037	7047	7075	0.065	
CSHEAR	1292012	0167075	6147	7047	7067	6167
CONROD	1290103	6147	7047	7075	0.071	
CONROD	1290104	6167	7067	7075	0.002	
CONROD	1290112	6147	6167	7075	0.065	
CONROD	1290114	7047	7067	7075	0.065	
CSHEAR	1292013	0167075	7037	8537	8547	7047
CONROD	1290121	7037	8537	7075	0.028	
CONROD	1290122	7047	8547	7075	0.074	
CONROD	1290131	7037	7047	7075	0.116	
CONROD	1290133	8537	8547	7075	0.116	
CSHEAR	1292014	0167075	7047	8547	8567	7067
CONROD	1290123	7047	8547	7075	0.074	
CONROD	1290124	7067	8567	7075	0.003	
CONROD	1290132	7047	7067	7075	0.116	
CONROD	1290134	8547	8567	7075	0.116	
CSHEAR	1292015	0167075	8537	1003	9347	8547
CONROD	1290141	8537	1003	7075	0.029	
CONROD	1290142	8547	9347	7075	0.077	
CONROD	1290151	8537	8547	7075	0.062	
CONROD	1290153	1003	9347	7075	0.062	
CSHEAR	1292016	0167075	8547	9347	9367	8567
CONROD	1290143	8547	9347	7075	0.077	
CONROD	1290144	8567	9367	7075	0.003	
CONROD	1290152	8547	8567	7075	0.062	
CONROD	1290154	9347	9367	7075	0.062	
\$						
\$	MAIN BEAM WEB / LEFT-HAND SIDE					
\$	209-030-129-199					
\$	STA 93.00 TO STA 138.70					
\$						

\$	DOUBLERS					
CONROD	1290732	9367	11567	7075	0.044	
CONROD	1290733	11567	13867	7075	0.044	
CONROD	1291431	9347	11547	7075	0.093	
CONROD	1291432	11547	13847	7075	0.093	
CONROD	1291111	10003	11537	7075	0.052	
CONROD	1291112	11537	1004	7075	0.052	
CONROD	1290793	1003	9347	7075	0.056	
CONROD	1290794	9347	9367	7075	0.056	
CONROD	1290891	1004	13847	7075	0.058	
CONROD	1290892	13847	13867	7075	0.058	
\$	INNER SKIN 209-030-129-205 .025 ALUMINUM					
CSHEAR	1292056	0257075	1003	11537	11547	9347
CONROD	1290561	1003	11537	7075	0.078	
CONROD	1290562	9347	11547	7075	0.134	
CONROD	1290571	1003	9347	7075	0.256	
CONROD	1290573	11537	11547	7075	0.256	
CSHEAR	1292057	0257075	9347	11547	11567	9367
CONROD	1290563	9347	11547	7075	0.134	
CONROD	1290564	9367	11567	7075	0.041	
CONROD	1290572	9347	9367	7075	0.256	
CONROD	1290574	11547	11567	7075	0.256	
CSHEAR	1292058	0257075	11537	1004	13847	11547
CONROD	1290581	11537	1004	7075	0.076	
CONROD	1290582	11547	13847	7075	0.139	
CONROD	1290583	11537	11547	7075	0.249	
CONROD	1290584	1004	13847	7075	0.249	
CSHEAR	1292059	0257075	11547	13847	13867	11567
CONROD	1290585	11547	13847	7075	0.139	
CONROD	1290586	11567	13867	7075	0.052	
CONROD	1290587	11547	11567	7075	0.249	
CONROD	1290588	13847	13867	7075	0.249	
\$	OUTER SKIN 209-030-129-185 .016 ALUMINUM					
CSHEAR	1291851	0167075	1003	11537	11547	9347
CONROD	1298501	1003	11537	7075	0.028	
CONROD	1298502	9347	11547	7075	0.028	
CONROD	1298503	1003	9347	7075	0.159	
CONROD	1298504	11537	11547	7075	0.159	
CSHEAR	1291852	0167075	11537	1004	13847	11547
CONROD	1298511	11537	1004	7075	0.031	
CONROD	1298512	11547	13847	7075	0.031	
CONROD	1298513	11537	11547	7075	0.154	
CONROD	1298514	1004	13847	7075	0.154	
\$	OUTER SKIN 209-030-129-137 .016 ALUMINUM					
CSHEAR	1291371	0167075	9347	11547	11567	9367
CONROD	1293701	9347	11547	7075	0.012	
CONROD	1293702	9367	11567	7075	0.012	
CONROD	1293703	9347	9367	7075	0.158	
CONROD	1293704	11547	11567	7075	0.158	
CSHEAR	1291372	0167075	11547	13847	13867	11567
CONROD	1293711	11547	13847	7075	0.011	
CONROD	1293712	11567	13867	7075	0.011	
CONROD	1293713	11547	11567	7075	0.154	
CONROD	1293714	13847	13867	7075	0.154	
\$						
\$	MAIN BEAM WEB / LEFT-HAND SIDE					
\$	209-030-129-199					
\$	STA 138.70 TO STA 148.50					
\$						
\$	DOUBLERS					

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CONROD	1290695	13867	14867	7075	0.097	
CONROD	1290696	13848	13847	7075	0.104	
CONROD	1290697	13847	14847	7075	0.104	
CONROD	1291253	1004	14837	7075	0.090	
CONROD	1290698	13867	13848	7075	0.090	
CONROD	1291254	13847	1004	7075	0.041	
CONROD	1290699	14867	14847	7075	0.081	
CONROD	1291255	14847	14837	7075	0.037	
\$ INNER SKIN 209-030-129-141 025 ALUMINUM						
CSHEAR	1294101	0257075	13807	14807	14827	13827
CONROD	1294101	13807	14807	7075	0.057	
CONROD	1294102	13827	14827	7075	0.158	
CONROD	1294111	13807	13827	7075	0.120	
CONROD	1294115	14807	14827	7075	0.120	
CSHEAR	1294112	0257075	13827	14827	14837	1004
CONROD	1294103	13827	14827	7075	0.158	
CONROD	1294104	1004	14837	7075	0.088	
CONROD	1294112	13827	1004	7075	0.120	
CONROD	1294116	14827	14837	7075	0.120	
CTRMEM	1291413	0257075	1004	13847	13848	
CSHEAR	1291414	0257075	1004	14837	14847	13847
CONROD	1294105	1004	14837	7075	0.078	
CONROD	1294106	13847	14847	7075	0.143	
CONROD	1294113	1004	13847	7075	0.121	
CONROD	1294117	14837	14847	7075	0.121	
CSHEAR	1291415	0257075	13848	13847	14867	13867
CONROD	1294107	13848	13847	7075	0.143	
CONROD	1294108	13867	14867	7075	0.061	
CONROD	1294114	13848	13867	7075	0.122	
CONROD	1294118	13847	14867	7075	0.122	
CTRMEM	1291416	0257075	13847	14847	14867	
\$ INTERIOR SKIN 209-030-129-069 040 ALUMINUM						
CSHEAR	1290691	0407075	13807	14807	14827	13827
CONROD	1296901	13807	14807	7075	0.169	
CONROD	1296902	13827	14827	7075	0.169	
CONROD	1296911	13807	13827	7075	0.191	
CONROD	1296914	14807	14827	7075	0.191	
CSHEAR	1290692	0407075	13827	14827	14837	1004
CONROD	1296903	13827	14827	7075	0.201	
CONROD	1296904	1004	14837	7075	0.201	
CONROD	1296912	13827	1004	7075	0.191	
CONROD	1296915	14827	14837	7075	0.191	
CTRMEM	1290693	0407075	1004	13847	13848	
CSHEAR	1290694	0407075	1004	14837	14847	13847
CONROD	1296905	1004	14837	7075	0.151	
CONROD	1296906	13847	14847	7075	0.151	
CONROD	1296913	1004	13847	7075	0.194	
CONROD	1296916	14837	14847	7075	0.194	
\$ OUTER SKIN 209-030-129-125 020 ALUMINUM						
CSHEAR	1291251	0207075	13807	14807	14827	13827
CONROD	1292501	13807	14807	7075	0.048	
CONROD	1292502	13827	14827	7075	0.122	
CONROD	1292511	13807	13827	7075	0.096	
CONROD	1292513	14807	14827	7075	0.096	
CSHEAR	1291252	0207075	13827	14827	14837	1004
CONROD	1292503	13827	14827	7075	0.122	
CONROD	1292504	1004	14837	7075	0.033	
CONROD	1292512	13827	1004	7075	0.096	
CONROD	1292514	14827	14837	7075	0.096	
\$ OUTER SKIN 209-030-129-057 016 ALUMINUM						

CSHEAR	1290571	0167075	1004	14837	14847	13847
CONROD	1295701	1004	14837	7075	0.014	
CONROD	1295702	13847	14847	7075	0.014	
CONROD	1295703	1004	13847	7075	0.056	
CONROD	1295704	14837	14847	7075	0.056	
\$ OUTER SKIN 209-030-129-058 025 ALUMINUM						
CSHEAR	1290591	0257075	13848	13847	14867	13867
CONROD	1295921	13848	13847	7075	0.053	
CONROD	1295922	13867	14867	7075	0.053	
CONROD	1295923	13848	13867	7075	0.094	
CONROD	1295924	13847	14867	7075	0.094	
CTRMEM	1290592	0257075	13847	14847	14867	
\$ MAIN BEAM WEB / LEFT-HAND SIDE						
\$ 209-030-138-005						
\$ STA 148.50 TO STA 146.25						
\$ DOUBLERS						
CONROD	1380431	14867	18669	7075	0.138	
CONROD	1380433	14827	15627	7075	0.182	
CONROD	1380311	15627	18629	7075	0.186	
CONROD	1380432	14827	14837	7075	0.075	
CONROD	1380491	14837	14847	7075	0.075	
CONROD	1380492	14847	14867	7075	0.075	
CONROD	1380191	18629	18639	7075	0.070	
CONROD	1380192	18639	18649	7075	0.070	
CONROD	1380193	18649	18654	7075	0.070	
CONROD	1380194	18654	18659	7075	0.070	
CONROD	1380195	18659	18669	7075	0.070	
\$ INNER SKIN 209-030-138-041 020 GLASS FABRIC						
CSHEAR	1380411	0200076	14827	15627	15637	14837
CONROD	1384101	14827	15627	0076	0.088	
CONROD	1384102	14837	15637	0076	0.088	
CONROD	1384103	14827	14837	0076	0.071	
CONROD	1384104	15627	15627	0076	0.071	
CSHEAR	1380412	0200076	15627	18629	18639	15637
CONROD	1384111	15627	18629	0076	0.088	
CONROD	1384112	15637	18639	0076	0.088	
CONROD	1384121	15627	15637	0076	0.298	
CONROD	1384124	18629	18639	0076	0.298	
CTRMEM	1380413	0200076	14837	15637	14847	
CSHEAR	1380414	0200076	15637	18639	18649	14847
CONROD	1384113	15637	18639	0076	0.096	
CONROD	1384114	14847	18649	0076	0.096	
CONROD	1384122	15637	14847	0076	0.334	
CONROD	1384125	18639	18649	0076	0.334	
CSHEAR	1380415	0200076	14847	18654	18659	14867
CONROD	1384115	14847	18654	0076	0.075	
CONROD	1384116	14867	18659	0076	0.075	
CONROD	1384123	14847	14867	0076	0.389	
CONROD	1384126	18654	18659	0076	0.389	
\$ INTERIOR SKIN 209-030-138-035 016 TITANIUM						
CSHEAR	1380351	0169046	14827	15627	15637	14837
CONROD	1383501	14827	15627	9046	0.031	
CONROD	1383502	14837	15637	9046	0.031	
CONROD	1383503	14827	14837	9046	0.086	
CONROD	1383504	15627	15637	9046	0.086	
\$ INTERIOR SKIN 209-030-138-043 040 TITANIUM						
CSHEAR	1380431	0409048	14827	15627	15637	14837
CONROD	1384301	14827	15627	9046	0.096	

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CONROD 1384302 14837 15637 9046 0.096  
 CONROD 1384303 14827 14837 9046 0.183  
 CONROD 1384304 15827 15637 9046 0.183  
 \$ OUTER SKIN 209-030-138-045 012 TITANIUM  
 CSHEAR 1380451 0129046 14827 15627 15637 14837  
 CONROD 1384501 14827 15627 9046 0.053  
 CONROD 1384502 14837 15637 9046 0.053  
 CONROD 1384503 14827 14837 9046 0.042  
 CONROD 1384504 15627 15637 9046 0.042  
 CSHEAR 1380452 0129046 15627 18629 18639 15637  
 CONROD 1384511 15627 18629 9046 0.053  
 CONROD 1384512 15637 18639 9046 0.053  
 CONROD 1384521 15627 15637 9046 0.179  
 CONROD 1384524 18629 18639 9046 0.179  
 CTRMEM 1380453 0129046 14837 15637 14847  
 CSHEAR 1380454 0129046 15637 18639 18649 14847  
 CONROD 1384513 15637 18639 9046 0.058  
 CONROD 1384514 14847 18649 9046 0.058  
 CONROD 1384522 15637 14847 9046 0.200  
 CONROD 1384525 18639 18649 9046 0.200  
 CSHEAR 1380455 0129046 14847 18654 18659 14867  
 CONROD 1384515 14847 18654 9046 0.045  
 CONROD 1384516 14867 18659 9046 0.045  
 CONROD 1384523 14847 14867 9046 0.221  
 CONROD 1384526 18654 18659 9046 0.221

\$  
 \$ MAIN BEAM WEB / LEFT-HAND SIDE  
 \$ 209-030-137-031  
 \$ STA 186.28 TO STA 213.94  
 \$

\$ DOUBLERS  
 CONROD 1370355 19769 21369 7075 0.064  
 CONROD 1370354 19749 21349 7075 0.158  
 CONROD 1370356 19749 19759 7075 0.156  
 CONROD 1370357 19759 19769 7075 0.156  
 CONROD 1370358 21349 21369 7075 0.089  
 \$ INNER SKIN 209-030-137-023 012 ALUMINUM  
 CSHEAR 1370231 0127075 19749 21349 21369 19759  
 CONROD 1372301 19749 21349 7075 0.016  
 CONROD 1372302 19759 21369 7075 0.016  
 CONROD 1372303 19749 19759 7075 0.076  
 CONROD 1372304 21349 21369 7075 0.076  
 CTRMEM 1370232 0127075 19759 21369 19769  
 \$ INNER SKIN 209-030-137-035 040 ALUMINUM  
 CTRMEM 1370351 0407075 18649 19749 18654  
 CSHEAR 1370352 0407075 18654 19749 19759 18659  
 CONROD 1373501 18654 19749 7075 0.139  
 CONROD 1373502 18659 19759 7075 0.117  
 CONROD 1373511 18654 18659 7075 0.213  
 CONROD 1373513 19749 19759 7075 0.213  
 CSHEAR 1370353 0407075 18659 19759 19769 18659  
 CONROD 1373503 18659 19759 7075 0.117  
 CONROD 1373504 18689 19769 7075 0.001  
 CONROD 1373512 18659 18659 7075 0.213  
 CONROD 1373514 19759 19759 7075 0.213  
 \$ OUTER SKIN 209-030-137-005 040 ALUMINUM  
 CTRMEM 1370051 0407075 18649 19749 18654  
 CSHEAR 1370052 0407075 18654 19749 19759 18659  
 CONROD 1370501 18654 19749 7075 0.143  
 CONROD 1370502 18659 19759 7075 0.095

CONROD 1370511 18654 18659 7075 0.213  
 CONROD 1370513 19749 19759 7075 0.213  
 CSHEAR 1370053 0407075 18659 19759 19769 18659  
 CONROD 1370503 18659 19759 7075 0.095  
 CONROD 1370504 18689 19769 7075 0.109  
 CONROD 1370512 18659 18659 7075 0.213  
 CONROD 1370514 19759 19759 7075 0.213  
 CSHEAR 1370054 0407075 19749 21349 21369 19759  
 CONROD 1370521 19749 21349 7075 0.143  
 CONROD 1370522 19759 21369 7075 0.143  
 CONROD 1370523 19749 19759 7075 0.341  
 CONROD 1370524 21349 21369 7075 0.341  
 CTRMEM 1370055 0407075 19759 21369 19769

\$  
 \$ MAIN BEAM WEB / LEFT-HAND SIDE  
 \$ 209-030-180-017  
 \$ STA 186.28 TO STA 213.94  
 \$

CONROD 1800171 18629 21349 2024 0.491  
 \$  
 \$ MAIN BEAM WEB / LEFT-HAND SIDE  
 \$ 209-030-119-001  
 \$ STA 213.94 TO STA 250.00  
 \$

\$ DOUBLERS  
 CONROD 1190211 21369 25069 7075 0.229  
 CONROD 1190171 21329 21829 7075 0.284  
 CONROD 1190172 21829 22729 7075 0.300  
 CONROD 1190173 22729 25029 7075 0.353  
 CONROD 1190231 21329 21349 7075 0.178  
 CONROD 1190232 21349 21369 7075 0.178  
 CONROD 1190191 25029 25049 7075 0.167  
 CONROD 1190192 25049 25069 7075 0.167  
 \$ INNER SKIN 209-030-119-009 020 GLASS FABRIC  
 CTRMEM 1190091 0200076 21329 21829 21349  
 CTRMEM 1190092 0200076 21829 22729 21349  
 CSHEAR 1190093 0200076 22729 25029 25049 21349  
 CONROD 1190901 22729 25029 0076 0.131  
 CONROD 1190902 21349 25049 0076 0.203  
 CONROD 1190911 22729 21349 0076 0.282  
 CONROD 1190913 25029 25049 0076 0.282  
 CSHEAR 1190094 0200076 21349 25049 25069 21369  
 CONROD 1190903 21349 25069 0076 0.203  
 CONROD 1190904 21369 25069 0076 0.034  
 CONROD 1190912 21349 21369 0076 0.361  
 CONROD 1190914 25049 25069 0076 0.361  
 \$ INTERIOR SKIN 209-030-119-015 032 TITANIUM  
 CTRMEM 1190131 0328046 21329 21829 21349  
 CTRMEM 1190132 0328046 21829 22729 21349  
 \$ OUTER SKIN 209-030-119-005 016 TITANIUM  
 CTRMEM 1190051 0168046 21329 21829 21349  
 CTRMEM 1190052 0168046 21829 22729 21349  
 CSHEAR 1190053 0168046 22729 25029 25049 21349  
 CONROD 1190501 22729 25029 9046 0.105  
 CONROD 1190502 21349 25049 9046 0.182  
 CONROD 1190511 22729 21349 9046 0.234  
 CONROD 1190513 25029 25049 9046 0.234  
 CSHEAR 1190054 0168046 21349 25049 25069 21369  
 CONROD 1190503 21349 25049 9046 0.182  
 CONROD 1190504 21369 25069 9046 0.027

CONRDD 1190512 21348 21359 9046 0.288  
 CONRDD 1190514 25049 25069 9046 0.288  
 \$  
 \$ MAIN BEAM WEB / LEFT-HAND SIDE  
 \$ 209-030-117-047  
 \$ STA 250.00 TO BS 41.32  
 \$

\$ DOUBLERS

CONRDD 1170191 1008 1009 7075 0.069  
 CONRDD 1170211 26829 29929 7075 0.068  
 CONRDD 1170511 26829 26849 7075 0.043  
 CONRDD 1170512 26849 1008 7075 0.043  
 CONRDD 1170231 29929 29949 7075 0.053  
 CONRDD 1170232 29949 1009 7075 0.053

\$ INNER SKIN 209-030-117-011 .016 ALUMINUM

CSHEAR 1170111 0167075 25028 26829 26849 25049  
 CONRDD 1171101 25029 26829 7075 0.066  
 CONRDD 1171102 25049 26849 7075 0.148  
 CONRDD 1171111 25029 25049 7075 0.118  
 CONRDD 1171113 26829 26849 7075 0.118  
 CSHEAR 1170112 0167075 25049 26849 1008 25069  
 CONRDD 1171103 25049 26849 7075 0.148  
 CONRDD 1171104 25069 1008 7075 0.020  
 CONRDD 1171112 25049 25069 7075 0.118  
 CONRDD 1171114 26849 1008 7075 0.118

\$ INNER SKIN 209-030-117-039 .008 ALUMINUM

CSHEAR 1170381 0082024 26829 29929 29949 26849  
 CONRDD 1173901 26829 29929 2024 0.023  
 CONRDD 1173902 26849 29949 2024 0.069  
 CONRDD 1173911 26829 26849 2024 0.116  
 CONRDD 1173913 29929 29949 2024 0.116  
 CSHEAR 1170382 0082024 26849 29949 1009 1008  
 CONRDD 1173903 26849 29949 2024 0.069  
 CONRDD 1173904 1008 1009 2024 0.014  
 CONRDD 1173912 26849 1008 2024 0.116  
 CONRDD 1173914 29949 1009 2024 0.116

\$ INTERIOR SKIN 209-030-117-051 .040 ALUMINUM

CSHEAR 1170511 0407075 25028 26829 26849 25049  
 CONRDD 1175101 25029 26829 7075 0.235  
 CONRDD 1175102 25049 26849 7075 0.381  
 CONRDD 1175111 25029 25049 7075 0.365  
 CONRDD 1175113 26829 26849 7075 0.365  
 CSHEAR 1170512 0407075 25049 26849 1008 25069  
 CONRDD 1175103 25049 26849 7075 0.381  
 CONRDD 1175104 25069 1008 7075 0.118  
 CONRDD 1175112 25049 25069 7075 0.365  
 CONRDD 1175114 26849 1008 7075 0.365

\$ OUTER SKIN 209-030-117-005 .016 ALUMINUM

CSHEAR 1170051 0167075 25028 26829 26849 25049  
 CONRDD 1170501 25029 26829 7075 0.084  
 CONRDD 1170502 25049 26849 7075 0.152  
 CONRDD 1170513 25029 25049 7075 0.146  
 CONRDD 1170515 26829 26849 7075 0.146  
 CSHEAR 1170052 0167075 25048 26849 1008 25069  
 CONRDD 1170503 25049 26848 7075 0.152  
 CONRDD 1170504 25069 1008 7075 0.047  
 CONRDD 1170514 25049 25069 7075 0.146  
 CONRDD 1170516 26849 1008 7075 0.146  
 CSHEAR 1170053 0167075 26829 29929 29949 26849  
 CONRDD 1170521 26829 29929 7075 0.081

CONRDD 1170522 26849 29949 7075 0.146  
 CONRDD 1170531 26829 26849 7075 0.250  
 CONRDD 1170533 29929 29949 7075 0.250  
 CSHEAR 1170054 0167075 26849 29949 1009 1008  
 CONRDD 1170523 26849 29949 7075 0.146  
 CONRDD 1170524 1008 1009 7075 0.062  
 CONRDD 1170532 26849 1008 7075 0.250  
 CONRDD 1170534 29949 1009 7075 0.250

\$ SIDE PANELS AND FRAMES / LEFT SIDE  
 \$ STA 61.25 TO STA 186.25  
 \$

\$ CANOPY FRAME  
 \$ 209-030-500-309  
 \$

CONRDD 5003091 6169 7079 7075 0.191  
 CONRDD 5003092 7079 8579 7075 0.182  
 CONRDD 5003093 8579 9379 7075 0.193  
 CONRDD 5003094 9379 11579 7075 0.206  
 CONRDD 5003095 11579 13879 7075 0.208  
 CONRDD 5003096 13879 14889 7075 0.205

\$ SKIN  
 \$ 209-030-179-163  
 \$

CSHEAR 1791631 0322024 6169 7079 7069  
 CSHEAR 1791632 0322024 7069 7079 8579 8569  
 CONRDD 1796301 7069 8569 2024 0.040  
 CONRDD 1796302 7079 8579 2024 0.040  
 CONRDD 1796303 7069 7079 2024 0.232  
 CONRDD 1796304 8569 8579 2024 0.232  
 CSHEAR 1791633 0322024 8569 8579 9379 9369  
 CONRDD 1796311 8569 9369 2024 0.072  
 CONRDD 1796312 8579 9379 2024 0.072  
 CONRDD 1796313 8569 8579 2024 0.202  
 CONRDD 1796314 9369 9379 2024 0.202  
 CSHEAR 1791634 0322024 9369 9379 11579 11569  
 CONRDD 1796321 9369 11569 2024 0.102  
 CONRDD 1796322 9379 11579 2024 0.102  
 CONRDD 1796323 9369 9379 2024 0.270  
 CONRDD 1796324 11569 11579 2024 0.270  
 CSHEAR 1791635 0322024 11569 11579 13879 13869  
 CONRDD 1796331 11569 13869 2024 0.130  
 CONRDD 1796332 11579 13879 2024 0.130  
 CONRDD 1796333 11569 11579 2024 0.248  
 CONRDD 1796334 13869 13879 2024 0.248  
 CSHEAR 1791636 0322024 13869 13879 14889 14869  
 CONRDD 1796341 13869 14869 2024 0.183  
 CONRDD 1796342 13879 14889 2024 0.183  
 CONRDD 1796343 13869 13879 2024 0.321  
 CONRDD 1796344 14869 14889 2024 0.321

\$ PANEL  
 \$ 209-030-125-141  
 \$

\$ DOUBLERS

CONRDD 1250871 14869 14889 2024 0.084  
 CONRDD 1250131 14869 1006 2024 0.084  
 CONRDD 1250132 1006 14889 2024 0.064



\$ WEB - LEFT SIDE  
 \$ CTRMEM 1210470 0507075 21366 21367 21367  
 \$ MAIN BEAM CAP AXIALS - LEFT SIDE  
 \$  
 \$ CONROD 1210311 18669 19769 7075 0.241  
 \$ CONROD 1210312 19769 21369 7075 0.241  
 \$  
 \$ AFT PYLON MOUNT CROSS BEAM  
 \$ 209-031-344-001  
 \$  
 \$ CBAR 3440011 3440011 21383 21485 0.0 0.0 1.0 1 3440011  
 \$ +3440011 0.56 0.0 -2.96 0.0 0.0 0.0 -2.96  
 \$ FBAR 3440011 2014 1.405 2.216 0.0 0.0 0.0 1 3440012  
 \$ CBAR 3440012 3440012 21485 21387 0.0 0.0 1.0 1  
 \$ +3440012 0.0 0.0 -2.96 0.56 0.0 -2.96  
 \$ FBAR 3440012 2014 1.405 2.216 0.0 0.0  
 \$  
 \$ SUPPORT BEAMS FOR CONTROL BOOST CYLINDERS  
 \$ 209-001-302  
 \$  
 \$ CBAR 3020011 302001 18673 19173 0.0 0.0 1.0 1  
 \$ CBAR 3020012 302001 19173 19773 0.0 0.0 1.0 1  
 \$ CBAR 3020015 302001 18677 19177 0.0 0.0 1.0 1  
 \$ CBAR 3020016 302001 19177 19777 0.0 0.0 1.0 1  
 \$ CBAR 3020017 302001 19777 20977 0.0 0.0 1.0 1  
 \$ CBAR 3020018 302001 20977 21377 0.0 0.0 1.0 1  
 \$ FBAR 302001 7075 1.83 1.30 8.34 9.64  
 \$  
 \$ RBE2 3020021 18673 13 18663 18664  
 \$ RBE2 3020022 18677 13 18666 18667  
 \$ RBE2 3020023 19773 13 19762 19763  
 \$ RBE2 3020024 19777 13 1006 19768  
 \$ RBE2 3020026 21377 13 21366 21367  
 \$ RBE2 3020031 18673 2 18663  
 \$ RBE2 3020032 18677 2 18667  
 \$ RBE2 3020033 19773 2 19762  
 \$ RBE2 3020034 19777 2 19768  
 \$ RBE2 3020036 21377 2 21367  
 \$ RBE2 7505 1002 123 7033 7037 8533 8537  
 \$ RBE2 15212 15212 123 14803 14823 15603 15623  
 \$ RBE2 15218 15218 123 14807 14827 15607 15627  
 \$ RBE2 30045 30045 123 29921 29929 29961 1009  
 \$ RBE2 124800 1029 123 123487 125383 125387  
 \$  
 \$ AMMUNITION FLOOR - WL 27.00  
 \$ 209-030-219-005  
 \$ STA 93.00 TO STA 138.70  
 \$  
 \$ DOUBLERS  
 \$ CONROD 2190311 9313 11503 2024 0.186  
 \$ CONROD 2190312 11503 13803 2024 0.186  
 \$ CONROD 2190313 9317 11507 2024 0.186  
 \$ CONROD 2190314 11507 13807 2024 0.186  
 \$ CONROD 2190271 9313 9317 2024 0.046  
 \$ CONROD 2190431 13803 13807 2024 0.047  
 \$ LOWER SKIN 209-030-219-015 020 ALUMINUM  
 \$ CSHEAR 2190151 0202024 9313 11503 11507 9317  
 \$  
 \$ CONROD 2191503 9313 11503 2024 0.186  
 \$ CONROD 2191504 9317 11507 2024 0.186  
 \$ CONROD 2191501 9313 9317 2024 0.233  
 \$ CONROD 2191502 11503 11507 2024 0.233  
 \$ CSHEAR 2190152 0202024 11503 13803 13807 11507  
 \$ CONROD 2191507 11503 13803 2024 0.186  
 \$ CONROD 2191508 11507 13807 2024 0.186  
 \$ CONROD 2191505 11503 11507 2024 0.238  
 \$ CONROD 2191506 13803 13807 2024 0.238  
 \$ UPPER SKIN 209-030-219-019 025 ALUMINUM  
 \$ CSHEAR 2190191 0252024 9313 11503 11507 9317  
 \$ CONROD 2191903 9313 11503 2024 0.044  
 \$ CONROD 2191904 9317 11507 2024 0.044  
 \$ CONROD 2191901 9313 9317 2024 0.272  
 \$ CONROD 2191902 11503 11507 2024 0.272  
 \$ CSHEAR 2190192 0252024 11503 13803 13807 11507  
 \$ CONROD 2191907 11503 13803 2024 0.044  
 \$ CONROD 2191908 11507 13807 2024 0.044  
 \$ CONROD 2191905 11503 11507 2024 0.278  
 \$ CONROD 2191906 13803 13807 2024 0.278  
 \$  
 \$ FORWARD FUEL CELL FLOOR - WL 35.97  
 \$ 209-030-212-001  
 \$ STA 138.70 TO STA 148.50  
 \$ 209-030-204-063  
 \$ STA 148.50 TO STA 186.25  
 \$  
 \$ DOUBLERS  
 \$ CONROD 2044711 14821 15621 7075 0.019  
 \$ CONROD 2044712 14823 15623 7075 0.205  
 \$ CONROD 2044713 14827 15627 7075 0.205  
 \$ CONROD 2044714 14829 15629 7075 0.019  
 \$ CONROD 2044715 14823 14827 7075 0.176  
 \$ CONROD 2044716 15621 15623 7075 0.286  
 \$ CONROD 2044717 15623 15625 7075 0.284  
 \$ CONROD 2044718 15625 15627 7075 0.284  
 \$ CONROD 2044719 15627 15629 7075 0.286  
 \$ CONROD 2044720 15621 14821 7075 0.080  
 \$ CONROD 2044721 15623 14821 7075 0.185  
 \$ CONROD 2044722 15627 14829 7075 0.185  
 \$ CONROD 2044723 15629 14829 7075 0.080  
 \$ CONROD 2044724 14821 14823 7075 0.180  
 \$ CONROD 2044725 14823 14825 7075 0.180  
 \$ CONROD 2044726 14825 14827 7075 0.180  
 \$ CONROD 2044727 14827 14829 7075 0.180  
 \$ LOWER SKIN 209-030-212-001 040 ALUMINUM  
 \$ CSHEAR 2120011 0407075 13823 14823 14827 13827  
 \$ CONROD 2120101 13823 14823 2024 0.133  
 \$ CONROD 2120102 13827 14827 2024 0.133  
 \$ CONROD 2120103 13823 13827 2024 0.382  
 \$ CONROD 2120104 14823 14827 2024 0.382  
 \$ LOWER SKIN 209-030-204-081 015 TITANIUM  
 \$ CSHEAR 2040811 0169048 14821 15621 15623 14823  
 \$ CONROD 2048101 14821 15621 8046 0.050  
 \$ CONROD 2048102 14823 15623 8046 0.050  
 \$ CONROD 2048105 14821 14823 8046 0.062  
 \$ CONROD 2048107 15621 15623 8046 0.062  
 \$ CTRMEM 2040812 0169048 14823 15623 15625  
 \$ CTRMEM 2040813 0169048 14823 15625 14827  
 \$ CTRMEM 2040814 0169048 14827 15625 15627

CSHEAR	2040815	0169046	14827	15627	15629	14829
CONROD	2048103	14827	15627	9046	0 050	
CONROD	2048104	14829	15629	9046	0 050	
CONROD	2048106	14827	14829	9046	0 052	
CONROD	2048108	15627	15629	9046	0 062	
CTRMEM	2040821	0169046	15621	18621	15623	
CTRMEM	2040822	0169046	15623	18621	18623	
CSHEAR	2040823	0169046	15623	18623	18625	15625
CONROD	2048201	15623	18623	9046	0 057	
CONROD	2048202	15625	18625	9046	0 115	
CONROD	2048205	15623	15625	9046	0 238	
CONROD	2048207	18623	18625	9046	0 238	
CSHEAR	2040824	0169046	15625	18625	18627	15627
CONROD	2048203	15625	18625	9046	0 115	
CONROD	2048204	15627	18627	9046	0 057	
CONROD	2048206	15625	15627	9046	0 238	
CONROD	2048208	18625	18627	9046	0 238	
CTRMEM	2040825	0169046	15627	18627	18629	
CTRMEM	2040826	0169046	15627	18629	15629	
\$ INTERIOR SKIN 209-030-204-047 050 TITANIUM						
CSHEAR	2040471	0509046	14821	15821	15623	14823
CONROD	2044701	14821	15621	9046	0 152	
CONROD	2044702	14823	15623	9046	0 152	
CONROD	2044705	14821	14823	9046	0 195	
CONROD	2044707	15621	15623	9046	0 195	
CSHEAR	2040472	0509046	14827	15627	15629	14829
CONROD	2044703	14827	15627	9046	0 152	
CONROD	2044704	14829	15629	9046	0 152	
CONROD	2044705	14827	14829	9046	0 195	
CONROD	2044708	15627	15629	9046	0 195	
\$ UPPER SKIN 209-030-204-079 020 CLASS FABRIC						
CTRMEM	2040791	0200076	14823	15623	15625	
CTRMEM	2040792	0200076	14823	15625	14827	
CTRMEM	2040793	0200076	14827	15625	15627	
CTRMEM	2040794	0200076	15623	18621	18623	
CSHEAR	2040795	0200076	15623	18623	18625	15625
CONROD	2047901	15623	18623	0076	0 072	
CONROD	2047902	15625	18625	0076	0 144	
CONROD	2047905	15623	15625	0076	0 298	
CONROD	2047907	18623	18625	0076	0 298	
CSHEAR	2040796	0200076	15625	18625	18627	15627
CONROD	2047903	15625	18625	0076	0 144	
CONROD	2047904	15627	18627	0076	0 072	
CONROD	2047906	15625	15627	0076	0 298	
CONROD	2047908	18625	18627	0076	0 298	
CTRMEM	2040797	0200076	15627	18627	18629	
\$ PYLON FLOOR - WL 35 87						
\$ 209-030-205-059						
\$ STA 186.25 TO STA 213.94						
\$ DOUBLERS						
CONROD	2050431	18621	21321	7075	0 024	
CONROD	2050432	18627	21327	7075	0 104	
CONROD	2050433	18629	21329	7075	0 053	
CONROD	2050432	18621	18623	7075	0 040	
CONROD	2050433	18623	18625	7075	0 040	
CONROD	2050434	18625	18627	7075	0 040	
CONROD	2050435	18627	18629	7075	0 040	
CONROD	2050436	21321	21323	7075	0 104	

CONROD	2050437	21323	21325	7075	0 104	
CONROD	2050438	21325	21327	7075	0 104	
CONROD	2050439	21327	21329	7075	0 104	
\$ LOWER SKIN 209-030-205-055 016 ALUMINUM						
CSHEAR	2050551	0167075	18621	21321	21323	18623
CONROD	2055501	18621	21321	7075	0 018	
CONROD	2055502	18623	21323	7075	0 094	
CONROD	2055511	18621	18623	7075	0 221	
CONROD	2055515	21321	21323	7075	0 221	
CSHEAR	2050552	0167075	18623	21323	21325	18625
CONROD	2055503	18623	21323	7075	0 094	
CONROD	2055504	18625	21325	7075	0 059	
CONROD	2055512	18623	18625	7075	0 221	
CONROD	2055516	21323	21325	7075	0 221	
CSHEAR	2050553	0167075	18625	21325	21327	18627
CONROD	2055505	18625	21325	7075	0 059	
CONROD	2055506	18627	21327	7075	0 094	
CONROD	2055513	18625	18627	7075	0 221	
CONROD	2055517	21325	21327	7075	0 221	
CSHEAR	2050554	0167075	18627	21327	21329	18629
CONROD	2055507	18627	21327	7075	0 094	
CONROD	2055508	18629	21329	7075	0 018	
CONROD	2055514	18627	18629	7075	0 221	
CONROD	2055518	21327	21329	7075	0 221	
\$ UPPER SKIN 209-030-205-063 012 ALUMINUM						
CSHEAR	2050631	0127075	18621	21321	21323	18623
CONROD	2056301	18621	21321	7075	0 004	
CONROD	2056302	18623	21323	7075	0 069	
CONROD	2056311	18621	18623	7075	0 145	
CONROD	2056315	21321	21323	7075	0 145	
CSHEAR	2050632	0127075	18623	21323	21325	18625
CONROD	2056303	18623	21323	7075	0 069	
CONROD	2056304	18625	21325	7075	0 045	
CONROD	2056312	18623	18625	7075	0 145	
CONROD	2056316	21323	21325	7075	0 145	
CSHEAR	2050633	0127075	18625	21325	21327	18627
CONROD	2056305	18625	21325	7075	0 045	
CONROD	2056306	18627	21327	7075	0 069	
CONROD	2056313	18625	18627	7075	0 145	
CONROD	2056317	21325	21327	7075	0 145	
CSHEAR	2050634	0127075	18627	21327	21329	18629
CONROD	2056307	18627	21327	7075	0 069	
CONROD	2056308	18629	21329	7075	0 005	
CONROD	2056314	18627	18629	7075	0 145	
CONROD	2056318	21327	21329	7075	0 145	
\$ AFT FUEL CELL FLOOR - WL 35.97						
\$ 209-030-206-063						
\$ STA 213.94 TO STA 250.00						
\$ DOUBLERS						
CONROD	2080850	21321	21821	7075	0 180	
CONROD	2080851	21329	21829	7075	0 180	
CONROD	2080852	21321	21323	7075	0 205	
CONROD	2080853	21323	21325	7075	0 205	
CONROD	2080854	21325	21327	7075	0 205	
CONROD	2080855	21327	21329	7075	0 205	
CONROD	2080856	21821	21823	7075	0 242	
CONROD	2080857	21823	21825	7075	0 242	
CONROD	2080858	21825	21827	7075	0 242	

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OF POOR QUALITY

CONROD	2060859	21827	21829	7075	0.242	
CONROD	2060501	21821	22721	7075	0.174	
CONROD	2060271	21829	22729	7075	0.174	
CONROD	2060231	22721	22723	7075	0.145	
CONROD	2060232	22723	22725	7075	0.145	
CONROD	2060233	22725	22727	7075	0.145	
CONROD	2060234	22727	22729	7075	0.145	
CONROD	2060211	22721	25021	7075	0.084	
CONROD	2060191	22729	25029	7075	0.084	
CONROD	2060391	25021	25025	7075	0.111	
CONROD	2060392	25025	25029	7075	0.111	
\$ LOWER SKIN 209-030-206-087 016 TITANIUM						
CSHEAR	2060871	0169046	21321	21821	21823	21323
CONROD	2068701	21321	21821	9046	0.017	
CONROD	2068702	21323	21823	9046	0.083	
CONROD	2068711	21321	21323	9046	0.040	
CONROD	2068715	21821	21823	9046	0.040	
CSHEAR	2060872	0169046	21323	21823	21825	21325
CONROD	2068703	21323	21823	9046	0.093	
CONROD	2068704	21325	21825	9046	0.059	
CONROD	2068712	21323	21325	9046	0.040	
CONROD	2068716	21823	21825	9046	0.040	
CSHEAR	2060873	0169046	21325	21825	21827	21327
CONROD	2068705	21325	21825	9046	0.059	
CONROD	2068706	21327	21827	9046	0.093	
CONROD	2068713	21325	21327	9046	0.040	
CONROD	2068717	21825	21827	9046	0.040	
CSHEAR	2060874	0169046	21327	21827	21829	21329
CONROD	2068707	21327	21827	9046	0.093	
CONROD	2068708	21329	21829	9046	0.017	
CONROD	2068714	21327	21329	9046	0.040	
CONROD	2068718	21827	21829	9046	0.040	
CSHEAR	2060875	0169046	21821	22721	22723	21823
CONROD	2068721	21821	22721	9046	0.014	
CONROD	2068722	21823	22723	9046	0.092	
CONROD	2068731	21821	21823	9046	0.069	
CONROD	2068735	22721	22723	9046	0.069	
CSHEAR	2060876	0169046	21823	22723	22725	21825
CONROD	2068723	21823	22723	9046	0.092	
CONROD	2068724	21825	22725	9046	0.059	
CONROD	2068732	21823	21825	9046	0.069	
CONROD	2068736	22723	22725	9046	0.069	
CSHEAR	2060877	0169046	21825	22725	22727	21827
CONROD	2068725	21825	22725	9046	0.059	
CONROD	2068726	21827	22727	9046	0.092	
CONROD	2068733	21825	21827	9046	0.069	
CONROD	2068737	22725	22727	9046	0.069	
CSHEAR	2060878	0169046	21827	22727	22729	21829
CONROD	2068727	21827	22727	9046	0.082	
CONROD	2068728	21829	22729	9046	0.014	
CONROD	2068734	21827	21829	9046	0.069	
CONROD	2068738	22727	22729	9046	0.069	
CTRMEM	2060881	0169046	22721	25021	22723	
CSHEAR	2060882	0169046	22723	25021	25025	22725
CONROD	2068801	22723	25021	9046	0.065	
CONROD	2068802	22725	25025	9046	0.136	
CONROD	2068811	22723	22725	9046	0.179	
CONROD	2068813	25021	25025	9046	0.179	
CSHEAR	2060883	0169046	22725	25025	25029	22727
CONROD	2068803	22725	25025	9046	0.136	

CONROD	2068804	22727	25029	9046	0.065	
CONROD	2068812	22725	22727	9046	0.179	
CONROD	2068814	25025	25029	9046	0.179	
CTRMEM	2060884	0169046	22727	25029	22729	
\$ UPPER SKIN 209-030-206-091 010 GLASS FABRIC						
CSHEAR	2060911	0100076	21321	21821	21823	21323
CONROD	2068101	21321	21821	0076	0.011	
CONROD	2068102	21323	21823	0076	0.058	
CONROD	2068111	21321	21323	0076	0.025	
CONROD	2068115	21821	21823	0076	0.025	
CSHEAR	2060912	0100076	21323	21823	21825	21325
CONROD	2068103	21323	21823	0076	0.058	
CONROD	2068104	21325	21825	0076	0.037	
CONROD	2068112	21323	21325	0076	0.025	
CONROD	2068116	21823	21825	0076	0.025	
CSHEAR	2060913	0100076	21325	21825	21827	21327
CONROD	2068105	21325	21825	0076	0.037	
CONROD	2068106	21327	21827	0076	0.058	
CONROD	2068113	21325	21327	0076	0.025	
CONROD	2068117	21825	21827	0076	0.025	
CSHEAR	2060914	0100076	21327	21827	21829	21329
CONROD	2068107	21327	21827	0076	0.058	
CONROD	2068108	21329	21829	0076	0.011	
CONROD	2068114	21327	21329	0076	0.025	
CONROD	2068118	21827	21829	0076	0.025	
\$ UPPER SKIN 209-030-206-089 020 GLASS FABRIC						
CSHEAR	2060891	0200076	21321	21821	21823	21323
CONROD	2068901	21321	21821	0076	0.021	
CONROD	2068902	21323	21823	0076	0.116	
CONROD	2068911	21321	21323	0076	0.050	
CONROD	2068915	21821	21823	0076	0.050	
CSHEAR	2060892	0200076	21323	21823	21825	21325
CONROD	2068903	21323	21823	0076	0.116	
CONROD	2068904	21325	21825	0076	0.074	
CONROD	2068912	21323	21325	0076	0.050	
CONROD	2068916	21823	21825	0076	0.050	
CSHEAR	2060893	0200076	21325	21825	21827	21327
CONROD	2068905	21325	21825	0076	0.074	
CONROD	2068906	21327	21827	0076	0.116	
CONROD	2068913	21325	21327	0076	0.050	
CONROD	2068917	21825	21827	0076	0.050	
CSHEAR	2060894	0200076	21327	21827	21829	21329
CONROD	2068907	21327	21827	0076	0.116	
CONROD	2068908	21329	21829	0076	0.021	
CONROD	2068914	21327	21329	0076	0.050	
CONROD	2068918	21827	21829	0076	0.050	
CSHEAR	2060895	0200076	21821	22721	22723	21823
CONROD	2068921	21821	22721	0076	0.018	
CONROD	2068922	21823	22723	0076	0.115	
CONROD	2068931	21821	21823	0076	0.087	
CONROD	2068935	22721	22723	0076	0.087	
CSHEAR	2060896	0200076	21823	22723	22725	21825
CONROD	2068923	21823	22723	0076	0.115	
CONROD	2068924	21825	22725	0076	0.074	
CONROD	2068932	21823	21825	0076	0.087	
CONROD	2068936	22723	22725	0076	0.087	
CSHEAR	2060897	0200076	21825	22725	22727	21827
CONROD	2068925	21825	22725	0076	0.074	
CONROD	2068926	21827	22727	0076	0.116	
CONROD	2068933	21825	21827	0076	0.087	

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CONROD	2088937	22725	22727	0076	0.087	
CSHEAR	2080898	0200076	21827	22727	22729	21829
CONROD	2088927	21827	22727	0076	0.115	
CONROD	2088928	21829	22729	0076	0.018	
CONROD	2088934	21827	21829	0076	0.087	
CONROD	2088938	22727	22729	0076	0.087	
CTRMEM	2080901	0200076	22721	25021	22723	
CSHEAR	2080902	0200076	22723	25021	25025	22725
CONROD	2069001	22723	25021	0076	0.081	
CONROD	2069002	22725	25025	0076	0.170	
CONROD	2069011	22723	22725	0076	0.224	
CONROD	2069013	25021	25025	0076	0.224	
CSHEAR	2060903	0200076	22725	25025	25029	22727
CONROD	2069003	22725	25025	0076	0.170	
CONROD	2069004	22727	25029	0076	0.081	
CONROD	2069012	22725	22727	0076	0.224	
CONROD	2069014	25025	25029	0076	0.224	
CTRMEM	2060904	0200076	22727	25029	22729	

\$  
\$ FLOOR PANEL - WL 35.97  
\$ 209-030-207-077  
\$ STA 250.00 TO STA 268.25  
\$

\$ DOUBLERS  
CONROD 2070091 25021 26821 2024 0.025  
CONROD 2070511 25029 26829 2024 0.068  
CONROD 2070231 25021 25025 2024 0.044  
CONROD 2070232 25025 25029 2024 0.044  
CONROD 2070551 26821 26825 2024 0.041  
CONROD 2070552 26825 26829 2024 0.041

\$ LOWER SKIN 208-030-207-027 016 ALUMINUM  
CSHEAR 2070271 0162024 25021 26821 26825 25025  
CONROD 2072701 25021 26821 2024 0.073  
CONROD 2072702 25025 26825 2024 0.160  
CONROD 2072711 25021 25025 2024 0.144  
CONROD 2072713 26821 26825 2024 0.144  
CSHEAR 2070272 0162024 25025 26825 26829 25029  
CONROD 2072703 25025 26825 2024 0.160  
CONROD 2072704 25029 26829 2024 0.073  
CONROD 2072712 25025 25029 2024 0.144  
CONROD 2072714 26825 26829 2024 0.144

\$ UPPER SKIN 209-030-207-081 012 ALUMINUM  
CSHEAR 2070811 0122024 25021 26821 26825 25025  
CONROD 2078101 25021 26821 2024 0.040  
CONROD 2078102 25025 26825 2024 0.118  
CONROD 2078111 25021 25025 2024 0.090  
CONROD 2078113 26821 26825 2024 0.090  
CSHEAR 2070812 0122024 25025 26825 26829 25029  
CONROD 2078103 25025 26825 2024 0.118  
CONROD 2078104 25029 26829 2024 0.040  
CONROD 2078112 25025 25029 2024 0.090  
CONROD 2078114 26825 26829 2024 0.090

\$  
\$ FLOOR PANEL - WL 35.97  
\$ 209-030-207-085  
\$ STA 268.25 TO BS 41.32  
\$

\$ DOUBLERS  
CONROD 2070571 26821 29921 7075 0.156  
CONROD 2070151 26829 29929 2024 0.028

CONROD 2070131 26821 26825 2024 0.041  
CONROD 2070132 26825 26829 2024 0.041  
CONROD 2070211 29921 29925 2024 0.039  
CONROD 2070212 29925 29929 2024 0.039

\$ LOWER SKIN 209-030-207-065 008 ALUMINUM  
CSHEAR 2070651 0082024 26821 29921 29925 26825  
CONROD 2076501 26821 26821 2024 0.019  
CONROD 2076502 26825 29925 2024 0.065  
CONROD 2076511 26821 26825 2024 0.111  
CONROD 2076513 29921 29925 2024 0.111  
CSHEAR 2070652 0082024 26825 29925 29929 26829  
CONROD 2076503 26825 29925 2024 0.065  
CONROD 2076504 26829 29929 2024 0.013  
CONROD 2076512 26825 26829 2024 0.111  
CONROD 2076514 26825 26829 2024 0.111

\$ UPPER SKIN 209-030-207-087 016 ALUMINUM  
CSHEAR 2070871 0162024 26821 29921 29925 26825  
CONROD 2078701 26821 29921 2024 0.063  
CONROD 2078702 26825 29925 2024 0.141  
CONROD 2078711 26821 26825 2024 0.248  
CONROD 2078713 29921 29925 2024 0.248  
CSHEAR 2070872 0162024 26825 29925 29929 26829  
CONROD 2078703 26825 29925 2024 0.141  
CONROD 2078704 26829 29929 2024 0.083  
CONROD 2078712 26825 26829 2024 0.248  
CONROD 2078714 29925 29929 2024 0.248

\$  
\$ GUNNER'S FLOOR - WL 46.00  
\$ 209-030-201-089  
\$ STA 46.00 TO STA 93.00  
\$

\$ DOUBLERS  
CONROD 2010191 4633 6131 2024 0.018  
CONROD 2010192 1001 6139 2024 0.018  
CONROD 2010211 4633 1001 2024 0.024

\$ LOWER SKIN 209-030-201-087 012 ALUMINUM  
CTRMEM 2010871 0122024 4633 6131 6133  
CSHEAR 2010872 0122024 4633 6133 6137 1001  
CONROD 2016701 4633 6133 2024 0.029  
CONROD 2016702 1001 6137 2024 0.029  
CONROD 2016703 4633 1001 2024 0.079  
CONROD 2016704 6133 6137 2024 0.079  
CTRMEM 2010873 0122024 1001 6137 6139

\$ LOWER SKIN 209-030-201-085 032 ALUMINUM  
CSHEAR 2010851 0322024 6131 7031 7033 6133  
CONROD 2018501 6131 7031 2024 0.032  
CONROD 2018502 6133 7033 2024 0.032  
CONROD 2018507 6131 6133 2024 0.127  
CONROD 2018510 7031 7033 2024 0.127  
CSHEAR 2010852 0322024 6133 7033 7037 6137  
CONROD 2018503 6133 7033 2024 0.320  
CONROD 2018504 6137 7037 2024 0.320  
CONROD 2018508 6133 6137 2024 0.127  
CONROD 2018511 7033 7037 2024 0.127

CSHEAR 2010853 0322024 6137 7037 7039 6139  
CONROD 2018505 6137 7037 2024 0.032  
CONROD 2018506 6139 7039 2024 0.032  
CONROD 2018509 6137 6139 2024 0.127  
CONROD 2018512 7037 7039 2024 0.127  
CSHEAR 2010854 0322024 7031 8531 8533 7033

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CNRDD	2018521	7031	8531	2024	0.062	
CNRDD	2018522	7033	8533	2024	0.062	
CNRDD	2018525	7031	7033	2024	0.232	
CNRDD	2018527	8531	8533	2024	0.232	
CSHEAR	2010856	0322024	7037	8537	8539	7039
CNRDD	2018523	7037	8537	2024	0.062	
CNRDD	2018524	7039	8539	2024	0.062	
CNRDD	2018526	7037	7039	2024	0.232	
CNRDD	2018528	8537	8539	2024	0.232	
CSHEAR	2010857	0322024	8531	9331	9333	8533
CNRDD	2018531	8531	9331	2024	0.082	
CNRDD	2018532	8533	9333	2024	0.082	
CNRDD	2018537	8531	8533	2024	0.088	
CNRDD	2018540	9331	9333	2024	0.088	
CSHEAR	2010858	0322024	8533	8533	1003	8537
CNRDD	2018533	8533	9333	2024	0.320	
CNRDD	2018534	8537	1003	2024	0.320	
CNRDD	2018538	8533	8537	2024	0.088	
CNRDD	2018541	9333	1003	2024	0.088	
CSHEAR	2010859	0322024	8537	1003	9339	8539
CNRDD	2018535	8537	1003	2024	0.082	
CNRDD	2018536	8539	9339	2024	0.082	
CNRDD	2018539	8537	8539	2024	0.088	
CNRDD	2018542	1003	9339	2024	0.088	
\$ INTERIOR SKIN 209-030-201-053 .016 ALUMINUM						
CSHEAR	2010531	0162024	6131	7031	7033	6133
CNRDD	2015301	6131	7031	2024	0.029	
CNRDD	2015302	6133	7033	2024	0.029	
CNRDD	2015307	6131	6133	2024	0.076	
CNRDD	2015310	7031	7033	2024	0.076	
CSHEAR	2010532	0162024	6133	7033	7037	6137
CNRDD	2015303	6133	7033	2024	0.160	
CNRDD	2015304	6137	7037	2024	0.160	
CNRDD	2015308	6133	6137	2024	0.076	
CNRDD	2015311	7033	7037	2024	0.076	
CSHEAR	2010533	0162024	6137	7037	7039	6139
CNRDD	2015305	6137	7037	2024	0.029	
CNRDD	2015306	6139	7039	2024	0.029	
CNRDD	2015309	6137	6139	2024	0.076	
CNRDD	2015312	7037	7039	2024	0.076	
CSHEAR	2010534	0162024	7031	8531	8533	7033
CNRDD	2015321	7031	8531	2024	0.044	
CNRDD	2015322	7033	8533	2024	0.044	
CNRDD	2015325	7031	7033	2024	0.116	
CNRDD	2015327	8531	8533	2024	0.116	
CSHEAR	2010536	0162024	7037	8537	8539	7039
CNRDD	2015323	7037	8537	2024	0.044	
CNRDD	2015324	7039	8539	2024	0.044	
CNRDD	2015326	7037	7039	2024	0.116	
CNRDD	2015328	8537	8539	2024	0.116	
CSHEAR	2010537	0162024	8531	9331	9333	8533
CNRDD	2015331	8531	9331	2024	0.054	
CNRDD	2015332	8533	9333	2024	0.054	
CNRDD	2015337	8531	8533	2024	0.062	
CNRDD	2015343	9331	9333	2024	0.062	
CSHEAR	2010538	0162024	8533	9333	1003	8537
CNRDD	2015333	8533	9333	2024	0.180	
CNRDD	2015334	8537	1003	2024	0.180	
CNRDD	2015338	8533	8537	2024	0.062	
CNRDD	2015341	9333	1003	2024	0.062	

CSHEAR	2010539	0162024	8537	1003	9339	8539
CNRDD	2015336	8539	9339	2024	0.054	
CNRDD	2015335	8537	1003	2024	0.054	
CNRDD	2015339	8537	8539	2024	0.062	
CNRDD	2015342	1003	9339	2024	0.062	
\$ UPPER SKIN 209-030-201-069 .020 ALUMINUM						
CTRMEM	2010691	0202024	4633	6131	6133	
CSHEAR	2010692	0202024	4633	6133	6137	1001
CNRDD	2016901	4633	6133	2024	0.062	
CNRDD	2016902	1001	6137	2024	0.062	
CNRDD	2016903	4633	1001	2024	0.151	
CNRDD	2016904	6133	6137	2024	0.151	
CTRMEM	2010693	0202024	1001	6137	6139	
CSHEAR	2010694	0202024	6131	7031	7033	6133
CNRDD	2016911	6131	7031	2024	0.036	
CNRDD	2016912	6133	7033	2024	0.036	
CNRDD	2016917	6131	6133	2024	0.095	
CNRDD	2016920	7031	7033	2024	0.095	
CSHEAR	2010695	0202024	6133	7033	7037	6137
CNRDD	2016913	6133	7033	2024	0.200	
CNRDD	2016914	6137	7037	2024	0.200	
CNRDD	2016918	6133	6137	2024	0.095	
CNRDD	2016921	7033	7037	2024	0.095	
CSHEAR	2010696	0202024	6137	7037	7039	6139
CNRDD	2016915	6137	7037	2024	0.036	
CNRDD	2016916	6139	7039	2024	0.036	
CNRDD	2016919	6137	6139	2024	0.095	
CNRDD	2016922	7037	7039	2024	0.095	
CSHEAR	2010697	0202024	7031	8531	8533	7033
CNRDD	2016931	7031	8531	2024	0.055	
CNRDD	2016932	7033	8533	2024	0.055	
CNRDD	2016935	7031	7033	2024	0.148	
CNRDD	2016937	8531	8533	2024	0.148	
CSHEAR	2010698	0202024	7037	8537	8539	7039
CNRDD	2016933	7037	8537	2024	0.055	
CNRDD	2016934	7039	8539	2024	0.055	
CNRDD	2016936	7037	7039	2024	0.148	
CNRDD	2016938	8537	8539	2024	0.148	
CSHEAR	2010701	0202024	8531	9331	9333	8533
CNRDD	2017001	8531	9331	2024	0.067	
CNRDD	2017002	8533	9333	2024	0.067	
CNRDD	2017007	8531	8533	2024	0.077	
CNRDD	2017010	9331	9333	2024	0.077	
CSHEAR	2010702	0202024	8533	9333	1003	8537
CNRDD	2017003	8533	9333	2024	0.200	
CNRDD	2017004	8537	1003	2024	0.200	
CNRDD	2017008	8533	8537	2024	0.077	
CNRDD	2017011	9333	1003	2024	0.077	
CSHEAR	2010703	0202024	8537	1003	9339	8539
CNRDD	2017005	8537	1003	2024	0.067	
CNRDD	2017006	8539	9339	2024	0.067	
CNRDD	2017009	8537	8539	2024	0.077	
CNRDD	2017012	1003	9339	2024	0.077	

\$ TURREY SUPPORT FITTINGS - FWD						
\$ 209-030-251-002						
\$						
CNRDD	2510021	7033	7043	2014	0.585	
CNRDD	2510022	7037	7047	2014	0.549	
\$						

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TURRET SUPPORT FITTINGS - AFT  
209-030-187-003

CONROD 1870031 8533 8543 2014 0 581  
CONROD 1870032 8537 8547 2014 0 574

XM-28 ARMAMENT SUBSYSTEM - TURRET

AMMUNITION COVER - WL 46'00"  
209-030-217-005  
STA 102.00 TO STA 138.70

DOUBLERS

CONROD 2170171 9333 11533 2024 0 027  
CONROD 2170101 9333 11533 2024 0 052  
CONROD 2170172 11533 13833 2024 0 027  
CONROD 2170102 11533 13833 2024 0 052  
CONROD 2170281 1003 11537 2024 0 027  
CONROD 2170091 1003 11537 2024 0 052  
CONROD 2170292 11537 1004 2024 0 027

CONROD 2170092 11537 1004 2024 0 052  
CONROD 2170191 9333 1003 2024 0 032  
CONROD 2380031 9333 1003 7075 0 108  
CONROD 2170271 13833 1004 2024 0 032

LOWER SKIN 209-030-211-007 032 ALUMINUM

CSHEAR 2110071 0322024 9331 9333 11533 11531  
CONROD 2110701 9331 11531 2024 0 109  
CONROD 2110704 9333 11533 2024 0 109  
CONROD 2110707 9331 9333 2024 0 361  
CONROD 2110708 11531 11533 2024 0 361  
CSHEAR 2110072 0322024 11531 11533 13833 13831  
CONROD 2110702 11531 13831 2024 0 109  
CONROD 2110705 11533 13833 2024 0 108  
CONROD 2110709 11531 11533 2024 0 370  
CONROD 2110710 13831 13833 2024 0 370  
CSHEAR 2110073 0322024 13831 13833 14833 14831

CONROD 2110703 13831 14831 2024 0 109  
CONROD 2110706 13833 14833 2024 0 109  
CONROD 2110711 13831 13833 2024 0 157  
CONROD 2110712 14831 14833 2024 0 157  
CSHEAR 2110051 0322024 1003 9339 11539 11537  
CONROD 2110501 1003 11537 2024 0 109  
CONROD 2110504 9339 11539 2024 0 109  
CONROD 2110507 1003 9339 2024 0 361

CONROD 2110508 11537 11539 2024 0 361  
CSHEAR 2110052 0322024 11537 11539 13839 1004  
CONROD 2110502 11537 1004 2024 0 109  
CONROD 2110505 11539 13839 2024 0 109  
CONROD 2110509 11537 11539 2024 0 370  
CONROD 2110510 1004 13839 2024 0 370  
CSHEAR 2110053 0322024 1004 13839 14839  
CONROD 2110503 1004 14837 2024 0 109  
CONROD 2110506 13839 14839 2024 0 109  
CONROD 2110511 1004 13839 2024 0 157  
CONROD 2110512 14837 14839 2024 0 157

LOWER SKIN 209-030-217-011 016 ALUMINUM

CSHEAR 2170111 0162024 9333 11533 11537 1003  
CONROD 2171101 9333 11533 2024 0 053

CONROD 2171103 1003 11537 2024 0 053  
CONROD 2171105 9333 1003 2024 0 109  
CONROD 2171106 11533 11537 2024 0 109  
CSHEAR 2170112 0162024 11533 13833 1004 11537  
CONROD 2171102 11533 13833 2024 0 053  
CONROD 2171104 11537 1004 2024 0 053

CONROD 2171107 11533 11537 2024 0 183  
CONROD 2171108 13833 1004 2024 0 183

UPPER SKIN 209-030-217-033 012 ALUMINUM

CSHEAR 2170331 0122024 9333 11533 11537 1003  
CONROD 2173301 9333 11533 2024 0 028  
CONROD 2173303 1003 11537 2024 0 028  
CONROD 2173305 9333 1003 2024 0 075  
CONROD 2173306 11533 11537 2024 0 075  
CSHEAR 2170332 0122024 11533 13833 1004 11537  
CONROD 2173302 11533 13833 2024 0 028  
CONROD 2173304 11537 1004 2024 0 028  
CONROD 2173307 11533 11537 2024 0 131  
CONROD 2173308 13833 1004 2024 0 131

PILOT'S FLOOR - WL 55'00"

209-030-202-001

STA 95.44 TO STA 148.50

DOUBLERS

CONROD 2020291 9343 11543 2024 0 027  
CONROD 1560041 9343 11543 7075 0 132  
CONROD 2020292 11543 13843 2024 0 026  
CONROD 1560042 11543 13843 7075 0 130  
CONROD 2020293 13843 14843 2024 0 030  
CONROD 1560043 13843 14843 7075 0 184  
CONROD 2020271 9347 11547 2024 0 027  
CONROD 1560031 9347 11547 7075 0 124  
CONROD 2020272 11547 13847 2024 0 026  
CONROD 1560032 11547 13847 7075 0 122  
CONROD 2020273 13847 14847 2024 0 030  
CONROD 1560033 13847 14847 7075 0 200  
CONROD 2020171 9343 9347 2024 0 183

CONROD 2020172 13843 13847 2024 0 041  
CONROD 2020173 14843 14847 2024 0 027

LOWER SKIN 209-030-207-077 016 ALUMINUM

CSHEAR 2070771 0162024 9343 11543 11547 9347  
CONROD 2077701 9343 11543 2024 0 034  
CONROD 2077704 9347 11547 2024 0 034  
CONROD 2077707 9343 9347 2024 0 180  
CONROD 2077708 11543 11547 2024 0 180  
CSHEAR 2070772 0162024 11543 13843 13847 11547  
CONROD 2077702 11543 13843 2024 0 031  
CONROD 2077705 11547 13847 2024 0 031  
CONROD 2077708 11543 11547 2024 0 175  
CONROD 2077710 13843 13847 2024 0 175  
CSHEAR 2070773 0162024 13843 14843 14847 13847  
CONROD 2077703 13843 14843 2024 0 029  
CONROD 2077706 13847 14847 2024 0 029

CONROD 2077711 13843 13847 2024 0 063  
CONROD 2077712 14843 14847 2024 0 083

UPPER SKIN 209-030-202-073 020 ALUMINUM

CSHEAR 2020731 0202024 9343 11543 11547 9347  
CONROD 2027301 9343 11543 2024 0 085  
CONROD 2027304 9347 11547 2024 0 085

CNRDD	2027307	9343	9347	2024	0.200	
CNRDD	2027308	11543	11547	2024	0.200	
CSHEAR	2020732	0202024	11543	13843	13847	11547
CNRDD	2027302	11543	13843	2024	0.065	
CNRDD	2027305	11547	13847	2024	0.065	
CNRDD	2027309	11543	11547	2024	0.231	
CNRDD	2027310	13843	13847	2024	0.231	
CSHEAR	2020733	0202024	13843	14843	14847	13847
CNRDD	2027303	13843	14843	2024	0.065	
CNRDD	2027306	13847	14847	2024	0.065	
CNRDD	2027311	13843	13847	2024	0.097	
CNRDD	2027312	14843	14847	2024	0.097	

\$  
\$ GUNNER/PILOT CONSOLE WEB - RIGHT SIDE  
\$ 209-030-250-177  
\$ STA 61.25 TO STA 186.25  
\$

\$	LOWER SKIN	209-030-250-177	032 ALUMINUM			
CSHEAR	2501771	0322024	6161	6163	7063	7061
CNRDD	2507701	6161	7061	2024	0.084	
CNRDD	2507707	6163	7063	2024	0.084	
CNRDD	2507713	6161	6163	2024	0.153	
CNRDD	2507714	7061	7063	2024	0.153	
CSHEAR	2501772	0322024	7061	7063	8563	8561
CNRDD	2507702	7061	8561	2024	0.098	
CNRDD	2507708	7063	8563	2024	0.098	
CNRDD	2507715	7061	7063	2024	0.232	
CNRDD	2507716	8561	8563	2024	0.232	
CSHEAR	2501773	0322024	8561	8563	9363	9361
CNRDD	2507703	8561	9361	2024	0.113	
CNRDD	2507709	8563	9363	2024	0.113	
CNRDD	2507717	8561	8563	2024	0.190	
CNRDD	2507718	9361	9363	2024	0.190	
CSHEAR	2501774	0322024	9361	9363	11563	11561
CNRDD	2507704	9361	11561	2024	0.120	
CNRDD	2507710	9363	11563	2024	0.120	
CNRDD	2507719	9361	9363	2024	0.295	
CNRDD	2507720	11561	11563	2024	0.295	
CSHEAR	2501775	0322024	11561	11563	13863	13861
CNRDD	2507705	11561	13861	2024	0.121	
CNRDD	2507711	11563	13863	2024	0.121	
CNRDD	2507721	11561	11563	2024	0.370	
CNRDD	2507722	13861	13863	2024	0.370	
CSHEAR	2501776	0322024	13861	13863	14863	14861
CNRDD	2507706	13861	14861	2024	0.121	
CNRDD	2507712	13863	14863	2024	0.121	
CNRDD	2507723	13861	13863	2024	0.157	
CNRDD	2507724	14861	14863	2024	0.157	
CTRMEM	2501777	0322024	14861	14863	18661	

\$  
\$ GUNNER/PILOT CONSOLE WEB - LEFT SIDE  
\$ 209-030-210-089  
\$ STA 61.25 TO STA 186.25  
\$

\$	LOWER SKIN	209-030-210-089	032 ALUMINUM			
CSHEAR	2100891	0322024	6167	6169	7069	7067
CNRDD	2108901	6167	7067	2024	0.084	
CNRDD	2108907	6169	7069	2024	0.084	
CNRDD	2108913	6167	6169	2024	0.153	
CNRDD	2108914	7067	7069	2024	0.153	

CSHEAR	2100892	0322024	7067	7069	8569	8567
CNRDD	2108902	7067	8567	2024	0.098	
CNRDD	2108908	7069	8569	2024	0.098	
CNRDD	2108915	7067	7069	2024	0.232	
CNRDD	2108916	8567	8569	2024	0.232	
CSHEAR	2100893	0322024	8567	8569	9369	9367
CNRDD	2108903	8567	9367	2024	0.113	
CNRDD	2108909	8569	9369	2024	0.113	
CNRDD	2108917	8567	8569	2024	0.190	
CNRDD	2108918	9367	9369	2024	0.190	
CSHEAR	2100894	0322024	9367	9369	11569	11567
CNRDD	2108904	9367	11567	2024	0.120	
CNRDD	2108910	9369	11569	2024	0.120	
CNRDD	2108919	9367	9369	2024	0.295	
CNRDD	2108920	11567	11569	2024	0.295	
CSHEAR	2100895	0322024	11567	11569	13869	13867
CNRDD	2108905	11567	13867	2024	0.121	
CNRDD	2108911	11569	13869	2024	0.121	
CNRDD	2108921	11567	11569	2024	0.267	
CNRDD	2108922	13867	13869	2024	0.267	
CSHEAR	2100896	0322024	13867	13869	14869	14867
CNRDD	2108906	13867	14867	2024	0.121	
CNRDD	2108912	13869	14869	2024	0.121	
CNRDD	2108923	13867	13869	2024	0.260	
CNRDD	2108924	14867	14869	2024	0.260	
CTRMEM	2100897	0322024	14867	14869	18669	

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\$ ENGINE DECK - WL 65 00  
\$ 209-030-209-119  
\$ STA 213.94 TO STA 250.00  
\$

\$	DOUBLERS					
CNRDD	2091270	21361	25061	7075	0.038	
CNRDD	2091271	21367	25069	7075	0.094	
CNRDD	2091272	21361	21363	7075	0.168	
CNRDD	2091273	21363	21364	7075	0.168	
CNRDD	2091274	21364	21366	7075	0.168	
CNRDD	2091275	21366	21367	7075	0.168	
CNRDD	2091276	25061	1007	7075	0.051	
CNRDD	2091277	1007	25069	7075	0.051	
\$	LOWER SKIN	209-030-209-125	020 GLASS FABRIC			
CTRMEM	2091281	0200076	21361	25061	21363	
CSHEAR	2091282	0200076	21363	25061	1007	21364
CNRDD	2092901	21363	25061	0076	0.085	
CNRDD	2092902	21364	1007	0076	0.085	
CNRDD	2092911	21363	21364	0076	0.359	
CNRDD	2092913	25061	1007	0076	0.359	
CTRMEM	2091283	0200076	21364	1007	21366	
CSHEAR	2091284	0200076	21366	1007	25069	21367
CNRDD	2092903	21366	1007	0076	0.080	
CNRDD	2092904	21367	25069	0076	0.080	
CNRDD	2092912	21366	21367	0076	0.359	
CNRDD	2092914	1007	25069	0076	0.359	
CTRMEM	2091285	0200076	21367	25069	21369	

\$	UPPER SKIN	209-030-209-125	016 TITANIUM			
CTRMEM	2091251	0169046	21361	25061	21363	
CSHEAR	2091252	0169046	21363	25061	1007	21364
CNRDD	2092501	21363	25061	9046	0.088	
CNRDD	2092502	21364	1007	9046	0.088	
CNRDD	2092511	21363	21364	9046	0.287	

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CNRDD	2092513	25061	1007	9046	0.287	
CTRMEM	2091253	0169046	21364	1007	21366	
CSHEAR	2091254	0169046	21366	1007	25069	21367
CNRDD	2092503	21366	1007	9046	0.064	
CNRDD	2092504	21367	25069	9046	0.064	
CNRDD	2092512	21366	21367	9046	0.287	
CNRDD	2092514	1007	25069	9046	0.287	
CTRMEM	2091255	0169046	21367	25069	21368	

\$  
 \$ ENGINE DECK - WL 65.00  
 \$ 209-030-209-119  
 \$ STA 250.00 TO BS 41.32  
 \$

DOUBLERS

CNRDD	2091031	25061	26861	2024	0.071	
CNRDD	2090051	25061	26861	7075	0.036	
CNRDD	2091032	1007	26865	2024	0.071	
CNRDD	2090052	1007	26865	7075	0.036	
CNRDD	2091011	1007	26865	2024	0.049	
CNRDD	2090053	1007	26865	7075	0.025	
CNRDD	2091012	25069	1008	2024	0.049	
CNRDD	2090054	25069	1008	7075	0.025	
CNRDD	2090411	25061	1007	2024	0.408	
CNRDD	2090055	25061	1007	7075	0.283	
CNRDD	2090412	1007	25069	2024	0.408	
CNRDD	2090056	1007	25069	7075	0.283	
CNRDD	2090431	26861	26865	2024	0.273	
CNRDD	2090057	26861	26865	7075	0.258	
CNRDD	2090432	26865	1008	2024	0.273	
CNRDD	2090058	26865	1008	7075	0.258	
CNRDD	2091281	26861	29961	7075	0.031	
CNRDD	2091282	1008	1009	7075	0.047	
CNRDD	2091283	26861	26865	7075	0.054	
CNRDD	2091284	26865	1008	7075	0.054	
CNRDD	2091285	29961	29965	7075	0.036	
CNRDD	2091286	29965	1009	7075	0.036	

\$ LOWER SKIN 209-030-209-129 .020 GLASS FABRIC  
 CSHEAR 2091296 0200076 25061 26861 26865 1007  
 CNRDD 2092921 25061 26861 0076 0.099  
 CNRDD 2092922 1007 26865 0076 0.207  
 CNRDD 2092931 25061 1007 0076 0.183  
 CNRDD 2092933 26861 26865 0076 0.183  
 CSHEAR 2091287 0200076 1007 26865 1008 25069  
 CNRDD 2092923 1007 26865 0076 0.207  
 CNRDD 2092924 25069 1008 0076 0.099  
 CNRDD 2092932 1007 25069 0076 0.183  
 CNRDD 2092934 26865 1008 0076 0.183  
 CSHEAR 2091298 0200078 26861 29961 29965 26865  
 CNRDD 2092941 26861 29961 0076 0.086  
 CNRDD 2092942 26865 29965 0076 0.181  
 CNRDD 2092951 26861 26865 0076 0.303  
 CNRDD 2092953 29961 29965 0076 0.303  
 CSHEAR 2091299 0200078 26865 29965 1009 1008  
 CNRDD 2092943 26865 29965 0076 0.181  
 CNRDD 2092944 1008 1009 0076 0.086  
 CNRDD 2092952 26865 1008 0076 0.303  
 CNRDD 2092954 29965 1009 0076 0.303  
 \$ UPPER SKIN 209-030-209-125 .016 TITANIUM  
 CSHEAR 2091266 0169046 25061 26861 26865 1007  
 CNRDD 2092521 25061 26861 9046 0.079

CNRDD	2092522	1007	26865	9046	0.165	
CNRDD	2092531	25061	1007	9046	0.146	
CNRDD	2092533	26861	26865	9046	0.146	
CSHEAR	2091257	0169046	1007	26865	1008	25069
CNRDD	2092523	1007	26865	9046	0.165	
CNRDD	2092524	25069	1008	9046	0.079	
CNRDD	2092532	1007	25069	9046	0.146	
CNRDD	2092534	26865	1008	9046	0.146	
CSHEAR	2091258	0169046	26861	29961	29965	26865
CNRDD	2092541	26861	29961	9046	0.089	
CNRDD	2092542	26865	29965	9046	0.145	
CNRDD	2092551	26861	26865	9046	0.242	
CNRDD	2092553	29961	29965	9046	0.242	
CSHEAR	2091259	0169046	26865	29965	1009	1008
CNRDD	2092543	26865	29965	9046	0.145	
CNRDD	2092544	1008	1009	9046	0.089	
CNRDD	2092552	26865	1008	9046	0.242	
CNRDD	2092554	29965	1009	9046	0.242	

\$ UPPER SKIN 209-030-209-127 .012 TITANIUM  
 CSHEAR 2091278 0129046 25061 26861 26865 1007  
 CNRDD 2092701 25061 26861 9046 0.080  
 CNRDD 2092702 1007 26865 9046 0.124  
 CNRDD 2092711 25061 1007 9046 0.110  
 CNRDD 2092713 26861 26865 9046 0.110  
 CSHEAR 2091279 0129046 1007 26865 1008 25069  
 CNRDD 2092703 1007 26865 9046 0.124  
 CNRDD 2092704 25069 1008 9046 0.080  
 CNRDD 2092712 1007 25069 9046 0.110  
 CNRDD 2092714 26865 1008 9046 0.110

\$ FORWARD FUEL CELL COVER - WL 77.57  
 \$ 209-030-208-075  
 \$ STA 152.27 TO STA 186.25  
 \$

DOUBLERS

CNRDD	2084501	14881	18481	2024	0.045	
CNRDD	2084511	14889	1005	2024	0.044	
CNRDD	2084521	14881	14883	2024	0.078	
CNRDD	2084522	14883	14887	2024	0.078	
CNRDD	2084523	14887	14889	2024	0.078	
CNRDD	2084531	14881	14883	2024	0.080	
CNRDD	2084532	14883	14885	2024	0.080	
CNRDD	2084533	14885	14887	2024	0.080	
CNRDD	2084534	14887	1005	2024	0.080	
CNRDD	2084502	14881	14883	2024	0.045	
CNRDD	2080231	14883	14883	7075	0.476	
CNRDD	2080232	14887	14887	7075	0.476	
CNRDD	2084512	1005	14889	2024	0.045	
CNRDD	2084541	14881	14883	2024	0.054	
CNRDD	2084542	14883	14885	2024	0.054	
CNRDD	2084543	14885	14887	2024	0.054	
CNRDD	2084544	14887	14889	2024	0.054	

\$ LOWER SKIN 209-030-208-011 .008 ALUMINUM  
 CTRMEM 2080111 0082024 14883 14883 14885  
 CTRMEM 2080112 0082024 14883 14885 14887  
 CTRMEM 2080113 0082024 14887 14885 14887  
 CSHEAR 2080114 0082024 14887 14887 1005 14889  
 CNRDD 2081101 14887 14887 2024 0.016  
 CNRDD 2081102 14889 1005 2024 0.016  
 CNRDD 2081103 14887 14889 2024 0.038

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CONROD	2081104	16487	1005	2024	0.036	
\$	LOWER SKIN 209-030-208-013 .008 ALUMINUM					16483
CSHEAR	2080131	0082024	16481	18681	18683	
CONROD	2081301	16481	18681	2024	0.014	
CONROD	2081302	16483	18683	2024	0.014	
CONROD	2081309	16481	16483	2024	0.075	
CONROD	2081313	18681	18683	2024	0.075	
CSHEAR	2080132	0082024	16483	18683	18685	16485
CONROD	2081303	16483	18683	2024	0.050	
CONROD	2081304	16485	18685	2024	0.050	
CONROD	2081310	16483	16485	2024	0.075	
CONROD	2081314	18683	18685	2024	0.075	
CSHEAR	2080133	0082024	16485	18685	18687	16487
CONROD	2081305	16485	18685	2024	0.050	
CONROD	2081306	16487	18687	2024	0.050	
CONROD	2081311	16485	16487	2024	0.075	
CONROD	2081315	18685	18687	2024	0.075	
CSHEAR	2080134	0082024	16487	18687	18689	1005
CONROD	2081307	16487	18687	2024	0.014	
CONROD	2081308	1005	18689	2024	0.014	
CONROD	2081312	16487	1005	2024	0.075	
CONROD	2081316	16487	18689	2024	0.075	
\$	UPPER SKIN 209-030-208-079 .016 ALUMINUM					
CSHEAR	2080791	0162024	14881	16481	16483	14883
CONROD	2087901	14881	16481	2024	0.047	
CONROD	2087902	14883	16483	2024	0.047	
CONROD	2087905	14881	14883	2024	0.093	
CONROD	2087907	16481	16483	2024	0.093	
CTRMEM	2080792	0162024	14883	16483	16485	
CTRMEM	2080793	0162024	14883	16485	14887	
CTRMEM	2080794	0162024	14887	16485	16487	
CSHEAR	2080795	0162024	14887	16487	1005	14889
CONROD	2087903	14887	16487	2024	0.047	
CONROD	2087904	14889	1005	2024	0.047	
CONROD	2087906	14887	14889	2024	0.093	
CONROD	2087908	16487	1005	2024	0.093	
CSHEAR	2080796	0162024	16481	18681	18683	16483
CONROD	2087921	16481	18681	2024	0.040	
CONROD	2087922	16483	18683	2024	0.040	
CONROD	2087929	16481	16483	2024	0.175	
CONROD	2087933	18681	18683	2024	0.175	
CSHEAR	2080797	0162024	16483	18683	18685	16485
CONROD	2087923	16483	18683	2024	0.062	
CONROD	2087924	16485	18685	2024	0.062	
CONROD	2087930	16483	16485	2024	0.175	
CONROD	2087934	18683	18685	2024	0.175	
CSHEAR	2080798	0162024	16485	18685	18687	16487
CONROD	2087925	16485	18685	2024	0.062	
CONROD	2087926	16487	18687	2024	0.062	
CONROD	2087931	16485	16487	2024	0.175	
CONROD	2087935	18685	18687	2024	0.175	
CSHEAR	2080799	0162024	16487	18687	18689	1005
CONROD	2087927	16487	18687	2024	0.040	
CONROD	2087928	1005	18689	2024	0.040	
CONROD	2087932	16487	1005	2024	0.175	
CONROD	2087936	18687	18689	2024	0.175	
\$	LOWER SKINS AND AXIAL MEMBERS					
\$	STA 93.00 TO STA 138.70					

\$	AXIAL MEMBERS					
CONROD	2030521	9313	11503	2024	0.302	
CONROD	2030522	11503	13803	2024	0.302	
CONROD	2030523	9303	13803	2024	0.065	
CONROD	2030511	9317	11507	2024	0.302	
CONROD	2030512	11507	13807	2024	0.302	
CONROD	2030513	9307	13807	2024	0.065	
\$	LOWER SKINS					
CSHEAR	2030291	0252024	9303	9307	13807	13803
CONROD	2032901	9303	13803	2024	0.250	
CONROD	2032902	9307	13807	2024	0.250	
CONROD	2032903	9303	9307	2024	0.575	
CONROD	2032904	13803	13807	2024	0.575	
\$	LOWER SKINS AND AXIAL MEMBERS					
\$	STA 138.70 TO STA 148.50					
\$	AXIAL MEMBERS					
CONROD	2200441	13801	14801	2024	0.046	
CONROD	1150311	13803	14803	7075	0.521	
CONROD	1150231	13807	14807	7075	0.455	
CONROD	2200431	13809	14809	2024	0.046	
\$	LOWER SKINS					
CSHEAR	2200621	0322024	13821	14821	14801	13801
CONROD	2206201	13821	14821	2024	0.131	
CONROD	2206202	13801	14801	2024	0.131	
CONROD	2206203	13821	13801	2024	0.157	
CONROD	2206204	14821	14801	2024	0.157	
CSHEAR	2201011	0252024	13801	14801	14803	13803
CONROD	2200101	13801	14801	2024	0.074	
CONROD	2200102	13803	14803	2024	0.074	
CONROD	2200103	13801	13803	2024	0.123	
CONROD	2200104	14801	14803	2024	0.123	
CSHEAR	2201012	0252024	13803	14803	14807	13807
CONROD	2200111	13803	14803	2024	0.250	
CONROD	2200112	13807	14807	2024	0.250	
CONROD	2200113	13803	13807	2024	0.123	
CONROD	2200114	14803	14807	2024	0.123	
CSHEAR	2201013	0252024	13807	14807	14809	13809
CONROD	2200121	13807	14807	2024	0.074	
CONROD	2200122	13809	14809	2024	0.074	
CONROD	2200123	13807	13809	2024	0.123	
CONROD	2200124	14807	14809	2024	0.123	
CSHEAR	2200611	0322024	13829	14829	14809	13809
CONROD	2206101	13809	14809	2024	0.131	
CONROD	2206102	13829	14829	2024	0.131	
CONROD	2206103	13809	13829	2024	0.157	
CONROD	2206104	14809	14829	2024	0.157	
\$	LOWER SKINS AND AXIAL MEMBERS					
\$	STA 156.41 TO STA 186.25					
\$	AXIAL MEMBERS					
CONROD	2200561	15603	18603	7075	0.117	
CONROD	2200551	15607	18607	7075	0.117	
\$	LOWER SKINS					
CSHEAR	2200771	0252024	15621	18621	18601	15601
CONROD	2207701	15621	18621	2024	0.089	
CONROD	2207702	15601	18601	2024	0.089	
CONROD	2207703	15621	18601	2024	0.373	

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CONROD	2207704	18621	18601	2024	0.373	
CSHEAR	2200772	0252024	18601	18601	18603	15603
CONROD	2207711	15601	18601	2024	0.083	
CONROD	2207712	15603	18603	2024	0.083	
CONROD	2207713	15601	15603	2024	0.373	
CONROD	2207714	18601	18603	2024	0.373	
CSHEAR	2200773	0252024	18603	15607	18607	18603
CONROD	2207721	15603	18603	2024	0.241	
CONROD	2207722	15607	18607	2024	0.241	
CONROD	2207723	15603	15607	2024	0.373	
CONROD	2207724	18603	18607	2024	0.373	
CSHEAR	2200774	0252024	15607	18607	18609	15609
CONROD	2207731	15607	18607	2024	0.083	
CONROD	2207732	15609	18609	2024	0.083	
CONROD	2207733	15607	15609	2024	0.373	
CONROD	2207734	18607	18609	2024	0.373	
CSHEAR	2200775	0252024	15629	18629	18609	15609
CONROD	2207741	15609	18609	2024	0.089	
CONROD	2207742	15629	18629	2024	0.089	
CONROD	2207743	15609	15629	2024	0.373	
CONROD	2207744	18609	18629	2024	0.373	

\$  
\$ LOWER SKINS AND AXIAL MEMBERS  
\$ STA 186.25 TO STA 218.97  
\$

\$ AXIAL MEMBERS						
CONROD	2200801	18603	21803	7075	0.117	
CONROD	2200891	18607	21807	7075	0.117	
\$ LOWER SKINS						
CSHEAR	2200721	0252024	18621	21321	21801	18601
CONROD	2207201	18621	21321	2024	0.092	
CONROD	2207202	18601	21801	2024	0.092	
CONROD	2207203	18621	18601	2024	0.378	
CONROD	2207204	21321	21801	2024	0.378	
CTRMEM	2200722	0252024	21321	21821	21801	
CSHEAR	2200723	0252024	18601	21801	21803	18603
CONROD	2207211	18601	21801	2024	0.077	
CONROD	2207212	18603	21803	2024	0.077	
CONROD	2207213	18601	18603	2024	0.409	
CONROD	2207214	21801	21803	2024	0.409	
CSHEAR	2570011	0242024	18603	18607	21807	21803
CONROD	2570101	18603	21803	2024	0.215	
CONROD	2570102	18607	21807	2024	0.215	
CONROD	2570103	18603	18607	2024	0.383	
CONROD	2570104	21803	21807	2024	0.383	
CSHEAR	2200713	0252024	18607	21807	21809	18609
CONROD	2207101	18607	21807	2024	0.077	
CONROD	2207102	18609	21809	2024	0.077	
CONROD	2207103	18607	18609	2024	0.409	
CONROD	2207104	21807	21809	2024	0.409	
CSHEAR	2200711	0252024	18629	21329	21809	18609
CONROD	2207111	18609	21809	2024	0.092	
CONROD	2207112	18629	21329	2024	0.092	
CONROD	2207113	18609	18629	2024	0.378	
CONROD	2207114	21809	21329	2024	0.378	
CTRMEM	2200712	0252024	21329	21829	21809	

\$  
\$ LOWER SKINS AND AXIAL MEMBERS  
\$ STA 227.62 TO STA 250.00  
\$

\$ AXIAL MEMBERS						
CONROD	2200881	22703	25003	7075	0.117	
CONROD	2200871	22707	25007	7075	0.117	
CONROD	2201151	25003	25007	7075	0.119	
\$ LOWER SKINS						
CSHEAR	2200671	0252024	22721	25021	25001	22701
CONROD	2206701	22721	25021	2024	0.097	
CONROD	2206702	22701	25001	2024	0.097	
CONROD	2206703	22721	22701	2024	0.280	
CONROD	2206704	25021	25001	2024	0.280	
CSHEAR	2200672	0252024	22701	25001	25003	22703
CONROD	2206711	22701	25001	2024	0.084	
CONROD	2206712	22703	25003	2024	0.084	
CONROD	2206713	22701	22703	2024	0.280	
CONROD	2206714	25001	25003	2024	0.280	
CSHEAR	2580011	0242024	22703	22707	25007	25003
CONROD	2580101	22703	25003	2024	0.172	
CONROD	2580102	22707	25007	2024	0.172	
CONROD	2580103	22703	22707	2024	0.269	
CONROD	2580104	25003	25007	2024	0.269	
CSHEAR	2201032	0252024	22707	25007	25009	22709
CONROD	2200301	22707	25007	2024	0.078	
CONROD	2200302	22709	25009	2024	0.078	
CONROD	2200303	22707	22709	2024	0.280	
CONROD	2200304	25007	25009	2024	0.280	
CSHEAR	2201031	0252024	22729	25029	25009	22709
CONROD	2200311	22709	25009	2024	0.097	
CONROD	2200312	22729	25029	2024	0.097	
CONROD	2200313	22709	22729	2024	0.280	
CONROD	2200314	25009	25029	2024	0.280	

\$  
\$ LOWER SKINS AND AXIAL MEMBERS  
\$ STA 250.00 TO STA 268.25  
\$

\$ AXIAL MEMBERS						
CONROD	2201171	25003	26801	7075	0.116	
CONROD	2201191	25007	26809	7075	0.116	
CONROD	1330101	26821	26801	7075	0.055	
CONROD	1330102	26801	26809	7075	0.055	
CONROD	1330103	26809	26829	7075	0.055	
\$ LOWER SKINS						
CTRMEM	2200875	0252024	25021	26821	25001	
CTRMEM	2200878	0252024	25001	26821	26801	
CTRMEM	2200877	0252024	25001	26801	25003	
CSHEAR	1201211	0322024	25003	25007	26809	26801
CONROD	1202101	25003	26801	2024	0.208	
CONROD	1202102	26807	26809	2024	0.208	
CONROD	1202103	25003	25007	2024	0.292	
CONROD	1202104	26801	26809	2024	0.292	
CTRMEM	2201037	0252024	25007	26809	25009	
CTRMEM	2201036	0252024	25009	26809	26829	
CTRMEM	2201035	0252024	25029	26829	25009	

\$  
\$ LOWER SKINS AND AXIAL MEMBERS  
\$ STA 268.25 TO BS 41.32  
\$

\$ AXIAL MEMBERS						
CONROD	1330104	26821	26821	7075	0.055	
CONROD	1330105	26829	26828	7075	0.055	
CONROD	1330106	26821	26805	7075	0.055	

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CONROD	1330107	29905	29829	7075	0.055
\$ LOWER SKINS					
CTRMEM	1330011	0250057	26821	26801	29921
CTRMEM	1330012	0250057	26801	26821	29905
CTRMEM	1330013	0250057	26801	26809	29905
CTRMEM	1330014	0250057	26809	29905	29929
CTRMEM	1330015	0250057	26809	26829	29929
\$					
\$ NOSE STRUCTURE					
\$ STA 33.00 TO STA 46.00					
\$					
\$ BULKHEAD DOUBLERS					
CONROD	5850751	3341	3331	2024	0.035
CONROD	5850752	3331	3339	2024	0.035
CONROD	5850753	3339	3349	2024	0.035
CONROD	5850754	3349	3341	2024	0.035
\$ DOUBLERS					
CONROD	5850771	3331	4631	2024	0.057
CONROD	5850772	3339	4639	2024	0.057
\$ INNER SKIN 209-030-585-089 .010 GLASS FABRIC					
CTRMEM	5858901	0100076	3341	4661	4641
CTRMEM	5858902	0100076	3341	4641	4631
CTRMEM	5858903	0100076	3341	4631	3331
CTRMEM	5858904	0100076	3331	4631	4633
COEMEM	5858905	0100076	3331	4633	1001 3339
CTRMEM	5858906	0100076	3339	4639	1001
CTRMEM	5858907	0100076	3349	4639	3339
CTRMEM	5858908	0100076	3349	4649	4639
CTRMEM	5858909	0100076	3349	4669	4649
\$ INTERIOR SKIN 209-030-585-005 .010 GLASS FABRIC					
CTRMEM	5850501	0100076	3341	4661	4641
CTRMEM	5850502	0100076	3341	4641	4631
CTRMEM	5850503	0100076	3341	4631	3331
CTRMEM	5850504	0100076	3331	4631	4633
COEMEM	5850505	0100076	3331	4633	1001 3339
CTRMEM	5850506	0100076	3339	4639	1001
CTRMEM	5850507	0100076	3349	4639	3339
CTRMEM	5850508	0100076	3349	4649	4639
CTRMEM	5850509	0100076	3349	4669	4649
\$ OUTER SKIN 209-030-585-003 .010 GLASS FABRIC					
CTRMEM	5850301	0100076	3341	4661	4641
CTRMEM	5850302	0100076	3341	4641	4631
CTRMEM	5850303	0100076	3341	4631	3331
CTRMEM	5850304	0100076	3331	4631	4633
COEMEM	5850305	0100076	3331	4633	1001 3339
CTRMEM	5850306	0100076	3339	4639	1001
CTRMEM	5850307	0100076	3349	4639	3339
CTRMEM	5850308	0100076	3349	4649	4639
CTRMEM	5850309	0100076	3349	4669	4649
\$ BATTERY SHELF					
COEMEM	5850211	0122024	3331	4631	4639 3339
COEMEM	5850271	0202024	3331	4631	4639 3339
CONROD	5810351	3331	4631	2024	0.054
CONROD	5810251	3339	4639	2024	0.054
\$ BULKHEAD DOUBLERS					
CONROD	5850811	4661	4641	2024	0.053
CONROD	5850812	4641	4631	2024	0.053
CONROD	5850813	4631	4633	2024	0.053
CONROD	5850814	4633	1001	2024	0.053
CONROD	5850815	1001	4639	2024	0.053

CONROD	5850816	4639	4649	2024	0.053
CONROD	5850817	4649	4669	2024	0.053
CONROD	5850818	4669	4661	2024	0.053
\$					
\$ NOSE STRUCTURE					
\$ STA 46.00 TO STA 61.25					
\$					
\$ DOUBLERS					
CONROD	5850851	4641	6161	2024	0.053
CONROD	5850852	4649	6169	2024	0.053
CONROD	5850790	4633	6131	2024	0.0585
CONROD	5850791	1001	6139	2024	0.0585
\$ INNER SKIN 209-030-585-089 .010 GLASS FABRIC					
COEMEM	5858921	0100076	4661	6171	6179 4669
CTRMEM	5858922	0100076	4661	6171	6161
CTRMEM	5858923	0100076	4661	6161	4641
CTRMEM	5858924	0100076	6161	6141	4641
CTRMEM	5858925	0100076	4641	6141	4631
CTRMEM	5858926	0100076	6141	6131	4631
CTRMEM	5858927	0100076	4631	6131	4633
CTRMEM	5858928	0100076	6131	6123	4633
COEMEM	5858929	0100076	4633	6123	1001 6127
CTRMEM	5858930	0100076	6139	6127	1001
CTRMEM	5858931	0100076	4639	6139	1001
CTRMEM	5858932	0100076	6149	6139	4639
CTRMEM	5858933	0100076	4649	6149	4639
CTRMEM	5858934	0100076	6169	6149	4649
CTRMEM	5858935	0100076	4669	6169	4649
CTRMEM	5858936	0100076	4669	6179	6169
\$ INTERIOR SKIN 209-030-585-005 .010 GLASS FABRIC					
COEMEM	5850521	0100076	4661	6171	6179 4669
CTRMEM	5850522	0100076	4661	6171	6161
CTRMEM	5850523	0100076	4661	6161	4641
CTRMEM	5850524	0100076	6161	6141	4641
CTRMEM	5850525	0100076	4641	6141	4631
CTRMEM	5850526	0100076	6141	6131	4631
CTRMEM	5850527	0100076	4631	6131	4633
CTRMEM	5850528	0100076	6131	6123	4633
COEMEM	5850529	0100076	4633	6123	1001 6127
CTRMEM	5850530	0100076	6139	6127	1001
CTRMEM	5850531	0100076	4639	6139	1001
CTRMEM	5850532	0100076	6149	6139	4639
CTRMEM	5850533	0100076	4649	6149	4639
CTRMEM	5850534	0100076	6169	6149	4649
CTRMEM	5850535	0100076	4669	6169	4649
CTRMEM	5850536	0100076	4669	6179	6169
\$ OUTER SKIN 209-030-585-003 .010 GLASS FABRIC					
COEMEM	5850321	0100076	4661	6171	6179 4669
CTRMEM	5850322	0100076	4661	6171	6161
CTRMEM	5850323	0100076	4661	6161	4641
CTRMEM	5850324	0100076	6161	6141	4641
CTRMEM	5850325	0100076	4641	6141	4631
CTRMEM	5850326	0100076	6141	6131	4631
CTRMEM	5850327	0100076	4631	6131	4633
COEMEM	5850328	0100076	6131	6123	4633 1001
CTRMEM	5850329	0100076	4633	6123	6127
CTRMEM	5850330	0100076	6139	6127	1001
CTRMEM	5850331	0100076	4639	6139	1001
CTRMEM	5850332	0100076	6149	6139	4639
CTRMEM	5850333	0100076	4649	6149	4639

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CTRMEM	5850334	0100076	6169	6149	4649	
CTRMEM	5850335	0100076	4669	6169	4649	
CTRMEM	5850336	0100076	4669	6179	6169	
\$ FRAME						
CTRMEM	5940041	0322024	4641	6161	6163	
CTRMEM	5940171	0322024	4649	6167	6169	
\$ BULKHEAD DOUBLERS						
CONROD	5850871	6179	6171	2024	0.044	
CONROD	5850872	6171	6161	2024	0.044	
CONROD	5850873	6169	6179	2024	0.044	
CONROD	5850792	6161	6141	2024	0.034	
CONROD	5850793	6141	6131	2024	0.034	
CONROD	5850794	6131	6123	2024	0.034	
CONROD	5850795	6123	6127	2024	0.034	
CONROD	5850796	6127	6139	2024	0.034	
CONROD	5850797	6139	6149	2024	0.034	
CONROD	5850798	6149	6169	2024	0.034	
\$ NOSE SUBASSEMBLY						
\$ STA 33.00 BULKHEAD						
\$ 209-030-580-087						
\$ FRAMES AND DOUBLERS						
CONROD	333141	3331	3341	2024	0.092	
CONROD	333949	3339	3349	2024	0.092	
CONROD	333931	3331	3339	2024	0.092	
CONROD	334149	3341	3349	2024	0.092	
\$ STA 46.00 BULKHEAD						
\$ 209-030-582-053						
\$ SHEAR WEBS						
CODMEM	0463137	0252024	04631	04639	01001	04633
CODMEM	0463149	0252024	04631	04641	04649	04639
CODMEM	0464169	0252024	04641	04661	04669	04649
\$ FORWARD FUSELAGE SUBASSEMBLY						
\$ STA 61.25 BULKHEAD						
\$ 209-030-510-001						
\$ 209-030-510-007						
\$ FRAMES AND DOUBLERS						
CONROD	613123	6123	6131	2024	0.030	
CONROD	613141	6131	6141	2024	0.064	
CONROD	614161	6141	6151	2024	0.064	
CONROD	616171	6161	6171	2024	0.282	
CONROD	613343	6133	6143	2024	0.030	
CONROD	614363	6143	6163	2024	0.030	
CONROD	616371	6163	6171	2024	0.012	
CONROD	613747	6137	6147	2024	0.030	
CONROD	614767	6147	6167	2024	0.030	
CONROD	617967	6187	6179	2024	0.012	
CONROD	612739	6127	6139	2024	0.030	
CONROD	613949	6139	6149	2024	0.064	
CONROD	614969	6149	6169	2024	0.064	
CONROD	616979	6169	6179	2024	0.282	

CONROD	612327	6123	6127	2024	0.108	
CONROD	613337	6133	6137	2024	0.055	
CONROD	617179	6171	6179	2024	0.282	
\$ SHEAR WEBS						
CTRMEM	612331	0402024	6123	6131	6133	
CODMEM	612337	0402024	6123	6133	6137	6127
CTRMEM	612737	0402024	6127	6137	6139	
CODMEM	613143	0402024	6131	6141	6143	6133
CODMEM	613749	0402024	6137	6147	6149	6139
CODMEM	614163	0402024	6141	6161	6163	6143
CODMEM	614769	0402024	6147	6167	6169	6149
CTRMEM	617161	0322024	6161	6171	6163	
CTRMEM	616779	0322024	6167	6179	6169	
\$ STA 93.00 BULKHEAD						
\$ 209-030-102-323						
\$ FRAMES AND DOUBLERS						
CONROD	930307	9303	9307	2024	0.095	
CONROD	931317	9313	9317	2024	0.151	
CONROD	933133	9331	9333	2024	0.397	
CONROD	933337	9333	1003	2024	0.167	
CONROD	933739	1003	9339	2024	0.261	
CONROD	934143	9341	9343	2024	0.242	
CONROD	934347	9343	9347	2024	0.374	
CONROD	934749	9347	9349	2024	0.357	
CONROD	936143	9361	9363	2024	0.191	
CONROD	936163	9361	9363	2024	0.194	
CONROD	936769	9367	9369	2024	0.194	
CONROD	937173	9371	9373	2024	0.202	
CONROD	937377	9373	9377	2024	0.188	
CONROD	937779	9377	9379	2024	0.202	
CONROD	930313	9303	9313	2024	0.051	
CONROD	933113	9313	9331	2024	0.080	
CONROD	933141	9331	9341	2024	0.333	
CONROD	934161	9341	9361	2024	0.333	
CONROD	936171	9361	9371	2024	0.092	
CONROD	931333	9313	9333	7075	0.209	
CONROD	933343	9333	9343	7075	0.333	
CONROD	934363	9343	9363	7075	0.242	
CONROD	936373	9363	9373	7075	0.100	
CONROD	930717	9307	9317	2024	0.051	
CONROD	933717	9317	1003	7075	0.209	
CONROD	933747	1003	9347	7075	0.510	
CONROD	934767	9347	9367	7075	0.374	
CONROD	936777	9367	9377	7075	0.100	
CONROD	931739	9317	9339	2024	0.080	
CONROD	933949	9339	9349	2024	0.314	
CONROD	934969	9349	9369	2024	0.188	
CONROD	936979	9369	9379	2024	0.092	
\$ SHEAR WEBS						
CODMEM	930317	0252024	9303	9313	9317	9307
CTRMEM	931331	0242024	9313	9331	9333	
CODMEM	931337	0242024	9313	9333	1003	9317
CTRMEM	931737	0242024	9317	1003	9339	
CODMEM	933143	0857075	9331	9341	9343	9333
CTRMEM	934361	0402024	9343	9361	9363	
CODMEM	934367	0242024	9343	9363	9367	9347
CODMEM	934769	0402024	9347	9367	9369	9349
CODMEM	936173	0492024	9361	9371	9373	9363

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CODMEM 936377 0242024 9363 9373 9377 9367  
CODMEM 936779 0482024 9367 9377 9379 9369

\$  
\$ STA 138.70 BULKHEAD  
\$ 209-030-103-159  
\$

\$ FRAMES AND DOUBLERS

CONROD	1380103	13801	13803	2024	0.078
CONROD	1380307	13803	13807	7075	0.184
CONROD	1380709	13807	13809	2024	0.078
CONROD	1382123	13821	13823	2024	0.070
CONROD	1382327	13823	13827	7075	0.130
CONROD	1382729	13827	13829	2024	0.070
CONROD	1383133	13831	13833	7075	0.168
CONROD	1383337	13833	1004	7075	0.168
CONROD	1383739	1004	13839	7075	0.224
CONROD	1384143	13841	13843	2024	0.056
CONROD	1384347	13843	13847	2024	0.108
CONROD	1386163	13861	13863	2024	0.056
CONROD	1386769	13867	13869	2024	0.047
CONROD	1382101	13801	13821	2024	0.078
CONROD	1382131	13821	13831	2024	0.057
CONROD	1383141	13831	13841	2024	0.104
CONROD	1384161	13841	13861	2024	0.104
CONROD	1380323	13803	13823	7075	0.863
CONROD	1382323	13823	13833	7075	0.116
CONROD	1383343	13833	13843	7075	0.244
CONROD	1384363	13843	13863	7075	0.128
CONROD	1382707	13807	13827	7075	0.116
CONROD	1382737	13827	1004	7075	0.116
CONROD	1383747	1004	13847	7075	0.116
CONROD	1383748	1004	13848	7075	0.128
CONROD	1384867	13848	13867	7075	0.128
CONROD	1380929	13809	13829	2024	0.078
CONROD	1382938	13829	13839	2024	0.061
CONROD	1383949	13839	13849	2024	0.104
CONROD	1384969	13849	13869	2024	0.104

\$ SHEAR WEBS

CTRMEM	1380121	0402024	13801	13821	13823
CTRMEM	1380123	0402024	13801	13823	13803
CODMEM	1380327	0402024	13803	13823	13827
CTRMEM	1380727	0402024	13807	13827	13809
CTRMEM	1380927	0402024	13809	13827	13829
CODMEM	1382133	0402024	13821	13831	13833
CODMEM	1382337	0402024	13823	13833	1004
CODMEM	1382739	0402024	13827	1004	13839
CODMEM	1383347	0402024	13833	13843	13847
CODMEM	1383749	0322024	1004	13848	13849
CODMEM	1384163	0322024	13841	13861	13863
CODMEM	1384969	0322024	13849	13867	13869

\$ CENTER FUSELAGE SUBASSEMBLY  
\$

\$ STA 148.50 BULKHEAD  
\$ 209-030-104-011  
\$

\$ FRAMES AND DOUBLERS

CONROD	1480103	14801	14803	7075	0.130
CONROD	1480307	14803	14807	7075	0.130

CONROD	1480709	14807	14809	7075	0.130
CONROD	1482123	14821	14823	7075	0.293
CONROD	1482327	14823	14827	7075	0.316
CONROD	1482729	14827	14829	7075	0.293
CONROD	1483133	14831	14833	7075	0.155
CONROD	1483337	14833	14837	7075	0.265
CONROD	1483739	14837	14839	7075	0.155
CONROD	1484347	14843	14847	7075	0.152
CONROD	1486163	14861	14863	7075	0.277
CONROD	1486367	14863	14867	7075	0.249
CONROD	1486769	14867	14869	7075	0.277
CONROD	1488183	14881	14883	7075	0.155
CONROD	1488387	14883	14887	7075	0.155
CONROD	1488789	14887	14889	7075	0.155
CONROD	1482101	14801	14821	7075	0.130
CONROD	1482131	14821	14831	7075	0.130
CONROD	1483141	14831	14841	7075	0.130
CONROD	1484161	14841	14861	7075	0.130
CONROD	1486181	14861	14881	7075	0.121
CONROD	1480323	14803	14823	7075	0.234
CONROD	1482333	14823	14833	7075	0.284
CONROD	1483343	14833	14843	7075	0.334
CONROD	1484363	14843	14863	7075	0.334
CONROD	1482707	14807	14827	7075	0.234
CONROD	1482737	14827	14837	7075	0.292
CONROD	1483747	14837	14847	7075	0.342
CONROD	1484767	14847	14867	7075	0.342
CONROD	1480929	14809	14829	7075	0.130
CONROD	1482939	14829	14839	7075	0.130
CONROD	1483949	14839	14849	7075	0.130
CONROD	1484969	14849	14869	7075	0.130
CONROD	1486989	14869	14889	7075	0.121

\$ SHEAR WEBS

CTRMEM	1480121	0727075	14801	14821	14823
CTRMEM	1480123	0727075	14801	14823	14803
CODMEM	1480327	0727075	14803	14823	14827
CTRMEM	1480727	0727075	14807	14827	14809
CTRMEM	1480927	0727075	14809	14827	14829
CODMEM	1482133	0327075	14821	14831	14833
CODMEM	1482337	0169046	14823	14833	14837
CODMEM	1482739	0327075	14827	14837	14839
CODMEM	1483143	0327075	14831	14841	14843
CODMEM	1483347	0169046	14833	14843	14847
CODMEM	1483749	0327075	14837	14847	14849
CODMEM	1484163	0327075	14841	14861	14863
CODMEM	1484367	0169046	14843	14863	14867
CODMEM	1484769	0327075	14847	14867	14869
CODMEM	1486183	0227075	14861	14881	14883
CODMEM	1486387	0227075	14863	14883	14887
CODMEM	1486789	0227075	14867	14887	14889

\$ STA 156.41 BULKHEAD  
\$ 209-030-105-001  
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\$ SHEAR WEBS

CTRMEM	1560121	0327075	15601	15621	15623
CTRMEM	1560123	0327075	15601	15623	15603
CTRMEM	1560323	0327075	15603	15623	15625
CTRMEM	1560325	0327075	15603	15625	15607
CTRMEM	1560725	0327075	15607	15625	15627

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CTRMEM 1560727 0327075 15607 15627 15609  
CTRMEM 1560927 0327075 15609 15627 15629  
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\$ STA 186 25 BULKHEAD  
\$ 209-030-107-009  
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\$ FRAMES AND DOUBLERS

CONROD 1860103 18601 18603 2024 0.123  
CONROD 1860307 18603 18607 2024 0.123  
CONROD 1860709 18607 18609 2024 0.123  
CONROD 1862123 18621 18623 7075 0.278  
CONROD 1862325 18623 18625 7075 0.278  
CONROD 1862527 18625 18627 7075 0.278  
CONROD 1862729 18627 18629 7075 0.278  
CONROD 1866183 18661 18663 7075 0.328  
CONROD 1866385 18663 18665 7075 0.328  
CONROD 1866587 18665 18667 7075 0.328  
CONROD 1866789 18667 18669 7075 0.328  
CONROD 1862101 18601 18621 2024 0.123  
CONROD 1862131 18621 18631 2014 0.652  
CONROD 1863141 18631 18641 2014 0.652  
CONROD 1864151 18641 18651 2014 0.548  
CONROD 1865156 18651 18656 2014 0.548  
CONROD 1865661 18656 18661 2014 0.548  
CONROD 1866181 18661 18681 2024 0.203  
CONROD 1860929 18609 18629 2024 0.123  
CONROD 1862939 18629 18639 2014 0.487  
CONROD 1863949 18639 18649 2014 0.487  
CONROD 1864954 18649 18654 2014 0.588  
CONROD 1865459 18654 18659 2014 0.588  
CONROD 1865969 18659 18669 2014 0.588  
CONROD 1866989 18669 18689 2024 0.203  
\$ SHEAR WEBS  
CTRMEM 1860121 0129046 18601 18621 18623  
CTRMEM 1860123 0129046 18601 18623 18603  
CTRMEM 1860323 0129046 18603 18623 18625  
CTRMEM 1860325 0129046 18603 18625 18607  
CTRMEM 1860725 0129046 18607 18625 18627  
CTRMEM 1860727 0129046 18607 18627 18609  
CTRMEM 1860927 0129046 18609 18627 18629  
CODMEM 1862133 0129046 18621 18631 18633 18623  
CODMEM 1862335 0129046 18623 18633 18635 18625  
CODMEM 1862537 0129046 18625 18635 18637 18627  
CODMEM 1862739 0129046 18627 18637 18639 18629  
CTRMEM 1863141 0129046 18631 18641 18642  
CODMEM 1863143 0129046 18631 18642 18643 18633  
CTRMEM 1863343 0129046 18633 18643 18644  
CODMEM 1863345 0129046 18633 18644 18645 18635  
CODMEM 1863546 0129046 18635 18645 18646 18637  
CTRMEM 1863746 0129046 18637 18646 18647  
CODMEM 1863748 0129046 18637 18647 18648 18639  
CTRMEM 1863948 0129046 18639 18648 18649  
CODMEM 1865662 0329046 18656 18661 18662 18657  
CODMEM 1866157 0329046 18661 18656 18657 18652  
CODMEM 1864152 0329046 18641 18651 18652 18642  
CTRMEM 1865762 0329046 18657 18662 18663  
CODMEM 1865263 0329046 18652 18657 18663 18643  
CTRMEM 1864252 0329046 18642 18652 18643  
CODMEM 1864384 0329046 18643 18663 18664 18644  
CODMEM 1864485 0329046 18644 18664 18665 18645

CODMEM 1864586 0329046 18645 18665 18666 18646  
CODMEM 1864687 0329046 18646 18666 18667 18647  
CTRMEM 1865687 0329046 18656 18667 18668  
CODMEM 1864758 0329046 18647 18667 18668 18653  
CTRMEM 1864753 0329046 18647 18663 18648  
CODMEM 1865889 0329046 18658 18668 18669 18659  
CODMEM 1865358 0329046 18653 18658 18659 18654  
CODMEM 1864854 0329046 18648 18653 18654 18649  
CTRMEM 1866181 0859046 18661 18681 18682  
CODMEM 1866283 0859046 18662 18681 18683 18663  
CODMEM 1866385 0129046 18663 18683 18685 18664  
CTRMEM 1866485 0129046 18664 18685 18686  
CTRMEM 1866585 0129046 18665 18685 18686  
CODMEM 1866687 0129046 18666 18685 18687 18667  
CODMEM 1866789 0859046 18667 18687 18689 18668  
CTRMEM 1866889 0859046 18668 18689 18669  
\$  
\$ FORWARD WING CARRY-THRU SPAR  
\$ 209-030-140  
\$

\$ FRAMES AND DOUBLERS

CBAR 1874142 1874142 18641 18642 0.0 1.0 1.0 1  
PBAR 1874142 2014 1.828 0.087 0.574 0.26  
CBAR 1874243 1874243 18642 18643 0.0 1.0 1.0 1 1874243  
+1874243 8  
PBAR 1874243 2014 2.133 0.537 1.937 0.453  
CBAR 1874344 1874344 18643 18644 0.0 1.0 1.0 1  
PBAR 1874344 2014 0.9275 0.0 0.407 0.0  
CBAR 1874445 1874445 18644 18645 0.0 1.0 1.0 1  
PBAR 1874445 2014 0.9275 0.0 0.407 0.0  
CBAR 1874546 1874546 18645 18646 0.0 1.0 1.0 1  
PBAR 1874546 2014 0.9275 0.0 0.407 0.0  
CBAR 1874647 1874647 18646 18647 0.0 1.0 1.0 1  
PBAR 1874647 2014 0.9275 0.0 0.407 0.0  
CBAR 1874748 1874748 18647 18648 0.0 1.0 1.0 1 1874748  
+1874748 6  
PBAR 1874748 2014 2.133 0.537 1.937 0.453  
CBAR 1874849 1874849 18648 18649 0.0 1.0 1.0 1  
PBAR 1874849 2014 1.828 0.087 0.574 0.26  
CBAR 1875152 1875152 18651 18652 0.0 1.0 1.0 1  
PBAR 1875152 2014 1.5 0.0703 0.5 0.215  
CBAR 1875243 1875243 18652 18643 0.0 1.0 1.0 1 1875243  
+1875243 456  
PBAR 1875243 2014 1.5 0.0703 0.5 0.215  
CBAR 1874753 1874753 18647 18653 0.0 1.0 1.0 1 1874753  
+1874753 456  
PBAR 1874753 2014 1.5 0.0703 0.5 0.215  
CBAR 1875354 1875354 18653 18654 0.0 1.0 1.0 1  
PBAR 1875354 2014 1.5 0.0703 0.5 0.215  
CBAR 1875857 1875857 18656 18657 0.0 1.0 1.0 1  
PBAR 1875857 2014 1.5 0.0703 0.5 0.215  
CBAR 1875763 1875763 18657 18663 0.0 1.0 1.0 1 1875763  
+1875763 456  
PBAR 1875763 2014 1.5 0.0703 0.5 0.215  
CBAR 1876758 1876758 18667 18658 0.0 1.0 1.0 1 1876758  
+1876758 456  
PBAR 1876758 2014 1.5 0.0703 0.5 0.215  
CBAR 1875859 1875859 18658 18659 0.0 1.0 1.0 1  
PBAR 1875859 2014 1.5 0.0703 0.5 0.215  
CBAR 1876162 1876162 18661 18662 0.0 1.0 1.0 1

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PBAR	1876162	2014	1.828	0.087	0.574	0.26				
CBAR	1876263	1876263	18662	18663	0.0	1.0	1.0	1	1876263	
+1876263 6										
PBAR	1876263	2014	2.133	0.537	1.937	0.453				
CBAR	1876364	1876364	18663	18664	0.0	1.0	1.0	1		
PBAR	1876364	2014	1.1325	0.0	0.497	0.0				
CBAR	1876465	1876465	18664	18665	0.0	1.0	1.0	1		
PBAR	1876465	2014	1.036	0.0	0.403	0.0				
CBAR	1876566	1876566	18665	18666	0.0	1.0	1.0	1		
PBAR	1876566	2014	1.036	0.0	0.403	0.0				
CBAR	1876667	1876667	18666	18667	0.0	1.0	1.0	1		
PBAR	1876667	2014	1.1325	0.0	0.497	0.0				
CBAR	1876768	1876768	18667	18668	0.0	1.0	1.0	1	1876768	
+1876768 6										
PBAR	1876768	2014	2.133	0.537	1.937	0.453				
CBAR	1876869	1876869	18668	18669	0.0	1.0	1.0	1		
PBAR	1876869	2014	1.828	0.087	0.574	0.26				
CBAR	1874151	1874151	18641	18651	0.0	1.0	1.0	1		
PBAR	1874151	2014	0.5688	0.00074	0.981	0.003				
CBAR	1875156	1875156	18651	18656	0.0	1.0	1.0	1		
PBAR	1875156	2014	0.8575	0.0038	1.07	0.015				
CBAR	1875257	1875257	18652	18657	0.0	1.0	1.0	1		
PBAR	1875257	2014	0.512	0.0027	0.179	0.01				
CBAR	1874363	1874363	18643	18653	0.0	1.0	1.0	1		
PBAR	1874363	2014	0.512	0.0	0.179	0.0				
CONROD	1874654	18644	18654	2014	0.68125					
CONROD	1874656	18646	18656	2014	0.68125					
CBAR	1874767	1874767	18647	18657	0.0	1.0	1.0	1		
PBAR	1874767	2014	0.512	0.0	0.179	0.0				
CBAR	1875358	1875358	18653	18658	0.0	1.0	1.0	1		
PBAR	1875358	2014	0.512	0.0027	0.179	0.01				
CBAR	1874954	1874954	18649	18654	0.0	1.0	1.0	1		
PBAR	1874954	2014	0.5688	0.00074	0.981	0.003				
CBAR	1875459	1875459	18654	18659	0.0	1.0	1.0	1		
PBAR	1875459	2014	0.8575	0.0038	1.07	0.015				
\$ SHEAR WEBS										
CSHEAR	1874251	1252014	18641	18651	18652	18642				
CONROD	1874241	18641	18642	2014	0.0456				WEB	
CONROD	1875242	18642	18652	2014	0.125				WEB	
CONROD	1875141	18641	18651	2014	0.125				WEB	
CONROD	1875251	18651	18652	2014	0.1441				WEB	
CSHEAR	1875256	1252014	18651	18656	18657	18652				
CONROD	1875756	18656	18657	2014	0.0985				WEB	
CONROD	1875651	18651	18656	2014	0.125				WEB	
CONROD	1875752	18652	18657	2014	0.342				WEB	
CTRMEM	1875763	1252014	18657	18662	18663					
CSHEAR	1874357	1252014	18652	18657	18663	18643				
CONROD	1876357	18657	18663	2014	0.147				WEB	
CONROD	1874352	18652	18643	2014	0.147				WEB	
CONROD	1876343	18643	18663	2014	0.217				WEB	
CTRMEM	1874352	1252014	18642	18652	18643					
CTRMEM	1875868	1252014	18658	18668	18667					
CSHEAR	1875847	1252014	18653	18658	18657	18647				
CONROD	1876747	18647	18667	2014	0.217				WEB	
CONROD	1875347	18647	18653	2014	0.147				WEB	
CONROD	1875867	18667	18658	2014	0.147				WEB	
CTRMEM	1874853	1252014	18647	18648	18653					
CSHEAR	1875953	1252014	18654	18659	18658	18653				
CONROD	1875958	18658	18659	2014	0.0985				WEB	
CONROD	1875853	18653	18658	2014	0.342				WEB	

CONROD	1875954	18654	18659	2014	0.125				WEB	
CSHEAR	1875448	1252014	18649	18654	18653	18648				
CONROD	1875453	18653	18654	2014	0.1441				WEB	
CONROD	1875449	18649	18654	2014	0.125				WEB	
CONROD	1875348	18648	18653	2014	0.125				WEB	
CONROD	1874948	18648	18649	2014	0.0456				WEB	
\$										
\$ LUGS / FORWARD CARRY-THRU SPAR										
\$ STA 186 25										
CBAR	1864100	1864100	18641	61916	0.0	1.0	1.0	1	F6 LUGR	
PBAR	1864100	2014	0.3672	0.0458	0.433	0.146				
CBAR	1865100	1865100	18651	61916	0.0	1.0	1.0	1	F4 LUGR	
PBAR	1865100	2014	0.4237	0.0703	0.5	0.215				
CBAR	1866000	1866000	18656	61914	0.0	1.0	1.0	1	F3 LUGR	
PBAR	1866000	2014	0.4237	0.0703	0.5	0.215				
CBAR	1868100	1868100	18661	61912	0.0	1.0	1.0	1	F1 LUGR	
PBAR	1868100	2014	0.4237	0.0703	0.5	0.215				
CBAR	1864900	1864900	18649	71918	0.0	1.0	1.0	1	F6 LUGL	
PBAR	1864900	2014	0.3672	0.0458	0.433	0.146				
CBAR	1865400	1865400	18654	71916	0.0	1.0	1.0	1	F4 LUGL	
PBAR	1865400	2014	0.4237	0.0703	0.5	0.215				
CBAR	1865900	1865900	18659	71914	0.0	1.0	1.0	1	F3 LUGL	
PBAR	1865900	2014	0.4237	0.0703	0.5	0.215				
CBAR	1866900	1866900	18669	71912	0.0	1.0	1.0	1	F1 LUGL	
PBAR	1866900	2014	0.4237	0.0703	0.5	0.215				
\$										
\$ CENTER WING CARRY-THRU SPAR										
\$ 209-030-141										
\$ FRAMES AND DOUBLERS										
CBAR	1974142	1974142	19741	19742	0.0	1.0	1.0	1		
PBAR	1974142	2014	2.453	0.955	10.405	0.497				
CBAR	1974243	1974243	19742	19743	0.0	1.0	1.0	1	1974243	
+1974243 6										
PBAR	1974243	2014	1.65	0.0495	1.04	0.171				
CBAR	1974345	1974345	19743	19745	0.0	1.0	1.0	1		
PBAR	1974345	2014	1.65	0.0	1.04	0.0				
CBAR	1974547	1974547	19745	19747	0.0	1.0	1.0	1		
PBAR	1974547	2014	1.65	0.0	1.04	0.0				
CBAR	1974748	1974748	19747	19748	0.0	1.0	1.0	1	1974748	
+1974748 6										
PBAR	1974748	2014	1.65	0.0495	1.04	0.171				
CBAR	1974849	1974849	19748	19749	0.0	1.0	1.0	1		
PBAR	1974849	2014	2.453	0.955	10.405	0.497				
CBAR	1975152	1975152	19751	19752	0.0	1.0	1.0	1		
PBAR	1975152	2014	1.283	0.113	2.156	0.0748				
CBAR	1975859	1975859	19758	19759	0.0	1.0	1.0	1		
PBAR	1975859	2014	1.283	0.113	2.156	0.0748				
CBAR	1976162	1976162	19761	19762	0.0	1.0	1.0	1		
PBAR	1976162	2014	2.019	0.437	13.573	0.174				
CBAR	1976263	1976263	19762	19763	0.0	1.0	1.0	1	1976263	
+1976263 6										
PBAR	1976263	2014	2.0625	0.0967	1.3	0.32				
CBAR	1976365	1976365	19763	19765	0.0	1.0	1.0	1		
PBAR	1976365	2014	2.0625	0.0	1.3	0.0				
CBAR	1976667	1976667	19766	1006	0.0	1.0	1.0	1		
PBAR	1976667	2014	2.0625	0.0	1.3	0.0				
CBAR	1976768	1976768	1006	19768	0.0	1.0	1.0	1	1976768	
+1976768 6										

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PBAR	1978768	2014	2.0825	0.0887	1.3	0.32			
CBAR	1978888	197888	19788	19769	0.0	1.0	1.0	1	
PBAR	1975889	2014	2.019	0.437	13.573	0.174			
CBAR	1974151	1974151	19741	19751	0.0	1.0	1.0	1	
PBAR	1974151	2014	1.845	0.0258	3.113	0.103			
CBAR	1975161	1975161	19751	19761	0.0	1.0	1.0	1	
PBAR	1975161	2014	1.845	0.0258	3.113	0.103			
CBAR	1974252	1974252	19742	19752	0.0	1.0	1.0	1	
PBAR	1974252	2014	0.825	0.0062	0.52	0.023			
CBAR	1975262	1975262	19752	19762	0.0	1.0	1.0	1	
PBAR	1975262	2014	0.825	0.0062	0.52	0.023			
CBAR	1974363	1974363	19743	19753	0.0	1.0	1.0	1	
PBAR	1974363	2014	0.825	0.0	0.52	0.0			
CONROD	1974565	19745	19765	2014	0.825				
CBAR	1974767	1974767	19747	19757	0.0	1.0	1.0	1	
PBAR	1974767	2014	0.825	0.0	0.52	0.0			
CBAR	1974858	1974858	19748	19758	0.0	1.0	1.0	1	
PBAR	1974858	2014	0.825	0.0062	0.52	0.023			
CBAR	1975868	1975868	19758	19768	0.0	1.0	1.0	1	
PBAR	1975868	2014	0.825	0.0062	0.52	0.023			
CBAR	1974959	1974959	19749	19759	0.0	1.0	1.0	1	
PBAR	1974959	2014	1.845	0.0258	3.113	0.103			
CBAR	1975869	1975869	19759	19769	0.0	1.0	1.0	1	
PBAR	1975869	2014	1.845	0.0258	3.113	0.103			
\$ SHEAR WEBS									
CSHEAR	1974152	2002014	19741	19751	19752	19742			
CONROD	1974241	19741	19742	2014	0.247				WEB
CONROD	1975251	19751	19752	2014	0.4117				WEB
CSHEAR	1975162	4002014	19751	19761	19762	19752			
CONROD	1976281	19761	19762	2014	0.1647				WEB
CSHEAR	1974352	2002014	19742	19752	19763	19743			
CONROD	1974342	19742	19743	2014	0.288				WEB
CONROD	1976352	19752	19763	2014	0.288				WEB
CONROD	1975867	1006	19758	2014	0.288				WEB
CTRMEM	1975263	2002014	19752	19762	19763				
CSHEAR	1974365	2002014	19743	19753	19765	19745			
CONROD	1974543	19743	19745	2014	0.3283				WEB
CONROD	1976563	19763	19765	2014	0.3283				WEB
CSHEAR	1974567	2002014	19747	19757	19765	19745			
CONROD	1974745	19745	19747	2014	0.3283				WEB
CONROD	1976765	19765	19767	2014	0.3283				WEB
CSHEAR	1974758	2002014	19748	19758	1006	19747			
CONROD	1974847	19747	19748	2014	0.288				WEB
CTRMEM	1975867	2002014	19758	19768	1006				
CSHEAR	1974859	2002014	19749	19759	19758	19748			
CONROD	1974948	19748	19749	2014	0.247				WEB
CONROD	1975958	19758	19759	2014	0.4117				WEB
CSHEAR	1975869	4002014	19759	19769	19768	19758			
CONROD	1976968	19768	19769	2014	0.1647				WEB
CONROD	1975141	19741	19751	2014	0.764				WEB
CONROD	1976151	19751	19761	2014	1.528				WEB
CONROD	1975242	19742	19752	2014	0.981				WEB
CONROD	1976252	19752	19762	2014	1.528				WEB
CONROD	1976343	19743	19763	2014	1.009				WEB
CONROD	1976545	19745	19765	2014	1.584				WEB
CONROD	1976747	19747	19767	2014	1.009				WEB
CONROD	1975848	19748	19758	2014	0.981				WEB
CONROD	1976858	19758	19768	2014	1.528				WEB
CONROD	1975949	19749	19759	2014	0.764				WEB
CONROD	1976959	19759	19769	2014	1.528				WEB

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LUGS / CENTER CARRY-THRU SPAR									
STA 197.107									
CBAR	1974100	1974100	19741	61927	0.0	1.0	1.0	1	C5 LUGR
PBAR	1974100	2014	0.694	0.208	1.302	0.624			
CBAR	1975100	1975100	19751	61923	0.0	1.0	1.0	1	C2 LUGR
PBAR	1975100	2014	0.694	0.208	1.302	0.624			
CBAR	1974900	1974900	19749	71927	0.0	1.0	1.0	1	C5 LUGL
PBAR	1974900	2014	0.694	0.208	1.302	0.624			
CBAR	1975900	1975900	19759	71923	0.0	1.0	1.0	1	C2 LUGL
PBAR	1975900	2014	0.694	0.208	1.302	0.624			
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AFT WING CARRY-THRU SPAR									
209-030-142									
\$									
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\$									
FRAMES AND DOUBLERS									
CBAR	2124143	2124143	21341	21343	0.0	1.0	1.0	1	2124143
+2124143									
PBAR	2124143	2014	1.562	0.725	1.422	0.0634			
CBAR	2124345	2124345	21343	21345	0.0	1.0	1.0	1	
PBAR	2124345	2014	0.8124	0.0	0.3427	0.00756			
CBAR	2124547	2124547	21345	21347	0.0	1.0	1.0	1	
PBAR	2124547	2014	0.8124	0.0	0.3427	0.00756			
CBAR	2124749	2124749	21347	21349	0.0	1.0	1.0	1	2124749
+2124749									
PBAR	2124749	2014	1.562	0.725	1.422	0.0634			
\$									
\$									
\$									
\$									
LUGS / AFT CARRY-THRU SPAR									
STA 213.94									
CBAR	2134100	2134100	21341	61935	0.0	1.0	1.0	1	A2 LUGR
PBAR	2134100	2014	0.4893	0.0472	0.8892	0.1643			
CBAR	2134900	2134900	21349	71935	0.0	1.0	1.0	1	A2 LUGL
PBAR	2134900	2014	0.4893	0.0472	0.8892	0.1643			
\$									
\$									
\$									
\$									
AFT FUSELAGE SUBASSEMBLY									
* * *									
\$									
\$									
\$									
\$									
STA 213.94 BULKHEAD									
209-030-108-007									
\$									
\$									
\$									
\$									
FRAMES AND DOUBLERS									
CONROD	2132123	21321	21323	7075	0.302				
CONROD	2132325	21323	21325	7075	0.302				
CONROD	2132527	21325	21327	7075	0.302				
CONROD	2132729	21327	21329	7075	0.302				
CONROD	2134143	21341	21343	7075	0.131				
CONROD	2134345	21343	21345	7075	0.131				
CONROD	2134547	21345	21347	7075	0.131				
CONROD	2134749	21347	21349	7075	0.131				
CONROD	2136163	21361	21363	2024	0.101				
CONROD	2136364	21363	21364	2024	0.101				
CONROD	2136466	21364	21366	2024	0.101				
CONROD	2136667	21366	21367	2024	0.101				
CONROD	2136769	21367	21369	2024	0.101				
CONROD	2132141	21321	21341	7075	0.309				
CONROD	2134161	21341	21361	7075	0.182				
CONROD	2132949	21329	21349	7075	0.309				
CONROD	2134969	21349	21369	7075	0.182				

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\$ SHEAR WEBS							
CODMEM	2132143	0129046	21321	21341	21343	21323	
CODMEM	2132345	0129046	21323	21343	21345	21325	
CODMEM	2132547	0129046	21325	21345	21347	21327	
CODMEM	2132749	0129046	21327	21347	21349	21329	
CODMEM	2134163	1007075	21341	21361	21363	21343	
CODMEM	2134364	0507075	21343	21363	21364	21345	
CTRMEM	2134564	0507075	21345	21364	21366		
CODMEM	2134567	0507075	21345	21366	21367	21347	
CODMEM	2134769	1007075	21347	21367	21369	21349	

STA 218.97 BULKHEAD  
209-030-109-005

\$ SHEAR WEBS							
CTRMEM	2180121	0252024	21801	21821	21823		
CTRMEM	2180123	0252024	21801	21823	21803		
CTRMEM	2180323	0252024	21803	21823	21825		
CTRMEM	2180325	0252024	21803	21825	21807		
CTRMEM	2180725	0252024	21807	21825	21827		
CTRMEM	2180727	0252024	21807	21827	21809		
CTRMEM	2180927	0252024	21809	21827	21829		

STA 227.62 BULKHEAD  
209-030-110-005

\$ SHEAR WEBS							
CTRMEM	2270121	0252024	22701	22721	22723		
CTRMEM	2270123	0252024	22701	22723	22703		
CTRMEM	2270323	0252024	22703	22723	22725		
CTRMEM	2270325	0252024	22703	22725	22707		
CTRMEM	2270725	0252024	22707	22725	22727		
CTRMEM	2270727	0252024	22707	22727	22709		
CTRMEM	2270927	0252024	22709	22727	22729		

STA 250.00 BULKHEAD  
209-030-111-107

\$ FRAMES AND DOUBLERS							
CONROD	2500103	25001	25003	2024	0.039		
CONROD	2500307	25003	25007	2024	0.039		
CONROD	2500709	25007	25009	2024	0.039		
CONROD	2502125	25021	25025	7075	0.299		
CONROD	2502529	25025	25029	7075	0.299		
CONROD	2506185	25061	1007	7075	0.489		
CONROD	2506569	1007	25069	7075	0.489		
CONROD	2502101	25001	25021	2024	0.039		
CONROD	2502141	25041	25041	7075	0.266		
CONROD	2504161	25041	25061	7075	0.266		
CONROD	2500929	25009	25029	2024	0.039		
CONROD	2502849	25029	25049	7075	0.266		
CONROD	2504969	25049	25069	7075	0.266		

\$ SHEAR WEBS							
CTRMEM	2500121	0252024	25001	25021	25025		
CTRMEM	2500125	0252024	25001	25025	25003		
CTRMEM	2500325	0252024	25003	25025	25007		
CTRMEM	2500725	0252024	25007	25025	25009		
CTRMEM	2500925	0252024	25009	25025	25029		
CODMEM	2502145	0129046	25021	25041	25045	25025	
CODMEM	2502549	0129046	25025	25045	25049	25029	

CODMEM	2504165	0129046	25041	25061	1007	25045	
CODMEM	2504569	0129046	25045	1007	25069	25049	

STA 268.25 BULKHEAD  
209-030-112-013

\$ FRAMES AND DOUBLERS							
CONROD	2682125	26821	26825	2024	0.225		
CONROD	2682529	26825	26829	2024	0.225		
CONROD	2686165	26861	26865	2024	0.446		
CONROD	2686569	26865	1008	2024	0.446		
CONROD	2682141	26821	26841	2024	0.072		
CONROD	2684161	26841	26861	2024	0.072		
CONROD	2682949	26829	26849	2024	0.072		
CONROD	2684969	26849	1008	2024	0.072		

\$ SHEAR WEBS							
CTRMEM	2680121	0282024	26801	26821	26825		
CTRMEM	2680125	0282024	26801	26825	26809		
CTRMEM	2680925	0282024	26809	26825	26829		
CODMEM	2682145	0282024	26821	26841	26845	26825	
CODMEM	2682549	0282024	26825	26845	26849	26829	
CODMEM	2684165	0282024	26841	26861	26865	26845	
CODMEM	2684569	0282024	26845	26865	1008	26849	

TAILBOOM JUNCTION BULKHEAD  
209-030-113-001

\$ FRAMES AND DOUBLERS							
CONROD	2992125	29921	29925	7075	0.285		
CONROD	2992529	29925	29929	7075	0.285		
CONROD	2996165	29961	29965	7075	0.480		
CONROD	2996569	29965	1009	7075	0.480		
CONROD	2992141	29921	29941	7075	0.335		
CONROD	2994161	29941	29961	7075	0.335		
CONROD	2992949	29929	29949	7075	0.605		
CONROD	2994969	29949	1009	7075	0.335		

\$ SHEAR WEBS							
CTRMEM	2990521	0327075	29905	29921	29925		
CTRMEM	2990525	0327075	29905	29925	29929		
CODMEM	2992145	0327075	29921	29941	29945	29925	
CODMEM	2992549	0327075	29925	29945	29949	29929	
CODMEM	2994165	0327075	29941	29961	29965	29945	
CODMEM	2994569	0327075	29945	29965	1009	29949	

TAILBOOM ATTACHMENT TO FUSELAGE BULKHEAD

WING / RIGHT SIDE  
209-020-001

FORWARD SPAR / RIGHT WING  
209-020-101

CONROD	6222811	62211	62811	2014	0.43811		
CBAR	6222813	6222813	62213	62811	0.0	0.0	1.0
+6222813		455					
PSAR	6222813	2014	1.790	0.20889	1.02299	0.09852	
CONROD	6222812	62213	62811	2014	0.1875		
CONROD	6283411	62811	63411	2014	0.41152		

WEB  
CAP

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CONROD	6283412	62811	63411	2014	0.19325					WEB
CONROD	6344211	63411	64211	2014	0.40701					CAP
CONROD	6344212	63411	64211	2014	0.17038					WEB
CONROD	6425011	64211	65011	2014	0.40060					CAP
CONROD	6425012	64211	65011	2014	0.144					WEB
CONROD	6505911	65011	65911	2014	0.39246					CAP
CONROD	6505912	65011	65911	2014	0.116					WEB
CSHEAR	6221119	150	62213	62819	62819	62217				
CSHEAR	6281119	12966	62811	63419	63419	62819				
CSHEAR	6341119	12728	63411	64219	64219	63419				
CSHEAR	6421119	12381	64211	65019	65019	64219				
CSHEAR	6501119	11916	65011	65919	65919	65019				
CBAR	6222817	6222817	62217	62819	0.0	0.0	1.0	1	6222817	
+6222817	456									
PBAR	6222817	2014	1.355	0.07213	0.67968	0.04572				
CONROD	6222819	62219	62819	2014	0.43668					
CONROD	6222818	62217	62819	2014	0.1875					WEB
CONROD	6283419	62819	63419	2014	0.40783					CAP
CONROD	6283418	62819	63419	2014	0.19325					WEB
CONROD	6344219	63419	64219	2014	0.40412					CAP
CONROD	6344218	63419	64219	2014	0.17038					WEB
CONROD	6425019	64219	65019	2014	0.39860					CAP
CONROD	6425018	64219	65019	2014	0.144					WEB
CONROD	6505919	65019	65919	2014	0.39083					CAP
CONROD	6505918	65019	65919	2014	0.118					WEB
\$										
\$										
\$										
\$										
CBAR	6222821	6222821	62221	62821	0.0	0.0	1.0	1	6222821	
+6222821	456									
PBAR	6222821	2014	1.34058	0.52306	0.99587	0.00910				
CBAR	6222824	6222824	62224	62821	0.0	0.0	1.0	1	6222824	
+6222824	456									
PBAR	6222824	2014	1.45	0.14717	0.83501	0.00910				
CONROD	6222822	62224	62821	2014	0.21558					WEB
CONROD	6283421	62821	63421	2014	1.24010					CAP
CONROD	6283422	62821	63421	2014	0.26034					WEB
CONROD	6344221	63421	64221	2014	0.94412					CAP
CONROD	6344222	63421	64221	2014	0.23200					WEB
CONROD	6425021	64221	65021	2014	0.50055					CAP
CONROD	6425022	64221	65021	2014	0.20207					WEB
CONROD	6505921	65021	1017	2014	0.43568					CAP
CONROD	6505922	65021	1017	2014	0.17075					WEB
CSHEAR	6222129	18157	62224	62821	62829	62226				
CSHEAR	6282129	17735	62821	63421	63429	62829				
CSHEAR	6342129	17490	63421	64221	64229	63429				
CSHEAR	6422129	17410	64221	65021	65029	64229				
CSHEAR	6502129	17088	65021	1017	65929	65029				
CBAR	6222826	6222826	62226	62829	0.0	0.0	1.0	1	6222826	
+6222826	456									
PBAR	6222826	2014	1.41	0.14991	0.65619	0.00910				
CBAR	6222829	6222829	62229	62829	0.0	0.0	1.0	1	6222829	
+6222829	456									
PBAR	6222829	2014	0.97873	0.21703	0.86254	0.00910				
CONROD	6222828	62226	62829	2014	0.21559					WEB
CONROD	6283429	62829	63429	2014	1.23420					CAP
CONROD	6283428	62829	63429	2014	0.26034					WEB
CONROD	6344229	63429	64229	2014	0.95586					CAP
CONROD	6344228	63429	64229	2014	0.23200					WEB

CONROD	6425029	64229	65029	2014	0.53473					CAP
CONROD	6425028	64229	65029	2014	0.20207					WEB
CONROD	6505929	65029	65929	2014	0.44318					CAP
CONROD	6505928	65029	65929	2014	0.17075					WEB
\$										
\$										
\$										
\$										
CBAR	6222831	6222831	62231	62831	0.0	0.0	1.0	1	6222831	
+6222831	456									
PBAR	6222831	2014	0.42265	0.04445	0.32148	0.00906				
CONROD	6222832	62231	62831	2014	0.02594					WEB
CONROD	6283431	62831	63431	2014	0.10275					CAP
CONROD	6283432	62831	63431	2014	0.02788					WEB
CONROD	6344231	63431	64231	2014	0.10213					CAP
CONROD	6344232	63431	64231	2014	0.02642					WEB
CONROD	6425031	64231	65031	2014	0.10110					CAP
CONROD	6425032	64231	65031	2014	0.02482					WEB
CONROD	6505931	65031	65931	2014	0.10015					CAP
CONROD	6505932	65031	65931	2014	0.02329					WEB
CSHEAR	6223139	06416	62231	62831	62839	62239				
CSHEAR	6283139	07505	62831	63431	63439	62839				
CSHEAR	6343139	07402	63431	64231	64239	63439				
CSHEAR	6423139	07278	64231	65031	65039	64239				
CSHEAR	6503139	07148	65031	65931	65939	65039				
CBAR	6222839	6222839	62239	62839	0.0	0.0	1.0	1	6222839	
+6222839	456									
PBAR	6222839	2014	0.25926	0.01150	0.11667	0.01365				
CONROD	6222838	62239	62839	2014	0.02598					WEB
CONROD	6283439	62839	63439	2014	0.15381					CAP
CONROD	6283438	62839	63439	2014	0.02788					WEB
CONROD	6344239	63439	64239	2014	0.15210					CAP
CONROD	6344238	63439	64239	2014	0.02642					WEB
CONROD	6425039	64239	65039	2014	0.15044					CAP
CONROD	6425038	64239	65039	2014	0.02482					WEB
CONROD	6505939	65039	65939	2014	0.14855					CAP
CONROD	6505938	65039	65939	2014	0.02329					WEB

\$										
\$										
\$										
\$										
\$										
CODMEM	6221121	0637075	62211	62221	62821	62811				
CODMEM	6281121	0637075	62811	62821	63421	63411				
CODMEM	6341121	0637075	63411	63421	64221	64211				
CODMEM	6421121	0637075	64211	64221	65021	65011				
CODMEM	6501121	0637075	65011	65021	1017	65911				
CODMEM	6222131	0637075	62221	62231	62831	62821				
CODMEM	6282131	0637075	62821	62831	63431	63421				
CODMEM	6342131	0637075	63421	63431	64231	64221				
CODMEM	6422131	0637075	64221	64231	65031	65021				
CODMEM	6502131	0637075	65021	65031	65931	1017				

\$										
\$										
\$										
\$										
\$										
CODMEM	6221929	0637075	62219	62229	62829	62819				
CODMEM	6281929	0637075	62819	62829	63429	63419				
CODMEM	6341929	0637075	63419	63429	64229	64219				
CODMEM	6421929	0637075	64219	64229	65029	65019				
CODMEM	6501929	0637075	65019	65029	65929	65919				
CODMEM	6222939	0637075	62229	62239	62839	62829				
CODMEM	6282939	0637075	62829	62839	63439	63429				

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CODMEM	6342939	0637075	63429	63439	64239	64229
CODMEM	6422938	0637075	64229	64239	65039	65029
CODMEM	6502938	0637075	65029	65039	65939	65929

\$  
\$ WS 22.19 RIB

CODMEM	6221124	1252014	62211	62221	62224	62213
CODMEM	6221326	1252014	62213	62224	62226	62217
CODMEM	6221729	1252014	62217	62226	62229	62219
CTRMEM	6222431	1252014	62221	62224	62231	
CODMEM	6222438	1252014	62224	62231	62239	62226
CTRMEM	6222639	1252014	62226	62229	62239	

\$  
\$ WS 28.00 RIB

CODMEM	6281129	1252014	62811	62821	62829	62819
CODMEM	6282139	1252014	62821	62831	62839	62829

\$  
\$ WS 34.00 RIB

CODMEM	6341129	1252014	63411	63421	63429	63419
CODMEM	6342139	1252014	63421	63431	63439	63429

\$  
\$ WS 42.50 RIB

CODMEM	6421129	1252014	64211	64221	64229	64219
CODMEM	6422139	1252014	64221	64231	64239	64229

\$  
\$ HARD POINT FOR ATTACHING INBOARD WING STORES - RIGHT SIDE

MPC	1000	64229	4	1.0	64221	2	13423	R I/B 4
+R I/B 4		64229	2	-	13423			
MPC	1000	64229	5	1.0	64219	3	10493	R I/B 5
+R I/B 5		64229	3	-	10493			
MPC	1000	64229	6	1.0	64219	2	10493	R I/B 6
+R I/B 6		64229	2	-	10493			

\$  
\$ WS 50.75 RIB

CODMEM	6501129	1252014	65011	65021	65029	65019
CODMEM	6502139	1252014	65021	65031	65039	65029

\$  
\$ WS 59.00 RIB

CODMEM	6591129	1252014	65911	1017	65929	65919
CODMEM	6592139	1252014	1017	65931	65939	65929

\$  
\$ HARD POINT FOR ATTACHING OUTBOARD WING STORES - RIGHT SIDE

MPC	1000	65929	4	1.0	1017	2	18182	R O/B 4
+R O/B 4		65929	2	-	18182			
MPC	1000	65929	5	1.0	65919	3	11442	R O/B 5
+R O/B 5		65929	3	-	11442			
MPC	1000	65929	6	1.0	65919	2	11442	R O/B 6
+R O/B 6		65929	2	-	11442			

\$  
\$ FORWARD SPAR LUGS / RIGHT WING

CBAR	6131922	6131922	61913	62213	0.0	0.0	1.0	1	F2 LUGR
PBAR	6131922	2014	1.32139	0.43256	0.91617	0.99515			

CBAR	6171922	6171922	61917	62217	0.0	0.0	1.0	1	F5 LUGR
PBAR	6171922	2014	1.5496	0.16642	0.66633	0.45718			

\$  
\$ CENTER SPAR LUGS / RIGHT WING

CBAR	6221922	6221922	61922	62221	0.0	0.0	1.0	1	C1 LUGR
+C1 LUGR			0.0	0.0	0.0	0.0	0.0	-0.91	
PBAR	6221922	2014	0.54348	0.02604	0.65104	0.09104			
CBAR	6241922	6241922	61924	62224	0.0	0.0	1.0	1	C3 LUGR
PBAR	6241922	2014	0.54348	0.02604	0.65104	0.09104			
CBAR	6261922	6261922	61926	62226	0.0	0.0	1.0	1	C4 LUGR
PBAR	6261922	2014	0.8333	0.02604	0.65104	0.09104			
CBAR	6281922	6281922	61928	62229	0.0	0.0	1.0	1	C6 LUGR
+C6 LUGR			0.0	0.0	0.0	0.0	0.0	0.27	
PBAR	6281922	2014	0.8333	0.02604	0.65104	0.09104			

\$  
\$ APT SPAR LUGS / RIGHT WING

CBAR	6341922	6341922	61934	62231	0.0	0.0	1.0	1	A1 LUGR
+A1 LUGR			0.0	0.0	0.0	0.0	0.0	-0.93	
PBAR	6341922	2014	0.532	0.02781	0.32009	0.09058			
CBAR	6361922	6361922	61936	62239	0.0	0.0	1.0	1	A3 LUGR
PBAR	6361922	2014	0.98646	0.04326	0.37096	0.13655			

\$  
\$ FORWARD SPAR LUG PIN / RIGHT WING

\$  
\$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
\$ R.V. DOMPKA TO REMOVE N-SET PROBLEMS  
\$ FOR 61913,61917 (FRONT LUGS ON WINGS)

RBE2	61913	61913	123	61912	61914			MPCFRU1
RBE2	61917	61917	123	61916	61918			MPCFRU1

\$  
\$ CENTER SPAR LUG PIN / RIGHT WING

\$  
\$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
\$ R.V. DOMPKA TO REMOVE N-SET PROBLEMS  
\$ FOR 61923,61927 (CENTER LUGS ON WINGS)

RBE2	61923	61923	123	61922	61924			MPCFRU1
RBE2	61927	61927	123	61926	61928			MPCFRU1

\$  
\$ APT SPAR LUG PIN / RIGHT WING

RBE2	61935	61935	123	61934	61936			MPCFRU1
MPC	1000	61935	1	1.0	61936	1	-477612	MPCARC1
+MPCARC1		61934	1	-	522388			
MPC	1000	61935	2	1.0	61936	2	-477612	MPCARC2
+MPCARC2		61934	2	-	522388			
MPC	1000	61936	3	1.0	61935	3	-1.0	
MPC	1000	61934	3	1.0	61935	3	-1.0	
MPC	1000	61936	4	1.0	61935	4	-1.0	

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CONROD 7505939 75039 75939 2014 0.1485F CAP  
CONROD 7505938 75039 75939 2014 0.02329 WEB

TOP SKIN / LEFT WING

CODMEM 7221121 0637075 72211 72221 72821 72811  
CODMEM 7281121 0637075 72811 72821 73421 73411  
CODMEM 7341121 0637075 73411 73421 74221 74211  
CODMEM 7421121 0637075 74211 74221 75021 75011  
CODMEM 7501121 0637075 75011 75021 1018 75911  
CODMEM 7222131 0637075 72221 72231 72831 72821  
CODMEM 7282131 0637075 72821 72831 73431 73421  
CODMEM 7342131 0637075 73421 73431 74231 74221  
CODMEM 7422131 0637075 74221 74231 75031 75021  
CODMEM 7502131 0637075 75021 75031 75931 1018

BOTTOM SKIN / LEFT WING

CODMEM 7221929 0637075 72219 72229 72829 72819  
CODMEM 7281929 0637075 72819 72829 73429 73419  
CODMEM 7341929 0637075 73419 73429 74229 74219  
CODMEM 7421929 0637075 74219 74229 75029 75019  
CODMEM 7501929 0637075 75019 75029 75929 75919  
CODMEM 7222939 0637075 72229 72239 72839 72829  
CODMEM 7282939 0637075 72829 72839 73439 73429  
CODMEM 7342939 0637075 73429 73439 74239 74229  
CODMEM 7422939 0637075 74229 74239 75039 75029  
CODMEM 7502939 0637075 75029 75039 75939 75929

WS -22.19 RIB

CODMEM 7221124 1252014 72211 72221 72224 72213  
CODMEM 7221326 1252014 72213 72224 72226 72217  
CODMEM 7221729 1252014 72217 72226 72229 72219  
CTRMEM 7222431 1252014 72221 72224 72231  
CODMEM 7222439 1252014 72224 72231 72239 72226  
CTRMEM 7222639 1252014 72226 72229 72239

WS -28.00 RIB

CODMEM 7281129 1252014 72811 72821 72829 72819  
CODMEM 7282139 1252014 72821 72831 72839 72829

WS -34.00 RIB

CODMEM 7341129 1252014 73411 73421 73429 73419  
CODMEM 7342139 1252014 73421 73431 73439 73429

WS -42.50 RIB

CODMEM 7421129 1252014 74211 74221 74229 74219  
CODMEM 7422139 1252014 74221 74231 74239 74229

HARD POINT FOR ATTACHING INBOARD WING STORES - LEFT SIDE

MPC 1000 74229 4 1.0 74221 2 .13423 L I/B 4  
+L I/B 4 74229 2 .13423  
MPC 1000 74229 5 1.0 74219 3 .10493 L I/B 5  
+L I/B 5 74229 3 .10493  
MPC 1000 74229 6 1.0 74219 2 .10493 L I/B 6

+L I/B 6 74229 2 .10493

WS -50.75 RIB

CODMEM 7501129 1252014 75011 75021 75029 75019  
CODMEM 7502139 1252014 75021 75031 75039 75029

WS -59.00 RIB

CODMEM 7591129 1252014 75911 1018 75929 75919  
CODMEM 7592139 1252014 1018 75931 75939 75929

HARD POINT FOR ATTACHING OUTBOARD WING STORES - LEFT SIDE

MPC 1000 75929 4 1.0 1018 2 .18182 L O/B 4  
+L O/B 4 75929 2 .18182  
MPC 1000 75929 5 1.0 75919 3 .11442 L O/B 5  
+L O/B 5 75929 3 .11442  
MPC 1000 75929 6 1.0 75919 2 .11442 L O/B 6  
+L O/B 6 75929 2 .11442

FORWARD SPAR LUGS / LEFT WING

CBAR 7131922 7131922 71913 72213 0.0 0.0 1.0 1 F2 LUGL  
PBAR 7131922 2014 1.32139 0.43256 0.91617 0.99515  
CBAR 7171922 7171922 71917 72217 0.0 0.0 1.0 1 F5 LUGL  
PBAR 7171922 2014 1.5495 0.16642 0.66633 0.45718

CENTER SPAR LUGS / LEFT WING

CBAR 7221922 7221922 71922 72221 0.0 0.0 1.0 1 C1 LUGL  
+C1 LUGL 0.0 0.0 0.0 0.0 -0.91  
PBAR 7221922 2014 0.54348 0.02804 0.85104 0.09104  
CBAR 7241922 7241922 71924 72224 0.0 0.0 1.0 1 C3 LUGL  
PBAR 7241922 2014 0.54348 0.02804 0.85104 0.09104  
CBAR 7261922 7261922 71926 72226 0.0 0.0 1.0 1 C4 LUGL  
PBAR 7261922 2014 0.8333 0.02804 0.85104 0.09104  
CBAR 7281922 7281922 71928 72229 0.0 0.0 1.0 1 C6 LUGL  
+C6 LUGL 0.0 0.0 0.0 0.0 0.27  
PBAR 7281922 2014 0.8333 0.02804 0.85104 0.09104

AFT SPAR LUGS / LEFT WING

CBAR 7341922 7341922 71934 72231 0.0 0.0 1.0 1 A1 LUGL  
+A1 LUGL 0.0 0.0 0.0 0.0 -0.93  
PBAR 7341922 2014 0.532 0.02781 0.32009 0.09058  
CBAR 7361922 7361922 71936 72239 0.0 0.0 1.0 1 A3 LUGL  
PBAR 7361922 2014 0.98648 0.04328 0.37086 0.13655

FORWARD SPAR LUG PIN / LEFT WING

REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
R.V. DOPKA TO REMOVE N-SET PROBLEMS  
FOR 71913, 71917 (FRONT LUGS ON WINGS)

RBE2 71913 71913 123 71914 71912 MPCFLU1  
RBE2 71917 71917 123 71916 71918 MPCFRU1

CENTER SPAR LUG PIN / LEFT WING

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\$  
 \$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
 \$ R.V. DMPKA TO REMOVE N-SET PROBLEMS  
 \$ FOR 71923,71927 (CENTER LUGS ON WINGS)  
 \$  
 \$

RBE2	71923	71923	123	71924	71922	MPCFLU1
RBE2	71927	71927	123	71926	71928	MPCFRU1

AFT SPAR LUG PIN / LEFT WING

SBE2	71935	71935	123	71934	71936	MPCFLU1
------	-------	-------	-----	-------	-------	---------

MPC	1000	71935	1	1.0	71936	1	- .477612	MPCALC1
+MPCALC1		71934	1	- .522388				
MPC	1000	71935	2	1.0	71936	2	- .477612	MPCALC2
+MPCALC2		71934	2	- .522388				
MPC	1000	71936	3	1.0	71935	3	- 1.0	
MPC	1000	71934	3	1.0	71935	3	- 1.0	
MPC	1000	71936	4	1.0	71935	4	- 1.0	
MPC	1000	71934	4	1.0	71935	4	- 1.0	
MPC	1000	71936	5	1.0	71935	5	- 1.0	
MPC	1000	71934	5	1.0	71935	5	- 1.0	
MPC	1000	71935	4	1.0	71936	2	- .746269	MPCALC4
+MPCALC4		71934	2	.746269				
MPC	1000	71935	5	1.0	71936	1	.746269	MPCALC5
+MPCALC5		71934	1	- .746269				

MAIN ROTOR TRANSMISSION  
 204-040-009

CBAR	3530251	353025	200070	200078	1.0	0.0	0.0	1	MR G/B
CBAR	3530252	353025	200078	200079	1.0	0.0	0.0	1	MR G/B
CBAR	3530253	353025	200079	200087	1.0	0.0	0.0	1	MR G/B
CBAR	3530254	353025	200087	200096	1.0	0.0	0.0	1	MR G/B
CBAR	3530255	353025	200096	200101	1.0	0.0	0.0	1	MRBRG2
+MRBRG2		456							
PBAR	353025	1	100	1950	1950	1480			

MAIN ROTOR MAST  
 209-010-450

CBAR	4500050	450007	200079	1021	1.0	0.0	0.0	1	MRBRG1
+MRBRG1		56							
CBAR	4500070	450007	1021	200095	1.0	0.0	0.0	1	MR MAST
CBAR	4500071	450007	200095	200101	1.0	0.0	0.0	1	MR MAST
CBAR	4500072	450007	200101	200106	1.0	0.0	0.0	1	MR MAST
CBAR	4500073	450007	200106	200112	1.0	0.0	0.0	1	MR MAST
CBAR	4500074	450007	200112	200114	1.0	0.0	0.0	1	MR MAST
CBAR	4500075	450007	200114	200121	1.0	0.0	0.0	1	MR MAST
CBAR	4500076	450007	200121	200129	1.0	0.0	0.0	1	MR MAST
CBAR	4500077	450007	200129	200137	1.0	0.0	0.0	1	MR MAST
CBAR	4500078	450007	200137	200145	1.0	0.0	0.0	1	MR MAST
CBAR	4500079	450007	200145	200153	1.0	0.0	0.0	1	MR MAST
CBAR	4500080	450007	200153	1022	1.0	0.0	0.0	1	MR MAST

CBAR	4500081	450007	1022	200162	1.0	0.0	0.0	1	MR MAST
PBAR	450007	1	100	120.07	120.07	91.08E			

MAIN ROTOR CYCLIC CONTROL LEVER  
 209-010-402

CBAR	4020011	450007	192111	200111	0.0	0.0	1.0	1	
CBAR	4020012	450007	193111	200111	0.0	0.0	1.0	1	

CYCLIC CONTROL BOOST CYLINDERS  
 209-076-021

CONRDD	0760211	192111	19173	10	447490.
CONRDD	0760212	193111	19177	10	447490.

MAIN ROTOR COLLECTIVE CONTROL LEVER  
 209-010-406

CBAR	4060011	450007	194105	200105	0.0	0.0	1.0	1	
CBAR	4060012	450007	200105	211104	0.0	0.0	1.0	1	

COLLECTIVE CONTROL BOOST CYLINDER  
 209-076-021

CONRDD	0760213	211104	20977	10	390970.
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CYCLIC CONTROL LEVER ATTACHMENT TO MAIN ROTOR MAST

MPC	1000	200111	1	1.0	200112	1	- 1.0
MPC	1000	200111	2	1.0	200112	2	- 1.0
MPC	1000	200111	3	1.0	200112	3	- 1.0
MPC	1000	200111	6	1.0	200112	6	- 1.0

COLLECTIVE CONTROL LEVER ATTACHMENT TO MAIN ROTOR MAST

MPC	1000	200105	1	1.0	200106	1	- 1.0
MPC	1000	200105	2	1.0	200106	2	- 1.0
MPC	1000	200105	4	1.0	200106	4	- 1.0
MPC	1000	200105	6	1.0	200106	6	- 1.0

COLLECTIVE CONTROL LEVER ATTACHMENT TO MAIN ROTOR TRANSMISSION CASE

CBAR	4060014	353025	200095	194106	1.0	0.0	0.0	1	COLXMSN
+COLXMSN		456	-8.76	2.784	7.50	0.0	0.0	0.0	

MAIN ROTOR PYLON LIFT LINK  
 212-030-104  
 (209-030-357)

CBAR	3570001	3570001	200078	19765	1.0	0.0	0.0	1	LLINK
+LLINK			-3.10	0.0	-1.67	0.0	0.0	1.52	
PBAR	3570001	4340	0.89	0.0	0.0	0.0			

MAIN ROTOR TRANSMISSION CASE SUPPORT ASSEMBLY  
 204-040-354-009

\$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
 \$ R.V. DMPKA TO REMOVE N-SET PROBLEMS  
 \$ FOR 200078 (C.G. FOR TRANSMISSION)  
 \$

RBE2	200078	200078	123456	189073	189077	211073	211077	214075
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CTRMEM 1720022 1552014 21821 22312 22721  
CTRMEM 1720023 1552014 22721 22312 22703  
CTRMEM 1720024 1552014 21803 22312 22703  
CTRMEM 1720025 1552014 21823 22312 21801  
CTRMEM 1720026 1552014 21823 22312 22723  
CTRMEM 1720027 1552014 22723 22312 22701  
CTRMEM 1720028 1552014 21801 22312 22701  
MPC 1000 22312 1 1.0 222302 1 -1.0  
MPC 1000 22312 2 1.0 222302 2 -1.0  
MPC 1000 22312 3 1.0 222302 3 -1.0  
\$  
\$ AFT SKID LANDING GEAR MOUNTING STRUCTURE / LEFT SIDE  
\$ 209-030-172-001  
\$  
CTRMEM 1720011 1552014 21829 22318 21807  
CTRMEM 1720012 1552014 21829 22318 22729  
CTRMEM 1720013 1552014 22729 22318 22707  
CTRMEM 1720014 1552014 21807 22318 22707  
CTRMEM 1720015 1552014 21827 22318 21808  
CTRMEM 1720016 1552014 21827 22318 22727  
CTRMEM 1720017 1552014 22727 22318 22709  
CTRMEM 1720018 1552014 21809 22318 22709  
MPC 1000 22318 1 1.0 222301 1 -1.0  
MPC 1000 22318 2 1.0 222301 2 -1.0  
MPC 1000 22318 3 1.0 222301 3 -1.0  
\$  
\$ ENGINE MOUNTS  
\$ 209-060-106/107/108/109  
\$  
\$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
\$ R. V. DMPKA TO REMOVE N-SET PROBLEMS  
\$ FOR 123467, 125063, 125065, 125067, 126863, 126867 (ENGINE MOUNTS)  
\$  
RBE1 125063 25061 123 26861 3 26865 23 FEM F1  
+ FEM F1 UM 125063 123 126863 123  
RBE1 126867 25069 123 25049 2 1008 23 FEM F2  
+ FEM F2 UM 126867 123 126065 123 125067 123  
RBE1 123467 21359 123 1007 3 21361 13 FEM F3  
+ FEM F3 UM 123467 123  
\$  
CONROD 109001 123467 123487 4130 0.0887  
CONROD 1070012 125063 125383 4130 0.1261  
CONROD 108001 125065 125387 4130 0.1261  
CONROD 1070011 125067 125387 4130 0.1261  
CONROD 1060012 126863 125383 4130 0.1261  
CONROD 1060011 126867 125387 4130 0.1261  
\$  
\$ ENGINE  
\$ 209-060-005  
\$  
\$ REPLACE MPC EQUATIONS WITH RIGID ELEMENTS 9/17/87  
\$ R. V. DMPKA TO REMOVE N-SET PROBLEMS  
\$ FOR 1029--1019 AND 1020 (ENGINE LUMPED MASS MODEL;  
\$  
RBE2 1248001 1029 123456 1019 1020  
\$  
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\$ MEMBRANE PROPERTIES  
\$  
\$  
PODMEM 0082024 2024 0.008  
PODMEM 0100076 0076 0.010  
PODMEM 0122024 2024 0.012  
PODMEM 0127075 7075 0.012  
PODMEM 0128046 9046 0.012  
PODMEM 0152014 2014 0.015  
PODMEM 0162024 2024 0.016  
PODMEM 0168046 9046 0.016  
PODMEM 0200076 0076 0.020  
PODMEM 0202024 2024 0.020  
PODMEM 0212024 2024 0.021  
PODMEM 0227075 7075 0.022  
PODMEM 0242024 2024 0.024  
PODMEM 025 2024 0.025  
PODMEM 0250057 0057 0.025  
PODMEM 0252024 2024 0.025  
PODMEM 0282024 2024 0.028  
PODMEM 0287075 7075 0.028  
PODMEM 0288046 9046 0.028  
PODMEM 0300076 0076 0.030  
PODMEM 032 2024 0.032  
PODMEM 0322014 2014 0.032  
PODMEM 0322024 2024 0.032  
PODMEM 0327075 7075 0.032  
PODMEM 0328046 9046 0.032  
PODMEM 0362024 2024 0.036  
PODMEM 0402024 2024 0.040  
PODMEM 0407075 7075 0.040  
PODMEM 0492024 2024 0.049  
PODMEM 0507075 7075 0.050  
PODMEM 0508046 9046 0.050  
PODMEM 0522024 2024 0.052  
PODMEM 0637075 7075 0.063  
PODMEM 0668046 9046 0.066  
PODMEM 0882024 2024 0.088  
PODMEM 0727075 7075 0.072  
PODMEM 0857075 7075 0.085  
PODMEM 0958046 9046 0.095  
PODMEM 1007075 7075 0.100  
PODMEM 1252014 2014 0.125  
PODMEM 2002014 2014 0.200  
PODMEM 4002014 2014 0.400  
PTRMEM 0082024 2024 0.008  
PTRMEM 0100076 0076 0.010  
PTRMEM 0122024 2024 0.012  
PTRMEM 0127075 7075 0.012  
PTRMEM 0128046 9046 0.012  
PTRMEM 0152014 2014 0.015  
PTRMEM 0162024 2024 0.016  
PTRMEM 0167075 7075 0.016  
PTRMEM 0168046 9046 0.016  
PTRMEM 0200076 0076 0.020  
PTRMEM 0202024 2024 0.020  
PTRMEM 0207075 7075 0.020  
PTRMEM 0212024 2024 0.021  
PTRMEM 0227075 7075 0.022

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PTRMEM	0242024	2024	0.024
PTRMEM	025	2024	0.025
PTRMEM	0250057	0057	0.025
PTRMEM	0252024	2024	0.025
PTRMEM	0257075	7075	0.025
PTRMEM	0259046	9046	0.025
PTRMEM	0282024	2024	0.028
PTRMEM	0300076	0076	0.030
PTRMEM	032	2024	0.032
PTRMEM	0322014	2014	0.032
PTRMEM	0322024	2024	0.032
PTRMEM	0327075	7075	0.032
PTRMEM	0329046	9046	0.032
PTRMEM	0402024	2024	0.040
PTRMEM	0407075	7075	0.040
PTRMEM	0492024	2024	0.049
PTRMEM	0507075	7075	0.050
PTRMEM	0509046	9046	0.050
PTRMEM	0527075	7075	0.052
PTRMEM	0637075	7075	0.063
PTRMEM	0657075	7075	0.065
PTRMEM	0717075	7075	0.071
PTRMEM	0727075	7075	0.072
PTRMEM	0807075	7075	0.080
PTRMEM	0857075	7075	0.085
PTRMEM	0959046	9046	0.095
PTRMEM	1007075	7075	0.100
PTRMEM	1252014	2014	0.125
PTRMEM	150	2014	0.150
PTRMEM	1552014	2014	0.155
PTRMEM	18157	2014	0.18157
PTRMEM	2002014	2014	0.200
PTRMEM	4002014	2014	0.400

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SHEAR PANEL PROPERTIES

PSHEAR	0082024	2024	0.008
PSHEAR	0100076	0076	0.010
PSHEAR	0122024	2024	0.012
PSHEAR	0127075	7075	0.012
PSHEAR	0129046	9046	0.012
PSHEAR	0152014	2014	0.015
PSHEAR	0162024	2024	0.016
PSHEAR	0167075	7075	0.016
PSHEAR	0169046	9046	0.016
PSHEAR	0200076	0076	0.020
PSHEAR	0202024	2024	0.020
PSHEAR	0207075	7075	0.020
PSHEAR	0212024	2024	0.021
PSHEAR	0227075	7075	0.022
PSHEAR	0242024	2024	0.024
PSHEAR	0250057	0057	0.025
PSHEAR	0252024	2024	0.025
PSHEAR	0257075	7075	0.025
PSHEAR	0259046	9046	0.025
PSHEAR	0282024	2024	0.028
PSHEAR	0292024	2024	0.029
PSHEAR	0300076	0076	0.030

PSHEAR	0322024	2024	0.032
PSHEAR	0327075	7075	0.032
PSHEAR	0329046	9046	0.032
PSHEAR	0402024	2024	0.040
PSHEAR	0407075	7075	0.040
PSHEAR	0409046	9046	0.040
PSHEAR	0417075	7075	0.041
PSHEAR	0492024	2024	0.049
PSHEAR	0507075	7075	0.050
PSHEAR	0509046	9046	0.050
PSHEAR	0527075	7075	0.052
PSHEAR	063	7075	0.063
PSHEAR	06416	2014	0.06416
PSHEAR	0657075	7075	0.065
PSHEAR	0717075	7075	0.071
PSHEAR	07149	2014	0.07149
PSHEAR	0727075	7075	0.072
PSHEAR	07278	2014	0.07278
PSHEAR	07422	2014	0.07422
PSHEAR	07505	2014	0.07505
PSHEAR	0807075	7075	0.080
PSHEAR	0817075	7075	0.081
PSHEAR	100	2014	0.100
PSHEAR	1007075	7075	0.100
PSHEAR	11916	2014	0.11916
PSHEAR	12381	2014	0.12381
PSHEAR	125	2014	0.125
PSHEAR	1252014	2014	0.125
PSHEAR	12728	2014	0.12728
PSHEAR	12966	2014	0.12966
PSHEAR	150	2014	0.150
PSHEAR	17088	2014	0.17088
PSHEAR	17410	2014	0.17410
PSHEAR	17490	2014	0.17490
PSHEAR	17735	2014	0.17735
PSHEAR	18157	2014	0.18157
PSHEAR	200	2014	0.200
PSHEAR	2002014	2014	0.200
PSHEAR	400	2014	0.400
PSHEAR	4002014	2014	0.400

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MATERIAL CARDS

MAT1*	1	1.0+6	1.0+6	
MAT1*	10	1.0	1.0	
MAT1*	0057	3.9388+6	0.8+6	0.32
MAT1*	0076	3.8388+6	0.8+6	0.32
MAT1*	2014	9.4069+6	4.0+6	
MAT1*	2024	9.4069+6	4.0+6	
MAT1*	7075	9.2089+6	3.9+6	
MAT1*	4130	28.435+6	11.0+6	
MAT1*	4340	28.435+6	11.0+6	
MAT1*	4820	28.435+6	11.0+6	
MAT1*	9046	19.396+6	6.5+6	
SMAT1	0057	3.2+6	0.8+6	0.32
SMAT1	0076	3.2+6	0.8+6	0.32
SMAT1	2014	10.8+6	4.0+6	
SMAT1	2024	10.8+6	4.0+6	

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\$MAT1	7075	10.3+8	3.9+8
\$MAT1	4130	29.0+8	11.0+8
\$MAT1	4340	29.0+8	11.0+8
\$MAT1	4620	29.0+8	11.0+8
\$MAT1	9046	17.5+8	6.5+8

\$ The following cards are added by Weiylu Zhou to define the viscous damping properties

PVISC*	1	0.0	0.0
PVISC*	10	0.0	0.0
PVISC*	0076	1.847569	0.0
PVISC*	2014	98.13088	34.85099
PVISC*	2024	98.13088	34.85099
PVISC*	7075	98.13088	34.85099
PVISC*	4130	99.28847	0.0
PVISC*	4340	99.28847	0.0
PVISC*	4620	99.28847	0.0
PVISC*	9046	200.0	0.0

\$ The following cards are added by Weiylu Zhou to add the viscous damper connections

CVISC	20411	7075	222002	222202
CVISC	20412	7075	222202	222302
CVISC	20413	7075	222302	222301
CVISC	20414	7075	222301	222201
CVISC	20415	7075	222201	222001
CVISC	20451	7075	214902	215102
CVISC	20452	7075	215102	215202
CVISC	20453	7075	215202	215201
CVISC	20454	7075	215201	215101
CVISC	20455	7075	215101	214901
CVISC	20511	2024	1023	214901
CVISC	20512	2024	214901	222001
CVISC	20513	2024	222001	1025
CVISC	20521	2024	1024	214902
CVISC	20522	2024	214902	222002
CVISC	20523	2024	222002	1026
CVISC	101102	2024	2501	2502
CVISC	101113	2024	2501	2513
CVISC	102103	2024	2502	2503
CVISC	103104	2024	2503	2504
CVISC	104105	2024	2504	2505
CVISC	105106	2024	2505	2506
CVISC	106107	2024	2506	2507
CVISC	107108	2024	2507	2508
CVISC	108109	2024	2508	2509
CVISC	109110	2024	2509	2510
CVISC	110111	2024	2510	2511
CVISC	111112	2024	2511	2512
CVISC	112113	2024	2512	2513
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CVISC	800	7075	2715	2711
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CVISC	10092	2014	14847	13500
CVISC	10093	2014	14883	13500
CVISC	10094	2014	14887	13500
CVISC	20081	2014	7033	8300
CVISC	20082	2014	7037	8300
CVISC	20083	2014	9333	8300
CVISC	20084	2014	10033	8300
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CVISC	108001	4130	123487	123487
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CVISC	334149	2024	3341	3349
CVISC	612327	2024	6123	6127
CVISC	612739	2024	6127	6139
CVISC	613123	2024	6123	6131
CVISC	613141	2024	6131	6141
CVISC	613337	2024	6133	6137

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CVISC	813848	2024	6138	6148
CVISC	814161	2024	6141	6161
CVISC	814363	2024	6143	6163
CVISC	814767	2024	6147	6167
CVISC	814868	2024	6148	6168
CVISC	816171	2024	6161	6171
CVISC	816371	2024	6163	6171
CVISC	816979	2024	6169	6179
CVISC	817179	2024	6171	6179
CVISC	817967	2024	6167	6179
CVISC	760211	10	192111	19173
CVISC	760212	10	193111	19177
CVISC	760213	10	211104	20877
CVISC	930307	2024	9303	9307
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CVISC	933133	2024	9331	9333
CVISC	933141	2024	9331	9341
CVISC	933337	2024	9333	1003
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CVISC	933717	7075	9317	1003
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CVISC	934161	2024	9341	9361
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CVISC	936163	2024	9361	9363
CVISC	936171	2024	9361	9371
CVISC	936373	7075	9363	9373
CVISC	936769	2024	9367	9369
CVISC	936777	7075	9367	9377
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CVISC	937173	2024	9371	9373
CVISC	937377	2024	9373	9377
CVISC	937779	2024	9377	9379
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CVISC	1070011	4130	125067	125387
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CVISC	1170523	7075	26849	29949
CVISC	1170524	7075	1008	1009
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CVISC	1171114	7075	26849	1008
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CVISC	1173903	2024	26849	29949
CVISC	1173904	2024	1008	1009
CVISC	1173911	2024	26829	26849
CVISC	1173912	2024	26849	1008
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CVISC	1173914	2024	29949	1009
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CVISC	1184503	2024	26841	29941
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CVISC	1184512	2024	26841	26861
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CVISC	1184514	2024	29941	29961
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CVISC	1188903	7075	25041	26841
CVISC	1188904	7075	25061	26861
CVISC	1188911	7075	25021	25041
CVISC	1188912	7075	25041	25061
CVISC	1188913	7075	26821	26841
CVISC	1188914	7075	26841	26861
CVISC	1188921	7075	26821	29921
CVISC	1188922	7075	26841	29941
CVISC	1188923	7075	26841	29941
CVISC	1188924	7075	26861	29961
CVISC	1188931	7075	26821	26841

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CVISC 1186932	7075	26841	26861
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CVISC 1186934	7075	26841	26861
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CVISC 1187102	2024	25041	26841
CVISC 1187103	2024	25041	26841
CVISC 1187104	2024	25061	26861
CVISC 1187111	2024	25021	25041
CVISC 1187112	2024	25041	25061
CVISC 1187113	2024	26821	26841
CVISC 1187114	2024	26841	26861
CVISC 1190171	7075	21329	21829
CVISC 1190172	7075	21829	22729
CVISC 1190173	7075	22729	25029
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CVISC 1190192	7075	25049	25069
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CVISC 1190231	7075	21329	21349
CVISC 1190232	7075	21349	21369
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CVISC 1190502	9046	21349	25049
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CVISC 1190514	9046	25049	25069
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CVISC 1190912	76	21349	21369
CVISC 1190913	76	25029	25049
CVISC 1190914	76	25049	25069
CVISC 1200091	7075	25021	25041
CVISC 1200092	7075	25041	25061
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CVISC 1200151	7075	21361	25061
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CVISC 1200713	76	25021	25041
CVISC 1200714	76	25041	25061
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CVISC 1201111	9046	22721	21341
CVISC 1201112	9046	21341	21361
CVISC 1201113	9046	25021	25041
CVISC 1201114	9046	25041	25061
CVISC 1202101	2024	25003	26801

CVISC 1202102	2024	25007	26809
CVISC 1202103	2024	25003	25007
CVISC 1202104	2024	26801	26809
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CVISC 1210102	7075	21343	21363
CVISC 1210311	7075	18669	19769
CVISC 1210312	7075	19769	21369
CVISC 1210321	7075	18661	19761
CVISC 1210322	7075	19761	21361
CVISC 1210471	7075	21345	21365
CVISC 1210472	7075	21365	21387
CVISC 1210591	7075	21345	21364
CVISC 1210592	7075	21364	21383
CVISC 1250131	2024	14889	1005
CVISC 1250132	2024	1005	18689
CVISC 1250151	2024	18669	18689
CVISC 1250171	2024	14869	14889
CVISC 1250571	2024	14881	16481
CVISC 1250572	2024	16481	18681
CVISC 1250771	2024	14889	1005
CVISC 1250772	2024	1005	18689
CVISC 1250971	2024	14869	18669
CVISC 1251491	2024	14861	18661
CVISC 1251511	2024	14861	14881
CVISC 1251551	2024	18661	18681
CVISC 1251571	2024	14881	16481
CVISC 1251572	2024	16481	18681
CVISC 1252301	2024	14869	18669
CVISC 1252302	2024	1005	18689
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CVISC 1252701	2024	14861	18661
CVISC 1252702	2024	14881	18681
CVISC 1252703	2024	14861	16481
CVISC 1252704	2024	18661	18681
CVISC 1258101	2024	14869	18669
CVISC 1258102	2024	1005	18689
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CVISC 1258104	2024	18669	18689
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CVISC 1290123	7075	7047	8547
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CVISC 1290131	7075	7037	7047
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CVISC 1290141	7075	8537	1003
CVISC 1290142	7075	8547	9347
CVISC 1290143	7075	8547	9347
CVISC 1290144	7075	8567	9367
CVISC 1290151	7075	8537	8547

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CVISC 1290251	7075	6133	7033
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CVISC 1290574	7075	11547	11567
CVISC 1290581	7075	11537	1004
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CVISC 1290583	7075	11547	13847
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CVISC 1290591	7075	11537	11547
CVISC 1290592	7075	11547	11567
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CVISC 1290594	7075	13847	13867
CVISC 1290681	7075	1004	13847

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CVISC 1290695	7075	13867	14867
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CVISC 1290698	7075	13867	13848
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CVISC 1290731	7075	8567	9367
CVISC 1290732	7075	9367	11567
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CVISC 1290974	7075	11543	11563
CVISC 1290981	7075	11533	13833
CVISC 1290982	7075	11543	13843
CVISC 1290983	7075	11543	13843
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CVISC 1290986	7075	8537	1003
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CVISC 1290988	7075	11543	11563
CVISC 1290989	7075	13833	13843
CVISC 1290990	7075	13843	13863

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CVISC 1291006	7075	13843	14843
CVISC 1291007	7075	13843	14843
CVISC 1291008	7075	13863	14863
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CVISC 1291015	7075	14803	14823
CVISC 1291016	7075	14823	14833
CVISC 1291017	7075	14833	14843
CVISC 1291018	7075	14843	14863
CVISC 1291111	7075	1003	11537
CVISC 1291112	7075	11537	1004
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CVISC 1291373	7075	13833	13843
CVISC 1291374	7075	13843	13863
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CVISC 1291432	7075	11547	13847
CVISC 1291701	7075	13843	14843
CVISC 1291702	7075	13863	14863
CVISC 1291703	7075	13843	13863
CVISC 1291704	7075	14843	14863
CVISC 1291901	7075	13833	14833
CVISC 1291902	7075	13843	14843
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CVISC 1291904	7075	14833	14843
CVISC 1291971	7075	11533	13833
CVISC 1291972	7075	11543	13843
CVISC 1291984	7075	13843	14843
CVISC 1291985	7075	13863	14863
CVISC 1291986	7075	13843	13863
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CVISC 1292501	7075	13807	14807
CVISC 1292502	7075	13827	14827
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CVISC 1292512	7075	13827	1004
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CVISC 1292514	7075	14827	14837
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CVISC 1292702	7075	13823	14823
CVISC 1292703	7075	13823	14823
CVISC 1292704	7075	13833	14833
CVISC 1292711	7075	13803	13823
CVISC 1292712	7075	13823	13833
CVISC 1292713	7075	14803	14823
CVISC 1292714	7075	14823	14833
CVISC 1293701	7075	9347	11547
CVISC 1293702	7075	9367	11567

CVISC 1293703	7075	9347	9367
CVISC 1293704	7075	11547	11567
CVISC 1293711	7075	11547	13847
CVISC 1293712	7075	11567	13867
CVISC 1293713	7075	11547	11567
CVISC 1293714	7075	13847	13867
CVISC 1294101	7075	13807	14807
CVISC 1294102	7075	13827	14827
CVISC 1294103	7075	13827	14827
CVISC 1294104	7075	1004	14837
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CVISC 1294106	7075	13847	14847
CVISC 1294107	7075	13848	13847
CVISC 1294108	7075	13867	14867
CVISC 1294111	7075	13807	13827
CVISC 1294112	7075	13827	1004
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CVISC 1294114	7075	13848	13867
CVISC 1294115	7075	14807	14827
CVISC 1294116	7075	14827	14837
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CVISC 1294132	7075	7043	7063
CVISC 1294133	7075	8533	8543
CVISC 1294134	7075	8543	8563
CVISC 1294901	7075	9333	11533
CVISC 1294902	7075	9343	11543
CVISC 1294903	7075	9343	11543
CVISC 1294904	7075	9363	11563
CVISC 1294911	7075	9333	9343
CVISC 1294912	7075	9343	9363
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CVISC 1294914	7075	11543	11563
CVISC 1294921	7075	11533	13833
CVISC 1294922	7075	11543	13843
CVISC 1294923	7075	11543	13843
CVISC 1294924	7075	11563	13863
CVISC 1294931	7075	11533	11543
CVISC 1294932	7075	11543	11563
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CVISC 1295701	7075	1004	14837
CVISC 1295702	7075	13847	14847
CVISC 1295703	7075	1004	13847
CVISC 1295704	7075	14837	14847
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CVISC 1295802	7075	7043	8543
CVISC 1295803	7075	7043	8543
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CVISC 1295811	7075	7033	7043
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CVISC 1295814	7075	8543	8563
CVISC 1295821	7075	13848	13847
CVISC 1295822	7075	13867	14867

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CVISC 1285824	7075	13847	14867
CVISC 1286801	7075	13807	14807
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CVISC 1286814	7075	14807	14827
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CVISC 1286816	7075	14837	14847
CVISC 1297501	7075	6137	7037
CVISC 1297502	7075	6147	7047
CVISC 1297503	7075	6147	7047
CVISC 1297504	7075	6167	7067
CVISC 1297511	7075	6137	6147
CVISC 1297512	7075	6147	6167
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CVISC 1297514	7075	7047	7067
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CVISC 1297524	7075	8547	8567
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CVISC 1298301	7075	6133	7033
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CVISC 1298342	7075	8543	9343
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CVISC 1298502	7075	9347	11547
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CVISC 1298504	7075	11537	11547
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CVISC 1298512	7075	11547	13847

CVISC 1298513	7075	11537	11547
CVISC 1298514	7075	1004	13847
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CVISC 1298815	7075	14823	14833
CVISC 1298816	7075	14833	14843
CVISC 1300211	7075	18621	18631
CVISC 1300212	7075	18631	18641
CVISC 1300213	7075	18641	18651
CVISC 1300214	7075	18651	18656
CVISC 1300215	7075	18656	18661
CVISC 1300231	7075	14863	18661
CVISC 1300271	7075	15623	18621
CVISC 1300352	7075	14823	15623
CVISC 1300353	7075	14823	14833
CVISC 1300411	7075	14833	14843
CVISC 1300412	7075	14843	14863
CVISC 1302901	9046	14823	15623
CVISC 1302902	9046	14833	15633
CVISC 1302903	9046	14823	14833
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CVISC 1303303	9046	14823	14833
CVISC 1303304	9046	15623	15633
CVISC 1303311	9046	15623	18621
CVISC 1303312	9046	15633	18631
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CVISC 1303315	9046	14843	18651
CVISC 1303316	9046	14863	18656
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CVISC 1303322	9046	15633	14843
CVISC 1303323	9046	14843	14863
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CVISC 1303325	9046	18631	18641
CVISC 1303326	9046	18651	18656
CVISC 1303501	9046	14823	15623
CVISC 1303502	9046	14833	15633
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CVISC 1303504	9046	15623	15633
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CVISC 1303912	76	15633	18631
CVISC 1303913	76	15633	18631
CVISC 1303914	76	14843	18641
CVISC 1303915	76	14843	18651
CVISC 1303916	76	14863	18656
CVISC 1303921	76	15623	15633

CVISC 1303922	76	15633	14843
CVISC 1303923	76	14843	14863
CVISC 1303924	76	18621	18631
CVISC 1303925	76	18631	18641
CVISC 1303926	76	18651	18656
CVISC 1330101	7075	26821	26801
CVISC 1330102	7075	26801	26809
CVISC 1330103	7075	26809	26828
CVISC 1330104	7075	26821	29921
CVISC 1330105	7075	26829	29929
CVISC 1330106	7075	29921	29905
CVISC 1330107	7075	29905	29929
CVISC 1360691	2024	18669	19769
CVISC 1360692	2024	19769	21369
CVISC 1360693	2024	21369	25069
CVISC 1360694	2024	25069	1008
CVISC 1360695	2024	1008	1009
CVISC 1360711	2024	18661	19761
CVISC 1360712	2024	19761	21361
CVISC 1360713	2024	21361	25061
CVISC 1360714	2024	25061	26861
CVISC 1360715	2024	26861	29961
CVISC 1370354	7075	19749	21349
CVISC 1370355	7075	19769	21369
CVISC 1370356	7075	19749	19759
CVISC 1370357	7075	19759	19769
CVISC 1370358	7075	21349	21369
CVISC 1370364	7075	19741	21341
CVISC 1370365	7075	19761	21361
CVISC 1370366	7075	19741	19751
CVISC 1370367	7075	19751	19761
CVISC 1370368	7075	21341	21361
CVISC 1370501	7075	18654	19749
CVISC 1370502	7075	18659	19759
CVISC 1370503	7075	18659	19759
CVISC 1370504	7075	18669	19769
CVISC 1370511	7075	18654	18659
CVISC 1370512	7075	18659	18669
CVISC 1370513	7075	19749	19759
CVISC 1370514	7075	19759	19769
CVISC 1370521	7075	19749	21349
CVISC 1370522	7075	19759	21369
CVISC 1370523	7075	19749	19759
CVISC 1370524	7075	21349	21369
CVISC 1370601	7075	18651	19741
CVISC 1370602	7075	18656	19751
CVISC 1370603	7075	18656	19751
CVISC 1370604	7075	18661	19761
CVISC 1370611	7075	18651	18656
CVISC 1370612	7075	18656	18661
CVISC 1370613	7075	19741	19751
CVISC 1370614	7075	19751	19761
CVISC 1370621	7075	19741	21341
CVISC 1370622	7075	19751	21361
CVISC 1370623	7075	19741	19751
CVISC 1370624	7075	21341	21361
CVISC 1372301	7075	19749	21349
CVISC 1372302	7075	19759	21369
CVISC 1372303	7075	19749	19759
CVISC 1372304	7075	21349	21369

CVISC 1372401	7075	19741	21341
CVISC 1372402	7075	19751	21361
CVISC 1372403	7075	19741	19751
CVISC 1372404	7075	21341	21361
CVISC 1373501	7075	18654	19749
CVISC 1373502	7075	18659	19759
CVISC 1373503	7075	18659	19759
CVISC 1373504	7075	18669	19769
CVISC 1373511	7075	18654	18659
CVISC 1373512	7075	18659	18669
CVISC 1373513	7075	19749	19759
CVISC 1373514	7075	19759	19769
CVISC 1373601	7075	18651	19741
CVISC 1373602	7075	18656	19751
CVISC 1373603	7075	18656	19751
CVISC 1373604	7075	18661	19761
CVISC 1373611	7075	18651	18656
CVISC 1373612	7075	18656	18661
CVISC 1373613	7075	19741	19751
CVISC 1373614	7075	19751	19761
CVISC 1380103	2024	13801	13803
CVISC 1380191	7075	18629	18639
CVISC 1380192	7075	18639	18649
CVISC 1380193	7075	18649	18654
CVISC 1380194	7075	18654	18659
CVISC 1380195	7075	18659	18669
CVISC 1380291	7075	18667	18669
CVISC 1380307	7075	13803	13807
CVISC 1380311	7075	15627	18629
CVISC 1380323	7075	13803	13823
CVISC 1380432	7075	14827	14837
CVISC 1380433	7075	14827	15627
CVISC 1380491	7075	14837	14847
CVISC 1380492	7075	14847	14867
CVISC 1380709	2024	13807	13809
CVISC 1380929	2024	13809	13829
CVISC 1382101	2024	13801	13821
CVISC 1382123	2024	13821	13823
CVISC 1382131	2024	13821	13831
CVISC 1382327	7075	13823	13827
CVISC 1382333	7075	13823	13833
CVISC 1382707	7075	13807	13827
CVISC 1382729	2024	13827	13829
CVISC 1382737	7075	13827	1004
CVISC 1382939	2024	13829	13839
CVISC 1383133	7075	13831	13833
CVISC 1383141	2024	13831	13841
CVISC 1383337	7075	13833	1004
CVISC 1383343	7075	13833	13843
CVISC 1383501	8046	14827	15627
CVISC 1383502	8046	14837	15637
CVISC 1383503	8046	14827	14837
CVISC 1383504	8046	15627	15637
CVISC 1383739	7075	1004	13839
CVISC 1383747	7075	1004	13847
CVISC 1383748	7075	1004	13848
CVISC 1383949	2024	13839	13849
CVISC 1384101	76	14827	15627
CVISC 1384102	76	14837	15637
CVISC 1384103	76	14827	14837

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CVISC	1384111	76	15627	15629
CVISC	1384112	76	15637	15639
CVISC	1384113	76	15637	15639
CVISC	1384114	76	14847	18649
CVISC	1384115	76	14847	18654
CVISC	1384116	76	14867	18659
CVISC	1384121	76	15627	15637
CVISC	1384122	76	15637	14847
CVISC	1384123	76	14847	14867
CVISC	1384124	76	18629	18639
CVISC	1384125	76	18639	18649
CVISC	1384126	76	18654	18659
CVISC	1384143	2024	13841	13843
CVISC	1384161	2024	13841	13861
CVISC	1384301	9046	14827	15627
CVISC	1384302	9046	14837	15637
CVISC	1384303	9046	14827	14837
CVISC	1384304	9046	15627	15637
CVISC	1384347	2024	13843	13847
CVISC	1384363	7075	13843	13863
CVISC	1384501	9046	14827	15627
CVISC	1384502	9046	14837	15637
CVISC	1384503	9046	14827	14837
CVISC	1384504	9046	15627	15637
CVISC	1384511	9046	15627	18629
CVISC	1384512	9046	15637	18639
CVISC	1384513	9046	15637	18639
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CVISC	1384515	9046	14847	18654
CVISC	1384516	9046	14867	18659
CVISC	1384521	9046	15627	15637
CVISC	1384522	9046	15637	14847
CVISC	1384523	9046	14847	14867
CVISC	1384524	9046	18629	18639
CVISC	1384525	9046	18639	18649
CVISC	1384526	9046	18654	18659
CVISC	1384867	7075	13848	13867
CVISC	1384969	2024	13849	13869
CVISC	1386163	2024	13861	13863
CVISC	1386769	2024	13867	13869
CVISC	1480103	7075	14801	14803
CVISC	1480307	7075	14803	14807
CVISC	1480323	7075	14803	14823
CVISC	1480709	7075	14807	14809
CVISC	1480929	7075	14809	14829
CVISC	1482101	7075	14801	14821
CVISC	1482123	7075	14821	14823
CVISC	1482131	7075	14821	14831
CVISC	1482327	7075	14823	14827
CVISC	1482333	7075	14823	14833
CVISC	1482707	7075	14807	14827
CVISC	1482729	7075	14827	14828
CVISC	1482737	7075	14827	14837
CVISC	1482939	7075	14829	14839
CVISC	1483133	7075	14831	14833
CVISC	1483141	7075	14831	14841
CVISC	1483337	7075	14833	14837
CVISC	1483343	7075	14833	14843
CVISC	1483739	7075	14837	14839

CVISC	1483747	7075	14837	14847
CVISC	1483949	7075	14839	14849
CVISC	1484161	7075	14841	14861
CVISC	1484347	7075	14843	14847
CVISC	1484363	7075	14843	14863
CVISC	1484767	7075	14847	14867
CVISC	1484969	7075	14849	14869
CVISC	1486163	7075	14861	14863
CVISC	1486181	7075	14861	14881
CVISC	1486367	7075	14863	14867
CVISC	1486769	7075	14867	14869
CVISC	1486969	7075	14869	14889
CVISC	1488183	7075	14881	14883
CVISC	1488367	7075	14883	14887
CVISC	1488769	7075	14887	14889
CVISC	1560031	7075	9347	11547
CVISC	1560032	7075	11547	13847
CVISC	1560033	7075	13847	14847
CVISC	1560041	7075	9343	11543
CVISC	1560042	7075	11543	13843
CVISC	1560043	7075	13843	14843
CVISC	1570011	7075	6167	7067
CVISC	1570012	7075	7067	8567
CVISC	1570013	7075	8567	9367
CVISC	1570014	7075	9367	11567
CVISC	1570015	7075	11567	13867
CVISC	1570016	7075	13867	14867
CVISC	1570017	7075	14867	18669
CVISC	1570031	7075	6163	7063
CVISC	1570032	7075	7063	8563
CVISC	1570033	7075	8563	9363
CVISC	1570034	7075	9363	11563
CVISC	1570035	7075	11563	13863
CVISC	1570036	7075	13863	14863
CVISC	1570037	7075	14863	18661
CVISC	1580031	7075	6137	7037
CVISC	1580032	7075	7037	8537
CVISC	1580033	7075	8537	1003
CVISC	1580034	7075	1003	11537
CVISC	1580035	7075	11537	1004
CVISC	1580036	7075	1004	14837
CVISC	1580041	7075	6133	7033
CVISC	1580042	7075	7033	8533
CVISC	1580043	7075	8533	9333
CVISC	1580044	7075	9333	11533
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CVISC	1580046	7075	13833	14833
CVISC	1590051	7075	13827	14827
CVISC	1590052	7075	14827	15627
CVISC	1590053	7075	15627	18629
CVISC	1590071	7075	13823	14823
CVISC	1590072	7075	14823	15823
CVISC	1590073	7075	15823	18621
CVISC	1800051	7075	18669	18769
CVISC	1800062	7075	18769	21369
CVISC	1800053	7075	21369	25069
CVISC	1800054	7075	25069	1008
CVISC	1800055	7075	1008	1009
CVISC	1800081	7075	18861	19781
CVISC	1800082	7075	19781	21361

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CVISC 1600093	7075	21361	25061
CVISC 1600094	7075	25061	28861
CVISC 1600095	7075	28861	29961
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CVISC 1610132	7075	14829	15629
CVISC 1610133	7075	15629	18629
CVISC 1610151	7075	13821	14821
CVISC 1610152	7075	14821	15621
CVISC 1610153	7075	15621	18621
CVISC 1610191	7075	18629	21329
CVISC 1610192	7075	21329	21829
CVISC 1610193	7075	21829	22729
CVISC 1610194	7075	22729	25029
CVISC 1610195	7075	25029	26829
CVISC 1610196	7075	26829	29829
CVISC 1610291	7075	18621	21321
CVISC 1610292	7075	21321	21821
CVISC 1610293	7075	21821	22721
CVISC 1610294	7075	22721	25021
CVISC 1610295	7075	25021	26821
CVISC 1610296	7075	26821	29921
CVISC 1796101	2024	7061	8561
CVISC 1796102	2024	7071	8571
CVISC 1796103	2024	7061	7071
CVISC 1796104	2024	8561	8571
CVISC 1796111	2024	8561	9361
CVISC 1796112	2024	8571	9371
CVISC 1796113	2024	8561	8571
CVISC 1796114	2024	9361	9371
CVISC 1796121	2024	9361	11561
CVISC 1796122	2024	9371	11571
CVISC 1796123	2024	9361	9371
CVISC 1796124	2024	11561	11571
CVISC 1796131	2024	11561	13861
CVISC 1796132	2024	11571	13871
CVISC 1796133	2024	11561	11571
CVISC 1796134	2024	13861	13871
CVISC 1796141	2024	13861	14861
CVISC 1796142	2024	13871	14881
CVISC 1796143	2024	13861	13871
CVISC 1796144	2024	14861	14881
CVISC 1796301	2024	7069	8569
CVISC 1796302	2024	7079	8579
CVISC 1796303	2024	7069	7079
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CVISC 1796311	2024	8569	9369
CVISC 1796312	2024	8579	9379
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CVISC 1796314	2024	9369	9379
CVISC 1796321	2024	9369	11569
CVISC 1796322	2024	9379	11579
CVISC 1796323	2024	9369	9379
CVISC 1796324	2024	11569	11579
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CVISC 1796332	2024	11579	13879
CVISC 1796333	2024	11569	11579
CVISC 1796334	2024	13869	13879
CVISC 1796341	2024	13869	14869
CVISC 1796342	2024	13879	14889
CVISC 1796343	2024	13869	13879

CVISC 1796344	2024	14869	14889
CVISC 1800171	2024	18629	21349
CVISC 1800191	2024	21321	18641
CVISC 1820011	7075	18649	19749
CVISC 1820012	7075	19749	21349
CVISC 1820051	7075	18641	19741
CVISC 1820052	7075	19741	21341
CVISC 1860103	2024	18601	18603
CVISC 1860307	2024	18603	18607
CVISC 1860709	2024	18607	18609
CVISC 1860829	2024	18609	18629
CVISC 1862101	2024	18601	18621
CVISC 1862123	7075	18621	18623
CVISC 1862131	2014	18621	18631
CVISC 1862325	7075	18623	18625
CVISC 1862527	7075	18625	18627
CVISC 1862729	7075	18627	18629
CVISC 1862939	2014	18629	18639
CVISC 1863141	2014	18631	18641
CVISC 1863949	2014	18639	18649
CVISC 1864151	2014	18641	18651
CVISC 1864954	2014	18649	18654
CVISC 1865156	2014	18651	18656
CVISC 1865459	2014	18654	18659
CVISC 1865661	2014	18656	18661
CVISC 1865969	2014	18659	18669
CVISC 1866181	2024	18661	18681
CVISC 1866989	2024	18669	18689
CVISC 1868183	7075	18681	18683
CVISC 1868385	7075	18683	18685
CVISC 1868587	7075	18685	18687
CVISC 1868789	7075	18687	18689
CVISC 1870031	2014	8533	8543
CVISC 1870032	2014	8537	8547
CVISC 1874241	2014	18641	18642
CVISC 1874352	2014	18652	18643
CVISC 1874464	2014	18644	18664
CVISC 1874666	2014	18646	18666
CVISC 1874845	2014	18648	18649
CVISC 1875141	2014	18641	18651
CVISC 1875242	2014	18642	18652
CVISC 1875251	2014	18651	18652
CVISC 1875347	2014	18647	18653
CVISC 1875348	2014	18648	18653
CVISC 1875449	2014	18649	18654
CVISC 1875453	2014	18653	18654
CVISC 1875651	2014	18651	18656
CVISC 1875752	2014	18652	18657
CVISC 1875756	2014	18656	18657
CVISC 1875853	2014	18653	18658
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CVISC 1875958	2014	18658	18659
CVISC 1876343	2014	18643	18663
CVISC 1876357	2014	18657	18663
CVISC 1876747	2014	18647	18667
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CVISC 1974643	2014	19743	19745
CVISC 1974656	2014	19745	19785

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CVISC 1975949	2014	19749	19759
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CVISC 1976563	2014	19763	19765
CVISC 1976747	2014	19747	1006
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CVISC 2016702	2024	1001	6137
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CVISC 2017004	2024	8537	1003
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CVISC 2017007	2024	8531	8533
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CVISC 2017011	2024	9333	1003
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CVISC 2018533	2024	8533	9333

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CVISC	2020271	2024	9347	11547
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CVISC	2020293	2024	13843	14843
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CVISC	2027302	2024	11543	13843
CVISC	2027303	2024	13843	14843
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CVISC	2056304	7075	18625	21325

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CVISC 2077702	2024	11543	13843
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CVISC 2081302	2024	16483	16683
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CVISC 2081311	2024	16485	16487
CVISC 2081312	2024	16487	1005
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CVISC 2084544	2024	16687	16689
CVISC 2087901	2024	14881	16481
CVISC 2087902	2024	14883	16483
CVISC 2087903	2024	14887	16487
CVISC 2087904	2024	14889	1005
CVISC 2087905	2024	14881	14883
CVISC 2087906	2024	14887	14889
CVISC 2087907	2024	16481	16483
CVISC 2087908	2024	16487	1005
CVISC 2087921	2024	16481	16681
CVISC 2087922	2024	16483	16683
CVISC 2087923	2024	16483	16683
CVISC 2087924	2024	16485	16685
CVISC 2087925	2024	16485	16685
CVISC 2087926	2024	16487	16687
CVISC 2087927	2024	16487	16687
CVISC 2087928	2024	1005	16689
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CVISC 2087931	2024	16485	16487

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CVISC	2087834	2024	18683	18685
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CVISC	2090057	7075	26861	26865
CVISC	2090058	7075	26865	1008
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CVISC	2090432	2024	26865	1008
CVISC	2091011	2024	1007	26865
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CVISC	2091273	7075	21363	21364
CVISC	2091274	7075	21364	21366
CVISC	2091275	7075	21366	21367
CVISC	2091276	7075	25061	1007
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CVISC	2092512	9046	21366	21367
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CVISC	2092552	9046	26865	1008
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CVISC	2100711	7075	14869	18669
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CVISC	2108921	2024	11567	11569
CVISC	2108922	2024	13867	13869

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CVISC 2110103	7075	7031	8531
CVISC 2110104	7075	8531	9331
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CVISC 2110106	7075	11531	13831
CVISC 2110107	7075	13831	14831
CVISC 2110501	2024	1003	11537
CVISC 2110502	2024	11537	1004
CVISC 2110503	2024	1004	14837
CVISC 2110504	2024	9339	11539
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CVISC 2110506	2024	13839	14839
CVISC 2110507	2024	1003	9339
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CVISC 2110702	2024	11531	13831
CVISC 2110703	2024	13831	14831
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CVISC 2110706	2024	13833	14833
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CVISC 2120102	2024	13827	14827
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CVISC 2132141	7075	21321	21341
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CVISC 2132949	7075	21329	21349
CVISC 2134143	7075	21341	21343
CVISC 2134161	7075	21341	21361
CVISC 2134345	7075	21343	21345
CVISC 2134547	7075	21345	21347
CVISC 2134749	7075	21347	21349
CVISC 2134969	7075	21349	21369
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CVISC 2136466	2024	21364	21366
CVISC 2136667	2024	21366	21367

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CVISC 2170102	2024	11533	13833
CVISC 2170171	2024	9333	11533
CVISC 2170172	2024	11533	13833
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CVISC 2170271	2024	13833	1004
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CVISC 2171103	2024	1003	11537
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CVISC 2173308	2024	13833	1004
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CVISC 2190312	2024	11503	13803
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CVISC 2190314	2024	11507	13807
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CVISC 2191501	2024	9313	9317
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CVISC 2200103	2024	13801	13803
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CVISC 2200111	2024	13803	14803
CVISC 2200112	2024	13807	14807
CVISC 2200113	2024	13803	13807
CVISC 2200114	2024	14803	14807
CVISC 2200121	2024	13807	14807
CVISC 2200122	2024	13809	14809
CVISC 2200123	2024	13807	13809

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CVISC	2200314	2024	25009	25029
CVISC	2200431	2024	13809	14809
CVISC	2200441	2024	13801	14801
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CVISC	2200561	7075	15603	18603
CVISC	2200571	7075	22707	25007
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CVISC	2200591	7075	18607	21807
CVISC	2200601	7075	18603	21803
CVISC	2201151	7075	25003	25007
CVISC	2201171	7075	25003	26801
CVISC	2201191	7075	25007	26809
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CVISC	2206104	2024	14809	14829
CVISC	2206201	2024	13821	14821
CVISC	2206202	2024	13801	14801
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CVISC	2206702	2024	22701	25001
CVISC	2206703	2024	22721	22701
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CVISC	2206711	2024	22701	25001
CVISC	2206712	2024	22703	25003
CVISC	2206713	2024	22701	22703
CVISC	2206714	2024	25001	25003
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CVISC	2207102	2024	18609	21809
CVISC	2207103	2024	18607	18609
CVISC	2207104	2024	21807	21809
CVISC	2207111	2024	18609	21809
CVISC	2207112	2024	18629	21329
CVISC	2207113	2024	18609	18629
CVISC	2207114	2024	21809	21329
CVISC	2207201	2024	18621	21321
CVISC	2207202	2024	18601	21801
CVISC	2207203	2024	18621	18601
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CVISC	2207702	2024	15601	18601
CVISC	2207703	2024	15621	15601
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CVISC	2207711	2024	15601	18601
CVISC	2207712	2024	15603	18603
CVISC	2207713	2024	15601	15603
CVISC	2207714	2024	18601	18603

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CVISC	2207722	2024	15607	18607
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CVISC	2500929	2024	25009	25029
CVISC	2501711	7075	14861	18661
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CVISC	2502529	7075	25025	25029
CVISC	2502949	7075	25029	25049
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CVISC 2682529	2024	26825	26829
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CVISC 6505922	2014	65021	1017
CVISC 6505928	2014	65029	65929

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CVISC	6505929	2014	65029	65929
CVISC	6505931	2014	65031	65931
CVISC	6505932	2014	65031	65931
CVISC	6505938	2014	65039	65939
CVISC	6505939	2014	65039	65939
CVISC	7222811	2014	72211	72811
CVISC	7222812	2014	72213	72811
CVISC	7222818	2014	72217	72819
CVISC	7222819	2014	72219	72819
CVISC	7222822	2014	72224	72821
CVISC	7222828	2014	72226	72829
CVISC	7222832	2014	72231	72831
CVISC	7222838	2014	72239	72839
CVISC	7283411	2014	72811	73411
CVISC	7283412	2014	72811	73411
CVISC	7283418	2014	72819	73419
CVISC	7283419	2014	72819	73419
CVISC	7283421	2014	72821	73421
CVISC	7283422	2014	72821	73421
CVISC	7283428	2014	72829	73429
CVISC	7283429	2014	72829	73429
CVISC	7283431	2014	72831	73431
CVISC	7283432	2014	72831	73431
CVISC	7283438	2014	72839	73439
CVISC	7283439	2014	72839	73439
CVISC	7344211	2014	73411	74211
CVISC	7344212	2014	73411	74211
CVISC	7344218	2014	73419	74219
CVISC	7344219	2014	73419	74219
CVISC	7344221	2014	73421	74221
CVISC	7344222	2014	73421	74221
CVISC	7344228	2014	73429	74229
CVISC	7344229	2014	73429	74229
CVISC	7344231	2014	73431	74231
CVISC	7344232	2014	73431	74231
CVISC	7344238	2014	73439	74239
CVISC	7344239	2014	73439	74239
CVISC	7425011	2014	74211	75011
CVISC	7425012	2014	74211	75011
CVISC	7425018	2014	74219	75019
CVISC	7425019	2014	74219	75019
CVISC	7425021	2014	74221	75021
CVISC	7425022	2014	74221	75021
CVISC	7425028	2014	74229	75029
CVISC	7425029	2014	74229	75029
CVISC	7425031	2014	74231	75031
CVISC	7425032	2014	74231	75031
CVISC	7425038	2014	74239	75039
CVISC	7425039	2014	74239	75039
CVISC	7505911	2014	75011	75911
CVISC	7505912	2014	75011	75911
CVISC	7505918	2014	75019	75919
CVISC	7505919	2014	75019	75919
CVISC	7505921	2014	75021	75921
CVISC	7505922	2014	75021	75921
CVISC	7505928	2014	75029	75929
CVISC	7505929	2014	75029	75929
CVISC	7505931	2014	75031	75931
CVISC	7505932	2014	75031	75931
CVISC	7505938	2014	75039	75939

CVISC	7505939	2014	75039	75939
CVISC	101114	7075	2501	2514
CVISC	102115	7075	2502	2515
CVISC	103116	7075	2503	2516
CVISC	104117	7075	2504	2517
CVISC	105118	7075	2505	2518
CVISC	106119	7075	2506	2519
CVISC	107120	7075	2507	2520
CVISC	108121	7075	2508	2521
CVISC	109122	7075	2509	2522
CVISC	110123	7075	2510	2523
CVISC	111124	7075	2511	2524
CVISC	112125	7075	2512	2525
CVISC	113126	7075	2513	2526
CVISC	114127	7075	2514	2527
CVISC	115128	7075	2515	2528
CVISC	116103	2024	2503	2516
CVISC	116129	7075	2516	2529
CVISC	117104	2024	2504	2517
CVISC	117130	7075	2517	2530
CVISC	118131	7075	2518	2531
CVISC	119132	7075	2519	2532
CVISC	120133	7075	2520	2533
CVISC	121134	7075	2521	2534
CVISC	122135	7075	2522	2535
CVISC	123110	2024	2510	2523
CVISC	123136	7075	2523	2536
CVISC	124111	2024	2511	2524
CVISC	124137	7075	2524	2537
CVISC	125138	7075	2525	2538
CVISC	126139	7075	2526	2539
CVISC	127140	7075	2527	2540
CVISC	128141	7075	2528	2541
CVISC	129118	2024	2516	2529
CVISC	129142	7075	2529	2542
CVISC	130117	2024	2517	2530
CVISC	130138	2024	2530	2536
CVISC	130143	7075	2530	2543
CVISC	131144	7075	2531	2544
CVISC	132145	7075	2532	2545
CVISC	133146	7075	2533	2546
CVISC	134147	7075	2534	2547
CVISC	135148	7075	2535	2548
CVISC	136123	2024	2523	2536
CVISC	136149	7075	2536	2549
CVISC	137124	2024	2524	2537
CVISC	137160	7075	2537	2550
CVISC	138151	7075	2538	2551
CVISC	139152	7075	2539	2552
CVISC	140153	7075	2540	2553
CVISC	141154	7075	2541	2554
CVISC	142129	2024	2529	2542
CVISC	142155	7075	2542	2555
CVISC	143130	2024	2530	2543
CVISC	143149	2024	2543	2549
CVISC	143156	7075	2543	2556
CVISC	144157	7075	2544	2557
CVISC	145158	7075	2545	2558
CVISC	146159	7075	2546	2559
CVISC	147160	7075	2547	2560

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CVISC	148161	7075	2548	2561
CVISC	149136	2024	2536	2549
CVISC	149162	7075	2549	2562
CVISC	150137	2024	2537	2550
CVISC	150163	7075	2550	2563
CVISC	151164	7075	2551	2564
CVISC	152165	7075	2552	2565
CVISC	153166	7075	2553	2566
CVISC	154167	7075	2554	2567
CVISC	155142	2024	2542	2555
CVISC	155166	7075	2555	2566
CVISC	156143	2024	2543	2556
CVISC	156162	2024	2556	2562
CVISC	156169	7075	2556	2569
CVISC	157170	7075	2557	2570
CVISC	158171	7075	2558	2571
CVISC	159172	7075	2559	2572
CVISC	160173	7075	2560	2573
CVISC	161174	7075	2561	2574
CVISC	162149	2024	2549	2562
CVISC	162175	7075	2562	2575
CVISC	163150	2024	2550	2563
CVISC	163176	7075	2563	2576
CVISC	164177	7075	2564	2577
CVISC	165178	7075	2565	2578
CVISC	166179	7075	2566	2579
CVISC	167180	7075	2567	2580
CVISC	168155	2024	2555	2568
CVISC	168181	7075	2568	2581
CVISC	169156	2024	2556	2569
CVISC	169182	7075	2569	2582
CVISC	170183	7075	2570	2583
CVISC	171184	7075	2571	2584
CVISC	172185	7075	2572	2585
CVISC	173186	7075	2573	2586
CVISC	174187	7075	2574	2587
CVISC	175162	2024	2562	2575
CVISC	175188	7075	2575	2588
CVISC	176163	2024	2563	2576
CVISC	176189	7075	2576	2589
CVISC	177190	7075	2577	2590
CVISC	178191	7075	2578	2591
CVISC	179192	7075	2579	2592
CVISC	180193	7075	2580	2593
CVISC	181168	2024	2568	2581
CVISC	181194	7075	2581	2594
CVISC	182169	2024	2569	2582
CVISC	182195	7075	2582	2595
CVISC	183196	7075	2583	2596
CVISC	184197	7075	2584	2597
CVISC	185198	7075	2585	2598
CVISC	186199	7075	2586	2599
CVISC	187200	7075	2587	2600
CVISC	188175	2024	2575	2588
CVISC	188201	7075	2588	2601
CVISC	189176	2024	2576	2589
CVISC	189202	7075	2589	2602
CVISC	190203	7075	2590	2603
CVISC	191204	7075	2591	2604
CVISC	192205	7075	2592	2605

CVISC	193206	7075	2593	2606
CVISC	194181	2024	2581	2594
CVISC	194207	7075	2594	2607
CVISC	195182	2024	2582	2595
CVISC	195208	7075	2595	2608
CVISC	196209	7075	2596	2609
CVISC	197210	7075	2597	2610
CVISC	198211	7075	2598	2611
CVISC	199212	7075	2599	2612
CVISC	200213	7075	2600	2613
CVISC	201188	2024	2588	2601
CVISC	201214	7075	2601	2614
CVISC	202189	2024	2589	2602
CVISC	202215	7075	2602	2615
CVISC	203216	7075	2603	2616
CVISC	204217	7075	2604	2617
CVISC	205229	7075	2605	2629
CVISC	206230	7075	2606	2630
CVISC	207194	2024	2584	2607
CVISC	207231	7075	2607	2631
CVISC	208195	2024	2595	2608
CVISC	208232	7075	2608	2632
CVISC	209233	7075	2609	2633
CVISC	210234	7075	2610	2634
CVISC	211235	7075	2611	2635
CVISC	212236	7075	2612	2636
CVISC	213237	7075	2613	2637
CVISC	214201	2024	2601	2614
CVISC	214238	7075	2614	2638
CVISC	215202	2024	2602	2615
CVISC	215239	7075	2615	2639
CVISC	216240	7075	2616	2640
CVISC	217241	7075	2617	2641
CVISC	228243	7075	2629	2643
CVISC	228257	7075	2629	2657
CVISC	228277	7075	2629	2677
CVISC	230244	7075	2630	2644
CVISC	230258	7075	2630	2658
CVISC	231207	2024	2607	2631
CVISC	231245	7075	2631	2645
CVISC	231259	7075	2631	2659
CVISC	232208	2024	2608	2632
CVISC	232246	7075	2632	2646
CVISC	232260	7075	2632	2660
CVISC	233247	7075	2633	2647
CVISC	233261	7075	2633	2661
CVISC	234248	7075	2634	2648
CVISC	235249	7075	2635	2649
CVISC	235262	7075	2635	2662
CVISC	236250	7075	2636	2650
CVISC	237251	7075	2637	2661
CVISC	237263	7075	2637	2663
CVISC	238214	2024	2614	2638
CVISC	238252	7075	2638	2652
CVISC	238264	7075	2638	2664
CVISC	239215	2024	2615	2639
CVISC	239263	7075	2639	2653
CVISC	239285	7075	2639	2665
CVISC	240254	7075	2640	2654
CVISC	240288	7075	2640	2666

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CVISC	290294	7075	2690	2694
CVISC	290306	7075	2690	2706
CVISC	291295	7075	2691	2695
CVISC	291306	7075	2691	2706
CVISC	292293	7075	2692	2693
CVISC	294295	7075	2694	2695
CVISC	294308	7075	2694	2708
CVISC	294310	7075	2694	2710
CVISC	295308	7075	2695	2708
CVISC	295311	7075	2695	2711
CVISC	295897	7075	2696	2697
CVISC	300302	2024	2700	2702
CVISC	302304	2024	2702	2704
CVISC	304306	2024	2704	2706
CVISC	306308	2024	2706	2708
CVISC	308312	2024	2708	2712
CVISC	310312	7075	2710	2712
CVISC	310314	7075	2710	2714
CVISC	311310	7075	2711	2710
CVISC	311312	7075	2711	2712
CVISC	312315	7075	2711	2715
CVISC	312316	2024	2712	2716
CVISC	314316	2024	2714	2716
CVISC	315314	7075	2714	2716
CVISC	315316	2024	2715	2716
CVISC	318288	7075	2718	2688
CVISC	318319	7075	2718	2719
CVISC	319289	7075	2718	2689
CVISC	319320	2024	2719	2720
CVISC	320280	7075	2720	2690
CVISC	320321	7075	2720	2721
CVISC	321281	7075	2721	2691
CVISC	321318	2024	2721	2718

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\$ CONNECTION OF TAIL ROTOR GEARBOX AND MAST TO BUILT-UP FIN AT STA 521  
 \$ T/R MAST MODEL DIRECTLY FROM PREVIOUS AH-1G FEM FOR ELASTIC LINE  
 \$  
 RBE2 52045 52045 123456 2688 2692 2693 2694 2695  
 RBE2 52945 52045 123 2690 2708  
 SRIGD1 52045 52045 286 297

\$ CONNECTION OF TAILBOOM ELEVATOR TO THE BUILT-UP TAILBOOM AT STA 402  
 \$ ELEVATOR MODEL DIRECTLY FROM PREVIOUS AH-1G FEM FOR ELASTIC LINE  
 \$

	40145	101123456	2568	2569	2575	2576	
RBE2	40145	101123456	2568	2569	2575	2576	
CBAR	114115	114115	2514	2515	2619	2	+CB1001
+CB1001	1141157075	225	824	004	0001		+PB1001
PBAR	1141157075	225	824	004	0001		+PB1001
CBAR	114126	114126	2514	2528	2619	2	+CB1002
+CB1002	1141267075	196	491	004	0001		+PB1002
PBAR	1141267075	196	491	004	0001		+PB1002
CBAR	115116	115116	2515	2516	2619	2	+CB1003
+CB1003	1151167075	190	433	004	0001		+PB1003
PBAR	1151167075	190	433	004	0001		+PB1003
CBAR	116117	116117	2516	2517	2619	2	+CB1004
+CB1004	1161177075	189	271	004	0001		+PB1004
PBAR	1161177075	189	271	004	0001		+PB1004
CBAR	117118	117118	2517	2518	2619	2	+CB1005
+CB1005	1171187075	189	271	004	0001		+PB1005
PBAR	1171187075	189	271	004	0001		+PB1005
CBAR	118119	118119	2518	2519	2619	2	+CB1006
+CB1006	1181197075	177	327	004	0001		+PB1006
PBAR	1181197075	177	327	004	0001		+PB1006
CBAR	119120	119120	2519	2520	2619	2	+CB1007
+CB1007	1191207075	169	271	004	0001		+PB1007
PBAR	1191207075	169	271	004	0001		+PB1007
CBAR	120121	120121	2520	2521	2619	2	+CB1008
+CB1008	1201217075	169	271	004	0001		+PB1008
PBAR	1201217075	169	271	004	0001		+PB1008
CBAR	121122	121122	2521	2522	2619	2	+CB1009
+CB1009	1211227075	177	327	004	0001		+PB1009
PBAR	1211227075	177	327	004	0001		+PB1009
CBAR	122123	122123	2522	2523	2619	2	+CB1010
+CB1010	1221237075	169	271	004	0001		+PB1010
PBAR	1221237075	169	271	004	0001		+PB1010
CBAR	123124	123124	2523	2524	2619	2	+CB1011
+CB1011	1231247075	169	271	004	0001		+PB1011
PBAR	1231247075	169	271	004	0001		+PB1011
CBAR	124125	124125	2524	2525	2619	2	+CB1012
+CB1012	1241257075	190	433	004	0001		+PB1012
PBAR	1241257075	190	433	004	0001		+PB1012

+PB1012	-2.0840	1.8160						
CBAR	125126	125126	2525	2526	2619	2	+CB1013	
+CB1013	1251267075	225	824	004	0001		+PB1013	
PBAR	1251267075	225	824	004	0001		+PB1013	
CBAR	127128	127128	2527	2528	2620	2	+CB1014	
+CB1014	1271282024	096	092	002	0001		+PB1014	
PBAR	1271282024	096	092	002	0001		+PB1014	
CBAR	127139	127139	2527	2529	2620	2	+CB1015	
+CB1015	1271392024	096	092	002	0001		+PB1015	
PBAR	1271392024	096	092	002	0001		+PB1015	
CBAR	128129	128129	2528	2529	2620	2	+CB1016	
+CB1016	1281292024	096	092	002	0001		+PB1016	
PBAR	1281292024	096	092	002	0001		+PB1016	
CBAR	129130	129130	2529	2530	2620	2	+CB1017	
+CB1017	1291302024	096	092	002	0001		+PB1017	
PBAR	1291302024	096	092	002	0001		+PB1017	
CBAR	130131	130131	2530	2531	2620	2	+CB1018	
+CB1018	1301312024	096	092	002	0001		+PB1018	
PBAR	1301312024	096	092	002	0001		+PB1018	
CBAR	131132	131132	2531	2532	2620	2	+CB1019	
+CB1019	1311322024	096	092	002	0001		+PB1019	
PBAR	1311322024	096	092	002	0001		+PB1019	
CBAR	132133	132133	2532	2533	2620	2	+CB1020	
+CB1020	1321332024	096	092	002	0001		+PB1020	
PBAR	1321332024	096	092	002	0001		+PB1020	
CBAR	133134	133134	2533	2534	2620	2	+CB1021	
+CB1021	1331342024	096	092	002	0001		+PB1021	
PBAR	1331342024	096	092	002	0001		+PB1021	
CBAR	134135	134135	2534	2535	2620	2	+CB1022	
+CB1022	1341352024	096	092	002	0001		+PB1022	
PBAR	1341352024	096	092	002	0001		+PB1022	
CBAR	135136	135136	2535	2536	2620	2	+CB1023	
+CB1023	1351362024	096	092	002	0001		+PB1023	
PBAR	1351362024	096	092	002	0001		+PB1023	
CBAR	136137	136137	2536	2537	2620	2	+CB1024	
+CB1024	1361372024	096	092	002	0001		+PB1024	
PBAR	1361372024	096	092	002	0001		+PB1024	
CBAR	137138	137138	2537	2538	2620	2	+CB1025	
+CB1025	1371382024	096	092	002	0001		+PB1025	
PBAR	1371382024	096	092	002	0001		+PB1025	
CBAR	138139	138139	2538	2539	2620	2	+CB1026	
+CB1026	1381392024	096	092	002	0001		+PB1026	
PBAR	1381392024	096	092	002	0001		+PB1026	
CBAR	140141	140141	2540	2541	2621	2	+CB1027	
+CB1027	1401412024	123	118	003	0001		+PB1027	
PBAR	1401412024	123	118	003	0001		+PB1027	

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[illegible]

CBAR	199200	199200	2599	2600	2625	2	+CB1087
+CB1087			-0.0616	0.8511	0.8913	-0.0616	0.8511
PRAR	1992002024		.096	.082	.002	.0001	+PB1087



+PB1117	-3.4500	3.4500				
CBAR	229230	8101	2629	2630	2627	2
CBAR	229242	8101	2629	2642	2627	2
CBAR	229258	8103	2629	2658	2627	2
CBAR	230231	8101	2630	2631	2627	2
CBAR	231232	8101	2631	2632	2627	2
CBAR	232233	8101	2632	2633	2627	2
CBAR	233234	8102	2633	2634	2627	2
CBAR	234235	8102	2634	2635	2627	2
CBAR	234261	8106	2634	2661	2627	2
CBAR	235236	8102	2635	2636	2627	2
CBAR	236237	8102	2636	2637	2627	2
CBAR	236263	8106	2636	2663	2627	2
CBAR	237238	8101	2637	2638	2627	2
CBAR	238239	8101	2638	2639	2627	2
CBAR	239240	8101	2639	2640	2627	2
CBAR	240241	8101	2640	2641	2627	2
CBAR	241242	8101	2641	2642	2627	2
CBAR	243244	8201	2643	2644	2628	2
CBAR	243257	8201	2643	2657	2628	2
CBAR	244245	8201	2644	2645	2628	2
CBAR	245246	8201	2645	2646	2628	2
CBAR	246247	8201	2646	2647	2628	2
CBAR	247248	8201	2647	2648	2628	2
CBAR	248249	8201	2648	2649	2628	2
CBAR	248270	8203	2648	2670	2628	2
CBAR	249250	8201	2649	2650	2628	2
CBAR	250251	8201	2650	2651	2628	2
CBAR	250272	8203	2650	2672	2628	2
CBAR	251252	8201	2651	2652	2628	2
CBAR	252253	8201	2652	2653	2628	2
CBAR	253254	8201	2653	2654	2628	2
CBAR	254255	8201	2654	2655	2628	2
CBAR	255256	8201	2655	2656	2628	2
CBAR	256257	8201	2656	2657	2628	2
CBAR	257267	8202	2657	2667	2628	2
CBAR	258258	8103	2658	2659	2627	2
CBAR	259260	8104	2659	2660	2627	2
CBAR	260261	8105	2660	2661	2627	2
CBAR	261262	8000	2661	2662	2627	2
CBAR	262263	8000	2662	2663	2627	2
CBAR	263264	8105	2663	2664	2627	2
CBAR	264265	8104	2664	2665	2627	2
CBAR	265266	8103	2665	2666	2627	2
CBAR	266242	8103	2666	2642	2627	2
CBAR	267268	8202	2667	2668	2628	2
CBAR	268269	8203	2668	2669	2628	2
CBAR	269270	8203	2669	2670	2628	2
CBAR	270271	8000	2670	2671	2628	2
CBAR	271272	8000	2671	2672	2628	2
CBAR	272273	8203	2672	2673	2628	2
CBAR	273274	8203	2673	2674	2628	2
CBAR	274275	8202	2674	2675	2628	2
CBAR	275256	8202	2675	2656	2628	2
CBAR	288296	8301	2688	2696	2699	2
CBAR	289297	8301	2689	2697	2699	2
CBAR	292296	8000	2692	2696	2699	2
CBAR	293294	8000	2693	2694	2698	2
CBAR	293297	8000	2693	2697	2699	2
CBAR	295292	8000	2695	2692	2698	2

\$ ADDITIONAL RODS FOR DESIGN CONCEPT A

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\$ END OF CHANGES FOR CONCEPT A

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ORIGINAL PAGE IS  
OF POOR QUALITY

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CSHEAR	1541683001	2554	2555	2568	2567
CSHEAR	1551693001	2555	2556	2569	2568
CSHEAR	1561703001	2556	2557	2570	2569
CSHEAR	1571713004	2557	2558	2571	2570

CSHEAR	1581723004	2558	2559	2572	2571
CSHEAR	1591733004	2559	2560	2573	2572
CSHEAR	1601743004	2560	2561	2574	2573
CSHEAR	1611753001	2561	2562	2575	2574
CSHEAR	1621763001	2562	2563	2576	2575
CSHEAR	1631773001	2563	2564	2577	2576
CSHEAR	1641783001	2564	2565	2578	2577
CSHEAR	1651683001	2565	2553	2566	2578
CSHEAR	1661803001	2566	2567	2580	2579
CSHEAR	1671813001	2567	2568	2581	2580
CSHEAR	1681823001	2568	2569	2582	2581
CSHEAR	1691833001	2569	2570	2583	2582
CSHEAR	1701843001	2570	2571	2584	2583
CSHEAR	1711853001	2571	2572	2585	2584
CSHEAR	1721863001	2572	2573	2586	2585
CSHEAR	1731873001	2573	2574	2587	2586
CSHEAR	1741883001	2574	2575	2588	2587
CSHEAR	1751893001	2575	2576	2589	2588
CSHEAR	1761903001	2576	2577	2590	2589
CSHEAR	1771913001	2577	2578	2591	2590
CSHEAR	1781793001	2578	2566	2579	2591
CSHEAR	1791933001	2579	2580	2593	2592
CSHEAR	1801943001	2580	2581	2594	2593
CSHEAR	1811953001	2581	2582	2595	2594
CSHEAR	1821963001	2582	2583	2596	2595
CSHEAR	1831973001	2583	2584	2597	2596
CSHEAR	1841983001	2584	2585	2598	2597
CSHEAR	1851993001	2585	2586	2599	2598
CSHEAR	1862003001	2586	2587	2600	2599
CSHEAR	1872013001	2587	2588	2601	2600
CSHEAR	1882023001	2588	2589	2602	2601
CSHEAR	1892033001	2589	2590	2603	2602
CSHEAR	1902043001	2590	2591	2604	2603
CSHEAR	1911923001	2591	2579	2592	2604
CSHEAR	1922063001	2592	2593	2606	2605
CSHEAR	1932073001	2593	2594	2607	2606
CSHEAR	1942083001	2594	2595	2608	2607
CSHEAR	1952093001	2595	2596	2609	2608
CSHEAR	1962103001	2596	2597	2610	2609
CSHEAR	1972113001	2597	2598	2611	2610
CSHEAR	1982123001	2598	2599	2612	2611
CSHEAR	1992133001	2599	2600	2613	2612
CSHEAR	2002143001	2600	2601	2614	2613
CSHEAR	2012153001	2601	2602	2615	2614
CSHEAR	2022163001	2602	2603	2616	2615
CSHEAR	2032173001	2603	2604	2617	2616
CSHEAR	2042053001	2604	2592	2605	2617
CSHEAR	2052303005	2605	2606	2630	2629
CSHEAR	2062313005	2606	2607	2631	2630
CSHEAR	2072323005	2607	2608	2632	2631
CSHEAR	2082333005	2608	2609	2633	2632
CSHEAR	2092343005	2609	2610	2634	2633
CSHEAR	2102353005	2610	2611	2635	2634
CSHEAR	2112363005	2611	2612	2636	2635
CSHEAR	2122373005	2612	2613	2637	2636
CSHEAR	2132383005	2613	2614	2638	2637
CSHEAR	2142393005	2614	2615	2639	2638
CSHEAR	2152403005	2615	2616	2640	2639
CSHEAR	2162413005	2616	2617	2641	2640
CSHEAR	2172293005	2617	2605	2628	2641

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CSHEAR	2282443005	2629	2630	2644	2643
CSHEAR	2292783401	2629	2657	2678	2677
CSHEAR	2302453005	2630	2631	2645	2644
CSHEAR	2312463005	2631	2632	2646	2645
CSHEAR	2322473005	2632	2633	2647	2646
CSHEAR	2332483005	2633	2634	2648	2647
CSHEAR	2342493005	2634	2635	2649	2648
CSHEAR	2352503005	2635	2636	2650	2649
CSHEAR	2362513005	2636	2637	2651	2650
CSHEAR	2372523005	2637	2638	2652	2651
CSHEAR	2382533005	2638	2639	2653	2652
CSHEAR	2392543005	2639	2640	2654	2653
CSHEAR	2402553005	2640	2641	2655	2654
CSHEAR	2412563005	2641	2642	2656	2655
CSHEAR	2422573005	2642	2629	2657	2656
CSHEAR	2422773301	2642	2629	2677	2676
CSHEAR	2562763401	2656	2642	2676	2679
CSHEAR	2572793303	2657	2656	2679	2678
CSHEAR	2762783501	2676	2677	2678	2679
CSHEAR	2762813301	2676	2677	2681	2680
CSHEAR	2772823401	2677	2678	2682	2681
CSHEAR	2782833303	2678	2679	2683	2682
CSHEAR	2783023401	2678	2700	2702	2682
CSHEAR	2792803402	2679	2676	2680	2683
CSHEAR	2802823000	2680	2681	2682	2683
CSHEAR	2802853301	2680	2681	2685	2684
CSHEAR	2812863401	2681	2682	2686	2685
CSHEAR	2822873303	2682	2683	2687	2686
CSHEAR	2823043401	2682	2702	2704	2686
CSHEAR	2832843401	2683	2680	2684	2697
CSHEAR	2842863000	2684	2685	2686	2697
CSHEAR	2843193301	2684	2685	2719	2718
CSHEAR	2853203401	2685	2686	2720	2719
CSHEAR	2863063401	2686	2704	2706	2690
CSHEAR	2863213303	2686	2687	2721	2720
CSHEAR	2873183403	2687	2684	2718	2721
CSHEAR	2882903502	2688	2689	2690	2691
CSHEAR	2882933000	2688	2689	2693	2692
CSHEAR	2882973302	2688	2689	2697	2696
CSHEAR	2892943000	2689	2690	2694	2693
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CSHEAR	2903083401	2690	2706	2708	2694
CSHEAR	2912923000	2691	2688	2692	2695
CSHEAR	2922943000	2692	2693	2694	2695
CSHEAR	2943123401	2694	2708	2712	2710
CSHEAR	2953103304	2695	2694	2710	2711
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CSHEAR	3002833401	2700	2679	2683	2702
CSHEAR	3022873401	2702	2683	2687	2704
CSHEAR	3042913401	2704	2687	2691	2706
CSHEAR	3062953401	2706	2691	2695	2708
CSHEAR	3083113401	2708	2695	2711	2712
CSHEAR	3103163401	2710	2712	2716	2714
CSHEAR	3123153401	2712	2711	2715	2716
CSHEAR	3182893301	2718	2719	2688	2688
CSHEAR	3183203503	2718	2719	2720	2721
CSHEAR	3192903401	2719	2720	2690	2689
CSHEAR	3212883401	2721	2718	2688	2691
CSHEAR	3202913303	2720	2721	2691	2690
CSHEAR	3113143304	2711	2710	2714	2715

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CTR1A3	59001	2633	2634	2661	0
CTR1A3	159001	2636	2637	2663	0
CTR1A3	209002	2647	2648	2670	0
CTR1A3	288002	2650	2651	2672	0
CTR1A3	22924379022	2629	2643	2657	0
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CTR1A3	25627908401	2656	2679	2700	0
CTR1A3	25727808401	2657	2678	2700	0
CTR1A3	27927808503	2679	2678	2700	0
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CTR1A3	28728849000	2687	2686	2704	0
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CTR1A3	31131029000	2711	2710	2712	0
CTR1A3	31531429501	2715	2714	2716	0
CONN2	120101	2501	0	617	
CONN2	120102	2502	0	617	
CONN2	120103	2503	0	617	
CONN2	120104	2504	0	617	
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CONN2	121117	2517	2	562	
CONN2	121118	2518	2	562	
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CONN2	121120	2520	2	562	
CONN2	121121	2521	2	562	
CONN2	121122	2522	2	562	
CONN2	121123	2523	2	562	
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CONN2	121125	2525	2	562	
CONN2	121126	2526	2	562	
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CONN2	123138	2538	3	384	
CONN2	123139	2539	3	384	
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CONN2	125141	2541	4	657	
CONN2	125142	2542	4	657	
CONN2	125143	2543	4	657	

CONM2	125144	2544	4.857
CONM2	125145	2545	4.857
CONM2	125146	2546	4.857
CONM2	125147	2547	4.857
CONM2	125148	2548	4.857
CONM2	125149	2549	4.857
CONM2	125150	2550	4.857
CONM2	125151	2551	4.857
CONM2	125152	2552	4.857
CONM2	126153	2553	2.598
CONM2	126154	2554	2.598
CONM2	126155	2555	2.598
CONM2	126156	2556	2.598
CONM2	126157	2557	2.598
CONM2	126158	2558	2.598
CONM2	126159	2559	2.598
CONM2	126160	2560	2.598
CONM2	126161	2561	2.598
CONM2	126162	2562	2.598
CONM2	126163	2563	2.598
CONM2	126164	2564	2.598
CONM2	126165	2565	2.598
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CONM2	130168	2568	1.602
CONM2	130169	2569	1.602
CONM2	130170	2570	1.602
CONM2	130171	2571	1.602
CONM2	130172	2572	1.602
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CONM2	130174	2574	1.602
CONM2	130175	2575	1.602
CONM2	130176	2576	1.602
CONM2	130177	2577	1.602
CONM2	130178	2578	1.602
CONM2	132179	2579	1.515
CONM2	132180	2580	1.515
CONM2	132181	2581	1.515
CONM2	132182	2582	1.515
CONM2	132183	2583	1.515
CONM2	132184	2584	1.515
CONM2	132185	2585	1.515
CONM2	132186	2586	1.515
CONM2	132187	2587	1.515
CONM2	132188	2588	1.515
CONM2	132189	2589	1.515
CONM2	132190	2590	1.515
CONM2	132191	2591	1.515
CONM2	134192	2592	0.750
CONM2	134193	2593	0.750
CONM2	134194	2594	0.750
CONM2	134195	2595	0.750
CONM2	134196	2596	0.750
CONM2	134197	2597	0.750
CONM2	134198	2598	0.750
CONM2	134199	2599	0.750
CONM2	134200	2600	0.750
CONM2	134201	2601	0.750
CONM2	134202	2602	0.750
CONM2	134203	2603	0.750

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CONM2	135205	2605	0.786
CONM2	135206	2606	0.786
CONM2	135207	2607	0.786
CONM2	135208	2608	0.786
CONM2	135209	2609	0.786
CONM2	135210	2610	0.786
CONM2	135211	2611	0.786
CONM2	135212	2612	0.786
CONM2	135213	2613	0.786
CONM2	135214	2614	0.786
CONM2	135215	2615	0.786
CONM2	135216	2616	0.786
CONM2	135217	2617	0.786

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$
$S*** STINGER FAIRING , SHAKE TEST CONFIG # 1 *****
$ A TOTAL OF 1.7 LBS REMOVED FOR STINGER FAIRING
CONM2 8136229 2629 - 11538
CONM2 8136230 2630 - 11538
CONM2 8136231 2631 - 11538
CONM2 8136232 2632 - 11538
CONM2 8136233 2633 - 11538
CONM2 8136234 2634 - 11538
CONM2 8136235 2635 - 11538
CONM2 8136236 2636 - 11538
CONM2 8136237 2637 - 11538
CONM2 8136238 2638 - 11538
CONM2 8136239 2639 - 11538
CONM2 8136240 2640 - 11538
CONM2 8136241 2641 - 11538
$
$S*** STINGER FAIRING , SHAKE TEST CONFIG # 1 *****
$ A TOTAL OF 1.5 LBS REMOVED FOR STINGER FAIRING
CONM2 136229 2629 1.501
CONM2 136230 2630 1.501
CONM2 136231 2631 1.501
CONM2 136232 2632 1.501
$S*** LOCAL MODE FIX REDISTRIBUTE MASS FROM GRID 262 TO 233,237 EVENLY
CONM2 136233 2633 2.251
CONM2 136234 2634 1.501
CONM2 136235 2635 1.501
CONM2 136236 2636 1.501
CONM2 136237 2637 2.251
CONM2 136237 237 1.501
$S*** LOCAL MODE FIX REDISTRIBUTE MASS FROM GRID 262 TO 233,237 EVENLY
CONM2 136238 2638 1.501
CONM2 136239 2639 1.501
CONM2 136240 2640 1.501
CONM2 136241 2641 1.501
CONM2 136242 2642 1.501
CONM2 136258 2658 1.501
CONM2 136259 2659 1.501
CONM2 136260 2660 1.501
CONM2 136261 2661 1.501
$S*** LOCAL MODE FIX REDISTRIBUTE MASS FROM GRID 262 TO 233,237 EVENLY
CONM2 136262 262 1.501
CONM2 136263 2663 1.501
CONM2 136264 2664 1.501
CONM2 136265 2665 1.501

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CONM2	136266	2666	1.501				
CONM2	138229	2629	4.721				
CONM2	138242	2642	4.721				
CONM2	138256	2656	4.721				
CONM2	138257	2657	4.721				
CONM2	138300	2700	4.721				
CONM2	138276	2676	1.305				
CONM2	138277	2677	1.305				
CONM2	138278	2678	1.305				
CONM2	138279	2679	1.305				
CONM2	138301	2700	1.305				
CONM2	139280	2680	2.423				
CONM2	139281	2681	2.423				
CONM2	139282	2682	2.423				
CONM2	139283	2683	2.423				
CONM2	139302	2702	2.423				
CONM2	140284	2684	1.695				
CONM2	140285	2685	1.695				
CONM2	140286	2686	1.695				
CONM2	140287	2687	1.695				
CONM2	140304	2704	1.695				
CONM2	141288	2688	1.189				
CONM2	141289	2689	1.189				
CONM2	141290	2690	1.189				
CONM2	141291	2691	1.189				
CONM2	141306	2706	1.189				
CONM2	142292	2692	2.513				
CONM2	142293	2693	2.513				
CONM2	142294	2694	2.513				
CONM2	142295	2695	2.513				
CONM2	142296	2696	2.513				
CONM2	142297	2697	2.513				
CONM2	142308	2708	2.513				
\$5							
GRID	2501	0 298.400	3.670	67.607	0	0	0
GRID	2502	0 298.700	12.290	62.800	0	0	0
GRID	2503	0 299.258	14.370	53.833	0	0	0
GRID	2504	0 299.789	14.400	45.300	0	0	0
GRID	2505	0 300.370	11.920	35.870	0	0	0
GRID	2506	0 300.596	7.150	32.345	0	0	0
GRID	2507	0 300.647	0.000	31.526	0	0	0
GRID	2508	0 300.596	-7.150	32.345	0	0	0
GRID	2509	0 300.370	-11.920	35.870	0	0	0
GRID	2510	0 299.789	-14.400	45.300	0	0	0
GRID	2511	0 299.258	-14.370	53.833	0	0	0
GRID	2512	0 298.700	-12.290	62.800	0	0	0
GRID	2513	0 298.400	-3.670	67.607	0	0	0
GRID	2514	0 316.667	3.670	67.601	0	0	0
GRID	2515	0 316.970	11.986	62.712	0	0	0
GRID	2516	0 317.464	13.470	54.765	0	0	0
GRID	2517	0 317.962	13.497	46.741	0	0	0
GRID	2518	0 318.462	11.825	38.696	0	0	0
GRID	2519	0 318.718	6.704	34.567	0	0	0
GRID	2520	0 318.767	0.000	33.732	0	0	0
GRID	2521	0 318.718	-6.704	34.567	0	0	0
GRID	2522	0 318.462	-11.825	38.696	0	0	0
GRID	2523	0 317.962	-13.497	46.741	0	0	0
GRID	2524	0 317.464	-13.470	54.765	0	0	0
GRID	2525	0 316.970	-11.986	62.712	0	0	0
GRID	2526	0 316.667	-3.670	67.601	0	0	0

GRID	2527	0 337.647	3.670	67.595	0	0	0
GRID	2528	0 337.922	11.072	63.178	0	0	0
GRID	2529	0 338.378	12.434	55.838	0	0	0
GRID	2530	0 338.840	12.457	46.402	0	0	0
GRID	2531	0 339.302	10.909	40.953	0	0	0
GRID	2532	0 339.540	6.191	37.126	0	0	0
GRID	2533	0 339.585	0.000	36.402	0	0	0
GRID	2534	0 339.540	-6.191	37.126	0	0	0
GRID	2535	0 339.302	-10.946	40.953	0	0	0
GRID	2536	0 338.840	-12.457	46.402	0	0	0
GRID	2537	0 338.378	-12.434	55.838	0	0	0
GRID	2538	0 337.922	-11.072	63.178	0	0	0
GRID	2539	0 337.647	-3.670	67.595	0	0	0
GRID	2540	0 358.628	3.670	67.589	0	0	0
GRID	2541	0 358.873	10.157	63.644	0	0	0
GRID	2542	0 359.292	11.398	56.910	0	0	0
GRID	2543	0 359.717	11.416	50.061	0	0	0
GRID	2544	0 360.142	9.994	43.211	0	0	0
GRID	2545	0 360.361	5.678	39.685	0	0	0
GRID	2546	0 360.403	0.000	39.012	0	0	0
GRID	2547	0 360.361	-5.678	39.685	0	0	0
GRID	2548	0 360.142	-10.024	43.211	0	0	0
GRID	2549	0 359.717	-11.416	50.061	0	0	0
GRID	2550	0 359.292	-11.398	56.910	0	0	0
GRID	2551	0 358.873	-10.157	63.644	0	0	0
GRID	2552	0 358.628	-3.670	67.589	0	0	0
GRID	2553	0 379.619	3.670	67.582	0	0	0
GRID	2554	0 379.834	9.243	64.111	0	0	0
GRID	2555	0 380.215	10.361	57.983	0	0	0
GRID	2556	0 380.604	10.375	51.723	0	0	0
GRID	2557	0 380.992	5.077	46.469	0	0	0
GRID	2558	0 381.193	5.164	42.246	0	0	0
GRID	2559	0 381.231	0.000	41.623	0	0	0
GRID	2560	0 381.193	-5.164	42.246	0	0	0
GRID	2561	0 380.992	-9.101	46.469	0	0	0
GRID	2562	0 380.604	-10.375	51.723	0	0	0
GRID	2563	0 380.215	-10.361	57.983	0	0	0
GRID	2564	0 379.834	-9.243	64.111	0	0	0
GRID	2565	0 379.619	-3.670	67.582	0	0	0
GRID	2566	0 400.610	3.670	67.575	0	0	0
GRID	2567	0 400.796	8.328	64.577	0	0	0
GRID	2568	0 401.139	9.325	59.057	0	0	0
GRID	2569	0 401.491	9.335	53.384	0	0	0
GRID	2570	0 401.843	8.161	47.728	0	0	0
GRID	2571	0 402.024	4.651	44.806	0	0	0
GRID	2572	0 402.080	0.000	44.233	0	0	0
GRID	2573	0 402.024	-4.651	44.806	0	0	0
GRID	2574	0 401.843	-8.178	47.728	0	0	0
GRID	2575	0 401.491	-9.335	53.384	0	0	0
GRID	2576	0 401.139	-8.328	59.057	0	0	0
GRID	2577	0 400.796	-8.328	64.577	0	0	0
GRID	2578	0 400.610	-3.670	67.575	0	0	0
GRID	2579	0 421.801	3.670	67.569	0	0	0
GRID	2580	0 421.757	7.413	65.043	0	0	0
GRID	2581	0 422.063	8.288	60.130	0	0	0
GRID	2582	0 422.378	8.294	55.045	0	0	0
GRID	2583	0 422.693	7.245	49.985	0	0	0
GRID	2584	0 422.855	4.137	47.367	0	0	0
GRID	2585	0 422.888	0.000	46.845	0	0	0
GRID	2586	0 422.855	-4.137	47.367	0	0	0

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GRID	2587	0	422.893	-7.255	49.985	0	0	0
GRID	2588	0	422.378	-8.284	55.045	0	0	0
GRID	2589	0	422.063	-8.288	60.130	0	0	0
GRID	2590	0	421.757	-7.413	65.043	0	0	0
GRID	2591	0	421.801	-3.670	67.559	0	0	0
GRID	2592	0	442.591	3.670	67.562	0	0	0
GRID	2593	0	442.719	6.498	65.510	0	0	0
GRID	2594	0	442.886	7.251	61.203	0	0	0
GRID	2595	0	443.266	7.253	55.706	0	0	0
GRID	2596	0	443.543	6.329	52.243	0	0	0
GRID	2597	0	443.687	3.624	48.927	0	0	0
GRID	2598	0	443.716	0.000	49.456	0	0	0
GRID	2599	0	443.687	-3.624	48.927	0	0	0
GRID	2600	0	443.543	-6.332	52.243	0	0	0
GRID	2601	0	443.266	-7.253	55.706	0	0	0
GRID	2602	0	442.886	-7.251	61.203	0	0	0
GRID	2603	0	442.719	-6.498	65.510	0	0	0
GRID	2604	0	442.591	-3.670	67.562	0	0	0
GRID	2605	0	451.728	3.670	67.559	0	0	0
GRID	2606	0	451.843	6.100	65.713	0	0	0
GRID	2607	0	452.094	6.800	61.671	0	0	0
GRID	2608	0	452.357	6.800	57.429	0	0	0
GRID	2609	0	452.618	5.930	53.227	0	0	0
GRID	2610	0	452.754	3.400	51.041	0	0	0
GRID	2611	0	452.782	0.000	50.592	0	0	0
GRID	2612	0	452.754	-3.400	51.041	0	0	0
GRID	2613	0	452.618	-5.930	53.227	0	0	0
GRID	2614	0	452.357	-6.800	57.429	0	0	0
GRID	2615	0	452.094	-6.800	61.671	0	0	0
GRID	2616	0	451.843	-6.100	65.713	0	0	0
GRID	2617	0	451.728	-3.670	67.559	0	0	0
GRID	2618	0	299.651	-0.004	48.291	0	123456	0
GRID	2619	0	317.789	-0.003	49.535	0	123456	0
GRID	2620	0	338.680	-0.003	50.968	0	123456	0
GRID	2621	0	359.572	-0.002	52.401	0	123456	0
GRID	2622	0	380.473	-0.002	53.834	0	123456	0
GRID	2623	0	401.374	0.001	55.268	0	123456	0
GRID	2624	0	422.275	0.001	56.702	0	123456	0
GRID	2625	0	443.177	0.000	58.135	0	123456	0
GRID	2626	0	452.275	0.000	58.759	0	123456	0
GRID	2627	0	464.103	0.000	59.812	0	123456	0
GRID	2628	0	484.893	0.000	61.103	0	123456	0
GRID	2629	0	472.104	3.670	67.554	0	0	0
GRID	2630	0	470.635	5.280	66.132	0	0	0
GRID	2631	0	466.804	6.071	62.425	0	0	0
GRID	2632	0	462.472	6.296	58.233	0	0	0
GRID	2633	0	457.887	5.698	53.798	0	0	0
GRID	2634	0	455.371	3.335	51.363	0	0	0
GRID	2635	0	454.841	0.000	50.850	0	0	0
GRID	2636	0	455.371	-3.335	51.363	0	0	0
GRID	2637	0	457.887	-5.698	53.798	0	0	0
GRID	2638	0	462.472	-6.296	58.233	0	0	0
GRID	2639	0	466.804	-6.071	62.425	0	0	0
GRID	2640	0	470.635	-5.280	66.132	0	0	0
GRID	2641	0	472.104	-3.670	67.554	0	0	0
GRID	2642	0	472.104	-2.880	67.554	0	0	0
GRID	2643	0	484.493	3.670	67.550	0	0	0
GRID	2644	0	484.562	4.672	66.441	0	0	0
GRID	2645	0	484.754	5.182	63.346	0	0	0
GRID	2646	0	484.960	5.175	60.022	0	0	0

GRID	2647	0	485.163	4.500	56.752	0	0	0
GRID	2648	0	485.270	2.598	55.038	0	0	0
GRID	2649	0	485.293	0.000	54.667	0	0	0
GRID	2650	0	485.270	-2.598	55.038	0	0	0
GRID	2651	0	485.163	-4.500	56.752	0	0	0
GRID	2652	0	484.960	-5.175	60.022	0	0	0
GRID	2653	0	484.754	-5.182	63.346	0	0	0
GRID	2654	0	484.562	-4.672	66.441	0	0	0
GRID	2655	0	484.493	-3.670	67.550	0	0	0
GRID	2656	0	484.493	-2.280	67.550	0	0	0
GRID	2657	0	484.493	3.080	67.550	0	0	0
GRID	2658	0	470.635	3.670	66.132	0	0	0
GRID	2659	0	466.804	3.670	62.425	0	0	0
GRID	2660	0	462.472	3.670	58.233	0	0	0
GRID	2661	0	456.830	3.670	52.775	0	0	0
GRID	2662	0	456.830	0.000	52.775	0	0	0
GRID	2663	0	456.830	-2.880	52.775	0	0	0
GRID	2664	0	462.472	-2.880	58.233	0	0	0
GRID	2665	0	466.804	-2.880	62.425	0	0	0
GRID	2666	0	470.635	-2.880	66.132	0	0	0
GRID	2667	0	484.562	3.037	66.441	0	0	0
GRID	2668	0	484.754	2.818	63.346	0	0	0
GRID	2669	0	484.960	2.790	60.022	0	0	0
GRID	2670	0	485.163	2.664	56.752	0	0	0
GRID	2671	0	485.163	0.000	56.752	0	0	0
GRID	2672	0	485.163	-2.598	55.038	0	0	0
GRID	2673	0	484.960	-2.471	60.022	0	0	0
GRID	2674	0	484.754	-2.387	63.346	0	0	0
GRID	2675	0	484.562	-2.308	66.441	0	0	0
GRID	2676	0	488.718	-2.880	83.627	0	456	0
GRID	2677	0	488.718	3.670	83.627	0	456	0
GRID	2678	0	494.430	3.080	78.268	0	456	0
GRID	2679	0	494.430	-2.280	78.268	0	456	0
GRID	2680	0	498.780	-2.880	93.362	0	456	0
GRID	2681	0	498.780	3.670	93.362	0	456	0
GRID	2682	0	503.420	3.080	88.272	0	456	0
GRID	2683	0	503.420	-2.280	88.272	0	456	0
GRID	2684	0	508.805	-2.880	103.062	0	456	0
GRID	2685	0	508.805	3.670	103.062	0	456	0
GRID	2686	0	512.778	3.080	98.686	0	456	0
GRID	2687	0	512.778	-2.280	98.686	0	456	0
GRID	2688	0	518.723	-2.880	112.658	0	0	0
GRID	2689	0	518.723	3.670	112.658	0	0	0
GRID	2690	0	522.055	3.080	108.009	0	456	0
GRID	2691	0	522.055	-2.280	108.009	0	456	0
GRID	2692	0	522.819	-2.880	118.621	0	0	0
GRID	2693	0	522.819	3.670	118.621	0	0	0
GRID	2694	0	525.867	2.895	113.251	0	0	0
GRID	2695	0	525.867	-2.105	113.251	0	0	0
GRID	2696	0	520.841	-2.880	118.774	0	0	0
GRID	2697	0	520.841	3.670	118.774	0	0	0
GRID	2698	0	522.819	0.000	118.621	0	123456	0
GRID	2699	0	520.841	0.000	118.774	0	123456	0
GRID	2700	0	508.432	-2.845	68.113	0	456	0
GRID	2701	0	508.432	10.000	88.113	0	123456	0
GRID	2702	0	515.021	-2.845	75.846	0	456	0
GRID	2703	0	515.021	10.000	75.846	0	123456	0
GRID	2704	0	523.627	-2.845	88.854	0	456	0
GRID	2705	0	523.627	10.000	88.854	0	123456	0
GRID	2706	0	532.002	-2.845	98.123	0	456	0

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GRID	2707	0	532.002	10.000	98.123	0	123456	0
GRID	2708	0	535.427	-2.845	102.878	0	456	0
GRID	2709	0	535.427	10.000	102.878	0	123456	0
GRID	2710	0	534.668	2.595	123.044	0	456	0
GRID	2711	0	534.668	-1.805	123.044	0	456	0
GRID	2712	0	543.301	-2.845	113.148	0	456	0
GRID	2713	0	543.301	10.000	113.148	0	123456	0
GRID	2714	0	543.225	2.345	132.565	0	456	0
GRID	2715	0	543.225	-1.555	132.565	0	456	0
GRID	2716	0	557.786	-2.845	132.409	0	456	0
GRID	2717	0	557.786	10.000	132.409	0	123456	0
GRID	2718	0	515.489	-2.880	109.529	0	456	0
GRID	2719	0	515.489	3.670	109.529	0	456	0
GRID	2720	0	519.296	3.080	105.937	0	456	0
GRID	2721	0	519.296	-2.280	105.937	0	456	0
PBAR	80002024	0010	00001	00001	00001	00001		
PBAR	80112024	354	2.320	011	0001			
PBAR	80122024	363	2.384	012	0001			
PBAR	80132024	315	1.313	012	0001			
PBAR	80142024	322	1.434	012	0001			
PBAR	80152024	376	2.737	013	0001			
PBAR	80162024	398	3.426	013	0001			
PBAR	80172024	341	1.837	012	0001			
PBAR	80217075	196	481	004	0001			
PBAR	80227075	225	824	004	0001			
PBAR	80237075	190	433	004	0001			
PBAR	80247075	169	271	004	0001			
PBAR	80257075	177	327	004	0001			
PBAR	80312024	096	092	002	0001			
PBAR	80412024	123	118	003	0001			
PBAR	80612024	154	147	003	0001			
PBAR	80522024	204	384	004	0001			
PBAR	80612024	150	151	003	0001			
PBAR	80622024	189	371	004	0001			
PBAR	80632024	157	179	003	0001			
PBAR	80642024	146	130	003	0001			
PBAR	80652024	182	327	004	0001			
PBAR	80662024	176	284	003	0001			
PBAR	81017075	112	0122	0080	0001			
PBAR	81027075	088	0097	0036	0001			
PBAR	81037075	483	0417	0430	0001			
PBAR	81047075	362	0329	0343	0001			
PBAR	81057075	223	0210	0120	0001			
PBAR	81067075	178	0184	0037	0001			
PBAR	82012024	080	0053	0053	0001			
PBAR	82022024	157	0277	0117	0001			
PBAR	82032024	095	0052	0084	0001			
PBAR	83012024	1.0	1.0	1.0	1.0			
PBAR	84018061	2766	0193	1639	100			
PSHELL	80012024	024						
PROD	70007075	0010						
PROD	70017075	044						
PROD	70027075	312						
PROD	70037075	142						
PROD	70047075	510						
PROD	70057075	080						
PROD	70067075	436						
PROD	70077075	446						
PROD	70087075	054						
PROD	70097075	431						

PROD	70107075	198						
PROD	70117075	222						
PROD	70127075	332						
PROD	70137075	124						
PROD	70147075	292						
PROD	70157075	248						
PROD	70167075	108						
PROD	70177075	075						
PROD	70187075	152						
PROD	70197075	090						
PROD	70202024	02						
PROD	70212024	04						
PROD	71007075	017						
PROD	72007075	105						
PROD	72017075	048						
PROD	73017075	2667						
PROD	73027075	2982						
PROD	73037075	150						
PROD	73047075	044						
PROD	73057075	3857						
PROD	73067075	4172						
PROD	75012024	016						
PROD	75022024	020						
PROD	75037075	083						
PROD	75047075	092						
PROD	75052024	040						
PROD	75062024	062						
PROD	78017075	10						
PROD	78027075	1.0						
PSHEAR	30007075	0010						
PSHEAR	30017075	032						
PSHEAR	30027075	040						
PSHEAR	30037075	025						
PSHEAR	30047075	029						
PSHEAR	30057075	080						
PSHEAR	30067075	064						
PSHEAR	33017075	050						
PSHEAR	33027075	100						
PSHEAR	33037075	030						
PSHEAR	33047075	025						
PSHEAR	34017075	020						
PSHEAR	34022024	063						
PSHEAR	34032024	050						
PSHEAR	35012024	032						
PSHEAR	35027075	040						
PSHEAR	35032024	050						
PSHELL	80007075	0010						
PSHELL	80017075	084						
PSHELL	80027075	050						
PSHELL	84017075	020						
PSHELL	95012024	025						
PSHELL	95027075	040						
PSHELL	95032024	032						
CONROD	1	2630	2831	7075	0.08418			
CONROD	2	2631	2859	7075	0.17152			
CONROD	3	2658	2858	7075	0.08418			
CONROD	4	2658	2830	7075	0.17152			
CONROD	5	2631	2832	7075	0.08043			
CONROD	6	2632	2860	7075	0.18297			
CONROD	7	2660	2859	7075	0.08043			

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CONROD	8	2859	2831	7075	0.18297
CONROD	9	2832	2833	7075	0.04105
CONROD	10	2833	2861	7075	0.11406
CONROD	11	2861	2860	7075	0.04105
CONROD	12	2860	2832	7075	0.11406
CONROD	13	2829	2859	7075	0.10480
CONROD	14	2859	2855	7075	0.11201
CONROD	15	2855	2842	7075	0.10480
CONROD	16	2842	2829	7075	0.11201
CONROD	17	2859	2860	7075	0.10480
CONROD	18	2860	2864	7075	0.09645
CONROD	19	2864	2865	7075	0.10480
CONROD	20	2865	2859	7075	0.09645
CONROD	21	2860	2861	7075	0.10480
CONROD	22	2861	2863	7075	0.12560
CONROD	23	2863	2864	7075	0.10480
CONROD	24	2864	2880	7075	0.12560
CONROD	25	2861	2834	7075	0.11337
CONROD	26	2834	2835	7075	0.07721
CONROD	27	2835	2862	7075	0.11337
CONROD	28	2862	2861	7075	0.07721
CONROD	29	2862	2835	7075	0.10073
CONROD	30	2835	2836	7075	0.07758
CONROD	31	2836	2863	7075	0.10073
CONROD	32	2863	2862	7075	0.07758
CONROD	33	2842	2866	7075	0.05104
CONROD	34	2866	2840	7075	0.07435
CONROD	35	2840	2841	7075	0.05104
CONROD	36	2841	2842	7075	0.07435
CONROD	37	2866	2865	7075	0.08946
CONROD	38	2865	2839	7075	0.17152
CONROD	39	2839	2840	7075	0.08946
CONROD	40	2840	2866	7075	0.17152
CONROD	41	2865	2864	7075	0.10571
CONROD	42	2864	2838	7075	0.18297
CONROD	43	2838	2839	7075	0.10571
CONROD	44	2839	2865	7075	0.18297
CONROD	45	2864	2863	7075	0.08276
CONROD	46	2863	2837	7075	0.11406
CONROD	47	2837	2838	7075	0.08276
CONROD	48	2838	2864	7075	0.11406
CONROD	49	2843	2844	7075	0.02781
CONROD	50	2844	2867	7075	0.03260
CONROD	51	2867	2857	7075	0.02781
CONROD	52	2857	2843	7075	0.03260
CONROD	53	2844	2845	7075	0.04874
CONROD	54	2845	2868	7075	0.07807
CONROD	55	2868	2857	7075	0.04874
CONROD	56	2857	2844	7075	0.07807
CONROD	57	2845	2846	7075	0.05811
CONROD	58	2846	2869	7075	0.08329
CONROD	59	2869	2868	7075	0.05811
CONROD	60	2868	2845	7075	0.08329
CONROD	61	2846	2847	7075	0.05276
CONROD	62	2847	2870	7075	0.08280
CONROD	63	2870	2869	7075	0.05276
CONROD	64	2869	2846	7075	0.08280
CONROD	65	2857	2870	7075	0.13222
CONROD	66	2870	2872	7075	0.27061
CONROD	67	2872	2856	7075	0.13222

CONROD	68	2856	2857	7075	0.27061
CONROD	69	2870	2848	7075	0.08611
CONROD	70	2848	2849	7075	0.04760
CONROD	71	2849	2871	7075	0.08611
CONROD	72	2871	2870	7075	0.04760
CONROD	73	2871	2849	7075	0.08473
CONROD	74	2848	2850	7075	0.04759
CONROD	75	2850	2872	7075	0.06473
CONROD	76	2872	2871	7075	0.04759
CONROD	77	2856	2875	7075	0.04693
CONROD	78	2875	2854	7075	0.03260
CONROD	79	2854	2855	7075	0.04693
CONROD	80	2855	2856	7075	0.03260
CONROD	81	2875	2874	7075	0.06449
CONROD	82	2874	2853	7075	0.07806
CONROD	83	2853	2854	7075	0.06449
CONROD	84	2854	2875	7075	0.07806
CONROD	85	2874	2873	7075	0.06874
CONROD	86	2873	2852	7075	0.08327
CONROD	87	2852	2853	7075	0.06874
CONROD	88	2853	2874	7075	0.08327
CONROD	89	2873	2872	7075	0.05812
CONROD	90	2872	2851	7075	0.08278
CONROD	91	2851	2852	7075	0.05812
CONROD	92	2852	2873	7075	0.08278
CONROD	93	2501	2502	7075	0.29141
CONROD	94	2502	2515	7075	0.16157
CONROD	95	2515	2514	7075	0.29141
CONROD	96	2514	2501	7075	0.16157
CONROD	97	2502	2503	7075	0.36414
CONROD	98	2503	2516	7075	0.16737
CONROD	99	2516	2515	7075	0.36414
CONROD	100	2515	2502	7075	0.16737
CONROD	101	2503	2504	7075	0.36408
CONROD	102	2504	2517	7075	0.16589
CONROD	103	2517	2516	7075	0.36408
CONROD	104	2516	2503	7075	0.16589
CONROD	105	2504	2505	7075	0.36421
CONROD	106	2505	2518	7075	0.16995
CONROD	107	2518	2517	7075	0.36421
CONROD	108	2517	2504	7075	0.16995
CONROD	109	2505	2506	7075	0.22772
CONROD	110	2506	2519	7075	0.08502
CONROD	111	2519	2518	7075	0.22772
CONROD	112	2518	2505	7075	0.08502
CONROD	113	2506	2507	7075	0.22772
CONROD	114	2507	2520	7075	0.08716
CONROD	115	2520	2519	7075	0.22772
CONROD	116	2519	2506	7075	0.08716
CONROD	117	2507	2508	7075	0.22772
CONROD	118	2508	2521	7075	0.08716
CONROD	119	2521	2520	7075	0.22772
CONROD	120	2520	2507	7075	0.08716
CONROD	121	2508	2509	7075	0.22772
CONROD	122	2509	2522	7075	0.08848
CONROD	123	2522	2521	7075	0.22772
CONROD	124	2521	2508	7075	0.08848
CONROD	125	2509	2510	7075	0.36421
CONROD	126	2510	2523	7075	0.18976
CONROD	127	2523	2522	7075	0.36421

CONROD	128	2522	2509	7075	0.18976
CONROD	129	2510	2511	7075	0.38408
CONROD	130	2511	2524	7075	0.18589
CONROD	131	2524	2523	7075	0.38408
CONROD	132	2523	2510	7075	0.18589
CONROD	133	2511	2512	7075	0.38414
CONROD	134	2512	2525	7075	0.18737
CONROD	135	2525	2524	7075	0.38414
CONROD	136	2524	2511	7075	0.18737
CONROD	137	2512	2513	7075	0.29141
CONROD	138	2513	2526	7075	0.18157
CONROD	139	2526	2525	7075	0.29141
CONROD	140	2525	2512	7075	0.18157
CONROD	141	2513	2501	7075	0.29146
CONROD	142	2501	2514	7075	0.11744
CONROD	143	2514	2526	7075	0.29146
CONROD	144	2526	2513	7075	0.11744
CONROD	145	2514	2515	7075	0.33566
CONROD	146	2515	2528	7075	0.14620
CONROD	147	2528	2527	7075	0.33566
CONROD	148	2527	2514	7075	0.14620
CONROD	149	2515	2516	7075	0.26215
CONROD	150	2516	2529	7075	0.09737
CONROD	151	2529	2528	7075	0.26215
CONROD	152	2528	2515	7075	0.09737
CONROD	153	2516	2517	7075	0.26211
CONROD	154	2517	2530	7075	0.09681
CONROD	155	2530	2529	7075	0.26211
CONROD	156	2529	2516	7075	0.09681
CONROD	157	2517	2518	7075	0.26220
CONROD	158	2518	2531	7075	0.09909
CONROD	159	2531	2530	7075	0.26220
CONROD	160	2530	2517	7075	0.09909
CONROD	161	2518	2519	7075	0.26229
CONROD	162	2519	2532	7075	0.07914
CONROD	163	2532	2531	7075	0.26229
CONROD	164	2531	2518	7075	0.07914
CONROD	165	2519	2520	7075	0.26228
CONROD	166	2520	2533	7075	0.08114
CONROD	167	2533	2532	7075	0.26228
CONROD	168	2532	2519	7075	0.08114
CONROD	169	2520	2521	7075	0.26228
CONROD	170	2521	2534	7075	0.08114
CONROD	171	2534	2533	7075	0.26228
CONROD	172	2533	2520	7075	0.08114
CONROD	173	2521	2522	7075	0.26229
CONROD	174	2522	2535	7075	0.07954
CONROD	175	2535	2534	7075	0.26229
CONROD	176	2534	2521	7075	0.07954
CONROD	177	2522	2523	7075	0.26220
CONROD	178	2523	2536	7075	0.09899
CONROD	179	2536	2535	7075	0.26220
CONROD	180	2535	2522	7075	0.09899
CONROD	181	2523	2524	7075	0.26211
CONROD	182	2524	2537	7075	0.09681
CONROD	183	2537	2536	7075	0.26211
CONROD	184	2536	2523	7075	0.09681
CONROD	185	2524	2525	7075	0.26215
CONROD	186	2525	2538	7075	0.09737
CONROD	187	2538	2537	7075	0.26215

CONROD	188	2537	2524	7075	0.09737
CONROD	189	2525	2526	7075	0.33566
CONROD	190	2526	2539	7075	0.14620
CONROD	191	2539	2538	7075	0.33566
CONROD	192	2538	2525	7075	0.14620
CONROD	193	2526	2514	7075	0.33568
CONROD	194	2514	2527	7075	0.11744
CONROD	195	2527	2539	7075	0.33568
CONROD	196	2539	2526	7075	0.11744
CONROD	197	2527	2528	7075	0.33566
CONROD	198	2528	2541	7075	0.12976
CONROD	199	2541	2540	7075	0.33566
CONROD	200	2540	2527	7075	0.12976
CONROD	201	2528	2529	7075	0.26215
CONROD	202	2529	2542	7075	0.08962
CONROD	203	2542	2541	7075	0.26215
CONROD	204	2541	2528	7075	0.08962
CONROD	205	2529	2530	7075	0.26210
CONROD	206	2530	2543	7075	0.08945
CONROD	207	2543	2542	7075	0.26210
CONROD	208	2542	2529	7075	0.08945
CONROD	209	2530	2531	7075	0.26219
CONROD	210	2531	2544	7075	0.09144
CONROD	211	2544	2543	7075	0.26219
CONROD	212	2543	2530	7075	0.09144
CONROD	213	2531	2532	7075	0.26229
CONROD	214	2532	2545	7075	0.07286
CONROD	215	2545	2544	7075	0.26229
CONROD	216	2544	2531	7075	0.07286
CONROD	217	2532	2533	7075	0.26228
CONROD	218	2533	2546	7075	0.07470
CONROD	219	2546	2545	7075	0.26228
CONROD	220	2545	2532	7075	0.07470
CONROD	221	2533	2534	7075	0.26228
CONROD	222	2534	2547	7075	0.07470
CONROD	223	2547	2546	7075	0.26228
CONROD	224	2546	2533	7075	0.07470
CONROD	225	2534	2535	7075	0.26229
CONROD	226	2535	2548	7075	0.07318
CONROD	227	2548	2547	7075	0.26229
CONROD	228	2547	2534	7075	0.07318
CONROD	229	2535	2536	7075	0.26219
CONROD	230	2536	2549	7075	0.09136
CONROD	231	2549	2548	7075	0.26219
CONROD	232	2548	2535	7075	0.09136
CONROD	233	2536	2537	7075	0.26210
CONROD	234	2537	2550	7075	0.08945
CONROD	235	2550	2549	7075	0.26210
CONROD	236	2549	2536	7075	0.08945
CONROD	237	2537	2538	7075	0.26215
CONROD	238	2538	2551	7075	0.08962
CONROD	239	2551	2550	7075	0.26215
CONROD	240	2550	2537	7075	0.08962
CONROD	241	2538	2539	7075	0.33566
CONROD	242	2539	2552	7075	0.12976
CONROD	243	2552	2551	7075	0.33566
CONROD	244	2551	2538	7075	0.12976
CONROD	245	2538	2527	7075	0.33570
CONROD	246	2527	2540	7075	0.11744
CONROD	247	2540	2552	7075	0.33570

CONROD	248	2552	2539	7075	0.11744
CONROD	249	2540	2541	7075	0.33582
CONROD	250	2541	2554	7075	0.11332
CONROD	251	2554	2553	7075	0.33582
CONROD	252	2553	2540	7075	0.11332
CONROD	253	2541	2542	7075	0.26226
CONROD	254	2542	2555	7075	0.08188
CONROD	255	2555	2554	7075	0.26226
CONROD	256	2554	2541	7075	0.08188
CONROD	257	2542	2543	7075	0.26222
CONROD	258	2543	2556	7075	0.08208
CONROD	259	2556	2555	7075	0.26222
CONROD	260	2555	2542	7075	0.08209
CONROD	261	2543	2544	7075	0.26232
CONROD	262	2544	2557	7075	0.08380
CONROD	263	2557	2556	7075	0.26232
CONROD	264	2556	2543	7075	0.08380
CONROD	265	2544	2545	7075	0.26242
CONROD	266	2545	2558	7075	0.06657
CONROD	267	2558	2557	7075	0.26242
CONROD	268	2557	2544	7075	0.06657
CONROD	269	2545	2546	7075	0.26241
CONROD	270	2546	2559	7075	0.06825
CONROD	271	2559	2558	7075	0.26241
CONROD	272	2558	2545	7075	0.06825
CONROD	273	2546	2547	7075	0.26241
CONROD	274	2547	2580	7075	0.06825
CONROD	275	2540	2559	7075	0.26241
CONROD	276	2559	2546	7075	0.06825
CONROD	277	2547	2548	7075	0.26242
CONROD	278	2548	2561	7075	0.06883
CONROD	279	2561	2560	7075	0.26242
CONROD	280	2560	2547	7075	0.06883
CONROD	281	2548	2549	7075	0.26232
CONROD	282	2549	2562	7075	0.08373
CONROD	283	2562	2561	7075	0.26232
CONROD	284	2561	2548	7075	0.08373
CONROD	285	2549	2550	7075	0.26222
CONROD	286	2550	2563	7075	0.08209
CONROD	287	2563	2562	7075	0.26222
CONROD	288	2562	2549	7075	0.08209
CONROD	289	2550	2551	7075	0.26226
CONROD	290	2551	2564	7075	0.08188
CONROD	291	2564	2563	7075	0.26226
CONROD	292	2563	2550	7075	0.08188
CONROD	293	2551	2552	7075	0.33582
CONROD	294	2552	2565	7075	0.11332
CONROD	295	2565	2564	7075	0.33582
CONROD	296	2564	2551	7075	0.11332
CONROD	297	2552	2540	7075	0.33586
CONROD	298	2540	2553	7075	0.11744
CONROD	299	2553	2565	7075	0.33586
CONROD	300	2565	2552	7075	0.11744
CONROD	301	2553	2554	7075	0.33583
CONROD	302	2554	2567	7075	0.08689
CONROD	303	2567	2566	7075	0.33583
CONROD	304	2566	2553	7075	0.08689
CONROD	305	2554	2555	7075	0.33571
CONROD	306	2555	2568	7075	0.08488
CONROD	307	2568	2567	7075	0.33571

CONROD	308	2567	2554	7075	0.08488
CONROD	309	2555	2556	7075	0.33585
CONROD	310	2556	2569	7075	0.08585
CONROD	311	2569	2568	7075	0.33585
CONROD	312	2568	2555	7075	0.08585
CONROD	313	2556	2557	7075	0.33577
CONROD	314	2557	2570	7075	0.08749
CONROD	315	2570	2569	7075	0.33577
CONROD	316	2569	2556	7075	0.08749
CONROD	317	2557	2558	7075	0.33590
CONROD	318	2558	2571	7075	0.07715
CONROD	319	2571	2570	7075	0.33590
CONROD	320	2570	2557	7075	0.07715
CONROD	321	2558	2559	7075	0.30440
CONROD	322	2559	2572	7075	0.07169
CONROD	323	2572	2571	7075	0.30440
CONROD	324	2571	2558	7075	0.07169
CONROD	325	2560	2580	7075	0.30440
CONROD	326	2560	2573	7075	0.07169
CONROD	327	2573	2572	7075	0.30440
CONROD	328	2572	2559	7075	0.07169
CONROD	329	2560	2561	7075	0.30441
CONROD	330	2561	2574	7075	0.07015
CONROD	331	2574	2573	7075	0.30441
CONROD	332	2573	2560	7075	0.07015
CONROD	333	2561	2562	7075	0.33578
CONROD	334	2562	2575	7075	0.08742
CONROD	335	2575	2574	7075	0.33578
CONROD	336	2574	2561	7075	0.08742
CONROD	337	2562	2563	7075	0.33565
CONROD	338	2563	2576	7075	0.08585
CONROD	339	2576	2575	7075	0.33565
CONROD	340	2575	2562	7075	0.08585
CONROD	341	2563	2564	7075	0.33571
CONROD	342	2564	2577	7075	0.08488
CONROD	343	2577	2576	7075	0.33571
CONROD	344	2576	2563	7075	0.08488
CONROD	345	2564	2565	7075	0.33583
CONROD	346	2565	2578	7075	0.08589
CONROD	347	2578	2577	7075	0.33583
CONROD	348	2577	2564	7075	0.08689
CONROD	349	2565	2563	7075	0.33586
CONROD	350	2563	2566	7075	0.11744
CONROD	351	2566	2578	7075	0.33586
CONROD	352	2578	2565	7075	0.11744
CONROD	353	2566	2567	7075	0.33582
CONROD	354	2567	2580	7075	0.08049
CONROD	355	2580	2579	7075	0.33582
CONROD	356	2579	2566	7075	0.08049
CONROD	357	2567	2568	7075	0.33571
CONROD	358	2568	2581	7075	0.08486
CONROD	359	2581	2580	7075	0.33571
CONROD	360	2580	2567	7075	0.08486
CONROD	361	2568	2569	7075	0.33585
CONROD	362	2569	2562	7075	0.08623
CONROD	363	2562	2581	7075	0.33585
CONROD	364	2581	2568	7075	0.08623
CONROD	365	2569	2570	7075	0.33576
CONROD	366	2570	2583	7075	0.08772
CONROD	367	2583	2582	7075	0.33576

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CONROD	368	2582	2569	7075	0.08772
CONROD	369	2570	2571	7075	0.33589
CONROD	370	2571	2584	7075	0.08910
CONROD	371	2584	2583	7075	0.33589
CONROD	372	2583	2570	7075	0.08910
CONROD	373	2571	2572	7075	0.33588
CONROD	374	2572	2585	7075	0.07085
CONROD	375	2585	2584	7075	0.33588
CONROD	376	2584	2571	7075	0.07085
CONROD	377	2572	2573	7075	0.33588
CONROD	378	2573	2586	7075	0.07085
CONROD	379	2586	2585	7075	0.33588
CONROD	380	2585	2572	7075	0.07085
CONROD	381	2573	2574	7075	0.33589
CONROD	382	2574	2587	7075	0.08927
CONROD	383	2587	2586	7075	0.33589
CONROD	384	2586	2573	7075	0.08927
CONROD	385	2574	2575	7075	0.33577
CONROD	386	2575	2588	7075	0.08767
CONROD	387	2588	2587	7075	0.33577
CONROD	388	2587	2574	7075	0.08767
CONROD	389	2575	2576	7075	0.33565
CONROD	390	2576	2589	7075	0.08623
CONROD	391	2589	2588	7075	0.33565
CONROD	392	2588	2575	7075	0.08623
CONROD	393	2576	2577	7075	0.33571
CONROD	394	2577	2590	7075	0.08496
CONROD	395	2590	2589	7075	0.33571
CONROD	396	2589	2576	7075	0.08496
CONROD	397	2577	2578	7075	0.33582
CONROD	398	2578	2591	7075	0.08049
CONROD	399	2591	2590	7075	0.33582
CONROD	400	2580	2577	7075	0.08049
CONROD	401	2578	2566	7075	0.33586
CONROD	402	2566	2579	7075	0.11744
CONROD	403	2579	2591	7075	0.33586
CONROD	404	2591	2578	7075	0.11744
CONROD	405	2579	2580	7075	0.33582
CONROD	406	2580	2593	7075	0.08412
CONROD	407	2593	2592	7075	0.33582
CONROD	408	2592	2579	7075	0.08412
CONROD	409	2580	2581	7075	0.33571
CONROD	410	2581	2594	7075	0.07504
CONROD	411	2594	2593	7075	0.33571
CONROD	412	2593	2580	7075	0.07504
CONROD	413	2581	2582	7075	0.33565
CONROD	414	2582	2595	7075	0.07880
CONROD	415	2595	2584	7075	0.33565
CONROD	416	2584	2581	7075	0.07880
CONROD	417	2582	2583	7075	0.33577
CONROD	418	2583	2596	7075	0.07795
CONROD	419	2596	2595	7075	0.33577
CONROD	420	2595	2582	7075	0.07795
CONROD	421	2583	2584	7075	0.33590
CONROD	422	2584	2597	7075	0.06105
CONROD	423	2597	2596	7075	0.33590
CONROD	424	2596	2583	7075	0.06105
CONROD	425	2584	2585	7075	0.33589
CONROD	426	2585	2598	7075	0.06260
CONROD	427	2598	2597	7075	0.33589

CONROD	428	2597	2584	7075	0.06260
CONROD	429	2585	2586	7075	0.33589
CONROD	430	2586	2599	7075	0.06260
CONROD	431	2599	2598	7075	0.33589
CONROD	432	2598	2585	7075	0.06260
CONROD	433	2586	2587	7075	0.33590
CONROD	434	2587	2600	7075	0.06113
CONROD	435	2600	2599	7075	0.33590
CONROD	436	2599	2586	7075	0.06113
CONROD	437	2587	2588	7075	0.33578
CONROD	438	2588	2601	7075	0.07792
CONROD	439	2601	2600	7075	0.33578
CONROD	440	2600	2587	7075	0.07792
CONROD	441	2588	2589	7075	0.33565
CONROD	442	2589	2602	7075	0.07880
CONROD	443	2602	2601	7075	0.33565
CONROD	444	2601	2588	7075	0.07880
CONROD	445	2589	2590	7075	0.33571
CONROD	446	2590	2603	7075	0.07504
CONROD	447	2603	2602	7075	0.33571
CONROD	448	2602	2589	7075	0.07504
CONROD	449	2590	2591	7075	0.33582
CONROD	450	2591	2604	7075	0.06412
CONROD	451	2604	2603	7075	0.33582
CONROD	452	2603	2590	7075	0.06412
CONROD	453	2591	2579	7075	0.33584
CONROD	454	2579	2592	7075	0.11744
CONROD	455	2592	2604	7075	0.33584
CONROD	456	2604	2591	7075	0.11744
CONROD	457	2592	2593	7075	0.14618
CONROD	458	2593	2606	7075	0.05240
CONROD	459	2606	2605	7075	0.14618
CONROD	460	2605	2592	7075	0.05240
CONROD	461	2593	2594	7075	0.14613
CONROD	462	2594	2607	7075	0.06792
CONROD	463	2607	2606	7075	0.14613
CONROD	464	2606	2593	7075	0.06792
CONROD	465	2594	2595	7075	0.14610
CONROD	466	2595	2608	7075	0.07005
CONROD	467	2608	2607	7075	0.14610
CONROD	468	2607	2594	7075	0.07005
CONROD	469	2595	2596	7075	0.14614
CONROD	470	2596	2609	7075	0.07092
CONROD	471	2609	2608	7075	0.14614
CONROD	472	2608	2595	7075	0.07092
CONROD	473	2596	2597	7075	0.14620
CONROD	474	2597	2610	7075	0.05528
CONROD	475	2610	2609	7075	0.14620
CONROD	476	2609	2596	7075	0.05528
CONROD	477	2597	2598	7075	0.14620
CONROD	478	2598	2611	7075	0.05567
CONROD	479	2611	2610	7075	0.14620
CONROD	480	2610	2597	7075	0.05567
CONROD	481	2598	2599	7075	0.14620
CONROD	482	2599	2612	7075	0.05567
CONROD	483	2612	2611	7075	0.14620
CONROD	484	2611	2598	7075	0.05567
CONROD	485	2599	2600	7075	0.14620
CONROD	486	2600	2613	7075	0.05530
CONROD	487	2613	2612	7075	0.14620

CONROD	488	2612	2598	7075	0.05530
CONROD	489	2600	2601	7075	0.14814
CONROD	490	2601	2614	7075	0.07092
CONROD	491	2614	2613	7075	0.14814
CONROD	492	2613	2600	7075	0.07092
CONROD	493	2601	2602	7075	0.14814
CONROD	494	2602	2615	7075	0.07005
CONROD	495	2615	2614	7075	0.14810
CONROD	496	2614	2601	7075	0.07005
CONROD	497	2602	2603	7075	0.14813
CONROD	498	2603	2616	7075	0.06792
CONROD	499	2616	2615	7075	0.14813
CONROD	500	2615	2602	7075	0.06792
CONROD	501	2603	2604	7075	0.14618
CONROD	502	2604	2617	7075	0.05240
CONROD	503	2617	2616	7075	0.14618
CONROD	504	2616	2603	7075	0.05240
CONROD	505	2604	2592	7075	0.14619
CONROD	506	2592	2605	7075	0.11744
CONROD	507	2605	2617	7075	0.14619
CONROD	508	2617	2604	7075	0.11744
CONROD	509	2605	2606	7075	0.48988
CONROD	510	2606	2630	7075	0.07070
CONROD	511	2630	2629	7075	0.48988
CONROD	512	2629	2605	7075	0.07070
CONROD	513	2606	2607	7075	0.41952
CONROD	514	2607	2631	7075	0.11874
CONROD	515	2631	2630	7075	0.41952
CONROD	516	2630	2606	7075	0.11874
CONROD	517	2607	2608	7075	0.31133
CONROD	518	2608	2632	7075	0.12853
CONROD	519	2632	2631	7075	0.31133
CONROD	520	2631	2607	7075	0.12853
CONROD	521	2608	2609	7075	0.19330
CONROD	522	2609	2633	7075	0.13363
CONROD	523	2633	2632	7075	0.19330
CONROD	524	2632	2608	7075	0.13363
CONROD	525	2609	2610	7075	0.09928
CONROD	526	2610	2634	7075	0.09463
CONROD	527	2634	2633	7075	0.09928
CONROD	528	2633	2609	7075	0.09463
CONROD	529	2610	2611	7075	0.05891
CONROD	530	2611	2635	7075	0.08557
CONROD	531	2635	2634	7075	0.05891
CONROD	532	2634	2610	7075	0.08557
CONROD	533	2611	2612	7075	0.05891
CONROD	534	2612	2636	7075	0.08557
CONROD	535	2636	2635	7075	0.05891
CONROD	536	2635	2611	7075	0.08557
CONROD	537	2612	2613	7075	0.09928
CONROD	538	2613	2637	7075	0.09463
CONROD	539	2637	2636	7075	0.09928
CONROD	540	2636	2612	7075	0.09463
CONROD	541	2613	2614	7075	0.19330
CONROD	542	2614	2638	7075	0.13363
CONROD	543	2638	2637	7075	0.19330
CONROD	544	2637	2613	7075	0.13363
CONROD	545	2614	2615	7075	0.31133
CONROD	546	2615	2639	7075	0.12853
CONROD	547	2639	2638	7075	0.31133

CONROD	548	2638	2614	7075	0.12853
CONROD	549	2615	2616	7075	0.41952
CONROD	550	2616	2640	7075	0.11874
CONROD	551	2640	2639	7075	0.41952
CONROD	552	2639	2615	7075	0.11874
CONROD	553	2616	2617	7075	0.48988
CONROD	554	2617	2641	7075	0.07070
CONROD	555	2641	2640	7075	0.48988
CONROD	556	2640	2616	7075	0.07070
CONROD	557	2617	2605	7075	0.50940
CONROD	558	2605	2629	7075	0.18350
CONROD	559	2629	2641	7075	0.50940
CONROD	560	2641	2617	7075	0.18350
CONROD	561	2629	2630	7075	0.32916
CONROD	562	2630	2644	7075	0.05123
CONROD	563	2644	2643	7075	0.32916
CONROD	564	2643	2629	7075	0.05123
CONROD	565	2629	2657	7075	0.18866
CONROD	566	2657	2678	7075	0.10129
CONROD	567	2678	2677	7075	0.18866
CONROD	568	2677	2629	7075	0.10129
CONROD	569	2630	2631	7075	0.39924
CONROD	570	2631	2645	7075	0.10685
CONROD	571	2645	2644	7075	0.39924
CONROD	572	2644	2630	7075	0.10685
CONROD	573	2631	2632	7075	0.50728
CONROD	574	2632	2646	7075	0.11703
CONROD	575	2646	2645	7075	0.50728
CONROD	576	2645	2631	7075	0.11703
CONROD	577	2632	2633	7075	0.82561
CONROD	578	2633	2647	7075	0.12190
CONROD	579	2647	2646	7075	0.82561
CONROD	580	2646	2632	7075	0.12190
CONROD	581	2633	2634	7075	0.71993
CONROD	582	2634	2648	7075	0.08483
CONROD	583	2648	2647	7075	0.71993
CONROD	584	2647	2633	7075	0.08483
CONROD	585	2634	2635	7075	0.78029
CONROD	586	2635	2649	7075	0.07550
CONROD	587	2649	2648	7075	0.78029
CONROD	588	2648	2634	7075	0.07550
CONROD	589	2635	2636	7075	0.78029
CONROD	590	2636	2650	7075	0.07550
CONROD	591	2650	2649	7075	0.78029
CONROD	592	2649	2635	7075	0.07550
CONROD	593	2636	2637	7075	0.71993
CONROD	594	2637	2651	7075	0.08483
CONROD	595	2651	2650	7075	0.71993
CONROD	596	2650	2636	7075	0.08483
CONROD	597	2637	2638	7075	0.82561
CONROD	598	2638	2652	7075	0.12190
CONROD	599	2652	2651	7075	0.82561
CONROD	600	2651	2637	7075	0.12190
CONROD	601	2638	2639	7075	0.50728
CONROD	602	2639	2653	7075	0.11703
CONROD	603	2653	2652	7075	0.50728
CONROD	604	2652	2638	7075	0.11703
CONROD	605	2639	2640	7075	0.39924
CONROD	606	2640	2654	7075	0.10685
CONROD	607	2654	2653	7075	0.39924

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CONROD	608	2653	2639	7075	0.10665
CONROD	609	2640	2641	7075	0.32916
CONROD	610	2641	2655	7075	0.05123
CONROD	611	2655	2654	7075	0.32916
CONROD	612	2654	2640	7075	0.05123
CONROD	613	2641	2642	7075	0.30991
CONROD	614	2642	2656	7075	0.02725
CONROD	615	2656	2655	7075	0.30991
CONROD	616	2655	2641	7075	0.02725
CONROD	617	2642	2629	7075	0.31008
CONROD	618	2629	2657	7075	0.14887
CONROD	619	2657	2656	7075	0.31008
CONROD	620	2656	2642	7075	0.14887
CONROD	621	2642	2629	7075	0.57791
CONROD	622	2629	2677	7075	0.16375
CONROD	623	2677	2676	7075	0.57791
CONROD	624	2676	2642	7075	0.16375
CONROD	625	2656	2642	7075	0.18866
CONROD	626	2642	2676	7075	0.10129
CONROD	627	2676	2679	7075	0.18866
CONROD	628	2679	2656	7075	0.10129
CONROD	629	2657	2656	7075	0.21924
CONROD	630	2656	2679	7075	0.08040
CONROD	631	2679	2678	7075	0.21924
CONROD	632	2678	2657	7075	0.08040
CONROD	633	2676	2677	2024	0.12568
CONROD	634	2677	2678	2024	0.09528
CONROD	635	2678	2679	2024	0.12568
CONROD	636	2679	2676	2024	0.09528
CONROD	637	2676	2677	7075	0.35001
CONROD	638	2677	2681	7075	0.16375
CONROD	639	2681	2680	7075	0.35001
CONROD	640	2680	2676	7075	0.16375
CONROD	641	2677	2678	7075	0.13725
CONROD	642	2678	2682	7075	0.07384
CONROD	643	2682	2681	7075	0.13725
CONROD	644	2681	2677	7075	0.07384
CONROD	645	2678	2679	7075	0.20175
CONROD	646	2679	2683	7075	0.08040
CONROD	647	2683	2682	7075	0.20175
CONROD	648	2682	2676	7075	0.08040
CONROD	649	2678	2700	7075	0.11375
CONROD	650	2700	2702	7075	0.18636
CONROD	651	2702	2682	7075	0.11375
CONROD	652	2682	2676	7075	0.18636
CONROD	653	2679	2676	2024	0.43234
CONROD	654	2676	2680	2024	0.23261
CONROD	655	2680	2683	2024	0.43234
CONROD	656	2683	2679	2024	0.23261
CONROD	657	2680	2681	7075	0.00035
CONROD	658	2681	2682	7075	0.00035
CONROD	659	2682	2683	7075	0.00035
CONROD	660	2683	2680	7075	0.00035
CONROD	661	2680	2681	7075	0.34874
CONROD	662	2681	2685	7075	0.16375
CONROD	663	2685	2684	7075	0.34874
CONROD	664	2684	2680	7075	0.16375
CONROD	665	2681	2682	7075	0.13975
CONROD	666	2682	2686	7075	0.06426
CONROD	667	2686	2685	7075	0.13975

CONROD	668	2685	2681	7075	0.06426
CONROD	669	2682	2683	7075	0.21001
CONROD	670	2683	2687	7075	0.08040
CONROD	671	2687	2686	7075	0.21001
CONROD	672	2686	2682	7075	0.08040
CONROD	673	2682	2702	7075	0.14075
CONROD	674	2702	2704	7075	0.17630
CONROD	675	2704	2686	7075	0.14075
CONROD	676	2686	2682	7075	0.17630
CONROD	677	2683	2680	7075	0.13975
CONROD	678	2680	2684	7075	0.06427
CONROD	679	2684	2687	7075	0.13975
CONROD	680	2687	2683	7075	0.06427
CONROD	681	2684	2685	7075	0.00030
CONROD	682	2685	2686	7075	0.00030
CONROD	683	2686	2687	7075	0.00030
CONROD	684	2687	2684	7075	0.00030
CONROD	685	2684	2685	7075	0.23251
CONROD	686	2685	2719	7075	0.16375
CONROD	687	2719	2718	7075	0.23251
CONROD	688	2718	2684	7075	0.16375
CONROD	689	2685	2686	7075	0.09525
CONROD	690	2686	2720	7075	0.05604
CONROD	691	2720	2719	7075	0.09525
CONROD	692	2719	2685	7075	0.05604
CONROD	693	2686	2704	7075	0.13990
CONROD	694	2704	2706	7075	0.16470
CONROD	695	2706	2690	7075	0.13990
CONROD	696	2690	2686	7075	0.16470
CONROD	697	2686	2687	7075	0.14625
CONROD	698	2687	2721	7075	0.08040
CONROD	699	2721	2720	7075	0.14625
CONROD	700	2720	2686	7075	0.08040
CONROD	701	2687	2684	2024	0.23813
CONROD	702	2684	2712	2024	0.14012
CONROD	703	2712	2721	2024	0.23813
CONROD	704	2721	2687	2024	0.14012
CONROD	705	2688	2689	7075	0.09954
CONROD	706	2689	2690	7075	0.11910
CONROD	707	2690	2691	7075	0.09954
CONROD	708	2691	2688	7075	0.11910
CONROD	709	2688	2689	7075	0.00028
CONROD	710	2689	2693	7075	0.00033
CONROD	711	2693	2692	7075	0.00028
CONROD	712	2692	2688	7075	0.00033
CONROD	713	2688	2689	7075	0.32362
CONROD	714	2689	2697	7075	0.32750
CONROD	715	2697	2696	7075	0.32362
CONROD	716	2696	2688	7075	0.32750
CONROD	717	2689	2690	7075	0.00029
CONROD	718	2690	2694	7075	0.00024
CONROD	719	2694	2693	7075	0.00029
CONROD	720	2693	2689	7075	0.00024
CONROD	721	2690	2691	7075	0.07132
CONROD	722	2691	2695	7075	0.06475
CONROD	723	2695	2694	7075	0.07132
CONROD	724	2694	2690	7075	0.06475
CONROD	725	2690	2708	7075	0.05703
CONROD	726	2708	2708	7075	0.18629
CONROD	727	2708	2694	7075	0.05703

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CONROD	788	2689	2719	7075	0	05122
CONROD	789	2721	2718	7075	0	04315
CONROD	790	2718	2688	7075	0	05123
CONROD	791	2688	2691	7075	0	04315
CONROD	792	2691	2721	7075	0	05123
CONROD	793	2720	2721	7075	0	06194
CONROD	794	2721	2691	7075	0	08040
CONROD	795	2691	2690	7075	0	06194
CONROD	796	2690	2720	7075	0	08040
CONROD	797	2711	2710	7075	0	18005
CONROD	798	2710	2714	7075	0	05187
CONROD	799	2714	2715	7075	0	18005
CONROD	800	2715	2711	7075	0	05187

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\$ The following EIGC cards are added by Weiyu Zhou for the complex  
\$ eigenvalue analysis.

EIGC	999	INV	PDINT	1001	1	1	-5	ABC
+BC	-5	0.0	-5	-1.0	60	12	12	DEF
+EF	-5	-1.0	-5	-50.0	60	12	12	GHI
+HI	-5	-50.0	-5	-100.0	60	12	12	JKL
+KL	-5	-100.0	-5	-135.0	60	12	12	MNO
+NO	-5	-135.0	-5	-160.0	60	12	12	POR
+OR	-5	-160.0	-5	-190.0	60	12	12	STU
+TU	-5	-190.0	-5	-220.0	60	12	12	

\$EIGR 999 HOU 0.0 50.0 EIGR

\$\*EIGR MAX

PARAM WYMASS .00259

PARAM LMODES 35

PARAM GRDPNT 0

PARAM NEWSEO 3

\$PARAM USETPRT 2

\$PARAM USETSEL 0

\$ RBE3 REPRESENTATION OF FUEL

RBE3	333		17100	123456	1.0	123	14823	14827	SFWD FUEL
+FWDFUEL	18621	18629							

RBE3	334		23100	123456	1.0	123	21321	21329	SAFT FUEL
+AFTFUEL	25021	25029							

\$ STATIC / DYNAMIC LOAD CARDS

\$SDYNRED 998 50.0 12

\$SPDINT 2000 THRU 2059

\$

\$QSET1 0 2000 THRU 2059

\$ASET1 0 2000 THRU 2059

\$ The following ASET cards are added by Weiyu Zhou for selecting the  
\$ coordinates corresponding to the physical location of the data  
\$ measurements.

ASET1	123	1001	1003	1023	1024	1004	1022	1017	+C1
+C1	1018	1029	1007	2511	2572	2649	2697	1028	+C2
+C2	1021	1012	1013	1026	1025				

ASET 18777 13 1006 2

\$ SPECIAL FREQUENCY RESPONSE DATA

\$DLOAD	110	1	1	111
\$DLOAD	120	1	1	121
\$DLOAD	130	1	1	131
\$DLOAD	140	1	1	141
\$DLOAD	150	1	1	151

\$RLOAD2	111	2501531	0	0	90
\$RLOAD2	121	2501532 <td>0 <td>0 <td>90</td> </td></td>	0 <td>0 <td>90</td> </td>	0 <td>90</td>	90
\$RLOAD2	131	2501533 <td>0 <td>0 <td>90</td> </td></td>	0 <td>0 <td>90</td> </td>	0 <td>90</td>	90
\$RLOAD2	141	2501534 <td>0 <td>0 <td>90</td> </td></td>	0 <td>0 <td>90</td> </td>	0 <td>90</td>	90
\$RLOAD2	151	2501535 <td>0 <td>0 <td>90</td> </td></td>	0 <td>0 <td>90</td> </td>	0 <td>90</td>	90

\$DAREA	2501531	200153	1	1.0
\$DAREA	2501532	200153	2	1.0
\$DAREA	2501533	200153	3	1.0
\$DAREA	2501534	2649	3	.00259
\$DAREA	2501535	1028	2	.00259
\$DAREA	2501535	200162	1	.00259

\$FREO 96 10.8 21.6 32.4

FREQ1 96 2.18110 .1964600 170 DF=0.1HZ

\$FREO 51 0.01 4.8 18.2

\$ DEFINE EXCITATION FORCE WHICH IS INDEPENDENT OF FREQUENCY.

TABLED1 90 B(F)

+B(F) 0.0 1.00 100.0 1.00 ENDT

\$ DEFINE 4% STRUCTURAL DAMPING WHICH IS EQUIVALENT TO 2%  
\$ CRITICAL VISCOUS DAMPING

\$TARDMP1 98 G \$DAMP

+DAMP 0.0 0.04 100. 0.04 ENDT

\$ VERTICAL SHAKE RUNS

\$DAMP	0.0	0.025	10.	0.025	10.	.056	16.5	.056	\$DAMP1
\$DAMP1	16.5	0.034	20.	0.034	20.	.032	25.	.032	\$DAMP2
\$DAMP2	25.	.12	28.	.12	28.	.04	35.	.04	\$DAMP3
\$DAMP3	ENDT								

\$ LATERAL SHAKE RUNS

\$DAMP	0.0	0.04	10.	0.04	10.	.06	16.5	.06	\$DAMP1
\$DAMP1	16.5	0.07	20.	0.07	20.	.06	24.	.06	\$DAMP2
\$DAMP2	24.	.12	28.	.12	28.	.04	35.	.04	\$DAMP3
\$DAMP3	ENDT								

\$ DEFINE ACCELEROMETER LOCATIONS CORRESPONDING TO DAMVIBS TESTS

\$ D.O.F. RETAINED FOR TEST #1-VERTICAL INCLUDE:

\$ 99X,99Y,99Z,17X,17Z,18X,18Z,16Z,16Z,14Z,13Z,  
\$ 12Z,11Z,10Z,9Z,8Z,7X,7Y,7Z,6Z,5Z,4Z,3Z,2Z,1Z

\$ ACCELEROMETER LOCATIONS FOR CONFIGURATION 1 VERTICAL TESTS

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\$  
\$ ACCELEROMETER LOCATIONS WITH ZERO APPENDED ARE FOR LATERAL ONLY  
\$ ACCELEROMETER LOCATIONS W/DOUBLE ZERO ARE FOR LONGITUDINAL ONLY  
\$

GRID, 1, .48 00, -9.07, 48.00, 0.456  
GRID, 2, .95 00, -10.0, 48.00, 0.456  
GRID, 3, .110 20, -40.0, 11.00, 0.456  
GRID, 4, .110 20, 40.00, 11.00, 0.456  
GRID, 5, .136 70, -10.0, 48.00, 0.456  
GRID, 6, .196 90, -9.00, 84.60, 0.456  
GRID, 7, .200 00, 3.00, 154.97, 0.456  
GRID, 8, .204 00, 59.00, 63.95, 0.456  
GRID, 9, .204 00, -59.00, 63.95, 0.456  
GRID, 80, .232 00, 42.00, 7.35, 0.456  
GRID, 90, .232 00, -38.00, 7.35, 0.456  
\$  
\$  
GRID, 800, .398 00, 33.30, 57.0, 0.456  
GRID, 900, .398 00, -32.80, 57.0, 0.456  
GRID, 10, .232 30, 0.00, 95.60, 0.456  
GRID, 11, .252 80, 0.00, 97.50, 0.456  
GRID, 12, .250 00, -2.30, 84.50, 0.456  
GRID, 13, .286 34, -14.3, 63.50, 0.456  
GRID, 14, .402 40, -1.00, 42.00, 0.456  
GRID, 15, .485 30, 0.00, 54.70, 0.456  
GRID, 16, .521 50, 7.60, 120.7, 0.456  
GRID, 17, .520 67, 18.60, 119.7, 0.456  
GRID, 180, .200 00, -8.00, 86.30, 0.456  
GRID, 190, .204 00, 59.00, 63.95, 0.456  
GRID, 200, .204 00, -59.00, 63.95, 0.456  
GRID, 99, .200 00, 0.00, 100.0, 0.456  
\$  
\$

RBE2, 301, 1001, 123, 1  
RBE2, 302, 1003, 123, 2  
RBE2, 303, 1004, 123, 5  
RBE2, 304, 19777, 13, 6  
RBE2, 305, 1006, 2, 6  
RBE2, 306, 1007, 123, 12  
RBE2, 307, 2511, 123, 13  
RBE2, 308, 2572, 123, 14  
RBE2, 309, 2849, 123, 15  
RBE2, 310, 1017, 123, 8, 190  
RBE2, 311, 1018, 123, 9, 200  
RBE2, 312, 1019, 123, 10  
RBE2, 313, 1020, 123, 11  
RBE2, 314, 1022, 123, 7  
RBE2, 315, 1023, 123, 3  
RBE2, 316, 1024, 123, 4  
RBE2, 317, 2897, 123, 16  
RBE2, 318, 1026, 123, 17  
SBE2, 319, 200015, 123, 99  
RBE2, 320, 1028, 123, 80  
RBE2, 321, 1025, 123, 90  
RBE2, 322, 1012, 123, 800  
RBE2, 323, 1013, 123, 900  
RBE2, 324, 1021, 123, 180  
SBE2, 325, 1017, 123, 190  
SBE2, 326, 1018, 123, 200  
\$

\$  
\$  
\$  
\$ ENDDATA  
\$  
\$  
\$ \*\*\*\*\*  
\$ \*  
\$ \* CASE CONTROL DECK FOR STATIC \*  
\$ \* ANALYSIS (SOL 24) \*  
\$ \*  
\$ \* DEFINED BY ROB DMPKA \*  
\$ \*\*\*\*\*  
\$

\$SPFORCE=ALL  
\$ELFORCES(PRINT,PUNCH)=ALL  
\$LOAD=ALL  
\$SPCFORCES(PRINT,PUNCH)=ALL  
\$DISP(PRINT,PUNCH)=ALL  
\$PC=500  
\$LOAD=600  
\$

\$  
\$ \*\*\*\*\*  
\$ \*  
\$ \* CASE CONTROL DECK FOR STATIC \*  
\$ \* ANALYSIS, SOL 24 \*  
\$ \*  
\$ \*\*\*\*\*  
\$

\$  
\$PC=200  
\$OUTPUT  
\$DISPLACEMENT=ALL  
\$LOAD=ALL  
\$SPCFORCE=ALL  
\$ESE=ALL  
\$

\$SUBCASE 1  
\$LABEL=ROLL MOMENT AND LATERAL SHEAR FORCE  
\$LOAD=110  
\$SUBCASE 2  
\$LABEL=PITCH MOMENT AND F/A SHEAR FORCE  
\$LOAD=120  
\$SUBCASE 3  
\$LABEL=100% M/R TORQUE  
\$LOAD=130  
\$

\$  
\$ \*\*\*\*\*  
\$ \*  
\$ \* CASE CONTROL DECK FOR NORMAL \*  
\$ \* MODE ANALYSIS, SOL 3 \*  
\$ \*  
\$ \*\*\*\*\*  
\$

\$  
\$  
\$OUTPUT  
\$DISPLACEMENT(SORT1,PHASE)=ALL  
\$SPCFORCE=ALL

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OF POOR QUALITY

```

$ ESE=ALL
$
OUTPUT(PLOT)
PLOTTER NAST
AXES MX MY Z
SET 1 INCLUDE ALL
MAXIMUM DEFORMATION 30.0
$
$ *** 3-D VIEW
PTITLE=ISOMETRIC VIEW
FIND SCALE, ORIGIN 1, SET 1
PLOT MODAL DEFORMATION 0, RANGE 0.1, 35.0, SET 1, PEN 3, ORIGIN 1, SHAPE
$
$ *** FRONT VIEW
PTITLE=FRONT VIEW
VIEW 0.0, 0.0, 0.0
FIND SCALE, ORIGIN 2, SET 1
PLOT MODAL DEFORMATION 0, RANGE 0.1, 35.0, SET 1, PEN 3, ORIGIN 2, SHAPE
$
$ *** SIDE VIEW
PTITLE=SIDE VIEW
VIEW -90.0, 0.0, 0.0
FIND SCALE, ORIGIN 3, SET 1
PLOT MODAL DEFORMATION 0, RANGE 0.1, 35.0, SET 1, PEN 3, ORIGIN 3, SHAPE
$
$ *** TOP VIEW
PTITLE=TOP VIEW
VIEW 0.0, 90.0, 0.0
FIND SCALE, ORIGIN 4, SET 1
PLOT MODAL DEFORMATION 0, RANGE 0.1, 35.0, SET 1, PEN 3, ORIGIN 4, SHAPE
$
$
$
$ *****
$ * CASE CONTROL DECK FOR MODAL *
$ * FREQUENCY RESPONSE, SOL 30 *
$ *****
$
FREQ=96
SDAMP=98
$ SPCFORCE=ALL
$ ESE=ALL
$
$ FOLLOWING SETS CORRESPOND TO THE ACCELEROMETER LOCATIONS
$ USED IN GVT FOR LONGITUDINAL (SET 1), LATERAL (SET 2)
$ AND VERTICAL (SET 3) LOAD CONDITIONS/RESPONSE MEASUREMENT
$
$ SET 1=1, 2, 3, 4, 5, 6, 7, 8, 80, 800, 9, 90, 900, 10, 11,
$ 12, 13, 14, 15, 16, 17, 18, 19, 180, 190, 200
$
$ SET 1=1052, 1054, 1057, 6701, 6703, 6711, 6713, 170014, 183014, 287001,
$ 256013, 256018, 92912, 92962, 340020, 87004, 132010, 171008,
$ 256027, 256028, 4364, 4456, 92900, 8050, 8006
$ SET 2=1052, 1054, 1057, 6701, 6703, 6711, 6713, 87004, 132010, 143002, 92962,
$ 170014, 171008, 183014, 256023, 256026, 256035, 256036, 191, 188, 814,
$ 340020, 340018, 92900, 8050, 4364, 4456, 287008, 256013, 92912
$ SET 3=1052, 6701, 6703, 6711, 6713, 87004, 132010, 132017, 143002, 92900, 8050,
$
$
$ 171008, 171016, 183014, 256013, 256018, 256035, 256036, 191, 188, 814, 8006,
$ 256027, 256028, 287001, 287008, 340001, 340006, 340020, 92962, 92912, 1057
$ SET 6=1052, 92903, 92953, 8050
$
$ OUTPUT
$ DLOAD(SORT1, PRINT, PHASE)=6
$ DISPLACEMENT(SORT1, PHASE)=1
$ ELFORCE(SORT1, PHASE)=2
$
$
$ NOTE: SUBCASES SHOULD BE RUN INDIVIDUALLY FOR PUNCH FILE
$ GENERATION BECAUSE OF THE SIZE OF OUTPUT REQUESTS
$
$ SUBCASE 1
$ LABEL=200 LB F/A M/R HUB SHEAR FORCE
$ DLOAD=110
$ ACCELERATION(SORT1, PRINT, PHASE)=1
$ SUBCASE 2
$ LABEL=200 LB LATERAL M/R HUB SHEAR FORCE
$ DLOAD=120
$ ACCELERATION(SORT1, PRINT, PUNCH, PHASE)=2
$ SUBCASE 3
$ LABEL=200 LB VERTICAL M/R HUB SHEAR FORCE
$ DLOAD=130
$ ACCELERATION(SORT1, PRINT, PUNCH, PHASE)=3
$ SUBCASE 4
$ LABEL=11 LB VERTICAL LOAD AT TAIL SKID
$ DLOAD=140
$ ACCELERATION(SORT1, PRINT, PUNCH, PHASE)=1
$ SUBCASE 5
$ LABEL=11 LB LATERAL LOAD AT TAIL ROTOR
$ DLOAD=150
$ ACCELERATION(SORT1, PRINT, PUNCH, PHASE)=1
$
$
$ NOTE: PLOTTING INFORMATION MUST BE REMOVED IF
$ SORT 1 OUTPUT FORMAT FOR ACCELERATIONS IS REQUIRED
$ (I.E. FOR AUTOMATED NASTRAN GVT DATA OVERPLOTING PROGRAM)
$
$ OUTPUT(XYPLT)
$ PLOTTER NASTRAN MODEL
$ XAXIS=YES
$ KMIN=0.0
$ KMAX=50.0
$ KDIVISION=50
$ KINTERCEPT=19.2
$ LOWER TICS=1
$ UPPER TICS=-1
$ XVALUE PRINT SKIP=4
$ KTITLE= FORCING FREQUENCY (HZ)
$ YLOG=YES
$ YAXIS=YES
$ LEFT TICS=1
$ RIGHT TICS=-1
$ VVALUE PRINT SKIP=0
$
$ YTITLE=ACCELERATION RESPONSE - INCHES PER SECOND PER SECOND
$ TCURVE=RIGID BODY FUSELAGE CG F/A RESPONSE
$ XYPLT ACCE 1 / 256000(11)
$ TCURVE=RIGID BODY FUSELAGE CG LATERAL RESPONSE

```

```
XYPLOT ACCE 2 / 25000(T2)
TCURVE=RIGID BODY FUSELAGE CG VERTICAL RESPONSE
XYPLOT ACCE 3 / 25000(T3)
YTITLE=ACCELERATION RESPONSE- RADIAN PER SECOND PER SECOND
TCURVE=RIGID BODY FUSELAGE CG ROLL RESPONSE
XYPLOT ACCE 4 / 25000(R1)
TCURVE=RIGID BODY FUSELAGE CG PITCH RESPONSE
XYPLOT ACCE 5 / 25000(R2)
```

```
$
$
$
$ *****
$ *
$ * STRAIN ENERGY DMAP ALTER--SOL 3
$ *
$ * EXEC CONTROL DECK FOR MULTI-LEVEL
$ * STRAIN ENERGY AND CHOLSKY
$ * DECOMPOSITION CHECK
$ *
$ * VERSION 64A SOL 3
$ *
$ *****
$
$
```

```
ALTER 24
VECPLDT, ,BGPDT,EOEXIN,CSTM,,/RBT///4 $
TRNSP RBT/RB $
ALTER 96
VEC USET/V1/G/M/N $
VEC USET/V2/W/C,N,S/F $
PARTN RB,,V1/,RBNN,,/1 $
PARTN RBNN,,Y2/,RBFF,,/1 $
MPYAD KGC,RB,,/C1 $
MPYAD RB,C1/,KRBC/1 $
NORM C1/C2 $
MATPRN KRBC// $
MATGPR GPL,USET,SIL,C2//H/G//1.E-1 $
$
```

```
ALTER 121
MPYAD KNN,RBNN,/N1 $
MPYAD RBNN,N1/,KRBN/1 $
NORM N1/N2 $
MATPRN KRBN// $
MATGPR GPL,USET,SIL,N2//H/N//1.E-1 $
$
```

```
ALTER 125
MPYAD KFF,RBFF,/F1 $
MPYAD RBFF,F1/,KRBF/1 $
NORM F1/F2 $
$
MATPRN KRBF// $
MATGPR GPL,USET,SIL,F2//H/F//1.E-1 $
MATGPR GPL,USET,SIL,KSS//C,N,S/C,N,S//1.E-1 $
MATGPR GPL,USET,SIL,KFS//F/C,N,S//1.E-1 $
DECOMP KFF/LF,UUAC/V,Y,SYM=-1//S,N,MINDIAG/S,N,DET/
$ N,POWER/S,N,SING/S,N,NBRCHG/S,N,MAXRAT $
$ /SUB/V,N,NONPOS/O,NBRCHG $
PARAM //GT//MAXRAT/1.E+3//V,N,ILLS CONDS
PARAMR // $
PRTPARM // $
```

```
DIAGONAL LF/DLF $
MATGPR GPL,USET,SIL,DLF//H/F $
EXIT $
$
```

```
$
$ *****
$ *
$ * KINETIC ENERGY DMAP ALTER--SOL 3
$ *
$ * EXEC CONTROL DECK FOR
$ * KINETIC ENERGY CHECK ON
$ * MODAL CONTRIBUTORS
$ *
$ * VERSION 64A SOL 3
$ *
$ *****
$
$
```

```
ALTER 452
$
$ COMMENT--THE FOLLOWING DMAP PERFORMS THE KINETIC
$ ENERGY CALCULATION ON CHECKPOINTED DATA
$ FROM A SOLUTION 3 RUN
$
```

```
OFF LAMA// $
MPYAD MGG,UGV,/MPHI/ $
ADD UGV,MPHI/KES///1 $
DIAGONAL MGG/GSIZE/COLUMN/O.O $
MPYAD GSIZE,KES,/CHK/1/ $
MATPRN CHK// $
$
```

```
MATMOD KES,,,,/ENERGY,/7 $
PARAML ENERGY//TRAILER/2/Y,N,SIZE $
MATGEN ..IDENT//1/V,N,SIZE $
MATMOD IDENT,,,,/COL,77 $
TRNSP COL/ROW $
MPYAD ENERGY,ROW,/FULL $
DIAGONAL FULL/SCALE/SQUARE/1.O $
NORM KES/KNORM $
MATMOD KNORM,,,,/FILT1,/2///C,Y,FILTER=0.9999 $
MPYAD FILT1,SCALE,/MAX $
MATGPR GPL,USET,SIL,MAX//H/G//0.00001 $
$
MATMOD KNORM,,,,/FILT,/2///C,Y,FILTER=0.01 $
MPYAD FILT,SCALE,/KENG/ $
MATGPR GPL,USET,SIL,KENG//H/G//0.00001 $
EXIT $
```

```
ENDALTERS
END*
```

```
0
0
```

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## **APPENDIX C**

### **MSC/NASTRAN OUTPUT FOR FINAL AH-1G SYSTEM IDENTIFICATION RUN**

The following pages include the listings of the output files from the final MSC/NASTRAN run used to compute the structural eigenvalues and eigenvectors for the identified AH-1G structural model.



**GATA**

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

CASE CONTROL DECK ECHO

```

CARD
COUNT
1  TITLE=AH-1G THREE-DIMENSIONAL BUILTUP DYNAMICS MODEL W/ CONTROLS MODELED
2  SUBTITLE=DIFFICULT COMPONENTS GVT CONFIGURATION #1 (FULL-UP)
3  LABEL=THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL
4  MAXLINES=500000
5  ECHO=SDRT(EIGC,ASET,ASET1,PARAM,MAT1,PVISC)
6  MPC=1000
7  CMETHOD=999
8  $DOYNRED=998
9  $
10 $
11 $
12 $
13 $
14 $
15 $
16 $
17 $
18 $
19 $
20 $
21 $
22 SET 1=1001 THRU 1007 EXCEPT 1002,1005,1012,1013,
23 1017 THRU 1028 EXCEPT 1019,1020,1027,2511,2572,2649,2697,19777
24 OUTPUT
25 DISPLACEMENT(SORT1,REAL)=1
26 $ SPCFORCE=ALL
27 $ ESE=ALL
28 $
29 $
30 $
31 $
32 $
33 $
34 BEGIN BULK
  
```

INPUT BULK DATA CARD COUNT : 11866

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1-	ASET	19777	13	1006	2					
2-	ASET1	123	1001	1003	1023	1024	1004	1022	1017	+C1
3-	+C1	1018	1029	1007	2511	2572	2649	2697	1028	+C2
4-	+C2	1021	1012	1013	1026	1025				
8675-	EIGC	999	INV	POINT	1001	1	1..-5			ABC
8676-	+BC	-5	0.0	-5	-1.0	80.	12	12		DEF
8677-	+EF	-5	-1.0	-5	-50.0	80.	12	12		GHI
8678-	+HI	-5	-50.0	-5	-100.0	80.	12	12		JKL
8679-	+KL	-5	-100.0	-5	-135.0	80.	12	12		MNO
8680-	+NO	-5	-135.0	-5	-180.0	80.	12	12		PQR
8681-	+OR	-5	-180.0	-5	-190.0	80.	12	12		STU
8682-	+TU	-5	-190.0	-5	-220.0	80.	12	12		
9419-	MAT1	+1		1.0+6			1.0+6			
9420-	MAT1	+10		1.0			1.0			
9421-	MAT1	+0067		3.9368+6		0.8+6		0.32		
9422-	MAT1	+0076		3.9368+6		0.8+6		0.32		
9423-	MAT1	+2014		9.4089+6		4.0+6				
9424-	MAT1	+2024		9.4089+6		4.0+6				
9425-	MAT1	+4130		28.435+6		11.0+6				
9426-	MAT1	+4340		28.435+6		11.0+6				
9427-	MAT1	+4620		28.435+6		11.0+6				
9428-	MAT1	+7075		9.2089+6		3.9+6				
9429-	MAT1	+9046		19.396+6		6.5+6				
9517-	PARAM	GRDPNT	0							
9518-	PARAM	LMODES	35							
9519-	PARAM	NEWSEQ	3							
9520-	PARAM	WTMASS	.00259							
10161-	PVISC	+1		0.0		0.0				
10162-	PVISC	+10		0.0		0.0				
10163-	PVISC	+0076		1.647569		0.0				
10164-	PVISC	+2014		98.13098		34.85089				
10165-	PVISC	+2024		98.13098		34.85089				
10166-	PVISC	+4130		99.28947		0.0				
10167-	PVISC	+4340		99.28947		0.0				
10168-	PVISC	+4620		99.28947		0.0				
10169-	PVISC	+7075		98.13098		34.85089				
10170-	PVISC	+9046		200.0		0.0				
	ENDDATA									

TOTAL COUNT= 10236

\*\*\* USER WARNING MESSAGE 2251A, ONE OR MORE MAT1 CARDS HAVE UNREASONABLE OR INCONSISTENT VALUES OF E,G OR NU.  
ID OF FIRST ONE : 1

\*\*\* USER WARNING MESSAGE 2251B, THE NUMBER OF MAT1 CARDS HAVING UNREASONABLE OR INCONSISTENT VALUES FOR E,G AND/OR NU IS  
ID OF LAST ONE : 76

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

NASTRAN SOURCE PROGRAM COMPI LATION

DMAP-DMAP INSTRUCTION  
NO

\*\*\* USER WARNING MESSAGE 54  
PARAMETER NAMED LMODES NOT REFERENCED

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

SEQUENCE PROCESSOR OUTPUT

THERE ARE 735 POINTS DIVIDED INTO 1 GROUP(S)

CONNECTION DATA

ELEMENT TYPE NUMBER ASSEMBLY TIME(SEC)

ROD	272	1.77
SHEAR	540	14.04
TRMEM	243	3.16
CONRDO	2800	18.20
ELAS2	13	.02
QDMEM	160	4.16
QUAD4	2	.05
BAR	358	4.65
TRIA3	17	.22

TOTAL MATRIX ASSEMBLY TIME FOR 4405 ELEMENTS IS 46.27 SECONDS

RIGID ELEMENT PROCESSING COMPLETED.

ORIGINAL PERFORMANCE DATA

SUPER(GROUP) ID	NO. GRIDS	AV. CONNECTIVITY	C-AVERAGE	C-RMS	C-MAXIMUM	P-GROUPS	P-AVERAGE	DECOMP TIME(SECS) (6.0 DOF/GRID)
0	735	8.66	96.64	108.03	170	13	78.82	410.320

RESEQUENCED PERFORMANCE DATA

SUPER(GROUP) ID	NO. GRIDS	AV. CONNECTIVITY	C-AVERAGE	C-RMS	C-MAXIMUM	P-GROUPS	P-AVERAGE	DECOMP TIME(SECS) (6.0 DOF/GRID)	METHOD
0	735	8.66	18.11	20.30	38	0	0.00	15.818	ACTIVE

\*\*\* USER WARNING MESSAGE 2080, AN OBSOLETE CAPABILITY FOR ELEMENT PROCESSING IS BEING USED.  
THIS CAPABILITY MAY BE DELETED IN THE NEXT SYSTEM.

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 OUTPUT FROM GRID POINT WEIGHT GENERATOR

REFERENCE POINT = 0  
 M 0

* 6.910710E+03	-8.573151E-14	-2.679110E-15	1.097363E-11	5.225896E+05	3.980523E+02
* -8.573151E-14	6.910710E+03	0.000000E+00	-5.225896E+05	-1.097363E-11	1.364420E+06
* -2.679110E-15	0.000000E+00	6.910710E+03	-3.980523E+02	-1.364420E+06	0.000000E+00
* 0.000000E+00	-5.225896E+05	-3.980523E+02	5.009938E+07	-7.165883E+04	-1.064261E+08
* 5.225896E+05	0.000000E+00	-1.364420E+06	-7.165883E+04	3.653788E+08	-2.622282E+04
* 3.980523E+02	1.364420E+06	0.000000E+00	-1.064261E+08	-2.622282E+04	3.173401E+08

S

* 1.000000E+00	0.000000E+00	0.000000E+00
* 0.000000E+00	1.000000E+00	0.000000E+00
* 0.000000E+00	0.000000E+00	1.000000E+00

DIRECTION  
 MASS AXIS SYSTEM (S)

	MASS	X-C.G.	Y-C.G.	Z-C.G.
X	6.910710E+03	1.587917E-15	-5.759933E-02	7.562025E+01
Y	6.910710E+03	1.874356E+02	-1.587917E-15	7.562025E+01
Z	6.910710E+03	1.874356E+02	-5.759933E-02	0.000000E+00

I(S)

* 1.058098E+07	1.502485E+05	3.248277E+06
* 1.502485E+05	5.647519E+07	5.632363E+04
* 3.248277E+06	5.632363E+04	4.795490E+07

I(Q)

* 4.823489E+07	
	5.647593E+07
	1.030024E+07

Q

* 8.596323E-02	-2.883685E-03	9.962941E-01
* -5.242293E-03	9.999807E-01	3.346675E-03
* -9.862845E-01	-5.510557E-03	8.594645E-02

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

\*\*\* USER INFORMATION MESSAGE 4158--STATISTICS FOR SYMMETRIC DECOMPOSITION OF DATA BLOCK K00    FOLLOW  
 MAXIMUM RATIO OF MATRIX DIAGONAL TO FACTOR DIAGONAL = 1.0E+04 AT ROW NUMBER 2617

ORIGINAL PAGE IS  
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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 1				COLUMN 2				COLUMN 3				COLUMN 4			
1	1.079507E-01	1.295174E-01	5.088319E-03	1.892079E-01	6.468098E-02	1.048084E-01	5	5.088319E-03	-1.151028E-01	3.748542E-01	-2.192326E-01	1.705115E+00	-2.189274E-01	-3.246335E-02	6
7	1.268614E-01	-7.804044E-02	-6.927795E-02	7.038293E-02	1.800444E-02	-3.847305E-04	12	3.899754E-01	-3.127993E-01	-1.274801E-01	-1.274801E-01	-2.425006E-01	7.86168E-02	-5.433597E-02	12
13	-1.269823E-02	1.304166E-02	-2.486105E-02	7.824606E-03	-1.720001E-04	-9.751648E-04	18	-5.785365E-02	3.583153E-02	-3.014977E-02	-3.983771E-02	-3.181518E-02	-1.188172E-03	-1.188172E-03	18
19	3.550359E-02	-5.101141E-03	-3.089020E-03	4.803259E-03	-2.860551E-02	1.206548E-02	24	1.219283E-01	-6.804847E-03	-1.103535E-02	-2.103298E-02	-8.770370E-02	3.493628E-02	3.493628E-02	24
25	2.742551E-03	-3.387704E-02	-1.881437E-02	1.297593E-03	4.834588E-03	-7.711895E-04	30	5.823364E-03	-1.017801E-01	-5.560050E-02	1.818508E-03	1.405868E-02	1.30667E-02	1.30667E-02	30
31	4.215122E-04	-2.100718E-04	3.493367E-04	4.189985E-04	-5.878627E-04	-5.996237E-05	36	-1.703411E-03	-3.201046E-03	9.377452E-04	1.637941E-03	-1.232600E-03	-1.874511E-04	-1.874511E-04	36
37	-1.590484E-04	-1.343924E-04	-4.871659E-04	1.857503E-04	-8.870528E-05	-8.455289E-05	42	-8.576148E-04	-9.543109E-03	-2.154347E-02	4.795891E-03	1.212202E-03	-1.200962E-03	-1.200962E-03	42
43	1.389335E-02	-7.281807E-03	1.886016E-02	8.341331E-03	-3.331011E-03	2.589970E-03	48	1.403371E-06	-3.171167E-03	-1.140222E-04	5.272620E-05	-3.171209E-03	-1.007576E-04	-1.007576E-04	48
49	1.439828E-05	-1.887558E-05	-1.125297E-05	7.172897E-05	-1.702057E-05	4.171267E-05	54	3.520830E-03	4.18646E-04	-5.219035E-04	2.460838E-04	3.505911E-05	-2.228798E-05	-2.228798E-05	54
55	4.701622E-03	4.480724E-04	-1.078404E-03	6.328131E-04	8.545159E-05	4.197406E-04	60	-4.481631E-05	-1.483722E-04	-3.493303E-05	-3.493303E-05				60
61	-1.773484E-06	8.859406E-06	3.837750E-05				63								63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 4				COLUMN 5				COLUMN 6				COLUMN 7			
49	8.586793E-05	-2.788620E-03	1.352866E-04	2.837343E-04	-2.789503E-03	4.313241E-05	54	1.048084E-01	6.518572E-02	1.319627E-01	-3.246335E-02	1.048084E-01	6.518572E-02	1.319627E-01	54
55	1.965232E-02	1.383189E-03	-4.310357E-03	2.463698E-03	2.837230E-04	1.114213E-03	60	1.043134E+00	-2.297751E-01	-5.350881E-01	4.145523E-01	1.043134E+00	-2.297751E-01	-5.350881E-01	60
61	-1.101124E-04	-1.451355E-04	1.444678E-04				63	-4.896278E-02	4.106105E-02	-9.372937E-02	-4.388767E-02	-4.896278E-02	4.106105E-02	-9.372937E-02	63
1	6.468098E-02	2.850043E-01	2.403010E-02	-2.192326E-01	1.313855E+00	1.511446E-01	6	1.043134E+00	-2.297751E-01	-5.350881E-01	4.145523E-01	1.043134E+00	-2.297751E-01	-5.350881E-01	6
7	4.166411E-02	-9.84371E-01	-9.84371E-01	1.887958E-01	-2.264071E-02	8.824073E-02	12	-4.896278E-02	4.106105E-02	-9.372937E-02	-4.388767E-02	-4.896278E-02	4.106105E-02	-9.372937E-02	12
13	-2.653463E-02	3.863278E-02	-1.337176E-01	-3.138807E-03	-2.125557E-03	-5.226126E-03	18	1.273449E-03	-5.124160E-04	9.282876E-04	-4.828082E-04	1.273449E-03	-5.124160E-04	9.282876E-04	18
19	6.841136E-02	-3.824777E-02	-5.335837E-03	-9.888193E-03	-6.808707E-02	3.841718E-02	24	-1.071681E-03	-2.316115E-04	-1.249339E-03	-2.110649E-04	-1.071681E-03	-2.316115E-04	-1.249339E-03	24
25	1.180798E-02	-9.786851E-02	-5.887778E-02	4.222958E-03	1.828508E-02	-2.834327E-02	30	1.808271E-02	3.712522E-03	1.975252E-02	8.384712E-03	1.808271E-02	3.712522E-03	1.975252E-02	30
31	2.746302E-04	-5.091809E-04	6.798924E-04	5.185510E-04	7.021932E-04	-2.118383E-04	36	4.388573E-05	-7.518588E-05	3.172613E-05	3.967290E-05	4.388573E-05	-7.518588E-05	3.172613E-05	36
37	1.486246E-04	-3.249708E-04	-1.278872E-03	7.021932E-04	1.618603E-02	-1.602558E-02	42	5.386013E-03	-1.008737E-04	-1.008737E-04	6.297192E-04	5.386013E-03	-1.008737E-04	-1.008737E-04	42
43	2.488431E-02	-3.129984E-02	4.878991E-02	1.818603E-02	-1.602558E-02	-3.316408E-06	48	-3.609900E-05	-1.007828E-04	2.028524E-05		-3.609900E-05	-1.007828E-04	2.028524E-05	48
49	4.037469E-05	3.775839E-03	-2.725214E-04	1.480707E-04	3.715551E-03	2.544987E-04	54								54
55	-5.716583E-03	1.604520E-03	-1.781211E-03	1.118532E-03	1.868846E-04	1.379507E-03	60								60
61	1.395633E-04	3.478709E-04	9.530785E-05				63								63
1	1.048084E-01	6.518572E-02	1.319627E-01	-3.246335E-02	1.511446E-01	1.802126E+00	6	1.043134E+00	-2.297751E-01	-5.350881E-01	4.145523E-01	1.043134E+00	-2.297751E-01	-5.350881E-01	6
7	1.362726E-01	-1.392082E-01	-2.737043E-02	1.919407E-01	2.858953E-02	-9.489393E-03	12	-4.896278E-02	4.106105E-02	-9.372937E-02	-4.388767E-02	-4.896278E-02	4.106105E-02	-9.372937E-02	12
13	-3.183450E-02	2.613238E-02	-4.825277E-02	-1.740239E-02	-3.104851E-03	-1.879803E-03	18	1.273449E-03	-5.124160E-04	9.282876E-04	-4.828082E-04	1.273449E-03	-5.124160E-04	9.282876E-04	18
19	2.707719E-02	1.685599E-02	-6.021240E-03	4.115017E-03	-4.480788E-02	2.333860E-02	24	-1.071681E-03	-2.316115E-04	-1.249339E-03	-2.110649E-04	-1.071681E-03	-2.316115E-04	-1.249339E-03	24
25	-4.774798E-03	-7.513281E-02	-3.885847E-02	2.708042E-04	3.680818E-03	-1.103127E-02	30	1.808271E-02	3.712522E-03	1.975252E-02	8.384712E-03	1.808271E-02	3.712522E-03	1.975252E-02	30
31	1.273449E-03	-5.124160E-04	9.282876E-04	5.39098E-04	-4.828082E-04	-9.765196E-06	36	4.388573E-05	-7.518588E-05	3.172613E-05	3.967290E-05	4.388573E-05	-7.518588E-05	3.172613E-05	36
37	-1.071681E-03	-2.316115E-04	-1.249339E-03	-2.110649E-04	-3.785210E-04	-8.145731E-05	42	5.386013E-03	-1.008737E-04	-1.008737E-04	6.297192E-04	5.386013E-03	-1.008737E-04	-1.008737E-04	42
43	1.808271E-02	3.712522E-03	1.975252E-02	8.384712E-03	-2.180318E-04	4.020725E-03	48								48
49	4.388573E-05	-7.518588E-05	3.172613E-05	3.967290E-05	-7.518488E-05	1.820228E-05	54								54
55	5.386013E-03	-1.008737E-04	-1.008737E-04	6.297192E-04	9.155251E-05	3.238162E-04	60								60
61	-3.609900E-05	-1.007828E-04	2.028524E-05				63								63
1	1.268514E-01	1.489556E-01	8.371151E-02	3.899754E-01	4.186411E-02	1.362726E-01	6	1.043134E+00	-2.297751E-01	-5.350881E-01	4.145523E-01	1.043134E+00	-2.297751E-01	-5.350881E-01	6
7	1.043134E+00	-2.297751E-01	-5.350881E-01	4.145523E-01	2.47875E-01	-1.031077E-01	12	-4.896278E-02	4.106105E-02	-9.372937E-02	-4.388767E-02	-4.896278E-02	4.106105E-02	-9.372937E-02	12
13	-4.896278E-02	4.106105E-02	-9.372937E-02	-4.388767E-02	-1.323198E-02	-3.579895E-03	18	1.273449E-03	-5.124160E-04	9.282876E-04	-4.828082E-04	1.273449E-03	-5.124160E-04	9.282876E-04	18
19	3.231694E-01	-1.427416E-03	-1.833587E-02	4.510612E-02	-1.288539E-01	5.064581E-02	24	-1.071681E-03	-2.316115E-04	-1.249339E-03	-2.110649E-04	-1.071681E-03	-2.316115E-04	-1.249339E-03	24
25	4.122344E-02	-1.026844E-01	-8.715277E-02	-1.250895E-02	1.884864E-02	9.024289E-02	30	1.808271E-02	3.712522E-03	1.975252E-02	8.384712E-03	1.808271E-02	3.712522E-03	1.975252E-02	30
31	3.003528E-03	-1.585731E-03	2.381271E-03	3.396188E-03	-6.07139E-03	3.966642E-04	36	4.388573E-05	-7.518588E-05	3.172613E-05	3.967290E-05	4.388573E-05	-7.518588E-05	3.172613E-05	36
37	4.332683E-04	-1.490415E-03	-2.800384E-03	2.984206E-03	-1.648327E-03	-9.981958E-04	42	5.386013E-03	-1.008737E-04	-1.008737E-04	6.297192E-04	5.386013E-03	-1.008737E-04	-1.008737E-04	42
43	1.321718E-01	-8.233328E-03	1.422620E-01	7.88525E-02	1.549246E-02	5.47643E-02	48								48
49	4.808805E-04	-1.940923E-02	1.270050E-03	6.551216E-04	-1.941159E-02	4.747671E-04	54								54
55	6.170752E-02	-7.090878E-06	-1.140489E-02	6.596336E-03	6.404293E-04	7.841935E-04	60								60
61	-8.468193E-04	-1.744601E-03	2.303055E-04				63								63
1	-7.804044E-02	-3.822088E-01	2.097015E-01	-3.129793E-01	1.994371E-01	-1.392082E-01	6	-7.804044E-02	-3.822088E-01	2.097015E-01	-3.129793E-01	1.994371E-01	-1.392082E-01	-1.392082E-01	6
7	-2.297751E-01	1.951726E+00	7.221891E-01	-4.083494E-01	9.755971E-02	-3.405608E-01	12	-2.297751E-01	1.951726E+00	7.221891E-01	-4.083494E-01	9.755971E-02	-3.405608E-01	-3.405608E-01	12
13	2.067788E-01	-1.130685E-01	4.130388E-01	1.881798E-02	5.37363E-03	1.615425E-02	18								18

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COLUMN 8				COLUMN 9			
19	4.822880E-02	1.131659E-02	1.209439E-02	-1.893885E-02	3.457396E-01	-1.351160E-01	24
25	1.151881E-01	5.679405E-01	1.864489E-01	-1.714995E-02	-3.050227E-02	2.446386E-02	30
31	-4.105247E-03	6.850891E-03	-5.925679E-03	-4.450281E-03	1.144605E-02	-1.516798E-03	36
37	3.294392E-03	6.127605E-03	8.001243E-03	1.784806E-03	1.198793E-02	1.830641E-03	42
43	-4.570474E-02	1.258155E-02	-1.095323E-01	-7.439950E-03	3.845368E-02	1.297913E-02	48
49	6.168004E-05	-2.459358E-02	1.246042E-03	9.297372E-06	-2.459304E-02	-1.056612E-03	54
55	8.966767E-03	-1.036275E-03	7.416480E-04	-7.966873E-04	-1.617010E-04	-2.824498E-03	60
61	-5.468518E-04	-1.896530E-03	-2.649135E-04				63
COLUMN 10				COLUMN 11			
1	-8.927795E-02	-3.075277E-01	1.345221E-01	-1.274801E-01	-9.466117E-02	-2.737043E-02	6
7	-5.350881E-01	7.221891E-01	2.210838E+00	-8.767983E-01	1.012946E-01	-9.829379E-02	12
13	2.387572E-01	-1.598146E-01	6.530236E-01	-4.679599E-04	4.310738E-03	2.547788E-02	18
19	1.243911E-02	-1.648055E-02	2.464175E-02	5.590945E-02	1.235912E-01	-1.019743E-01	24
25	8.078428E-02	5.274520E-01	2.322572E-01	3.858020E-02	-2.879557E-02	-2.584856E-02	30
31	-5.003090E-03	2.061943E-04	5.257027E-04	-6.388755E-03	1.473296E-03	3.662167E-03	36
37	2.801851E-03	2.086835E-03	8.838876E-03	-1.849296E-03	4.637012E-03	8.784618E-05	42
43	-7.229146E-02	-1.172253E-02	-1.214391E-01	-2.841391E-02	-9.420403E-04	-2.677327E-02	48
49	-2.196420E-04	8.902397E-04	-3.286832E-04	-2.191421E-04	8.911272E-04	-7.877511E-05	54
55	-2.290852E-02	9.821193E-04	4.553870E-03	-2.932844E-03	-2.718436E-04	-7.150746E-04	60
61	3.007463E-04	5.029782E-04	-1.240044E-04				63
COLUMN 12				COLUMN 13			
1	7.038293E-02	4.463219E-01	-2.468394E-01	2.425006E-01	1.887968E-01	1.919407E-01	6
7	4.145523E-01	-4.083494E-01	-8.767983E-01	3.133633E+00	-3.619948E-01	5.822551E-01	12
13	-5.831024E-01	5.436031E-02	-1.014729E+00	-1.451450E-01	-2.300422E-01	-4.019542E-02	18
19	1.318104E-02	1.810510E-01	-6.878256E-02	-1.274332E-01	3.492875E-01	3.555806E-01	24
25	-3.200635E-02	-8.665931E-01	-5.504834E-01	1.161285E-01	2.841286E-02	-1.882417E-01	30
31	5.299331E-03	-9.89104E-03	1.112630E-02	3.667860E-03	-9.914914E-02	4.790051E-03	36
37	-4.324524E-03	-8.628445E-03	-1.758844E-02	3.425305E-03	-1.774400E-02	-1.024068E-02	42
43	8.289823E-02	-1.326313E-01	2.367443E-01	4.186166E-02	-1.136725E-01	-2.613454E-02	48
49	-3.773310E-04	4.801521E-02	-2.795319E-03	3.460218E-04	4.801481E-02	2.366425E-03	54
55	-9.323445E-03	7.126316E-03	-3.763190E-03	3.248886E-03	6.641965E-04	6.056993E-03	60
61	1.365608E-03	3.771887E-03	6.041464E-04				63
COLUMN 14				COLUMN 15			
1	1.800444E-02	-7.868268E-02	9.391534E-02	7.961609E-02	-2.264071E-02	2.658953E-02	6
7	2.479675E-01	9.756671E-02	1.012946E-01	-3.619948E-01	5.472688E-01	-2.982998E-01	12
13	1.187608E-01	4.986107E-02	2.485598E-01	-6.097481E-03	2.119574E-02	9.705873E-03	18
19	1.914722E-01	1.586857E-02	-1.860577E-02	3.039826E-02	7.892453E-02	-6.848537E-02	24
25	3.832785E-02	1.821717E-01	7.628464E-02	-1.339584E-02	-2.955055E-02	2.803366E-02	30
31	-3.057580E-04	1.198507E-03	-1.181544E-03	7.963460E-04	3.267786E-03	-2.223843E-03	36
37	1.235189E-03	9.938332E-04	2.810238E-03	5.011397E-04	4.864839E-03	4.448576E-04	42
43	6.971860E-02	8.671282E-02	-2.170578E-02	3.315318E-02	5.500237E-02	4.172224E-02	48
49	6.593151E-04	-2.189322E-02	1.572696E-03	1.309177E-04	-2.189582E-02	-9.841201E-04	54
55	4.078927E-02	-5.512737E-03	-5.887715E-03	3.112236E-03	8.779862E-05	-2.705443E-03	60
61	-1.108744E-03	-2.226886E-03	2.528618E-05				63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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COLUMN 12				COLUMN 13			
1	-3.647305E-04	2.288242E-01	-1.848051E-01	-5.433597E-02	8.924073E-02	-9.493939E-03	6
7	-1.031077E-01	-3.405608E-01	-9.829379E-02	-5.822551E-01	-2.982998E-01	2.076824E+00	12
13	4.909482E-01	1.242986E-01	-1.180076E+00	4.302287E-01	-4.340413E-02	-4.327292E-02	18
19	-4.325541E-02	4.815155E-02	4.589055E-02	-1.008561E-01	-2.450677E-01	1.852263E-01	24
25	-4.340485E-02	-2.709321E-01	-1.258833E-01	6.312943E-02	2.373971E-02	4.872143E-02	30
31	2.527311E-03	-4.697401E-03	5.639575E-03	9.862004E-04	-9.585130E-03	5.495587E-03	36
37	-1.854145E-03	3.818788E-03	-7.134089E-03	-7.850242E-04	-1.437708E-02	2.588591E-03	42
43	5.982949E-03	-9.400140E-02	1.105803E-01	1.155341E-03	-7.747821E-02	-4.470294E-02	48
49	4.513449E-04	3.487982E-02	-2.279548E-03	9.360515E-05	3.487942E-02	1.574579E-03	54
55	-2.715283E-02	6.448063E-03	7.747227E-04	-4.746058E-04	1.486173E-04	4.788728E-03	60
61	1.263322E-03	3.300540E-03	3.628170E-04				63
COLUMN 14				COLUMN 15			
1	-1.269823E-02	-1.236553E-01	8.527193E-02	-5.785365E-02	-2.653463E-02	-3.183450E-02	6
7	-4.686278E-02	2.067788E-01	2.387872E-01	-5.831024E-01	1.187608E-01	4.805842E-01	12
13	1.778905E+00	-5.097365E-02	-4.382205E-01	3.594639E-01	9.527363E-03	-1.707498E-02	18
19	2.129408E-02	-4.778545E-03	5.821889E-03	1.584909E-02	1.870043E-01	-9.515829E-02	24
25	3.475347E-02	2.868142E-01	1.123420E-01	-5.605682E-03	-1.801274E-02	-2.824752E-02	30
31	-1.286759E-03	1.718385E-03	-1.828889E-03	-1.025119E-03	2.954334E-03	-7.731361E-04	36
37	1.175980E-03	1.274994E-03	3.223765E-03	5.625888E-05	3.803464E-03	-9.408431E-05	42
43	-1.438450E-02	1.538501E-02	-5.003859E-02	-3.328356E-03	1.695953E-02	5.829638E-03	48
49	5.976115E-05	-8.834939E-03	4.706578E-04	-7.027349E-06	-8.835080E-03	-3.829609E-04	54
55	3.723186E-03	-5.743152E-04	1.632271E-05	-1.871701E-04	-6.345438E-06	-1.119304E-03	60
61	-2.167402E-04	-5.809375E-04	-6.536462E-05				63
COLUMN 16				COLUMN 17			
1	1.304188E-02	8.223223E-02	-4.288461E-02	3.583153E-02	3.663278E-02	2.613238E-02	6
7	4.108108E-02	-1.130685E-01	-1.598146E-01	5.436031E-02	-4.985107E-02	1.242986E-01	12
13	-5.97365E-02	2.050178E+00	-1.863810E-01	-1.381796E-02	4.655947E-01	-7.641462E-03	18
19	5.578577E-04	-4.798813E-02	4.005399E-03	-1.110970E-02	-1.177572E-01	4.826191E-02	24
25	-2.063422E-02	-2.048385E-01	-7.253473E-02	1.493237E-02	2.624479E-02	-5.209752E-02	30
31	7.985425E-04	-1.801783E-03	1.789384E-03	7.818538E-04	-3.688607E-03	9.846082E-05	36
37	-6.142081E-04	-1.442485E-03	-2.784171E-03	2.707019E-04	-3.720058E-03	-6.827198E-04	42
43	1.238722E-02	-2.264304E-02	3.607518E-02	5.761855E-03	1.980479E-02	-6.651677E-03	48
49	-8.470475E-05	6.349884E-03	-5.229542E-04	6.377255E-05	8.349505E-03	4.144310E-04	54
55	-2.785361E-03	1.679583E-03	-5.282052E-04	4.360424E-04	1.094219E-04	1.440300E-03	60
61	2.831868E-04	7.685833E-04	1.191926E-04				63
COLUMN 18				COLUMN 19			
1	-2.488105E-02	-2.864634E-01	1.642369E-01	-3.014977E-02	-1.337176E-01	-4.825277E-02	6
7	-9.372937E-02	4.130398E-01	6.530236E-01	-1.014729E+00	2.485599E-01	-1.180076E+00	12
13	-4.382205E-01	-1.863810E-01	2.790104E+00	-3.748529E-01	4.501083E-02	3.289477E-01	18
19	6.238319E-02	5.347884E-02	5.210471E-02	1.054488E-01	1.831201E-01	-1.614440E-01	24
25	4.642164E-02	6.622199E-01	3.310625E-01	-3.537113E-02	-3.173046E-02	3.099119E-01	30
31	-2.829889E-03	6.141186E-03	-6.821314E-03	-3.415857E-03	1.657459E-02	2.304356E-03	36
37	2.393488E-03	5.732856E-03	1.081631E-02	-1.73248E-03	1.267829E-02	6.820602E-03	42
43	-4.184017E-02	9.807347E-02	-1.488958E-01	-1.780188E-02	8.193463E-02	2.284801E-02	48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	15								
49	3	278185E-04	-3	640841E-02	2	126662E-03	-2	146610E-04	-3	640775E-02	-1	789791E-03	54
55	1	414401E-02	-5	857207E-03	1	866466E-03	-1	751358E-03	-3	846057E-04	-5	542955E-03	60
61	-1	092240E-03	-3	095995E-03	-4	789749E-04							63
				COLUMN	16								
1	-7	924606E-03	-6	030820E-03	-8	023083E-03	-3	983771E-02	-3	136807E-03	-1	740239E-02	6
7	-4	386767E-02	1	691788E-02	-4	675599E-04	-1	451456E-01	-6	097481E-03	4	302267E-01	12
13	3	594639E-01	-1	381796E-02	-3	748529E-01	2	321790E+00	5	403889E-04	-1	479766E-02	18
19	-2	681110E-02	2	876103E-04	4	534552E-03	-1	522178E-02	7	567208E-02	-2	425880E-02	24
25	-3	382147E-04	6	930111E-02	2	563838E-02	-7	432738E-03	-5	313211E-03	-1	388600E-03	30
31	9	314955E-05	1	178850E-04	-2	613634E-05	5	935031E-05	5	067611E-04	-3	042234E-04	36
37	-1	079321E-04	8	003425E-05	1	315393E-04	-1	886111E-04	5	572120E-04	2	716747E-04	42
43	-6	568641E-03	1	026318E-02	-1	317343E-02	-4	361411E-03	6	028555E-03	1	219581E-03	48
49	1	765953E-05	-1	805772E-03	1	195810E-04	-3	423632E-05	-1	805780E-03	-8	863923E-05	54
55	-7	873265E-04	-4	263437E-04	3	595881E-04	-2	588755E-04	-4	681773E-05	-4	339129E-04	60
61	-5	500888E-05	-1	415864E-04	-2	644167E-05							63
				COLUMN	17								
1	-1	720001E-04	-3	166409E-03	3	238043E-03	-3	181618E-03	-2	125557E-03	-3	104851E-03	6
7	-1	323198E-02	5	373853E-03	4	310738E-03	-2	300422E-01	2	119574E-02	-4	340413E-02	12
13	9	527363E-03	4	855947E-01	4	501083E-02	5	403889E-04	2	365820E+00	1	718625E-03	18
19	-4	610058E-03	-3	337709E-02	9	907931E-03	3	989267E-03	-8	552063E-03	-1	158508E-02	24
25	-4	113518E-03	-2	375950E-04	1	870978E-02	-5	694985E-03	-5	321419E-03	1	964721E-03	30
31	-5	620796E-05	1	960540E-04	-1	879719E-04	5	482868E-05	5	482849E-04	-3	916302E-04	36
37	4	860648E-05	1	555271E-04	3	238133E-04	-2	013695E-04	3	570440E-04	6	918018E-04	42
43	-1	620999E-03	1	023217E-02	-1	136704E-02	-1	789396E-03	6	598944E-03	1	678243E-03	48
49	2	670231E-05	-2	336122E-03	1	416179E-04	-2	155956E-05	-2	336107E-03	-1	176875E-04	54
55	8	406050E-04	-3	987258E-04	9	308862E-05	-1	239252E-04	-2	218957E-05	-3	726581E-04	60
61	-6	614215E-05	-1	878581E-04	-2	592425E-05							63
				COLUMN	18								
1	-9	761648E-04	-1	035943E-02	6	356735E-03	-1	188172E-03	-5	226126E-03	-1	879803E-03	6
7	-3	679895E-03	1	615425E-02	2	547788E-02	-4	019542E-02	9	708873E-03	4	327292E-02	12
13	-1	707496E-02	-7	641462E-03	3	258877E-01	-1	479766E-02	1	718825E-03	2	427411E+00	18
19	2	419836E-03	2	120952E-03	2	078482E-03	4	047332E-03	7	921048E-03	-6	426966E-03	24
25	1	840924E-03	2	632844E-02	1	307011E-02	-1	387450E-03	-1	254489E-03	1	229237E-02	30
31	-1	093692E-04	2	396892E-04	-2	658597E-04	-1	333128E-04	6	516968E-04	9	238138E-05	36
37	9	260219E-05	2	239116E-04	4	217888E-04	-6	876986E-05	4	944705E-04	2	626186E-04	42
43	-1	650694E-03	3	788723E-03	-5	899745E-03	-7	067007E-04	3	223047E-03	8	824378E-04	48
49	1	286780E-05	-1	429819E-03	8	351071E-05	-8	483754E-06	-1	428793E-03	-7	032165E-05	54
55	5	515987E-04	-2	301048E-04	7	511343E-05	-6	930861E-05	-1	515936E-05	-2	218878E-04	60
61	-4	285564E-05	-1	214931E-04	-1	881421E-05							63
				COLUMN	19								
1	3	550359E-02	1	237315E-02	6	613404E-02	1	219283E-01	6	841136E-02	2	707719E-02	6
7	3	231694E-01	4	822880E-02	1	243911E-02	1	319104E-02	1	914722E-01	-4	325541E-02	12
13	2	128408E-02	5	578577E-04	6	235319E-02	-2	691110E-02	-4	610058E-03	2	419838E-03	18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	19								
18	6	612301E-01	-1	021883E-01	-2	853454E-02	4	090995E-02	-9	321869E-02	2	360536E-02	24
25	5	901139E-02	3	481801E-02	-1	409709E-02	-1	030311E-02	8	989990E-02	-1	894804E-02	30
31	-1	254933E-05	-5	962930E-04	7	300952E-04	4	085632E-04	-2	655462E-03	1	295393E-03	36
37	1	574456E-03	-2	591189E-04	1	242375E-04	2	143112E-03	-2	482982E-03	2	458187E-04	42
43	1	176551E-01	-9	846274E-02	8	298205E-02	1	130454E-01	-5	936708E-02	-3	208098E-02	48
49	3	893116E-04	5	645373E-04	-1	115799E-03	1	260055E-03	5	548377E-04	1	919187E-04	54
55	5	138888E-02	9	260970E-03	-1	802568E-02	6	061511E-03	2	857979E-04	2	854488E-03	60
61	1	033643E-04	1	980826E-03	8	844660E-04							63
				COLUMN	20								
1	-5	101141E-03	-7	272481E-03	-1	056901E-02	-6	604647E-03	-3	824777E-02	1	665599E-02	6
7	-1	427418E-03	1	131869E-02	-1	648056E-02	1	910510E-01	1	586857E-02	-4	915155E-02	12
13	-4	778545E-03	-4	798813E-02	5	347984E-02	2	876103E-04	-3	337709E-02	2	120952E-03	18
19	-1	021883E-01	-1	079235E+00	-2	738642E-02	4	370903E-02	1	048480E-01	-3	558516E-02	24
25	-4	694509E-02	1	093088E-01	3	849227E-02	8	005551E-02	-1	545323E-01	7	873186E-02	30
31	7	017717E-04	-1	069294E-04	-2	322448E-04	-3	672937E-04	6	095928E-03	5	645207E-03	36
37	-9	123712E-04	-1	721018E-04	4	560172E-04	-1	255293E-04	6	424625E-03	-6	041374E-03	42
43	6	438010E-03	2	455705E-01	-1	205784E-01	-1	993383E-02	3	888389E-02	1	034879E-02	48
49	6	420765E-04	1	493210E-02	-4	025477E-04	-8	592398E-04	1	493123E-02	1	749693E-04	54
55	-1	204359E-02	-1	808833E-02	3	040070E-03	-1	593816E-03	-1	762604E-04	-1	615882E-03	60
61	-2	076448E-04	6	428590E-05	5	874822E-05							63
				COLUMN	21								
1	-3	089020E-03	-6	270247E-03	-8	778330E-04	-1	103835E-02	-5	335837E-03	-6	021240E-03	6
7	-1	833687E-02	1	209439E-02	2	484175E-02	-6	878256E-02	-1	805057E-02	4	589055E-02	12
13	5	821869E-03	4	005399E-03	5	210471E-02	-4	534552E-03	9	907931E-03	2	078482E-03	18
19	-2	853464E-02	-2	738642E-02	2	525557E-01	-4	550352E-03	-4	641804E-04	-2	558219E-03	24
25	4	430545E-04	3	819840E-02	2	849509E-02	1	287480E-02	-2	140137E-02	1	348138E-01	30
31	-1	888347E-05	2	839296E-04	-2	818000E-04	-1	325850E-04	1	297198E-03	5	003684E-04	36
37	3	864377E-05	3	888611E-04	4	216504E-04	-3	632615E-04	-7	013318E-05	2	127738E-03	42
43	-9	888068E-03	-8	735278E-04	1	278488E-02	-5	614773E-03	1	251732E-02	5	172142E-03	48
49	1	153125E-05	-7	356934E-03	4	391762E-04	1	071458E-05	-7	356675E-03	-3	702955E-04	54
55	2	158210E-03	-8	177148E-04	4	884988E-04	-5	516560E-04	-1	374364E-04	-1	274920E-03	60
61	-2	210835E-04	-6	709235E-04	-1	408914E-04							63
				COLUMN	22								
1	4	603259E-03	-2	907019E-02	3	188644E-02	-2	103299E-02	-9	888193E-03	4	115017E-03	6
7	4	610612E-02	-1	693685E-02	5	590945E-02	-1	274332E-01	3	039828E-02	-1	008561E-01	12
13	1	584905E-02	-1	110870E-02	1	054458E-01	-1	522178E-02	3	898287E-03	4	047332E-03	18
19	4	090995E-02	4	370903E-02	-4	550352E-03	1	863558E-01	-2	188258E-02	-3	612498E-03	24
25	9	187745E-04	6	250881E-02	3	006799E-02	1	578338E-02	-9	420743E-03	7	711560E-03	30
31	-3	478485E-04	3	699471E-04	-5	716645E-04	-2	622101E-04	9	357781E-04	6	707889E-04	36
37	5	079524E-04	2	888161E-04	1	146183E-03	-2	250430E-04	1	154168E-03	-7	462981E-04	42
43	5	469109E-03	2	184315E-03	-6	883351E-03	5	562039E-03	3	181278E-03	5	013788E-03	48
49	5	902335E-05	-2	845637E-03	1	876987E-04	4	593587E-05	-2	846099E-03	-8	912343E-05	54
55	5	347049E-03	-8	758836E-05	-9	899499E-04	5	391488E-04	2	293601E-05	-1	834404E-04	60
61	-1	140768E-04	-1	885102E-04	2	727408E-05							63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 23									
1	-2.880651E-02	-1.088720E-01	3.388423E-02	-8.770370E-02	-6.608707E-02	-4.460786E-02			6
7	-1.286539E-01	3.457396E-01	1.235812E-01	3.492875E-01	7.692453E-02	-2.450677E-01			12
13	1.870043E-01	-1.177572E-01	1.931201E-01	7.567208E-02	-8.552063E-03	7.921048E-03			18
19	-9.321869E-02	1.048480E-01	-4.541604E-04	-2.188258E-02	4.523418E-01	-1.970481E-01			24
25	3.081165E-03	4.189383E-01	1.632897E-01	-5.814998E-02	-2.883247E-02	8.385741E-02			30
31	-5.661591E-04	3.251957E-03	-3.155685E-03	-1.131898E-03	1.074675E-02	-1.415130E-03			36
37	-4.133116E-05	2.848731E-03	4.408708E-03	-4.594708E-04	1.169318E-02	2.635447E-04			42
43	-4.566124E-02	9.032819E-02	-1.258067E-01	-2.273743E-02	6.965214E-02	2.713565E-02			48
49	2.511616E-04	-3.011261E-02	1.878791E-03	-2.203382E-04	-3.011163E-02	-1.449418E-03			54
55	9.382988E-03	-5.321413E-03	2.251401E-03	-1.473299E-03	-3.211401E-04	-4.798665E-03			60
61	-9.367277E-04	-2.697045E-03	-4.280923E-04						63
COLUMN 24									
1	1.208546E-02	7.319081E-02	-3.676802E-02	3.493629E-02	3.841718E-02	2.333860E-02			6
7	5.064581E-02	-1.351180E-01	-1.019743E-01	3.585580E-01	-6.848537E-02	1.852263E-01			12
13	-9.515829E-02	4.836191E-02	-1.618480E-01	-2.425860E-02	-1.156508E-02	-6.428968E-03			18
19	2.380536E-02	-3.658516E-02	-2.538219E-03	-3.612499E-03	-1.970481E-01	2.069854E-01			24
25	-3.485318E-03	-2.031207E-01	-9.243699E-02	1.992315E-02	1.806580E-02	-3.159937E-02			30
31	-6.140298E-04	-1.799079E-03	1.895351E-03	6.341847E-04	-4.888037E-03	7.256974E-04			36
37	-3.871485E-04	-1.547555E-03	-2.853891E-03	2.804898E-04	-5.338272E-03	-3.368868E-04			42
43	1.749570E-02	-4.188527E-02	5.959124E-02	8.881058E-03	-3.183519E-02	-1.244699E-02			48
49	-1.358599E-04	1.347360E-02	-6.423501E-04	8.955291E-05	1.347341E-02	6.458647E-04			54
55	-5.264439E-03	2.412103E-03	-5.847813E-04	5.200338E-04	1.388864E-04	2.150237E-03			60
61	4.332965E-04	1.184772E-03	1.586506E-04						63
COLUMN 25									
1	2.742551E-03	-2.804075E-02	3.325837E-02	5.823364E-03	1.180788E-02	-4.774788E-03			6
7	4.122344E-02	1.151681E-01	8.078428E-02	-3.200636E-02	3.383278E-02	-4.340485E-02			12
13	3.475347E-02	-2.053422E-02	4.642164E-02	-3.392147E-04	-4.113518E-03	-4.809242E-03			18
19	5.901139E-02	-4.684509E-02	4.430545E-04	9.197745E-04	3.081165E-03	-3.485318E-03			24
25	1.100600E-01	7.647856E-02	2.435488E-02	-4.049575E-03	7.387353E-03	-9.783842E-03			30
31	-3.664710E-04	3.871227E-04	-3.224018E-04	-2.545667E-04	6.092809E-05	-2.845028E-04			36
37	5.492619E-04	3.871341E-04	7.103862E-04	4.088810E-04	1.935141E-04	3.127313E-04			42
43	9.215555E-03	-1.647575E-02	1.068520E-02	9.894850E-03	-3.365136E-03	2.440875E-03			48
49	5.910267E-06	-2.324827E-03	5.594102E-05	1.330790E-04	-2.325318E-03	-2.579532E-05			54
55	6.254494E-03	1.117451E-03	-1.508573E-03	7.434621E-04	7.075447E-05	2.889611E-04			60
61	-2.537748E-05	3.150891E-06	5.845829E-05						63
COLUMN 26									
1	-3.387704E-02	-2.342942E-01	1.318389E-01	-1.017601E-01	-9.786851E-02	-7.513281E-02			6
7	-1.028844E-01	5.879405E-01	5.274620E-01	-8.686931E-01	1.821717E-01	-2.709321E-01			12
13	2.868142E-01	-2.048395E-01	6.622199E-01	6.830111E-02	-2.375950E-04	2.832844E-02			18
19	3.481801E-02	1.093069E-01	3.819940E-02	6.250881E-02	4.189383E-01	-2.031207E-01			24
25	7.647856E-02	8.960417E-01	3.853299E-01	-5.343401E-02	-3.745265E-02	2.624153E-01			30
31	-1.851497E-03	5.820233E-03	-5.720084E-03	-2.895863E-03	1.740973E-02	1.911988E-03			36
37	1.704885E-03	5.243352E-03	9.419029E-03	-8.000422E-04	1.518016E-02	4.151377E-03			42
43	-4.518674E-02	9.685567E-02	-1.591710E-01	-1.169242E-02	8.081549E-02	3.613052E-02			48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 26									
49	3.832032E-04	-4.583276E-02	2.833044E-03	-5.382865E-05	-4.583276E-02	-2.090102E-03			54
55	2.432806E-02	-5.258280E-03	1.842502E-04	-8.604507E-04	-3.632640E-04	-5.282317E-03			60
61	-1.336295E-03	-3.624107E-03	-4.653394E-04						63
COLUMN 27									
1	-1.881437E-02	-1.054118E-01	4.995210E-02	-5.560050E-02	-5.687778E-02	-3.859547E-02			6
7	-8.715277E-02	1.864489E-01	2.322572E-01	-5.504834E-01	7.826484E-02	-1.258833E-01			12
13	1.123420E-01	-7.253437E-02	3.310825E-01	2.563839E-02	1.870978E-02	1.307011E-02			18
19	-1.409709E-02	3.849227E-02	2.349509E-02	3.006799E-02	1.632897E-01	-9.243699E-02			24
25	-2.435488E-02	3.853299E-01	2.911835E-01	-2.329838E-02	-2.154550E-02	1.228187E-01			30
31	-8.963800E-04	2.617895E-03	-2.748028E-03	-1.268139E-03	7.712633E-03	6.001454E-04			36
37	-6.973811E-04	2.412895E-03	4.427432E-03	-8.263558E-04	6.378218E-03	2.538048E-03			42
43	-2.622259E-02	5.400467E-02	-8.033156E-02	-1.254858E-02	4.272738E-02	1.281790E-02			48
49	1.653849E-04	-1.838869E-02	1.098150E-03	-1.213466E-04	-1.638844E-02	-9.003610E-04			54
55	5.871614E-03	-3.014959E-03	1.134339E-03	-9.855318E-04	-2.170013E-04	-2.977440E-03			60
61	-5.560663E-04	-1.544997E-03	-2.365759E-04						63
COLUMN 28									
1	1.297593E-03	-7.124898E-03	9.951437E-03	1.818505E-03	4.222855E-03	2.708042E-04			6
7	-1.250895E-02	-1.714995E-02	3.658020E-02	1.161285E-01	-1.339544E-02	6.312943E-02			12
13	-5.605862E-03	1.493237E-02	-3.537113E-02	-7.432738E-03	-5.694985E-03	-1.367480E-03			18
19	-1.030311E-02	8.005561E-02	1.287480E-02	1.576338E-02	-5.814998E-02	1.992315E-02			24
25	-4.048579E-03	-5.343401E-02	-2.329838E-02	1.739800E+00	-8.445968E-02	-1.654833E-01			30
31	-3.322603E-04	-6.790981E-05	-4.240337E-05	-4.805071E-04	-1.385888E-03	7.421591E-04			36
37	2.180609E-04	-1.281411E-04	-4.758305E-07	2.835343E-04	-1.021083E-03	-1.348997E-03			42
43	-6.495920E-03	-2.571288E-02	-5.980520E-02	2.988818E-03	-3.456376E-02	-2.446651E-02			48
49	-1.263284E-04	1.689497E-02	-1.180225E-03	2.285115E-05	1.689384E-02	7.363084E-04			54
55	-1.295407E-02	2.899338E-03	2.323458E-05	2.927484E-06	7.488460E-05	2.22527E-03			60
61	5.913835E-04	1.767822E-03	2.725792E-04						63
COLUMN 30									
1	4.834658E-03	1.848270E-02	-5.777739E-03	1.405889E-02	1.626508E-02	3.680816E-03			6
7	1.884864E-02	-3.080227E-02	-2.879557E-02	2.841288E-02	-2.955055E-02	2.373971E-02			12
13	-1.801274E-02	2.624479E-03	3.173048E-02	5.313211E-03	-5.321418E-03	-1.254488E-03			18
19	8.999990E-02	-1.645323E-01	-2.140137E-02	-9.420743E-03	-2.883247E-02	1.806580E-02			24
25	7.387353E-03	-3.745265E-02	-2.154550E-02	-8.445968E-02	1.703635E+00	-4.081882E-03			30
31	5.065259E-05	-4.785835E-04	5.317478E-04	1.575849E-04	-2.103972E-03	-2.37874E-04			36
37	6.881094E-05	-4.032639E-04	1.457801E-04	1.457801E-04	-2.490118E-03	7.20768E-04			42
43	8.894854E-03	-4.18857E-02	6.066618E-02	1.388864E-02	-2.418399E-02	-1.262510E-02			48
49	-1.244001E-04	5.879375E-03	-5.602288E-04	1.436430E-04	5.879279E-03	3.415158E-04			54
55	1.085825E-04	2.788118E-03	-1.180588E-03	5.109461E-04	1.458282E-04	1.885426E-03			60
61	3.180524E-04	7.767864E-04	1.184268E-04						63
COLUMN 30									
1	-7.711895E-04	1.607202E-02	-2.322848E-02	1.330667E-02	-2.634327E-02	1.103127E-02			6
7	9.024269E-02	2.584388E-02	-2.584958E-02	-1.882417E-01	2.803366E-02	4.672143E-02			12
13	-2.824752E-02	-5.209752E-02	3.089119E-01	-1.388800E-03	1.864721E-03	1.228237E-02			18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	30				
19	-1.894804E-02	7.873186E-02	1.348138E-01	7.711550E-03	8.385741E-02	-3.159937E-02	24		
25	-9.783842E-03	2.624153E-01	1.229187E-01	-1.884893E-01	-4.081882E-03	2.406471E+00	30		
31	1.209327E-03	1.214050E-04	-1.860886E-04	-2.411183E-05	8.988334E-03	6.223346E-03	36		
37	-5.298656E-04	7.621201E-04	7.586519E-04	-1.180563E-03	2.865334E-03	6.003957E-03	42		
43	1.965821E-02	1.080955E-01	7.543970E-02	-1.050158E-02	1.252811E-01	6.877818E-02	48		
49	6.019574E-04	-5.729780E-02	3.831783E-03	-6.316615E-05	-5.729647E-02	-2.837019E-02	54		
55	4.229262E-02	-1.089224E-02	-3.311184E-04	-9.104952E-04	-5.717144E-04	-9.056644E-03	60		
61	-2.118796E-03	-5.899718E-03	-8.833044E-04				63		
				COLUMN	31				
1	4.215122E-04	2.555138E-03	-1.476269E-03	1.703411E-03	2.746302E-04	1.273448E-03	6		
7	3.003528E-03	-4.105247E-03	-5.003090E-03	5.299331E-03	-3.057580E-04	2.527311E-03	12		
13	-1.288759E-03	7.985425E-04	-2.828859E-03	9.314955E-05	-5.620798E-05	-1.083692E-04	18		
19	-1.254933E-05	7.017717E-04	-1.888347E-07	3.478485E-04	-5.661591E-04	6.140298E-04	24		
25	-3.664705E-04	-1.861487E-03	-8.963580E-04	-3.322603E-04	5.065259E-05	1.208327E-03	30		
31	2.950902E-02	-1.438703E-04	2.265835E-04	8.644938E-03	-1.480043E-04	6.077720E-05	36		
37	6.834882E-05	1.628078E-05	1.012416E-05	5.215403E-05	2.742282E-05	3.714295E-05	42		
43	4.984248E-04	5.451322E-04	4.950335E-04	1.602030E-04	2.564689E-04	2.483023E-04	48		
49	2.814898E-06	-8.337803E-05	7.397065E-06	1.164868E-07	-8.337833E-05	-3.838547E-06	54		
55	1.985416E-04	-3.202300E-05	-2.472571E-05	1.554500E-05	1.422985E-06	-8.021388E-06	60		
61	-4.823935E-06	-1.223777E-05	-6.111248E-07				63		
				COLUMN	32				
1	-2.100718E-04	-1.818321E-03	9.951908E-04	-3.201046E-04	-5.081809E-04	-5.124160E-04	6		
7	-1.595731E-03	6.650991E-03	2.061943E-04	-9.899104E-03	1.196507E-03	-4.597401E-03	12		
13	1.716385E-03	-1.601763E-03	6.141186E-03	1.178850E-04	1.960540E-04	2.398892E-04	18		
19	-5.962930E-04	-1.069294E-04	2.638296E-04	3.699471E-04	3.251957E-03	-1.799079E-03	24		
25	3.871227E-04	5.620233E-03	2.617936E-03	-6.790881E-05	-4.785835E-04	1.214050E-04	30		
31	-1.438703E-04	1.475460E-02	-1.963031E-03	4.631144E-04	1.207334E-03	-8.858938E-04	36		
37	-1.573004E-05	-1.146277E-04	-1.783455E-04	2.547715E-04	-6.337896E-06	-1.740884E-04	42		
43	-7.100226E-04	3.082615E-04	-1.454617E-03	-2.819361E-04	3.884185E-04	2.645768E-05	48		
49	3.041021E-07	-1.846081E-04	9.320886E-06	-1.370811E-06	-1.848092E-04	-8.878244E-06	54		
55	-5.204263E-05	-1.151894E-05	2.578673E-05	-2.041860E-05	-3.555216E-06	-3.207066E-05	60		
61	-3.747708E-06	-1.032384E-05	-2.031228E-06				63		
				COLUMN	33				
1	3.493367E-04	2.649282E-03	-1.459071E-03	9.377452E-04	6.798924E-04	9.292876E-04	6		
7	2.381271E-03	-5.925679E-03	5.257027E-04	1.112630E-02	-1.181544E-03	5.638575E-03	12		
13	-1.825859E-03	1.799384E-03	-6.827317E-03	-2.613631E-05	-1.875718E-04	-2.858587E-04	18		
19	7.300852E-04	-2.322449E-04	-2.818000E-04	-5.718648E-04	-3.155685E-03	-1.893515E-03	24		
25	3.224019E-04	-5.720084E-03	-2.748026E-03	-4.240337E-05	5.317478E-04	-1.860886E-04	30		
31	2.285835E-04	-1.953031E-03	1.494582E-02	-4.839163E-04	-1.307611E-03	8.748342E-04	36		
37	3.314205E-05	2.204605E-04	2.990929E-04	-2.875479E-04	6.932897E-05	2.386504E-04	42		
43	8.354258E-04	-3.593439E-04	1.625205E-03	3.576036E-04	-3.746591E-04	2.937548E-05	48		
49	-7.137680E-08	1.612181E-04	-6.094888E-06	2.149952E-06	1.612181E-04	8.189743E-06	54		
55	1.140129E-04	1.575501E-05	-3.788110E-05	2.704525E-05	4.435279E-06	3.421755E-05	60		
61	3.241851E-06	8.855172E-06	2.255626E-06				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	34				
1	4.169965E-04	2.137270E-03	-1.117078E-03	1.537941E-03	5.165510E-04	9.539088E-04	6		
7	3.396189E-03	-4.450281E-03	-6.388755E-03	3.667880E-03	7.963480E-04	9.862004E-04	12		
13	-1.025119E-03	7.155366E-04	-3.415957E-03	5.935031E-05	-1.882866E-05	-1.333128E-04	18		
19	4.085632E-04	-3.672937E-04	-1.325850E-04	-2.622101E-04	-1.131898E-03	6.341847E-04	24		
25	-2.545867E-04	-2.995863E-03	-1.286139E-03	-4.808071E-04	1.576849E-04	-2.411183E-05	30		
31	9.844938E-03	4.831144E-04	-4.839163E-04	3.266193E-02	2.525035E-04	-1.906910E-03	36		
37	3.763088E-05	-2.862885E-04	-3.437976E-04	3.485206E-04	-3.717388E-04	-4.852385E-04	42		
43	9.015788E-04	7.023116E-04	8.717077E-04	2.744082E-04	2.584248E-04	3.198663E-04	48		
49	4.275855E-06	-2.653817E-05	6.033880E-06	-1.235856E-07	-2.584124E-05	-1.358954E-06	54		
55	2.645733E-04	4.497758E-05	-4.135360E-05	2.745889E-05	2.989507E-06	-3.005375E-07	60		
61	-5.085040E-06	-1.104216E-05	4.748839E-07				63		
				COLUMN	35				
1	-5.876627E-04	-3.090759E-03	1.133372E-03	-1.232600E-03	-2.305032E-03	-4.628082E-04	6		
7	-2.071538E-03	1.144605E-02	1.473295E-03	-1.914814E-02	3.267766E-03	-9.585130E-03	12		
13	2.954334E-03	-3.88607E-03	1.657459E-02	5.067611E-04	5.482848E-04	5.515968E-04	18		
19	-2.655462E-03	6.095828E-03	1.297196E-03	9.357781E-04	1.074675E-02	4.886037E-03	24		
25	6.092809E-05	1.740973E-02	7.12533E-03	-1.395598E-03	-2.103972E-03	8.966334E-03	30		
31	-1.480043E-04	1.207334E-03	-1.307611E-03	2.525035E-04	1.870422E-02	-5.161986E-03	36		
37	-4.697873E-05	-1.642946E-05	-3.082938E-06	2.864633E-04	4.075020E-04	-2.250358E-04	42		
43	-1.529635E-03	4.360773E-03	-5.199747E-03	-8.332804E-04	3.101789E-03	1.089107E-03	48		
49	1.347188E-05	-1.278383E-03	7.956141E-05	-9.540797E-06	-1.278362E-03	-6.302026E-05	54		
55	4.826320E-04	-2.420102E-04	7.110026E-05	-5.803850E-05	-1.392795E-05	-2.091186E-04	60		
61	-4.118361E-05	-1.140636E-04	-1.689201E-05				63		
				COLUMN	36				
1	-5.986237E-05	-1.703019E-04	5.010435E-05	-1.874511E-04	-5.398982E-04	-9.765196E-06	6		
7	3.866424E-04	-1.516788E-03	3.882167E-03	4.790051E-03	-2.223843E-03	5.459587E-03	12		
13	-7.713391E-04	9.946082E-05	2.304355E-03	-3.042234E-04	-3.916302E-04	9.238138E-05	18		
19	1.295393E-03	5.645207E-05	5.003694E-04	6.707889E-04	-1.451513E-03	7.258974E-04	24		
25	-2.845028E-04	1.911888E-03	6.001454E-04	7.421557E-04	-2.378174E-04	6.223346E-03	30		
31	6.077720E-05	-8.668938E-04	8.748342E-04	-1.908910E-03	-5.181988E-03	2.093331E-02	36		
37	3.061419E-05	1.917382E-04	2.534515E-04	4.931981E-04	3.025358E-04	9.221396E-04	42		
43	5.184066E-06	3.131278E-04	1.901253E-04	8.354377E-05	5.284840E-05	-3.393477E-05	48		
49	4.567635E-07	-7.658649E-05	3.480028E-06	-3.481712E-05	-7.657764E-05	-4.415417E-06	54		
55	5.847117E-05	-1.515201E-05	5.372438E-06	-4.464590E-06	-6.884734E-07	-1.005631E-05	60		
61	-2.371986E-06	-8.533185E-06	-1.930752E-06				63		
				COLUMN	37				
1	-1.590484E-04	-1.908407E-03	1.424944E-03	-6.247610E-04	1.485248E-04	-1.071881E-03	6		
7	4.332683E-04	3.284392E-03	2.601861E-03	-4.324524E-03	1.238189E-03	-1.854145E-03	12		
13	1.175980E-03	-6.142091E-04	2.383486E-03	-1.079321E-04	4.680648E-05	9.280219E-05	18		
19	1.874456E-03	-9.123712E-04	4.864377E-05	5.078524E-04	-4.133118E-05	-3.871485E-04	24		
25	5.482619E-04	1.704888E-03	6.973611E-04	2.180609E-04	5.981094E-05	-5.298656E-04	30		
31	6.834882E-05	-1.573004E-05	3.763098E-05	-4.897873E-05	-4.897873E-05	-3.061419E-05	36		
37	2.841511E-02	1.348767E-04	2.118180E-04	9.583613E-03	1.533845E-04	5.254265E-05	42		
43	1.286638E-04	-6.236765E-04	2.184491E-04	2.640445E-04	-1.927316E-04	-1.838782E-05	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

	COLUMN				37					
49	-9.696441E-07	-5.000892E-06	-2.101389E-06	2.810708E-06	-5.006998E-06	1.676999E-06	54			
55	8.278779E-05	3.506717E-05	-2.867058E-05	1.365791E-05	2.007380E-06	1.455795E-05	60			
61	1.624680E-06	4.456969E-06	1.445035E-06				63			
	COLUMN				38					
1	-1.343924E-04	-1.263563E-03	6.566237E-04	-1.146288E-04	-3.249706E-04	-2.316115E-04	6			
7	-1.480415E-03	6.127605E-03	2.066335E-03	-8.629448E-03	9.936332E-03	-3.618788E-03	12			
13	1.274994E-03	-1.442455E-03	5.732856E-03	8.003425E-05	1.556271E-04	-2.239116E-04	18			
19	-2.591199E-04	-1.721018E-04	3.886811E-04	2.868181E-04	2.848731E-03	-7.821201E-04	24			
25	3.871341E-04	5.243352E-03	2.412895E-03	-1.281411E-04	-4.038369E-04	7.821201E-04	30			
31	1.628078E-05	-1.146277E-04	2.204605E-04	-2.86285E-04	-1.842946E-05	1.917382E-04	36			
37	1.349767E-04	1.473290E-02	1.972530E-03	-4.964176E-04	1.166766E-03	8.798244E-04	42			
43	-5.052201E-04	2.865476E-04	-1.152816E-03	-1.832407E-04	3.814139E-04	5.025070E-05	48			
49	4.883473E-07	-1.873777E-04	9.311510E-06	-9.253670E-07	-1.873764E-04	-8.567897E-05	54			
55	5.294873E-06	-8.320345E-06	-1.510826E-05	-1.455752E-05	-2.268775E-06	-2.676291E-05	60			
61	-3.849752E-06	-1.116908E-05	-1.952666E-06				63			
	COLUMN				39					
1	-4.671659E-04	-3.824716E-03	2.168028E-03	-1.151946E-03	-1.246972E-03	-1.249338E-03	6			
7	-2.800384E-03	8.001243E-03	8.638878E-03	-1.758844E-02	2.810238E-03	-7.134089E-03	12			
13	3.223765E-03	-2.761717E-03	1.081631E-02	1.315393E-04	3.238133E-04	4.217886E-04	18			
19	1.242375E-04	4.560172E-04	4.216504E-04	1.146183E-03	4.406708E-03	-2.853891E-03	24			
25	7.103862E-04	9.419029E-03	4.427432E-03	-4.758305E-07	-8.032639E-04	7.565519E-04	30			
31	1.012418E-05	-1.783465E-04	2.990929E-04	-3.437978E-04	-3.082938E-05	2.534515E-04	36			
37	2.116180E-04	1.972530E-03	1.502117E-02	-5.375667E-04	1.365875E-03	8.825271E-04	42			
43	-8.090311E-04	6.298149E-04	-2.123926E-03	-2.831089E-04	6.723823E-04	1.265590E-04	48			
49	1.586536E-06	-3.224290E-04	1.885358E-05	-1.710765E-06	-3.224281E-04	-1.482608E-05	54			
55	3.491714E-05	-2.598118E-05	2.334556E-05	-2.147917E-05	-3.896333E-06	-4.777839E-05	60			
61	-7.358002E-06	-2.080936E-05	-3.250126E-06				63			
	COLUMN				40					
1	1.657903E-04	-1.429449E-04	5.709821E-04	5.280978E-04	7.021933E-04	-2.110849E-04	6			
7	2.594206E-03	1.778460E-03	-1.848296E-03	3.425305E-03	5.011397E-04	-7.850242E-04	12			
13	5.625868E-05	-2.707019E-04	-1.733248E-03	-1.886111E-04	-2.013695E-04	-6.876985E-05	18			
19	2.143112E-03	-1.255293E-04	-3.832615E-04	2.260430E-04	-4.594705E-04	-2.804898E-04	24			
25	4.098810E-04	-8.000422E-04	-8.263556E-04	2.835343E-04	1.457801E-04	-1.180563E-03	30			
31	5.215403E-05	2.874715E-04	-2.876479E-04	3.485206E-04	2.964633E-04	-4.931981E-04	36			
37	9.583613E-03	-4.964176E-04	-5.375667E-04	3.262715E-02	-3.112924E-04	-1.921198E-03	42			
43	5.172149E-04	-1.100834E-03	9.897584E-04	5.136538E-04	-3.814296E-04	1.281771E-04	48			
49	-1.305131E-06	-2.815839E-05	-1.847568E-06	6.435494E-06	-2.816706E-05	3.145821E-06	54			
55	2.653881E-04	6.448692E-05	-6.808216E-05	3.957575E-05	5.466751E-06	3.195260E-05	60			
61	1.864816E-06	4.182308E-06	2.707715E-06				63			
	COLUMN				41					
1	-4.970828E-04	-3.409388E-03	1.613522E-03	-8.081377E-04	-2.141163E-03	-3.795210E-04	6			
7	-1.849327E-03	1.198793E-02	4.637012E-03	-1.774400E-02	4.964839E-03	-1.437709E-02	12			
13	3.903454E-03	-3.720056E-03	1.267629E-02	5.572120E-04	3.570440E-04	4.844705E-04	18			

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

	COLUMN				41					
19	-2.492862E-03	6.424625E-03	-7.013318E-05	1.154168E-03	1.159315E-02	-5.336272E-03	24			
25	1.935141E-04	1.518016E-02	6.378218E-03	-1.021093E-03	-2.480118E-03	2.655334E-03	30			
31	2.742282E-05	-6.337696E-06	8.932867E-06	3.717388E-04	4.075020E-04	3.025368E-04	36			
37	1.533846E-04	1.186766E-03	1.365875E-03	-3.112924E-04	1.965713E-02	5.201846E-03	42			
43	-1.188055E-03	4.050964E-03	-5.140470E-03	-5.923310E-04	2.827983E-03	1.267849E-03	48			
49	1.380081E-05	-1.180855E-03	7.488988E-05	-7.440783E-06	-1.180642E-03	-5.661392E-05	54			
55	6.847608E-04	-2.178148E-04	3.283362E-05	-2.674898E-05	-9.257759E-06	-1.783563E-04	60			
61	-3.885846E-05	-1.054117E-04	-1.358291E-05				63			
	COLUMN				42					
1	-8.466289E-05	2.747303E-04	-5.246248E-04	-2.333745E-04	8.125963E-05	-8.145731E-05	6			
7	-9.981958E-04	1.830641E-03	8.764618E-05	-1.024068E-02	4.448576E-04	2.588591E-03	12			
13	-9.408431E-05	-6.827198E-04	6.820802E-03	2.716747E-04	6.919018E-04	2.626186E-04	18			
19	2.458187E-04	-6.041374E-03	2.127738E-03	-7.482981E-04	2.635447E-04	-3.368868E-04	24			
25	3.127313E-04	4.181377E-03	2.538048E-03	-1.348997E-03	7.207588E-04	6.003857E-03	30			
31	3.714298E-05	-1.740884E-04	2.398804E-04	-4.952368E-04	-2.250358E-04	8.221398E-04	36			
37	5.254285E-05	2.713587E-04	8.925271E-04	-1.821198E-03	5.201846E-03	2.098702E-02	42			
43	-1.653588E-05	2.713587E-04	2.560703E-05	-1.402847E-04	5.754642E-04	4.264378E-05	48			
49	9.173986E-07	-2.084357E-04	1.026483E-06	-1.895715E-06	-2.084267E-04	-1.157632E-05	54			
55	4.974846E-05	-1.931320E-05	1.271930E-05	-2.668780E-05	-2.505093E-06	-3.116771E-05	60			
61	-3.932061E-06	-1.511989E-05	-3.332366E-06				63			
	COLUMN				43					
1	1.369335E-02	3.284038E-02	-8.576148E-04	4.933847E-02	2.488431E-02	1.808271E-02	6			
7	1.321718E-01	-4.570474E-02	-7.229146E-02	8.299823E-02	6.971660E-02	5.928499E-03	12			
13	-1.438450E-02	1.238722E-02	-4.184017E-02	-6.569641E-03	-1.620989E-03	-1.850894E-03	18			
19	1.178851E-01	6.438010E-03	-8.886066E-03	5.466109E-03	4.586124E-02	1.746670E-02	24			
25	9.215555E-03	-4.188874E-02	-2.622259E-02	-6.485920E-03	8.894684E-03	1.986821E-02	30			
31	4.984248E-04	-7.100228E-04	8.354268E-04	9.015768E-04	-1.529835E-03	5.184066E-06	36			
37	1.288638E-04	-5.052201E-04	-8.090311E-04	5.172149E-04	-1.189055E-03	-1.853588E-05	42			
43	1.178486E-01	5.351388E-02	4.154074E-02	5.341738E-02	2.123562E-02	3.863250E-03	48			
49	1.268363E-03	1.994898E-02	-6.841080E-04	4.383903E-04	1.993266E-02	5.197888E-04	54			
55	3.885724E-02	-2.363320E-03	-1.574492E-02	5.550064E-03	-2.292013E-04	-8.378635E-04	60			
61	-4.478631E-04	2.323878E-03	1.248848E-03				63			
	COLUMN				44					
1	-7.261807E-03	-1.108110E-02	-9.543109E-03	-1.938698E-02	-3.129994E-02	3.712522E-03	6			
7	-8.233288E-03	2.268155E-02	-1.172253E-02	-1.326313E-01	8.671262E-02	-9.400140E-02	12			
13	1.536501E-02	-2.247304E-02	8.807347E-02	1.026318E-02	1.023217E-02	3.788723E-03	18			
19	-9.946274E-02	2.455705E-01	8.758278E-04	2.184315E-03	9.032819E-02	-4.188527E-02	24			
25	-1.847575E-02	8.885877E-02	5.400467E-02	-2.571288E-02	-4.188987E-02	1.090866E-01	30			
31	5.451322E-04	3.082615E-04	-3.593439E-04	4.380773E-03	4.380773E-03	3.131278E-04	36			
37	-6.236785E-04	2.885476E-04	6.255149E-04	-1.100634E-03	8.061644E-03	2.713587E-04	42			
43	5.351388E-02	3.08861E-01	-6.857180E-02	-2.504892E-02	8.061147E-02	1.981284E-02	48			
49	1.259481E-03	1.468217E-02	3.647123E-04	-1.267430E-03	1.487987E-02	-5.995619E-05	54			
55	1.078573E-03	-2.003655E-02	1.968582E-03	-9.891758E-04	-3.031084E-04	-4.063726E-03	60			
61	-8.722855E-04	-1.271774E-03	1.902970E-06				63			

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 45							
1	1.868018E-02	6.399033E-02	-1.543471E-02	6.251591E-02	4.873991E-02	1.975236E-02	6
7	1.422620E-01	-1.095323E-01	-1.214391E-01	2.367443E-01	-2.170578E-02	1.105603E-01	12
13	-5.003858E-02	3.507518E-02	-1.499955E-01	-1.317343E-02	-1.136704E-02	-5.889745E-03	18
19	8.298205E-02	-1.205784E-01	1.278885E-02	-6.883351E-03	-1.258087E-01	5.959124E-02	24
25	1.056520E-02	-1.591710E-01	-8.033156E-02	-5.980520E-02	6.068516E-02	7.543970E-02	30
31	4.950335E-04	-1.464617E-03	1.625205E-03	8.717077E-04	-5.199747E-03	1.901353E-04	36
37	2.184481E-04	-1.152818E-03	-2.123828E-03	9.897584E-04	-5.140470E-03	2.580703E-05	42
43	4.154074E-02	-6.857180E-02	4.254871E-01	7.746336E-03	-4.891944E-02	8.833168E-02	48
49	4.392431E-05	2.009794E-02	-7.217089E-04	6.900850E-04	2.009162E-02	2.503819E-03	54
55	2.975010E-02	1.246351E-02	-1.812165E-02	7.925373E-03	1.087921E-03	7.295453E-03	60
61	9.421360E-04	3.808014E-03	1.378576E-03				63
COLUMN 46							
1	8.341331E-03	1.443094E-02	4.785891E-03	3.033969E-02	1.816803E-02	8.384712E-03	6
7	7.665252E-02	-7.439950E-03	-2.841391E-02	4.185155E-02	3.316318E-02	1.155341E-03	12
13	-3.328356E-03	5.761955E-03	-1.780185E-02	-4.361411E-03	-1.789396E-03	-7.087007E-04	18
19	1.130454E-01	-1.993383E-02	-5.614771E-03	5.582038E-03	-2.273743E-02	8.881058E-03	24
25	9.894850E-03	-1.189242E-02	-1.254958E-02	2.988818E-03	1.388983E-02	-1.050156E-02	30
31	1.602030E-04	-2.819361E-04	-3.576038E-04	2.744062E-04	-8.332804E-04	8.354377E-05	36
37	2.040445E-04	-1.832407E-04	-2.831089E-04	5.136538E-04	-5.923310E-04	-1.402647E-04	42
43	5.341736E-02	-2.504882E-02	7.746336E-03	1.322498E-01	-1.669366E-02	6.973874E-03	48
49	1.795073E-03	-5.420936E-03	1.627936E-04	1.980552E-03	-5.455918E-03	6.451775E-05	54
55	4.457175E-02	9.378837E-03	-5.123058E-03	4.305953E-02	5.625571E-05	-2.546035E-03	60
61	-4.954940E-03	7.490746E-03	6.444202E-03				63
COLUMN 47							
1	-3.331011E-03	-1.174509E-02	1.212202E-03	-6.769778E-03	-1.802556E-02	-2.160316E-04	6
7	1.549245E-02	3.845368E-02	-9.420403E-04	-1.136729E-02	5.500237E-02	-7.747821E-02	12
13	1.595853E-02	-1.960479E-02	4.183463E-02	6.024555E-03	6.598944E-03	3.223047E-03	18
19	-5.936708E-02	3.884389E-02	1.251732E-02	3.181276E-03	6.965214E-02	-3.183519E-02	24
25	-3.365135E-03	9.051649E-02	4.272738E-02	-3.456376E-02	-2.418399E-02	1.252811E-01	30
31	2.564690E-04	3.884185E-04	-3.746591E-04	2.584248E-04	3.101769E-03	5.284840E-05	36
37	-1.827316E-04	3.814139E-04	6.723823E-04	-3.814296E-04	2.827963E-03	5.754642E-04	42
43	2.123562E-02	9.061147E-02	-4.891944E-02	-1.669366E-02	1.701347E-01	3.419651E-02	48
49	2.305963E-04	-2.534956E-02	4.960009E-03	-1.320820E-04	-2.536223E-02	-4.353297E-03	54
55	2.186171E-02	-1.418768E-02	2.115776E-02	-8.089443E-03	-1.805047E-03	-1.391083E-02	60
61	-8.974647E-04	-1.394351E-02	-5.265689E-03				63
COLUMN 48							
1	2.596870E-03	3.238143E-03	1.240962E-03	1.342474E-02	-3.318405E-06	4.020725E-03	6
7	5.478453E-02	1.297913E-02	-2.677327E-02	-2.613454E-02	4.172224E-02	-4.470294E-02	12
13	5.829838E-03	-6.651577E-03	2.254801E-02	1.218581E-03	1.678243E-03	8.824378E-04	18
19	-3.209098E-02	-1.034879E-02	5.172142E-03	5.013788E-03	-2.713565E-02	-1.244898E-02	24
25	2.440875E-02	3.130552E-02	1.281790E-02	-2.446651E-02	-1.262510E-02	6.778696E-02	30
31	2.483023E-04	2.845768E-05	2.937548E-05	3.195683E-04	1.089107E-03	3.393477E-05	36
37	-1.838762E-05	5.025070E-05	1.265590E-04	1.251771E-04	1.257849E-03	-4.264378E-05	42
43	3.463250E-03	1.981284E-02	8.833168E-02	6.973874E-03	3.419551E-02	2.689198E-01	48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 48							
49	4.693498E-05	-1.777840E-02	6.386748E-03	-6.085389E-05	-1.777414E-02	4.365178E-03	54
55	-1.257853E-03	3.413748E-03	1.738082E-02	4.163789E-02	3.436205E-03	9.354787E-03	60
61	-4.136076E-03	1.285788E-03	4.458814E-03				63
COLUMN 49							
1	1.439826E-05	1.325349E-05	1.403371E-06	9.586793E-05	-4.037489E-05	4.385573E-05	6
7	4.809806E-04	6.186004E-05	-2.186420E-04	-3.773310E-04	6.593151E-04	-4.513448E-04	12
13	5.976115E-05	-8.470475E-05	3.278185E-04	1.785953E-05	2.670231E-05	1.286780E-05	18
19	3.693116E-04	6.420785E-04	1.153125E-05	5.902335E-05	2.511616E-04	-1.359599E-04	24
25	5.910267E-06	3.832032E-04	1.853849E-04	-1.283264E-04	-1.244001E-04	6.019574E-04	30
31	2.814699E-06	3.041021E-07	-7.137680E-08	4.275855E-06	1.347188E-05	4.567835E-07	36
37	-9.696441E-07	4.883473E-07	1.588538E-06	-1.305131E-06	1.360081E-05	9.173986E-07	42
43	1.288363E-03	1.258491E-03	4.392431E-05	1.799073E-03	2.305963E-04	4.893498E-05	48
49	1.222084E-02	-1.138472E-04	7.846238E-06	-3.395810E-04	-1.219219E-04	-1.084709E-05	54
55	1.416219E-03	-8.748024E-04	-5.203168E-05	8.471982E-05	-1.053672E-05	-1.743750E-04	60
61	-7.481315E-05	-1.051231E-04	8.321271E-07				63
COLUMN 50							
1	-1.687558E-05	4.524812E-03	-3.171167E-03	-2.788620E-03	3.715639E-03	-7.514698E-05	6
7	-1.940823E-02	-2.459358E-02	8.902397E-04	4.801521E-02	-2.189322E-02	3.487982E-02	12
13	-8.834939E-03	8.349654E-03	-3.840841E-02	-1.805772E-03	-2.336122E-03	-1.429819E-03	18
19	5.845373E-04	1.493210E-02	-7.356934E-03	-2.845837E-03	-3.011261E-02	1.347380E-02	24
25	-2.324277E-03	-4.583276E-02	-1.836469E-02	1.889497E-02	5.879375E-03	-5.729780E-02	30
31	-8.337803E-05	-1.846081E-04	1.612181E-04	-2.853817E-05	-1.278383E-03	-7.658647E-05	36
37	-5.000892E-06	-1.873777E-04	3.224290E-04	-2.815839E-05	-1.180555E-03	-2.094357E-04	42
43	1.994898E-02	1.466217E-02	2.009794E-02	-5.420936E-02	-2.534956E-02	-1.777640E-02	48
49	-1.138472E-04	8.317012E-02	-3.167878E-03	-6.735940E-05	7.058293E-02	2.877123E-03	54
55	-1.904876E-02	2.291055E-02	-1.340339E-02	3.803781E-03	1.828331E-03	1.307762E-02	60
61	3.510730E-03	8.023922E-03	1.535184E-03				63
COLUMN 51							
1	-1.125297E-05	-2.237233E-04	1.140222E-04	1.352886E-04	-2.725214E-04	3.172513E-05	6
7	1.270060E-03	1.248042E-03	3.286632E-04	-2.795319E-03	1.572896E-03	-2.279548E-03	12
13	4.708676E-04	-5.229842E-04	2.126682E-03	1.195810E-04	1.416179E-04	8.351071E-05	18
19	-1.115799E-03	4.025477E-04	4.391762E-04	1.876887E-04	1.876791E-03	-8.423501E-04	24
25	5.594102E-05	2.633044E-03	1.088150E-03	-1.180225E-03	-5.502298E-04	3.817783E-03	30
31	7.397085E-06	9.320866E-06	-8.094888E-06	6.033880E-06	7.955141E-05	3.480028E-06	36
37	-2.101389E-06	9.311510E-06	1.885358E-05	-1.847688E-06	7.498988E-05	1.028459E-05	42
43	-6.941080E-04	3.847123E-04	-7.217089E-04	1.827936E-04	4.860009E-03	6.887448E-03	48
49	7.846235E-06	-3.187878E-03	1.247920E-02	-4.887408E-06	-3.187598E-03	-5.010599E-04	54
55	7.012673E-04	-8.238472E-04	1.007140E-03	2.003142E-04	-1.433669E-05	-5.041627E-04	60
61	-1.754407E-04	-4.987381E-04	-7.886108E-05				63
COLUMN 52							
1	7.172897E-05	1.091353E-04	5.272620E-05	2.837343E-04	1.480707E-04	3.987290E-05	6
7	5.551215E-04	9.287372E-06	-2.181421E-04	3.480218E-04	1.309177E-04	9.380515E-05	12
13	-7.027349E-06	6.377265E-05	-2.148610E-04	-3.423632E-05	-2.158686E-05	-8.493754E-06	18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 52									
19	1.260055E-03	-8.592398E-04	1.071459E-05	5.935871E-05	-2.203382E-04	8.955291E-05	24		
25	1.330780E-04	-5.382865E-05	-1.213486E-04	2.255115E-05	1.436830E-04	-6.318615E-05	30		
31	1.164866E-07	-1.370811E-06	2.149952E-06	-1.235866E-07	-5.540797E-06	-3.481712E-06	36		
37	2.810708E-06	-9.253670E-07	-1.710785E-06	6.435494E-06	-7.440783E-06	-1.588715E-06	42		
43	4.383903E-04	-1.267430E-03	6.900850E-04	1.980552E-03	-1.320820E-04	-6.065389E-05	48		
49	-3.395810E-04	-6.738940E-05	-4.468740E-06	1.219541E-02	-7.502654E-05	-3.751309E-07	54		
55	1.297080E-03	9.164785E-04	-5.453404E-04	2.002044E-04	3.575714E-05	2.561100E-04	60		
61	5.428227E-05	9.529143E-05	2.164672E-05				63		
COLUMN 53									
1	-1.702057E-05	4.524808E-03	-3.171209E-03	-2.789503E-03	3.715551E-03	-7.516485E-05	6		
7	-1.941159E-02	-2.459304E-02	8.911272E-04	4.801481E-02	-2.189582E-02	3.487942E-02	12		
13	-8.835080E-03	8.349505E-03	-3.840775E-02	-1.805780E-03	-2.336107E-03	-1.429793E-03	18		
19	5.548377E-04	1.493123E-02	-7.358675E-03	-2.846099E-03	-3.011163E-02	1.347341E-02	24		
25	-2.325318E-03	-4.583276E-02	-1.838844E-02	1.689384E-02	5.792797E-03	-5.728647E-02	30		
31	-8.337833E-05	-1.846092E-04	1.812181E-04	-2.654124E-05	-1.278362E-03	-7.657764E-05	36		
37	-5.008988E-06	-1.873784E-04	-3.224281E-04	-2.816706E-05	-1.180642E-03	-2.094267E-04	42		
43	1.993258E-02	1.487987E-02	2.009162E-02	-5.455919E-03	-2.536223E-02	-1.777414E-02	48		
49	-1.218219E-04	7.058293E-02	-3.167598E-03	-7.502654E-05	8.296298E-02	2.876895E-03	54		
55	-1.907125E-02	2.291038E-02	-1.339917E-02	3.601313E-03	1.627823E-03	1.307492E-02	60		
61	3.510592E-03	8.023912E-03	1.535117E-03				63		
COLUMN 54									
1	4.171267E-05	2.567059E-04	-1.007576E-04	4.313241E-05	2.544987E-04	1.520228E-05	6		
7	-4.747671E-04	-1.056612E-03	-7.877511E-05	2.358425E-03	-9.641201E-04	1.574579E-03	12		
13	-3.829609E-04	4.144310E-04	-1.789791E-03	-8.853923E-05	-1.176675E-04	-7.032165E-05	18		
19	1.919187E-04	1.748693E-04	-3.702955E-04	-8.912343E-05	-1.449418E-03	6.456647E-04	24		
25	-2.579532E-05	-2.080102E-03	-9.003610E-04	7.538084E-04	3.415158E-04	-2.837018E-03	30		
31	-3.838547E-06	-8.188742E-06	8.188743E-06	-1.358964E-06	-6.302026E-05	-4.415417E-06	36		
37	1.876998E-06	-8.587697E-06	-1.482808E-05	3.145821E-06	-5.561392E-05	-1.157832E-05	42		
43	5.197688E-04	-5.595619E-05	2.503619E-03	6.451775E-05	-4.353297E-03	4.365179E-03	48		
49	-1.084709E-05	2.877123E-03	-5.010599E-04	-3.751309E-07	2.876895E-03	1.241901E-02	54		
55	-1.178460E-03	8.544944E-04	-5.433230E-04	6.601528E-04	1.305302E-04	8.718512E-04	60		
61	1.201542E-04	4.404987E-04	1.368962E-04				63		
COLUMN 55									
1	4.701622E-03	6.218893E-03	3.520830E-03	1.965232E-02	5.716583E-03	5.366013E-03	6		
7	6.170762E-02	8.966767E-03	-2.290952E-02	-9.323445E-03	4.078927E-02	-2.715283E-02	12		
13	3.723196E-03	-2.785361E-03	1.414401E-02	-7.873265E-04	8.406050E-04	5.159877E-04	18		
19	5.138888E-02	-1.204359E-02	2.158210E-03	5.347049E-03	9.382988E-03	-5.268439E-03	24		
25	6.254494E-03	2.432608E-02	5.871614E-03	-1.295407E-02	1.065825E-04	4.292622E-02	30		
31	1.985418E-04	-5.204283E-05	1.140129E-04	2.845733E-04	4.926320E-04	5.647117E-05	36		
37	8.278779E-05	5.294573E-06	3.491714E-05	2.653681E-04	5.947688E-04	4.748466E-05	42		
43	3.888724E-02	1.078573E-03	2.975010E-02	4.457175E-02	2.188171E-02	-1.257853E-03	48		
49	1.418219E-03	-1.904876E-02	7.012673E-04	1.297080E-03	-1.907125E-02	-1.178460E-03	54		
55	1.055186E-01	-2.729118E-02	-1.488678E-02	-1.245660E-02	-2.144553E-03	-1.786490E-02	60		
61	5.750923E-03	-1.868604E-02	-9.702405E-03				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

COLUMN 56									
1	4.480724E-04	7.400815E-04	4.418646E-04	1.383189E-03	1.504520E-03	-1.468737E-04	6		
7	-7.090878E-06	-1.036275E-03	9.821183E-04	7.126616E-03	-5.512737E-03	6.449063E-03	12		
13	-5.743152E-04	1.879583E-03	-5.857207E-03	-4.253437E-04	-3.987256E-04	-2.301048E-04	18		
19	9.260970E-03	-1.080833E-02	-8.177148E-04	-8.758836E-05	-5.321413E-03	-2.412108E-03	24		
25	1.117451E-03	-5.288280E-03	-3.014969E-03	2.899338E-03	2.788118E-03	-1.099224E-02	30		
31	-3.202330E-05	-1.151694E-05	1.575501E-05	-4.497758E-05	-2.420102E-04	-1.515201E-05	36		
37	3.576717E-05	-8.320345E-06	-2.898818E-05	6.448692E-05	-2.178148E-04	-1.831320E-05	42		
43	-2.383320E-03	-2.003655E-02	1.246351E-02	8.738837E-03	-1.418768E-02	3.413748E-03	48		
49	-8.748024E-04	2.291055E-02	-8.238472E-04	9.184785E-04	2.281038E-02	8.544944E-04	54		
55	-2.729118E-02	9.895838E-02	-5.285732E-02	2.186245E-02	1.053640E-03	2.717086E-02	60		
61	-3.159335E-03	2.958866E-02	1.308849E-02				63		
COLUMN 57									
1	-1.076404E-03	-1.847187E-03	-5.219035E-04	-4.310357E-03	-1.791211E-03	-1.005710E-03	6		
7	-1.140489E-02	7.184805E-04	4.553870E-03	-3.763180E-03	-5.887718E-03	7.747227E-04	12		
13	1.832271E-05	-6.282052E-04	1.896486E-03	3.595861E-04	9.308852E-05	7.511343E-05	18		
19	-1.802568E-02	3.400705E-03	4.884988E-04	-9.899499E-04	2.251401E-03	-6.947813E-04	24		
25	-1.506573E-03	1.842502E-04	1.134339E-03	2.323458E-05	-1.180598E-03	-3.311184E-04	30		
31	-2.472671E-05	2.578673E-05	-3.788110E-05	-4.136360E-05	7.110026E-05	5.372438E-06	36		
37	-2.867058E-05	1.510828E-05	2.334556E-05	-6.804216E-05	3.283362E-05	1.271930E-05	42		
43	-1.574492E-03	1.968592E-03	-1.812165E-02	-5.123054E-03	2.115776E-02	7.36082E-02	48		
49	-5.203188E-05	-1.340339E-02	1.007140E-03	-5.453404E-04	-1.339917E-02	-5.433230E-04	54		
55	-1.488878E-02	-5.285732E-02	1.207051E-01	1.408872E-02	6.759115E-03	1.892985E-02	60		
61	1.081881E-02	-3.918910E-02	-1.854861E-02				63		
COLUMN 58									
1	6.328131E-04	1.177877E-03	2.460836E-04	2.463899E-03	1.118832E-03	5.297192E-04	6		
7	6.598338E-03	-7.988873E-04	-2.932844E-03	3.248886E-03	3.112236E-03	-4.748056E-04	12		
13	-1.971701E-04	4.380424E-04	-1.751358E-04	-2.588755E-04	-2.239252E-04	-6.930861E-05	18		
19	6.081511E-03	-1.593816E-03	-5.518580E-04	5.391488E-04	-1.473299E-03	5.200335E-04	24		
25	7.438821E-04	-8.804507E-04	-9.855318E-04	8.27484E-06	-5.109485E-04	-9.104852E-04	30		
31	1.554500E-05	-2.041860E-05	2.704525E-05	2.748989E-05	-5.803850E-05	-4.484590E-06	36		
37	1.355791E-05	-1.459752E-05	-2.147917E-05	3.957578E-06	-2.674888E-05	-2.678780E-05	42		
43	5.850084E-03	-9.891756E-04	7.825373E-03	4.305953E-02	-8.089443E-03	4.163789E-02	48		
49	8.471982E-05	3.803781E-03	2.053142E-04	2.002044E-04	3.601313E-03	6.601528E-04	54		
55	-1.245650E-02	2.186245E-02	1.409972E-02	1.060063E-01	1.981058E-03	2.129088E-03	60		
61	9.514219E-03	1.724928E-02	1.276640E-02				63		
COLUMN 59									
1	8.545159E-05	1.706983E-04	3.505911E-05	2.837230E-04	1.889848E-04	9.155251E-05	6		
7	6.404293E-04	-1.617010E-04	-2.718436E-04	8.641965E-04	8.779882E-05	1.498173E-04	12		
13	-6.348434E-05	1.024219E-04	-3.846057E-04	-4.881773E-05	-2.18957E-05	-1.515935E-05	18		
19	2.857978E-04	-1.762804E-04	-1.374364E-04	2.293801E-06	-3.211401E-04	1.368884E-04	24		
25	7.075447E-05	-3.632640E-04	-2.170013E-04	7.488460E-05	1.458282E-04	-5.717144E-04	30		
31	1.422985E-06	3.555218E-06	4.435279E-06	2.989507E-06	-1.392798E-05	-6.894734E-07	36		
37	2.007360E-06	-2.888735E-06	-3.898735E-06	5.486751E-06	-9.287799E-06	-2.505083E-06	42		
43	-2.282013E-04	-3.031064E-04	1.087921E-03	5.628571E-06	-1.806047E-03	3.438205E-03	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	59				
49	-1.053672E-05	1.628331E-03	-1.433669E-05	3.575714E-05	1.627822E-03	1.305302E-04	54		
55	-2.144553E-03	1.053640E-03	6.759115E-03	1.981058E-03	2.635535E-02	2.794921E-02	60		
61	8.425412E-03	2.941578E-03	3.987528E-03				63		
				COLUMN	60				
1	4.197406E-04	1.178903E-03	-2.228798E-05	1.114213E-03	1.379507E-03	3.238162E-04	6		
7	7.841935E-04	-2.824488E-03	-7.180748E-04	8.065993E-03	-2.705443E-03	4.768728E-03	12		
13	-1.119304E-03	1.440300E-03	-5.642955E-03	-4.338128E-04	3.726581E-04	-2.218878E-04	18		
19	2.854486E-03	-1.815862E-03	-2.274920E-03	-1.834404E-04	-4.788665E-03	2.150237E-03	24		
25	2.889511E-04	-6.282317E-03	-2.977440E-03	2.22527E-03	1.665426E-03	-9.058844E-03	30		
31	-8.021388E-06	-3.207086E-05	3.421755E-05	-3.005376E-07	-2.081186E-04	-1.005631E-05	36		
37	1.455795E-05	-2.676291E-05	-4.777839E-05	3.195250E-05	-1.793593E-04	-3.118771E-05	42		
43	-8.378635E-04	-4.063726E-03	7.295453E-03	-2.548035E-03	-1.381083E-02	9.354787E-03	48		
49	-1.743750E-04	1.307762E-02	-5.041627E-04	2.561100E-04	1.307492E-02	8.718512E-04	54		
55	-1.788480E-02	2.717086E-02	1.882985E-02	2.128088E-03	2.794921E-02	2.119200E-01	60		
61	1.668005E-03	-6.224317E-03	2.278433E-02				63		
				COLUMN	61				
1	-1.773484E-06	8.614872E-05	-4.481631E-05	-1.101124E-04	1.395633E-04	-3.609900E-05	6		
7	-8.466193E-04	-5.468518E-04	3.007463E-04	1.365608E-03	-1.108744E-03	1.253322E-03	12		
13	-2.167402E-04	2.831868E-04	-1.092240E-03	-5.500888E-05	-6.614215E-05	-4.285564E-05	18		
19	1.033643E-04	-2.076448E-04	-2.210835E-04	-1.140768E-04	-9.367277E-04	4.332965E-04	24		
25	-2.537748E-05	-1.336285E-03	-5.560663E-04	8.813635E-04	3.180524E-04	-2.118798E-03	30		
31	-4.823935E-06	-3.747708E-06	3.241851E-06	-5.085040E-06	-4.118361E-05	-2.371966E-06	36		
37	1.624580E-06	-3.649752E-06	-7.358002E-06	1.664618E-06	-3.885846E-05	-3.932061E-06	42		
43	-4.478631E-04	-9.722955E-04	9.421360E-04	-4.954940E-03	-8.974647E-04	-4.136078E-03	48		
49	-7.481315E-05	3.510730E-03	-1.754407E-04	5.428227E-05	3.510592E-03	1.201542E-04	54		
55	5.750925E-03	-3.159335E-02	1.081881E-02	9.614219E-03	8.425412E-03	1.889005E-03	60		
61	4.353014E-02	-1.911764E-02	-9.085923E-03				63		
				COLUMN	62				
1	9.859406E-06	2.716265E-04	-1.483722E-04	-1.451355E-04	3.478709E-04	-1.007628E-04	6		
7	-1.744601E-03	-1.896530E-03	3.029782E-04	3.771887E-03	-2.228888E-03	3.300540E-03	12		
13	-5.809375E-04	7.688583E-04	3.095995E-03	-1.415864E-04	-1.878581E-04	-1.214931E-04	18		
19	1.980826E-03	6.428890E-05	-6.709235E-04	-1.885102E-04	-2.687048E-03	1.184772E-03	24		
25	3.150891E-06	-3.624107E-03	-1.544997E-03	1.787822E-03	7.767884E-04	-5.889718E-03	30		
31	-1.223777E-05	-1.032384E-05	8.855172E-06	-1.104218E-05	-1.140636E-04	-8.533186E-06	36		
37	4.456989E-06	-1.116908E-05	-2.080936E-05	4.182308E-06	-1.054117E-04	-1.511989E-05	42		
43	2.323875E-03	-1.271774E-03	3.808014E-03	7.490748E-03	-1.384351E-02	1.285785E-03	48		
49	-1.051231E-04	6.023922E-03	-4.987391E-04	9.529143E-05	8.023912E-03	4.404987E-04	54		
55	-1.888604E-02	2.588886E-02	-3.918910E-02	1.724928E-02	2.941578E-03	-6.224317E-03	60		
61	-1.911764E-02	1.854348E-01	7.158409E-03				63		
				COLUMN	63				
1	3.837750E-05	9.696084E-05	-3.493303E-06	1.444678E-04	9.530765E-05	2.028524E-05	6		
7	2.303055E-04	-2.849135E-04	-1.240044E-04	6.041464E-04	2.528618E-05	3.629170E-04	12		
13	-6.536462E-05	1.191926E-04	-4.788748E-04	-2.644167E-05	-2.592425E-05	-1.881421E-05	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... MAA

				COLUMN	63				
19	8.844660E-04	5.874822E-05	-1.408914E-04	2.727408E-05	-4.280923E-04	1.886506E-04	24		
25	5.845829E-05	-4.853394E-04	-2.386759E-04	2.725782E-04	1.164268E-04	-8.833044E-04	30		
31	-6.111248E-07	-2.031228E-06	2.255626E-06	4.748839E-07	-1.689201E-05	-1.930752E-06	36		
37	1.445035E-06	-1.952666E-06	-3.250126E-06	2.707718E-06	-1.356291E-05	-3.332386E-06	42		
43	1.248848E-03	1.902970E-05	1.378576E-03	6.444202E-03	-5.286888E-03	4.458814E-03	48		
49	8.321271E-07	1.635184E-03	-7.896106E-05	2.164872E-05	1.536117E-03	1.386962E-04	54		
55	-9.702408E-03	1.308848E-02	-1.854881E-02	1.278540E-02	3.987528E-03	2.279433E-02	60		
61	-9.065923E-03	7.158409E-03	3.833924E-02				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN 1									
1	2.205376E+05	1.364769E+04	1.324322E+04	-1.587175E+05	-2.311843E+04	-1.868858E+04			6
7	-3.152227E+04	7.184660E+03	3.805054E+03	1.015174E+03	-5.547713E+03	-2.730839E+03			12
13	-2.324108E+03	1.437778E+02	-6.220116E+02	1.249835E+02	-1.313922E+01	-2.262037E+01			18
19	-5.847111E+03	4.653513E+02	2.437304E+02	-1.508241E+03	1.798169E+03	-1.244088E+01			24
25	-1.721283E+03	-1.843476E+03	1.431107E+02	-4.876462E+02	-1.514234E+02	4.843353E+02			30
31	-1.507388E-01	-2.252610E+00	9.488345E-01	-5.636498E+00	1.643029E+01	2.886107E+00			36
37	-2.197908E+01	2.171057E+00	-8.252863E+00	-2.682088E+01	-6.143478E-01	2.158884E+01			42
43	-1.419859E+03	5.905620E+02	-1.122861E+03	-9.187125E+02	1.349027E+02	-2.485455E+02			48
49	-1.598592E+00	8.676875E+01	-2.471744E+00	-5.303072E+00	8.675687E+01	3.971648E-01			54
55	-5.283531E+02	-2.718070E+01	9.517247E+01	-5.729064E+01	-1.054804E+01	-4.141152E+01			60
61	1.080973E+00	9.393456E+00	-1.158817E+00						63
COLUMN 2									
1	1.364769E+04	4.370655E+04	2.768704E+03	2.700249E+04	-7.208588E+04	-2.044725E+03			6
7	-1.916910E+04	2.268955E+04	-4.388230E+02	2.328767E+03	-3.784502E+03	2.248429E+02			12
13	-1.658834E+03	2.637486E+02	7.845953E+02	1.166398E+02	-3.141000E+01	3.218915E+01			18
19	-7.837843E+03	1.095415E+03	2.162464E+02	-1.462243E+03	2.492539E+03	-3.995929E+02			24
25	-2.168639E+03	-1.650443E+03	4.802780E+02	-5.406864E+02	-3.400751E+02	5.315105E+02			30
31	-1.561246E+01	3.751638E+00	-1.441887E+01	-1.628052E+01	3.509102E+01	2.478582E+00			36
37	-2.123991E+01	1.046793E+01	2.095044E+00	-3.424660E+01	1.653567E+01	2.585243E+01			42
43	-1.980991E+03	1.082478E+03	-1.816634E+03	-1.288927E+03	2.937432E+02	-3.226380E+02			48
49	-1.628110E+00	9.102444E+01	-1.459491E+00	-7.883459E+00	9.100808E+01	-1.115751E+00			54
55	-7.218700E+02	-4.648212E+01	1.338605E+02	-8.123988E+01	-1.489620E+01	-6.290474E+01			60
61	5.139922E-01	1.028533E+01	-1.957112E+00						63
COLUMN 3									
1	1.324322E+04	2.768704E+03	1.770536E+04	1.558190E+04	-1.000607E+03	-2.709413E+04			6
7	-1.654707E+04	-2.925235E+03	6.553607E+03	6.047014E+02	-3.795874E+03	3.178182E+03			12
13	-2.007148E+03	1.384467E+02	-8.024431E+02	1.015445E+02	-1.027765E+01	-2.984924E+01			18
19	-3.017413E+03	2.488518E+02	1.875800E+02	-9.219019E+02	8.370872E+02	1.342582E+02			24
25	-8.519923E+02	-1.070247E+03	4.082885E+01	-3.252695E+02	-5.488840E+01	6.185458E+02			30
31	1.451787E+01	-3.118193E+00	9.854053E+00	6.067017E+00	8.799887E+00	3.723932E+00			36
37	-1.988330E+01	-2.537699E+00	-1.080138E+01	-1.878299E+01	-3.703569E+01	1.325526E+01			42
43	-6.404031E+02	3.301817E+02	-4.277288E+02	-4.327821E+02	8.842166E+01	-1.008258E+02			48
49	-6.050298E+01	3.637503E+01	-7.351047E-01	-2.547648E+00	3.636960E+01	-4.121035E-02			54
55	-2.394987E+02	-1.442986E+01	4.343528E+01	-2.644591E+01	-4.877562E+00	-1.996583E+01			60
61	3.148279E-01	3.821419E+00	-5.805580E-01						63
COLUMN 4									
1	-1.587175E+05	2.700249E+04	1.558190E+04	5.421865E+05	-1.879591E+04	1.595999E+04			6
7	-2.585837E+05	-1.229975E+04	-4.085010E+04	8.647897E+02	-3.598308E+04	1.720588E+04			12
13	-1.274092E+04	1.768243E+02	-4.955920E+03	6.513124E+02	-1.061344E+01	-1.850248E+02			18
19	-3.044204E+04	1.132830E+03	1.377921E+03	-8.904308E+03	9.670706E+03	3.900974E+02			24
25	-9.028949E+03	-1.080222E+04	3.609545E+02	-2.572248E+03	-5.057075E+02	1.628676E+03			30
31	-8.129247E+00	-2.225905E+01	6.790641E+00	-3.234049E+01	5.884551E+01	1.720021E+01			36
37	-1.069981E+02	-2.178875E-01	-4.844040E+01	-1.382582E+02	-2.605703E+01	1.054029E+02			42
43	-7.624378E+03	2.203630E+03	-6.342252E+03	-4.785715E+03	3.380848E+02	-1.435382E+03			48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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COLUMN 4									
49	-1.057968E+01	5.510211E+02	-1.390444E+01	-2.633434E+01	5.509575E+02	7.341706E+00			54
55	-2.850897E+03	-1.132902E+02	5.021879E+02	-2.894723E+02	-5.526183E+01	-2.020752E+02			60
61	8.082189E+00	5.910877E+01	-5.056232E+00						63
COLUMN 5									
1	-2.311843E+04	-7.208588E+04	-1.000807E+03	-1.879591E+04	1.894750E+05	-8.852014E+02			6
7	4.838248E+04	-1.082122E+05	2.815510E+03	3.056257E+03	2.154002E+03	-1.348488E+03			12
13	-1.717348E+02	-8.767612E+01	1.281962E+03	2.870038E+01	-1.588038E+00	5.033252E+01			18
19	-4.535408E+03	2.380738E+03	-1.279805E+02	3.861437E+02	7.790805E+02	-5.035719E+02			24
25	-1.878773E+03	-4.338028E+02	5.378979E+02	-1.689379E+02	-6.096392E+02	1.314914E+03			30
31	-1.185048E+02	1.315050E+00	3.755674E+01	5.715185E+01	9.172147E+01	3.906883E+01			36
37	-1.466002E+02	5.480084E+00	-4.423482E+01	-9.733224E+01	8.128802E+01	-2.124440E+01			42
43	-1.133843E+02	1.741292E+03	-2.105070E+03	-8.581308E+02	5.872588E+02	-8.026442E+01			48
49	-1.458729E+00	-5.569108E+01	6.807577E+00	-6.747608E+00	-5.970018E+01	-8.55976E+00			54
55	-3.739938E+02	-8.310731E+01	8.404234E+01	-5.350046E+01	-9.609312E+00	-5.753132E+01			60
61	-3.547152E+00	-4.668494E+00	-2.447882E+00						63
COLUMN 6									
1	-1.868858E+04	-2.044725E+03	-2.709413E+04	1.595999E+04	-8.852014E+02	7.934150E+04			6
7	3.080268E+04	7.161500E+03	-5.841579E+04	-2.258488E+03	-1.132827E+04	8.491535E+03			12
13	-5.858725E+03	-1.598935E+01	-3.048407E+03	2.778039E+02	9.511012E+00	-1.154223E+02			18
19	-4.778501E+03	-1.452812E+03	6.262838E+02	-2.618612E+03	1.947188E+03	4.281809E+02			24
25	-1.422384E+03	-2.392806E+03	-5.891189E+01	-7.815870E+02	2.558859E+02	6.274858E+02			30
31	-6.386914E+01	-7.917767E+00	-1.708048E+01	-3.143325E+01	-3.833346E+01	-1.940426E+01			36
37	6.763421E+01	-5.030178E+00	1.077884E+01	2.552718E+01	-6.785976E+01	5.580353E+01			42
43	-8.730944E+02	-3.448200E+02	3.388832E+02	-5.261372E+02	-1.540105E+02	-1.887174E+02			48
49	-2.492489E+00	1.180264E+02	-5.824627E+00	-1.879370E+00	1.180188E+02	4.054829E+00			54
55	-3.487994E+02	6.087285E+00	5.294330E+01	-3.106478E+01	-5.910144E+00	-1.294234E+01			60
61	2.961871E+00	1.210388E+01	9.309383E-02						63
COLUMN 7									
1	-3.152227E+04	-1.918910E+04	-1.654707E+04	-2.585837E+05	4.838248E+04	3.080268E+04			6
7	5.400764E+05	1.858310E+04	9.044810E+03	-1.076331E+04	-8.475579E+04	1.878839E+04			12
13	-1.249270E+04	1.437778E+02	-5.863794E+03	6.715268E+02	1.237256E+02	-2.094801E+02			18
19	-6.854888E+04	5.180075E+03	1.143115E+03	-2.118625E+04	2.480264E+04	-2.364166E+02			24
25	-1.359812E+04	-1.831852E+04	3.179905E+01	-2.410488E+03	1.170317E+02	-1.548887E+04			30
31	-3.972104E+02	-3.442185E+01	-2.147699E+01	-3.934988E+02	-1.004448E+02	-4.842749E+01			36
37	-1.158985E+02	4.982234E+01	-2.147699E+01	-2.381041E+02	-1.249019E+02	1.424504E+02			42
43	-2.283524E+04	-1.809887E+03	-1.508048E+04	-1.286718E+04	-2.588797E+03	-5.800979E+03			48
49	-4.854185E+01	2.444116E+03	-1.234122E+02	-6.105822E+01	2.440870E+03	5.801886E+01			54
55	-8.791912E+03	-5.704381E+01	1.460083E+03	-8.385049E+02	-1.551334E+02	-4.282581E+02			60
61	5.709007E+01	2.581771E+02	-5.043988E+00						63
COLUMN 8									
1	7.184660E+03	2.268955E+04	-2.925235E+03	-1.229975E+04	-1.052122E+05	7.181800E+03			6
7	-1.888310E+04	1.619179E+05	-5.458369E+03	-9.071751E+03	1.407091E+04	1.522008E+04			12
13	-1.011135E+03	1.400197E+03	-1.898030E+04	-3.272836E+02	2.807548E+01	-6.271919E+02			18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	8			
19	3.938325E+03	2.912070E+03	-1.788690E+03	1.086511E+04	-3.334645E+04	7.029242E+03	24	
25	-9.523588E+03	-3.529009E+04	-8.487294E+03	1.310476E+03	2.265636E+03	1.154950E+03	30	
31	1.162392E+02	-2.668494E+02	-2.565318E+01	3.591532E+02	-2.284269E+02	2.089788E+01	36	
37	-8.131721E+01	-2.588985E+02	5.957894E+00	-2.792034E+02	-2.088158E+02	-5.720624E+01	42	
43	3.743672E+03	1.767854E+03	5.026007E+03	7.365980E+02	-1.319889E+03	-3.326243E+02	48	
49	2.923210E+00	1.059358E+03	-4.807108E+01	-2.858655E+00	1.059359E+03	4.105931E+01	54	
55	-1.011101E+02	-5.674724E+01	-4.738967E+01	5.379455E+01	9.558642E+00	1.136403E+02	60	
61	1.621016E+01	5.058225E+01	8.305831E+00				63	
				COLUMN	9			
1	3.805054E+03	-4.386230E+02	5.553607E+03	-4.096010E+04	2.815510E+03	-5.941579E+04	6	
7	9.044810E+03	-5.458369E+03	1.118822E+05	-5.108177E+03	4.830126E+03	-5.427222E+04	12	
13	-4.896825E+03	-1.240777E+03	-1.326975E+04	-1.241119E+01	7.666159E+01	-5.130006E+02	18	
19	1.643996E+04	1.531767E+03	5.448178E+02	-1.911531E+03	1.354548E+04	-4.750253E+03	24	
25	-1.881225E+03	-5.528512E+03	-2.101627E+03	-2.256775E+03	-8.584636E+02	6.515682E+03	30	
31	1.071971E+02	-5.907694E+01	-2.567900E+02	2.725544E+02	2.872243E+02	1.805237E+02	36	
37	9.409448E+00	1.392049E+02	-1.574914E+02	2.376737E+02	3.562212E+01	1.660646E+01	42	
43	6.390593E+03	1.039532E+03	6.670576E+03	4.781268E+03	1.873665E+03	2.828432E+03	48	
49	2.137731E+01	-1.357411E+03	7.188689E+01	2.414218E+01	-1.357332E+03	-4.204972E+01	54	
55	3.692786E+03	1.077225E+01	-5.958313E+02	3.320299E+02	6.103269E+01	1.298784E+02	60	
61	-3.112384E+01	-1.289459E+02	-8.260998E+01				63	
				COLUMN	10			
1	1.015174E+03	2.328767E+03	6.047014E+02	8.647697E+02	3.056257E+03	-2.258488E+03	6	
7	-1.076331E+04	-9.071751E+03	-5.108177E+03	7.609326E+05	-1.689842E+04	-1.378232E+05	12	
13	1.242671E+04	-4.397885E+04	1.388672E+05	2.488882E+03	3.064888E+03	5.428283E+03	18	
19	8.697246E+03	-7.050337E+04	1.405718E+04	7.918716E+04	-3.515921E+05	1.787247E+04	24	
25	-6.801354E+04	-2.843579E+05	-1.293067E+04	-7.788468E+03	-4.377041E+03	-1.372708E+04	30	
31	-7.291843E+01	1.365359E+02	-1.270806E+02	8.257979E+01	1.094890E+02	-6.270106E+02	36	
37	9.368429E+01	8.768592E+01	2.427083E+02	-2.088674E+02	-7.562939E+01	8.871033E+02	42	
43	-1.278446E+03	3.856498E+03	-6.332673E+03	-7.675826E+02	4.219224E+03	1.101170E+03	48	
49	1.293170E+01	-1.807188E+03	9.788689E+01	-6.098892E+00	-1.807176E+03	-8.313881E+01	54	
55	8.272420E+02	-1.403242E+02	-7.757839E+01	-6.044171E+01	-9.758988E+00	-2.238933E+02	60	
61	-4.132349E+01	-1.248522E+02	-1.822920E+01				63	
				COLUMN	11			
1	-5.547713E+03	-3.764502E+03	-3.795874E+03	-3.598306E+04	2.154002E+03	-1.132827E+04	6	
7	-8.475579E+04	1.407091E+04	4.830126E+03	-1.689842E+04	3.760590E+05	-5.959710E+03	12	
13	-1.262580E+04	3.843582E+03	-1.648579E+04	-5.451532E+01	-2.588530E+02	-6.394550E+02	18	
19	-1.450045E+05	-5.080041E+03	9.142978E+03	-1.029685E+04	2.830836E+04	-1.694928E+03	24	
25	-1.504892E+04	-1.168864E+04	2.858177E+02	-1.948141E+04	5.744825E+03	2.355074E+04	30	
31	-8.739898E+01	-2.414404E+01	-3.811584E+01	-2.899088E+02	1.922761E+02	6.223143E+02	36	
37	-5.257225E+01	2.500584E+01	-4.743513E+01	-4.663686E+00	-2.484999E+02	-4.137049E+01	42	
43	-2.688669E+04	-1.569135E+04	4.627311E+03	-1.174589E+04	-4.172874E+03	3.833361E+03	48	
49	-7.170717E+01	1.504670E+03	-9.888722E+01	-2.368691E+01	1.504505E+03	6.413733E+01	54	
55	-7.582235E+03	4.265074E+02	1.175579E+03	-6.902445E+02	-1.319619E+02	-3.136071E+02	60	
61	6.089510E+01	2.425787E+02	-2.182796E+00				63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	12		
1	2.730639E+03	2.249429E+02	3.178182E+03	1.720588E+04	-1.348499E+03	8.491535E+03	6
7	1.679839E+04	1.522094E+04	-5.427222E+04	-1.378232E+05	-5.959710E+03	5.257517E+05	12
13	-1.955617E+04	-1.391316E+04	-3.984902E+05	-8.112627E+03	7.442249E+02	-1.556973E+04	18
19	-3.424173E+03	-6.023818E+03	3.085104E+02	-4.888783E+03	1.042009E+05	-3.918628E+04	24
25	6.435725E+03	3.708253E+04	1.456704E+04	-6.958389E+03	-7.451529E+03	-3.917898E+04	30
31	-5.705228E+02	6.228700E+01	-4.588559E+01	1.483138E+02	-6.944401E+01	-9.161667E+02	36
37	-9.381305E+01	3.817923E+01	4.467681E+01	4.366291E+01	1.064019E+03	-4.611772E+02	42
43	1.802090E+03	7.859491E+03	-9.194579E+03	1.112583E+03	5.617212E+03	3.393229E+03	48
49	2.949713E+01	-2.437734E+03	1.425709E+02	-1.560218E+00	-2.437688E+03	-1.017225E+02	54
55	2.592372E+03	-2.431578E+02	-2.700441E+02	1.201621E+02	2.309744E+01	-1.717983E+02	60
61	-6.188835E+01	-2.011427E+02	-1.649700E+01				63
				COLUMN	13		
1	-2.324108E+03	-1.858834E+03	-2.007148E+03	-1.274092E+04	-1.717348E+02	-5.658725E+03	6
7	-1.248270E+04	-1.011135E+03	-4.896825E+03	1.242671E+04	-1.262580E+04	-1.955617E+04	12
13	5.854410E+04	-1.225084E+01	2.859680E+04	-3.847224E+03	-2.151188E+01	9.970088E+02	18
19	-6.082304E+03	4.800043E+02	4.013504E+02	-1.545813E+03	-3.783686E+03	2.393763E+03	24
25	-2.349070E+03	-6.900170E+03	-1.354343E+03	-4.189415E+02	3.674456E+02	3.120878E+03	30
31	9.833380E+00	-1.748779E+01	1.491784E+01	2.002973E+00	-3.244501E+00	4.030354E+01	36
37	-1.843304E+01	-7.013950E+00	-3.373884E+01	-2.061408E+01	-7.661060E+01	5.281765E+01	42
43	-1.059880E+03	1.142901E+02	1.454205E+02	-7.805054E+02	-1.853096E+02	-3.140959E+02	48
49	-2.528649E+00	2.023761E+02	-9.086029E+00	-3.976069E+02	2.023695E+02	6.020225E+00	54
55	-5.186698E+02	-1.025010E+01	8.149897E+01	-4.727024E+01	-8.835667E+00	-2.114287E+01	60
61	3.986545E+00	1.737829E+01	9.000296E+02				63
				COLUMN	14		
1	1.437778E+02	2.637486E+02	1.384487E+02	1.768243E+02	-8.767612E+01	-1.598938E+01	6
7	-1.437588E+03	1.240777E+03	-1.240777E+03	-4.397885E+04	3.643582E+03	-1.391316E+04	12
13	-1.225084E+01	5.112883E+04	1.287002E+04	3.852876E+02	-4.740040E+03	5.233277E+02	18
19	-1.009108E+03	-6.415346E+03	2.288718E+03	5.071601E+02	-8.582652E+01	-2.538316E+03	24
25	-8.216884E+02	1.207117E+03	3.808825E+03	-1.185327E+03	-1.341979E+03	2.435718E+02	30
31	3.676082E+00	2.382713E+01	-1.655367E+01	1.461859E+01	1.035285E+02	-8.440294E+01	36
37	-2.952163E+00	1.895752E+01	3.388243E+01	-3.88164E+02	5.871838E+01	1.486487E+02	42
43	-2.884155E+02	2.184014E+03	-2.482921E+03	-3.08164E+02	1.433859E+03	3.801754E+02	48
49	5.721808E+00	-5.235499E+02	3.075708E+01	-3.973630E+00	-5.255469E+02	-2.552722E+01	54
55	2.341880E+02	-7.440985E+01	6.88515E+00	-2.086341E+01	-3.299579E+00	-7.435589E+01	60
61	-1.387403E+01	-4.010633E+01	-5.107403E+00				63
				COLUMN	15		
1	-6.220118E+02	7.845953E+02	-8.024431E+02	-4.955920E+03	1.281982E+03	-3.048407E+03	6
7	-5.383794E+03	-1.599030E+04	-1.328975E+04	-1.688672E+05	-1.648579E+04	-3.984902E+05	12
13	2.859680E+04	1.287002E+04	1.988382E+06	7.273561E+03	-7.084977E+02	-1.547714E+06	18
19	-7.338328E+03	2.538287E+03	-8.027002E+03	6.183577E+03	-5.581610E+04	2.031954E+04	24
25	-7.770338E+03	-7.994057E+04	-2.705285E+04	3.389988E+02	3.011162E+03	-2.882974E+04	30
31	-4.933127E+01	-8.053588E+01	6.286521E+01	6.815237E+01	-8.210585E+02	-3.74175E+02	36
37	5.611637E+00	-7.448913E+01	-1.208883E+02	1.411384E+02	-2.310542E+01	-7.037867E+02	42
43	1.763871E+03	-5.427798E+03	8.068164E+03	9.174404E+02	-4.218801E+03	-6.404851E+02	48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN				15					
49	-1.416747E+01	1.772893E+03	-9.452459E+01	9.983355E+00	1.772886E+03	8.530689E+01		54	
55	-6.106931E+02	1.79545E+02	-5.158985E+01	9.253778E+01	1.489074E+01	2.467368E+02		60	
61	4.158857E+01	1.221267E+02	1.724217E+01					63	
COLUMN				16					
1	1.249835E+02	1.166398E+02	1.015445E+02	6.513124E+02	2.870036E+01	2.778039E+02		6	
7	6.715266E+02	-3.272836E+02	-1.241119E+01	2.488882E+03	5.484852E+01	-8.112827E+03		12	
13	-3.547224E+03	3.652876E+02	7.273561E+03	1.123039E+03	-2.168048E+01	2.938810E+02		18	
19	3.856200E+02	3.815550E+00	-7.220208E+01	2.834566E+02	-1.334542E+03	4.207540E+02		24	
25	-2.544136E+01	-1.224958E+03	-4.195176E+02	1.048382E+02	6.544678E+01	5.898108E+01		30	
31	-1.303219E+00	-1.332735E+00	-7.977472E-02	-7.977556E-01	-6.283501E+00	4.422726E+00		36	
37	1.387279E+00	-5.700253E-01	-1.389383E+00	2.487419E+00	-7.314221E+00	-3.369770E+00		42	
43	1.005437E+02	-1.385997E+02	1.965045E+02	6.335198E+01	-8.224911E+01	-1.491446E+01		48	
49	-2.135102E-01	2.496084E+01	-1.593280E+00	4.545600E-01	2.496125E+01	1.337458E+00		54	
55	1.285977E+01	5.040778E+00	-4.820357E+00	3.695988E+00	6.607788E-01	5.931752E+00		60	
61	6.912793E-01	1.743882E+00	3.260565E-01					63	
COLUMN				17					
1	-1.313922E+01	-3.141000E+01	-1.027765E+01	-1.061344E+01	-1.559038E+00	9.511012E+00		6	
7	1.237256E+02	2.907548E+01	7.665159E+01	3.084888E+03	-2.585830E+02	7.442249E+02		12	
13	2.151186E+01	-4.740040E+03	-7.064977E+02	-2.168048E+01	7.890390E+02	-3.076830E+01		18	
19	5.228134E+01	5.002614E+02	-1.362417E+02	-5.386587E+01	2.522403E+02	1.088969E+02		24	
25	7.584172E+01	2.144483E+02	-1.838938E+02	6.550312E+01	6.977284E+01	2.446210E+01		30	
31	1.038003E-01	-1.364361E+00	1.091840E+00	-9.369990E-01	-4.340392E+00	5.457036E+00		36	
37	-1.272947E-01	-9.493249E-01	-2.135128E+00	2.486094E+00	-1.999104E+00	-8.708458E+00		42	
43	8.441846E+00	-1.214491E+02	1.235836E+02	1.785159E+01	-7.429281E+01	-1.867518E+01		48	
49	-3.048188E-01	2.538402E+01	-1.531826E+00	2.338876E-01	2.538890E+01	1.277825E+00		54	
55	-1.052499E+01	4.158454E+00	-5.770348E-01	1.204553E+00	1.951501E-01	3.875951E+00		60	
61	6.902118E-01	1.896728E+00	2.596634E-01					63	
COLUMN				18					
1	-2.262037E+01	3.218915E+01	-2.994924E+01	-1.850248E+02	5.033252E+01	-1.154223E+02		6	
7	-2.094801E+02	-6.271919E+02	-5.180006E+02	5.428283E+03	-6.394550E+02	7.442249E+02		12	
13	9.970088E+02	5.253327E+02	-1.547714E+06	2.938810E+02	-3.076830E+01	1.558973E+04		18	
19	-2.621878E+02	9.564130E+01	-3.134490E+02	2.432828E+02	-2.182139E+03	7.959782E+02		24	
25	-3.037561E+02	-3.133344E+03	-1.059035E+03	1.352842E+01	1.176364E+02	-1.128046E+03		30	
31	-1.940494E+00	2.446474E+00	2.668492E+00	2.668492E+00	-3.211395E+01	-1.322399E+01		36	
37	2.342609E-01	-2.907935E+00	-4.713156E+00	5.523715E+00	-9.121486E-01	-2.748655E+01		42	
43	6.998700E-01	-2.125853E+02	3.158275E+02	3.845275E+01	-1.647837E+02	-2.842268E+01		48	
49	-5.520167E-01	6.921175E+01	3.691122E+00	3.931244E-01	6.921147E+01	3.332204E+00		54	
55	-2.350745E+01	7.041591E+00	-2.077605E+00	3.652148E+00	5.885945E-01	9.865309E+00		60	
61	1.823824E+00	4.764538E+00	6.743053E-01					63	
COLUMN				19					
1	-5.847111E+03	-7.837843E+03	-3.017413E+03	-3.044204E+04	-4.535408E+03	-4.776501E+03		6	
7	-6.954888E+04	3.938325E+03	1.643996E+04	8.897248E+03	-1.450045E+05	-3.424173E+03		12	
13	-6.082304E+03	-1.009108E+03	-7.336328E+03	3.956200E+02	5.226134E+01	-2.821878E+02		18	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN				19					
19	5.027611E+05	-3.986833E+03	-1.834870E+04	-1.832403E+04	2.128811E+04	-2.128740E+03		24	
25	-1.770186E+04	-2.885128E+04	-2.022428E+03	-6.347787E+04	-3.182670E+03	7.870895E+03		30	
31	-6.256641E+01	-1.243704E+00	-3.417790E+01	-8.080331E+01	6.825233E+01	-1.178529E+02		36	
37	-1.516318E+02	-2.121793E+01	-2.000709E+01	-2.564388E+02	1.382592E+02	3.671544E+01		42	
43	-8.178517E+04	5.714742E+03	1.014051E+04	-4.465529E+04	9.310451E+03	5.358158E+03		48	
49	-9.797768E+01	3.059037E+02	1.262221E+02	-1.687435E+02	3.054444E+02	-1.304433E+01		54	
55	-1.948381E+04	-4.430143E+02	3.323465E+03	-1.969913E+03	-3.864092E+02	-1.723601E+03		60	
61	-1.778094E+00	2.036954E+02	-4.848180E+01					63	
COLUMN				20					
1	4.653513E+02	1.085415E+03	2.488518E+02	1.132830E+03	2.807365E+03	-1.452812E+03		6	
7	-5.160075E+03	2.912070E+03	1.531787E+03	-7.050337E+04	-5.008041E+03	-6.023818E+03		12	
13	4.800043E+02	-6.415345E+03	2.536287E+03	3.815550E+00	5.002614E+02	9.564130E+01		18	
19	-3.968833E+03	1.865742E+05	-5.633740E+03	-1.414146E+04	-1.308980E+04	5.142213E+03		24	
25	-1.298847E+04	-1.548863E+04	-4.787348E+03	3.497408E+03	-3.184570E+04	1.427821E+04		30	
31	-8.435788E+01	4.164784E+01	3.900573E+01	-1.074969E+02	-7.469845E+02	-8.525552E+02		36	
37	9.257581E+01	4.579712E+01	-4.537875E+01	2.667938E+01	-7.729681E+02	8.851350E+02		42	
43	9.127980E+03	-5.295793E+04	-8.214689E+03	-8.908128E+02	2.869801E+03	2.576293E+03		48	
49	-6.836733E+01	-3.150868E+03	1.315425E+02	8.376883E+01	-3.150839E+03	-9.843056E+01		54	
55	1.439501E+03	1.253727E+03	-3.042838E+02	4.148247E+01	-6.482385E-01	-5.809879E+01		60	
61	-1.000446E+01	-6.540480E+01	-1.365940E+01					63	
COLUMN				21					
1	2.437304E+02	2.162464E+02	1.875800E+02	1.377921E+03	-1.279805E+02	6.262838E+02		6	
7	1.143115E+03	-1.788890E+03	5.448178E+02	1.405718E+04	9.142978E+03	3.065104E+02		12	
13	4.013504E+02	2.298719E+03	-8.027002E+03	-7.220208E+01	-1.382417E+02	-3.134490E+02		18	
19	-1.834870E+04	-5.633740E+03	-2.007464E+05	-2.839731E+03	-2.352439E+03	2.917385E+02		24	
25	-7.086728E+01	-4.175841E+03	-2.463180E+03	2.586718E+03	-3.539871E+03	-1.775889E+05		30	
31	-6.485764E+00	-2.195164E+00	1.935118E+00	-9.369259E+00	-8.566537E+01	-7.628374E+00		36	
37	-7.900338E+00	-1.695258E+01	1.038478E+01	4.009013E+01	1.969204E+02	-3.567761E+02		42	
43	8.275276E+02	8.724843E+02	-1.428088E+04	4.870218E+02	-1.888824E+03	1.309307E+02		48	
49	6.768498E-01	1.048240E+03	-4.670182E+01	-4.387751E+00	1.046234E+03	4.742635E+01		54	
55	-4.347312E+02	-4.818808E+01	3.313434E+01	8.771801E+01	1.231184E+01	1.270233E+02		60	
61	1.888340E+01	5.278065E+01	8.329841E+00					63	
COLUMN				22					
1	-1.509241E+03	-1.462243E+03	-9.219019E+02	-8.904308E+03	3.861437E+02	-2.518612E+03		6	
7	-2.118255E+04	1.085511E+04	-1.911631E+03	7.918716E+04	-1.029666E+04	-4.888783E+03		12	
13	-1.845513E+03	5.071601E+02	6.153577E+02	2.334568E+02	-5.386587E+01	2.432829E+02		18	
19	-1.832403E+04	-1.414146E+04	-2.839731E+03	5.324988E+04	-8.562167E+04	2.867184E+03		24	
25	1.803719E+04	1.035904E+04	-7.859513E+02	-2.888147E+03	9.029933E+01	-1.337885E+02		30	
31	-7.589834E+00	1.888588E+00	5.444513E+00	-1.084848E+01	-1.084848E+01	-8.428644E+00		36	
37	-2.800886E+01	1.812331E+01	-3.187142E+01	-2.488429E+01	-8.879858E+01	1.200625E+02		42	
43	-3.581908E+03	-5.827507E+02	-4.827542E+01	-2.040904E+03	-1.652568E+02	-6.811118E+02		48	
49	-7.757173E+00	2.445885E+02	-1.185592E+01	-8.261703E+00	2.445389E+02	5.751318E+00		54	
55	-1.251287E+03	2.123239E+00	2.084328E+02	-1.272219E+02	-2.378739E+01	-7.538133E+01		60	
61	6.574068E+00	3.211360E+01	-1.588274E+00					63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	23				
1	1.798169E+03	2.492539E+03	8.370872E+02	9.670706E+03	7.780805E+02	1.947168E+03	5		
7	2.480264E+04	3.334645E+04	1.354549E+04	3.515921E+05	2.634938E+04	1.042009E+05	12		
13	3.783686E+03	8.582652E+01	5.581610E+04	1.334542E+02	2.522403E+02	2.192139E+03	18		
19	2.129811E+04	1.308980E+04	2.352439E+03	8.552172E+04	4.843187E+03	5.393315E+04	24		
25	1.142599E+04	1.013246E+05	2.308975E+04	6.589508E+03	4.879172E+03	7.673872E+03	30		
31	4.678244E+01	5.300366E+01	1.228601E+01	5.078624E+01	4.884674E+02	7.884271E+01	36		
37	1.118457E+02	4.072752E+01	2.527480E+01	2.207808E+01	7.838805E+02	2.502299E+02	42		
43	6.910743E+03	2.066323E+03	9.989255E+03	2.394246E+03	3.784853E+03	1.255133E+03	48		
49	4.148842E+00	1.894988E+03	9.932488E+01	8.579909E+00	1.894988E+03	8.108378E+01	54		
55	3.205362E+01	8.140864E+01	1.482834E+02	1.301452E+02	2.348716E+01	2.733788E+02	60		
61	3.857816E+01	1.109553E+02	1.747518E+01				63		
				COLUMN	24				
1	-1.244088E+01	-3.895929E+02	1.342582E+02	3.800874E+02	-5.035719E+02	4.261909E+02	6		
7	-2.384166E+02	7.029242E+03	-4.750253E+03	1.787247E+04	-1.684826E+03	-3.918629E+04	12		
13	2.393763E+03	-2.536361E+03	2.031954E+04	4.207540E+02	1.088969E+02	7.959782E+02	18		
19	-2.129740E+03	5.142213E+03	2.817385E+02	2.867184E+03	-5.393315E+04	2.013534E+04	24		
25	2.162159E+02	2.682038E+04	8.190591E+03	-1.418119E+03	-1.826264E+03	-3.163869E+03	30		
31	1.553108E+01	2.614536E+01	1.334542E+01	9.602854E+01	1.594912E+02	6.706993E+01	36		
37	-2.667884E+01	1.518611E+01	3.115417E+01	1.409029E+01	2.720869E+02	-7.376528E+01	42		
43	-9.237235E+02	1.815527E+03	-3.649652E+03	-2.420982E+02	1.628643E+03	6.873721E+02	48		
49	5.817759E+00	-7.467897E+02	4.108900E+01	-2.253382E+00	-7.467836E+02	-3.227468E+01	54		
55	4.006348E+02	-5.883726E+01	-1.107755E+01	-8.853285E+00	-1.218171E+00	-8.155746E+01	60		
61	-1.730374E+01	-5.319169E+01	-6.112326E+00				63		
				COLUMN	25				
1	-1.721283E+03	-2.169639E+03	-9.519923E+02	-9.028949E+03	-1.678773E+03	-1.422384E+03	6		
7	-1.359812E+04	-9.523588E+03	-1.881225E+03	-6.801364E+04	-1.504592E+04	6.435725E+03	12		
13	-2.349070E+03	-8.211684E+02	-7.77038E+03	-2.544136E+01	7.584172E+01	-3.013561E+02	18		
19	-1.770186E+04	1.298847E+04	-7.086728E+01	1.603719E+04	-1.142599E+04	2.162159E+02	24		
25	5.247486E+04	7.787330E+04	2.386488E+03	-1.618233E+03	-1.714827E+02	8.984288E+03	30		
31	-9.813303E+00	-2.090031E+01	-1.389115E+01	1.417890E+00	7.034488E+01	5.223120E+01	36		
37	-2.725373E+01	-7.718612E+00	-1.070105E+01	-5.889379E+01	2.858105E+00	3.738564E+01	42		
43	-3.532164E+03	1.969956E+03	-2.362152E+03	-2.374079E+03	5.803057E+02	-4.409274E+02	48		
49	-2.767119E+02	1.701816E+02	-1.715484E+00	-1.407041E+01	1.701826E+02	-1.185355E+00	54		
55	-1.270142E+03	-8.441578E+01	-2.322774E+02	-1.407857E+02	-2.802979E+01	-1.108228E+02	60		
61	-7.780497E+01	1.784378E+01	-3.303330E+00				63		
				COLUMN	26				
1	-1.843476E+03	-1.860443E+03	-1.070247E+03	-1.080222E+04	-4.338028E+02	-2.392806E+03	6		
7	-1.831852E+04	-3.529009E+04	-5.528518E+03	-2.843579E+05	-1.188864E+04	3.708253E+04	12		
13	-6.900170E+03	1.207117E+03	-7.994057E+04	-1.224958E+03	2.144483E+02	-3.133344E+03	18		
19	-2.885128E+04	-1.548863E+04	-4.175441E+03	1.035804E+04	-1.013246E+05	2.682038E+04	24		
25	7.787330E+04	4.439984E+05	4.545708E+04	-1.613437E+03	3.935318E+03	-1.845828E+04	30		
31	-9.955743E+01	-8.586686E+01	2.451304E+01	1.184525E+02	-8.670715E+02	-4.308149E+02	36		
37	2.662792E+01	-6.231026E+01	-1.017544E+02	-3.880663E+01	-5.048848E+02	-1.730314E+02	42		
43	-1.263477E+03	-7.886377E+02	7.538821E+03	-2.772812E+03	-3.908150E+03	-1.958158E+03	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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				COLUMN	26				
49	-1.705335E+01	2.725794E+03	-1.269861E+02	-1.683774E+01	2.725735E+03	1.054887E+02	54		
55	-2.930902E+03	-8.332181E+00	3.348657E+02	-1.387323E+02	-2.772014E+01	1.108815E+02	60		
61	5.281683E+01	1.855057E+02	1.580685E+01				63		
				COLUMN	27				
1	1.431107E+02	4.802760E+02	4.082889E+01	3.808545E+02	5.378797E+02	-5.681189E+01	6		
7	3.178905E+01	-8.487294E+03	-2.101827E+03	-1.283067E+04	2.858177E+02	4.587048E+04	12		
13	-1.354343E+03	3.908825E+03	-2.705285E+04	-4.185176E+02	-1.838938E+02	-1.059035E+03	18		
19	-2.022428E+03	-4.767348E+03	-2.643180E+03	-7.859513E+02	-2.308975E+04	8.190591E+03	24		
25	2.368488E+03	4.845708E+04	1.842157E+04	3.848445E+02	1.659985E+03	-9.803327E+03	30		
31	-2.863792E+01	-3.528354E+01	2.281510E+01	3.848126E+01	-3.736716E+02	-1.400210E+02	36		
37	1.430971E+01	-2.832908E+01	-5.100677E+01	3.569885E+01	-1.372306E+02	-1.704528E+02	42		
43	1.028479E+03	-2.019808E+03	4.033334E+03	2.733771E+02	-1.936180E+03	-4.848858E+02	48		
49	-6.270117E+00	9.150334E+02	-4.759883E+01	2.684848E+00	9.150272E+02	4.118378E+01	54		
55	-4.173710E+02	6.514889E+01	-1.899465E+00	2.753153E+01	4.210516E+00	1.074719E+02	60		
61	2.032867E+01	6.180714E+01	7.984117E+00				63		
				COLUMN	28				
1	-4.876462E+02	-5.406664E+02	-3.252888E+02	-2.572248E+03	-1.689379E+02	-7.815870E+02	6		
7	-2.410484E+03	1.310478E+03	-2.256775E+03	-7.789468E+03	-1.948141E+04	-6.956389E+03	12		
13	-4.189415E+02	-1.165327E+03	3.369986E+02	1.048382E+02	6.550312E+01	1.352842E+01	18		
19	-6.347787E+04	3.497409E+03	2.586716E+03	-2.886147E+03	6.589508E+03	-1.418119E+03	24		
25	-1.618233E+03	-1.613437E+03	3.864445E+02	1.032562E+05	-2.059063E+03	-1.978498E+04	30		
31	1.175153E+01	-7.281409E+02	2.693510E+00	3.915811E+01	2.347544E+01	-7.312729E+01	36		
37	-8.293295E+00	1.544767E+00	-3.956181E+00	-1.925181E+01	3.201022E+01	6.124555E+01	42		
43	-6.236985E+03	1.129115E+03	2.616080E+04	3.848439E+03	4.618078E+03	2.267329E+03	48		
49	1.365538E+01	-1.883792E+03	1.121706E+02	-5.204803E+00	-1.883801E+03	-7.942198E+01	54		
55	4.340030E+01	-2.369433E+01	5.368843E+01	-1.802748E+02	-3.091169E+01	-3.047028E+02	60		
61	-3.816804E+01	-1.080493E+02	-1.755076E+01				63		
				COLUMN	29				
1	-1.514234E+02	-3.400751E+02	-5.488840E+01	-5.057075E+02	-6.086392E+02	2.556859E+02	6		
7	-1.703177E+02	2.248536E+03	-5.584836E+02	-4.377041E+03	5.744825E+03	-7.451529E+03	12		
13	3.674465E+02	-1.341967E+03	3.011162E+03	8.544678E+01	6.977284E+01	1.176368E+02	18		
19	-3.162670E+03	-3.154570E+04	-3.536877E+03	9.029933E+01	4.879172E+03	-1.826264E+03	24		
25	-1.714627E+02	3.935318E+03	1.659985E+03	-2.059063E+03	2.351447E+04	1.534454E+04	30		
31	1.769357E+01	2.685827E+00	-2.396370E+00	1.266722E+01	1.390536E+02	2.419710E+00	36		
37	-2.257686E+01	-2.282678E+00	-1.330640E+01	-1.330640E+01	1.934923E+02	-7.104287E+01	42		
43	-2.065727E+02	2.788575E+03	-7.422174E+03	-4.189616E+02	1.841534E+03	8.026081E+02	48		
49	8.047072E+00	-6.313845E+02	4.039459E+01	-5.803403E+00	-6.313807E+02	3.001388E+01	54		
55	3.026722E+02	-1.071592E+02	9.923612E+00	-1.125880E+01	-1.595813E+00	-8.573117E+01	60		
61	-1.781677E+01	-5.274978E+01	-5.699616E+00				63		
				COLUMN	30				
1	4.843353E+02	5.315105E+02	6.185486E+02	1.628678E+03	1.314914E+03	6.274868E+02	6		
7	-1.548897E+04	1.548897E+04	6.155882E+03	-1.372708E+04	2.358074E+04	3.817789E+04	12		
13	3.120878E+03	2.435219E+02	-2.882974E+04	6.881109E+01	2.446210E+01	-1.128048E+03	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX . . . KAA

		COLUMN		30				
19	7.870896E+03	1.427821E+04	-1.775589E+05	-1.338505E+02	7.673872E+03	-3.183869E+03	24	
25	5.984288E+03	-1.845828E+04	-9.803327E+03	-1.978498E+04	1.534454E+04	3.053476E+05	30	
31	-1.060400E+02	4.580206E+01	3.731686E+01	3.872408E+01	-1.100480E+03	-1.140159E+03	36	
37	1.329435E+00	-2.077021E+01	1.198985E+01	7.458207E+01	2.871598E+02	-6.376769E+02	42	
43	-4.094732E+03	-6.812359E+03	-4.976183E+04	1.017758E+03	-1.456728E+04	-3.077863E+02	48	
49	-3.498632E+01	6.577294E+03	-3.418085E+02	-8.887209E+00	6.577219E+03	3.009011E+02	54	
55	-4.483006E+03	1.718305E+02	4.177391E+02	1.848313E+02	2.858987E+01	7.210681E+02	60	
61	1.386398E+02	4.298254E+02	5.586317E+01				63	
		COLUMN		31				
1	-1.507388E-01	-1.581246E+01	1.451787E+01	8.128247E+00	1.185048E+02	-6.366914E+01	6	
7	-3.972104E+02	1.192392E+02	1.071971E+02	-7.251843E+01	-8.738898E+01	-5.705226E-02	12	
13	9.833380E+00	3.676082E+00	-4.933127E+01	-1.303219E+00	1.038003E-01	-1.840494E+00	18	
19	-6.258541E+01	-8.435788E+01	-6.485784E+00	-7.589344E+00	-4.678244E+01	1.553109E+01	24	
25	-9.813303E+00	-9.985743E+01	-2.883782E+01	1.178153E+01	1.768337E+01	-1.060800E+02	30	
31	5.925515E+04	1.227355E+02	1.858787E+02	-5.838341E+04	-2.072511E+01	-5.205834E+01	36	
37	1.455088E+02	2.050982E+01	-1.003301E+01	-1.081862E+02	-1.135598E+01	2.242983E+00	42	
43	-3.206824E+01	-4.676526E+01	6.593703E+00	-1.518240E+02	-2.521091E+01	-8.522744E+01	48	
49	-1.802628E-01	1.072280E+01	-6.333953E-01	-1.730163E-02	1.072246E+01	4.521094E-01	54	
55	-1.714849E+01	1.322418E+00	2.190416E+00	-1.068838E+00	-2.046707E-01	3.861333E-01	60	
61	2.922006E-01	9.894769E-01	6.195174E-02				63	
		COLUMN		32				
1	-2.252610E+00	3.751638E+00	-3.118193E+00	-2.225905E+01	1.315050E+00	-7.917767E+00	6	
7	-3.442185E+01	-2.668494E+02	-5.907694E+01	1.365359E+02	-2.414404E+01	6.226700E+01	12	
13	-1.749779E+01	2.362713E+01	-8.053586E+01	-1.332735E+00	-1.364361E+00	-3.143915E+00	18	
19	-1.243704E+00	4.164784E+01	-2.196164E+00	1.686588E+00	-5.300365E+01	2.614536E+01	24	
25	-2.090031E+01	-8.556686E+01	-3.529354E+01	-7.281409E-02	2.695827E+00	4.560203E+01	30	
31	1.227355E+02	2.514112E+02	1.208002E+02	2.198521E+01	-7.328749E+01	-7.426890E+01	36	
37	-2.053885E+01	5.588886E+00	3.712042E+00	-8.078902E+00	2.975978E+00	-2.152045E+00	42	
43	5.593991E+00	8.510261E+00	8.855673E+00	1.180485E+00	-4.906710E-03	3.463348E-01	48	
49	1.784575E-02	8.305199E-01	-2.287917E-02	-1.026858E-02	8.305328E-01	2.578827E-02	54	
55	5.422038E-01	-2.387270E-01	-1.213063E-01	8.951352E-02	1.686832E-02	8.419524E-02	60	
61	2.078266E-03	8.717183E-03	5.917205E-03				63	
		COLUMN		33				
1	9.488345E-01	-1.441867E+01	9.854053E+00	6.780841E+00	3.755674E+01	-1.708048E+01	6	
7	-1.385753E+02	-2.565318E+01	-2.565790E+02	-1.270808E+02	-3.811584E+01	-4.568559E+01	12	
13	1.491784E+01	-1.655367E+01	6.286521E+01	-7.977472E-02	1.081340E+00	2.448474E+00	18	
19	-3.417790E+01	3.900573E+01	1.935118E+00	5.444513E+00	1.228601E+01	-1.334543E+01	24	
25	-1.389115E+01	2.451304E+01	2.281501E+01	2.693810E+00	-2.388720E+00	-3.731688E+01	30	
31	1.858787E+02	1.208002E+02	2.774733E+02	5.123454E+01	-5.234329E+01	-4.913947E+01	36	
37	-1.025762E+01	-4.266401E+00	-1.266615E+01	5.305650E-01	-1.885669E-01	2.789987E+00	42	
43	-1.845725E+01	6.385636E+00	-1.829822E+01	-9.942907E+00	1.120358E+00	-4.081652E+00	48	
49	-2.096170E-02	5.562722E-01	-2.531969E-02	-5.811438E-02	5.581380E-01	-1.419955E-02	54	
55	-6.094983E+00	-2.612911E-01	1.148694E+00	-6.997549E-01	-1.285596E-01	-5.098630E-01	60	
61	8.585451E-03	9.802099E-02	-1.704188E-02				63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX . . . KAA

		COLUMN		34				
1	-5.636498E+00	-1.829052E+01	6.067017E+00	-3.234049E+01	5.715185E+01	-3.143325E+01	6	
7	-3.934968E+02	5.591532E+02	2.725544E+02	8.287979E+01	-2.899086E+02	1.483138E+02	12	
13	2.002973E+00	-1.461886E+01	5.816237E+01	-7.877856E-01	-9.389990E-01	2.668492E+00	18	
19	-8.080331E+01	-1.074989E+01	-9.369259E+00	-2.803098E+01	6.078624E+01	-8.802854E-01	24	
25	1.417880E+00	1.184525E+02	3.448128E+01	3.915811E+01	1.288722E+01	-3.872408E+01	30	
31	-5.838341E+04	2.198521E+01	5.123454E+01	5.878486E+04	-4.792879E+02	-6.283764E+02	36	
37	-1.082078E+02	9.488886E+00	1.180830E+00	-3.352834E+02	-9.338428E+01	9.842738E+01	42	
43	-9.458458E+01	-1.189252E+02	-3.059600E+01	-2.670283E+01	-3.384857E+01	-2.522418E+01	48	
49	-3.687071E-01	5.224115E+00	-5.869825E-01	6.959710E-02	5.223803E+00	3.040732E-01	54	
55	-2.507985E+01	3.688872E+00	3.688872E+00	-2.128252E+00	-4.003595E-01	-2.675067E-01	60	
61	3.344271E-01	1.119884E+00	1.991427E-02				63	
		COLUMN		35				
1	1.843028E+01	3.509102E+01	8.799867E+00	5.884551E+01	9.172147E+01	-3.833346E+01	6	
7	-1.004448E+02	-2.284289E+02	2.672243E+02	1.094890E+02	1.822781E+02	-6.944401E+01	12	
13	-3.244501E+01	1.035285E+02	-8.210585E+01	-6.283501E+00	-4.340382E+00	-3.211395E+01	18	
19	5.623239E+01	-7.459845E+02	-8.586537E+01	-1.098494E+01	-4.894674E+02	1.594912E+02	24	
25	7.034486E+01	-9.670715E+02	-3.736718E+02	2.347544E+01	1.390538E+02	-1.100480E+03	30	
31	-2.072611E+01	-7.328749E+01	-5.234329E+01	-4.782678E+02	2.230861E+03	1.894792E+03	36	
37	1.184478E+01	3.172017E+00	-4.861480E+01	9.453221E+01	8.822358E+00	-1.278387E+01	42	
43	9.422522E+01	-2.118072E+02	2.898497E+02	2.863408E+01	-1.510584E+02	-4.177259E+01	48	
49	-5.457278E-01	6.821787E+01	-3.897708E+00	3.079569E-01	6.821756E+01	3.141691E+00	54	
55	-2.963829E+01	6.317382E+00	-8.558254E-01	2.308518E+00	3.605327E-01	8.594278E+00	60	
61	1.601718E+00	4.800538E+00	6.181434E-01				63	
		COLUMN		36				
1	2.866107E+00	2.475582E+00	3.723932E+00	1.720021E+01	3.908883E+01	-1.940428E+01	6	
7	-4.842749E+01	2.088758E+01	1.805237E+02	-6.270108E+02	6.223143E+02	-9.161667E+02	12	
13	4.030354E+01	-8.440294E+01	-3.374175E+02	4.422726E+00	5.457038E+00	-1.323398E+01	18	
19	-1.178529E+02	-8.525552E+02	-7.628374E+00	-8.462884E+00	7.884271E+01	-6.708933E+01	24	
25	5.233120E+01	-4.400219E+02	-1.400210E+02	-7.312729E+01	2.418710E+00	-1.140159E+03	30	
31	-5.205834E+01	-7.426690E+01	-4.913847E+01	-6.283764E+02	1.894792E+03	2.605245E+03	36	
37	2.766077E+00	2.031927E+00	2.647772E+00	9.947843E+01	1.002325E+01	-1.540247E+02	42	
43	7.271428E+01	-6.399740E+00	4.037687E+01	9.367383E+00	-1.121898E+01	1.110761E+01	48	
49	4.500333E-02	1.627823E+01	-5.239649E-01	2.781321E-03	1.527932E+01	5.477945E-01	54	
55	2.535289E+00	-5.724265E-01	-1.651033E+00	1.521755E+00	2.545291E-01	2.016733E+00	60	
61	2.108173E-01	6.025342E-01	1.411220E-01				63	
		COLUMN		37				
1	-2.197809E+01	-2.123991E+01	-1.988330E+01	-1.088841E+02	-1.488002E+02	5.753421E+01	6	
7	-1.158885E+02	-8.131721E+01	9.409448E+01	9.388428E+01	-5.257228E+01	-9.381305E+01	12	
13	-1.843304E+01	-2.982183E+00	5.811837E+00	1.387278E+00	-1.272947E-01	2.342609E-01	18	
19	-1.816318E+02	9.256751E+01	-7.900338E+00	-2.800955E+01	1.184572E+02	-2.887684E+01	24	
25	-2.725373E+01	2.662782E+01	1.430971E+01	-8.293298E+00	-2.257886E+01	1.329435E+00	30	
31	-1.455088E+02	-2.053885E+01	-1.028762E+01	-1.082078E+02	1.184478E+01	2.780777E+00	36	
37	5.925515E+04	-1.225814E+02	1.858787E+02	-5.838341E+04	-2.058341E+01	-5.178347E+01	42	
43	-4.477950E+01	-4.834080E+01	-7.458578E+01	-2.847040E+01	1.720175E+01	-3.089523E+00	48	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	37				
49	2.838641E-02	-2.090651E+00	2.117832E-01	-2.088944E-01	-2.090961E+00	-2.187324E-01	54		
55	-1.288311E+01	-1.801349E+00	2.853028E+00	-1.782854E+00	-3.208435E-01	-1.865099E+00	60		
61	-1.053953E-01	-1.247951E-01	-7.941783E-02				63		
				COLUMN	38				
1	2.171057E+00	1.046793E+01	-2.533769E+00	-2.178875E-01	5.480064E+00	-5.030178E+00	6		
7	4.962324E+01	-2.588985E+02	-1.382043E+02	-7.78852E+01	2.800584E+01	3.817823E+01	12		
13	-7.013950E+00	1.695752E+01	-7.448913E+01	-5.700253E-01	-9.483249E-01	-2.907935E+00	18		
19	1.521793E+01	4.579718E+01	-1.695258E+01	1.613313E+01	-4.072752E+01	1.518611E+01	24		
25	-7.719612E+00	-6.231028E+01	-2.832908E+01	1.544767E+00	-2.292678E+00	-2.07021E+01	30		
31	2.050982E+01	5.58588E+00	-4.286401E+00	8.488988E+00	3.172017E+00	2.031927E+00	36		
37	-1.225814E+02	2.518948E+02	-1.208401E+02	-2.150083E+01	-7.282504E+01	7.389431E+01	42		
43	1.103659E+01	1.020508E+01	3.799097E+00	5.039058E+00	1.020108E+00	3.164259E+00	48		
49	3.528863E-02	-4.592041E-02	2.811420E-02	6.318360E-03	-4.584705E-02	5.27928E-03	54		
55	3.380347E+00	-2.856659E-01	-6.764035E-01	3.917375E-01	7.228935E-02	2.243088E-01	60		
61	-2.081716E-02	-8.838832E-02	7.909973E-03				63		
				COLUMN	39				
1	-9.252663E+00	2.095044E+00	-1.080138E+01	-4.844040E+01	-4.423462E+01	1.077884E+01	6		
7	-2.147669E+01	5.957894E+00	-1.574914E+02	2.427083E+02	-4.74351E+01	4.487881E+01	12		
13	-3.373884E+01	3.388245E+01	-1.208883E+02	-1.389363E+00	-2.135128E+00	-4.713156E+00	18		
19	-2.000708E+01	-4.537875E+01	1.036475E+01	-3.167142E+01	-2.527890E+01	3.115417E+01	24		
25	-1.070105E+01	-1.017544E+02	-5.100677E+01	-3.856181E+00	8.878257E+00	1.198985E+01	30		
31	-1.003301E+01	3.712042E+00	1.266815E+01	1.190830E+00	-4.861480E-01	2.647772E+00	36		
37	1.857694E+02	-1.208401E+02	2.763224E+02	5.180088E+01	5.142688E+01	-4.892278E+01	42		
43	2.201277E+00	1.090759E+01	2.081004E+01	-5.584975E-01	-6.080318E+00	-2.632405E+00	48		
49	3.171522E-02	2.940175E+00	-1.592115E-01	8.853502E-03	2.940137E+00	1.271050E-01	54		
55	-2.184743E+00	3.155806E-01	1.158871E-01	-3.307285E-02	-8.321423E-03	2.738988E-01	60		
61	7.167343E-02	2.242498E-01	2.280873E-02				63		
				COLUMN	40				
1	-2.582088E+01	-3.424860E+01	-1.878299E+01	-1.382582E+02	-9.733224E+01	2.952718E+01	6		
7	-2.351041E+02	-2.792034E+02	2.376737E+02	-2.089574E+02	-4.863888E+00	4.365291E+01	12		
13	-2.061408E+01	-4.159104E+01	1.411384E+02	-2.487419E+00	2.488094E+00	5.523715E+00	18		
19	-2.564388E+02	2.687938E+01	4.009013E+01	-2.886429E+01	-2.207906E+01	1.406025E-01	24		
25	-5.889379E+01	-3.880863E+01	3.568885E+01	-5.305650E-01	-1.330840E+01	7.456207E+01	30		
31	-1.081862E+02	-9.078902E+00	5.305650E-01	-3.352834E+02	9.45321E+01	8.947843E+01	36		
37	-5.838351E+04	-2.150093E+01	5.180088E+01	5.764893E+04	4.804524E+02	-6.284458E+02	42		
43	-5.538705E+01	-1.287411E+02	-8.956701E+01	-5.896978E+01	2.512943E+01	-1.598058E+01	48		
49	8.006128E-02	7.914438E+00	-8.953292E-02	-5.157317E-01	7.913588E+00	-4.364223E-02	54		
55	3.280529E+01	-4.883954E+00	6.349938E+00	-3.819734E+00	-6.866775E-01	-3.149846E+00	60		
61	-3.617734E-02	3.755021E-01	-9.432346E-02				63		
				COLUMN	41				
1	-6.143476E-01	1.853567E+01	-3.703569E+00	-2.605703E+01	8.128802E+01	-6.785976E+01	6		
7	-1.248019E+02	-2.088158E+02	3.562212E+01	-7.562939E+01	-2.484999E+02	1.004019E+03	12		
13	-7.861060E+01	5.671638E+01	-2.310542E+01	-7.314221E+00	-1.599104E+00	-9.121488E-01	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	41				
19	1.382582E+02	-7.729881E+02	1.899204E+02	-9.579556E+01	-7.535880E+02	2.720889E+02	24		
25	2.858105E+00	-5.046848E+02	-1.372308E+02	3.201022E+01	1.934923E+02	2.871598E+02	30		
31	-1.135598E+01	2.975979E+00	-1.885689E-01	-9.338429E+01	8.522358E+00	1.002325E+01	36		
37	2.058341E+01	-7.282504E+01	5.142885E+01	4.804524E+02	2.232797E+03	-1.894942E+03	42		
43	5.407758E+01	-2.042464E+02	3.309934E+02	3.77578E+01	-1.298558E+02	-6.539725E+01	48		
49	-6.145428E-01	6.085888E+01	-3.414548E+00	1.786539E-01	6.085812E+01	2.585198E+00	54		
55	-4.418749E+01	6.012197E+00	2.772453E+00	-8.202878E-01	-1.881883E-01	5.703224E+00	60		
61	1.481145E+00	4.838883E+00	4.808888E-01				63		
				COLUMN	42				
1	2.188894E+01	2.588243E+01	1.326526E+01	1.054029E+02	-2.124440E+01	5.560353E+01	6		
7	1.424504E+02	-5.720624E+01	1.850548E+01	8.871033E+02	-4.137049E+01	-4.611772E+02	12		
13	5.281785E+01	1.486497E+02	-7.037667E+02	-3.389770E+00	-8.708458E+00	-2.748855E+01	18		
19	3.871544E+01	8.851350E+02	-3.557761E+02	1.200925E+02	2.502299E+02	-7.378528E+01	24		
25	3.735564E+01	-1.730314E+02	-1.704526E+02	6.124855E+01	-7.104287E+01	-6.376769E+02	30		
31	2.242883E+00	-2.152045E+00	2.799887E+00	9.942738E+01	-1.278387E+01	-1.540247E+02	36		
37	-5.176347E+01	7.389431E+01	-4.892278E+01	-6.284458E+02	-1.894942E+03	2.601964E+03	42		
43	-1.048190E+01	-4.494053E+00	-8.165951E+01	3.286477E+01	-1.587740E+01	2.562795E+01	48		
49	6.075155E-02	-5.244898E+00	1.947642E-01	1.977470E-01	-5.244451E+00	8.180912E-02	54		
55	2.00801E+01	1.061636E+00	-3.441169E+00	2.889771E+00	5.242287E-01	1.952925E+00	60		
61	-7.097408E-02	-4.814331E-01	5.753600E-02				63		
				COLUMN	43				
1	-1.419859E+03	-1.980991E+03	-5.404031E+02	-7.824378E+03	-1.133843E+03	-8.730844E+02	6		
7	-2.293524E+04	3.743672E+03	8.390583E+03	-1.278446E+03	-2.888889E+04	1.802090E+03	12		
13	-1.059880E+03	-2.584155E+02	1.783671E+03	1.005437E+02	8.441846E+00	8.998700E+01	18		
19	-8.178517E+04	9.127980E+03	5.276275E+02	-3.581809E+03	6.910743E+03	-8.237738E+02	24		
25	3.532184E+03	1.028477E+03	1.028477E+03	-2.338989E+03	-2.085727E+02	-4.094732E+03	30		
31	3.206824E+01	5.593991E+00	-1.846725E+01	-4.854558E+01	9.422522E+01	7.271428E+01	36		
37	-4.447750E+01	1.103659E+01	2.201277E+00	-5.338705E+01	5.407758E+01	-1.048190E+01	42		
43	-2.378525E+05	8.070981E+03	-8.750578E+03	-5.31281E+04	-9.021084E+03	-9.106433E+02	48		
49	-2.387760E+02	-6.941597E+03	5.151723E+02	-1.137270E+02	-6.942204E+03	-1.070083E+02	54		
55	-2.844498E+04	1.274524E+03	4.857918E+03	-2.736723E+03	-5.220289E+02	-2.256335E+03	60		
61	1.088133E+01	2.574408E+02	-8.108378E+01				63		
				COLUMN	44				
1	5.905620E+02	1.082478E+03	3.301817E+02	2.203630E+03	1.741292E+03	-3.448200E+02	6		
7	-1.809687E+03	1.767854E+03	1.038532E+03	3.856498E+03	-1.589136E+04	7.859491E+03	12		
13	1.142801E+02	2.184014E+03	-5.427798E+03	-1.385897E+02	-1.214491E+02	-2.122583E+02	18		
19	5.714742E+03	-5.285793E+04	8.724543E+02	-5.979067E+02	-2.086323E+03	1.815527E+03	24		
25	1.969856E+03	-7.888377E+02	-2.019808E+03	1.129115E+03	2.798575E+03	-6.812359E+03	30		
31	-4.678528E+01	8.510261E+00	6.386368E+00	-1.189252E+02	-2.116072E+02	-5.399740E+00	36		
37	4.934060E+01	1.020508E+01	-1.090759E+01	1.257411E+02	-2.042464E+02	-4.494053E+00	42		
43	8.070981E+03	5.557580E+04	3.825633E+03	-4.573313E+02	-5.317085E+03	-7.597257E+02	48		
49	-1.864752E+02	-4.530358E+03	7.502794E+01	1.562246E+02	-4.530378E+03	-8.426957E+01	54		
55	-1.104700E+03	2.872671E+03	1.890145E+02	-3.805505E+01	-1.435458E+01	1.089943E+02	60		
61	4.379578E+01	4.001217E+01	-1.025218E+01				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN 45									
1	-1.122881E+03	-1.918834E+03	-4.277288E+02	-5.342252E+03	-2.105070E+03	3.388832E+02			6
7	-1.508048E+04	5.026007E+03	5.670578E+03	-5.332673E+03	4.627311E+03	-9.194578E+03			12
13	1.454205E+02	-2.432971E+03	8.089184E+03	-1.985048E+02	1.235838E+02	1.158275E+02			18
19	1.014051E+04	-1.424889E+03	-1.428088E+04	-4.927542E+02	9.893925E+03	-3.849852E+03			24
25	-2.362152E+03	7.538821E+03	4.033334E+03	2.816080E+04	-7.428174E+03	-4.976183E+04			30
31	6.593703E+00	8.855873E+00	-1.928822E+01	-3.059800E+01	2.898497E+02	4.037867E+01			36
37	-7.485578E+01	3.799097E+00	2.081004E+01	-9.956701E+01	3.309334E+02	-8.165951E+01			42
43	-8.750978E+03	3.625633E+03	7.124767E+04	2.066778E+03	1.658232E+04	-1.546312E+04			48
49	-3.929890E+01	-7.253077E+03	2.588511E+02	-6.293274E+01	-7.253253E+03	-4.546155E+02			54
55	-8.793683E+03	-3.52407E+01	3.522623E+03	-9.603817E+02	-1.17744E+02	-1.087534E+03			60
61	-1.253172E+02	-3.796896E+02	-9.708181E+01						63
COLUMN 46									
1	-9.197125E+02	-1.298927E+03	-4.727921E+02	-4.785715E+03	-8.561306E+02	-5.261372E+02			6
7	-1.288719E+04	7.365960E+02	4.781268E+03	-7.875826E+02	-1.174589E+04	1.112583E+03			12
13	-7.605054E+02	-3.08164E+02	9.174404E+02	6.335198E+01	1.785159E+01	3.645275E+01			18
19	-4.485529E+04	-8.909129E+02	4.670218E+02	-2.040904E+03	2.394246E+03	-2.420992E+02			24
25	-2.374079E+03	-2.772812E+03	2.733771E+02	-3.848439E+03	-4.189618E+02	1.017758E+03			30
31	-1.518240E+01	1.198045E+00	-9.842807E+00	-2.670283E+01	2.863406E+01	8.367383E+00			36
37	-2.847040E+01	5.039058E+00	-5.584975E-01	-5.896978E+01	3.777578E-01	3.286477E+01			42
43	-5.312921E+04	-4.573313E+02	2.066778E+03	2.319323E+05	2.501583E+03	1.340648E+04			48
49	-4.288983E+02	1.447319E+03	-6.162498E+01	-4.583442E+02	1.445792E+03	-2.028766E+01			54
55	-7.180892E+04	2.495100E+02	-4.847970E+03	-2.248386E+04	-4.638645E+03	-1.773330E+04			60
61	4.429644E+02	3.584787E+03	-4.467833E+02						63
COLUMN 47									
1	1.349027E+02	2.937432E+02	8.642186E+01	3.380848E+02	5.872586E+02	-1.540105E+02			6
7	-2.589787E+03	-1.319889E+03	1.873885E+03	4.219224E+03	-4.172874E+03	5.617212E+03			12
13	-1.653098E+02	1.433859E+03	-4.218801E+03	-8.224911E+01	-7.429281E+01	-1.847837E+02			18
19	9.310451E+03	2.669601E+03	-1.885624E+03	-1.652588E+02	-3.794953E+03	1.628643E+03			24
25	5.603057E+02	-3.908150E+03	-1.838180E+03	-4.816079E+03	1.841534E+03	-1.456728E+04			30
31	-2.521081E+01	-4.906710E-03	1.120358E+00	-3.384857E+01	-1.510584E+02	-1.121898E+01			36
37	1.720175E+01	1.020108E+00	-6.080316E+00	5.212943E-01	-1.298558E+02	-1.567740E+01			42
43	-9.021086E+03	-6.317085E+03	1.658232E+04	2.501583E+03	7.580707E+02	-2.723525E+03			48
49	1.061411E+02	-3.352447E+04	-1.571872E+03	-1.107985E+02	-3.352448E+04	1.533840E+03			54
55	-2.931531E+03	-6.754479E+03	-3.955354E+03	1.324392E+03	2.165501E+02	3.348458E+03			60
61	3.651890E+02	2.429404E+03	5.382688E+02						63
COLUMN 48									
1	-2.485455E+02	-3.226380E+02	-1.008258E+02	-1.435382E+03	-8.026442E+01	-1.887174E+02			6
7	-5.800097E+03	3.262432E+02	2.826432E+03	1.101170E+03	-3.833361E+03	3.393229E+03			12
13	-3.140958E+02	3.901754E+02	-5.404951E+02	-1.491446E+01	-1.867518E+01	-2.487268E+01			18
19	5.356156E+03	2.572937E+03	1.309307E+02	-6.811118E+02	-1.255193E+03	6.873721E+02			24
25	-4.409274E+02	-1.958158E+03	-4.848858E+02	2.287329E+03	8.028091E+02	-3.077863E+03			30
31	-1.592274E+01	3.463348E-01	-4.081852E+00	-2.522416E+01	-4.177259E+02	1.107651E+01			36
37	-3.089523E+00	3.164259E+00	-2.632405E+00	-1.599058E+01	-6.839725E+01	2.562795E+01			42
43	-9.105633E+02	-7.597257E+02	-1.546312E+04	1.340649E+04	-2.723526E+03	3.026290E+04			48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN 48									
49	1.633989E+01	1.523716E+03	-1.113928E+03	1.965368E+01	1.523778E+03	-9.806340E+02			54
55	4.219024E+03	4.633479E+01	-7.066020E+03	-1.208304E+04	-2.253643E+03	-7.853514E+03			60
61	3.189260E+02	1.849724E+03	-3.380410E+02						63
COLUMN 49									
1	-1.588592E+00	-1.629110E+00	-6.050299E-01	-1.057968E+01	1.458729E+00	-2.482469E+00			6
7	-4.954185E+01	2.923210E+00	2.137731E+01	1.293170E+01	-7.170717E+01	2.849713E+01			12
13	-2.528649E+00	5.721808E+00	-1.416747E+01	-2.135102E-01	-3.049188E-01	-5.520167E-01			18
19	-9.797788E+01	-6.836733E+01	6.788499E-01	-7.757173E+00	-4.146842E+00	5.817759E+00			24
25	-2.767119E+00	-1.705335E+01	-6.270117E+00	1.365538E-01	8.047072E+00	-3.488632E+01			30
31	-1.802828E-01	1.764578E-02	-2.086170E-02	-3.687071E-01	-5.457278E-01	4.500333E-02			36
37	2.838841E-02	3.628863E-02	-3.171522E-02	8.006128E-02	-6.145428E-01	6.075165E-02			42
43	-2.387780E+02	-1.864752E+02	-3.829880E+01	-4.288883E+02	1.061411E+02	1.633989E+01			48
49	1.214339E+03	-3.741931E+01	2.898437E+01	-2.352726E+00	-3.532417E+01	3.023820E-01			54
55	-2.908957E+02	1.824848E+02	1.748215E+01	-2.035489E+01	-5.196311E+00	6.235647E+00			60
61	7.018704E+00	1.734925E+01	3.203307E-01						63
COLUMN 50									
1	8.876875E+01	8.102444E+01	3.897503E+01	5.10211E+02	-5.889108E+01	1.180264E+02			6
7	2.441161E+03	1.059388E+03	-1.357411E+03	-1.807188E+03	1.504870E+03	-2.437734E+03			12
13	2.023761E+02	-5.235489E+02	1.772893E+03	2.488084E+01	2.534402E+01	6.921175E+01			18
19	3.058037E+02	-3.150666E+03	1.046240E+03	-2.445665E+02	1.894988E+03	-7.467897E+02			24
25	1.701818E+02	2.725794E+03	9.150334E+02	-1.833792E+03	-6.313445E+02	6.577234E+03			30
31	1.072280E+01	8.305189E-01	5.562722E-01	5.224115E+00	8.921797E+01	1.527932E+01			36
37	-2.090651E+00	-4.592041E-02	2.940175E+00	7.914438E+00	6.085888E+01	-5.244885E+00			42
43	-6.941597E+03	-4.530358E+03	-7.253077E+03	1.447319E+03	-3.352447E+04	1.523716E+03			48
49	-3.741931E+01	2.585128E+05	7.158870E+02	8.328744E+01	-2.181724E+05	6.876461E+02			54
55	2.847505E+03	-7.901386E+02	1.891642E+03	-6.089640E+02	-5.859648E+01	-2.044586E+03			60
61	-4.306387E+02	-1.197567E+03	-1.425934E+02						63
COLUMN 51									
1	-2.471744E+00	-1.459491E+00	-7.351047E-01	-1.990444E+01	6.807577E+00	-5.824627E+00			6
7	-1.234122E+02	-4.807108E+01	7.188689E+01	9.784689E+01	-8.88722E+01	1.425709E+02			12
13	-9.088029E+00	3.075708E+01	-9.452459E+01	-1.593280E+00	-1.531828E+00	-3.691122E+00			18
19	-1.262261E+02	-1.354258E+02	-4.670192E+01	-1.195592E+01	-8.932489E+01	4.108900E+01			24
25	-1.715448E+00	-1.269861E+02	-4.759893E+01	1.121708E+02	4.039459E+01	-3.418085E+02			30
31	-6.339838E-01	-2.267917E-02	-2.531989E-02	-5.869825E-01	-3.697708E+00	-3.28648E-01			36
37	-2.117932E-01	-2.811420E-02	-1.592115E-01	-8.953292E-02	-3.414548E+02	1.947842E-01			42
43	1.516723E+02	7.502784E+01	2.838511E+02	-8.162498E+02	-1.571872E+03	-1.139288E+03			48
49	2.894437E-01	7.158870E+02	1.168988E+03	-2.1985229E+01	7.158871E+02	3.802980E+01			54
55	-4.934410E+01	-1.988535E+01	-1.318182E+02	-2.727738E+01	-5.883750E+02	5.828748E+01			60
61	1.847768E+01	6.702430E+01	7.268402E+00						63
COLUMN 52									
1	-5.303072E+00	-7.683459E+00	-2.547648E+00	-2.633434E+01	-6.747808E+00	-1.878370E+00			6
7	-6.105822E+01	-2.658685E+00	-2.41418E+01	-6.088882E+00	-2.368919E+01	-1.880218E+00			12
13	-3.975089E+00	-3.973830E+00	8.883355E+00	4.648600E-01	2.338876E-01	3.931244E-01			18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	52				
19	-1.887435E+02	8.378893E+01	-4.387751E+00	-8.261703E+00	8.579908E+00	-2.253382E+00	24		
25	-1.407041E+01	-1.883774E+01	-2.684848E+00	-5.204803E+00	-5.803403E+00	-8.847208E+00	30		
31	-1.730163E-02	-1.028858E-02	-5.811438E-02	-5.959710E-02	3.078868E-01	2.761321E-03	36		
37	-2.088944E-01	6.316360E-03	9.853502E-03	-5.157317E-01	1.786598E-01	1.877470E-01	42		
43	-1.137270E+02	1.562248E+02	-1.293274E+02	-4.583442E+02	-1.107988E+02	1.865368E+01	48		
49	2.352728E+00	5.326744E+01	-2.185229E-01	2.133873E+03	5.536178E+01	8.67871E-01	54		
55	-2.841858E+02	-1.833070E+02	-7.423347E+01	-3.729785E+01	-5.977259E+00	-5.021133E+01	60		
61	-5.804117E+00	-7.786347E+00	-1.422009E+00				63		
				COLUMN	53				
1	8.875687E+01	9.100806E+01	3.836960E+01	5.509575E+02	-5.570019E+01	1.180188E+02	6		
7	2.440970E+03	1.059258E+03	-1.357332E+03	-1.807178E+03	1.504505E+03	-2.437688E+03	12		
13	2.023648E+02	-5.236469E+02	1.772888E+03	2.486125E+01	2.538390E+01	6.921147E+01	18		
19	3.054444E+02	-3.150839E+03	1.046234E+03	2.445389E+02	1.949898E+03	-7.467838E+02	24		
25	1.701528E+02	2.725734E+03	8.150272E+02	-1.883801E+03	-6.313807E+02	8.577215E+03	30		
31	1.072248E+01	8.305328E-01	5.561360E-01	5.223603E+00	6.921756E+01	1.527932E+01	36		
37	-2.090961E+00	-4.584705E-02	2.940137E+00	7.913688E+00	6.085812E+01	-5.244451E+00	42		
43	-6.942204E+03	-4.530376E+03	-7.253253E+03	1.445792E+03	3.352448E+04	1.523778E+03	48		
49	3.532417E+01	-2.181724E+05	7.158871E+02	5.536178E+01	2.585128E+05	-6.976440E+02	54		
55	2.848515E+03	-7.901401E+02	1.891807E+03	-6.090632E+02	-5.861573E+01	-2.044872E+03	60		
61	-4.305346E+02	-1.197551E+03	-1.425953E+02				63		
				COLUMN	54				
1	3.971849E-01	-1.115751E+00	-4.121035E-02	7.341706E+00	-6.855876E+00	4.054829E+00	6		
7	6.801886E+01	4.105931E+01	-4.204972E+01	-8.313681E+01	6.413733E+01	-1.017225E+02	12		
13	6.020225E+00	-2.552722E+01	8.530689E+01	1.337458E+00	1.277825E+00	3.332204E+00	18		
19	-1.304433E+01	-9.843058E+01	4.742635E+01	5.751319E+00	8.108378E+01	-3.227488E+01	24		
25	-1.165355E+00	1.054887E+02	4.118376E+01	-7.942198E+01	-3.001348E+01	3.009011E+02	30		
31	4.521094E-01	2.579827E-02	-1.419955E-02	3.040732E-01	3.141891E+00	8.477945E-01	36		
37	-2.187324E-01	5.279288E-03	1.271050E-01	-4.384223E-02	2.586198E+00	8.180912E-02	42		
43	-1.070083E+02	-8.426957E+01	-4.546156E+02	-2.028756E+01	1.533540E+03	-9.806340E+02	48		
49	3.023820E-01	-6.978481E+02	3.802950E+01	8.878871E-01	-6.978440E+02	1.170455E+03	54		
55	1.694839E+02	1.997424E+01	5.951453E+01	-8.800877E+01	-1.396715E+01	-1.289682E+02	60		
61	-1.524494E+01	-4.950424E+01	-1.074208E+01				63		
				COLUMN	55				
1	-5.283531E+02	-7.215700E+02	-2.394987E+02	-2.850897E+03	-3.739939E+02	-3.487994E+02	6		
7	-8.791912E+03	-1.011101E+02	3.692786E+03	8.272420E+02	-7.582235E+01	2.592372E+03	12		
13	-5.188888E+02	-2.341880E+02	-6.106931E+02	-1.265977E+01	-1.082488E+01	-2.350745E+01	18		
19	-1.948351E+04	1.438501E+03	-4.347312E+02	-1.251287E+03	3.205362E+01	4.006348E+02	24		
25	-1.270142E+03	-2.930902E+03	-4.173710E+02	4.340030E+01	3.026722E+02	-4.483005E+03	30		
31	-1.714649E+01	5.422036E-01	-6.084983E+00	-2.507995E+01	-2.963828E+01	2.535289E+00	36		
37	-1.288311E+01	3.380347E+00	-2.164743E+00	3.280528E+01	-4.418749E+01	2.008010E+01	42		
43	-2.844498E+04	-1.104700E+03	-8.783683E+03	-7.180892E+04	-2.931531E+03	4.219024E+03	48		
49	-2.068957E+J2	-2.847505E+03	-4.934410E+01	-2.841858E+02	2.848515E+03	1.694839E+02	54		
55	1.528335E+05	1.756280E+03	3.309748E+04	-1.133838E+04	-6.221386E+03	-3.002822E+04	60		
61	-4.556383E+02	4.164336E+03	1.242718E+03				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

				COLUMN	56				
1	-2.718070E+01	-4.648212E+01	-1.442988E+01	-1.132902E+02	-6.310731E+01	6.087285E+00	6		
7	-5.704381E+01	-5.674724E+01	1.077225E+01	-1.403242E+02	4.286074E+02	-2.431576E+02	12		
13	-1.029010E+01	-7.440885E+01	1.799545E+02	5.040779E+00	4.159454E+00	7.041581E+00	18		
19	-4.430143E+02	1.253727E+03	4.918408E+01	2.123239E+00	8.140884E+01	-5.983728E+01	24		
25	-8.441579E+01	-8.332161E+00	6.514899E+01	-2.389433E+01	-1.071592E+02	1.718309E+02	30		
31	1.322418E+00	-2.387270E-01	-2.612911E-01	3.866872E+00	6.317382E+00	-5.724285E-01	36		
37	-1.801349E+00	-2.858659E-01	3.155805E-01	-4.883554E+00	6.012197E+00	1.051536E+00	42		
43	1.274524E+03	2.672871E+03	-3.351807E+01	-2.495100E+02	-5.754479E+03	4.833479E+01	48		
49	1.824845E+02	-7.801388E+02	-1.988535E+01	-1.833070E+02	-7.901401E+02	1.997424E+01	54		
55	1.756280E+03	6.378269E+03	4.985894E+03	-2.943094E+03	9.332850E+02	-3.946556E+03	60		
61	-9.632464E+00	-2.503776E+03	-1.127056E+03				63		
				COLUMN	57				
1	9.517247E+01	1.338605E+02	4.343528E+01	5.021878E+02	8.404624E+01	5.294330E+01	6		
7	1.460063E+03	4.736967E+01	-5.958313E+02	-7.787639E-01	1.175578E+03	-2.700441E+02	12		
13	8.149897E+01	6.868515E+00	-5.158986E+01	-4.920357E+00	-5.770346E-01	-2.077605E+00	18		
19	3.323469E+03	-3.042839E+02	3.313434E+01	2.084326E+02	-1.482843E+02	-1.107755E+01	24		
25	2.322774E+02	3.348657E+02	-1.899465E+00	5.368843E+01	9.923612E+00	1.773918E+02	30		
31	2.190416E+00	-1.213063E-01	1.149694E+00	3.888533E+00	-6.588264E-01	-1.851033E+00	36		
37	2.853028E+00	-5.764035E-01	1.158871E-01	6.349936E+00	2.772453E+00	-3.441169E+00	42		
43	4.857918E+03	1.590145E+02	3.522623E+03	-4.847970E+03	-3.955354E+03	-7.068020E+03	48		
49	1.748215E+01	1.891842E+03	-1.316152E+02	7.842347E+01	1.891840E+03	5.951453E+01	54		
55	3.309748E+04	4.985894E+03	7.759104E+04	-3.988045E+04	-1.619249E+04	-7.584305E+04	60		
61	-6.556876E+02	1.114903E+04	2.256657E+03				63		
				COLUMN	58				
1	-5.729064E+01	-8.123988E+01	-2.844551E+01	-2.894723E+02	-5.350048E+01	-3.106478E+01	6		
7	-8.385049E+02	5.379455E+01	3.320299E+02	-6.064717E+01	-5.802445E+02	1.201821E+02	12		
13	-4.727024E+01	-2.086341E+01	9.253778E+01	3.885998E+00	1.204553E+00	3.552148E+00	18		
19	-1.989913E+03	4.148247E+01	6.771801E+01	-1.272219E+02	1.301452E+02	-8.453295E+00	24		
25	-1.407857E+02	-1.387323E+02	2.753153E+01	-1.502748E+02	-1.125880E+01	1.645313E+02	30		
31	1.068834E+00	8.951352E-02	-5.997549E-01	-2.128252E+00	2.306518E+00	1.521755E+00	36		
37	-1.782854E+00	3.917375E-01	-3.307285E-02	3.819734E+00	-8.202676E-01	2.898771E+00	42		
43	-2.735723E+03	3.805505E+01	-9.603817E+02	-2.248388E+04	1.324392E+03	-1.208304E+04	48		
49	-2.054899E+01	-6.089640E+02	-2.727738E+01	-3.729785E+01	-6.090632E+02	-8.806877E+01	54		
55	-1.133838E+04	-2.943094E+03	-3.988045E+04	4.384728E+04	1.561310E+04	5.380435E+04	60		
61	-2.904440E+03	-1.280063E+04	-1.510694E+03				63		
				COLUMN	59				
1	-1.054804E+01	1.489820E+01	-4.877562E+00	-5.525183E+01	-8.609312E+00	-5.910144E+00	6		
7	-1.551334E+02	9.598642E+00	6.103269E+01	-9.758988E+00	-2.319818E+02	2.309744E+01	12		
13	-8.835967E+00	3.299579E+00	1.489074E+01	6.807788E-01	1.951501E-01	5.885945E-01	18		
19	-3.884082E+02	-6.482365E-01	1.231184E+01	-2.378739E+01	2.348716E+01	-1.218171E+00	24		
25	-2.602979E+01	-2.772014E+01	4.210518E+00	-3.091169E+01	-1.595813E+00	2.858987E+01	30		
31	-2.046707E-01	-1.886332E-02	-1.285598E-01	3.805327E-01	2.545281E-01	2.545281E-01	36		
37	-3.208435E-01	7.228935E-02	-9.321423E-03	-6.888775E-01	-1.881853E-01	5.242287E-01	42		
43	-5.220289E+02	-1.435458E+01	-1.177744E+02	-4.836648E+03	2.185501E+02	-2.253643E+03	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN				59				
49	-5.196311E+00	-5.859649E+01	-6.863750E+00	-5.977259E+00	-5.861573E+01	-1.396715E+01		54
55	-6.221386E+03	9.332650E+02	-1.619249E+04	1.561310E+04	1.948419E+05	2.089410E+04		60
61	-3.392001E+03	-1.958261E+05	-2.442706E+03					63
COLUMN				60				
1	-4.141152E+01	-6.290474E+01	-1.996583E+01	-2.020752E+02	-5.753132E+01	-1.294234E+01		6
7	-4.282581E+02	1.138403E+02	1.288784E+02	-2.238833E+02	-3.136071E+02	-1.717983E+02		12
13	-2.114287E+01	-7.435589E+01	2.467368E+02	5.931752E+00	3.875951E+00	9.865308E+00		18
19	-1.723601E+03	-5.809879E+01	1.270233E+02	-7.638133E+01	2.733768E+02	-8.155746E+01		24
25	-1.106229E+02	1.106815E+02	1.074719E+02	-3.047026E+02	-8.573117E+01	7.210881E+02		30
31	3.861333E-01	8.419824E-02	-5.098830E-01	-2.875067E-01	8.594278E+00	2.016733E+00		36
37	-1.865099E+00	2.243098E-01	2.738968E-01	-3.148646E+00	5.703224E+00	1.952925E+00		42
43	-2.256335E+03	1.099943E+02	-1.087534E+03	-1.773330E+04	3.348458E+03	-7.853514E+03		48
49	6.235647E+00	-2.044596E+03	5.828748E+01	-5.021133E+01	-2.044672E+03	-1.289882E+02		54
55	-3.002822E+04	-3.948556E+03	-7.564308E+04	5.380435E+04	2.089410E+04	8.824238E+04		60
61	-5.226861E+02	-1.627017E+04	-5.446884E+03					63
COLUMN				61				
1	1.080973E+00	5.139922E-01	3.148279E-01	9.082189E+00	-3.547152E+00	2.961871E+00		6
7	5.709007E+01	1.621018E+01	-3.112384E+01	-4.132349E+01	6.088810E+01	-6.186835E+01		12
13	3.985545E+00	-1.367403E+01	4.168857E+01	6.912793E-01	6.902118E-01	1.623824E+00		18
19	-1.778094E+00	-1.000446E+01	1.698340E+01	6.574058E+00	3.857816E+01	-1.730374E+01		24
25	7.780497E-01	5.281683E+01	2.032867E+01	-3.816604E+01	-1.781677E+01	1.368388E+02		30
31	2.922006E-01	2.078266E-03	9.585451E-03	3.344271E-01	1.601719E+00	2.106173E-01		36
37	-1.053953E-01	-2.081716E-02	7.167343E-02	-3.617734E-02	1.481145E+00	-7.097408E-02		42
43	1.085133E+01	4.379578E+01	-1.253172E+02	4.428844E+02	3.851890E+02	3.189280E+02		48
49	7.018704E+00	-4.305367E+02	1.847786E+01	-5.804117E+00	-4.305346E+02	-1.524494E+01		54
55	-4.556383E+02	-9.632464E+00	-6.656876E+02	-2.904440E+03	-3.392001E+03	-5.226861E+02		60
61	2.804318E+03	3.828083E+03	6.809659E+02					63
COLUMN				62				
1	9.393456E+00	1.028533E+01	3.821419E+00	5.910877E+01	-4.868494E+00	1.210388E+01		6
7	2.581771E+02	5.058225E+01	-1.289498E+02	-1.248522E+02	2.425787E+02	-2.011427E+02		12
13	1.737929E+01	-4.010833E+01	1.221257E+02	1.743682E+00	1.898726E+00	4.764538E+00		18
19	2.036954E+02	-8.540460E+01	5.278066E+01	3.211380E+01	1.108553E+02	-5.319169E+01		24
25	1.784378E+01	1.855057E+02	6.180714E+01	-1.080493E+02	-5.274976E+01	4.298258E+02		30
31	9.894769E-01	8.717163E-03	9.808209E-02	1.119884E+00	4.800538E+00	6.025342E-01		36
37	-1.247851E-01	-8.838832E-02	2.242498E-01	3.755021E-01	4.638863E+00	-4.814331E-01		42
43	2.574406E+02	4.001217E+01	-3.796998E+02	3.584787E+03	2.429404E+03	1.849724E+03		48
49	1.734925E+01	-1.197567E+03	6.702430E+01	-7.786347E+00	-1.197551E+03	-4.960424E+01		54
55	4.184338E+03	-2.503776E+03	1.114903E+04	-1.280063E+04	-1.958261E+05	-1.627017E+04		60
61	3.828083E+03	1.981946E+05	3.329305E+03					63
COLUMN				63				
1	-1.158817E+00	-1.957112E+00	-5.805580E-01	-5.056232E+00	-2.447682E+00	9.309383E-02		6
7	-5.043698E+00	8.305831E+00	-8.260998E-01	-1.622920E+01	-2.182796E+00	-1.649700E+01		12
13	8.000295E-02	-5.107403E+00	1.724217E+01	3.260565E-01	2.596634E-01	6.743053E-01		18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... KAA

COLUMN				63				
19	-4.848180E+01	-1.365940E+01	9.329841E+00	-1.569274E+00	1.747519E+01	-6.112326E+00		24
25	-3.303330E+00	1.580665E+01	7.984117E+00	-1.755076E+01	-5.899616E+00	5.588317E+01		30
31	6.186174E-02	5.917208E-03	-1.704188E-02	-1.591427E-02	6.181434E-01	-1.411220E-01		36
37	-7.941783E-02	7.909973E-03	2.280673E-02	-9.432346E-02	4.608668E-01	6.753600E-02		42
43	-8.108378E+01	-1.026218E+01	-9.708181E+01	-4.467833E+02	5.382688E+02	-3.380410E+02		48
49	3.203307E-01	-1.425934E+02	7.256402E+00	-1.422009E+00	-1.426953E+02	-1.074208E+01		54
55	1.242718E+03	-1.127058E+03	2.256657E+03	-1.510884E+03	-2.442706E+03	-5.446884E+03		60
61	8.809659E+02	3.329305E+03	3.581440E+03					63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

		COLUMN		1					
1	3.213142E+02	7.770946E+00	1.285115E+01	-2.423162E+02	-1.021241E+01	-1.447930E+01	6		
7	-3.658333E+01	3.300049E+00	2.583802E+00	9.025718E+01	-9.575925E+00	5.743931E+01	12		
13	-1.160158E+00	-3.53737E-02	-1.074447E+00	3.891164E-02	8.889179E-03	-4.145272E-02	18		
19	-1.422943E+01	2.693508E-01	4.687495E-01	-2.979301E+00	2.433468E+00	2.845546E-01	24		
25	-3.858611E+00	-6.217949E+00	-5.036383E-01	-1.736014E+00	-1.736014E+01	1.145140E+00	30		
31	-1.037040E-02	-5.337266E-03	-1.803195E-03	4.849278E-04	-5.218237E-03	-1.186104E-02	36		
37	-1.015896E-02	6.473885E-04	-1.078405E-02	-2.896222E-02	-2.152832E-02	3.400410E-02	42		
43	-3.044275E+00	1.198287E+00	-1.038338E+00	-3.195784E+00	3.205340E+01	-7.914856E-01	48		
49	-3.783638E-03	2.491611E-01	-7.241451E-03	-4.847151E-03	2.491457E-01	2.116832E-03	54		
55	-2.545322E+00	-1.196088E-02	2.058874E-02	-7.150974E-02	3.025805E-02	1.272333E-01	60		
61	8.492839E-03	-1.313763E-02	-1.273842E-02				63		
		COLUMN		2					
1	7.770946E+00	3.807603E+01	-5.598065E-02	9.63835E+01	-5.198234E+01	2.089259E+00	6		
7	-6.222343E+00	1.338758E+01	1.585119E+00	4.189529E+00	-1.673498E+00	-1.783074E+00	12		
13	-1.576943E-01	1.649023E-01	1.232995E-01	8.230295E-03	-7.284034E-03	4.922114E-03	18		
19	-1.852774E+01	1.584352E+00	2.841965E-01	-1.426998E+00	-5.385224E-02	1.648743E-01	24		
25	-5.564567E+00	-6.925853E+00	-7.411427E-01	-1.738199E+00	-4.789513E-01	1.426335E+00	30		
31	-1.391135E-02	-2.087153E-03	-8.119498E-03	3.191871E-03	-2.535171E-03	-2.959968E-02	36		
37	-1.658274E-02	4.645065E-03	-6.615729E-03	-5.162376E-02	-2.245210E-02	5.15528E-02	42		
43	-3.813335E+00	2.748520E+00	-2.268649E+00	-4.544492E+00	6.591471E-01	-1.134484E+00	48		
49	-3.748704E-03	3.995716E-01	-1.016053E-02	-8.670719E-03	3.896490E-01	2.695136E-03	54		
55	-3.549678E+00	-1.32854E-01	4.517072E-02	-1.087408E-01	3.878550E-02	1.608154E-01	60		
61	1.285991E-02	-2.045385E-02	-1.798462E-02				63		
		COLUMN		3					
1	1.285115E+01	-5.598065E-02	1.288815E+01	1.412083E+01	2.792807E+00	-1.438069E+01	6		
7	-6.845131E+00	-2.050886E+00	-1.141295E-01	-1.793076E-01	-5.228555E+00	7.056738E-01	12		
13	-7.808689E-01	5.794440E-02	-7.477317E-01	2.351736E-02	-6.867597E-05	-2.883357E-02	18		
19	-5.744135E+00	-2.731497E-01	2.862997E-01	-1.855848E+00	1.580620E+00	2.448131E-01	24		
25	-1.386688E+00	-2.464074E+00	-2.837896E-01	-1.105188E+00	3.874375E-02	1.154578E+00	30		
31	-1.123180E-02	-4.679493E-03	-2.889577E-03	5.603858E-03	-1.194436E-02	-5.850734E-03	36		
37	1.331176E-02	-3.523985E-03	4.434119E-04	-1.577619E-03	-1.792345E-02	1.271458E-02	42		
43	-8.501997E-01	3.173797E-01	3.228796E-01	-1.142968E+00	1.495962E-01	-1.808731E-01	48		
49	-1.189490E-03	7.109041E-02	-1.152242E-03	1.337828E-04	7.108819E-02	6.747322E-04	54		
55	-9.401150E-01	-1.910955E-02	-3.025880E-02	-7.969298E-03	1.812558E-02	7.137329E-02	60		
61	3.704265E-03	-1.105243E-02	-5.373760E-03				63		
		COLUMN		4					
1	-2.423162E+02	3.963835E+01	1.412083E+01	5.562727E+02	-3.505711E+01	2.243634E+01	6		
7	-5.139031E+01	7.194685E-01	-2.83788E+00	-5.589416E+01	-5.147556E+01	-3.873881E+00	12		
13	3.239591E-01	-7.219865E-01	-1.808988E+00	-5.587158E-02	7.722941E-02	-7.218892E-02	18		
19	-6.477097E+01	-3.352754E-01	2.468624E+00	-1.626463E+01	1.561966E+01	9.124410E-01	24		
25	-1.597394E+01	-2.542066E+01	-2.574770E+00	-8.438154E+00	-4.670630E-01	4.394958E+00	30		
31	-5.517260E-02	-1.524535E-02	-2.988430E-02	-3.17845E-03	-1.894882E-02	-3.215849E-02	36		
37	-1.462294E-02	-3.400758E-04	-3.810095E-03	-1.124381E-01	-6.872467E-02	1.028616E-01	42		
43	-1.491818E+01	3.504872E+00	-3.336402E+00	-1.523030E+01	1.078563E+00	-3.841331E+00	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

		COLUMN		4					
49	-1.920228E-02	1.006014E+00	-3.282023E-02	-1.317945E-02	1.005954E+00	7.180299E-03	54		
55	-1.270241E+01	-1.888945E-01	-7.078566E-02	-2.801419E-01	1.819300E-01	7.710003E-01	60		
61	4.741528E-02	-8.175835E-02	-6.616116E-02				63		
		COLUMN		5					
1	-1.021241E+01	-5.198234E+01	2.792807E+00	-3.505711E+01	1.088517E+02	-6.481808E+00	6		
7	3.658333E+01	-5.091188E+01	2.852038E-01	-1.015041E+00	8.677101E+00	3.509103E+00	12		
13	8.338909E-01	-1.584955E-01	-1.397151E+00	-7.724288E-02	3.348879E-02	-5.558713E-02	18		
19	1.276721E+00	2.174904E+00	-5.944321E-01	2.915205E+00	7.425414E+00	1.290921E+00	24		
25	-1.260392E-01	-3.644584E+00	-1.303578E+00	1.368846E-01	-7.240385E-02	1.558257E+00	30		
31	-5.801068E-03	-1.447222E-02	1.090820E-02	8.602713E-02	-7.120368E-02	-3.140821E-02	36		
37	6.019061E-02	-3.021883E-02	1.716208E-02	-3.849218E-02	-5.801029E-02	9.176250E-03	42		
43	1.727234E+00	2.442299E+00	5.254319E-01	-9.575417E-01	3.768806E-01	-1.426576E-01	48		
49	2.876321E-03	3.070180E-01	-2.988430E-02	3.702463E-03	3.702463E-03	6.929140E-03	54		
55	-9.771580E-01	-1.317289E-01	-1.381984E-01	4.488175E-02	4.040368E-02	1.537851E-01	60		
61	8.153483E-03	-3.098143E-02	-7.417883E-03				63		
		COLUMN		6					
1	-1.447930E+01	2.089259E+00	-1.438069E+01	2.243634E+01	-6.481808E+00	4.708891E+01	6		
7	2.871538E+01	4.166955E+00	-3.205480E+01	-1.866511E-02	-1.303498E+01	-3.059779E+00	12		
13	-2.065937E-01	-2.717631E-01	-5.664274E-02	-1.787765E-02	2.149518E-02	-2.493750E-03	18		
19	-1.007590E+01	-2.251395E+00	7.181335E-01	4.064455E+00	5.77820E+00	-2.144272E-01	24		
25	-1.914348E+00	-2.008606E+00	1.125228E-01	-2.198405E+00	1.555031E-01	1.055316E+00	30		
31	-3.031475E-03	3.588551E-03	-9.369020E-03	4.008040E-02	1.876354E-02	8.473485E-03	36		
37	1.993840E-02	1.836019E-02	-1.443276E-02	3.489852E-02	8.751616E-03	4.755551E-03	42		
43	-2.237392E+00	-1.163036E+00	9.355388E-01	-1.555584E+00	5.229427E-02	-1.758266E-01	48		
49	-3.512600E-03	-1.005877E-01	4.042032E-03	-2.344088E-03	-1.005903E-01	-3.752603E-03	54		
55	-1.310295E+00	5.804021E-02	-5.272781E-02	-7.887904E-03	2.612202E-02	1.087557E-01	60		
61	2.802151E-03	-1.516196E-02	-7.729718E-03				63		
		COLUMN		7					
1	-3.858333E+01	-6.222343E+00	-6.845131E+00	-5.139031E+02	3.087578E+01	2.871538E+01	6		
7	8.570623E+02	3.885704E+01	-5.253282E+00	-8.925801E+00	-7.501509E+01	-5.089776E+00	12		
13	5.070988E+00	-6.849288E-01	9.901104E+00	-4.537820E-02	4.049118E-02	3.847832E-01	18		
19	-8.840042E+01	-1.017516E+01	7.148858E+00	-2.881862E+01	4.085552E+01	-4.219793E+00	24		
25	-7.827033E+00	-1.036248E+00	2.204190E+00	-7.108535E+00	1.234610E-01	8.933731E+00	30		
31	6.476937E-02	6.378142E-02	1.854448E-02	-1.837073E-01	1.031340E-01	8.384443E-02	36		
37	5.081905E-02	6.783581E-03	6.815819E-02	5.149548E-02	4.282386E-04	3.11008E-02	42		
43	-3.848783E+01	-6.902893E+00	-5.175792E+00	-3.38336E+01	-1.85228E+00	-1.285661E+01	48		
49	-4.713454E-02	1.002756E+00	-8.388587E-02	2.18338E-02	1.002898E+00	-1.674961E-02	54		
55	-3.322528E+01	3.594730E-01	-1.210852E+00	-3.547266E-01	6.520624E-01	2.840459E+00	60		
61	1.202181E-01	-2.780758E-01	-1.904740E-01				63		
		COLUMN		8					
1	3.300049E+00	1.338758E+01	-2.050886E+00	7.194885E-01	-5.091168E+01	4.166955E+00	6		
7	-3.885704E+01	6.311592E+01	-3.495147E+00	-2.194171E+00	1.242198E+01	6.223697E+00	12		
13	-1.243113E+00	7.124718E-02	-8.782177E+00	-2.055141E-02	1.833250E-02	-6.222222E-01	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN				8				
19	6.731810E+00	-2.659624E+00	-1.106193E+00	5.637648E+00	-1.399268E+01	2.590872E+00	24	
25	-1.189617E+00	-1.025028E+01	-3.028437E+00	3.323114E+01	1.688189E+00	-2.630772E-01	30	
31	-3.016777E-02	-8.650801E-03	-3.786759E-03	1.325206E-02	-1.961963E-01	-1.191444E-01	36	
37	4.265558E-02	-3.654099E-03	-1.415621E-02	3.337208E-02	-1.857899E-01	6.441728E-02	42	
43	7.688642E+00	8.927879E-01	3.284398E+00	2.985848E+00	2.472880E-01	8.480085E-01	48	
49	1.476360E-03	4.513592E-01	-5.987475E-03	1.508532E-02	4.513677E-01	1.344385E-02	54	
55	1.031241E+00	6.476571E-02	-2.696335E-01	1.804974E-01	3.312053E-02	2.219130E-01	60	
61	-2.539111E-03	2.659062E-02	3.261931E-03				63	
COLUMN				9				
1	2.533602E+00	1.686519E+00	-1.141295E-01	-2.937088E+01	2.952036E-01	-3.206480E+01	6	
7	-5.253253E+00	-3.495147E+00	6.387595E+01	3.692458E+00	3.079508E+00	-2.200400E+01	12	
13	4.173739E+00	-1.841824E-01	-2.652084E+00	1.847075E-01	1.244104E-02	-1.065555E-01	18	
19	6.596208E-01	6.971843E-01	-1.849179E+00	8.871453E-02	7.559492E+00	-3.281730E+00	24	
25	-4.406877E-01	-4.404207E+00	-2.097779E+00	-3.671176E+00	-8.465350E-01	-4.294580E+00	30	
31	-3.759279E-02	-1.144121E-02	-5.354421E-02	2.457048E-02	-4.662750E-02	-8.669836E-02	36	
37	-4.220170E-02	1.642878E-02	-5.826641E-03	-2.231030E-02	1.246506E-01	-1.132489E-01	42	
43	7.239938E+00	2.294349E+00	-9.796959E-02	9.684881E+00	8.222201E-01	5.251574E+00	48	
49	6.281672E-03	-1.700629E-01	2.841009E-02	-2.377817E-02	-1.700873E-01	1.584754E-02	54	
55	1.167670E+01	-1.999939E-01	8.920899E-01	-2.491373E-02	-3.059174E-01	-1.330019E+00	60	
61	-4.039905E-02	1.395549E-01	7.728069E-02				63	
COLUMN				10				
1	9.025716E-01	4.159529E+00	-1.793076E-01	-5.599418E-01	-1.015041E+00	-1.866511E-02	6	
7	-8.925801E+00	-2.194171E+00	-3.692458E+00	9.001386E-01	2.338133E+01	-1.227739E+01	12	
13	-2.210086E+00	-2.451380E-01	1.167739E+01	-3.176682E-01	2.416855E-02	4.525911E-01	18	
19	-2.303898E+01	-8.010634E+00	4.776117E+00	1.259634E+01	-4.374040E+01	2.736474E+00	24	
25	-1.286010E+01	-3.626813E+01	-1.261903E+00	2.329895E+00	-1.627729E+00	1.185198E+00	30	
31	6.341052E-02	-6.358281E-03	3.178690E-02	-6.769091E-02	1.526758E-01	7.314106E-02	36	
37	-7.746242E-02	6.851550E-03	-4.901715E-02	5.329378E-02	-1.296552E-02	1.380409E-01	42	
43	1.407457E+00	-1.102337E+00	-3.811042E+00	3.143371E-01	4.293497E-02	4.505455E-01	48	
49	-6.497524E-03	8.631041E-02	-1.139171E-02	6.696656E-03	8.831161E-02	1.251592E-02	54	
55	2.567177E+00	-2.617488E-01	1.175832E-01	-4.952580E-02	-6.143206E-02	-3.674597E-01	60	
61	1.826591E-02	-2.920956E-02	1.400612E-02				63	
COLUMN				11				
1	-9.575925E+00	-1.673498E+00	-6.228555E+00	-5.147562E+01	9.677101E+00	-1.303498E+01	6	
7	-7.501509E+01	1.242198E+01	3.079508E+00	2.338133E+01	3.943447E+02	1.079555E+00	12	
13	-1.818962E+00	-7.254364E-01	-6.320803E+00	2.440844E-01	4.486175E-02	-2.452004E-01	18	
19	-2.279571E+02	1.286708E+01	-5.204897E-01	3.189940E+01	-5.163141E+01	3.240532E+00	24	
25	6.108194E+00	1.236586E+01	1.080572E+00	-1.363734E+01	1.612648E+00	4.720366E+00	30	
31	6.250686E-02	-1.223117E-02	6.456799E-02	2.164748E-01	-1.225095E-01	-2.205605E-01	36	
37	6.322708E-02	-3.806568E-02	-8.863666E-03	6.916087E-02	9.106077E-02	-6.576215E-02	42	
43	-2.151576E+01	-1.153916E+01	1.338900E+01	-1.480716E+01	8.104616E-01	-1.454791E-01	48	
49	3.276301E-02	-4.209244E+00	1.599056E-01	7.610146E-02	-4.209069E+00	-1.298768E-01	54	
55	-1.816236E+01	8.785011E-01	-2.733620E+00	9.102783E-01	7.800885E-01	2.988110E+00	60	
61	-8.854566E-03	-6.240936E-01	-1.482190E-01				63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN				12				
1	5.743931E-01	-1.783074E+00	7.056738E-01	-3.873881E+00	3.508103E+00	-3.059779E+00	6	
7	-5.509976E+00	6.223697E+00	-2.200400E+01	-1.227739E+01	1.079555E+00	7.085937E+01	12	
13	-1.344616E+01	3.872860E-01	-2.471719E+01	1.193280E+00	-2.087662E-02	-8.505639E-01	18	
19	-1.171940E+01	-5.952667E-01	4.169332E+00	2.874225E+00	-2.968808E+00	7.966885E-01	24	
25	1.026248E+00	5.851812E+00	1.873855E+00	4.880394E-01	-2.000592E+00	2.058442E+01	30	
31	6.138734E-02	2.431961E-02	7.738339E-02	-4.284845E-02	-6.338365E-02	1.386872E-02	36	
37	6.481363E-02	-4.231472E-02	3.878418E-02	-5.149814E-02	-1.449068E-01	8.857448E-02	42	
43	-8.599381E-01	1.824312E+00	-8.485453E+00	9.328374E-01	-1.194789E+00	7.845265E-01	48	
49	-2.393480E-02	1.969857E+00	-8.354314E-02	-3.047835E-02	1.969767E+00	8.334835E-02	54	
55	4.198623E+00	-8.855933E-01	1.255043E+00	-2.631397E-01	-2.484032E-01	-1.030676E+00	60	
61	3.553674E-02	1.605148E-01	5.441388E-02				63	
COLUMN				13				
1	-1.180158E+00	-1.676943E-01	-7.908689E-01	3.239591E-01	8.336909E-01	-2.065937E-01	6	
7	5.070988E+00	-1.243113E+00	4.173739E+00	2.210086E+00	-1.818862E+00	-1.344616E+01	12	
13	8.802582E+00	2.488211E-02	8.721504E+00	-5.638880E-01	3.015575E+00	3.335144E-01	18	
19	-5.403963E+00	-3.211977E-01	-5.346161E-01	-2.723047E-01	-2.547781E-01	3.250311E-01	24	
25	2.819536E-01	-1.335435E+00	-5.808144E-01	-1.509726E+00	1.943115E-01	8.555689E-01	30	
31	-1.009858E-02	1.279720E-03	-9.343763E-03	3.530391E-03	-1.846632E-02	-4.018042E-03	36	
37	9.786208E-03	1.345897E-03	6.415497E-03	1.364277E-02	1.930678E-02	-4.190748E-02	42	
43	-6.318128E-01	-1.183221E-01	1.288645E+00	-1.358656E+00	1.494461E-01	-1.489832E-01	48	
49	-5.184447E-04	-1.914287E-02	2.957994E-03	5.305198E-03	-1.913545E-02	-2.100986E-03	54	
55	-1.453537E+00	2.615788E-02	-1.648174E-01	3.847275E-02	4.862268E-02	2.011157E-01	60	
61	4.010428E-03	-2.908721E-02	-1.040425E-02				63	
COLUMN				14				
1	-3.533737E-02	1.649023E-01	5.784440E-02	-7.216865E-01	-1.584965E-01	2.717631E-01	6	
7	-6.649288E-01	7.124719E-02	-1.641824E-01	-2.451380E-01	-7.254364E-01	3.672850E-01	12	
13	2.486211E-02	1.254013E+00	3.764578E-01	-5.163460E-03	-9.855405E-02	1.524124E-02	18	
19	2.352358E+00	-5.540622E-01	-1.146809E-02	2.837419E-01	-6.400653E-01	8.626318E-02	24	
25	2.810053E-02	1.866556E-01	7.828203E-02	-8.087820E-01	-2.455373E-01	-3.383488E-01	30	
31	-1.350501E-03	-1.475819E-03	3.238213E-03	-8.548983E-03	-1.277588E-02	-1.432311E-03	36	
37	1.088419E-03	-1.832277E-03	-2.839869E-03	1.178294E-02	-1.381336E-02	1.88742E-03	42	
43	3.806256E-01	9.803777E-02	3.124001E-01	-4.053670E-01	-5.978458E-02	1.648938E-01	48	
49	-4.729533E-03	2.855039E-01	-1.150857E-02	1.399034E-03	2.854984E-01	1.327410E-02	54	
55	4.274857E-01	-1.129705E-01	7.358149E-02	-2.458185E-02	-1.964529E-02	-1.012630E-01	60	
61	1.058747E-02	1.515124E-03	4.354106E-03				63	
COLUMN				15				
1	-1.074447E+00	1.232995E-01	-7.477317E-01	-1.809498E+00	-1.397151E+00	-5.664274E-02	6	
7	9.901104E+00	-6.782177E+00	-2.652084E+00	1.187739E+01	-6.320803E+00	-2.471719E+01	12	
13	8.721504E+00	3.764578E-01	3.184372E+01	7.805847E-01	-3.784601E-02	1.226782E+00	18	
19	-7.166919E+00	6.798144E-02	3.256628E+00	-7.073090E-01	-1.702655E+00	7.309840E-01	24	
25	1.464328E+00	1.260663E-01	3.571589E-01	1.778548E+00	9.224313E-01	-8.734532E+00	30	
31	3.608448E-02	1.401508E-02	4.836174E-03	-8.214919E-02	8.837783E-02	1.254114E-01	36	
37	6.512201E-03	1.829959E-03	1.732765E-02	-3.495308E-03	2.607617E-02	-3.086885E-02	42	
43	-2.938747E+00	-2.664654E+00	1.081069E-01	7.879482E-01	-6.86559E-01	-8.021336E-01	48	

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

				COLUMN	15				
49	-1.375102E-03	-3.847250E-01	1.018834E-02	-1.072567E-03	-3.847287E-01	-2.015878E-02	54		
55	-2.075598E+00	4.433716E-01	-1.253293E-02	6.448922E-02	4.523450E-02	3.208353E-01	60		
61	-1.945162E-02	4.581867E-02	-8.581677E-03				63		
				COLUMN	16				
1	3.891164E-02	8.230285E-03	2.351736E-02	-9.597156E-02	-7.724288E-02	-1.787785E-02	6		
7	-4.637828E-02	-2.055141E-02	-1.847075E-01	-3.176682E-01	2.440844E-01	-1.193250E+00	12		
13	-5.638880E-01	-6.183480E-03	-7.805847E-01	6.838907E-02	-8.189798E-04	-2.971566E-02	18		
19	2.262278E-01	6.032301E-03	3.588372E-02	-5.622377E-02	2.292728E-01	-8.887487E-02	24		
25	1.818486E-02	2.595046E-01	8.406774E-02	2.682225E-02	5.538477E-03	-1.345304E-01	30		
31	1.218777E-03	6.872011E-04	6.441389E-04	1.464598E-04	8.883967E-04	-1.848887E-03	36		
37	-6.030981E-04	-4.529633E-05	5.427827E-04	-6.483168E-04	3.076874E-03	-1.309229E-03	42		
43	3.831482E-03	-2.178515E-02	-3.049226E-02	9.154153E-02	-3.230789E-03	5.641082E-03	48		
49	2.241390E-04	-2.016536E-02	7.378985E-04	-2.248031E-04	-2.016632E-02	-7.738556E-04	54		
55	5.568577E-02	7.627377E-03	2.315946E-03	-8.452751E-04	-1.412864E-03	-4.580601E-03	60		
61	-8.751410E-04	1.508823E-03	2.536256E-04				63		
				COLUMN	17				
1	8.669179E-03	-7.294034E-03	-6.867597E-05	7.722941E-02	3.348879E-02	2.149518E-02	6		
7	4.048114E-02	1.833250E-02	1.244104E-02	2.416855E-02	4.486175E-02	-2.087662E-02	12		
13	3.015575E-03	-9.865605E-02	-3.764801E-02	-8.189798E-04	8.425807E-03	-1.527359E-03	18		
19	-1.972973E-01	3.712079E-02	-6.225523E-03	-1.433872E-02	1.868873E-02	3.312459E-03	24		
25	-1.401804E-02	-5.589891E-02	-1.686338E-02	6.187394E-02	1.202868E-02	3.554201E-02	30		
31	-1.189578E-04	-2.668090E-05	-1.788809E-04	6.017433E-04	-2.833156E-05	-2.633302E-04	36		
37	1.473107E-04	2.292470E-05	9.107041E-05	-8.756878E-04	7.887912E-05	1.809394E-04	42		
43	-1.583302E-02	2.873807E-02	1.719599E-02	2.361252E-02	3.158792E-03	-7.684075E-03	48		
49	3.088188E-04	-1.316229E-02	5.450912E-04	-1.687292E-04	-1.316205E-02	-6.362936E-04	54		
55	-1.899437E-02	4.952941E-03	-3.004325E-03	1.142465E-03	8.697270E-04	4.571362E-03	60		
61	-5.734905E-04	1.105098E-05	-1.816907E-04				63		
				COLUMN	18				
1	-4.145527E-02	4.922114E-03	-2.883357E-02	-7.218992E-02	-5.558713E-02	-2.483750E-03	6		
7	3.847832E-01	-2.652222E-01	-1.065858E-01	4.525911E-01	-2.452004E-01	-9.508339E-01	12		
13	3.335144E-01	1.524124E-02	1.226782E+00	-2.871586E-02	-1.527359E-03	4.755577E-02	18		
19	-2.747834E-01	2.430487E-03	1.284822E-01	-2.787825E-02	-6.471838E-02	2.771377E-02	24		
25	5.742457E-02	7.825088E-03	1.498813E-02	6.878524E-02	3.591882E-02	-3.431094E-01	30		
31	1.384375E-03	5.531932E-04	2.143665E-04	-2.436860E-03	3.856520E-03	4.895686E-03	36		
37	2.472988E-04	7.453980E-05	6.792439E-04	-1.393020E-04	1.034330E-03	-1.197672E-03	42		
43	-1.145387E-01	-1.004807E-01	3.595302E-03	3.174519E-02	-2.741201E-02	-3.118788E-02	48		
49	-5.435846E-05	-1.505508E-02	3.980444E-04	-4.447987E-05	-1.505528E-02	-7.872338E-04	54		
55	-8.007895E-02	1.733491E-02	-3.848728E-04	2.491965E-03	1.733340E-03	1.239189E-02	60		
61	-7.834738E-04	1.835626E-03	-3.282507E-04				63		
				COLUMN	19				
1	-1.422943E+01	-1.852774E+01	-5.744135E+00	6.477097E+01	1.276721E+00	-1.007590E+01	6		
7	-8.940042E+01	6.731810E+00	6.596208E-01	-2.303898E+01	-2.278571E+02	1.171980E+01	12		
13	-5.403853E+00	2.352356E+00	-7.186919E+03	2.262276E+01	-1.972973E-01	-2.747634E-01	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

				COLUMN	19				
19	5.714626E+02	7.222418E+00	-1.030129E+01	-3.733998E+00	1.128081E+01	-1.057052E+00	24		
25	-2.783949E+00	4.830006E+00	6.957461E-01	-1.808476E+01	-1.107889E+00	1.057357E+01	30		
31	1.804058E-02	-3.180269E-02	-1.421921E-02	7.102375E-02	-7.232290E-02	1.007680E-01	36		
37	-4.098036E-02	3.704575E-03	-3.519723E-02	4.462506E-02	8.157271E-02	-1.128104E-01	42		
43	-3.582130E+01	3.434892E+00	4.925230E+00	-5.277087E+01	3.879755E+00	2.489188E+00	48		
49	-1.447855E-02	5.514000E-01	5.893489E-02	1.758858E-01	5.518445E-01	4.530720E-02	54		
55	-6.035673E+01	-1.230344E-02	-4.845760E+00	3.178133E+00	2.140859E+00	8.513271E+00	60		
61	2.032474E-01	-1.518148E+00	-3.390885E-01				63		
				COLUMN	20				
1	2.893509E-01	1.584352E+00	-2.731497E-01	-3.352754E-01	2.174804E+00	-2.251395E+00	6		
7	-1.017616E+01	-2.859624E+00	6.971843E-01	-8.010634E+00	1.288708E+01	-5.952667E-01	12		
13	-3.211977E-01	-5.540622E-01	6.576514E-02	6.032301E-03	3.712079E-02	2.430487E-03	18		
19	7.222416E+00	5.780072E+01	-4.204154E+00	1.029589E+00	-9.634247E+00	1.538480E+00	24		
25	-2.744893E+00	-1.280598E+01	-1.940284E+00	2.803825E+00	-1.301322E+01	8.285551E+00	30		
31	-1.062291E-03	-1.249322E-02	1.116793E-01	1.116793E-01	-5.941598E-02	-8.973062E-02	36		
37	1.840248E-03	-1.371169E-02	1.552284E-02	-1.198503E-01	-6.584111E-02	8.825867E-02	42		
43	-1.212770E+01	-8.748464E+00	-2.481539E+00	-1.033917E+00	-2.988528E+00	1.235517E+00	48		
49	-1.046230E-04	2.249272E+00	4.016154E-02	-2.878813E-02	-2.249317E+00	-2.982884E-02	54		
55	2.612601E+00	1.537338E+00	4.008478E-01	-3.481780E-02	-1.149444E-01	-5.802484E-01	60		
61	-2.653557E-02	6.505752E-02	5.917256E-02				63		
				COLUMN	21				
1	4.887495E-01	2.941985E-01	2.882997E-01	2.488624E+00	-5.944321E-01	7.181335E-01	6		
7	7.148588E+00	-1.106193E+00	-1.849179E+00	4.776117E+00	-5.204897E-01	4.189332E+00	12		
13	-5.348181E-01	-1.148809E-02	3.238628E+00	-3.588372E-02	-6.225523E-03	1.284826E-01	18		
19	-1.030129E+01	-4.204154E+00	3.031810E+01	-5.859658E-01	2.077756E-01	4.138767E-01	24		
25	-8.973210E-01	1.739549E+00	1.083601E+00	-3.808775E+00	-1.585058E+00	-4.033008E+01	30		
31	1.863924E-02	-1.117857E-02	-7.843745E-03	1.257118E-03	1.785471E-01	1.951104E-01	36		
37	4.187038E-03	6.284461E-03	-1.227821E-02	-5.529347E-03	-9.093199E-02	1.489371E-01	42		
43	3.675554E+00	4.702375E-01	2.670874E+00	3.122942E+00	1.058883E+00	-1.354382E+00	48		
49	4.204408E-03	-5.939986E-01	2.148387E-02	7.785382E-03	-5.939794E-01	-4.185057E-02	54		
55	-5.245729E-01	3.578434E-02	1.555369E-02	1.233042E-01	4.775503E-02	2.348543E-01	60		
61	-1.840175E-02	-3.899718E-02	-1.454740E-02				63		
				COLUMN	22				
1	-2.978301E+00	-1.428996E+00	-1.855846E+00	-1.626452E+01	2.915205E+00	-4.084455E+00	6		
7	-2.851962E+01	5.637848E+00	8.871453E-02	1.259834E+01	3.189940E+01	2.874225E+00	12		
13	-2.723047E-01	2.837418E-01	-7.073090E-01	-5.822377E-02	-1.433377E-02	-2.787825E-02	18		
19	-3.733998E+00	1.029589E+00	-5.859658E-01	2.148908E+01	-2.377907E+01	7.421551E-01	24		
25	9.090043E+00	2.704327E+00	-1.147399E+00	-2.317850E+00	1.553852E-01	2.750336E+00	30		
31	1.630508E-02	-7.337230E-03	1.888298E-02	3.885088E-02	-1.34821E-02	-1.835588E-03	36		
37	1.524848E-02	-1.413124E-02	-6.864448E-03	2.125838E-03	-1.198420E-02	-2.515086E-03	42		
43	-1.814387E+00	-6.813849E-03	2.299710E+00	-3.188588E+00	4.366973E-01	-4.027589E-01	48		
49	2.706385E-03	-2.853578E-01	1.424888E-02	1.18557E-02	-2.853354E-01	-1.282733E-02	54		
55	-3.331137E+00	4.231447E-02	-4.185891E-01	9.931253E-02	1.208863E-01	4.678285E-01	60		
61	6.410123E-03	-8.139182E-02	-2.577305E-02				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN 23									
1	2.433466E+00	-5.395224E-02	1.580620E+00	1.561985E+01	-7.425414E+00	5.777820E+00			6
7	4.085552E+01	-1.399268E+01	7.559492E+00	-4.374040E+01	-5.183141E+01	-2.986808E+00			12
13	-2.547781E-01	-6.400853E-01	-1.702655E+00	2.292729E-01	1.888673E-02	-6.471838E-02			18
19	1.129081E+01	-9.634247E+00	2.077566E-01	-2.377907E+01	8.387277E+01	-1.008851E+01			24
25	-1.285290E+00	-4.933301E+00	-2.401738E-01	-1.149594E+00	1.582286E+00	-1.437097E+00			30
31	8.364024E-03	1.864495E-02	-3.797959E-02	-9.981884E-02	1.358478E-01	7.754886E-02			36
37	-8.652308E-02	3.598330E-02	5.759867E-03	5.556685E-02	1.792111E-01	-1.245782E-01			42
43	3.413318E+00	1.683034E+00	1.856114E+00	3.491525E+00	-1.291525E-01	-1.210548E-01			48
49	-6.520237E-03	-5.560093E-01	2.223446E-02	1.544921E-02	-5.558934E-01	-2.508962E-02			54
55	1.278539E+00	4.867467E-01	-1.686946E-01	1.791845E-02	-1.245338E-02	7.259128E-02			60
61	-2.274046E-02	7.150069E-02	5.058463E-04						63
COLUMN 24									
1	2.645894E-01	1.648743E-01	2.448131E-01	9.124410E-01	1.280921E+00	-2.144272E-01			6
7	-4.219793E+00	2.590972E+00	-3.281730E+00	2.736474E+00	3.240632E+00	7.966885E-01			12
13	3.250311E-01	8.626318E-02	7.309840E-01	-8.887467E-02	3.312459E-03	2.771377E-02			18
19	-1.067082E+00	1.538460E+00	4.135767E-01	7.421551E-01	-1.006851E+01	2.757121E+00			24
25	-1.124982E+00	4.535767E-01	2.870499E-01	8.560233E-01	-5.648715E-01	-5.399008E-01			30
31	-7.158794E-03	-3.951706E-03	5.783488E-03	1.243888E-02	-3.294984E-02	-1.123402E-02			36
37	2.193114E-02	-6.930326E-03	-4.837080E-04	-1.465854E-02	-5.972652E-02	4.358383E-02			42
43	-8.200350E-02	1.387066E+00	-1.309800E+00	-3.118517E-01	-1.013297E-01	1.244450E-01			48
49	-1.402859E-03	4.007721E-01	-1.654728E-02	-6.731212E-03	4.007585E-01	1.892703E-02			54
55	5.931954E-01	-1.936728E-01	1.849256E-01	-4.262145E-02	-3.578392E-02	-1.757393E-01			60
61	8.601105E-03	8.218121E-03	8.119610E-03						63
COLUMN 25									
1	-3.458611E+00	-5.564567E+00	-1.386886E+00	-1.597394E+01	-1.260392E-01	-1.914349E+00			6
7	-7.827033E+00	-1.188817E+00	-4.406877E-01	-1.286010E+01	6.108194E+00	1.026248E+00			12
13	2.619536E-01	2.810053E-02	1.464328E+00	1.818488E-02	-1.401804E-02	5.742457E-02			18
19	-2.783949E+00	-2.744893E+00	-8.973210E-01	9.090043E+00	-1.286290E+00	-1.124992E+00			24
25	2.103264E+01	2.222268E+01	1.216242E+00	-4.023795E-01	1.189158E-01	-7.207143E-02			30
31	1.612507E-02	1.416996E-02	3.041586E-03	-2.146513E-02	1.429230E-02	4.523303E-02			36
37	1.082641E-02	2.297170E-03	2.131611E-02	5.541186E-02	4.613058E-02	-8.607485E-02			42
43	7.128014E-02	-9.468119E-01	2.444939E+00	-2.711965E+00	-3.196738E-04	-4.151555E-01			48
49	-2.899381E-03	1.212539E-01	-3.984038E-03	2.034787E-02	1.212819E-01	4.375625E-03			54
55	-3.277401E+00	5.883653E-03	-4.615972E-01	1.583972E-01	1.333851E-01	5.438930E-01			60
61	1.873089E-02	-8.659412E-02	-2.416540E-02						63
COLUMN 26									
1	-6.217949E+00	-8.926853E+00	-2.454074E+00	-2.542066E+01	-3.644564E+00	-2.008606E+00			6
7	-1.036248E+00	-1.036203E+01	-4.404207E+00	-3.626813E+01	1.236586E+01	5.851812E+00			12
13	-1.335435E+00	1.986558E-01	1.280683E-01	2.259504E-01	-5.589891E-02	7.825088E-03			18
19	4.830008E+00	-1.280998E+01	1.739549E+00	2.704327E+00	-4.933301E+00	4.567676E-01			24
25	1.216242E+00	8.293478E+01	1.027807E+01	-1.495282E+00	1.704936E+00	-1.413433E+01			30
31	8.109453E-02	3.413532E-02	1.326685E-02	-1.278711E-01	1.474055E-01	1.865745E-01			36
37	-2.941735E-02	9.832293E-03	3.236881E-02	1.416914E-01	2.234534E-01	-2.814194E-01			42
43	4.343000E-01	-7.887103E+00	5.605599E+00	-2.627352E+00	-5.777325E-01	-1.270373E+00			48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN 26									
49	-1.422041E-02	-4.241852E-01	1.509769E-02	5.423454E-02	-4.241208E-01	-2.159153E-02			54
55	-7.097824E+00	6.604474E-01	-1.051011E+00	3.964739E-01	2.934754E-01	1.366702E+00			60
61	1.125591E-02	-1.007193E-01	-5.347473E-02						63
COLUMN 27									
1	-6.036383E-01	-7.411427E-01	-2.937996E-01	-2.574770E+00	-1.303578E+00	1.125229E-01			6
7	2.204190E+00	-3.029437E+00	-2.097779E+00	-1.261803E+00	1.080572E+00	1.873855E+00			12
13	-5.808144E-01	7.628203E-02	3.571599E-01	8.406774E-02	-1.686338E-02	1.498813E-02			18
19	6.987461E-01	-1.940294E+00	1.083801E+00	-1.147399E+00	-2.401738E-01	2.870499E-01			24
25	1.216242E+00	2.226077E-02	2.670627E+00	4.598465E-01	5.483231E-01	-4.363772E+00			30
31	-2.226077E-02	7.233946E-03	4.286889E-03	-3.329884E-02	4.832142E-02	4.980771E-02			36
37	-1.007227E-02	2.278943E-03	4.381530E-03	1.545192E-02	4.592891E-02	-4.419503E-02			42
43	-4.013030E-02	1.881131E+00	5.788574E-01	4.863834E-01	-2.690988E-01	-3.212437E-01			48
49	-1.627875E-03	-2.531204E-01	-8.010194E-03	6.278555E-03	-2.531129E-01	-1.157158E-02			54
55	-8.721143E-01	2.380227E-01	-1.233133E-01	5.988518E-02	3.782965E-02	2.160578E-01			60
61	-7.773091E-03	9.172973E-03	-6.834518E-03						63
COLUMN 28									
1	-1.735420E+00	-1.738189E+00	-1.105184E+00	-4.438154E+00	1.368848E-01	-2.189405E+00			6
7	-7.109535E+00	3.323114E-01	-3.871176E+00	2.329895E+00	-1.383734E+01	4.880394E-01			12
13	-1.509726E+00	-8.097820E-01	1.778648E+00	2.682225E-02	6.197394E-02	5.979524E-02			18
19	-1.808476E-01	2.803825E+00	-3.608775E+00	-2.317650E+00	-1.149594E+00	8.560233E-01			24
25	-4.023795E-01	-1.495282E+00	4.588485E-01	6.273513E+01	-1.618447E+00	-4.343305E+00			30
31	1.585489E-02	-7.196350E-04	1.078488E-02	-2.720279E-03	4.229261E-02	2.100703E-02			36
37	2.321482E-03	-3.945697E-04	-6.822223E-02	-1.841967E-02	-8.512792E-02	1.413510E-01			42
43	-4.417718E+00	4.841148E-01	8.810036E+00	-5.016554E+00	1.117349E+00	4.338270E+00			48
49	-5.148553E-02	-4.785783E-02	2.781047E-02	5.708754E-03	-4.785878E-02	2.785168E-02			54
55	-3.221552E-01	-1.288418E-01	-1.148076E-01	2.190241E-01	4.505848E-02	1.057558E-02			60
61	1.448556E-02	-1.130456E-01	8.995944E-03						63
COLUMN 29									
1	-1.738014E-01	-4.799513E-01	3.874375E-02	-4.670630E-01	-7.249385E-02	1.585031E-01			6
7	1.236610E-01	1.881189E+00	-9.485350E-01	-1.627728E+00	1.612848E+00	-2.000592E+00			12
13	1.943115E-01	-2.455375E-01	9.224313E-01	5.536477E-03	1.202889E-02	3.591882E-02			18
19	-1.107869E+00	-1.301322E+01	1.553552E+00	1.553552E+01	1.562286E+00	-5.648715E-01			24
25	1.189158E-01	1.704936E+00	5.483231E-01	-1.818447E+00	8.849107E+00	6.879760E+00			30
31	6.490419E-04	1.467385E-03	5.178289E-04	-1.050934E-02	3.378734E-02	5.855832E-02			36
37	7.019745E-04	-1.898639E-04	2.233890E-03	8.488218E-03	4.098933E-02	-2.312158E-02			42
43	8.481857E-01	8.721737E-01	-3.788573E+00	-1.331232E-01	2.739821E-01	2.048738E-01			48
49	-4.746422E-03	3.106478E-01	-8.875777E-03	-5.138933E-04	3.106391E-01	1.093895E-02			54
55	4.448495E-01	-1.880604E-01	1.727475E-01	-6.159584E-03	-2.237417E-02	1.228752E-01			60
61	8.883403E-03	-8.481108E-03	4.853361E-03						63
COLUMN 30									
1	1.145140E+00	1.426335E+00	1.154578E+00	4.394856E+00	1.556257E+00	1.055318E+00			6
7	-8.933731E+00	-2.630772E-01	-4.294540E+00	1.188518E+00	4.720366E+00	-2.050442E+01			12
13	8.555689E-01	-3.838348E-01	-8.734532E+00	-1.345304E-01	3.554201E-02	-3.431094E-01			18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

			COLUMN	30				
19	1.057357E+01	8.285551E+00	-4.033008E+01	2.750338E+00	-1.437097E+00	-6.399008E-01	24	
25	-7.207143E-02	-1.413433E+01	-4.363772E+00	-4.343305E+00	6.879780E+00	9.820441E+01	30	
31	-6.935454E-03	-1.105780E-02	-2.976446E-03	-4.772550E-02	-1.889726E-01	2.680077E-01	36	
37	1.089565E-02	1.634056E-03	-2.329644E-02	1.229201E-02	8.560088E-03	1.075178E-02	42	
43	-2.742096E+00	-7.780398E-01	-1.467346E+01	5.598972E+00	-4.064807E+00	-8.822491E+00	48	
49	1.830931E-02	3.886955E-01	-6.868768E-02	6.538799E-03	3.849058E-01	-4.170573E-02	54	
55	-1.336846E+01	6.430343E-01	-3.918111E-01	5.241715E-01	4.053843E-01	2.236345E+00	60	
61	-2.102077E-02	2.672610E-02	-8.232823E-02				63	
			COLUMN	31				
1	-1.037040E-02	-1.391135E-02	-1.123180E-02	-5.517260E-02	-5.901068E-03	-3.031475E-03	6	
7	6.476937E-02	-3.018777E-02	-3.759279E-02	6.341052E-02	6.250686E-02	6.138734E-02	12	
13	-1.009858E-02	-1.390501E-03	3.508446E-02	1.219777E-03	-1.189578E-04	1.384375E-03	18	
19	1.808058E-02	-1.062291E-03	1.853924E-02	1.630508E-02	8.364024E-03	-7.156794E-03	24	
25	1.612507E-02	8.108453E-02	2.226077E-02	1.585489E-02	6.480419E-04	-6.835454E-03	30	
31	4.265349E+01	-1.266758E-02	-1.859188E-02	-4.263585E+01	-3.835264E-02	-4.759794E-02	36	
37	1.360009E-02	-1.466227E-04	8.937400E-04	-2.807508E-02	-6.795011E-03	7.848273E-03	42	
43	-4.550977E-02	-2.872555E-02	4.228145E-03	-3.088518E-02	-1.825875E-03	-2.035477E-02	48	
49	2.604145E-05	-6.537776E-03	2.209985E-04	1.220786E-04	-6.537546E-03	-3.905613E-04	54	
55	-4.690268E-02	3.284099E-03	-4.895301E-03	4.964351E-04	1.447682E-01	6.186734E-03	60	
61	-4.086418E-05	-7.807566E-04	-3.658418E-04				63	
			COLUMN	32				
1	-5.337266E-03	-2.097153E-03	-4.679493E-03	-1.524535E-02	-1.447222E-02	3.586551E-03	6	
7	6.378142E-02	-8.580801E-03	-1.144121E-02	-6.358261E-03	-1.223117E-02	2.431961E-02	12	
13	1.279720E-03	-1.475919E-03	1.401508E-02	6.672011E-04	-2.668090E-05	5.531932E-04	18	
19	-3.180268E-02	-1.249322E-02	-1.117657E-02	-7.337230E-03	1.864495E-02	-3.951706E-03	24	
25	1.416998E-02	3.413532E-02	7.233946E-03	-7.196350E-04	1.467350E-03	-1.105780E-02	30	
31	-1.266758E-02	4.112725E-03	-9.917748E-04	1.492180E-02	-5.990027E-03	1.012441E-03	36	
37	1.334585E-04	6.978940E-04	2.952683E-04	-2.357727E-03	3.376454E-04	-8.017520E-04	42	
43	-4.719209E-03	-9.142301E-03	-7.072491E-03	-1.361823E-03	-2.169354E-03	-2.409013E-04	48	
49	4.644158E-05	1.608357E-03	-6.885491E-05	1.098803E-05	1.608279E-03	6.544785E-05	54	
55	-9.996058E-04	1.764380E-04	5.183535E-04	-1.544927E-04	-8.183338E-05	-1.307429E-04	60	
61	3.735956E-05	1.768908E-04	1.408853E-05				63	
			COLUMN	33				
1	-1.903195E-03	-8.119496E-03	-2.889577E-03	-2.988430E-02	1.090820E-02	-8.369020E-03	6	
7	1.854448E-02	3.798759E-03	-5.354421E-02	3.175890E-02	6.456799E-02	7.738339E-02	12	
13	-9.343763E-03	3.238213E-03	4.936174E-03	6.441333E-04	-1.788809E-04	2.018365E-02	18	
19	-1.421921E-02	-1.405801E-02	-7.543745E-03	1.988298E-02	-3.797959E-02	5.783488E-03	24	
25	3.041586E-03	1.328665E-02	4.286689E-03	1.078488E-02	5.176248E-04	-2.978466E-03	30	
31	-1.859188E-02	9.917748E-04	2.078508E-03	1.989706E-02	3.079381E-03	-1.264132E-03	36	
37	1.010018E-02	-2.353518E-04	-5.432698E-04	-1.236496E-03	-2.268707E-04	6.689373E-04	42	
43	-1.853832E-02	-5.985774E-03	-7.263356E-03	-2.238166E-02	-3.156132E-03	-1.067679E-02	48	
49	3.484207E-05	1.905039E-03	1.267506E-04	2.886438E-05	1.905020E-03	3.559773E-05	54	
55	-2.241980E-02	-9.509024E-05	-1.057494E-03	-2.413345E-04	4.685696E-04	2.031465E-03	60	
61	1.254219E-04	-1.974238E-04	-1.301264E-04				63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

			COLUMN	34				
1	4.849279E-04	3.191871E-03	5.803658E-03	-3.178745E-03	8.802713E-02	-4.008040E-02	6	
7	-1.637073E-01	1.325206E-02	2.457048E-02	-6.789091E-02	2.164748E-01	-4.284945E-02	12	
13	3.530391E-03	-8.548883E-03	-6.214919E-02	1.484598E-04	8.017433E-04	-2.436860E-03	18	
19	7.102375E-02	1.116793E-01	-1.257118E-03	3.885808E-02	-9.881894E-02	1.243688E-02	24	
25	-2.146513E-02	-1.278711E-01	-3.329984E-02	-2.720279E-03	-1.050934E-02	4.772550E-02	30	
31	-4.263585E+01	1.492180E-02	1.989706E-02	4.264884E+01	3.129485E-02	4.261387E-02	36	
37	-2.777074E-02	2.153890E-03	-1.228525E-03	1.911278E-02	1.286735E-03	-5.861753E-03	42	
43	-4.311727E-02	7.426368E-02	5.941836E-02	-4.481328E-02	1.334192E-02	-2.101200E-02	48	
49	4.795189E-04	-1.928577E-02	7.506718E-04	-1.285906E-04	-1.928520E-02	-8.821521E-04	54	
55	-5.661085E-02	6.459267E-04	-8.817099E-03	8.487077E-04	2.243727E-03	7.743662E-03	60	
61	-3.473272E-04	-2.217240E-03	-5.590803E-04				63	
			COLUMN	35				
1	-5.218237E-03	-2.535171E-03	-1.194436E-02	-1.894882E-02	-7.120369E-02	1.876354E-02	6	
7	1.031340E-01	-1.961963E-01	-4.862750E-02	1.526754E-01	-1.225095E-01	-6.338386E-02	12	
13	-1.846832E-02	-1.277888E-02	9.837783E-02	6.883967E-04	-2.833156E-05	3.856520E-03	18	
19	7.232290E-02	-5.941598E-02	1.785471E-01	-1.348281E-02	1.358478E-01	-3.294984E-02	24	
25	1.429230E-02	1.474055E-01	4.832142E-02	4.229261E-02	3.378734E-02	-1.889726E-01	30	
31	-3.835264E-02	-5.990027E-03	3.079381E-03	3.129485E-02	3.863284E-02	1.429371E-02	36	
37	5.104397E-03	3.102377E-04	-2.306282E-04	-1.216636E-03	6.169213E-03	-7.85882E-04	42	
43	3.709983E-02	-1.302253E-01	1.883525E-03	4.218555E-02	-5.019082E-04	-2.700650E-02	48	
49	-2.535308E-05	-2.835312E-02	1.003207E-03	4.107625E-04	-2.935249E-02	-1.302868E-03	54	
55	-6.131055E-02	1.908412E-02	-5.726631E-03	3.484861E-03	2.519055E-03	1.433451E-02	60	
61	-8.278860E-04	4.724088E-04	-5.354423E-04				63	
			COLUMN	36				
1	-1.166104E-02	-2.959868E-02	-5.850734E-03	-3.215449E-02	-3.140821E-02	8.473455E-03	6	
7	8.384483E-02	-1.191444E-01	-8.868836E-02	7.314108E-02	-2.205805E-01	1.388872E-02	12	
13	-4.018042E-03	-1.432311E-03	1.254114E-01	-1.848887E-03	-2.833302E-04	4.896586E-03	18	
19	1.007880E-01	-8.973082E-02	1.951104E-01	-1.835558E-03	7.754968E-02	-1.123402E-02	24	
25	4.823303E-02	1.885745E-01	4.880777E-02	2.100703E-02	1.388883E-02	-2.880077E-01	30	
31	-4.759794E-02	1.012441E-03	-1.284132E-03	4.201387E-02	1.429371E-02	2.038215E-02	36	
37	7.335775E-03	7.175774E-04	3.918508E-04	-5.308881E-03	9.846038E-04	3.904731E-03	42	
43	7.508245E-03	-1.053989E-01	-3.867048E-02	2.828096E-02	-1.995671E-02	-9.990352E-03	48	
49	-4.877277E-04	1.015689E-02	-5.218574E-04	2.930653E-04	1.015660E-02	4.836045E-04	54	
55	7.455782E-03	6.589581E-03	3.150334E-03	1.024298E-03	-2.176403E-04	1.845682E-03	60	
61	2.499692E-04	1.712417E-03	1.833345E-04				63	
			COLUMN	37				
1	-1.015898E-02	-1.658274E-02	1.331176E-02	-1.482994E-02	6.018061E-02	-1.993640E-02	6	
7	5.081905E-02	4.286588E-02	-4.220170E-02	-7.746242E-02	6.322708E-02	8.491363E-02	12	
13	9.788208E-03	1.088419E-03	6.512201E-03	-6.030881E-04	1.473107E-04	2.472988E-04	18	
19	-4.096039E-02	1.840248E-03	4.187038E-03	1.524848E-02	-8.852368E-02	-2.193114E-02	24	
25	1.082841E-02	-2.941735E-02	-1.007227E-02	2.321482E-03	7.019745E-04	1.089565E-02	30	
31	1.380008E-02	1.334585E-04	1.010018E-03	-2.777078E-02	5.104397E-03	7.335775E-03	36	
37	4.265392E+01	1.252804E-02	-1.851384E-02	-4.263572E+01	3.808756E-02	-4.767556E-02	42	
43	1.214868E-03	2.803839E-02	2.183430E-03	-4.843744E-02	1.706963E-04	-1.587156E-02	48	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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COLUMN 37									
49	-4.020049E-05	1.011375E-02	-3.903470E-04	8.089342E-05	1.011380E-02	2.709450E-04	54		
55	-4.531542E-02	-2.723313E-03	-2.723313E-03	4.012726E-04	1.176485E-03	4.847634E-03	60		
61	3.656000E-04	-6.605205E-04	-2.601920E-04				63		
COLUMN 38									
1	6.473855E-04	4.645055E-03	-3.523985E-03	-3.400758E-04	-3.021883E-02	1.636019E-02	6		
7	6.783581E-03	-3.654059E-03	1.642678E-02	6.851550E-03	-3.806558E-02	-4.231472E-02	12		
13	1.345897E-03	-1.832277E-03	1.929559E-03	4.529533E-05	2.282470E-05	7.453980E-05	18		
19	3.704575E-03	-1.371169E-02	8.294481E-03	-1.413124E-02	3.599330E-02	-6.903026E-03	24		
25	2.297170E-03	9.832293E-03	2.275943E-03	-3.945897E-04	-1.898639E-04	1.634056E-03	30		
31	-1.466227E-04	6.978940E-04	-2.353518E-04	2.153990E-03	3.910237E-04	7.175774E-04	36		
37	1.252804E-02	4.089163E-03	9.778079E-04	-1.511023E-02	-5.826969E-03	-1.004703E-03	42		
43	1.248604E-02	-6.946095E-03	1.361248E-04	1.401784E-02	5.877786E-04	5.320579E-03	48		
49	-1.687727E-05	-2.728626E-04	2.903010E-05	2.157134E-05	-2.728492E-04	1.065378E-05	54		
55	1.217855E-02	8.283370E-06	6.830612E-04	2.460497E-04	-2.425320E-04	-9.611278E-04	60		
61	-3.388918E-05	1.285971E-04	6.945307E-05				63		
COLUMN 39									
1	-1.078405E-02	-6.615729E-03	4.434119E-04	-3.810095E-03	1.718208E-02	-1.443278E-02	6		
7	6.155619E-02	-1.415621E-02	-5.826641E-03	-4.901715E-02	-8.863665E-03	3.678415E-02	12		
13	8.416497E-03	-2.839859E-03	1.732755E-02	5.427827E-04	9.107041E-05	6.792439E-04	18		
19	-3.519723E-02	1.552284E-02	-1.227821E-02	-5.864448E-03	5.759967E-03	-4.837060E-04	24		
25	2.131611E-02	3.236681E-02	-4.381530E-03	-6.822223E-03	2.233890E-03	-2.329844E-02	30		
31	8.937400E-04	2.952883E-04	-5.432698E-04	-1.228525E-03	-2.306282E-04	3.918506E-04	36		
37	-1.851364E-02	8.778079E-04	2.201422E-03	1.989108E-02	-2.807618E-03	-1.725078E-03	42		
43	-1.050944E-02	9.273790E-04	-1.988989E-03	-7.119461E-03	-1.238703E-03	-2.128837E-03	48		
49	-7.913146E-06	5.655272E-04	-2.163053E-05	-1.012694E-05	5.854934E-04	9.157148E-06	54		
55	-8.548965E-03	6.779804E-04	-2.893122E-04	-8.008884E-05	1.415785E-04	8.268898E-04	60		
61	2.770920E-06	8.752014E-05	-3.384800E-05				63		
COLUMN 40									
1	-2.996222E-02	-5.162376E-02	-1.577619E-03	-1.124381E-01	-3.849218E-02	3.489552E-02	6		
7	5.149548E-02	7.231030E-02	5.328376E-02	6.195067E-02	-5.148514E-02	-5.148514E-02	12		
13	1.384277E-02	1.178294E-02	-3.495308E-03	5.483169E-04	-8.758878E-04	-1.393020E-04	18		
19	4.462506E-02	-1.198503E-01	-6.529347E-03	2.125638E-03	5.656865E-02	-1.468554E-02	24		
25	5.841186E-02	1.416914E-01	1.545192E-02	1.841967E-02	8.486218E-03	1.229201E-02	30		
31	-2.807506E-02	-2.357727E-03	-1.135486E-03	1.911278E-02	-1.216838E-03	-5.306681E-03	36		
37	-4.263572E+01	-1.511023E-02	1.989108E-02	4.264798E+01	-3.244875E-02	4.324883E-02	42		
43	5.235413E-02	-6.503346E-02	4.503325E-02	-5.977635E-02	3.756165E-03	-1.430802E-02	48		
49	-2.549387E-04	7.865862E-03	-2.860332E-04	8.038804E-04	7.887525E-03	2.517316E-04	54		
55	-7.728908E-02	-3.211109E-05	-1.377928E-02	4.142653E-03	3.466078E-03	1.456539E-02	60		
61	6.850201E-04	-2.085273E-03	-6.597257E-04				63		
COLUMN 41									
1	-2.152892E-02	-2.245210E-02	-1.792345E-02	-6.972467E-02	-5.801029E-02	8.751616E-03	6		
7	4.282385E-04	-1.557899E-01	1.246506E-01	-1.298552E-02	9.106077E-02	-1.449065E-01	12		
13	1.930679E-02	-1.381336E-02	2.807517E-02	3.078874E-03	7.887912E-05	1.034330E-03	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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COLUMN 41									
19	8.157271E-02	-6.584111E-02	-8.083199E-02	-1.198420E-02	1.792111E-01	-5.972652E-02	24		
25	4.813058E-02	2.234534E-01	4.592691E-02	-8.512792E-02	4.095933E-02	8.560096E-03	30		
31	-6.798011E-03	3.376454E-04	-2.268705E-04	1.286736E-03	6.189213E-03	9.846036E-04	36		
37	3.808756E-02	-5.828969E-03	-2.907818E-03	-3.244875E-02	3.847534E-02	-1.407286E-02	42		
43	3.365029E-03	-1.135535E-01	1.188646E-01	8.313277E-04	2.179885E-02	1.456528E-03	48		
49	2.149475E-04	-4.141251E-02	1.762399E-03	7.819492E-04	-4.141089E-02	-1.584475E-03	54		
55	-5.302389E-02	1.788098E-02	-2.389376E-02	5.104826E-03	4.188562E-03	1.876218E-02	60		
61	-8.114720E-04	-1.874508E-04	-8.701604E-04				63		
COLUMN 42									
1	3.400410E-02	5.751528E-02	1.271458E-02	1.028616E-01	9.176250E-03	4.785551E-03	6		
7	3.811008E-02	6.441728E-02	-1.132489E-01	1.360409E-01	-6.578216E-02	8.557448E-02	12		
13	-4.190745E-02	1.887742E-03	-3.068865E-02	-1.309229E-03	1.609394E-04	-1.187672E-03	18		
19	-1.128104E-01	9.825867E-02	-1.489371E-01	-2.515086E-03	-1.248762E-01	4.358383E-02	24		
25	-8.607485E-02	-2.814194E-01	-4.418503E-02	-1.413505E-01	-2.312158E-02	1.075178E-02	30		
31	7.848273E-03	-8.017520E-04	6.869373E-04	5.885753E-03	-7.855882E-02	-3.904731E-03	36		
37	-4.787556E-02	-1.004703E-03	-1.725078E-03	4.324883E-02	-1.407286E-02	2.024554E-02	42		
43	-5.801567E-02	8.308709E-02	-1.186422E-01	3.844707E-02	-8.842564E-03	-2.245754E-02	48		
49	1.553237E-04	5.222984E-03	-3.392309E-04	-7.748952E-04	5.221960E-03	-6.084628E-05	54		
55	2.071070E-02	-4.977181E-03	1.593491E-02	-3.260450E-03	-2.288508E-03	-9.048877E-03	60		
61	-3.140002E-04	1.524819E-03	3.476557E-04				63		
COLUMN 43									
1	-3.044275E+00	-3.813335E+00	-8.501997E-01	-1.481918E+01	1.727234E+00	-2.237392E+00	6		
7	-3.648783E+01	7.688642E+00	7.239938E+00	1.407457E+00	-2.151576E+01	-9.598391E-01	12		
13	-6.318128E-01	3.606256E-01	-2.939747E+00	3.831482E-03	-1.583302E-02	-1.145387E-01	18		
19	-3.582130E+01	-1.212770E+01	3.876654E+00	-1.814387E+00	3.413318E+00	-8.200350E-02	24		
25	7.128014E-02	4.343000E-01	-4.013038E-01	-4.417715E+00	8.491957E-01	-2.742098E+00	30		
31	-4.550977E-02	-4.719209E-03	-1.853832E-02	-4.311727E-02	-3.709993E-02	7.608245E-03	36		
37	1.214686E-03	1.246804E-02	-1.050944E-02	5.235413E-02	3.365029E-03	-5.601567E-02	42		
43	2.523779E-02	1.831351E+01	2.078924E+00	-5.890839E+01	-3.318470E+00	-6.608044E+00	48		
49	3.843988E-01	-5.834523E+00	1.398451E-01	-1.355750E-01	-5.834139E+00	-1.246198E-01	54		
55	-7.738818E+01	-3.591227E+00	-5.813489E+00	3.452178E+00	2.829613E+00	1.031418E+01	60		
61	2.434457E-02	-2.470002E+00	-4.848501E-01				63		
COLUMN 44									
1	1.199287E+00	2.748620E+00	3.173797E-01	3.504872E+00	2.442299E+00	-1.163036E+00	6		
7	-6.902893E+00	8.927879E-01	2.294349E+00	-1.102367E+00	-1.153918E+01	1.824312E+00	12		
13	-1.183221E-01	-8.803777E-02	-2.584584E+00	-2.175515E-02	2.873807E-02	-1.004607E-01	18		
19	3.434882E+00	-8.784645E+00	4.702975E-01	-8.813849E-03	-4.883034E+00	1.387088E+00	24		
25	-6.468119E-01	-7.687103E+00	-1.881131E+00	4.641148E-01	6.721737E-01	-7.780388E-01	30		
31	-2.873285E-02	-9.142301E-03	-5.985774E-03	7.426388E-02	-1.302253E-01	-1.053989E-01	36		
37	2.803839E-02	-6.948098E-03	8.273790E-04	-8.320349E-02	-1.155536E-01	8.308709E-02	42		
43	1.831351E-01	2.200220E+01	8.125147E-01	-3.104280E+00	-1.684128E+00	-7.788622E-01	48		
49	1.524047E-01	-2.890838E+00	7.863978E-02	-1.685877E-01	-2.890862E+00	-8.304258E-02	54		
55	-8.244151E+00	1.273838E+00	4.173053E-03	7.322175E-02	1.100008E-01	2.578487E-01	60		
61	-1.057738E-01	-8.860424E-02	3.021780E-02				63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

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				COLUMN	45				
1	-1.038336E+00	-2.268649E+00	3.229798E-01	-3.338402E+00	5.264319E-01	9.358398E-01	6		
7	-5.175782E+00	3.284398E+00	-9.786959E-02	-3.811082E+00	1.338900E+01	-8.465453E+00	12		
13	1.288645E+00	-3.124001E-01	1.081069E-01	-3.049228E-02	1.719589E-02	3.355630E-03	18		
19	4.925230E+00	-2.481539E+00	2.670874E+00	2.267710E+00	1.656114E+00	-1.309600E-01	24		
25	2.444939E+00	5.605599E+00	5.788574E-01	6.810038E+00	-3.756578E+00	-1.467348E+01	30		
31	4.226145E-03	-7.072491E-03	-7.283358E-03	5.941836E-02	1.863525E-03	-3.647048E-02	36		
37	2.183430E-03	1.361248E-04	-1.985989E-03	4.508325E-02	1.188446E-01	-1.166422E-01	42		
43	2.075924E+00	8.125147E-01	2.782837E+01	-4.820158E+00	5.773593E+00	-8.407945E+00	48		
49	3.563307E-02	-2.078995E+00	4.862750E-02	8.386510E-02	-2.078802E+00	-1.115252E-01	54		
55	-1.918079E+01	-8.773923E-01	-1.958600E+00	-5.308431E-02	7.493636E-01	2.813189E+00	60		
61	1.591683E-01	-8.827014E-01	-2.341402E-01				63		
				COLUMN	46				
1	-3.195784E+00	-4.544492E+00	-1.142966E+00	-1.523030E+01	-9.575417E-01	-1.555564E+00	6		
7	-3.356336E+01	2.985848E+00	9.684881E+00	3.143371E-01	-1.480716E+01	9.328374E-01	12		
13	-1.358656E+00	-4.063670E-01	7.079482E-01	9.154153E-02	2.36152E-02	3.174519E-02	18		
19	-5.277087E+01	-1.033917E+00	3.122942E+00	-3.186588E+00	3.491525E+00	-3.118517E-01	24		
25	-2.711965E+00	-2.627352E+00	4.863834E-01	-5.016554E+00	-1.331232E-01	5.590972E+00	30		
31	-3.068516E-02	-1.361923E-03	-2.236166E-02	-4.491325E-02	4.218555E-02	2.428096E-02	36		
37	-4.843144E-02	1.401784E-01	-7.119461E-03	-5.977635E-02	8.313277E-04	3.844707E-02	42		
43	-5.990839E+01	-3.104280E+00	-4.820158E+00	4.786309E+02	3.093435E+00	3.128446E+01	48		
49	1.163194E-01	1.278647E+00	-1.496741E-01	1.736608E-01	1.278035E+00	-1.449028E-01	54		
55	-2.701694E+02	-3.297093E-01	-4.557319E+01	-1.766739E+01	3.738694E+00	2.985940E+00	60		
61	9.637412E-01	-3.125438E+00	-1.244228E+00				63		
				COLUMN	47				
1	3.205340E-01	6.591471E-01	1.495962E-01	1.076363E+00	3.766806E-01	5.229427E-02	6		
7	-1.858288E+00	2.472860E-01	8.222201E-01	4.293497E-02	8.108616E-01	-1.194769E+00	12		
13	1.494461E-01	-5.978458E-02	-6.988559E-01	-3.230789E-03	3.158792E-03	-2.741201E-02	18		
19	3.879755E+00	-2.866529E+00	1.058883E+00	4.386873E-01	-1.291525E-01	-1.012979E-01	24		
25	-3.186738E-04	-5.777325E-01	-2.680988E-01	1.117349E+00	-2.738821E-01	-4.064507E+00	30		
31	-1.825875E-03	-2.189354E-03	-1.334132E-03	1.334192E-02	-6.019082E-04	-1.995671E-02	36		
37	1.708963E-04	5.877786E-04	-1.238703E-03	3.756165E-03	2.179885E-02	-8.842564E-03	42		
43	-3.318470E+00	-1.684128E+00	5.773593E+00	3.093435E+00	1.154432E+01	-6.792498E-01	48		
49	-1.593189E-02	-1.903303E+00	-1.766250E-02	5.269951E-02	-1.903240E+00	1.151184E-02	54		
55	-5.559932E+00	-5.004300E+00	-2.020580E+00	-7.796201E-02	-2.384745E-02	1.487312E+00	60		
61	-3.175358E-01	1.080527E+00	-2.489105E-01				63		
				COLUMN	48				
1	-7.914856E-01	-1.134484E+00	-1.808731E-01	-3.941331E+00	-1.426576E-01	-1.758266E-01	6		
7	-1.285861E+01	8.480085E-01	5.251574E+00	4.505465E-01	-1.454791E-01	7.845255E-01	12		
13	-1.488832E-01	1.648936E-01	-8.021335E-01	5.641082E-03	-7.884075E-03	-3.119788E-02	18		
19	2.489188E+00	1.235517E+00	-1.354362E+00	-4.025789E-01	-1.212054E-01	1.224450E-01	24		
25	-4.151556E-01	-1.270373E+00	-3.212437E-01	4.338270E+00	2.048735E-01	-8.822481E+00	30		
31	-2.035477E-02	-2.408013E-04	-1.067679E-02	-2.101200E-02	-2.700850E-02	-8.990352E-03	36		
37	-1.587156E-02	5.320579E-03	-2.128837E-03	-1.430802E-02	1.456525E-03	-2.245754E-02	42		
43	-6.608044E+00	-7.786822E-01	-8.407945E+00	3.128446E+01	-6.792495E-01	3.435907E+01	48		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

				COLUMN	48				
49	-3.254721E-02	5.422395E-01	1.377501E-01	-4.564259E-02	5.421094E-01	1.820016E-01	54		
55	1.108498E+00	7.554718E-01	-9.454251E+00	-1.405285E+01	-6.274550E-01	-1.118724E+01	60		
61	2.916895E-01	4.045415E-02	-5.455076E-02				63		
				COLUMN	49				
1	-3.783638E-03	-3.749704E-02	-1.189480E-03	-1.920228E-02	2.876321E-03	-3.512500E-03	6		
7	-4.713454E-02	1.478360E-03	6.281872E-03	-6.497524E-03	5.276301E-02	-2.393460E-02	12		
13	-5.184447E-04	-4.728533E-03	-1.376102E-03	2.241390E-04	3.098188E-04	-5.435846E-05	18		
19	-1.447855E-02	-1.046230E-04	4.204408E-03	2.708385E-03	-6.520237E-03	-1.402859E-03	24		
25	-2.899381E-03	-1.422041E-02	-1.827875E-03	-5.148553E-03	-4.746422E-03	1.830931E-02	30		
31	2.604145E-05	-4.644156E-05	-3.464207E-05	4.795189E-04	-2.535530E-05	-4.677277E-04	36		
37	-4.020049E-05	-1.887727E-05	-7.913146E-06	-2.549387E-04	2.149475E-04	1.553237E-04	42		
43	3.843956E-01	1.524047E-01	3.563307E-02	1.163194E-01	-1.593189E-02	3.254721E-02	48		
49	2.072014E-02	-7.285997E-02	2.963408E-03	-1.350830E-02	-7.269448E-02	-3.183631E-03	54		
55	-5.237891E-01	2.931480E-02	-1.421074E-01	8.227449E-02	3.914307E-02	1.438262E-01	60		
61	-9.150596E-03	-2.361220E-02	7.168807E-05				63		
				COLUMN	50				
1	2.491611E-01	3.986716E-01	7.108041E-02	1.008014E+00	3.070160E-01	-1.005877E-01	6		
7	1.002756E+00	4.513592E-01	-1.700529E-01	8.831041E-02	-4.209244E+00	1.898857E+00	12		
13	-1.914287E-02	2.855039E-01	-3.847250E-01	-2.016635E-02	-1.316229E-02	-1.505509E-02	18		
19	5.140000E-01	-2.249272E+00	-5.938996E-01	-2.853576E-01	-5.560083E-01	-4.007721E-01	24		
25	1.212535E-01	-4.241852E-01	-2.531204E-01	-4.785783E-02	3.106478E-01	3.848535E-01	30		
31	-8.537776E-03	1.808357E-03	1.905039E-03	-1.928577E-02	-2.836312E-02	1.015689E-02	36		
37	1.011375E-02	-2.728626E-04	5.656272E-04	7.885882E-03	-4.141251E-02	5.222984E-03	42		
43	-5.834523E+00	-2.980638E+00	-2.076995E+00	1.278647E+00	-1.893303E+00	5.222988E-01	48		
49	-7.285997E-02	2.688905E+01	-7.032441E-02	4.388415E-02	-1.783887E+01	7.134730E-02	54		
55	6.858662E+00	-2.087919E+00	1.915698E+00	-6.492572E-01	-2.552443E-01	-1.711747E+00	60		
61	2.369822E-01	-4.408974E-01	2.919115E-03				63		
				COLUMN	51				
1	-7.241451E-03	-1.018053E-02	-1.152242E-03	-3.282023E-02	-6.891635E-03	4.042032E-03	6		
7	-8.385857E-02	-5.887475E-02	2.841009E-02	-1.139171E-02	1.588056E-01	-8.354314E-02	12		
13	2.857994E-03	-1.150857E-02	1.018834E-02	7.378985E-04	5.450912E-04	3.980444E-04	18		
19	5.993489E-02	4.016154E-02	2.146357E-02	1.424688E-02	2.223446E-02	-1.854726E-02	24		
25	-3.984038E-03	1.509769E-02	8.010184E-03	2.810478E-02	-9.875777E-03	-6.866766E-02	30		
31	2.209885E-04	-6.885491E-05	1.267805E-04	7.505718E-04	1.003207E-03	-6.218974E-04	36		
37	-3.803470E-04	2.803010E-05	-2.163053E-05	-2.860332E-04	1.762639E-03	-3.392809E-04	42		
43	1.984451E-01	7.863976E-02	4.888750E-02	-1.486741E-01	-1.766250E-02	1.377501E-01	48		
49	2.983408E-03	-7.032441E-02	9.680522E-03	-2.098935E-03	-7.032292E-02	-6.404884E-03	54		
55	-7.622267E-02	3.224714E-02	-9.289530E-02	-3.962690E-02	4.585439E-03	1.398112E-03	60		
61	-1.140879E-02	1.781938E-02	-1.719232E-03				63		
				COLUMN	52				
1	-4.647151E-03	-8.670719E-03	1.337828E-04	-1.317945E-02	2.523263E-03	2.344088E-03	6		
7	2.183639E-02	1.508532E-02	-2.377817E-02	6.898656E-03	7.810146E-02	-3.047835E-02	12		
13	5.305188E-03	1.388034E-03	-1.072667E-03	-2.249031E-04	-1.887292E-04	-4.47887E-05	18		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN 52									
19	1.759858E-01	-2.678613E-02	7.785382E-03	1.135557E-02	1.544921E-02	-6.731212E-03			24
25	2.034787E-02	5.423454E-02	6.276555E-03	6.709754E-03	-5.138933E-04	-6.536799E-03			30
31	1.220796E-04	1.088803E-05	2.986439E-05	-1.285906E-04	4.107625E-04	-2.930663E-04			36
37	8.089342E-05	2.157134E-05	-1.012694E-05	8.038804E-04	7.618492E-04	-7.748852E-04			42
43	-1.355750E-01	-1.656773E-01	8.388510E-02	1.736608E-01	5.269961E-02	-4.564259E-02			48
49	-1.350830E-02	4.388415E-02	-2.098935E-03	2.252931E-02	4.405268E-02	1.744558E-02			54
55	-4.258723E-01	-4.001212E-02	-1.381057E-01	6.608784E-02	3.513205E-02	1.486730E-01			60
61	1.222121E-02	-3.059191E-02	-8.947996E-03						63
COLUMN 53									
1	2.491457E-01	3.996490E-01	7.108819E-02	1.005954E+00	3.070246E-01	-1.005903E-01			6
7	1.002698E+00	4.513877E-01	-1.700873E-01	8.631161E-02	-4.209069E+00	9.59757E+00			12
13	-1.913545E-02	2.854984E-01	-3.847297E-01	-2.016632E-02	-1.316205E-02	-1.505528E-02			18
19	5.516445E-01	-2.249317E+00	-5.939794E-01	-2.853554E-01	-5.559934E-01	4.007585E-01			24
25	1.212139E-01	-4.241206E-01	-2.531128E-01	-4.765578E-02	-3.106391E-01	3.848068E-01			30
31	-8.537548E-03	1.808287E-03	1.905020E-03	-1.928520E-02	-2.935248E-02	1.015860E-02			36
37	1.011380E-02	-2.728492E-04	5.854934E-04	7.886752E-03	-4.141089E-02	5.221850E-03			42
43	-5.834138E+00	-2.990662E+00	-2.076802E+00	1.279035E+00	-1.903240E+00	5.421094E-03			48
49	-2.68448E-02	-1.783687E-01	-7.032292E-02	4.405268E-02	2.698898E+01	-7.13447E-02			54
55	6.654954E+00	-2.087938E+00	1.915226E+00	-6.490090E-01	-2.551178E-01	7.714297E+00			60
61	2.369876E-01	-4.407896E-01	2.903692E-03						63
COLUMN 54									
1	2.116832E-03	2.695138E-03	6.747322E-04	7.160298E-03	6.928140E-03	-3.752603E-03			6
7	-1.674961E-02	1.594754E-02	1.594754E-02	1.465159E-02	-1.292686E-01	8.334935E-02			12
13	-2.100968E-03	1.327410E-02	-2.015878E-02	-7.738555E-04	-6.362935E-04	-7.872439E-04			18
19	4.530720E-02	-2.982664E-02	-4.185057E-02	-1.262733E-02	-2.806962E-02	-1.892703E-02			24
25	4.375625E-03	-2.158153E-02	-1.157156E-02	2.758198E-02	1.093998E-02	-4.170573E-02			30
31	-3.805613E-04	6.544276E-05	3.559773E-05	-8.821521E-04	-1.302648E-02	4.380455E-04			36
37	2.709450E-04	1.065378E-05	9.157148E-06	2.517316E-04	-1.584475E-03	-6.084628E-05			42
43	-1.246188E-01	-8.304256E-02	-1.115252E-01	-1.449029E-01	1.151184E-02	1.820018E-01			48
49	-3.183631E-03	7.134730E-02	-6.404864E-03	1.745858E-03	7.134497E-02	9.885500E-03			54
55	4.131473E-01	-2.319037E-02	4.143132E-02	-7.949950E-02	-1.097100E-02	-1.158347E-01			60
61	1.321236E-02	-1.792996E-02	2.941952E-03						63
COLUMN 55									
1	-2.545322E+00	-3.549678E+00	-9.401150E-01	-1.270241E+01	-9.771580E-01	-1.310295E+00			6
7	-3.322528E+01	1.031241E+00	1.167670E+01	2.567177E+00	-1.818238E+01	4.198523E+00			12
13	-1.453537E+00	4.274857E-01	-2.075588E+00	5.568577E-02	-1.899437E-02	-8.007995E-02			18
19	-6.035873E+01	2.812601E+00	-5.245729E-01	-3.331137E+00	1.278539E+00	5.931954E-01			24
25	-3.277401E+00	-7.097824E+00	-8.721143E-01	-3.221552E-01	4.448485E-01	-1.338648E+01			30
31	-4.890288E-02	-9.896058E-04	-2.241980E-02	-6.661085E-02	-6.131055E-02	7.455782E-03			36
37	-4.531542E-02	1.217845E-02	-8.548965E-03	-7.726908E-02	-6.302369E-02	2.071070E-02			42
43	-7.735618E+01	4.244115E+00	-1.918079E-02	-2.701684E+02	-5.559932E+00	1.108498E+00			48
49	-5.237891E-01	6.65662E+00	7.522257E-02	-6.658723E-01	6.654954E+00	4.131473E-01			54
55	5.119942E+02	4.754483E+00	9.122854E+01	-2.698784E+01	-1.373916E+01	-7.309400E+01			60
61	-9.745590E-01	8.884845E+00	2.420084E+00						63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

COLUMN 56									
1	-6.196088E-02	-1.328654E-01	-1.910955E-02	-1.888945E-01	-1.317268E-01	5.604021E-02			6
7	3.594730E-01	9.475871E-02	-1.998939E-01	-1.747489E-01	8.765011E-01	-5.655993E-01			12
13	2.815798E-02	-1.129705E-01	4.433718E-01	7.627377E-03	4.852941E-03	1.733491E-02			18
19	-1.230344E-02	1.537338E+00	3.576434E-02	4.231447E-02	4.867467E-02	-1.936728E-01			24
25	5.863853E-03	6.804474E-01	2.380227E-01	1.286418E-01	-1.880504E-01	6.430343E-01			30
31	3.284099E-03	1.784380E-04	-9.509024E-05	6.458267E-04	1.908412E-02	6.589561E-03			36
37	-2.786853E-02	8.283370E-06	6.779804E-04	-3.211109E-05	1.788088E-02	-4.977181E-03			42
43	-3.591227E+00	1.273838E+00	-8.773923E-01	-3.297093E-01	-5.004300E+00	7.554719E-01			48
49	2.931480E-03	-2.087919E+00	3.224714E-02	-4.001212E-02	-2.087938E+00	-2.319037E-02			54
55	4.754483E+00	6.484845E+00	2.759285E+00	-1.762367E+00	5.284000E-01	-3.393783E+00			60
61	1.231913E-02	-1.104507E+00	2.889670E-01						63
COLUMN 57									
1	2.058874E-02	4.517072E-02	-3.025880E-02	-7.079568E-02	-1.385984E-01	-5.272791E-02			6
7	-1.210652E+00	-2.892335E-01	-8.920989E-01	-1.175432E-01	-2.73320E+00	1.255043E+00			12
13	-1.648174E-01	7.358149E-02	-1.253293E-02	2.315988E-03	-3.004325E-03	-3.849728E-04			18
19	-4.649780E+00	4.006478E-01	-1.555369E-02	-1.865881E-01	1.865881E-01	1.849256E-01			24
25	-4.815872E-01	-1.051011E+00	-1.233133E-01	-1.145076E-01	1.727475E-01	-3.919111E-01			30
31	-4.896301E-03	5.183535E-04	-1.057494E-03	-8.617089E-03	-9.726631E-03	3.150334E-03			36
37	-2.723313E-03	6.830612E-04	-2.893122E-04	-1.377928E-02	-2.388376E-02	1.593491E-02			42
43	-5.813489E+00	4.170353E-03	-1.958800E+00	-4.557319E+01	-2.020640E+00	-9.454251E+00			48
49	-1.421074E-01	1.915698E+00	-9.289530E-02	-1.391057E-01	1.915226E+00	4.143132E-02			54
55	9.122854E+01	2.755255E+00	6.883353E+01	-2.929043E+01	-6.331431E+00	-5.985634E+01			60
61	-4.404386E-01	2.611028E+00	7.539868E-01						63
COLUMN 58									
1	-7.150974E-02	-1.087408E-01	-7.989288E-03	-2.801418E-01	4.468175E-02	-7.987904E-03			6
7	-3.547268E-01	1.804974E-01	-2.491373E-02	-4.952560E-02	9.102783E-01	-2.631397E-01			12
13	3.847275E-02	-2.458165E-02	6.449922E-02	-8.452751E-04	1.424885E-03	2.491985E-03			18
19	3.178135E+00	-3.481760E-02	1.233042E-01	8.931253E-02	1.791845E-02	-4.262145E-02			24
25	1.843672E-01	3.984759E-01	5.88518E-02	2.190241E-01	-6.159584E-03	5.241715E-01			30
31	4.984351E-04	-1.544921E-04	-2.413345E-04	8.487077E-04	3.484881E-03	1.024289E-03			36
37	4.012728E-04	2.490497E-04	-8.008844E-05	4.142653E-03	5.104826E-03	-3.260450E-03			42
43	3.452178E+00	7.322175E-02	-5.308431E-02	-1.789739E+01	-7.796201E-02	-1.405285E+01			48
49	8.227449E-02	-6.482572E-01	-3.862660E-02	6.608784E-02	-6.490090E-01	-7.949950E-02			54
55	-2.698784E+01	-1.762367E+00	-2.929043E+01	3.901409E+01	-3.880853E+00	4.271838E+01			60
61	-1.661747E+00	6.318988E+00	3.718251E-01						63
COLUMN 59									
1	3.025805E-02	3.976550E-02	1.812538E-02	1.819300E-01	4.040389E-02	2.612202E-02			6
7	6.520824E-01	3.312053E-02	-3.059174E-01	-6.143206E-02	7.800885E-01	-2.484032E-01			12
13	4.862266E-02	-1.964529E-02	4.523450E-02	-1.412964E-03	8.987270E-04	1.733345E-03			18
19	2.140659E+00	-1.149444E-01	4.778503E-02	1.206883E-01	-1.245334E-02	-3.578392E-02			24
25	1.333851E-01	2.934754E-01	3.782985E-02	4.605846E-02	-2.237417E-02	4.053643E-01			30
31	1.447662E-03	-8.183338E-05	4.685698E-04	2.243727E-03	2.519055E-03	-2.178403E-04			36
37	1.178485E-03	-2.425320E-04	1.415785E-04	3.466078E-03	4.188582E-03	-2.285606E-03			42
43	2.828813E+00	1.100008E-01	7.493638E-01	3.738694E+00	-2.584748E-02	-6.274550E-01			48

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

49	3.914307E-02	-2.552443E-01	4.585439E-03	59	3.513205E-02	-2.551176E-01	-1.097100E-02	54
55	-1.373916E+01	5.284000E-01	-6.331431E+00		-3.680853E+00	2.186554E+02	2.534985E+00	60
61	6.637644E+00	-2.189432E+02	3.691844E+00					63
COLUMN 60								
1	1.272333E-01	1.508154E-01	7.317329E-02	60	7.710003E-01	1.537651E-01	1.087557E-01	6
7	2.840459E+00	2.219130E-01	-1.330019E+00		-3.674587E-01	2.888110E+00	-1.030678E+00	12
13	2.011167E-01	-1.012630E-01	3.206353E-01		-4.580601E-03	4.571362E-03	1.239189E-02	18
19	8.513271E+00	-5.602484E-01	2.344543E-01		4.676295E-01	7.259128E-02	-1.757393E-01	24
25	5.436930E-01	1.366702E+00	2.160578E-01		1.057556E-02	-1.228752E-01	2.238345E+00	30
31	6.196734E-03	-1.307426E-04	2.031465E-03		7.743662E-03	1.433451E-02	1.945662E-03	36
37	4.847834E-03	-9.611278E-04	8.268898E-04		1.456539E-02	1.876218E-02	-8.048877E-03	42
43	1.031418E+01	2.576497E-01	2.813189E+00		2.986940E+00	1.417312E+00	-1.118724E+01	48
49	1.438262E-01	-1.711747E+00	1.398112E-03		1.496730E-01	-1.711247E+00	-1.156347E-01	54
55	-7.309400E+01	-3.393763E+00	-5.985634E+01		4.271838E+01	2.534985E+00	6.887758E+01	60
61	2.885058E-01	1.674510E+00	-1.195849E+00					63
COLUMN 61								
1	9.492839E-03	1.285991E-02	3.704265E-03	61	4.741528E-02	8.153443E-03	2.802151E-03	6
7	1.202181E-01	-2.539111E-03	-4.039805E-02		1.826591E-02	-8.884986E-03	3.553674E-02	12
13	4.010428E-03	1.058747E-02	-1.945162E-02		-8.751410E-04	-5.734905E-04	-7.634738E-04	18
19	2.032474E-01	-2.653557E-02	-1.840176E-02		6.410123E-03	-2.274048E-02	9.601105E-03	24
25	1.873089E-02	1.125591E-02	-7.773091E-03		1.448558E-02	8.863403E-03	-2.102077E-02	30
31	-4.086418E-05	3.736956E-05	1.254215E-04		-3.473272E-04	-8.278850E-04	2.498592E-04	36
37	3.656000E-04	-3.388918E-05	2.770920E-05		6.850201E-04	-8.114720E-04	-3.140002E-04	42
43	2.434457E-02	-1.057736E-01	1.591683E-01		9.637412E-01	-3.176385E-01	2.196895E-01	48
49	-9.150596E-03	2.369822E-01	-1.140279E-02		1.222121E-02	2.369876E-01	1.321236E-02	54
55	-9.745990E-01	1.231913E-02	-4.404366E-01		-1.561747E+00	6.637644E+00	2.865058E-01	60
61	1.230224E+00	-6.717620E+00	-2.446281E-01					63
COLUMN 62								
1	-1.313763E-02	-2.045385E-02	-1.105243E-02	62	-8.175835E-02	-3.088143E-02	-1.516198E-02	6
7	-2.780759E-01	2.658082E-02	1.395548E-01		-2.920956E-02	-6.240938E-01	1.805148E-01	12
13	-2.908721E-02	1.515124E-03	4.638987E-02		1.508823E-03	1.105098E-05	1.835626E-03	18
19	-1.516148E+00	6.505752E-02	-3.899718E-02		-9.139192E-02	7.150069E-02	8.218121E-03	24
25	-8.659412E-02	-1.007193E-01	9.172973E-03		-1.130456E-01	-8.481108E-03	2.872610E-02	30
31	-7.807566E-04	1.768908E-04	-1.974238E-04		-2.217240E-03	4.724088E-04	1.712417E-03	36
37	-6.805205E-04	1.285971E-04	8.752014E-05		-2.085273E-03	-1.874506E-03	1.524819E-03	42
43	-2.470002E+00	-9.860424E-02	-8.827014E-01		-3.125436E+00	1.080527E+00	4.045415E-02	48
49	-2.361220E-02	-4.406974E-01	1.781938E-02		-3.059191E-02	-4.407896E-01	-1.792996E-02	54
55	8.884845E+00	-1.104507E+00	2.511028E+00		6.319986E+00	-2.189432E+02	1.674510E+00	60
61	-6.717620E+00	2.199749E+02	-3.773512E+00					63
COLUMN 63								
1	-1.273842E-02	-1.798462E-02	-5.373760E-03	63	-6.616116E-02	-7.417883E-03	-7.729718E-03	6
7	-1.804740E-01	3.281931E-03	7.728069E-02		1.400612E-02	-1.482190E-01	5.441388E-02	12
13	-1.040425E-02	4.354106E-03	-8.581677E-03		2.636255E-04	-1.818907E-04	-3.282507E-04	18

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... BAA

19	-3.390685E-01	5.917356E-02	-1.454740E-02	63	-2.577305E-02	5.058453E-04	8.119610E-03	24
25	-2.416540E-02	-5.347473E-02	-6.834516E-03		8.995944E-03	4.653361E-03	-8.232823E-02	30
31	-3.558418E-04	1.408863E-05	-1.301284E-04		-5.568033E-04	-5.354423E-04	1.833345E-04	36
37	-2.801920E-04	6.945307E-05	-3.384800E-05		-5.597257E-04	-8.701604E-04	3.476567E-04	42
43	-4.848501E-01	3.021780E-02	-2.341402E-01		-1.244228E+00	-2.489105E-01	-5.455078E-02	48
49	7.168807E-05	2.919115E-03	-1.719232E-03		-8.947998E-03	2.903692E-03	2.941952E-03	54
55	2.420094E+00	2.889670E-01	7.839868E-01		3.719261E-01	3.691944E+00	-1.195849E+00	60
61	-2.446281E-01	-3.773512E+00	7.148817E-01					63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

C O M P L E X   E I G E N V A L U E   A N A L Y S I S   S U M M A R Y   ( I N V E R S E   P O W E R   W I T H   S H I F T S )

NUMBER OF EIGENVALUES EXTRACTED 12

NUMBER OF STARTING POINTS USED 1

NUMBER OF STARTING POINT OR SHIFT POINT MOVES 0

TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS 26

TOTAL NUMBER OF VECTOR ITERATIONS 257

REASON FOR TERMINATION 6

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

C O M P L E X   E I G E N V A L U E   A N A L Y S I S   S U M M A R Y   ( I N V E R S E   P O W E R   W I T H   S H I F T S )

NUMBER OF EIGENVALUES EXTRACTED 19

NUMBER OF STARTING POINTS USED 1

NUMBER OF STARTING POINT OR SHIFT POINT MOVES 0

TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS 8

TOTAL NUMBER OF VECTOR ITERATIONS 85

REASON FOR TERMINATION 7

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE ANALYSIS SUMMARY (INVERSE POWER WITH SHIFTS)

NUMBER OF EIGENVALUES EXTRACTED	26
NUMBER OF STARTING POINTS USED	1
NUMBER OF STARTING POINT OR SHIFT POINT MOVES	0
TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS	11
TOTAL NUMBER OF VECTOR ITERATIONS	104
REASON FOR TERMINATION	7

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE ANALYSIS SUMMARY (INVERSE POWER WITH SHIFTS)

NUMBER OF EIGENVALUES EXTRACTED	30
NUMBER OF STARTING POINTS USED	1
NUMBER OF STARTING POINT OR SHIFT POINT MOVES	0
TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS	6
TOTAL NUMBER OF VECTOR ITERATIONS	57
REASON FOR TERMINATION	7

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

C O M P L E X   E I G E N V A L U E   A N A L Y S I S   S U M M A R Y   ( I N V E R S E   P O W E R   W I T H   S H I F T S )

NUMBER OF EIGENVALUES EXTRACTED	33
NUMBER OF STARTING POINTS USED	1
NUMBER OF STARTING POINT OR SHIFT POINT MOVES	0
TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS	5
TOTAL NUMBER OF VECTOR ITERATIONS	37
REASON FOR TERMINATION	7

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

C O M P L E X   E I G E N V A L U E   A N A L Y S I S   S U M M A R Y   ( I N V E R S E   P O W E R   W I T H   S H I F T S )

NUMBER OF EIGENVALUES EXTRACTED	34
NUMBER OF STARTING POINTS USED	1
NUMBER OF STARTING POINT OR SHIFT POINT MOVES	0
TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS	2
TOTAL NUMBER OF VECTOR ITERATIONS	13
REASON FOR TERMINATION	7

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OF POOR QUALITY

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE ANALYSIS SUMMARY (INVERSE POWER WITH SHIFTS)

NUMBER OF EIGENVALUES EXTRACTED 35  
NUMBER OF STARTING POINTS USED 1  
NUMBER OF STARTING POINT OR SHIFT POINT MOVES 0  
TOTAL NUMBER OF TRIANGULAR DECOMPOSITIONS 3  
TOTAL NUMBER OF VECTOR ITERATIONS 18

REASON FOR TERMINATION 7

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE SUMMARY

ROOT NO	EXTRACTION ORDER	EIGENVALUE		FREQUENCY (CYCLES)	DAMPING COEFFICIENT
		(REAL)	(IMAG)		
1	1	-1.199085E-02	-2.397042E-12	0.0	0.0
2	2	-4.271184E-03	-2.531390E-10	0.0	0.0
3	5	-1.500943E-03	-1.678274E-02	2.571056E-03	1.788674E-01
4	6	-5.868273E-03	-2.339854E-02	3.723994E-03	5.015930E-01
5	11	-1.092172E-02	-1.262680E-01	2.009618E-02	1.729926E-01
6	8	-3.863643E-02	-1.481380E-01	2.357689E-02	5.216277E-01
7	12	-6.303528E-03	-6.335589E-01	1.008337E-01	2.621241E-02
8	14	-2.730958E-02	-1.987510E+01	3.183220E+00	2.748119E-03
9	13	-1.262188E-01	-2.447568E+01	3.895425E+00	1.031381E-02
10	16	-1.389542E+00	-4.665574E+01	7.425492E+00	5.999441E-02
11	17	-2.305214E+00	-5.062168E+01	8.058691E+00	9.107814E-02
12	19	-1.108957E-01	-8.346183E+01	1.328338E+01	2.857400E-03
13	20	-1.650773E+00	-9.883298E+01	1.541145E+01	3.409527E-02
14	21	-5.003501E+00	-1.048873E+02	1.870825E+01	8.531632E-02
15	22	-8.047928E+00	-1.075832E+02	1.712240E+01	1.486131E-01
16	23	-2.868219E+00	-1.169890E+02	1.862097E+01	4.937167E-02
17	24	-2.451561E-01	-1.181006E+02	1.878630E+01	4.151648E-03
18	25	-3.385267E-01	-1.371099E+02	2.182172E+01	4.894304E-03
19	27	-7.866564E-01	-1.509125E+02	2.401847E+01	1.016028E-02
20	28	-1.458772E+00	-1.595334E+02	2.539052E+01	1.830052E-02
21	29	-1.518114E+01	-1.888800E+02	2.855978E+01	1.820607E-01
22	30	-1.068592E+01	-1.740543E+02	2.770161E+01	1.250865E-01
23	26	-1.183284E-01	-1.802246E+02	2.868384E+01	1.313122E-03
24	31	-9.500438E+00	-1.877942E+02	2.988838E+01	1.011782E-01
25	33	-1.222372E+00	-2.011526E+02	3.201443E+01	1.215368E-02
26	32	-2.018945E+00	-2.041893E+02	3.249774E+01	1.977523E-02
27	34	-2.190737E+01	-2.249127E+02	3.579596E+01	1.848078E-01
28	35	-2.746958E+01	-2.478986E+02	3.945445E+01	2.216188E-01
29	4	-1.500951E-03	-1.678272E-02	2.671052E-03	1.788677E-01
30	3	-5.868273E-03	-2.339853E-02	3.723991E-03	5.015933E-01
31	9	-1.092172E-02	-1.262680E-01	2.009618E-02	1.729926E-01
32	10	-3.863643E-02	-1.481380E-01	2.357689E-02	5.216277E-01
33	7	-6.303530E-03	-6.335589E-01	1.008337E-01	2.621242E-02
34	15	-2.730964E-02	-1.987509E+01	3.183220E+00	2.748127E-03
35	18	-2.305214E+00	-5.062168E+01	8.058691E+00	9.107614E-02

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	-1.211585E-02	-9.600934E-13	-1.192616E-03	-2.781579E-13	-3.338734E-01	-1.521826E-11	3
4	-1.210582E-02	-9.578850E-13	-6.802715E-04	-1.588207E-13	-2.016104E-01	-1.370330E-11	6
7	-1.210551E-02	-9.578280E-13	-2.040782E-04	-3.918825E-14	-7.322623E-02	-1.223461E-11	9
10	8.750125E-04	1.828658E-13	-6.951146E-02	-1.816819E-12	9.024435E-02	-1.028840E-11	12
13	-1.252867E-01	-2.277212E-12	1.438281E-03	2.738222E-13	9.873263E-02	-1.030365E-11	15
18	-3.183446E-01	-4.448016E-12	3.123283E-03	5.379889E-13	9.873263E-02	-1.030365E-11	18
19	-6.297781E-02	-1.564431E-12	1.429549E-03	3.177732E-13	2.382004E-01	-8.695318E-12	21
22	-6.200958E-02	-1.408350E-12	9.348449E-04	1.985906E-13	1.115285E-01	-9.947131E-12	24
25	-6.327218E-02	-1.712820E-12	9.348327E-04	1.985889E-13	1.086351E-01	-1.040059E-11	27
28	-1.245871E-01	-2.289371E-12	1.945817E-03	3.970284E-13	2.335818E-01	-8.780643E-12	30
31	9.679398E-02	3.618985E-13	-1.456858E-03	-2.615802E-13	-1.525514E-01	-1.303417E-11	33
34	9.679398E-02	3.617492E-13	-1.225532E-04	6.138320E-14	1.978143E-01	-9.027598E-12	36
37	9.583802E-02	1.550364E-13	-1.457132E-03	-2.614436E-13	-1.545132E-01	-1.334215E-11	39
40	9.583802E-02	1.549607E-13	-1.225842E-04	6.001758E-14	1.858531E-01	-9.335130E-12	42
43	-3.408458E-02	-1.198219E-12	1.705797E-03	4.055559E-13	3.779361E-01	-7.057245E-12	45
46	-7.248548E-03	-9.267385E-13	2.570768E-03	6.343883E-13	6.883915E-01	-3.807477E-12	48
49	-4.038792E-02	-1.382988E-12	2.849248E-03	6.771571E-13	5.635745E-01	-3.951768E-12	51
52	-3.871885E-02	-1.221884E-12	2.849248E-03	6.771571E-13	6.651069E-01	-3.712188E-12	54
55	-3.656140E-02	-1.262388E-12	3.717471E-03	8.893319E-13	9.002229E-01	-1.130354E-12	57
58	-2.187002E-01	-3.334306E-12	5.669706E-03	1.225025E-12	1.000000E+00	0.000000E+00	60
61	-2.154429E-01	-3.356411E-12	5.655519E-03	1.222688E-12	9.891562E-01	-6.153619E-14	63

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	-8.861373E-03	4.413097E-11	4.335779E-05	-5.479511E-11	-2.793220E-01	7.039858E-10	3
4	-8.661759E-03	4.458129E-11	2.619432E-05	-3.210882E-11	-1.528718E-01	6.346511E-10	6
7	-8.661588E-03	4.457955E-11	8.510014E-06	-1.002638E-11	-2.953449E-02	5.671350E-10	9
10	1.739612E-04	2.112424E-11	-6.370993E-02	7.429771E-11	1.272684E-01	4.809631E-10	12
13	-1.171098E-01	9.924561E-11	3.895552E-04	2.616833E-11	1.355311E-01	4.749036E-10	15
18	-3.022749E-01	2.008322E-10	1.078420E-03	3.744530E-11	1.355311E-01	4.749036E-10	18
19	-5.734778E-02	8.848504E-11	1.492278E-04	4.686346E-11	2.702559E-01	4.009887E-10	21
22	-5.704587E-02	9.476740E-11	1.645000E-04	2.445941E-11	1.470079E-01	4.786151E-10	24
25	-5.700322E-02	3.780904E-11	1.645320E-04	2.445882E-11	1.458250E-01	4.592518E-10	27
28	-1.184381E-01	9.888464E-11	3.697414E-04	4.929891E-11	2.848669E-01	4.038453E-10	30
31	9.546754E-02	1.933338E-12	-3.687113E-04	-3.012863E-11	-1.060227E-01	6.141727E-10	33
34	9.546754E-02	1.933277E-12	-4.138790E-04	3.007680E-11	2.300228E-01	4.298513E-10	36
37	9.548468E-02	-3.888347E-11	-3.689089E-04	-3.012748E-11	-1.068248E-01	6.010414E-10	39
40	9.548468E-02	-3.888347E-11	-4.139000E-04	3.007708E-11	2.282208E-01	4.187228E-10	42
43	-2.878928E-02	5.828847E-11	2.895085E-05	6.875988E-11	4.031254E-01	3.305274E-10	45
46	-3.885949E-03	3.714018E-11	-1.041748E-04	1.68082E-10	6.798814E-01	1.761971E-10	48
49	-3.534941E-02	9.831830E-11	1.311759E-05	1.183700E-10	6.777013E-01	1.721481E-10	51
52	-3.637184E-02	6.849884E-11	-1.311759E-05	1.183700E-10	6.783278E-01	1.824035E-10	54
55	-3.201138E-02	5.258469E-11	-2.847764E-05	1.588944E-10	9.042527E-01	5.315317E-11	57
58	-2.047463E-01	1.455631E-10	5.002601E-04	1.883736E-10	1.000000E+00	0.000000E+00	60
61	-2.033830E-01	1.378644E-10	5.952701E-04	1.882084E-10	9.893907E-01	-2.179536E-12	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 3		COLUMN 3		COLUMN 3		COLUMN 3		COLUMN 3	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	5.529059E-02	4.278252E-03	6.210482E-02	5.348112E-02	1.000000E+00	0.000000E+00	3			
4	5.477753E-02	3.838308E-03	3.612979E-02	3.120232E-02	8.810168E-01	8.424617E-02	6			
7	5.477503E-02	3.837817E-03	1.089430E-02	9.541547E-03	7.854908E-01	1.864300E-01	9			
10	-2.963825E-02	-2.342689E-02	1.025139E-01	-3.242817E-02	6.515622E-01	2.713844E-01	12			
13	1.532561E-01	-6.380539E-02	-4.105263E-02	-3.113413E-02	6.484405E-01	2.785588E-01	15			
16	3.19727E-01	-1.873878E-01	-7.188822E-02	-5.096033E-02	6.484405E-01	2.785588E-01	18			
19	1.020396E-01	-2.391682E-02	-5.874504E-02	-4.844170E-02	5.328568E-01	3.894764E-01	21			
22	6.914379E-02	-5.187451E-02	-3.328019E-02	-2.661592E-02	6.126407E-01	2.894037E-01	24			
25	1.343829E-01	4.272786E-03	-3.328111E-02	-2.661605E-02	6.858848E-01	3.038473E-01	27			
28	1.528914E-01	-6.335414E-02	-6.747870E-02	-5.382033E-02	5.376763E-01	3.657988E-01	30			
31	-5.108589E-02	5.912149E-02	4.399386E-02	3.420577E-02	6.782838E-01	1.065183E-01	33			
34	-5.108589E-01	5.912149E-02	-2.485835E-02	-3.420577E-02	5.498481E-01	3.308187E-01	36			
37	-6.837001E-03	9.705159E-02	4.399386E-02	3.420577E-02	8.737222E-01	1.295998E-01	39			
40	-6.836990E-03	9.705159E-02	-2.485835E-02	-3.420577E-02	6.857408E-01	3.538887E-01	42			
43	7.045101E-02	-1.232038E-02	-8.138629E-02	-6.884316E-02	4.127375E-01	4.539125E-01	45			
46	5.622281E-02	1.175685E-02	-1.339176E-01	-1.148155E-01	1.817463E-01	6.429310E-01	48			
49	1.004708E-01	5.574370E-03	-1.387532E-01	-1.178383E-01	1.974536E-01	6.506341E-01	51			
52	6.591501E-02	-2.408902E-02	-1.387532E-01	-1.178383E-01	1.694110E-01	6.326024E-01	54			
55	8.032198E-02	-7.008991E-03	-1.846180E-01	-1.572894E-01	-1.049508E-02	7.926120E-01	57			
58	2.304176E-01	-1.205528E-01	-2.330358E-01	-1.926382E-01	-9.095283E-02	8.575980E-01	60			
61	2.374473E-01	-1.126198E-01	-2.327151E-01	-1.924128E-01	-8.390842E-02	8.615662E-01	63			

	COLUMN 4		COLUMN 4		COLUMN 4		COLUMN 4		COLUMN 4	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	2.766103E-02	1.157251E-03	-2.816995E-01	1.308180E-05	4.838340E-02	1.369091E-02	3			
4	2.998946E-02	1.154746E-03	-1.643294E-01	-1.155282E-04	4.415628E-02	1.538144E-02	6			
7	2.898933E-02	1.154738E-03	-4.999458E-02	-2.398278E-04	3.88902E-02	1.700979E-02	9			
10	1.196542E-01	-6.966008E-05	2.985931E-02	4.287615E-04	3.084244E-02	1.908530E-02	12			
13	9.640943E-03	-2.16383E-04	1.553044E-01	3.035458E-04	1.857060E-02	1.901882E-02	15			
16	1.761983E-02	-2.699249E-03	2.439892E-01	1.516438E-03	1.887060E-02	1.901882E-02	18			
19	7.087518E-03	5.849888E-04	2.517858E-01	-2.249153E-04	1.308518E-02	2.079758E-02	21			
22	1.546891E-01	3.811821E-04	1.366408E-01	-1.012235E-04	8.452435E-02	2.020244E-02	24			
25	-1.405618E-01	7.043724E-04	1.388407E-01	-1.012411E-04	-5.772082E-02	1.811910E-02	27			
28	9.613836E-03	-2.425351E-04	2.750780E-01	1.677718E-04	1.329741E-02	2.072635E-02	30			
31	1.005601E-01	2.449601E-03	-1.711679E-01	-8.455275E-04	8.090013E-02	1.652517E-02	33			
34	1.005601E-01	2.449600E-03	1.408750E-01	-1.185140E-03	6.642473E-02	2.087022E-02	36			
37	-9.959444E-02	2.868056E-03	-1.711677E-01	-8.454980E-04	-2.271731E-02	1.110927E-02	39			
40	-9.959445E-02	2.868058E-03	1.408750E-01	-1.185133E-03	-2.271731E-02	1.110927E-02	42			
43	4.183218E-02	8.837898E-04	3.618194E-01	-5.404895E-04	2.588614E-02	2.280558E-02	45			
46	4.764301E-03	1.245001E-03	6.058403E-01	-9.914087E-04	4.590284E-03	2.201318E-02	48			
49	-7.208630E-02	9.148514E-04	6.198797E-01	-7.832289E-04	-4.482459E-02	2.653541E-02	51			
52	8.430850E-02	7.433928E-04	6.198797E-01	-7.832289E-04	3.581354E-02	2.673666E-02	54			
55	5.975775E-03	8.733928E-04	8.283484E-01	-1.034914E-03	-1.426433E-02	2.917753E-02	57			
58	4.238810E-03	-1.398775E-03	1.000000E+00	0.000000E+00	-2.311682E-02	3.037878E-02	60			
61	-3.29084E-02	-1.341650E-03	9.989219E-01	-8.408830E-06	-4.221790E-02	3.011108E-02	63			

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 5		COLUMN 5		COLUMN 5		COLUMN 5	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	8.305505E-01	-2.545264E-02	1.575851E-02	1.528940E-03	-5.414810E-01	-1.034417E-02	3	
4	8.304237E-01	-2.548935E-02	9.756889E-03	6.691843E-04	-3.886795E-01	-9.147740E-03	6	
7	8.304191E-01	-2.548905E-02	3.777419E-03	-1.603162E-04	-2.403718E-01	-8.053020E-03	9	
10	-1.903396E-03	2.348085E-04	7.642332E-01	-2.594072E-02	-5.081264E-02	6.758879E-03	12	
13	7.008443E-01	-2.624538E-02	-2.922381E-04	1.869014E-03	-4.157759E-02	-7.388588E-03	15	
16	4.776390E-01	-2.789175E-02	6.080683E-03	7.243788E-03	-4.157759E-02	-7.388588E-03	18	
19	7.730515E-01	-2.672015E-02	-8.724623E-03	-7.779865E-04	1.208018E-01	-8.182358E-03	21	
22	7.859410E-01	-2.679491E-02	-2.888663E-03	-5.110322E-05	-2.294504E-02	-2.679204E-03	24	
25	7.809864E-01	-2.464074E-02	-2.882254E-03	5.152297E-05	-3.388539E-02	-1.180711E-02	27	
28	7.018412E-01	-2.624508E-02	-6.432536E-03	9.733683E-04	-1.143073E-01	-6.240234E-03	30	
31	8.523513E-01	-2.509884E-02	3.820821E-03	-2.865058E-03	3.305491E-01	-6.373119E-03	33	
34	8.523513E-01	-2.509884E-02	-1.208617E-02	-4.938236E-03	7.565722E-02	-3.428540E-03	36	
37	8.625428E-01	-2.363863E-02	3.838747E-03	-2.865533E-03	-3.379448E-01	-1.263672E-02	39	
40	8.625428E-01	-2.363863E-02	-1.208402E-02	-4.938337E-03	6.821679E-02	-8.684436E-03	42	
43	8.04879E-01	-2.573758E-02	-1.598081E-02	-2.477230E-03	2.820832E-01	-3.889649E-03	45	
46	8.374740E-01	-2.524585E-02	-2.997072E-02	-5.103861E-03	5.146011E-01	-2.554242E-03	48	
49	8.035410E-01	-2.495481E-02	-2.879385E-02	-4.177201E-03	5.093303E-01	-5.015473E-03	51	
52	7.955558E-01	-2.809522E-02	-2.879385E-02	-4.177201E-03	6.151308E-01	-1.279818E-04	54	
55	8.035899E-01	-2.549525E-02	3.952313E-02	-5.808494E-03	8.848988E-01	-5.832837E-04	57	
58	5.958715E-01	-2.896168E-02	3.821054E-02	-1.442000E-03	1.000000E+00	0.000000E+00	60	
61	5.993994E-01	-2.867894E-02	-3.823549E-02	-1.478305E-03	9.980888E-01	-1.183177E-03	63	

	COLUMN 6		COLUMN 6		COLUMN 6		COLUMN 6	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-2.915735E-02	-3.485870E-03	2.649682E-01	3.200257E-03	1.038221E-01	4.137707E-03	3	
4	-3.190829E-02	-3.676812E-03	-1.254905E-01	-1.390356E-03	1.137123E-01	3.915280E-03	6	
7	-3.189539E-02	-3.575965E-03	-1.001034E-02	-5.851671E-03	1.131007E-01	3.800837E-03	9	
10	-2.113162E-02	-9.488019E-03	-2.874271E-02	-3.340121E-03	1.014713E-01	3.084850E-03	12	
13	-1.774850E-03	-2.324887E-03	2.483740E-01	-7.34702E-03	3.020784E-03	2.085808E-03	15	
16	-1.064288E-03	-1.855808E-03	1.000000E+00	0.000000E+00	3.020784E-03	2.085808E-03	18	
19	-2.054587E-03	-1.425738E-03	-1.425375E-01	-1.473600E-02	2.482371E-03	1.739150E-03	21	
22	-1.771320E-01	-8.244187E-03	-7.488439E-03	-1.028010E-02	6.481848E-01	4.48678E-03	24	
25	1.730187E-01	3.289594E-03	-7.488473E-03	-1.028003E-02	-6.422088E-01	-4.392898E-03	27	
28	-1.823884E-03	-2.325767E-03	1.035088E-01	-1.143330E-02	2.513000E-03	1.762824E-03	30	
31	-1.212697E-01	-6.788972E-03	-3.484483E-01	-7.324000E-02	4.419250E-01	7.107889E-03	33	
34	-1.212704E-01	-6.788005E-03	-7.180493E-01	-1.845298E-02	4.400804E-01	5.215441E-03	36	
37	1.189332E-01	1.037181E-03	-3.484471E-01	-7.323907E-03	-4.33687E-01	-1.714418E-03	39	
40	1.189332E-01	1.037181E-03	-7.180493E-01	-1.845298E-02	-4.348004E-01	-2.532054E-03	42	
43	-4.479994E-02	-2.949820E-03	4.008311E-01	-2.066611E-02	1.591113E-01	2.974042E-03	45	
46	-2.264915E-03	-2.611748E-03	-8.108331E-01	-3.175877E-02	-8.793487E-04	7.004840E-04	48	
49	9.058088E-02	5.209621E-04	-6.807742E-01	-3.040948E-02	-3.408450E-01	-2.714580E-03	51	
52	-8.486288E-02	-5.844818E-03	-6.807742E-01	-3.040948E-02	3.426192E-01	4.128822E-03	54	
55	-2.154297E-02	-2.540472E-03	-8.434947E-01	-3.875176E-02	-3.213958E-06	1.318107E-04	57	
58	8.415828E-03	-1.738649E-03	3.478277E-01	-3.518075E-02	-4.051430E-02	-5.180098E-04	60	
59	5.338618E-02	-2.833575E-04	3.528319E-01	-3.521984E-02	-2.025792E-01	-2.158028E-03	63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	-2.116519E-02	-1.293298E-03	9.150287E-01	2.663443E-02	-4.887138E-02	4.548661E-03	3
4	-2.317779E-02	-1.418661E-03	8.126687E-01	2.035094E-02	-5.488511E-02	4.807531E-03	6
7	-2.324441E-02	-1.417615E-03	7.130508E-01	1.424488E-02	-5.582487E-02	4.808428E-03	9
10	4.781860E-01	1.196699E-02	-2.053382E-02	-1.241463E-03	-5.073380E-02	4.231516E-03	12
13	-4.687927E-04	5.635769E-06	3.471460E-01	2.489328E-02	8.591244E-04	9.723722E-06	15
16	1.060558E-03	-1.468398E-04	-4.782873E-02	5.722920E-02	8.591244E-04	9.723722E-06	18
19	-1.058817E-03	-4.655183E-05	3.657615E-01	7.810210E-03	-2.218044E-04	-9.297303E-05	21
22	-1.292073E-01	-7.924997E-03	4.865521E-01	1.389745E-02	-3.379548E-01	2.763385E-02	24
25	1.271132E-01	7.835598E-03	4.665502E-01	1.389738E-02	3.394882E-01	-2.763106E-02	27
28	-5.708168E-04	7.723141E-07	2.440971E-01	1.834558E-02	-1.682952E-04	-8.857338E-05	30
31	-8.984634E-02	-5.514383E-03	1.000000E+00	0.000000E+00	-2.303173E-01	1.887885E-02	33
34	-8.984368E-02	-5.514353E-03	7.245778E-01	-1.673238E-02	-2.299086E-01	1.866600E-02	36
37	8.530429E-02	5.181483E-03	9.998499E-01	-3.979621E-07	2.360677E-01	-1.848123E-02	39
40	8.530147E-02	5.181448E-03	7.245747E-01	-1.673248E-02	2.301212E-01	-1.878054E-02	42
43	-3.257680E-02	-1.965608E-03	3.172856E-01	-3.567727E-03	-8.385148E-02	6.533702E-03	45
46	-1.483122E-03	-8.528076E-05	1.485401E-01	-2.180226E-02	-3.463671E-03	-4.044601E-04	48
49	5.883648E-02	4.115694E-03	8.302114E-02	-1.823960E-02	1.781502E-01	-1.502889E-02	51
52	-5.930368E-02	-4.238491E-03	8.302114E-02	-1.823960E-02	-1.830464E-01	1.422276E-02	54
55	1.260168E-03	-6.391863E-05	-9.273226E-02	-2.804104E-02	-5.241608E-03	-5.742689E-04	57
58	8.100725E-03	5.521141E-04	-5.386625E-01	-2.842734E-03	1.509788E-02	-2.356338E-03	60
61	4.037533E-02	2.526886E-03	-5.353929E-01	-3.055544E-03	1.002929E-01	-9.267186E-03	63

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	-1.532178E-01	1.004152E-04	2.063131E-03	9.565451E-05	-2.414884E-01	1.397604E-03	3
4	-1.532861E-01	1.001622E-04	6.907861E-04	4.536146E-05	-1.827837E-01	9.884176E-04	6
7	-1.538240E-01	7.683762E-05	-7.389512E-04	-6.806218E-05	-8.759537E-02	5.051846E-04	9
10	-1.490937E-03	1.054104E-04	-1.848055E-01	3.558792E-04	5.778042E-03	-2.570415E-04	12
13	-1.189220E-01	4.281838E-04	-1.535933E-03	-1.008648E-04	-1.878860E-02	-2.927792E-04	15
16	1.000000E+00	0.000000E+00	3.517024E-03	2.078536E-04	-1.880266E-02	-2.929204E-04	18
19	-1.848731E-01	1.841843E-04	-8.223231E-04	-8.531718E-05	7.632838E-02	-8.921899E-04	21
22	-1.328293E-01	2.514990E-04	-1.757392E-03	-1.115034E-04	9.644524E-03	-5.215141E-04	24
25	-1.818880E-01	2.923056E-04	-4.104760E-04	-9.861932E-05	-1.010446E-03	-2.407575E-04	27
28	-2.233524E-01	1.278535E-04	1.278535E-03	-1.432381E-04	7.310281E-02	-8.674380E-04	30
31	-9.988850E-02	-4.404463E-04	-5.251486E-04	5.477894E-05	-1.275860E-01	8.444988E-04	33
34	-9.987840E-02	-4.398483E-04	-6.629441E-03	2.701809E-05	5.180479E-02	-9.038076E-04	36
37	-9.885027E-02	-4.288921E-04	-6.834058E-03	1.217829E-04	-1.323651E-01	1.132602E-03	39
40	-9.885511E-02	-4.287634E-04	-6.265643E-03	1.021118E-05	4.548952E-02	-7.091322E-04	42
43	-1.681191E-01	1.224924E-04	-8.316362E-04	-1.258871E-06	1.654023E-01	-1.152140E-03	45
46	-1.481848E-01	2.865601E-04	1.431204E-03	2.498484E-04	3.849140E-01	-1.599688E-04	48
49	-1.759018E-01	-8.140573E-06	2.239898E-03	2.074704E-04	3.829772E-01	-7.362901E-05	51
52	-1.743458E-01	8.829808E-05	2.239898E-03	2.074703E-04	3.873783E-01	-2.841671E-04	54
55	-1.897388E-01	1.586353E-04	4.394586E-03	3.107700E-04	6.065567E-01	2.747857E-03	57
58	-3.802750E-01	-2.915147E-03	-5.635612E-03	-3.064025E-04	7.147202E-01	4.538274E-03	60
61	-3.852657E-01	-3.016591E-03	-5.483424E-03	-2.983725E-04	7.253388E-01	4.847234E-03	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	1.300814E-02	2.171001E-04	-7.374458E-02	-3.538177E-03	-1.442138E-01	5.061335E-04	3
4	1.460828E-02	2.384281E-04	-2.231037E-03	-2.548703E-03	-1.845372E-01	3.055672E-04	6
7	1.361938E-02	1.948579E-04	7.402388E-02	-1.668891E-03	-1.620554E-01	1.852918E-04	9
10	-1.579458E-01	-7.880509E-04	1.340208E-02	2.222305E-04	-1.492868E-01	-7.753347E-05	12
13	2.977627E-03	1.387136E-04	-3.140482E-01	6.323010E-05	2.005981E-03	-6.203099E-05	15
16	-2.160853E-03	-4.069472E-04	6.130880E-01	7.817289E-03	2.006838E-03	-6.210828E-05	18
19	7.083323E-04	1.178711E-04	-8.483840E-02	-3.725174E-04	-3.923185E-03	-3.014043E-04	21
22	7.823704E-02	7.248569E-04	-1.379475E-01	-7.079447E-04	-9.976128E-01	-1.871116E-04	24
25	-7.878298E-02	-4.607493E-04	-1.379429E-01	-7.126801E-04	1.000000E+00	0.000000E+00	27
28	4.896711E-03	2.820144E-04	-4.814872E-01	-5.119444E-04	-1.855856E-03	-2.742078E-04	30
31	4.995265E-02	3.587780E-04	7.878277E-01	-2.889535E-03	-7.370809E-01	1.251775E-03	33
34	4.982653E-02	3.580650E-04	8.800511E-01	-6.054263E-04	-7.000149E-01	7.272341E-06	36
37	-6.278593E-02	-6.011838E-04	7.683127E-01	-2.877710E-03	7.632229E-01	-6.886740E-04	39
40	-8.273925E-02	-6.883418E-04	8.889339E-01	-6.144893E-04	6.928817E-01	-4.478758E-04	42
43	1.520293E-02	4.200954E-05	1.509551E-01	-1.632724E-04	-2.588185E-01	-7.289607E-04	45
46	-1.253344E-03	4.223070E-05	4.223302E-01	-4.967189E-04	-1.025542E-01	-8.185538E-04	48
49	-2.497085E-02	5.527282E-04	2.145959E-01	-9.838744E-04	5.394807E-01	4.240280E-04	51
52	2.343940E-02	-4.767028E-04	2.145959E-01	-9.838738E-04	5.779633E-01	-2.071350E-03	54
55	-6.825176E-04	6.431035E-05	2.871813E-01	-2.468588E-03	-1.857303E-02	3.725659E-04	57
58	-1.190091E-02	-1.609321E-03	-9.878472E-01	-1.761415E-02	6.450429E-02	1.892049E-03	60
61	-1.064563E-02	-3.148788E-03	-9.775199E-01	-1.744610E-02	3.727258E-01	8.002545E-03	63

	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	
1	-1.228118E-02	-5.109788E-05	2.138802E-01	3.720152E-03	-6.340198E-02	-7.121427E-03	3
4	-1.367438E-02	-6.888121E-06	1.313794E-01	1.995680E-03	-4.108133E-02	-4.147917E-03	6
7	-1.318639E-02	-1.793686E-04	5.195373E-02	5.836956E-04	-2.272930E-02	-1.512737E-03	9
10	-6.793142E-02	-1.705894E-03	-1.255305E-02	-6.432003E-04	-1.025200E-03	9.074024E-04	12
13	-8.852886E-03	-1.188459E-03	-7.758322E-02	-2.008083E-03	1.150263E-02	1.378827E-03	15
16	6.421358E-03	1.081007E-03	2.638573E-02	1.898539E-03	1.184385E-02	1.381239E-03	18
19	-1.482772E-03	-2.311488E-04	-1.148252E-01	-1.809377E-03	2.363458E-02	2.824537E-03	21
22	-8.055085E-02	-6.721182E-02	-1.683317E-03	-7.032172E-02	-1.462977E-02	-1.462977E-03	24
25	7.315390E-02	-2.825534E-04	-1.679220E-03	1.679220E-03	9.542247E-02	4.564167E-03	27
28	-6.816878E-03	-6.288800E-04	-1.638639E-01	-2.468874E-03	2.323114E-02	2.571884E-03	30
31	-3.757484E-02	1.078519E-03	1.833298E-01	8.521824E-04	-1.141471E-01	-3.194453E-03	33
34	-3.750761E-02	1.083467E-03	-2.587850E-02	8.717354E-04	-3.798548E-02	5.411185E-04	36
37	6.895151E-02	1.805472E-03	7.104624E-04	8.717354E-04	5.749908E-02	-3.992769E-04	39
40	6.886080E-02	1.798402E-03	-2.284850E-02	1.033135E-03	8.303675E-02	4.847537E-03	42
43	6.213132E-03	4.179368E-04	-1.283819E-01	-5.851047E-04	2.080768E-02	-1.820789E-03	45
46	-2.348707E-03	-5.334741E-04	-2.802502E-02	5.063234E-03	9.245082E-03	4.728832E-04	48
49	-6.251890E-02	-1.988437E-03	-1.884558E-02	3.320155E-03	1.985122E-02	4.272833E-03	51
52	7.110330E-02	2.917897E-03	-1.884557E-02	3.320155E-03	3.853496E-02	-5.108633E-03	54
55	1.851322E-03	-4.833867E-05	2.238142E-01	1.371784E-02	-6.866078E-02	-1.230103E-02	57
58	9.792770E-02	1.233108E-02	1.000000E+00	0.000000E+00	-1.829516E-01	-1.863146E-02	60
61	1.261028E-02	1.048813E-02	9.840212E-01	2.641122E-04	-3.894135E-01	-1.573857E-02	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 11		COLUMN 11		COLUMN 11		COLUMN 11	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-2.318718E-02	-2.476134E-04	7.289582E-02	7.954107E-03	3.489790E-01	1.566591E-03		3
4	-2.317246E-02	-3.272375E-04	4.102338E-02	4.688629E-03	1.918997E-01	8.544775E-04		6
7	-1.461925E-02	-6.946593E-05	1.075734E-02	1.697031E-03	5.076562E-02	6.198560E-04		9
10	-2.136227E-02	-2.190728E-05	1.950846E-02	6.370554E-04	-7.336466E-02	-4.046727E-04		12
13	6.307181E-02	3.665220E-04	-2.365877E-02	-2.546166E-03	-7.386148E-02	1.096571E-04		15
16	-3.903290E-02	-2.884688E-03	5.977785E-03	9.348337E-04	-7.418306E-02	1.382835E-04		18
19	8.527148E-03	6.384714E-04	-3.838169E-02	-4.327205E-03	-1.372848E-01	-1.322619E-03		21
22	1.549546E-03	-2.262128E-03	-2.431331E-02	-2.515297E-03	-9.140053E-02	-2.087497E-03		24
25	4.740857E-02	3.443520E-03	-2.441850E-02	-2.587815E-03	-7.136372E-02	1.531132E-03		27
28	2.704757E-02	1.278220E-03	-4.888221E-02	-5.368855E-03	-1.344189E-01	-1.296568E-03		30
31	-1.101642E-01	-2.581798E-04	5.302869E-03	8.127010E-03	1.370234E-01	7.759920E-03		33
34	-1.100491E-01	-2.557650E-04	-1.460217E-02	-3.298027E-03	-1.557187E-01	-6.957288E-04		36
37	-7.518768E-02	3.928934E-03	5.674979E-02	1.315973E-03	1.568855E-01	-3.581663E-03		39
40	-7.514172E-02	3.921486E-03	-3.980106E-02	-7.326830E-04	-1.408535E-01	2.251510E-03		42
43	1.394466E-03	9.080805E-04	4.076775E-02	-4.585328E-03	-1.522826E-01	-3.174335E-03		45
46	3.300572E-02	1.424434E-03	2.053120E-02	3.525811E-04	7.667932E-02	-4.470507E-03		48
49	-4.703041E-02	-1.763843E-03	2.243044E-02	3.348833E-04	6.899238E-02	5.029343E-03		51
52	1.484136E-02	3.681764E-03	2.243043E-02	3.348833E-04	6.830418E-02	-4.793041E-03		54
55	2.834098E-03	1.814371E-03	1.308087E-01	1.050321E-02	6.045728E-01	5.344831E-03		57
58	-5.825564E-01	-8.071731E-03	2.345750E-01	3.258081E-02	9.372224E-01	8.661571E-03		60
61	-6.791679E-01	-8.720437E-03	2.346759E-01	3.250687E-02	1.000000E+00	0.000000E+00		63

	COLUMN 12		COLUMN 12		COLUMN 12		COLUMN 12	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	4.353008E-03	3.548218E-04	-5.514127E-04	-1.695131E-04	-2.529957E-02	-2.101097E-03		3
4	4.248211E-03	3.373066E-04	4.344923E-05	-5.591321E-06	-1.217638E-02	-3.725718E-04		6
7	2.856334E-03	-9.180718E-06	4.387786E-04	9.125207E-05	-1.447102E-03	7.112647E-04		9
10	3.296597E-04	5.793594E-05	1.638616E-03	9.914847E-05	-8.519923E-04	3.594509E-04		12
13	6.876330E-04	7.910682E-05	6.783594E-04	8.483952E-05	-1.070559E-03	3.394358E-04		15
16	-2.808141E-04	7.576678E-05	-1.844144E-04	-2.210208E-05	-1.082758E-03	3.433480E-04		18
19	1.789251E-03	9.955866E-05	1.010899E-04	-2.846802E-05	-1.373603E-03	-4.587047E-04		21
22	1.461716E-03	-3.328061E-05	3.060417E-04	4.488866E-05	-1.353298E-05	3.156914E-04		24
25	2.207823E-03	1.859414E-04	2.551678E-04	4.479061E-05	-1.996003E-03	1.441848E-04		27
28	1.830692E-03	4.645197E-04	1.512277E-03	8.663202E-05	-1.409076E-03	-4.312320E-04		30
31	-1.537822E-01	-6.188600E-04	-8.686156E-01	1.957453E-03	9.990688E-01	5.198010E-04		33
34	-1.532892E-01	-5.819255E-04	-3.362581E-02	1.594395E-03	-1.407288E-02	-1.527258E-03		36
37	-1.528059E-01	-4.686896E-04	8.897111E-01	-1.023212E-03	1.000000E+00	0.000000E+00		39
40	-1.523157E-01	-4.357140E-04	3.040098E-02	-1.336560E-03	-1.652631E-03	-1.790739E-03		42
43	1.602477E-03	1.855446E-05	-8.827689E-04	-1.853597E-04	-5.741718E-04	-1.088118E-03		45
46	2.018316E-03	1.208989E-05	-3.428734E-03	4.697474E-04	3.424377E-04	-1.514217E-03		48
49	2.850507E-03	-4.429555E-05	-2.847394E-03	-4.196088E-04	-1.326232E-03	-1.818796E-03		51
52	1.346595E-03	-1.293847E-04	-2.847389E-03	-4.196072E-04	2.048993E-03	-1.522475E-03		54
55	1.837798E-03	3.574303E-05	-4.460949E-03	3.778845E-04	1.848164E-03	3.238637E-04		57
58	1.187609E-03	-2.773572E-03	3.622093E-03	4.697362E-04	1.600731E-03	1.924322E-03		60
61	1.459442E-03	-3.575805E-03	3.548482E-03	4.713270E-04	-8.543328E-04	2.258532E-03		63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 13		COLUMN 13		COLUMN 13		COLUMN 13	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	3.115014E-03	2.038235E-03	-4.493871E-02	-2.863594E-02	5.475009E-03	7.016599E-03		3
4	3.659098E-03	2.497440E-03	-2.174698E-02	-9.382884E-03	-3.494607E-03	-1.867475E-03		6
7	2.300487E-03	1.827824E-03	-2.190976E-03	6.702409E-03	-2.212343E-03	-3.181973E-03		9
10	1.767958E-03	7.542683E-03	-1.954175E-03	8.355491E-04	-2.308892E-03	5.423190E-03		12
13	4.234317E-03	2.428611E-03	3.860534E-03	4.200158E-03	-2.341781E-03	-2.693758E-03		15
16	-9.637486E-04	-4.653187E-04	-6.767249E-04	-8.302479E-05	-2.379291E-03	-2.734035E-03		18
19	-6.138655E-04	-8.809733E-04	8.976314E-03	6.333107E-03	-3.516798E-03	-1.316348E-03		21
22	7.189428E-03	1.773401E-03	2.871731E-03	7.893564E-03	-4.374493E-03	-2.280481E-02		24
25	-4.385189E-03	-9.843830E-04	7.893564E-03	7.893564E-03	8.548410E-04	1.806340E-02		27
28	3.981584E-03	-2.874813E-03	6.171178E-02	6.741933E-03	-6.066471E-03	-1.690617E-03		30
31	2.232084E-02	-3.350563E-03	1.000000E+00	0.000000E+00	-9.084614E-01	1.582666E-02		33
34	2.232698E-02	-3.374668E-03	3.925175E-02	3.846731E-02	-1.694641E-02	-2.474758E-02		36
37	3.287559E-02	-1.481685E-03	9.894659E-01	-9.187356E-03	9.008550E-01	-1.981598E-02		39
40	-3.285337E-02	-1.448897E-03	3.116744E-02	3.230433E-02	2.154980E-03	1.516101E-02		42
43	-1.066199E-02	-7.117395E-03	-1.661745E-02	-3.404167E-03	1.157913E-02	9.353060E-04		45
46	6.427232E-04	2.835240E-04	-1.238299E-01	-6.492883E-02	1.798359E-02	1.795085E-02		48
49	3.076297E-02	1.872711E-02	-1.084576E-01	-5.068704E-02	-3.139070E-02	8.098494E-03		51
52	-3.478230E-02	-2.238808E-02	-1.068671E-01	-6.08678E-02	7.212468E-02	3.224144E-02		54
55	-1.478370E-03	-1.904054E-03	-1.904382E-01	-1.118955E-01	3.595574E-02	2.726243E-02		57
58	3.511697E-03	1.291688E-02	1.223188E-01	8.103597E-02	8.028910E-03	1.505351E-03		60
61	1.347691E-02	2.496740E-02	1.195639E-01	7.924103E-02	-1.002072E-01	-7.420607E-02		63

	COLUMN 14		COLUMN 14		COLUMN 14		COLUMN 14	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-3.558015E-03	9.702081E-03	1.170370E-01	-8.183554E-02	-8.933410E-02	-1.836403E-02		3
4	-5.819997E-03	1.086428E-02	3.488609E-02	-2.747538E-02	-5.990144E-03	-2.006079E-02		6
7	-6.557140E-03	6.010115E-03	-3.588698E-02	1.949541E-02	1.979974E-02	-2.785288E-03		9
10	-4.080718E-02	1.863514E-02	4.557375E-03	-8.882383E-04	3.555380E-02	8.325430E-03		12
13	-1.223693E-02	7.875670E-03	-2.327228E-02	4.989238E-03	2.193410E-02	9.703432E-04		15
16	2.311613E-03	-1.863829E-03	9.785501E-04	1.613333E-03	2.233758E-02	9.484280E-04		18
19	7.490148E-03	9.886791E-03	-3.020742E-02	2.217714E-02	1.088609E-03	-7.321936E-03		21
22	-7.828000E-03	1.398269E-02	-4.203310E-02	1.853970E-02	1.246432E-01	6.992578E-02		24
25	8.565977E-03	-8.230541E-03	-4.248249E-02	1.847058E-02	-8.689663E-02	7.191655E-02		27
28	2.040589E-02	-1.342289E-03	2.522977E-02	5.140572E-02	7.774468E-04	-8.460368E-03		30
31	3.395539E-02	-3.543806E-02	1.000000E+00	0.000000E+00	-9.713620E-01	9.306664E-02		33
34	3.377536E-02	-3.536438E-02	-1.903882E-01	1.464274E-01	1.456599E-01	-1.110474E-01		36
37	-2.857693E-02	-1.586406E-02	9.671886E-01	-1.238248E-01	9.744395E-01	-1.037910E-01		39
40	-2.842185E-02	-1.583126E-02	-1.688708E-01	-1.114593E-01	-8.288704E-02	6.488073E-02		42
43	2.862191E-02	-2.068246E-02	-5.803211E-03	-8.987200E-03	-1.124908E-02	-1.133877E-02		45
46	7.544406E-04	1.496830E-03	2.336729E-01	-2.170650E-01	-1.252949E-01	1.035633E-02		48
49	-7.772509E-02	6.721343E-02	2.255053E-01	-1.991953E-01	-1.225604E-01	-4.049345E-02		51
52	9.661270E-02	-7.433888E-02	2.285042E-01	-1.971941E-01	-1.671933E-01	6.831738E-02		54
55	1.173166E-02	-4.899548E-04	4.482589E-01	-3.743783E-01	-1.335915E-01	6.473211E-02		57
58	1.298970E-01	-2.548278E-02	-3.130840E-01	2.357680E-01	2.087680E-02	2.874890E-02		60
61	-2.240798E-01	-1.716133E-02	-3.054562E-01	2.308527E-01	3.571103E-01	-1.879995E-01		63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 15					
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-5.458273E-02	-5.559814E-03	1.000180E-01	4.295127E-02	3.900828E-01	1.330581E-02	3
4	-5.327127E-02	-6.163789E-03	2.458754E-02	1.211498E-02	1.402878E-01	9.089298E-03	6
7	-1.822859E-02	-7.900361E-04	-3.520837E-02	-1.291562E-02	-8.878118E-02	2.980048E-03	9
10	-3.483170E-02	-1.491328E-02	-2.028510E-02	1.337056E-03	-8.818918E-02	3.872537E-03	12
13	1.756014E-02	-1.083398E-03	-4.800395E-02	-5.301765E-03	-9.235298E-02	-4.123008E-04	15
16	-2.659080E-03	6.844835E-04	8.521696E-03	-3.769748E-04	-8.410608E-02	-1.817890E-04	18
19	-3.392111E-02	-1.888429E-03	-1.200032E-03	-1.111280E-02	3.354159E-02	-1.507078E-03	21
22	1.262034E-02	-1.451881E-03	-3.274840E-02	-1.502448E-02	-7.986019E-02	3.746847E-02	24
25	-3.758733E-02	1.077501E-03	-3.087650E-02	-1.540327E-02	-7.160874E-02	-4.169057E-02	27
28	-1.112137E-01	-2.854607E-03	-8.714548E-03	-9.242007E-04	2.870713E-02	-1.362032E-03	30
31	1.055185E-01	-5.174748E-02	-2.848331E-01	3.373473E-01	-8.121744E-02	-2.307758E-01	33
34	1.052923E-01	-5.157828E-02	-7.105782E-03	-5.288103E-02	-4.098092E-02	1.677164E-02	36
37	3.818400E-02	-6.601037E-02	3.167092E-01	2.826882E-01	1.585088E-01	3.776299E-01	39
40	3.817081E-02	-6.580050E-02	-2.558199E-02	-8.281388E-02	-4.838830E-02	-7.215085E-02	42
43	8.468896E-03	1.071320E-02	5.201170E-02	2.906977E-03	1.802651E-01	9.255030E-03	45
46	-5.490558E-03	8.908151E-04	2.024878E-01	9.874301E-02	4.356533E-01	1.514562E-02	48
49	-4.263464E-02	3.124985E-02	1.884873E-01	9.569299E-02	5.569378E-01	1.544748E-02	51
52	2.164988E-02	3.401041E-02	1.884862E-01	9.569261E-02	4.851423E-01	-5.548943E-03	54
55	-3.705248E-02	-3.828551E-03	2.121825E-01	1.704677E-01	1.448916E-01	-2.450554E-02	57
58	6.458613E-01	2.982302E-02	-1.461012E-01	-1.248781E-01	-2.443300E-01	-1.592531E-02	60
61	1.000000E+00	0.000000E+00	-1.494482E-01	-1.229388E-01	-3.560432E-01	1.124220E-01	63

		COLUMN 16					
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	1.525051E-02	-6.944949E-04	-2.693039E-01	5.884818E-02	6.394829E-02	-2.686142E-02	3
4	1.770821E-02	-1.598146E-03	-1.119833E-01	2.607249E-02	3.740730E-02	-8.079385E-03	6
7	1.351205E-02	-2.252989E-03	3.044208E-02	-8.646892E-03	2.468201E-02	1.018813E-03	9
10	1.587378E-01	-2.791906E-02	3.909282E-03	-8.485918E-04	1.929472E-02	8.314150E-03	12
13	-5.304981E-03	-3.512187E-03	3.145686E-01	-5.502779E-02	-2.215419E-02	8.645303E-03	15
16	1.160454E-03	9.028551E-04	-7.123090E-02	1.185782E-02	-2.264914E-02	8.888959E-03	18
19	-6.387390E-03	2.829884E-03	-5.902757E-03	-1.391162E-02	1.966076E-02	-1.668769E-03	21
22	-6.853789E-02	-1.005959E-02	1.476706E-01	-2.918406E-02	2.812641E-01	-6.433662E-03	24
25	4.593867E-02	1.402458E-02	1.499327E-01	-2.971495E-02	-3.223352E-01	2.189093E-02	27
28	1.908518E-02	3.486773E-03	-5.027161E-01	7.151538E-02	4.854806E-02	8.141527E-03	30
31	1.035956E-01	-7.739514E-02	7.275767E-01	1.721817E-01	-6.261705E-01	-5.407884E-02	33
34	1.030862E-01	-7.72951E-02	-1.202160E-01	-1.410315E-02	2.206131E-01	-2.853436E-02	36
37	-2.939984E-03	-4.997363E-02	1.000000E+00	0.000000E+00	5.786188E-01	1.278626E-01	39
40	-2.765538E-03	-4.977859E-02	-7.620426E-02	-8.462219E-02	-1.788004E-01	-5.887889E-02	42
43	2.969535E-03	9.803249E-03	2.891402E-03	-1.779087E-02	2.073739E-03	1.410583E-03	45
46	-1.878411E-03	1.806796E-03	8.416502E-02	6.202162E-02	5.836097E-02	-3.422322E-02	48
49	-3.077088E-02	-3.043228E-02	6.472256E-02	6.109008E-02	1.319264E-01	-4.071770E-02	51
52	-2.432938E-02	4.088972E-02	6.472216E-02	6.108899E-02	8.179569E-03	-4.375688E-02	54
55	-7.185793E-03	4.686360E-03	1.328229E-01	1.576774E-01	1.597585E-02	-4.477520E-02	57
58	9.137070E-02	-3.285309E-02	-4.715866E-02	-9.082394E-02	-3.121405E-02	2.410620E-03	60
61	1.338879E-01	-7.898953E-02	-4.835114E-02	-8.832398E-02	-6.828166E-04	1.271002E-01	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 17					
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	1.344005E-02	2.534179E-03	5.147263E-03	-4.917275E-04	-3.540305E-02	-1.816474E-02	3
4	1.299758E-02	2.384577E-03	1.858698E-03	6.834572E-04	-8.241604E-03	-4.617987E-03	6
7	1.006378E-02	-2.985997E-05	-1.108483E-03	1.274747E-03	8.267927E-03	4.923372E-03	9
10	-1.784383E-04	-1.195989E-03	8.278954E-03	4.007928E-04	4.608990E-03	2.238924E-03	12
13	1.184178E-02	7.801800E-04	4.089465E-03	-3.228028E-03	2.663560E-03	3.020879E-03	15
16	-2.439088E-03	-3.710162E-04	-1.221138E-03	7.887302E-04	2.725560E-03	3.080488E-03	18
19	8.829592E-03	3.758774E-04	-2.072709E-03	2.545094E-04	4.358038E-03	-4.151388E-03	21
22	7.301055E-02	3.888554E-04	-2.345595E-04	-1.113781E-03	1.572862E-02	-3.309030E-03	24
25	1.073548E-02	5.853815E-03	-8.001838E-04	-1.201742E-03	-1.080321E-02	7.354088E-03	27
28	5.978518E-03	5.233245E-03	-7.822389E-03	8.449535E-03	4.885146E-03	-4.363402E-03	30
31	-8.170323E-01	-5.523320E-02	1.000000E+00	0.000000E+00	3.789162E-01	1.524214E-02	33
34	-8.146572E-01	-6.282702E-03	1.080753E-03	-1.080753E-03	-7.338148E-01	-2.888785E-03	36
37	-8.182537E-01	-5.832961E-04	-9.348035E-01	-3.808712E-02	4.458428E-01	-2.508089E-02	39
40	-8.158785E-01	-3.748240E-04	-6.837783E-01	3.758838E-03	-7.701033E-01	4.610883E-03	42
43	1.008783E-02	-1.298837E-03	1.054488E-03	-1.708487E-03	4.358038E-03	-7.926185E-03	45
46	9.108557E-03	1.955598E-04	2.151184E-02	-9.181467E-03	3.819849E-02	-7.874380E-03	48
49	3.117981E-02	1.218686E-03	2.112542E-02	-8.032392E-03	4.908793E-02	-1.305879E-02	51
52	1.563753E-03	-3.320980E-03	2.112544E-02	-8.032398E-03	4.879186E-02	-5.136777E-03	54
55	5.241806E-03	-6.108919E-04	3.127209E-02	-1.380800E-02	2.219881E-02	3.508551E-03	57
58	6.224484E-02	-1.252868E-02	-1.677487E-02	9.127650E-03	-8.841888E-02	8.939316E-03	60
61	1.008005E-01	-1.676188E-02	-1.685872E-02	8.830978E-03	-1.277721E-02	5.268484E-03	63

		COLUMN 18					
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-4.052788E-03	-9.154135E-04	-2.248085E-03	2.994392E-04	5.762804E-03	7.773228E-03	3
4	-3.950033E-03	-8.184061E-04	-7.818979E-04	1.558579E-04	2.728783E-03	1.311438E-03	6
7	-3.339895E-03	2.403685E-04	4.788888E-04	-3.878008E-04	1.028527E-03	-2.856440E-03	9
10	3.174880E-04	6.807194E-05	-2.980198E-03	6.267880E-06	6.067539E-03	-1.155214E-03	12
13	-9.707857E-03	-2.374248E-04	-9.288485E-04	-7.459141E-05	7.720316E-03	-1.130720E-03	15
16	-2.348230E-03	1.434886E-04	3.252509E-04	2.480758E-06	7.982045E-03	-1.187413E-03	18
19	-2.402522E-03	1.774441E-04	3.545278E-04	2.291807E-04	5.255289E-03	2.193282E-03	21
22	-3.309822E-03	4.630514E-04	1.088309E-04	3.285992E-03	3.285992E-03	-1.070518E-03	24
25	-3.223080E-03	-3.239819E-04	1.347804E-04	8.888897E-03	8.888897E-03	-1.128091E-04	27
28	-2.309449E-03	-1.174070E-03	1.855385E-03	-3.256273E-04	6.177535E-03	-2.156268E-03	30
31	3.391455E-01	-3.828402E-03	7.107471E-01	6.647622E-03	-6.327743E-02	1.589886E-03	33
34	3.377105E-01	-3.983777E-03	1.000000E+00	0.000000E+00	-8.859535E-01	3.231846E-03	36
37	3.401433E-01	-5.863765E-03	7.059359E-01	-9.283866E-03	-7.802674E-02	5.481084E-04	39
40	3.387031E-01	-6.007717E-03	-9.794818E-01	6.849302E-03	-8.788981E-01	6.022247E-03	42
43	-3.312428E-03	4.530898E-04	-8.208591E-04	2.986809E-04	1.431881E-03	3.859948E-03	45
46	-3.815808E-03	-5.610740E-05	-8.154396E-03	-4.731411E-04	-1.880347E-02	6.006997E-04	48
49	-1.943808E-03	1.031209E-03	-6.213798E-03	-6.858359E-04	-2.040160E-02	1.598794E-03	51
52	-4.125009E-03	8.838772E-04	-6.213727E-03	-6.858348E-04	-2.053047E-02	1.791844E-04	54
55	-1.287214E-03	9.217008E-04	-5.396214E-03	4.987799E-04	-1.874813E-02	-3.588888E-03	57
58	-2.838890E-02	-4.348798E-04	1.023719E-03	-9.525941E-04	-3.021723E-04	-2.463345E-03	60
61	-5.270802E-02	-5.047422E-03	1.276786E-03	-7.841304E-04	1.170224E-02	-2.144359E-05	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 19					
		REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-2.195168E-03	-1.593045E-03	3.204824E-02	1.326618E-02	-3.988898E-03	-5.987258E-05	3
4	-2.638498E-03	-1.905981E-03	1.201002E-02	1.980767E-04	1.224676E-03	4.173035E-03	6
7	-1.260882E-03	-6.533300E-04	-4.197850E-03	-8.214847E-03	-3.222244E-03	-1.621317E-04	9
10	2.123186E-03	-1.165643E-03	9.140015E-04	1.308448E-03	-9.005779E-04	1.175717E-03	12
13	-3.345208E-03	-3.598494E-03	-4.499928E-03	2.391632E-04	2.287736E-03	9.127948E-04	15
16	8.868185E-04	8.370112E-04	1.473345E-03	-1.872188E-04	2.378542E-03	4.668577E-04	18
19	6.815475E-04	5.233443E-04	1.495124E-02	6.351260E-03	-1.219251E-03	-3.304097E-04	21
22	1.658037E-02	1.030476E-02	4.568457E-03	4.439131E-04	1.936122E-02	5.945411E-03	24
25	-1.584034E-02	-1.078361E-02	4.373922E-03	4.319859E-04	2.284618E-02	-4.863040E-03	27
28	4.273496E-03	2.915041E-03	-1.153393E-02	-6.231848E-03	-2.455776E-04	2.220155E-04	30
31	4.670802E-01	3.836108E-03	-9.460788E-01	1.488805E-02	-9.986396E-01	-7.610222E-05	33
34	4.631149E-01	3.362683E-03	-2.416373E-01	2.662814E-02	3.200864E-01	-1.889014E-02	36
37	-4.649940E-01	-5.963878E-03	-9.483665E-01	1.527746E-02	1.000000E+00	0.000000E+00	39
40	-4.610332E-01	-5.485942E-03	-2.454105E-01	2.623632E-02	-3.216894E-01	1.895498E-02	42
43	-3.026058E-03	1.334822E-04	2.297873E-02	1.348373E-02	-1.034786E-02	-3.220994E-03	45
46	4.402597E-04	3.321288E-04	-2.073451E-02	2.15057E-03	-6.800075E-03	-3.88238E-03	48
49	2.402239E-02	1.067899E-02	-2.006370E-02	3.316897E-03	-1.128365E-02	-8.843481E-03	51
52	-2.602830E-02	-1.172780E-02	-2.006348E-02	3.316884E-03	-7.836822E-03	-1.980420E-03	54
55	2.092675E-04	1.932083E-04	-8.210844E-02	-3.203874E-02	1.029041E-02	8.076152E-03	57
58	-1.518028E-02	-4.999308E-03	3.309842E-02	1.203041E-02	1.014832E-02	5.917638E-03	60
61	-8.118242E-03	1.483499E-02	3.213805E-02	9.741236E-03	-4.446597E-02	-2.665675E-02	63

		COLUMN 20					
		REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-3.452835E-03	-3.350933E-03	3.671646E-02	9.806636E-03	1.409844E-02	2.820041E-02	3
4	-4.808984E-03	-3.285454E-03	-6.775757E-03	-3.464040E-03	2.375015E-02	6.859239E-03	6
7	-1.482190E-03	1.858886E-03	-3.598331E-02	-8.897481E-03	-2.569029E-03	-1.400651E-02	9
10	-5.088842E-03	1.299978E-03	3.132384E-03	1.236805E-03	6.420818E-03	-3.736199E-03	12
13	-1.730679E-02	-5.724501E-03	2.717896E-02	-2.567338E-04	9.264703E-04	-2.521518E-03	15
16	4.300358E-03	2.086552E-03	-8.236573E-03	2.668892E-04	8.630003E-04	-2.630681E-03	18
19	3.140551E-03	1.857618E-03	4.144895E-03	9.076264E-03	6.830119E-03	1.178505E-02	21
22	1.499215E-02	1.402260E-02	-1.541075E-03	3.190068E-03	6.152995E-02	-4.952772E-03	24
25	-1.605634E-02	-1.413655E-02	-1.362080E-03	3.265814E-03	-6.033485E-02	3.996910E-03	27
28	6.422862E-03	3.121651E-05	-1.727402E-03	-5.318758E-03	7.219369E-03	1.200955E-02	30
31	9.444087E-02	-4.038725E-02	-3.932340E-01	9.886188E-02	-2.490895E-01	7.970224E-02	33
34	9.308679E-02	-4.017814E-02	9.987517E-01	-2.205090E-02	-8.795652E-01	1.118808E-02	36
37	-1.286723E-01	3.098691E-03	-3.961865E-01	8.948926E-02	2.522837E-01	-6.901059E-02	39
40	-1.272070E-01	3.087726E-03	1.000000E+00	0.000000E+00	8.833624E-01	-5.712267E-03	42
43	3.121985E-03	1.271647E-03	-4.493692E-03	1.359283E-03	6.285733E-03	1.044568E-02	45
46	2.328361E-03	3.825287E-04	-1.900101E-02	-1.386370E-02	-2.306232E-02	-1.558077E-02	48
49	1.101596E-02	2.039101E-02	-1.490479E-02	-1.389197E-02	-4.922592E-02	-2.237373E-02	51
52	1.931691E-03	-9.192482E-03	-1.490485E-02	-1.389185E-02	-1.741891E-02	-2.161669E-02	54
55	5.630506E-03	6.077073E-03	-2.112622E-02	-4.257948E-02	-2.327159E-02	2.258851E-02	57
58	-3.223222E-02	-3.192901E-02	1.467995E-03	1.085352E-02	6.982033E-05	-3.001115E-03	60
61	-8.006983E-02	-8.011445E-02	1.602603E-03	1.127652E-02	2.136898E-02	-2.359828E-03	63

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 21					
		REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	1.549482E-02	-5.175115E-04	5.133438E-02	2.925975E-02	-2.676538E-03	-1.972124E-02	3
4	9.745764E-03	-1.790238E-03	1.852645E-02	-1.482919E-03	-6.210499E-03	1.283385E-02	6
7	-1.983397E-02	-7.127639E-03	-1.755808E-02	-2.126740E-02	1.191631E-01	6.902614E-03	9
10	-1.591182E-02	-4.465085E-03	4.909174E-03	2.943808E-03	4.280352E-02	3.487015E-03	12
13	-7.126097E-03	-6.014866E-03	-7.104949E-03	5.421493E-03	3.701081E-02	6.305802E-04	15
16	-2.153167E-03	4.334974E-04	4.659970E-04	-2.088470E-03	3.674296E-02	3.289262E-04	18
19	-9.136946E-03	6.333152E-04	1.830937E-03	1.075309E-02	-1.191243E-01	5.701755E-04	21
22	5.480513E-03	1.237803E-02	-1.236037E-02	-1.420794E-03	7.847585E-02	1.755020E-02	24
25	-1.207329E-02	-2.511739E-02	-1.313008E-02	-1.095132E-03	-5.661868E-02	-1.333526E-02	27
28	4.832967E-02	1.086265E-02	-8.950472E-03	-8.692329E-03	-1.146276E-01	1.033783E-03	30
31	1.068775E-01	1.842142E-02	-1.799890E-02	-2.904862E-02	-1.145014E-01	-3.829714E-02	33
34	1.062643E-01	1.832960E-02	9.481320E-02	2.092385E-01	-1.309808E-01	-1.792777E-01	36
37	1.056493E-01	3.828103E-02	1.683030E-02	1.629148E-01	7.988213E-03	-1.402149E-01	39
40	1.050821E-01	3.770157E-02	1.381770E-01	1.881594E-01	1.188617E-01	1.854488E-01	42
43	-1.388518E-02	-7.150228E-05	3.887518E-02	2.720543E-02	-1.521133E-01	-1.350128E-02	45
46	5.281818E-03	3.724385E-03	1.042360E-01	5.392449E-03	1.104487E-01	-9.880077E-03	48
49	3.821742E-02	2.773798E-02	1.158835E-01	1.068261E-02	1.199620E-01	-4.471370E-02	51
52	-7.462835E-02	-2.437991E-02	1.158824E-01	1.068261E-02	1.884725E-01	-1.270302E-02	54
55	-4.983080E-02	-5.890721E-03	-4.734854E-02	-9.166692E-02	3.371377E-01	2.515808E-02	57
58	2.447733E-01	7.183763E-03	6.720472E-02	2.744327E-02	1.190434E-01	5.182639E-03	60
61	1.000000E+00	0.000000E+00	5.854274E-02	2.248847E-02	-3.556835E-01	-4.072560E-02	63

		COLUMN 22					
		REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-3.931059E-02	-1.275376E-02	2.425798E-01	-3.774056E-02	1.538531E-01	-1.245450E-02	3
4	-4.312480E-02	-1.038868E-02	-2.953885E-03	2.318481E-03	8.525743E-02	5.783958E-02	6
7	-2.553867E-03	-6.135333E-03	-1.558782E-01	3.398407E-02	-9.712119E-02	-3.023858E-03	9
10	-1.051403E-02	-1.078961E-02	3.019718E-02	-1.811051E-02	1.109235E-03	-1.788298E-03	12
13	-1.716186E-01	1.708960E-01	-6.278184E-02	4.221501E-02	2.161023E-02	-2.284088E-02	15
16	4.348172E-02	-4.202677E-02	1.630874E-02	-1.304267E-02	2.285743E-02	-2.425488E-02	18
19	3.209837E-02	-2.008527E-02	1.488599E-01	-2.423608E-02	4.107488E-02	2.819087E-02	21
22	2.289298E-01	-4.578408E-02	2.415085E-02	-1.804247E-02	2.157898E-02	-2.805551E-02	24
25	-2.207461E-01	1.899342E-02	2.305150E-02	-1.734713E-02	8.558487E-03	3.499608E-02	27
28	9.624664E-02	-6.248509E-02	-7.617266E-02	8.689521E-04	4.688152E-02	2.626691E-02	30
31	-1.818831E-01	-1.893773E-01	9.441835E-01	1.983352E-01	6.894442E-01	1.852199E-01	33
34	-1.788142E-01	-1.878806E-01	-2.357568E-01	-2.424109E-01	3.540301E-01	1.443433E-01	36
37	3.097237E-03	2.408213E-01	1.000000E+00	0.000000E+00	-6.772352E-01	-4.126701E-01	39
40	3.800137E-04	2.396181E-01	-2.518918E-01	-2.922266E-01	-3.292567E-01	-1.858458E-01	42
43	2.029303E-02	-1.090228E-02	2.808170E-01	-3.209481E-02	-4.517485E-02	8.128163E-02	45
46	2.956273E-02	-2.723659E-02	-4.020357E-02	3.531858E-02	-1.897419E-01	-7.618405E-03	48
49	3.185181E-01	-7.398732E-02	-1.887491E-02	3.322988E-02	-3.289352E-01	1.952264E-02	51
52	-2.392037E-01	2.181003E-02	-1.867508E-02	-3.22831E-02	1.700225E-01	-8.161791E-03	54
55	4.249653E-02	-1.008599E-02	-7.501285E-01	8.218822E-02	5.887973E-02	-6.802774E-02	57
58	-2.408023E-01	-4.197073E-02	2.341125E-01	3.474592E-02	1.247154E-01	-3.882150E-02	60
61	-1.088709E-01	-1.055986E-01	2.248814E-01	-3.297794E-02	-4.604408E-01	4.355082E-02	63

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INTERMEDIATE MATRIX . . . UAV

		COLUMN 26							
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY			
1	-3.222492E-02	-2.369388E-03	1.053244E-01	-3.977431E-02	7.532798E-02	-2.997128E-02		3	
4	-2.984723E-02	-1.991728E-03	1.285782E-01	-1.078603E-02	2.383126E-02	-5.271926E-04		6	
7	-1.330997E-02	-1.397305E-03	-5.460837E-02	1.868560E-02	-5.782319E-02	2.082272E-02		9	
10	-9.539800E-02	5.103737E-02	-8.658224E-04	-4.893504E-03	-1.432948E-02	1.788514E-02		12	
13	-1.732407E-02	5.931324E-02	2.658194E-01	-1.278156E-01	2.858457E-02	-1.077840E-02		15	
16	7.565048E-03	-1.847178E-02	-8.753703E-02	4.221028E-02	-3.061538E-02	-1.184825E-02		18	
19	6.748588E-03	-8.127488E-03	-6.894219E-02	3.400154E-02	-2.202638E-02	1.255479E-02		21	
22	2.930458E-03	-3.319767E-04	-1.046152E-01	5.752981E-02	-3.325366E-01	1.793798E-01		24	
25	7.363891E-03	-1.867585E-02	-1.063184E-01	5.828448E-02	3.844788E-01	-1.775324E-01		27	
28	1.623267E-02	-3.763938E-03	4.678627E-02	-2.583527E-02	-2.718620E-02	1.873538E-02		30	
31	5.890224E-01	3.757775E-02	6.718097E-02	6.874186E-02	1.000000E+00	0.000000E+00		33	
34	5.298046E-01	5.882822E-02	-5.855151E-02	1.154348E-01	2.283918E-01	-5.187810E-02		36	
37	-5.852180E-01	-2.163807E-02	5.841451E-01	3.619510E-02	-9.938948E-01	3.611566E-02		39	
40	-5.354333E-01	-2.187603E-02	-5.276019E-02	9.888820E-02	-2.200035E-01	-5.373447E-02		42	
43	3.728432E-03	-1.060500E-02	-7.581078E-02	2.935810E-02	6.397885E-02	1.910437E-02		45	
46	9.817129E-03	-7.852585E-03	3.158328E-03	-2.099386E-02	-1.416558E-02	-5.732597E-03		48	
49	-7.089150E-02	1.603208E-02	-3.186709E-02	-7.884417E-03	1.932915E-01	-8.119403E-02		51	
52	8.043501E-02	-4.183598E-02	3.186552E-02	-7.884133E-03	-1.410098E-01	5.456007E-02		54	
55	-4.878182E-04	-7.120167E-03	1.351307E-01	-4.403074E-02	3.863852E-02	-1.424026E-02		57	
58	8.637889E-02	-1.825127E-02	-6.332915E-03	4.053239E-05	4.713053E-04	-8.247442E-03		60	
61	1.244852E-01	-6.992902E-02	-6.715324E-03	-1.849486E-04	5.772670E-02	1.137002E-03		63	

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~~OF POOR QUALITY~~

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 27		COLUMN 28		COLUMN 29		COLUMN 30	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-1.743801E-01	-6.84478E-03	-9.334911E-03	-1.822033E-02	4.540230E-01	-8.579192E-02	3	
4	-1.508294E-01	-7.58524E-03	-2.092362E-02	-7.303784E-03	-1.578242E-01	-5.474717E-03	6	
7	-7.24370E-02	-7.639653E-03	-2.983674E-02	-1.358013E-02	-2.180584E-01	4.689415E-02	8	
10	-5.87228E-03	-1.131813E-03	-3.004055E-02	-1.931467E-03	7.435987E-02	5.790206E-04	12	
13	1.721281E-01	7.405084E-02	-2.022304E-02	-1.712988E-02	4.068385E-02	-1.880810E-02	15	
16	-4.282946E-02	-1.852562E-02	4.482084E-03	4.831232E-03	4.388855E-02	-2.22557E-02	18	
19	1.086135E-02	4.580766E-03	-4.305389E-02	1.055645E-03	1.011844E-01	1.756745E-03	21	
22	-1.250302E-01	2.543176E-03	-1.059625E-02	-1.225138E-03	2.024114E-01	5.038400E-02	24	
25	-6.383263E-03	2.677812E-02	-9.301356E-03	-5.986611E-03	-7.545211E-02	-1.688448E-02	27	
28	2.264162E-01	-7.280937E-02	3.278990E-02	-1.141710E-02	1.031872E-01	2.683950E-03	30	
31	6.731429E-02	8.305595E-02	9.060103E-02	9.543528E-02	3.231055E-01	1.015166E-01	33	
34	6.793858E-02	8.304677E-02	1.668715E-01	8.311010E-02	-2.327868E-02	-7.017185E-02	36	
37	-5.124326E-02	-6.940848E-02	-1.359841E-01	1.576999E-02	1.593970E-01	3.612311E-02	39	
40	-5.030670E-02	-6.911417E-02	-4.185107E-02	7.398318E-02	1.364787E-01	4.273873E-02	42	
43	1.295535E-02	1.530903E-02	-3.821158E-02	1.705014E-02	-5.979332E-02	5.137721E-02	45	
46	1.527551E-02	4.518810E-03	1.289273E-01	3.499523E-02	-2.354095E-01	-3.612935E-02	48	
49	-3.814843E-02	5.969018E-02	1.525672E-01	5.602207E-02	-6.741623E-01	-5.136133E-02	51	
52	3.295508E-02	-3.742134E-03	1.525634E-01	5.802110E-02	-3.897962E-01	-1.219847E-01	54	
55	7.735196E-03	1.545601E-02	4.878830E-03	-7.938208E-02	1.901462E-01	-1.332334E-02	57	
58	-2.064455E-01	-2.741625E-02	8.774601E-02	1.370860E-02	2.727487E-01	-2.310751E-03	60	
61	1.000000E+00	0.000000E+00	7.253696E-02	3.311127E-03	-4.946347E-01	-5.050847E-02	63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

	COLUMN 29		COLUMN 30		COLUMN 31		COLUMN 32	
	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	5.528919E-02	-4.285988E-03	6.212157E-02	-5.340506E-02	1.000000E+00	0.000000E+00	3	
4	5.477598E-02	-3.845872E-03	3.613857E-02	-3.116798E-02	8.910173E-01	-8.424708E-02	6	
7	5.477348E-02	-3.845181E-03	1.089732E-02	-9.528050E-03	7.854916E-01	-1.864315E-01	9	
10	-2.864537E-02	2.339458E-02	1.025123E-01	3.242173E-02	6.515639E-01	-2.713903E-01	12	
13	1.532555E-01	6.380528E-02	-4.108198E-02	3.109213E-02	6.484430E-01	-2.795586E-01	15	
16	3.118713E-01	1.873883E-01	-7.190121E-02	5.089422E-02	6.484430E-01	-2.795586E-01	18	
19	1.020393E-01	2.391643E-02	-5.875988E-02	4.837375E-02	5.329899E-01	-3.894758E-01	21	
22	6.913478E-02	5.163430E-02	-3.328832E-02	2.857802E-02	6.126380E-01	-2.688232E-01	24	
25	1.343914E-01	-4.233342E-03	-3.328824E-02	2.857815E-02	6.655923E-01	-3.038245E-01	27	
28	1.526809E-01	6.335401E-02	-5.749514E-02	5.374603E-02	5.375793E-01	-3.658791E-01	30	
31	-5.107142E-02	-5.914957E-02	4.400428E-02	-3.415946E-02	8.378285E-01	-1.085300E-01	33	
34	-5.107142E-02	-5.914957E-02	2.488988E-02	2.488988E-02	5.498478E-01	-3.308319E-01	36	
37	-6.830693E-03	-9.702569E-02	4.400568E-02	-3.415964E-02	8.373270E-01	-1.295834E-01	39	
40	-6.830682E-03	-9.702569E-02	-2.488988E-02	2.488988E-02	5.857470E-01	-3.538638E-01	42	
43	7.044873E-02	1.231015E-02	-8.140767E-02	6.874555E-02	4.127400E-01	-4.539175E-01	45	
46	5.622277E-02	-1.175748E-02	-1.339534E-01	1.146519E-01	1.817512E-01	-6.428323E-01	48	
49	1.004752E-01	-5.553773E-03	-1.387899E-01	1.178710E-01	1.974911E-01	-6.506243E-01	51	
52	6.591021E-02	2.403743E-02	-1.387899E-01	1.178710E-01	1.894134E-01	-5.326146E-01	54	
55	8.032181E-02	7.006483E-03	-1.848670E-01	1.570858E-01	-1.048922E-02	-7.926142E-01	57	
58	2.304172E-01	1.205558E-01	-2.330933E-01	1.923693E-01	-9.084825E-02	-8.575994E-01	60	
61	2.374491E-01	1.126325E-01	-2.327746E-01	1.921431E-01	-8.390063E-02	-8.615624E-01	63	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 31				COLUMN 32			
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	8.305505E-01	2.545260E-02	1.575857E-02	-1.527280E-03	-5.414809E-01	1.034404E-02	3		
4	8.304237E-01	2.546931E-02	9.756902E-03	-6.683306E-04	-3.888793E-01	9.147582E-03	6		
7	8.304191E-01	2.546901E-02	3.777387E-03	1.603580E-04	-2.403715E-01	8.052854E-03	9		
10	-1.903277E-03	-2.348526E-04	7.842332E-01	2.584058E-02	-5.081253E-02	6.758720E-03	12		
13	7.008442E-01	2.524529E-02	-2.918796E-04	-1.869423E-03	-4.157758E-02	7.388563E-03	15		
16	4.776388E-01	2.788170E-02	6.081811E-03	-7.245388E-03	-4.157758E-02	7.388563E-03	18		
19	7.730515E-01	2.572008E-02	-8.724562E-03	7.781708E-04	1.208017E-01	6.192345E-03	21		
22	7.889408E-01	2.878508E-02	-2.889559E-03	-5.110621E-05	-2.294437E-02	2.878170E-03	24		
25	7.809694E-01	2.464042E-02	-2.882149E-03	-5.152596E-05	-3.388404E-02	1.190814E-02	27		
28	7.018411E-01	2.824501E-02	-6.432327E-03	-9.735755E-04	1.143073E-01	6.240222E-03	30		
31	9.523512E-01	2.508922E-02	3.820384E-03	2.685658E-04	-3.305486E-01	6.372433E-03	33		
34	9.523512E-01	2.508922E-02	-1.206673E-02	4.939349E-03	7.585788E-02	3.427832E-03	36		
37	9.625428E-01	2.363958E-02	3.838310E-03	2.666133E-03	-3.378454E-01	1.263743E-02	39		
40	9.625430E-01	2.363958E-02	-1.206458E-02	4.939450E-03	6.821635E-02	9.685128E-03	42		
43	8.044678E-01	2.573758E-02	-1.596071E-02	2.477788E-03	2.820834E-01	3.889378E-03	45		
46	8.374739E-01	2.524557E-02	-2.897103E-02	5.104818E-03	6.146012E-01	2.554200E-03	48		
49	8.035409E-01	2.495460E-02	-2.879403E-02	4.178151E-03	6.093300E-01	5.015978E-03	51		
52	7.95557E-01	2.808527E-02	-2.878403E-02	4.178151E-03	6.151312E-01	1.273943E-04	54		
55	8.035898E-01	2.549517E-02	-3.982340E-02	5.807811E-03	8.848988E-01	5.632263E-04	57		
58	5.958714E-01	2.896180E-02	-3.821013E-02	1.442344E-03	1.000000E+00	0.000000E+00	60		
61	5.993994E-01	2.667880E-02	-3.823308E-02	1.478657E-03	9.980697E-01	1.163436E-03	63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

INTERMEDIATE MATRIX ... UAV

		COLUMN 33				COLUMN 34			
REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY	REAL	IMAGINARY
1	-2.116511E-02	1.293216E-03	9.150286E-01	-2.663443E-02	-4.887106E-02	-4.548779E-03	3		
4	-2.317771E-02	1.416778E-03	8.126867E-01	-2.035094E-02	-5.488491E-02	-4.907611E-03	6		
7	-2.324433E-02	1.417533E-03	7.130508E-01	-1.424495E-02	-5.562479E-02	-4.808472E-03	9		
10	4.781860E-01	-1.518968E-02	-2.053369E-02	1.241366E-03	-5.073366E-02	-4.231518E-03	12		
13	-4.886852E-04	-6.899031E-06	3.471460E-01	-2.488328E-02	8.590717E-04	-9.737133E-06	15		
16	1.080221E-03	-1.484419E-04	-4.782871E-02	-5.722820E-02	8.590722E-04	-9.737162E-06	18		
19	-1.058493E-03	4.455462E-05	3.657815E-01	-7.810207E-03	-2.219828E-04	9.300523E-05	21		
22	-1.292072E-01	7.924899E-03	4.685521E-01	-1.389744E-02	-3.379549E-01	-2.763384E-02	24		
25	1.271133E-01	-7.835953E-03	4.685502E-01	-1.389738E-02	3.394882E-01	2.763105E-02	27		
28	-5.704368E-04	-6.877142E-07	2.440971E-01	-1.834567E-02	1.884784E-04	8.860400E-05	30		
31	-8.984635E-02	5.514325E-03	0.000000E+00	0.000000E+00	-2.303171E-01	-1.887891E-02	33		
34	-8.984367E-02	5.514285E-03	7.245778E-01	1.873237E-02	-2.289088E-01	-1.886598E-02	36		
37	8.530428E-02	-5.181538E-03	9.599848E-01	3.948059E-07	2.380678E-01	1.848116E-02	39		
40	8.530144E-02	-5.181504E-03	7.245747E-01	1.873235E-02	2.301211E-01	1.879055E-02	42		
43	-3.257850E-02	1.888419E-03	3.172856E-01	3.567728E-03	-8.385178E-02	-6.533626E-03	45		
46	-1.483053E-03	8.520229E-05	1.485401E-01	2.180226E-02	3.464281E-03	4.048404E-04	48		
49	6.683658E-02	-4.115786E-03	8.302120E-01	1.623981E-02	1.761498E-01	1.502887E-02	51		
52	-6.830355E-02	4.238399E-03	8.302120E-02	1.623981E-02	-1.830470E-01	-1.422287E-02	54		
55	-1.280087E-03	6.383002E-05	-9.273221E-02	2.804104E-02	-5.242474E-03	5.745564E-04	57		
58	8.101031E-03	-5.522961E-04	-5.386625E-01	2.842738E-03	1.509688E-02	2.356677E-03	60		
61	4.037584E-02	-2.527170E-03	-5.353928E-01	3.055548E-03	1.002918E-01	9.267539E-03	63		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
INTERMEDIATE MATRIX ... UAV

	COLUMN 35		PEAL		
	REAL	IMAGINARY	REAL	IMAGINARY	
1	-2.318718E-02	2.476131E-04	7.289581E-02	-7.954096E-03	3.489790E-01
4	-2.317246E-02	3.272372E-04	4.102337E-02	-4.688620E-03	1.918997E-01
7	-1.461925E-02	6.946560E-05	1.075734E-02	-1.697022E-03	5.076582E-02
10	-2.136227E-02	2.190734E-03	1.950848E-02	-6.370557E-04	-7.336466E-02
13	6.307161E-02	-3.665822E-04	-2.365677E-02	2.548191E-03	-7.386148E-02
16	-3.903290E-02	2.854688E-03	5.977785E-03	-9.348399E-04	-7.416806E-02
19	8.527147E-03	-6.384715E-04	-3.836169E-02	4.327209E-03	-1.372846E-01
22	1.548548E-03	2.262125E-03	-2.431332E-02	2.615302E-03	-9.140052E-02
25	4.740857E-02	-3.443518E-03	-2.441850E-02	2.567821E-03	-7.135372E-02
28	2.704757E-02	-1.278220E-02	-4.888222E-02	5.368958E-03	-1.344188E-01
31	-1.101642E-01	2.581789E-04	5.302858E-03	-6.125688E-03	1.370234E-01
34	-1.100491E-01	2.557641E-04	-1.460218E-02	3.298036E-03	-1.557187E-01
37	-7.518676E-02	-3.628933E-03	5.674977E-02	-1.315961E-03	1.568855E-01
40	-7.514772E-02	-3.621488E-03	-3.980107E-02	7.328922E-04	-1.408535E-01
43	1.394868E-03	-8.080610E-04	4.076775E-02	4.585536E-03	-1.522826E-01
46	3.300672E-02	-1.424434E-03	2.053120E-02	-3.525790E-04	7.667932E-02
49	-4.703041E-02	1.763844E-03	2.243044E-02	-3.348821E-04	5.899238E-02
52	1.484138E-02	-3.681785E-03	2.243043E-02	-3.348819E-04	8.330418E-02
55	2.834098E-03	-1.814372E-03	1.308087E-01	-1.050322E-02	6.045728E-01
58	-5.825564E-01	8.071732E-03	2.345750E-01	-3.258082E-02	9.372224E-01
61	-6.791678E-01	8.720438E-03	2.346759E-01	-3.250688E-02	1.000000E+00
					0.000000E+00

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.189085E-02, -2.397042E-12

		C O M P L E X		E I G E N V E C T O R		N O		1	
				(REAL/IMAGINARY)					
POINT ID.	TYPE	T1	T2	T3	R1	R2	R3		
1001	G	-1.211565E-02	-1.182618E-03	-3.335734E-01	0.0	0.0	0.0		
		-9.600934E-13	-2.781579E-13	-1.521826E-11	0.0	0.0	0.0		
1003	G	-1.210582E-02	-6.902715E-04	-2.018108E-01	0.0	0.0	0.0		
		-9.578850E-13	-1.568207E-13	-1.370330E-11	0.0	0.0	0.0		
1004	G	-1.210551E-02	-2.040782E-04	-7.322623E-02	0.0	0.0	0.0		
		-9.578280E-13	-3.918825E-14	-1.223461E-11	0.0	0.0	0.0		
1006	G	-6.448625E-02	8.750125E-04	9.021787E-02	0.0	-2.809296E-03	1.069763E-05		
		-1.561756E-12	1.828658E-13	-1.037256E-11	0.0	-3.213142E-14	2.583408E-15		
1007	G	-6.297781E-02	1.428549E-03	2.392004E-01	0.0	0.0	0.0		
		-1.564431E-12	3.177732E-13	-8.696318E-12	0.0	0.0	0.0		
1012	G	-4.038792E-02	2.849248E-03	6.635745E-01	-2.451785E-05	-2.808359E-03	1.070350E-05		
		-1.382996E-12	6.771571E-13	-3.851759E-12	-3.886127E-16	-3.215703E-14	2.586487E-15		
1013	G	-3.971895E-02	2.849248E-03	6.651069E-01	-2.451767E-05	-2.808359E-03	1.070354E-05		
		-1.221594E-12	6.771571E-13	-3.712188E-12	-3.765615E-15	-3.215703E-14	2.578684E-15		
1017	G	-6.327218E-02	9.348327E-04	1.086351E-01	0.0	0.0	0.0		
		-1.712820E-12	1.885889E-13	-1.040059E-11	0.0	0.0	0.0		
1018	G	-6.200858E-02	9.348448E-04	1.115285E-01	0.0	0.0	0.0		
		-1.408350E-12	1.885908E-13	-9.847131E-12	0.0	0.0	0.0		
1021	G	-1.252867E-01	1.438281E-03	9.873263E-02	-2.451947E-05	-2.809341E-03	1.068620E-05		
		-2.277712E-12	2.739222E-13	-1.030368E-11	-3.839336E-15	-3.213184E-14	2.581563E-15		
1022	G	-3.183446E-01	3.123283E-03	9.873263E-02	-2.451972E-05	-2.809339E-03	1.068630E-05		
		-4.486018E-12	5.379869E-13	-1.030350E-11	-3.844425E-15	-3.215221E-14	2.581043E-15		
1023	G	9.679396E-02	-1.458858E-03	-1.525514E-01	-2.452069E-05	-2.809217E-03	1.068756E-05		
		3.618885E-13	-2.615602E-13	-1.303417E-11	-3.843891E-15	-3.211756E-14	2.580565E-15		
1024	G	9.593802E-02	-1.457132E-03	-1.846132E-01	-2.452058E-05	-2.809218E-03	1.070235E-05		
		1.550354E-13	-2.614436E-13	-1.334215E-11	-3.847680E-15	-3.211846E-14	2.578849E-15		
1025	G	9.679396E-02	-1.226532E-04	1.978143E-01	-2.451798E-05	-2.809222E-03	1.070022E-05		
		3.617492E-13	6.136320E-14	-8.027698E-12	-3.822074E-15	-3.213378E-14	2.811018E-15		
1026	G	9.593802E-02	-1.226842E-04	1.988531E-01	-2.451811E-05	-2.809232E-03	1.069764E-05		
		1.548607E-13	6.001766E-14	-9.335130E-12	-3.861945E-15	-3.214428E-14	2.582033E-15		
1028	G	-2.154429E-01	5.655519E-03	9.991562E-01	-2.451808E-05	-2.809359E-03	1.070243E-05		
		-3.356411E-12	1.222886E-12	-5.163818E-14	-3.787523E-15	-3.217492E-14	2.578267E-15		

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.199085E-02, -2.397042E-12

C O M P L E X E I G E N V E C T O R N O. 1  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-1.245871E-01 -2.269371E-12	1.945817E-03 3.970284E-13	2.335816E-01 -8.760543E-12	-2.451813E-05 -3.848439E-15	-2.808358E-03 -3.214846E-14	1.070353E-05 2.584221E-15
2511	G	-3.406458E-02 -1.188219E-12	1.705797E-03 4.055559E-13	3.779381E-01 -7.057245E-12	-2.452071E-05 -3.851252E-15	-2.809360E-03 -3.214907E-14	1.070494E-05 2.583551E-15
2572	G	-7.248548E-03 -9.267395E-13	2.570768E-03 6.343983E-13	6.863915E-01 -3.807477E-12	-2.451775E-05 -3.842393E-15	-2.808359E-03 -3.214928E-14	1.070351E-05 2.582714E-15
2649	G	-3.656140E-02 -1.262388E-12	3.717471E-03 8.893319E-13	9.002229E-01 -1.130354E-12	-2.451762E-05 -3.831026E-15	-2.808359E-03 -3.188676E-14	1.070348E-05 2.584198E-15
2687	G	-2.167002E-01 -3.334706E-12	5.669708E-03 1.225025E-12	1.000000E+00 0.0	-2.451794E-05 -3.771717E-15	-2.808358E-03 -3.215600E-14	1.070297E-05 2.584013E-15
19777	G	-6.951148E-02 -1.616619E-12	9.191461E-04 1.897982E-13	9.024435E-02 -1.036840E-11	-2.451982E-05 -3.854017E-15	-2.809310E-03 -3.213792E-14	1.069985E-05 2.579216E-15

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -4.271184E-03, -2.531390E-10

C O M P L E X E I G E N V E C T O R N O. 2  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-8.661373E-03 4.413097E-11	4.335779E-05 -5.479511E-11	-2.793220E-01 7.039858E-10	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-8.861759E-03 4.458129E-11	2.619432E-05 -3.210882E-11	-1.528718E-01 6.348611E-10	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-8.861588E-03 4.457955E-11	8.510014E-06 -1.002838E-11	-2.953449E-02 5.671350E-10	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-5.885950E-02 7.111572E-11	1.739612E-04 2.112424E-11	1.272576E-01 4.807859E-10	0.0 0.0	-2.694453E-03 1.478111E-12	-3.631843E-07 4.827042E-13
1007	G	-5.734778E-02 6.646504E-11	1.492276E-04 4.666346E-11	2.702559E-01 4.009887E-10	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-3.534941E-02 3.931830E-11	1.311759E-05 1.183700E-10	6.777013E-01 1.721481E-10	-1.002229E-05 -1.641103E-13	-2.694500E-03 1.478307E-12	-3.589397E-07 4.826876E-13
1013	G	-3.537184E-02 6.948854E-11	1.311759E-05 1.183700E-10	6.783276E-01 1.824035E-10	-1.002227E-05 -1.640485E-13	-2.694500E-03 1.478307E-12	-3.589398E-07 4.826948E-13
1017	G	-5.700322E-02 3.780804E-11	1.646320E-04 2.445882E-11	1.458250E-01 4.592516E-10	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-5.704587E-02 9.476740E-11	1.646000E-04 2.445941E-11	1.470079E-01 4.786151E-10	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.171098E-01 9.824561E-11	3.895552E-04 2.618833E-11	1.355311E-01 4.749038E-10	-1.002408E-05 -1.641018E-13	-2.694486E-03 1.478261E-12	-3.647551E-07 4.826890E-13
1022	G	-3.022748E-01 2.008322E-10	1.078420E-03 3.744530E-11	1.355311E-01 4.749038E-10	-1.002425E-05 -1.640998E-13	-2.694486E-03 1.478273E-12	-3.647442E-07 4.826895E-13
1023	G	9.546754E-02 1.933338E-12	-3.687113E-04 -3.012863E-11	-1.080227E-01 6.141727E-10	-1.002624E-05 -1.641276E-13	-2.694397E-03 1.477888E-12	-3.628018E-07 4.827246E-13
1024	G	9.546648E-02 -3.686347E-11	-3.689068E-04 -3.012746E-11	-1.068248E-01 6.010414E-10	-1.002617E-05 -1.641062E-13	-2.694397E-03 1.477859E-12	-3.593898E-07 4.827153E-13
1025	G	9.546754E-02 1.933277E-12	-4.138780E-04 3.007660E-11	-2.300226E-01 4.298513E-10	-1.002313E-05 -1.641215E-13	-2.694400E-03 1.477875E-12	-3.608282E-07 4.827206E-13
1026	G	9.548648E-02 -3.686347E-11	-4.139000E-04 3.007708E-11	2.292208E-01 4.772266E-10	-1.002319E-05 -1.640995E-13	-2.694408E-03 1.477874E-12	-3.626315E-07 4.827200E-13
1028	G	-2.033830E-01 1.376844E-10	5.952701E-04 1.882084E-10	9.993907E-01 -2.179538E-12	-1.002253E-05 -1.641313E-13	-2.694489E-03 1.478306E-12	-3.583839E-07 4.827065E-13

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -4.271184E-03, -2.531390E-10

C O M P L E X E I G E N V E C T O R N O 2  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-1.164381E-01 9.888464E-11	3.697414E-04 4.929691E-11	2.648669E-01 4.038453E-10	-1.002298E-05 -1.641013E-13	-2.694498E-03 1.478314E-12	-3.588558E-07 4.826905E-13
2511	G	-2.976928E-02 5.826647E-11	2.885065E-05 8.875996E-11	4.031254E-01 3.305274E-10	-1.003407E-05 -1.642024E-13	-2.694503E-03 1.478272E-12	-3.535651E-07 4.827453E-13
2572	G	-3.886949E-03 3.714016E-11	-1.041746E-04 1.168062E-10	6.799814E-01 1.761971E-10	-1.002228E-05 -1.640964E-13	-2.694500E-03 1.478308E-12	-3.588361E-07 4.826924E-13
2649	G	-3.201136E-02 5.256489E-11	-2.847764E-05 1.586944E-10	9.042527E-01 5.315317E-11	-1.002225E-05 -1.641001E-13	-2.694500E-03 1.478239E-12	-3.589531E-07 4.826922E-13
2697	G	-2.047463E-01 1.455631E-10	6.002601E-04 1.863736E-10	1.000000E+00 0.0	-1.002248E-05 -1.641140E-13	-2.694499E-03 1.478299E-12	-3.581640E-07 4.826963E-13
19777	G	-6.370993E-02 7.429771E-11	1.920035E-04 2.141962E-11	1.272684E-01 4.809631E-10	-1.002427E-05 -1.640987E-13	-2.694463E-03 1.478153E-12	-3.614932E-07 4.826968E-13

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.500943E-03, -1.678274E-02

C O M P L E X E I G E N V E C T O R N O 3  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	5.529059E-02 4.279252E-03	6.210482E-02 5.348112E-02	1.000000E+00 0.0	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	5.477753E-02 3.838308E-03	3.612979E-02 3.120232E-02	8.910168E-01 8.424617E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	5.477503E-02 3.837817E-03	1.089430E-02 9.541547E-03	7.854906E-01 1.864300E-01	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	9.895398E-02 -2.867906E-02	-2.963825E-02 -2.342689E-02	6.520466E-01 2.717000E-01	0.0 0.0	2.309385E-03 -1.798375E-03	-5.528627E-04 -4.741275E-04
1007	G	1.020396E-01 -2.391682E-02	-5.874504E-02 -4.844170E-02	6.329566E-01 3.694754E-01	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	1.004708E-01 5.674370E-03	-1.387532E-01 -1.178363E-01	1.974536E-01 6.508341E-01	4.486811E-04 2.885062E-04	2.309677E-03 -1.798336E-03	-5.528927E-04 -4.741342E-04
1013	G	6.591601E-02 -2.405902E-02	-1.387532E-01 -1.178363E-01	1.694110E-01 6.326024E-01	4.486809E-04 2.885059E-04	2.309677E-03 -1.798336E-03	-5.528927E-04 -4.741342E-04
1017	G	1.343829E-01 4.272766E-03	-3.326111E-02 -2.661605E-02	6.855849E-01 3.038473E-01	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	6.914379E-02 -5.167451E-02	-3.326019E-02 -2.661592E-02	6.126402E-01 2.698037E-01	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	1.532561E-01 -6.380538E-02	-4.105263E-02 -3.113413E-02	6.484405E-01 2.795598E-01	4.486828E-04 2.885067E-04	2.309609E-03 -1.798343E-03	-5.528805E-04 -4.741216E-04
1022	G	3.119727E-01 -1.873876E-01	-7.188622E-02 -5.096033E-02	6.484405E-01 2.795598E-01	4.486848E-04 2.885072E-04	2.309614E-03 -1.798345E-03	-5.528604E-04 -4.741219E-04
1023	G	-5.108589E-02 5.912149E-02	4.399386E-02 3.420576E-02	8.378283E-01 1.065183E-01	4.486802E-04 2.885118E-04	2.309011E-03 -1.798430E-03	-5.528529E-04 -4.741298E-04
1024	G	-6.837001E-03 9.705159E-02	4.389525E-02 3.420594E-02	8.737222E-01 1.295998E-01	4.486807E-04 2.885119E-04	2.309616E-03 -1.798428E-03	-5.528768E-04 -4.741328E-04
1025	G	-5.106589E-02 5.912149E-02	-2.495839E-02 -2.492775E-02	5.488481E-01 3.306187E-01	4.486868E-04 2.885087E-04	2.309020E-03 -1.798437E-03	-5.528641E-04 -4.741304E-04
1026	G	-6.836990E-03 9.705160E-02	-2.495823E-02 -2.492773E-02	5.857408E-01 3.538887E-01	4.486709E-04 2.885069E-04	2.309074E-03 -1.798412E-03	-5.528519E-04 -4.741288E-04
1028	G	2.374473E-01 -1.128198E-01	-2.327151E-01 -1.924128E-01	-8.390842E-02 8.615682E-01	4.486810E-04 2.885071E-04	2.309677E-03 -1.798337E-03	-5.528881E-04 -4.741381E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -1.500943E-03, -1.678274E-02

C O M P L E X E I G E N V E C T O R N O 3  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.526914E-01 -6.335414E-02	-6.747870E-02 -6.382033E-02	5.375762E-01 3.858798E-01	4.486749E-04 2.885037E-04	2.309898E-03 -1.798328E-03	-5.528915E-04 -4.741338E-04
2511	G	7.045101E-02 -1.232036E-02	-8.138629E-02 -8.884316E-02	4.127375E-01 4.538125E-01	4.485298E-04 2.884562E-04	2.309633E-03 -1.798330E-03	-5.528245E-04 -4.741117E-04
2572	G	5.822281E-02 1.175685E-02	-1.338178E-01 -1.148155E-01	1.817463E-01 6.429310E-01	4.486809E-04 2.885061E-04	2.309677E-03 -1.798336E-03	-5.528926E-04 -4.741342E-04
2649	C	8.032188E-02 -7.008991E-03	-1.846180E-01 -1.572894E-01	-1.049508E-02 7.926120E-01	4.486805E-04 2.885067E-04	2.309677E-03 -1.798336E-03	-5.528925E-04 -4.741344E-04
2697	G	2.304176E-01 -1.205529E-01	-2.330358E-01 -1.926392E-01	-8.095283E-02 8.575980E-01	4.486812E-04 2.885064E-04	2.309677E-03 -1.798337E-03	-5.528910E-04 -4.741357E-04
18777	G	1.025139E-01 -3.242817E-02	-3.044587E-02 -2.394620E-02	6.515822E-01 2.713884E-01	4.486828E-04 2.885053E-04	2.309455E-03 -1.798363E-03	-5.528748E-04 -4.741294E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -5.868273E-03, -2.339854E-02

C O M P L E X E I G E N V E C T O R N O 4  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	2.768103E-02 1.157251E-03	-2.818995E-01 1.308180E-05	4.838340E-02 1.368091E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	2.998946E-02 1.154746E-03	-1.643294E-01 -1.155282E-04	4.415628E-02 1.538144E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	2.998933E-02 1.154736E-03	-4.999458E-02 -2.398278E-04	3.888902E-02 1.700957E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	2.694825E-02 4.968321E-04	1.198542E-01 -6.968008E-05	2.944901E-02 1.904624E-02	0.0 0.0	1.160818E-04 -3.561877E-05	2.501953E-03 -2.738125E-06
1007	G	7.067516E-03 5.384988E-04	2.517658E-01 -2.249153E-04	1.368518E-02 2.078758E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-7.206630E-02 9.148514E-04	6.198797E-01 -7.832289E-04	-4.482459E-02 2.683541E-02	-1.290210E-03 -1.765658E-05	1.161083E-04 -3.561508E-05	2.501985E-03 -2.737015E-06
1013	G	8.430850E-02 7.435959E-04	6.198797E-01 -7.832289E-04	3.581354E-02 2.673896E-02	-1.290210E-03 -1.765673E-05	1.161083E-04 -3.561506E-05	2.501965E-03 -2.736558E-06
1017	G	-1.405618E-01 7.043724E-04	1.368407E-01 -1.012411E-04	-5.772082E-02 1.811910E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.548691E-01 3.811921E-04	1.368408E-01 -1.012238E-04	9.452435E-02 2.020244E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	9.840943E-03 -2.818336E-04	1.553044E-01 3.035458E-04	1.887080E-02 1.901682E-02	-1.290229E-03 -1.765150E-05	1.161067E-04 -3.561702E-05	2.501914E-03 -2.738580E-06
1022	G	1.761983E-02 -2.699249E-03	2.439892E-01 1.516438E-03	1.887080E-02 1.901682E-02	-1.290234E-03 -1.764861E-05	1.161074E-04 -3.561724E-05	2.501915E-03 -2.738933E-06
1023	G	1.005601E-01 2.449601E-03	-1.711679E-01 -8.455275E-04	8.090013E-02 1.852517E-02	-1.290220E-03 -1.767488E-05	1.160462E-04 -3.561177E-05	2.501950E-03 -2.723829E-06
1024	G	-8.868444E-02 2.688058E-03	-1.711677E-01 -8.454980E-04	-2.231731E-02 1.510927E-02	-1.290220E-03 -1.767491E-05	1.160841E-04 -3.564358E-05	2.501948E-03 -2.724394E-06
1025	G	1.005601E-01 2.449600E-03	1.408750E-01 -1.185140E-03	6.842473E-02 2.098702E-02	-1.290215E-03 -1.768680E-05	1.160867E-04 -3.562111E-05	2.501940E-03 -2.723051E-06
1026	G	-9.859445E-02 2.688058E-03	1.408750E-01 -1.185138E-03	-3.878141E-02 1.955428E-02	-1.290214E-03 -1.768689E-05	1.160381E-04 -3.563183E-05	2.501942E-03 -2.722717E-06
1028	G	-3.290084E-02 -1.341850E-03	9.989218E-01 -8.408930E-06	-4.221780E-02 3.011108E-02	-1.290210E-03 -1.765023E-05	1.161067E-04 -3.561418E-05	2.501975E-03 -2.702146E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE : -5.888273E-03, -2.339854E-02

C O M P L E X E I G E N V E C T O R N O 4  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	9.613836E-03 -2.425351E-04	2.750760E-01 1.677718E-04	1.329741E-02 2.072635E-02	-1.290208E-03 -1.785751E-05	1.161116E-04 -3.561564E-05	2.501958E-03 -2.738286E-06
2511	G	4.183218E-02 8.637698E-04	3.618194E-01 -5.404985E-04	2.588614E-02 2.280559E-02	-1.290220E-03 -1.766065E-05	1.161053E-04 -3.561625E-05	2.501959E-03 -2.735485E-06
2572	G	4.784301E-03 1.245001E-03	6.068403E-01 -9.914067E-04	-4.590284E-03 2.621318E-02	-1.290210E-03 -1.785740E-05	1.161082E-04 -3.561534E-05	2.501965E-03 -2.736801E-06
2649	G	5.975775E-03 8.733928E-04	8.283484E-01 -1.034914E-03	-1.425433E-02 2.917753E-02	-1.290211E-03 -1.765882E-05	1.161087E-04 -3.561475E-05	2.501966E-03 -2.735428E-06
2697	G	4.236910E-03 -1.398775E-03	1.000000E+00 0.0	-2.311682E-02 3.037878E-02	-1.290211E-03 -1.765073E-05	1.161090E-04 -3.561322E-05	2.501969E-03 -2.723694E-06
19777	G	2.885931E-02 4.287615E-04	1.219766E-01 -3.789978E-05	3.084244E-02 1.906530E-02	-1.290216E-03 -1.765551E-05	1.160849E-04 -3.561841E-05	2.501954E-03 -2.736398E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

COMPLEX EIGENVALUE : -1.092172E-02, -1.262680E-01

C O M P L E X E I G E N V E C T O R N O 5  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	8.305505E-01 -2.545264E-02	1.575651E-02 1.526940E-03	-5.414810E-01 -1.034417E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	8.304237E-01 -2.545935E-02	9.756889E-03 6.891843E-04	-3.888795E-01 -9.147740E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	8.304191E-01 -2.546905E-02	3.777419E-03 -1.603162E-04	-2.403716E-01 -8.053020E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	7.702219E-01 -2.587812E-02	-1.803396E-03 2.348085E-04	-5.091278E-02 -6.843340E-03	0.0 0.0	-3.251556E-03 -2.379891E-05	-1.271597E-04 -1.826025E-05
1007	G	7.730515E-01 -2.572015E-02	-8.724823E-03 -7.779865E-04	1.208016E-01 -6.192358E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	8.035410E-01 -2.495481E-02	-2.879385E-02 -4.177201E-03	6.093303E-01 -8.015473E-03	-9.279822E-05 -7.820179E-05	-3.247474E-03 -2.392136E-05	-1.276141E-04 -1.824430E-05
1013	G	7.955658E-01 -2.609522E-02	-2.879385E-02 -4.177201E-03	6.151309E-01 -1.279816E-04	-9.281686E-05 -7.819836E-05	-3.247474E-03 -2.392136E-05	-1.275910E-04 -1.824859E-05
1017	G	7.809664E-01 -2.464074E-02	-2.882254E-03 5.152297E-05	-3.388338E-02 -1.190711E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	7.859410E-01 -2.679491E-02	-2.889683E-03 5.110322E-05	-2.294504E-02 -2.679204E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	7.008443E-01 -2.824536E-02	-2.822381E-04 1.889014E-03	-4.157759E-02 -7.388566E-03	-9.274475E-05 -7.821106E-05	-3.248231E-03 -2.382867E-05	-1.269378E-04 -1.827462E-05
1022	G	4.778390E-01 -2.789175E-02	6.080683E-03 7.243788E-03	-4.157759E-02 -7.388566E-03	-9.273686E-05 -7.821395E-05	-3.247918E-03 -2.397917E-05	-1.269207E-04 -1.827719E-05
1023	G	9.523513E-01 -2.509884E-02	3.820821E-03 -2.665058E-03	-3.305491E-01 -6.373119E-03	-9.259309E-05 -7.824308E-05	-3.257081E-03 -2.359561E-05	-1.273093E-04 -1.823061E-05
1024	G	9.626428E-01 -2.383983E-02	3.838747E-03 -2.665533E-03	-3.379449E-01 -1.263872E-02	-9.262246E-05 -7.823929E-05	-3.257018E-03 -2.366520E-05	-1.276328E-04 -1.822129E-05
1025	G	9.523513E-01 -2.509884E-02	-1.206617E-02 -4.938238E-03	7.585722E-02 -3.428540E-03	-9.280825E-05 -7.821767E-05	-3.256714E-03 -2.363382E-05	-1.275015E-04 -1.822042E-05
1026	G	9.625429E-01 -2.383983E-02	-1.208402E-02 -4.938337E-03	8.821679E-02 -8.684436E-03	-9.279893E-05 -7.821844E-05	-3.256025E-03 -2.367173E-05	-1.273387E-04 -1.822673E-05
1028	G	9.993984E-01 -2.667894E-02	-3.823549E-02 -1.478306E-03	9.980688E-01 -1.163177E-03	-9.276022E-05 -7.821510E-05	-3.247489E-03 -2.392017E-05	-1.276150E-04 -1.827102E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.092172E-02, -1.262680E-01

C O M P L E X E I G E N V E C T O R N O . 5  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	7.018412E-01 -2.624508E-02	-6.432638E-03 9.733683E-04	1.143073E-01 -6.240234E-03	-9.283756E-05 -7.819978E-05	-3.247234E-03 -2.393501E-05	-1.275742E-04 -1.824755E-05
2511	G	8.044679E-01 -2.573759E-02	-1.598061E-02 -2.477230E-03	2.820832E-01 -3.889649E-03	-9.418523E-05 -7.815764E-05	-3.247847E-03 -2.391286E-05	-1.269890E-04 -1.826477E-05
2572	G	8.374740E-01 -2.524565E-02	-2.997072E-02 -5.103661E-03	6.146011E-01 -2.554242E-03	-9.280916E-05 -7.819948E-05	-3.247480E-03 -2.392095E-05	-1.275023E-04 -1.824674E-05
2649	C	8.035899E-01 -2.549525E-02	-3.982313E-02 -5.806494E-03	8.848988E-01 -5.632837E-04	-9.280244E-05 -7.819951E-05	-3.247508E-03 -2.392005E-05	-1.275028E-04 -1.824784E-05
2697	G	5.958715E-01 -2.696168E-02	-3.821054E-02 -1.442000E-03	1.000000E+00 0.0	-9.278400E-05 -7.820796E-05	-3.247486E-03 -2.392183E-05	-1.275048E-04 -1.825658E-05
19777	G	7.842332E-01 -2.594072E-02	-1.736359E-03 3.755714E-04	-5.081284E-02 -6.758879E-03	-9.272307E-05 -7.820373E-05	-3.250651E-03 -2.382718E-05	-1.273270E-04 -1.825644E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -3.863643E-02, -1.481380E-01

C O M P L E X E I G E N V E C T O R N O . 6  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.915736E-02 -3.485870E-03	2.649882E-01 3.200257E-03	1.038221E-01 4.137707E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-3.190929E-02 -3.578812E-03	1.254905E-01 -1.390386E-03	1.137123E-01 3.915280E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-3.188538E-02 -3.575986E-03	-1.001034E-02 -5.851871E-03	1.131007E-01 3.600837E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-2.555786E-02 -3.248914E-03	2.113182E-02 -9.488019E-03	8.986112E-02 2.956869E-03	0.0 0.0	1.084808E-05 8.872432E-06	-2.987318E-03 -9.771894E-05
1007	G	-2.054567E-03 -2.478236E-03	-1.425375E-01 -1.473600E-02	2.492371E-03 1.738150E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	9.058086E-02 6.209621E-04	-6.807742E-01 -3.040948E-02	-3.408450E-01 -2.714580E-03	-1.093543E-02 -1.094537E-04	1.060256E-05 8.830647E-06	-2.987096E-03 -9.788877E-05
1013	G	-9.486288E-02 -5.584918E-03	-6.807742E-01 -3.040948E-02	3.426192E-01 4.125522E-03	-1.093543E-02 -1.094484E-04	1.060256E-05 8.830649E-06	-2.987096E-03 -9.789101E-05
1017	G	1.730167E-01 3.289594E-03	-7.488473E-03 -1.026003E-02	-6.422066E-01 -4.392896E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.771320E-01 -8.244187E-03	-7.488438E-03 -1.026010E-02	6.481846E-01 8.498678E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.774850E-03 -2.324937E-03	2.483740E-01 -7.434702E-03	3.020784E-03 2.080580E-03	-1.093706E-02 -1.084842E-04	1.036367E-05 8.824156E-06	-2.988399E-03 -8.770267E-05
1022	G	-1.064298E-03 -1.855808E-03	1.000000E+00 0.0	3.020784E-03 2.080580E-03	-1.093782E-02 -1.080123E-04	1.033319E-05 8.827051E-06	-2.988311E-03 -8.775463E-05
1023	G	-1.212697E-01 -8.785972E-03	-3.484463E-01 -7.324000E-03	4.419250E-01 7.107869E-03	-1.094044E-02 -1.097255E-04	1.587394E-05 7.198218E-06	-2.983717E-03 -8.735879E-05
1024	G	1.159332E-01 1.037161E-03	-3.484471E-01 -7.323907E-03	-4.338587E-01 -1.714416E-03	-1.094044E-02 -1.097265E-04	8.362874E-06 8.605596E-06	-2.983708E-03 -9.738208E-05
1025	G	-1.212704E-01 -8.786006E-03	-7.180493E-01 -1.948298E-02	4.400904E-01 6.215447E-03	-1.093805E-02 -1.096319E-04	1.233076E-05 7.028033E-06	-2.983243E-03 -8.732834E-05
1026	G	1.159339E-01 1.037197E-03	-7.180493E-01 -1.946296E-02	-4.348004E-01 -2.532054E-03	-1.093805E-02 -1.095325E-04	9.915973E-06 8.893790E-06	-2.983242E-03 -9.732452E-05
1028	G	8.338619E-02 -2.833575E-04	-3.529318E-01 -3.521984E-02	-2.025793E-01 -2.156028E-03	-1.093574E-02 -1.108327E-04	1.061742E-05 8.898365E-06	-2.987390E-03 -8.878954E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -3.863643E-02, -1.481380E-01

C O M P L E X E I G E N V E C T O R N O 6  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-1.823884E-03 -2.326767E-03	1.032088E-01 -1.214330E-02	2.513000E-03 1.752624E-03	-1.093557E-02 -1.093312E-04	1.036539E-05 6.783624E-06	-2.967238E-03 -8.770907E-05
2511	G	-4.479994E-02 -3.949820E-03	-4.006311E-01 -2.066611E-02	1.591113E-01 2.874042E-03	-1.093535E-02 -1.093306E-04	1.061531E-05 6.832385E-06	-2.967089E-03 -8.768175E-05
2572	G	-2.264915E-03 -2.611746E-03	-8.106331E-01 -3.175877E-02	8.793487E-04 7.004840E-04	-1.093542E-02 -1.094245E-04	1.060420E-05 6.839427E-06	-2.967087E-03 -8.769950E-05
2649	G	-2.154297E-03 -2.540472E-03	-9.434947E-01 -3.875176E-02	-3.213956E-06 1.318107E-04	-1.093546E-02 -1.096552E-04	1.057474E-05 6.748345E-06	-2.967129E-03 -8.778054E-05
2687	G	-9.415826E-03 -1.739849E-03	-3.478277E-01 -3.518075E-02	-4.051430E-02 -5.180009E-04	-1.093562E-02 -1.103786E-04	1.080652E-05 6.853350E-06	-2.967229E-03 -9.812580E-05
19777	G	-2.874271E-02 -3.340121E-03	4.081529E-02 -9.281363E-03	1.014713E-01 3.084860E-03	-1.093536E-02 -1.092506E-04	1.102702E-05 6.852462E-06	-2.967318E-03 -9.772310E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -8.303528E-03, -5.335699E-01

C O M P L E X E I G E N V E C T O R N O 7  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.116519E-02 -1.293298E-03	9.150267E-01 2.663443E-02	-4.887138E-02 4.548661E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.317779E-02 -1.416881E-03	8.128887E-01 2.035094E-02	-5.488511E-02 4.807531E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-2.324441E-02 -1.417615E-03	7.130508E-01 1.424496E-02	-5.582487E-02 4.808428E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.822262E-02 -1.100867E-03	4.781860E-01 1.518969E-02	-4.453249E-02 3.725697E-03	0.0 0.0	1.874837E-05 2.014475E-06	-2.174530E-03 -1.338100E-04
1007	G	-1.058617E-03 -4.465183E-05	3.657518E-01 7.810210E-03	-2.218044E-04 -9.297303E-05	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	6.683848E-02 4.115694E-03	8.302114E-02 -1.623960E-02	1.761502E-01 -1.502869E-02	5.747189E-03 -4.680177E-04	2.138654E-05 2.045601E-06	-2.178260E-03 -1.336703E-04
1013	G	-6.930366E-02 -4.238491E-03	8.302114E-02 -1.623960E-02	-1.830464E-01 1.422278E-02	5.747182E-03 -4.680209E-04	2.136654E-05 2.045600E-06	-2.178256E-03 -1.336701E-04
1017	G	1.271132E-01 7.835859E-03	4.685502E-01 1.389736E-02	3.394882E-01 -2.763106E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.282073E-01 -7.924997E-03	4.685521E-01 1.389745E-02	-3.379548E-01 2.763385E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-4.687827E-04 5.835756E-06	3.471480E-01 2.489328E-02	8.591244E-04 9.723723E-06	5.742972E-03 -4.698972E-04	2.223448E-05 2.058715E-06	-2.177184E-03 -1.337196E-04
1022	G	1.060556E-03 1.469388E-04	-4.762873E-02 5.722920E-02	8.591249E-04 9.723744E-06	5.743371E-03 -4.709087E-04	2.226971E-05 2.059818E-06	-2.177229E-03 -1.336120E-04
1023	G	-8.984634E-02 -5.514383E-03	1.000000E+00 0.0	-2.303173E-01 1.887885E-02	5.783542E-03 -4.675993E-04	-7.384125E-06 1.867429E-06	-2.207152E-03 -1.341188E-04
1024	G	8.530429E-02 5.191483E-03	9.988849E-01 -3.979621E-07	2.380677E-01 -1.846123E-02	5.783535E-03 -4.676959E-04	5.248188E-05 2.522694E-06	-2.206807E-03 -1.341073E-04
1025	G	-8.984368E-02 -5.514353E-03	7.245778E-01 -1.675236E-02	-2.299086E-01 1.886800E-02	5.787159E-03 -4.679451E-04	7.578721E-05 1.817678E-06	-2.207140E-03 -1.341569E-04
1026	G	8.530147E-02 5.191449E-03	7.245747E-01 -1.673246E-02	2.301212E-01 -1.878054E-02	5.787180E-03 -4.679450E-04	3.579078E-05 2.340178E-06	-2.207425E-03 -1.341569E-04
1028	G	4.037533E-02 2.526988E-03	-5.353929E-01 -3.055544E-02	1.002829E-01 -9.267196E-03	5.748435E-03 -4.680682E-04	2.125708E-05 1.909662E-06	-2.178471E-03 -1.332058E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -8.303528E-03, -6.335569E-01

C O M P L E X E I G E N V E C T O R N O. 7  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-5.706168E-04 7.723141E-07	2.440971E-01 1.834568E-02	-1.682952E-04 -8.857338E-05	5.747757E-03 -4.682031E-04	2.417689E-05 2.119478E-06	-2.175838E-03 -1.336211E-04
2511	G	-3.257660E-02 -1.988508E-03	3.172856E-01 -3.567727E-03	-8.385148E-02 6.533702E-03	5.746411E-03 -4.681882E-04	2.131882E-05 2.048240E-06	-2.178052E-03 -1.336773E-04
2572	G	-1.483122E-03 -8.528076E-05	1.485401E-01 -2.180226E-02	-3.463671E-03 -4.044601E-04	5.747086E-03 -4.680309E-04	2.136573E-05 2.042752E-06	-2.178219E-03 -1.336813E-04
2649	G	-1.260186E-03 -6.391983E-05	-9.273228E-02 -2.804104E-02	-5.241606E-03 -5.742689E-04	5.747557E-03 -4.676181E-04	2.125333E-05 2.172048E-06	-2.178338E-03 -1.335835E-04
2897	G	8.100725E-03 5.521141E-04	-6.386625E-01 -2.842734E-03	1.509788E-02 -2.356338E-03	5.746360E-03 -4.667853E-04	2.126072E-05 1.943193E-06	-2.178526E-03 -1.334560E-04
19777	G	-2.053382E-02 -1.241463E-03	4.678288E-01 1.601271E-02	-5.073380E-02 4.231516E-03	5.741949E-03 -4.683502E-04	2.045075E-05 2.053508E-06	-2.174081E-03 -1.336044E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.730956E-02, -1.987510E+01

C O M P L E X E I G E N V E C T O R N O. 8  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-1.532178E-01 1.004152E-04	2.063131E-03 8.565451E-05	-2.414964E-01 1.397604E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-1.532861E-01 1.001622E-04	6.907861E-04 4.536148E-05	-1.627937E-01 8.684178E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.539240E-01 7.883762E-05	-7.389512E-04 -6.608218E-06	-8.759537E-02 5.061846E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.823312E-01 3.335043E-04	-1.490937E-03 -1.054104E-04	5.923209E-03 -2.559549E-04	0.0 0.0	-1.271693E-03 1.580871E-05	-7.977927E-05 -8.278981E-08
1007	G	-1.848731E-01 1.841643E-04	-8.223231E-04 -8.531718E-05	7.632838E-02 -8.921899E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-1.769016E-01 -8.140873E-06	2.239898E-03 2.074704E-04	3.829772E-01 -7.362901E-05	7.205493E-05 2.088164E-06	-2.394537E-03 -2.110931E-05	8.828621E-05 1.798612E-06
1013	G	-1.743458E-01 9.629080E-05	2.239922E-03 2.074703E-04	3.873783E-01 -2.941671E-04	-2.084460E-04 4.628939E-06	-2.394538E-03 -2.110927E-05	-3.943158E-05 1.336220E-06
1017	G	-1.818880E-01 2.923058E-04	-4.104760E-04 -9.961932E-05	-1.010448E-03 -2.407575E-04	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.838293E-01 2.514990E-04	-1.767382E-03 -1.115034E-04	8.644624E-03 -5.215141E-04	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.189220E-01 4.281836E-04	-1.535933E-03 -1.008648E-04	-1.878660E-02 -2.927782E-04	1.956925E-04 -3.088200E-06	8.456515E-03 3.593113E-06	-3.149720E-05 -1.037574E-06
1022	G	1.000000E+00 0.0	3.517024E-03 2.078536E-04	-1.880268E-02 -2.929204E-04	-1.442788E-04 -5.581951E-06	2.173793E-02 -1.373085E-05	7.458512E-04 -1.705283E-06
1023	G	-9.998850E-02 -4.404463E-04	-5.251486E-04 5.477894E-05	-1.275860E-01 8.444986E-04	-4.179044E-05 2.176869E-06	-1.488855E-03 1.284583E-05	-4.990104E-05 -1.255729E-06
1024	G	-9.885027E-02 -4.288921E-04	-6.834068E-03 1.217829E-04	-1.323851E-01 1.132802E-03	-1.382800E-04 3.235075E-06	-1.502047E-03 1.798608E-05	8.182133E-05 -1.657120E-06
1025	G	-9.997840E-02 -4.398483E-04	-6.828441E-03 2.701809E-05	5.180479E-02 -9.036076E-04	-7.175815E-05 2.864838E-06	-1.370888E-03 1.788939E-05	-5.433864E-05 -1.651977E-06
1026	G	-9.885511E-02 -4.282634E-04	-6.266543E-03 1.021118E-05	4.548952E-02 7.091322E-04	-7.950698E-05 1.320143E-06	-1.386037E-03 1.584137E-05	-2.258255E-05 1.847479E-06
1028	G	-3.652857E-01 -3.018591E-03	-5.483424E-03 -2.983725E-04	7.253368E-01 4.847234E-03	9.142240E-04 2.272113E-05	-2.985408E-03 -4.886312E-05	5.437833E-04 1.022199E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.730956E-02, -1.987510E+01

C O M P L E X E I G E N V E C T O R N O . 8  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1028	G	-2.233524E-01 3.278535E-04	1.275952E-03 -1.432381E-04	7.310281E-02 -8.674380E-04	-1.071712E-04 1.681972E-06	-1.685119E-03 8.061126E-06	1.348823E-05 9.662942E-07
2511	G	-1.681191E-01 1.224924E-04	-9.316362E-04 -1.256671E-06	1.654023E-01 -1.152140E-03	-9.980738E-05 3.509083E-06	-1.899950E-03 -3.274452E-08	-3.399418E-05 -7.697674E-07
2572	G	-1.461846E-01 2.965601E-04	1.431204E-03 2.496484E-04	3.849140E-01 -1.599688E-04	-7.456966E-05 3.832487E-06	-2.378977E-03 -2.130953E-05	2.670163E-05 1.867830E-06
2649	G	-1.697388E-01 1.568353E-04	4.394588E-03 3.310770E-04	6.065567E-01 2.747857E-03	-9.942226E-06 5.189097E-06	-2.440316E-03 -4.617888E-05	5.298726E-05 1.920476E-06
2697	G	-3.602760E-01 -2.915147E-03	-5.635612E-03 -3.064025E-04	7.147202E-01 4.539274E-03	5.542034E-04 2.030311E-05	-3.087901E-03 -5.161181E-05	3.520024E-04 8.192588E-06
19777	G	-1.848055E-01 3.558792E-04	-1.836026E-03 -1.077552E-04	5.778042E-03 -2.570415E-04	1.344131E-04 1.008075E-06	-1.344603E-03 1.332038E-05	-4.996780E-05 -1.483083E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.262188E-01, -2.447568E+01

C O M P L E X E I G E N V E C T O R N O . 9  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	1.300614E-02 2.171001E-04	-7.374458E-02 -3.538177E-03	-1.442138E-01 5.061335E-04	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	1.460826E-02 2.364291E-04	2.231037E-03 -2.548703E-03	-1.645372E-01 3.055672E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	1.361936E-02 1.948579E-04	7.402395E-02 -1.688691E-03	-1.520554E-01 1.652918E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.168758E-02 2.039760E-04	-1.579456E-01 -7.860509E-04	-1.312976E-01 -7.751455E-05	0.0 0.0	1.789335E-04 4.470303E-06	1.336465E-03 1.013989E-05
1007	G	7.083323E-04 1.178711E-04	-8.493840E-02 -3.725174E-04	-3.923185E-03 -3.014043E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-2.497085E-02 5.527282E-04	2.145959E-01 -9.638744E-04	5.394907E-01 4.240280E-04	1.802014E-02 3.748485E-05	3.618705E-05 -3.863241E-07	7.712763E-04 -1.673655E-05
1013	G	2.343940E-02 -4.767028E-04	2.145959E-01 -8.638736E-04	-5.779833E-01 -2.073500E-03	1.802655E-02 3.842985E-05	3.615928E-05 -3.949361E-07	7.711950E-04 -1.758035E-05
1017	G	-7.676298E-02 -4.607493E-04	-1.379429E-01 -7.126601E-04	1.000000E+00 0.0	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	7.623704E-02 7.246569E-04	-1.379475E-01 -7.079447E-04	-9.976126E-01 -1.617118E-04	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	2.977827E-03 1.367136E-04	-3.140482E-01 8.323010E-05	2.005981E-03 -8.203099E-05	-5.768957E-03 -8.756022E-05	6.892234E-05 -2.706018E-06	1.428623E-03 1.227792E-05
1022	G	-2.160853E-03 -4.089472E-04	5.130880E-01 7.817269E-03	2.008638E-03 -8.210825E-05	-1.856849E-02 -1.299652E-04	-9.528788E-05 -1.125559E-05	2.929075E-03 1.880264E-05
1023	G	4.995285E-02 3.597780E-04	7.876277E-01 -2.889535E-03	-7.370909E-01 1.251775E-03	1.838850E-02 -1.850320E-05	-1.361488E-03 2.352923E-05	-2.267090E-04 3.013447E-05
1024	G	-6.276593E-02 -6.011638E-04	7.683127E-01 -2.877710E-03	7.632229E-01 -6.885740E-04	1.846580E-02 -1.628731E-05	1.772430E-03 -1.515812E-05	-1.800218E-04 2.988048E-05
1025	G	4.992853E-02 3.580650E-04	8.890511E-01 -6.064263E-04	-7.000149E-01 7.272341E-06	1.825095E-02 -1.282084E-05	5.135366E-04 -2.124765E-06	2.130581E-03 7.876490E-06
1026	G	-6.273929E-02 -5.983418E-04	8.889368E-01 -8.144859E-04	6.848917E-01 -4.418758E-04	1.826680E-02 -1.307122E-05	-3.161332E-04 9.550540E-06	2.122804E-03 7.266633E-06
1028	G	-1.084563E-02 -3.148788E-03	-9.775199E-01 -1.744610E-02	3.727258E-01 8.002545E-03	2.084738E-02 4.708500E-04	-2.940222E-04 -3.444174E-05	-1.016282E-04 1.529212E-04

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OF POOR QUALITY

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.262188E-01, -2.447568E+01

C O M P L E X E I G E N V E C T O R N O. 9  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	4.895716E-03 2.628014E-04	-4.814872E-01 -5.118444E-04	-1.855856E-03 -2.742078E-04	1.687322E-02 5.858903E-06	7.295465E-04 9.103935E-06	1.611675E-03 8.841307E-06
2511	G	1.520293E-02 4.200954E-05	1.509551E-01 -1.632724E-04	-2.588185E-01 -7.268607E-04	1.720440E-02 1.158857E-06	1.377049E-04 4.172207E-06	1.031105E-03 -7.014628E-06
2572	G	-1.253344E-03 4.820703E-05	4.223302E-01 -4.967189E-04	-1.911984E-02 -8.186538E-04	1.768672E-02 4.313470E-05	5.279985E-05 -4.349019E-08	7.821829E-04 -1.517562E-05
2649	G	-6.825176E-04 6.431035E-05	2.871613E-01 -2.468586E-03	-1.857303E-02 -3.725659E-04	1.882464E-02 1.234436E-04	-1.748501E-04 2.127767E-05	5.317361E-04 -1.324712E-05
2697	G	-1.190081E-02 -1.609321E-03	-9.876472E-01 -1.761415E-02	6.450429E-02 1.892049E-03	2.068941E-02 3.413648E-04	-3.113391E-04 -2.621346E-05	-1.082128E-05 4.084818E-05
19777	G	1.340208E-02 2.222305E-04	-1.878951E-01 -7.869307E-04	-1.492868E-01 -7.753347E-05	1.665664E-02 1.752255E-08	1.683290E-04 4.074335E-06	1.306949E-03 1.011178E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.398542E+00, -4.865574E+01

C O M P L E X E I G E N V E C T O R N O. 10  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-1.226116E-02 -5.109786E-05	2.138902E-01 3.720152E-03	-6.340198E-02 -7.121427E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-1.387439E-02 -8.868121E-05	1.313794E-01 1.995880E-03	-4.108133E-02 -4.147817E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.316839E-02 -1.793886E-04	5.195373E-02 5.836956E-04	-2.272930E-02 -1.512737E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.068420E-02 -5.790277E-04	-5.793142E-02 -1.705942E-03	4.808443E-04 9.701912E-04	0.0 0.0	-1.215459E-04 -3.030603E-05	-1.262002E-03 -5.827800E-06
1007	G	-1.482772E-03 -2.311469E-04	-1.148252E-01 -1.809377E-03	2.363456E-02 2.624537E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-6.251690E-02 -1.988437E-03	-1.894558E-02 3.320155E-03	-1.965122E-02 4.272683E-03	-9.632200E-04 1.765002E-04	5.533171E-04 8.047769E-05	2.188108E-03 7.216979E-05
1013	G	7.110330E-02 2.917897E-03	-1.894557E-02 3.320150E-03	3.953496E-02 -5.105938E-03	-1.010290E-03 1.668540E-04	5.533247E-04 8.047344E-05	2.216200E-03 8.697588E-05
1017	G	7.315390E-02 -2.828534E-04	-6.719481E-02 -1.679220E-03	9.542247E-02 4.564167E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-8.055085E-02 -7.346553E-04	-6.721162E-02 -1.883317E-03	-7.032172E-02 -1.462977E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-9.562886E-03 -1.188459E-03	-7.758322E-02 -2.008083E-03	1.150263E-02 1.378827E-03	-5.494044E-04 -3.845747E-05	-1.302786E-05 8.803883E-06	-1.349036E-03 -1.220415E-05
1022	G	6.421388E-03 1.081007E-03	2.638573E-02 1.895639E-03	1.154385E-02 1.381239E-03	-2.115010E-03 -6.860934E-05	3.964148E-04 5.091192E-05	-1.141718E-03 -6.208782E-06
1023	G	-3.757484E-02 1.078519E-03	1.833298E-01 8.621824E-04	-1.141471E-01 -3.194483E-03	1.973489E-03 2.561924E-05	-1.123928E-03 -1.817221E-05	-2.224250E-03 3.324217E-05
1024	G	6.985151E-02 1.805472E-03	1.782253E-01 7.104624E-04	6.749908E-02 -3.892759E-04	1.877285E-03 2.707148E-05	2.810217E-04 -4.684578E-05	-2.113222E-03 3.778498E-05
1025	G	-3.750761E-02 1.083467E-03	-2.597850E-02 8.717354E-04	-3.678548E-02 5.411195E-04	1.608476E-03 3.396883E-06	-1.333977E-04 -4.086652E-06	-1.374572E-03 -2.368042E-05
1026	G	6.986080E-02 1.798021E-03	-2.284950E-02 1.033135E-03	8.303875E-02 4.847537E-03	1.618789E-03 4.127591E-05	-8.873122E-04 -4.293651E-05	-1.370700E-03 -2.624528E-05
1028	G	1.261028E-02 1.046813E-02	9.940821E-01 2.841122E-04	-3.694135E-01 -1.673957E-02	-1.268501E-02 1.443476E-04	2.277857E-03 2.036599E-04	5.823787E-03 1.436821E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.399542E+00, -4.685574E+01

C O M P L E X E I G E N V E C T O R N O. 10  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-6.818578E-03 -6.258840E-04	-1.628639E-01 -2.486674E-03	2.323114E-02 2.571984E-03	1.220284E-03 6.095656E-05	2.563823E-05 -2.857233E-05	-5.686172E-04 -4.110508E-06
2511	G	6.213132E-03 4.179366E-04	-1.263819E-01 -5.851047E-04	2.080768E-02 1.920789E-03	7.547030E-04 7.532578E-05	-1.020715E-04 5.753426E-06	9.390314E-04 5.255268E-05
2572	G	-2.345707E-03 -5.334741E-04	-2.802502E-02 5.063234E-03	9.245082E-03 -4.509582E-04	-8.978911E-04 1.143531E-04	5.416934E-04 5.841212E-05	2.043838E-03 7.636074E-05
2649	G	1.851322E-03 -4.833667E-05	2.236142E-01 1.371794E-02	-5.966076E-02 -1.230103E-02	-5.058688E-03 2.369995E-04	1.489626E-03 6.534347E-05	3.240170E-03 1.403586E-04
2697	G	9.792770E-02 1.233108E-02	1.000000E+00 0.0	-1.828516E-01 -1.863146E-02	-1.231534E-02 2.788281E-04	2.433694E-03 2.175920E-04	5.327951E-03 6.966011E-05
19777	G	-1.255305E-02 -6.432003E-04	-6.045883E-02 -1.811227E-03	-1.026280E-03 9.074024E-04	1.395309E-03 5.813775E-05	-2.653469E-04 -3.178076E-05	-1.306690E-03 -6.451182E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.305214E+00, -5.062168E+01

C O M P L E X E I G E N V E C T O R N O. 11  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.318718E-02 -2.476134E-04	7.289582E-02 7.954107E-03	3.489790E-01 1.566591E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.317246E-02 -3.272375E-04	4.102338E-02 4.688629E-03	1.918897E-01 8.544779E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.461825E-02 -6.946893E-05	1.075734E-02 1.697031E-03	5.078582E-02 6.198660E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.690447E-02 6.533147E-04	-2.138227E-02 -2.190728E-03	-7.333230E-02 -3.627137E-04	0.0 0.0	1.408297E-03 3.802623E-05	-4.717434E-04 -4.762055E-05
1007	G	8.527148E-03 6.384714E-04	-3.838168E-02 -4.327205E-03	-1.372846E-01 -1.322619E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-4.703041E-02 -1.763643E-03	2.243044E-02 3.348833E-04	6.899238E-02 -5.029343E-03	-1.033386E-04 -4.676109E-05	-4.113836E-03 -3.966008E-05	1.073622E-03 8.319127E-05
1013	G	1.484136E-02 3.681784E-03	2.243043E-02 3.348831E-04	8.330418E-02 -4.793041E-03	-4.208435E-04 4.917278E-05	-4.113830E-03 -3.966085E-05	9.725988E-04 9.014185E-05
1017	G	4.740857E-02 3.443520E-03	-2.441650E-02 -2.567815E-03	-7.135372E-02 1.531132E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.549548E-03 -2.262128E-03	-2.431331E-02 -2.515297E-03	-9.140053E-02 -2.087497E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	6.307161E-02 3.686820E-04	-2.385877E-02 -2.548186E-03	-7.386148E-02 -1.098571E-04	-2.327799E-04 -2.971938E-05	2.149315E-04 -3.607537E-05	-4.703062E-04 -5.333731E-05
1022	G	-3.903290E-02 -2.884888E-03	5.977785E-03 9.348387E-04	-7.416806E-02 1.382339E-04	-5.782506E-04 -6.447918E-05	-2.629353E-03 -5.639539E-05	-5.867517E-04 -5.046853E-05
1023	G	-1.101842E-01 -2.581798E-04	5.302869E-03 8.125701E-03	1.370234E-01 -7.759920E-03	-1.167115E-04 9.583668E-05	2.558341E-03 -3.988055E-04	-2.080558E-04 -1.084990E-04
1024	G	-7.518678E-02 3.628934E-03	5.874978E-02 1.315973E-03	1.568855E-01 -3.581663E-03	5.363681E-04 -1.563152E-05	3.002949E-03 -1.158132E-04	-1.037335E-03 -1.070067E-05
1025	G	-1.100491E-01 -2.587650E-04	-1.460217E-02 -3.298027E-03	-1.557187E-01 -6.957288E-04	5.096180E-04 -5.224731E-06	2.803889E-03 -3.098810E-05	-3.880574E-04 -7.349583E-05
1026	G	-7.514172E-02 3.621496E-03	-3.880106E-02 -7.326830E-04	-1.408535E-01 2.251510E-03	-3.417981E-04 6.577988E-05	2.494567E-03 -4.889909E-05	-4.832358E-04 -3.765478E-05
1028	G	-6.791879E-01 -8.720437E-03	2.346759E-01 3.250687E-02	1.000000E+00 0.0	5.988558E-03 -6.997884E-04	-9.078778E-03 -1.259290E-04	8.137812E-03 1.886344E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.305214E+00, -5.062168E+01

C O M P L E X E I G E N V E C T O R N O. 11  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	2.704757E-02 1.278220E-03	-4.885221E-02 -5.368955E-03	-1.344189E-01 -1.296566E-03	1.445058E-04 3.498538E-05	1.077315E-03 2.946007E-05	-8.227253E-05 -2.236163E-05
2511	G	1.394868E-03 9.080805E-04	-4.076775E-02 -4.585532E-03	-1.522826E-01 -3.174335E-03	1.430562E-04 3.267071E-05	-5.784433E-04 1.884592E-05	2.819832E-04 3.805043E-05
2572	G	3.300672E-02 1.424434E-03	2.053120E-02 3.525811E-04	7.667932E-02 -4.470507E-03	-1.737729E-04 -1.076532E-05	-4.162583E-03 -4.728378E-05	9.581670E-04 8.724354E-05
2649	G	2.834099E-03 1.814371E-03	1.308087E-01 1.050321E-02	6.045728E-01 5.344831E-03	-8.821271E-04 -1.124664E-04	-4.657681E-03 -6.919274E-04	1.710141E-03 1.285516E-04
2687	G	-5.825564E-01 -8.071731E-03	2.348750E-01 3.258081E-02	8.372224E-01 8.661571E-03	2.466035E-03 -4.048186E-04	-9.694079E-03 -1.433443E-04	5.611078E-03 8.346468E-05
19777	G	1.950846E-02 6.370554E-04	-2.137403E-02 -2.260088E-03	-7.336866E-02 -4.046727E-04	2.896299E-05 3.885091E-05	1.649150E-03 2.351448E-05	-3.374764E-04 -5.424573E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.108957E-01, -8.346183E+01

C O M P L E X E I G E N V E C T O R N O. 12  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	4.353008E-03 3.548218E-04	-5.514127E-04 -1.695131E-04	-2.528957E-02 -2.101097E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	4.248211E-03 3.373088E-04	4.344923E-05 -5.591321E-05	-1.217638E-02 -3.725718E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	2.856334E-03 -9.180718E-05	4.387786E-04 9.125207E-05	-1.447102E-03 7.112847E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.609053E-03 8.366737E-05	3.298597E-04 5.783594E-05	-8.699049E-04 3.583342E-04	0.0 0.0	1.330686E-05 1.152920E-05	3.886401E-07 -1.353243E-06
1007	G	1.789351E-03 9.955588E-05	1.010699E-04 -2.846602E-05	-1.373603E-03 -4.587047E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	2.650507E-03 -4.429585E-05	-2.847394E-03 -4.196088E-04	-1.326232E-03 -1.818796E-03	-5.421459E-05 -1.637011E-05	-1.727232E-05 -8.610624E-06	-3.467351E-05 -3.573470E-07
1013	G	1.345595E-03 -1.293947E-04	-2.847389E-03 -4.198072E-04	2.048993E-03 -1.522475E-03	-5.956120E-05 5.576404E-06	-1.727176E-05 -6.610698E-06	-9.839295E-06 -2.985390E-06
1017	G	2.207823E-03 1.859414E-04	2.551678E-04 4.479061E-05	-1.996003E-03 1.441848E-04	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.481718E-03 -3.328061E-05	3.060417E-04 4.488856E-05	-1.353298E-05 3.158914E-04	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	6.676330E-04 7.910562E-05	6.793594E-04 9.483952E-05	-1.070559E-03 -3.384352E-04	-7.449422E-06 -1.303044E-07	9.282751E-06 4.884092E-06	-4.590877E-07 -1.495514E-08
1022	G	-2.908141E-04 -7.576678E-05	-1.844144E-04 -2.210208E-05	-1.082758E-03 3.433480E-04	2.372885E-05 2.752721E-06	-3.047848E-05 -6.822819E-06	-6.322287E-06 -2.486502E-06
1023	G	-1.537822E-01 -6.188600E-04	-8.868156E-01 1.957453E-03	9.990566E-01 -5.198010E-04	-1.433262E-02 4.838353E-05	1.855148E-02 -1.420725E-05	1.590559E-02 -3.037312E-05
1024	G	-1.528059E-01 -4.658898E-04	8.897111E-01 -1.023921E-03	1.000000E+00 0.0	1.431181E-02 -4.303892E-05	1.856092E-02 2.974497E-07	-1.558715E-02 1.003689E-05
1025	G	-1.532892E-01 -5.815928E-04	-3.362581E-02 1.594395E-03	-1.407288E-02 -1.827258E-03	-3.382048E-03 6.500734E-05	3.022482E-03 2.886550E-05	-4.689189E-04 3.088488E-05
1026	G	-1.523157E-01 -4.301400E-04	3.040098E-02 -1.926680E-03	-1.852631E-02 -1.790739E-03	3.326552E-03 -7.065155E-05	3.053898E-03 3.119064E-05	4.047462E-04 -3.496533E-05
1028	G	1.489442E-03 -3.575805E-03	3.548482E-03 4.713270E-04	-8.543328E-04 2.259532E-03	-1.685852E-04 3.160278E-05	-6.370291E-06 -4.358897E-05	-2.478611E-05 7.231951E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.108957E-01, -8.346183E+01

C O M P L E X E I G E N V E C T O R N O . 12  
[REAL/IMAGINARY]

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.830892E-03 4.645197E-04	1.512277E-03 8.663202E-05	-1.409076E-03 -4.312320E-04	-2.675572E-05 -1.990063E-06	-1.638047E-05 1.385665E-05	-2.144962E-05 -2.545388E-06
2511	G	1.802477E-03 -8.855446E-05	-8.627669E-04 -1.853597E-04	-5.741716E-04 -1.048118E-03	-3.339898E-05 9.506659E-07	-8.238060E-06 9.419827E-06	-1.592000E-05 -7.374727E-06
2572	G	2.018316E-03 1.209969E-05	-3.429734E-03 -4.697474E-04	3.424387E-04 -1.514127E-03	-5.123220E-05 -3.747291E-06	-2.327100E-05 -6.047772E-06	-1.954008E-05 -9.843449E-07
2649	G	1.837798E-03 3.574303E-05	-4.480949E-03 -3.778845E-04	1.848164E-03 3.238637E-04	-9.118873E-05 -1.118815E-05	-4.027988E-05 -4.630417E-06	-1.997616E-05 3.389188E-06
2697	G	1.187609E-03 -2.773572E-03	3.622083E-03 4.697362E-04	1.600731E-03 1.924322E-03	-1.615712E-04 1.459338E-05	-2.675738E-06 -5.099536E-05	-1.267244E-05 3.966180E-05
19777	G	1.638616E-03 9.914847E-05	3.598697E-04 5.917784E-05	-8.519923E-04 3.594509E-04	-1.658577E-05 -1.033969E-06	1.683889E-05 9.843851E-06	-8.919030E-07 -2.072062E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.850773E+00, -9.683298E+01

C O M P L E X E I G E N V E C T O R N O . 13  
[REAL/IMAGINARY]

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	3.115014E-03 2.038235E-03	-4.492871E-02 -2.863594E-02	5.475009E-03 7.016599E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	3.659099E-03 2.497440E-03	-2.174588E-02 -8.382884E-03	-3.494807E-03 -1.887475E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	2.300497E-03 1.827824E-03	-2.190978E-03 6.702409E-03	-2.212343E-03 -3.181973E-03	0.0 0.0	0.0 0.0	0.0 0.0
1005	G	-2.181671E-03 -8.982357E-04	1.767958E-03 7.542583E-03	-2.388333E-03 -5.152050E-03	0.0 0.0	-1.859578E-04 -5.761787E-05	1.821008E-04 3.874155E-05
1007	G	-8.138855E-04 -8.809733E-04	8.976314E-03 6.333107E-03	-3.518798E-03 -1.318348E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	3.076297E-02 -1.872711E-02	-1.084578E-01 -8.068704E-02	-3.139070E-02 8.099494E-03	-1.593862E-03 -1.862349E-04	-2.075533E-04 -1.586389E-04	-1.138137E-03 -7.186960E-04
1013	G	-3.478230E-02 -2.238608E-02	-1.084571E-01 -6.088678E-02	7.212488E-02 3.224144E-02	-1.929228E-03 -5.088286E-04	-2.075331E-04 -1.586463E-04	-1.166913E-03 -7.526733E-04
1017	G	-4.385199E-03 -9.843830E-04	2.808568E-03 7.895382E-03	8.546410E-04 1.806340E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	7.189428E-03 1.773401E-03	2.971731E-03 7.893964E-03	-4.374493E-03 -2.280461E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	4.234317E-03 2.428611E-03	3.960534E-03 4.260158E-03	-2.341781E-03 -2.693758E-03	4.643949E-05 1.045141E-04	4.382102E-05 1.287194E-05	2.804723E-04 8.454585E-05
1022	G	-9.837486E-04 -4.853187E-04	-6.767249E-04 -8.302479E-05	-2.379291E-03 -2.734038E-03	8.272452E-05 3.359018E-05	-1.358844E-04 -6.536543E-05	2.484682E-04 9.868347E-05
1023	G	2.253098E-02 -3.350563E-03	1.000000E+00 0.0	-9.084614E-01 1.588288E-02	1.427676E-02 1.732033E-04	-1.818350E-02 6.438239E-04	-2.008072E-02 4.103740E-04
1024	G	-3.287559E-02 -1.481885E-03	9.694859E-01 -9.187356E-03	9.008580E-01 -1.981598E-02	1.383735E-02 1.629993E-05	1.818408E-02 -6.347351E-04	-1.943579E-02 5.985751E-04
1025	G	2.232698E-02 -3.374688E-03	3.925175E-02 3.846731E-02	-1.894841E-02 -2.474758E-02	3.578434E-03 8.040885E-04	-4.005101E-04 2.251079E-04	7.236285E-04 3.662915E-04
1026	G	-3.285337E-02 -1.448897E-03	3.119744E-02 3.230433E-02	2.154880E-03 1.518101E-02	3.225855E-03 8.282205E-04	7.110900E-04 -4.722913E-05	8.446101E-04 3.347936E-04
1028	G	1.347891E-02 2.488740E-02	1.195839E-01 7.924103E-02	-1.002072E-01 -7.420807E-02	-7.821387E-03 -5.585979E-03	2.397322E-04 3.578880E-04	-7.264651E-04 -9.908437E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.550773E+00, -9.683298E+01

C O M P L E X E I G E N V E C T O R N O 13  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-3.981564E-03 -2.674513E-03	6.171178E-02 6.741933E-03	-6.068471E-03 -1.690617E-03	-5.728853E-04 1.619375E-04	-9.622580E-04 -1.494415E-04	-8.176893E-04 -2.110085E-04
2511	G	-1.066199E-02 -7.117385E-03	-1.661745E-02 -3.404167E-03	1.157913E-02 9.353060E-04	-7.253743E-04 9.809418E-05	-8.733272E-05 -8.645789E-05	-9.641850E-04 -6.368744E-04
2572	G	6.427232E-04 2.835240E-04	-1.238299E-01 -6.492983E-02	1.799359E-02 1.795085E-02	-1.568992E-03 -4.788027E-04	-2.094109E-04 -1.588350E-04	-9.433451E-04 -5.797022E-04
2649	G	-1.478370E-03 -1.799054E-03	-1.904382E-01 -1.118955E-01	3.595574E-02 2.726243E-02	-3.392164E-03 -1.794796E-03	-3.984829E-04 -4.077183E-04	-1.086636E-03 -7.052124E-04
2697	G	3.511697E-03 1.291688E-02	1.223188E-01 8.103597E-02	8.028910E-03 1.505351E-03	-6.582014E-03 -4.462490E-03	2.355875E-04 3.833326E-04	-6.647471E-04 -6.617567E-04
19777	G	-1.954175E-03 -8.355491E-04	1.948931E-03 7.107484E-03	-2.308892E-03 -5.423190E-03	-7.263027E-05 2.510554E-04	-4.424693E-06 1.574460E-06	2.180188E-04 5.541901E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -5.003501E+00, -1.049873E+02

C O M P L E X E I G E N V E C T O R N O 14  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-3.556015E-03 9.702061E-03	1.170370E-01 -8.183554E-02	-6.933410E-02 -1.835403E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-5.819997E-03 1.086428E-02	3.486609E-02 -2.747536E-02	-5.990144E-03 -2.068079E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-6.557140E-03 6.010115E-03	-3.586698E-02 1.949541E-02	1.979974E-02 -2.785288E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	4.698070E-03 -1.405430E-03	-4.080718E-02 1.663514E-02	3.409760E-02 -7.379103E-03	0.0 0.0	2.767201E-04 -1.194664E-04	-1.087382E-04 2.692597E-04
1007	G	7.490149E-03 9.896791E-04	-3.020742E-02 2.217714E-02	1.088809E-03 -7.321836E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-7.772509E-02 6.721343E-02	2.255053E-01 -1.991953E-01	-1.225604E-01 -4.049345E-02	-9.114645E-04 -1.555561E-03	7.390774E-04 -4.116334E-04	3.051745E-03 -2.527401E-03
1013	G	8.581270E-02 -7.433688E-02	2.255042E-01 -1.991941E-01	-1.871933E-01 6.831739E-02	1.882541E-03 -2.030530E-03	7.391233E-04 -4.116234E-04	3.216589E-03 -2.586219E-03
1017	G	8.566697E-03 -8.230541E-03	-4.248248E-02 1.847056E-02	-8.689653E-02 7.181655E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-7.829000E-03 1.398269E-02	-4.203310E-02 1.863970E-02	1.245432E-01 -6.992578E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.223693E-02 7.876670E-03	-2.327228E-02 4.982238E-03	2.193610E-02 9.703432E-04	-4.448844E-04 3.504573E-04	-8.697966E-05 1.263801E-04	-3.316002E-04 3.795635E-04
1022	G	2.311613E-03 -1.863828E-03	9.789501E-04 1.081335E-03	2.233755E-02 9.494280E-04	-2.656134E-04 -1.249837E-04	3.474928E-04 -2.704963E-04	-3.293507E-04 4.140512E-04
1023	G	3.395539E-02 -3.543606E-02	1.000000E+00 0.0	-9.713620E-01 9.306664E-02	1.280810E-02 8.771253E-04	-2.126677E-02 3.069992E-03	-2.240129E-02 1.322322E-03
1024	G	-2.667653E-02 -1.586406E-02	9.871868E-01 -1.239248E-01	9.744395E-01 -1.037910E-01	1.273285E-02 -3.519801E-04	2.088486E-02 -2.949483E-03	-2.162304E-02 3.881084E-03
1025	G	3.377583E-02 -3.538438E-02	-1.903882E-01 1.484274E-01	1.456598E-01 -1.110474E-01	-1.875171E-03 3.920990E-03	-2.103018E-03 1.652486E-03	-1.824703E-03 1.651072E-03
1026	G	-2.842165E-02 -1.583126E-02	-1.888708E-01 1.114999E-01	-8.286740E-02 6.488073E-02	-1.087585E-03 2.430883E-03	1.293349E-03 -3.915506E-04	-1.700163E-03 1.316026E-03
1028	G	-2.240788E-01 -1.716133E-02	-3.054562E-01 2.308527E-01	3.571103E-01 -1.879895E-01	2.522931E-02 -1.581056E-02	-2.741149E-03 -7.281068E-06	-8.090782E-03 -3.752718E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -5.003501E+00, -1.049873E+02

C O M P L E X E I G E N V E C T O R N O. 14  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	2.040598E-02 1.342269E-03	2.522977E-02 5.140972E-02	7.774486E-04 -9.480368E-03	-1.416223E-03 3.465958E-04	7.448310E-06 -7.481079E-04	2.210000E-04 -9.803937E-04
2511	G	2.862191E-02 -2.066246E-02	-5.803211E-03 -8.987200E-03	-1.124906E-02 -1.133977E-02	-1.164631E-03 1.825951E-04	6.334141E-04 4.198548E-05	2.373992E-03 -1.860018E-03
2572	G	-7.544408E-04 1.496830E-03	2.336729E-01 -2.170650E-01	-1.252949E-01 1.035633E-02	1.201551E-03 -1.789469E-03	7.332441E-04 -3.440039E-04	2.411803E-03 -1.959480E-03
2649	G	1.173166E-02 -4.899548E-04	4.482569E-01 -3.743783E-01	-1.335915E-01 6.473211E-02	6.685874E-03 -6.048079E-03	2.255108E-03 -1.162822E-03	3.235448E-03 -2.296841E-03
2697	G	-1.298970E-01 -2.548278E-02	-3.130840E-01 2.357680E-01	2.068708E-02 2.874690E-02	1.950596E-02 -1.288429E-02	-3.167655E-03 -1.872088E-04	4.798011E-03 -7.669882E-04
19777	G	4.557375E-03 -8.862363E-04	-3.843337E-02 1.511647E-02	3.585360E-02 -8.325430E-03	-1.348143E-03 8.762286E-04	3.925826E-05 1.019622E-04	-1.857003E-04 3.107983E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -8.047928E+00, -1.075832E+02

C O M P L E X E I G E N V E C T O R N O. 15  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-5.458273E-02 -5.559814E-03	1.000180E-01 4.295127E-02	3.900828E-01 1.330881E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-5.327127E-02 -6.183789E-03	2.458754E-02 1.211495E-02	1.402878E-01 9.069296E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.822859E-02 -7.900361E-04	-3.520837E-02 -1.291562E-02	-6.876116E-02 2.980045E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.951427E-02 1.422311E-03	-3.483170E-02 -1.491328E-02	-8.837974E-02 3.455898E-03	0.0 0.0	-1.487825E-03 8.677804E-05	2.892388E-04 -5.438370E-05
1007	G	-3.392111E-02 -1.688429E-03	-1.200032E-03 -1.111280E-02	3.354158E-02 -1.507076E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-4.283464E-02 -3.124985E-02	1.884673E-01 9.589299E-02	5.589378E-01 1.544748E-02	5.799174E-03 -3.454974E-04	-3.595348E-04 8.213844E-05	1.240851E-03 1.185732E-03
1013	G	2.164985E-02 3.401041E-02	1.884862E-01 9.589261E-02	4.651423E-01 -5.548943E-03	-3.567550E-03 7.485496E-04	-3.595662E-04 8.216435E-05	1.088587E-03 1.222473E-03
1017	G	-3.758733E-02 1.077501E-03	-3.087850E-02 -1.540327E-02	-7.180674E-02 -4.169057E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.262034E-02 -1.451881E-03	-3.274840E-02 -1.502449E-02	-7.988019E-02 3.746647E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	1.756014E-02 -1.083398E-03	-4.800395E-02 -5.301765E-03	-9.235298E-02 -4.123008E-04	1.901440E-04 -3.058801E-04	-8.246988E-05 -6.150718E-05	1.699149E-04 -1.282972E-04
1022	G	-2.659080E-03 6.844835E-04	9.521698E-03 -3.769749E-04	-9.410898E-02 -1.517890E-04	-1.433272E-03 6.655913E-05	-4.671655E-04 7.635611E-05	3.422145E-04 -1.858018E-04
1023	G	1.055185E-01 -5.174748E-02	-2.848331E-01 3.373473E-01	-8.121744E-02 -2.307756E-01	-2.001936E-03 3.884198E-03	-1.496484E-03 -4.959216E-03	5.741225E-03 -8.053419E-03
1024	G	3.819400E-02 -6.601037E-02	3.167092E-01 2.926862E-01	1.585088E-01 3.776299E-01	4.382878E-03 4.022801E-03	3.899801E-03 8.326396E-03	-7.420484E-03 -6.379978E-03
1025	G	1.052923E-01 -5.157828E-02	-7.105782E-03 -5.288103E-02	-4.098092E-02 1.677184E-02	-1.779353E-04 -2.866072E-04	-2.870673E-04 8.282425E-04	4.449404E-04 -7.670614E-04
1026	G	3.817081E-02 -5.580050E-02	-2.558199E-02 -8.261385E-02	-4.839930E-02 -7.218055E-02	-1.116872E-05 -1.345851E-03	8.449258E-05 1.767404E-03	-4.641673E-05 -7.624222E-04
1028	G	1.000000E+00 0.0	-1.494482E-01 -1.228368E-01	-3.560432E-01 1.124220E-01	-1.055215E-02 9.808489E-04	1.035631E-02 3.256748E-04	-3.219349E-02 2.536859E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -8.047928E+00, -1.075832E+02

C O M P L E X E I G E N V E C T O R N O . 15  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-1.112137E-01 -2.854607E-03	-8.714545E-03 -9.242007E-04	-2.870713E-02 -1.362032E-03	-5.459585E-05 -4.363183E-04	-2.930102E-03 -7.488423E-05	8.950977E-04 2.376232E-04
2511	G	8.468896E-03 1.071320E-02	5.201170E-02 2.906977E-03	1.802651E-01 9.255030E-03	-3.303335E-04 -3.416304E-04	-2.699755E-03 -1.307768E-04	1.784680E-03 1.030008E-03
2572	G	-5.490558E-03 8.909151E-04	2.024878E-01 9.974301E-02	4.358533E-01 1.514562E-02	1.280399E-03 5.869059E-04	-4.178414E-04 -2.627183E-04	8.880852E-04 8.905928E-04
2649	G	-3.706245E-02 -3.828551E-03	2.121825E-01 1.704677E-01	1.446918E-01 -2.450554E-02	4.373273E-03 2.672483E-03	-2.719885E-03 3.376186E-03	-8.132075E-04 1.032614E-03
2697	G	5.458613E-01 2.982302E-02	-1.481012E-01 -1.246761E-01	-2.443300E-01 -1.592531E-02	-5.025204E-03 6.860714E-03	1.302332E-02 6.703649E-04	-1.608637E-02 1.247084E-03
19777	G	-2.026510E-02 1.337056E-03	-3.433715E-02 -1.406098E-02	-8.818918E-02 3.972537E-03	-1.948842E-04 -4.785564E-04	-7.566539E-04 -5.262429E-06	5.658787E-04 -7.013535E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -2.886219E+00, -1.169990E+02

C O M P L E X E I G E N V E C T O R N O . 15  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	1.525051E-02 -6.944849E-04	-2.693039E-01 5.884916E-02	6.384829E-02 -2.686142E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	1.770821E-02 -1.598146E-03	-1.119833E-01 2.807249E-02	3.740730E-02 -8.079365E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	1.351205E-02 -2.252999E-03	3.044206E-02 -6.646692E-03	2.485201E-02 1.018813E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	6.614708E-03 -8.110445E-04	1.587378E-01 -2.791906E-02	1.492923E-02 6.510271E-03	0.0 0.0	9.867136E-04 -8.909102E-05	-1.795007E-03 -5.380184E-05
1007	G	-6.387380E-03 2.829884E-03	-5.802757E-03 -1.391162E-02	1.868078E-02 -1.888789E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-3.077088E-02 -3.043228E-02	6.472256E-02 6.108008E-02	1.319264E-01 -4.071770E-02	3.028758E-03 -6.111731E-04	-6.942924E-05 2.449834E-04	1.053870E-03 1.267670E-03
1013	G	2.432939E-02 4.086972E-02	6.472215E-02 6.108969E-02	8.179588E-03 -4.327598E-02	1.379868E-03 4.294753E-04	-6.947248E-05 2.449888E-04	9.726839E-04 1.427211E-03
1017	G	4.593687E-02 1.402458E-02	1.489327E-01 -2.971495E-02	-3.223352E-01 -2.199093E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-6.853769E-02 -1.005959E-02	1.476706E-01 -2.918406E-02	2.812641E-01 -6.433662E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-5.308951E-03 -3.612187E-03	3.145688E-01 -5.502778E-02	-2.215419E-02 8.845303E-03	-4.287473E-03 8.974638E-04	3.555774E-04 -1.501031E-04	-1.033362E-03 -1.347044E-04
1022	G	1.150454E-03 9.028551E-04	-7.123080E-02 1.185782E-02	-2.284914E-02 8.888999E-03	1.113907E-02 -1.992895E-03	6.299028E-05 1.517348E-04	-2.870351E-03 2.228559E-04
1023	G	1.038958E-01 -7.739514E-02	7.275767E-01 1.721817E-01	-6.261705E-01 -5.407684E-02	7.049612E-03 2.038630E-03	-1.585441E-02 -7.411878E-04	-1.726637E-02 -3.971098E-03
1024	G	-2.938984E-03 -4.987383E-02	1.000000E+00 0.0	5.788188E-01 1.278626E-01	9.854472E-03 -1.640787E-04	1.416398E-02 2.810086E-03	-2.382504E-02 7.489449E-05
1025	G	1.030882E-01 -7.722951E-02	-1.202180E-01 -1.410315E-02	2.206131E-01 -2.853438E-02	-5.355937E-03 1.017779E-03	-3.818408E-03 1.373441E-03	-5.211525E-04 -5.062768E-04
1026	G	-2.785538E-03 -4.877559E-02	-7.820428E-02 -8.462218E-02	-1.788004E-01 -5.887889E-02	-3.459440E-03 -2.135986E-03	1.972205E-03 1.580764E-03	-2.784175E-05 -1.388913E-03
1028	G	1.338879E-01 -7.898953E-02	-4.635114E-02 -8.832398E-02	-6.828168E-04 1.271002E-01	1.958235E-03 9.581057E-03	1.488330E-03 -7.600949E-04	-4.188786E-03 3.798667E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.888219E+00, -1.189990E+02

C O M P L E X E I G E N V E C T O R N O. 16  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.908616E-02 3.486773E-03	-5.027161E-01 7.151538E-02	4.854806E-02 -6.141527E-03	9.855807E-04 -5.080983E-04	1.084178E-02 -1.542688E-03	8.462602E-03 -9.641291E-04
2511	G	2.969535E-03 9.603249E-03	2.891402E-03 -1.778087E-02	2.073739E-03 1.410583E-03	1.183818E-03 -5.936896E-04	-3.124011E-04 9.785148E-05	6.501288E-04 6.458616E-04
2572	G	-1.878411E-03 1.808796E-03	8.418502E-02 6.202182E-02	5.836097E-02 -3.432232E-02	1.744860E-03 2.818166E-04	-6.293778E-05 9.456601E-05	7.412407E-04 9.156353E-04
2649	G	-7.185793E-03 4.866380E-03	1.328229E-01 1.576774E-01	1.597585E-02 -4.477520E-02	2.649429E-03 2.25237E-03	-3.009961E-05 1.135041E-03	7.310945E-04 1.449416E-03
2697	G	9.137070E-02 -3.365309E-02	-4.715886E-02 -9.082394E-02	-3.121405E-02 2.410620E-03	1.948329E-03 6.897784E-03	1.959056E-03 -7.803459E-04	-1.627728E-03 2.275986E-03
19777	G	3.909282E-03 -8.485918E-04	1.856462E-01 -2.822465E-02	1.929472E-02 6.314150E-03	-4.042122E-03 1.815933E-04	-3.353557E-04 -4.747448E-06	-1.946096E-03 -2.685359E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.451551E-01, -1.181006E+02

C O M P L E X E I G E N V E C T O R N O. 17  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	1.344005E-02 2.534178E-03	5.147263E-03 -4.917276E-04	-3.540305E-02 -1.816474E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	1.299758E-02 2.364577E-03	1.858698E-03 6.834572E-04	-8.241604E-03 -4.617987E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	1.006378E-02 -2.985997E-05	-1.108483E-03 1.274747E-03	8.267927E-03 4.923372E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	8.200438E-03 2.484449E-04	-1.784383E-04 -1.195969E-03	4.421457E-03 2.321869E-03	0.0 0.0	7.801815E-05 7.086014E-05	-4.467444E-05 1.203441E-05
1007	G	6.829582E-03 3.756774E-04	-2.072708E-03 2.545094E-04	4.356038E-03 -4.151396E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	3.117941E-03 1.218686E-03	2.112562E-02 -8.032392E-03	4.808793E-02 -1.305679E-02	5.210007E-04 -2.509249E-04	-1.242588E-04 -6.818826E-05	1.230186E-04 -6.209999E-05
1013	G	1.563753E-02 -3.320950E-03	2.112544E-02 -8.032336E-03	4.579185E-02 -5.613977E-03	-5.298415E-04 -3.749872E-05	-1.242574E-04 -6.818342E-05	3.444439E-04 -8.707820E-05
1017	G	1.073546E-02 5.863815E-04	-6.001838E-04 -1.201742E-03	-1.080321E-02 7.354068E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	7.301055E-03 3.688554E-04	-2.345698E-04 -1.113781E-03	1.572862E-02 -3.308030E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	1.184178E-02 7.801800E-04	4.069465E-03 -3.228026E-03	2.863560E-03 3.020879E-03	-1.226315E-04 6.180291E-05	1.187401E-04 3.930018E-05	-4.599199E-05 5.543555E-06
1022	G	-2.439098E-03 -3.710162E-04	-1.221138E-03 7.887302E-04	2.725550E-03 3.080489E-03	-1.858507E-04 -1.259633E-04	-3.988248E-04 -5.053855E-05	-1.107079E-04 2.270368E-05
1023	G	-8.170323E-01 -8.523324E-03	1.000000E+00 0.0	3.798182E-01 1.524241E-02	1.513289E-02 -3.622266E-05	1.257672E-02 3.252597E-04	-2.277318E-02 5.076740E-05
1024	G	-8.182537E-01 -8.832961E-04	-8.348035E-01 -3.808712E-02	4.458426E-01 -2.508089E-02	-1.470901E-02 -4.748082E-04	1.424767E-02 -5.993301E-04	2.104721E-02 8.488314E-04
1025	G	-8.148572E-01 -8.282702E-03	6.171877E-01 1.080753E-01	-7.336145E-01 -2.888785E-03	2.432523E-02 4.560257E-05	2.186752E-02 8.011310E-05	6.891421E-03 -3.348534E-05
1026	G	-8.158785E-01 -3.748240E-04	-6.837858E-01 3.796836E-03	-7.701033E-01 4.810883E-03	-2.551078E-02 8.038980E-05	2.234442E-02 -6.657023E-05	-7.828773E-03 2.088561E-05
1028	G	1.006005E-01 -1.876188E-02	-1.885872E-02 8.830978E-03	-1.277721E-02 5.284849E-03	-4.290889E-04 -1.950088E-04	8.404929E-04 -1.784836E-04	-3.558485E-03 3.893401E-04

ORIGINAL FILED IN  
OF 19902 IN 1990

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -2.451561E-01, -1.181006E+02

C O M P L E X E I G E N V E C T O R N O 17  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1028	G	5.978618E-03 2.868705E-03	-7.822369E-03 8.449535E-03	4.685146E-03 -4.383402E-03	-9.042134E-05 -1.239122E-05	1.240061E-04 -6.528322E-05	1.861924E-04 -1.308382E-04
2511	G	1.008783E-02 -1.288337E-03	1.054686E-03 -1.708487E-03	1.383211E-02 -7.828165E-03	-1.454387E-04 3.108750E-06	-1.990233E-04 5.113255E-05	2.571104E-04 -8.061137E-05
2572	G	9.108557E-03 1.955599E-04	2.161184E-02 -9.181487E-03	3.918849E-02 -7.574360E-03	7.242432E-05 -8.538870E-05	-1.667751E-04 -1.128220E-04	1.850085E-04 -6.484761E-05
2649	G	5.241806E-03 -6.108919E-04	3.127209E-02 -1.380800E-02	2.219981E-02 3.508551E-03	5.132090E-04 -2.539033E-04	-5.285618E-04 2.110328E-04	2.622481E-05 -6.162765E-05
2697	G	6.224484E-02 -1.252868E-02	-1.677487E-02 9.127650E-03	-8.841689E-03 8.939316E-03	-2.053534E-04 -3.298038E-04	1.144087E-03 -1.763033E-04	-1.638861E-03 1.797810E-04
19777	G	8.279954E-03 4.007926E-04	1.183082E-04 -1.330472E-03	4.806990E-03 2.239924E-03	-1.717898E-04 7.587531E-05	6.907661E-05 7.922201E-05	-4.150235E-05 1.087787E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -3.355287E-01, -1.371099E+02

C O M P L E X E I G E N V E C T O R N O 18  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-4.052788E-03 -9.154136E-04	-2.246086E-03 2.994392E-04	5.762804E-03 7.773228E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-3.950033E-03 -8.184081E-04	-7.818979E-04 -1.556579E-04	2.729753E-03 1.311439E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-3.339995E-03 2.403565E-04	4.788888E-04 -3.878008E-04	1.029527E-03 -2.856440E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-2.884502E-03 5.573139E-05	3.174650E-04 6.907194E-05	6.151882E-03 -1.152639E-03	0.0 0.0	-2.588328E-06 -4.173881E-05	-4.762744E-06 8.790032E-06
1007	G	-2.402552E-03 1.774441E-04	3.545278E-04 2.291807E-04	5.285289E-03 2.193262E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-1.943808E-03 1.031209E-03	-6.213799E-03 -6.858359E-04	-2.040150E-02 1.598984E-03	-3.162175E-04 4.843281E-06	1.367739E-04 5.136425E-05	4.506598E-06 -2.393735E-05
1013	G	-4.125009E-03 8.836772E-04	-6.213727E-03 -6.858345E-04	-2.053047E-02 1.781944E-04	3.293181E-04 2.288698E-05	1.367730E-04 5.136166E-05	-8.839515E-05 1.381344E-05
1017	G	-3.223080E-03 -3.239819E-04	2.958311E-04 1.347804E-04	8.585587E-03 -1.128091E-04	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-3.308922E-03 5.485718E-04	4.630514E-04 1.088309E-04	3.285992E-03 -1.070518E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-9.707557E-03 -2.374248E-04	-9.288485E-04 -7.459141E-05	7.720318E-03 -1.130720E-03	8.061252E-05 1.775517E-06	-2.045410E-04 -2.389451E-05	2.374374E-06 8.318348E-06
1022	G	2.348230E-03 1.434566E-04	3.262508E-04 2.460758E-05	7.982045E-03 -1.187418E-03	-5.402881E-05 -3.350144E-06	4.034838E-04 2.261689E-05	4.890039E-05 1.248779E-05
1023	G	3.391455E-01 -3.826402E-03	-7.107471E-01 6.647622E-03	-6.327743E-02 -1.589866E-03	9.401972E-03 2.648228E-05	8.340223E-05 2.658290E-05	2.249292E-02 -1.742552E-04
1024	G	3.401433E-01 -5.863785E-03	7.059358E-01 -9.283866E-03	-7.802674E-02 5.461084E-04	-9.285704E-03 5.089284E-05	-2.830481E-04 4.651314E-05	-2.230430E-02 2.762452E-04
1025	G	3.377105E-01 -3.883777E-03	1.000000E+00 0.0	-8.959533E-01 1.332184E-03	3.838193E-02 -1.685516E-05	1.189148E-02 -3.334038E-06	1.891492E-02 -2.289470E-06
1026	G	3.387031E-01 -6.007717E-03	-9.784819E-01 8.649302E-03	-8.789981E-01 6.022247E-03	-3.570262E-02 2.273056E-04	1.180284E-02 -5.491923E-05	-1.855415E-02 1.304015E-04
1028	G	-5.270802E-02 -5.047422E-03	1.278786E-03 -7.841304E-04	1.170224E-02 -2.144359E-05	9.853830E-04 1.838523E-04	-3.705985E-04 -1.423451E-05	2.421808E-03 4.213142E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -3.355287E-01, -1.371099E+02

C O M P L E X E I G E N V E C T O R N O 18  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-2.309449E-03 -1.174070E-03	1.855956E-03 -3.266273E-04	5.173535E-03 2.125628E-03	2.432513E-05 7.843159E-06	-2.395583E-05 -4.487058E-05	-4.133231E-05 4.977999E-06
2511	G	-3.312428E-03 4.538099E-04	-8.206591E-04 2.986808E-04	1.431981E-03 3.858946E-03	3.775509E-05 -8.574517E-06	1.000895E-04 -6.607600E-06	-8.454593E-05 4.608897E-06
2572	G	-3.915408E-03 -5.610740E-05	-6.154398E-03 -4.731411E-04	-1.580347E-02 6.006997E-04	-8.950672E-06 1.272871E-06	1.559298E-04 7.883921E-05	-2.785000E-05 -6.827502E-07
2649	G	-1.257214E-03 9.217008E-04	-5.398214E-03 4.987799E-04	-1.574613E-02 -5.589888E-03	-9.233746E-05 1.517803E-05	4.701340E-04 -5.970680E-05	8.153066E-05 2.885449E-05
2697	G	-2.838690E-02 -4.346798E-04	1.023719E-03 -9.525941E-04	-3.021723E-04 -2.463345E-03	6.800138E-04 1.784463E-04	-5.230733E-04 -5.265372E-05	1.104533E-03 1.817319E-04
18777	G	-2.980196E-03 -6.267880E-06	1.639810E-04 6.654708E-05	6.067539E-03 -1.155214E-03	7.810490E-05 2.383926E-06	-4.740559E-05 -3.937021E-05	-9.596193E-06 8.210292E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -7.666564E-01, -1.509125E+02

C O M P L E X E I G E N V E C T O R N O 19  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.195168E-03 -1.593045E-03	3.204824E-02 1.326618E-02	-3.988898E-03 -5.997258E-05	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.638498E-03 -1.905981E-03	1.201002E-02 1.980787E-04	1.224678E-03 4.173035E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.280882E-03 -6.533300E-04	-4.197850E-03 -8.214647E-03	-3.222244E-03 -1.621317E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	5.307277E-04 1.123004E-03	2.123186E-03 -1.185643E-03	-5.765259E-04 1.147888E-03	0.0 0.0	-8.800061E-05 -1.393747E-07	3.105568E-04 1.572232E-04
1007	G	6.815475E-04 5.233443E-04	1.485124E-02 6.351260E-03	-1.218261E-03 -3.304097E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	2.402239E-02 1.067899E-02	-2.008370E-02 3.318897E-03	-1.128365E-02 -8.843481E-03	-1.813610E-04 -2.260287E-04	-9.584480E-05 -5.506089E-05	-8.920549E-04 -4.434176E-04
1013	G	-2.602830E-02 -1.172780E-02	-2.008348E-02 3.318864E-03	-7.838622E-03 -1.980420E-03	1.671937E-04 -6.787470E-06	-9.565405E-05 -5.505961E-05	-1.030077E-03 -4.857889E-04
1017	G	-1.584034E-02 -1.078361E-02	4.373922E-03 4.318859E-04	2.284518E-02 -4.863040E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.858037E-02 1.030476E-02	4.588457E-03 4.439131E-04	-1.936122E-02 5.945411E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-3.345209E-03 -3.598494E-03	-4.499926E-03 2.391832E-04	2.287736E-03 9.127848E-04	2.035083E-04 -3.859484E-05	-1.310411E-04 -1.038562E-04	2.799959E-04 1.136633E-04
1022	G	8.888185E-04 8.370112E-04	1.473345E-03 -1.872196E-04	2.755642E-03 9.456657E-04	-2.471763E-04 3.434393E-05	1.889243E-04 1.552109E-04	3.494615E-04 1.188795E-04
1023	G	4.670862E-01 3.838109E-03	-9.460788E-01 1.488805E-02	-9.866396E-01 -7.610222E-05	-5.470398E-03 5.335235E-04	-2.966628E-02 1.952591E-04	2.716855E-02 4.920650E-04
1024	G	-4.648940E-01 -5.963878E-03	-9.483665E-01 1.527746E-02	1.000000E+00 0.0	-5.933126E-03 5.356967E-04	2.875727E-02 -2.084931E-04	2.721826E-02 -5.080173E-04
1025	G	4.831149E-01 3.362883E-03	-2.418373E-01 2.662814E-02	3.200664E-01 -1.889014E-02	-1.038237E-02 8.823220E-04	-1.105572E-02 3.889783E-04	-2.385474E-03 5.106398E-04
1026	G	-4.610332E-01 -5.465942E-03	-2.454105E-01 2.823632E-02	-3.218694E-01 1.885469E-02	-1.048395E-02 8.884280E-04	1.103353E-02 -3.759797E-04	-2.488679E-03 5.046934E-04
1028	G	-8.118242E-03 1.483499E-02	3.213805E-02 9.741238E-03	-4.448597E-02 -2.865675E-02	-4.280082E-03 -2.884151E-03	-1.744273E-04 -8.885628E-05	-3.349177E-04 -1.586332E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -7.666564E-01, -1.509125E+02

C D M P L E X E I G E N V E C T O R N O. 19  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	4.273496E-03 2.915041E-03	-1.153393E-02 -6.231848E-03	-2.465776E-04 2.220155E-04	2.327770E-04 2.247451E-05	4.692613E-04 2.750273E-04	3.909263E-04 2.713033E-04
2511	G	-3.028058E-03 1.334822E-04	2.297873E-02 1.348373E-02	-1.034786E-02 -3.220964E-03	3.290698E-04 5.501592E-05	1.104328E-04 6.305466E-05	-2.945837E-04 8.719638E-06
2572	G	4.402597E-04 3.321288E-04	-2.073451E-02 2.151057E-03	-6.800075E-03 -3.898236E-03	-1.539630E-04 -1.119807E-04	-9.802655E-05 -8.396857E-06	-5.601166E-04 -2.340543E-04
2649	G	2.092675E-04 1.932083E-04	-8.210844E-02 -3.203874E-02	1.197044E-02 8.076162E-03	-1.194156E-03 -5.360619E-04	-2.773482E-04 -4.049420E-04	-8.779692E-04 -5.567867E-04
2897	G	-1.518028E-02 -4.999308E-03	3.309842E-02 1.029041E-02	1.014832E-02 5.917638E-03	-2.834193E-03 -1.567251E-03	-3.147841E-04 -1.908666E-04	-5.776312E-04 -9.713545E-04
19777	G	9.140015E-04 1.308448E-03	1.582119E-03 -1.124972E-03	-9.005779E-04 1.175717E-03	3.000482E-04 -2.576944E-05	2.053974E-05 1.332254E-05	3.206503E-04 1.485035E-04

AH-1G THREE-DIMENSIONAL BUILTUP DYNAMICS MODEL W/ CONTROLS MODELED  
DIFFICULT COMPONENTS GVT CONFIGURATION #1 [FULL-UP]

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.459772E+00, -1.595334E+02

C D M P L E X E I G E N V E C T O R N O. 20  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-3.452835E-03 -3.350933E-03	3.671646E-02 9.806636E-03	1.409644E-02 2.820041E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-4.808984E-03 -3.265464E-03	-6.775757E-03 -3.464040E-03	2.375015E-02 6.858239E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.482190E-03 1.858886E-03	-3.598331E-02 -8.897481E-03	-2.568029E-03 -1.400851E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	3.231052E-03 1.328561E-03	-5.088842E-03 1.299978E-03	5.787868E-03 -3.654369E-03	0.0 0.0	-3.934382E-05 -2.417263E-04	9.177453E-05 2.283589E-04
1007	G	3.140551E-03 1.857619E-03	-4.144895E-03 9.078264E-03	6.830119E-03 1.178505E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	1.101598E-02 2.038101E-02	-1.490479E-02 -1.369187E-02	-4.822592E-02 -2.223773E-02	-1.341225E-03 -3.827769E-04	1.832764E-04 2.887226E-04	-3.137749E-04 -7.391518E-04
1013	G	1.931691E-03 -9.182482E-03	-1.480465E-02 -1.369185E-02	-1.741891E-02 -2.161669E-02	3.680241E-05 4.906898E-04	1.933041E-04 2.867102E-04	-3.584203E-05 -4.988523E-04
1017	G	-1.605634E-02 -1.413655E-02	-1.362080E-03 3.265814E-03	-6.033485E-02 3.996910E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.499215E-02 1.402280E-02	-1.541075E-03 3.190088E-03	6.152858E-02 -4.952772E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.730678E-02 -6.724501E-03	2.717896E-02 -2.587338E-04	9.264709E-04 -2.821818E-03	-1.188321E-03 6.235367E-05	-5.118968E-04 -3.084048E-04	4.680548E-05 2.018061E-04
1022	G	4.300358E-03 2.088952E-03	-8.238573E-03 2.088892E-04	9.630003E-04 -2.630681E-03	1.460071E-03 -3.513842E-05	7.868664E-04 3.775203E-04	-1.952977E-04 2.494266E-04
1023	G	-9.444087E-02 -8.038725E-02	-3.932340E-01 9.886188E-02	-2.480895E-01 7.970224E-02	1.249519E-02 1.593557E-04	-5.368490E-03 2.705686E-03	1.422573E-02 -3.081929E-03
1024	G	-1.288723E-01 3.088891E-03	-3.981885E-01 8.948926E-02	2.522837E-01 -6.901059E-02	1.267837E-02 4.401523E-04	5.471406E-03 -2.223393E-03	1.437285E-02 -2.668167E-03
1025	G	9.308679E-02 -4.017814E-02	9.987517E-01 -2.208080E-03	-8.795852E-01 1.118808E-02	3.835128E-02 -4.776885E-04	1.884844E-02 9.246230E-05	2.061333E-02 -2.448028E-04
1026	G	-1.272070E-01 3.087728E-03	1.000000E+00 0.0	8.833824E-01 -5.712267E-03	3.838413E-02 -3.848324E-04	-1.847731E-02 2.881220E-04	2.082122E-02 -3.800628E-06
1028	G	-8.006883E-02 -8.011448E-02	1.602803E-03 1.127852E-02	-2.138688E-02 -2.359828E-03	1.842344E-03 1.017017E-04	-5.585837E-04 -5.126177E-04	4.428707E-03 4.607671E-03

ORIGINAL PAGE IS  
OF POOR QUALITY

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.459772E+00, -1.595334E+02

C O M P L E X E I G E N V E C T O R N O. 20  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	6.422962E-03 3.121851E-05	-1.727402E-03 -5.318758E-03	7.219369E-03 1.200955E-02	-1.488394E-04 1.234752E-04	1.741235E-04 9.243652E-05	1.220455E-04 2.341663E-04
2511	G	3.121985E-03 1.271647E-03	-4.493692E-03 1.359283E-02	6.285733E-03 1.044566E-02	-2.354386E-04 9.402252E-05	1.274780E-04 1.222421E-04	-7.756459E-05 -1.018161E-04
2572	G	2.328351E-03 3.825297E-04	-1.800101E-02 -1.385370E-02	-2.308232E-02 -1.558077E-02	-3.284095E-04 -1.288022E-04	9.571809E-05 3.118578E-04	-1.114783E-04 -3.080951E-04
2649	G	5.630508E-03 6.077073E-03	-2.112622E-02 -4.257948E-02	-2.327159E-02 -2.258851E-02	-4.493417E-04 -6.518326E-04	8.577294E-04 1.550643E-04	5.091379E-05 -2.881205E-04
2697	G	-3.223222E-02 -3.192901E-02	1.467998E-03 1.085352E-02	6.982033E-05 -3.001153E-03	8.834835E-04 1.876776E-04	-7.242107E-04 -8.375655E-04	1.910790E-03 1.787338E-03
19777	G	3.132384E-03 1.238605E-03	-4.051857E-03 1.184497E-03	6.420818E-03 -3.736189E-03	-5.860662E-04 7.576825E-05	-9.989528E-05 -1.851757E-04	7.513309E-05 2.253335E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.519114E+01, -1.668800E+02

C O M P L E X E I G E N V E C T O R N O. 21  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	1.549482E-02 -5.175115E-04	5.133438E-02 2.925975E-02	-2.676538E-01 -1.972124E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	8.746764E-03 -1.790238E-03	1.652545E-02 -1.482919E-03	-6.210498E-03 1.283385E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.983397E-02 -7.127639E-03	-1.755608E-02 -2.126740E-02	1.191631E-01 6.902614E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.866431E-03 2.358678E-03	-1.591182E-02 -4.465065E-03	4.211308E-02 3.321961E-03	0.0 0.0	2.033943E-03 1.476269E-04	-4.043837E-05 3.532584E-04
1007	G	-9.138848E-03 6.333152E-04	1.830937E-03 1.075309E-02	-1.181243E-01 5.701755E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-3.821742E-02 2.773766E-02	1.158835E-01 1.068261E-02	1.199620E-01 -4.471370E-02	1.390538E-03 -1.908328E-03	-3.400888E-03 -2.974295E-04	5.715970E-04 -1.214484E-03
1013	G	-7.462835E-02 -2.437991E-02	1.158824E-01 1.068265E-02	1.984725E-01 -1.270302E-02	-5.211953E-03 6.416685E-04	-3.400561E-03 -2.973955E-04	-2.177193E-03 -8.216072E-04
1017	G	-1.207329E-02 -2.611739E-02	-1.313006E-02 -1.095132E-03	-5.661868E-02 -1.333526E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	5.480513E-03 2.137803E-02	-1.236037E-02 -1.420794E-03	7.847585E-02 1.755020E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-7.128097E-03 -6.014666E-03	-7.104949E-03 5.421493E-03	3.701081E-02 6.308802E-04	-1.044152E-04 -3.830273E-04	5.398800E-04 -3.506208E-05	-2.444014E-04 2.264113E-04
1022	G	-2.153167E-03 4.334974E-04	4.868970E-04 -2.088470E-03	3.874298E-02 3.289262E-04	-8.624391E-05 3.775214E-04	-2.849777E-04 1.391802E-04	-2.940631E-04 1.458986E-04
1023	G	1.088775E-01 1.842142E-02	-1.798890E-02 -2.804962E-02	-1.145014E-01 -3.828714E-02	3.535898E-03 3.173433E-03	-4.412537E-03 -4.148983E-04	1.105359E-03 1.326785E-03
1024	G	1.088483E-01 3.828103E-02	1.883030E-02 1.629148E-01	7.849213E-03 -1.402148E-01	1.483013E-03 3.207713E-03	-8.250338E-04 -4.979085E-03	-1.804493E-03 -4.731107E-03
1025	G	1.082643E-01 1.832960E-02	8.491320E-02 2.082365E-01	-1.309809E-01 -1.792777E-02	4.917179E-03 7.857735E-03	2.012840E-03 3.482263E-03	3.311448E-03 4.314667E-03
1026	G	1.080921E-01 3.770157E-02	1.361770E-01 1.881594E-01	1.186617E-01 1.858468E-01	5.139855E-03 6.911125E-03	-4.675090E-03 -3.787882E-03	2.789597E-03 3.886781E-03
1028	G	1.000000E+00 0.0	5.854274E-02 2.246847E-02	-3.558635E-01 -4.072580E-02	-3.952385E-02 -3.397248E-02	3.788128E-03 1.901347E-04	-6.840789E-02 1.352819E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -1.519114E+01, -1.568800E+02

C O M P L E X E I G E N V E C T O R N O. 21  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	4.832967E-02 1.086265E-02	-9.950472E-03 -9.692329E-03	-1.146276E-01 1.033763E-03	-4.654651E-04 7.892843E-05	2.523473E-03 6.631416E-04	8.124535E-04 5.340798E-04
2511	G	-1.366518E-02 -7.150224E-05	3.687614E-02 2.720543E-02	-1.521133E-01 -1.350126E-02	2.123328E-04 1.734094E-04	-4.043181E-04 1.803135E-04	5.522878E-04 5.900882E-05
2572	G	5.261918E-03 3.724385E-03	1.042360E-01 5.392449E-03	1.104487E-01 -9.980077E-03	-2.533408E-04 -2.620076E-04	-3.228052E-03 -7.708457E-04	-2.786320E-04 -6.105858E-04
2649	G	-4.983080E-02 -5.880721E-03	-4.734654E-02 -9.166602E-02	3.371377E-01 2.515680E-02	-1.084478E-03 -1.535288E-03	-8.233205E-03 2.424673E-03	-4.137757E-03 -1.527221E-03
2697	G	2.447733E-01 7.183763E-03	6.720472E-02 2.744327E-02	1.190434E-01 5.182639E-03	-2.415578E-02 -3.562258E-03	5.510395E-03 6.344660E-04	-3.073380E-02 -6.073240E-04
19777	G	4.908174E-03 2.943808E-03	-1.523441E-02 -4.183899E-03	4.260352E-02 3.497015E-03	-4.541073E-04 -1.620865E-04	1.628705E-03 1.449289E-04	-4.530176E-05 3.002371E-04

AM-1G THREE-DIMENSIONAL BUILTUP DYNAMICS MODEL W/ CONTROLS MODELED  
DIFFICULT COMPONENTS GVT CONFIGURATION #1 (FULL-UP)

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -1.086592E+01, -1.740543E+02

C O M P L E X E I G E N V E C T O R N O. 22  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-3.931059E-02 -1.275378E-02	2.425796E-01 -3.774058E-02	1.538531E-01 -1.245450E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-4.312480E-02 -1.038898E-02	-2.953885E-03 2.318461E-03	8.525743E-02 -3.783558E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-2.553867E-03 -6.135333E-03	-1.558792E-01 3.398407E-02	-9.712119E-02 5.023858E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	2.817635E-02 -1.863973E-02	-1.051403E-02 -1.078961E-02	2.136952E-03 -2.153146E-03	0.0 0.0	-1.400571E-03 -1.768185E-04	3.595678E-03 -4.320404E-04
1007	G	3.208637E-02 -2.008527E-02	1.488599E-01 -2.423808E-02	4.107486E-02 2.819087E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	3.185161E-01 -7.388732E-02	-1.687491E-02 3.322956E-02	-3.289352E-01 1.862284E-02	-8.880336E-03 1.312986E-03	-1.782473E-04 9.185460E-04	-1.272182E-02 3.030164E-03
1013	G	-2.392037E-01 2.161003E-02	-1.867506E-02 3.322931E-02	-1.700225E-01 -8.161791E-03	3.115805E-03 -7.478843E-06	-1.781838E-04 9.185045E-04	-1.113516E-02 1.514703E-03
1017	G	-2.207461E-01 1.699342E-02	2.305150E-02 -1.734713E-02	8.558487E-03 3.499606E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	2.289298E-01 -4.578408E-02	2.415085E-02 -1.804247E-02	2.157896E-02 -2.805551E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.716188E-01 1.708960E-01	-6.278164E-02 4.221501E-02	2.161023E-02 -2.294086E-02	2.230929E-03 -2.451913E-03	-6.072086E-03 6.275608E-03	2.794623E-03 -2.570216E-04
1022	G	4.349172E-02 -4.202877E-02	1.830874E-02 -1.304267E-02	2.255743E-02 -2.425468E-02	-2.844445E-03 2.388026E-03	8.201468E-03 -8.242234E-03	4.169318E-03 -1.615570E-03
1023	G	-1.818831E-01 -1.893773E-01	9.441835E-01 1.983352E-01	5.694442E-01 1.852199E-01	-1.445888E-04 -2.593808E-03	2.382597E-02 4.133027E-03	-3.203429E-02 -5.708197E-03
1024	G	3.057237E-03 2.409213E-01	1.006000E+00 0.0	-6.772352E-01 4.126701E-02	1.629298E-03 -3.426755E-03	-2.278857E-02 3.222923E-03	-3.277764E-02 7.139888E-04
1025	G	-1.786142E-01 -1.878806E-01	-2.357568E-01 -2.424109E-01	3.540301E-01 1.443453E-01	-1.390881E-02 -7.622621E-03	-5.980952E-03 -3.921189E-04	-4.575817E-03 -8.421115E-03
1026	G	3.800137E-04 2.396181E-01	-2.518919E-01 -2.922268E-01	-3.282667E-01 -1.458456E-01	-1.436802E-02 -8.924137E-03	7.378717E-03 -6.186800E-04	-4.038698E-03 -8.361955E-03
1028	G	-1.088709E-01 -1.055888E-01	2.246814E-01 -3.297794E-02	-4.504408E-01 4.355082E-02	-4.785300E-02 5.624442E-03	-4.224189E-03 -5.557708E-04	-7.219320E-03 5.780907E-03

ORIGINAL PAGE IS  
OF POOR QUALITY

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.088592E+01, -1.740543E+02

C O M P L E X E I G E N V E C T O R N O. 22  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	8.624864E-02 -6.428509E-02	-7.617266E-02 8.689521E-04	4.868152E-02 2.626891E-02	1.372473E-03 -4.761734E-04	4.753413E-03 -1.570238E-03	4.756244E-03 -5.619208E-04
2511	G	2.029303E-02 -1.090228E-02	2.806170E-01 -3.209461E-02	-4.517455E-02 6.126163E-02	1.756814E-03 -6.061812E-04	1.857481E-03 -1.209001E-04	-7.685955E-05 5.457164E-04
2572	G	2.956273E-02 -2.723659E-02	-4.020357E-02 3.531858E-02	-1.597419E-01 -7.618405E-03	-2.394827E-03 1.986916E-04	-2.378157E-04 1.721352E-03	-5.391237E-03 6.441985E-04
2649	G	4.249853E-02 -1.008599E-02	-7.501295E-01 8.216822E-02	5.687973E-02 -6.802774E-02	-1.225802E-02 9.979008E-04	-3.538400E-03 -1.066164E-03	-1.077783E-02 7.293329E-04
2697	G	-2.406023E-01 -4.197073E-02	2.341125E-01 -3.474582E-02	1.247154E-01 -3.983150E-02	-2.687330E-02 4.526401E-03	-7.130774E-03 -1.279954E-03	-9.019703E-03 2.979741E-03
19777	G	3.019718E-02 -1.911051E-02	-1.230013E-02 1.008487E-02	1.109235E-03 -1.768298E-03	9.515896E-04 -3.563403E-04	-9.501801E-04 -9.689752E-05	3.454751E-03 -3.570077E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.163284E-01, -1.802248E+02

C O M P L E X E I G E N V E C T O R N O. 23  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.027405E-03 5.934629E-04	1.088957E-03 6.066961E-04	2.640061E-03 -6.317996E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-1.985912E-03 4.815043E-04	-3.788225E-04 3.112136E-04	1.030902E-03 -4.348551E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.021202E-03 -6.282165E-05	-1.124003E-03 -4.750577E-05	-3.089847E-04 2.944258E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-2.148871E-03 -2.225656E-04	3.668985E-04 -4.485082E-04	-3.910654E-03 7.775560E-04	0.0 0.0	-4.784615E-05 4.031014E-05	3.235624E-05 -5.755158E-06
1007	G	-2.195978E-03 -8.319939E-04	1.517055E-03 -1.374229E-04	-1.629715E-03 -2.003738E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-3.293765E-04 -1.954245E-03	-1.243410E-03 1.796240E-03	-5.315037E-04 2.708909E-03	-1.628984E-05 5.284728E-05	4.448379E-05 -3.012934E-05	-3.564082E-05 5.004957E-05
1013	G	-4.678604E-03 -1.895214E-03	-1.243370E-03 1.796229E-03	8.475878E-04 4.317920E-03	-2.743044E-05 -1.251595E-04	4.448375E-05 -3.012733E-05	-1.552805E-04 -5.072855E-05
1017	G	-3.380998E-03 -2.944452E-05	6.378863E-04 -4.210260E-04	-3.392891E-03 -8.330547E-04	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	4.891787E-04 -1.441214E-04	5.787524E-04 -4.197389E-04	-2.703406E-03 9.472905E-04	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.332867E-02 3.702105E-03	2.758853E-04 7.180897E-04	-3.438107E-03 2.154742E-04	1.820576E-05 -4.672592E-05	-3.480681E-04 1.402662E-04	2.337912E-05 -6.091162E-06
1022	G	2.738792E-03 -8.811480E-04	-2.356807E-05 -2.425025E-04	-3.629884E-03 2.781588E-04	5.770788E-06 4.367727E-05	5.409654E-04 -1.858994E-04	7.315680E-05 -3.451685E-05
1023	G	2.525639E-01 1.844072E-03	8.806843E-01 4.724387E-04	1.000000E+00 0.0	1.881581E-03 8.635336E-05	3.261281E-02 -3.259285E-05	-2.804274E-02 1.879879E-06
1024	G	2.482804E-01 3.754451E-03	-8.552425E-01 4.721324E-03	8.788361E-01 4.637808E-03	-1.864352E-03 2.241632E-05	3.187816E-02 1.311555E-04	2.818823E-02 1.335636E-04
1025	G	2.541802E-01 2.148709E-03	8.013634E-02 3.140674E-03	3.232825E-02 -4.186899E-03	1.070385E-03 1.579889E-04	-5.201531E-03 7.660980E-05	5.630423E-03 9.093733E-05
1026	G	2.498291E-01 4.060826E-03	-9.332764E-02 3.229821E-03	2.447894E-02 3.787357E-03	-1.331802E-03 1.671208E-04	-4.948430E-03 -1.513369E-04	-5.815255E-03 4.452060E-05
1028	G	-1.413540E-02 1.023570E-02	2.560748E-04 8.457805E-05	-9.457389E-04 -3.934015E-03	1.341971E-04 -4.082920E-04	-2.286878E-05 4.847107E-05	9.797017E-04 -7.122331E-04

CONFIDENTIAL  
NO FORN DISSEM

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.183284E-01, -1.802248E+02

C O M P L E X E I G E N V E C T O R N O  
(REAL/IMAGINARY) 23

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-6.433208E-03 -1.892645E-03	-1.728232E-03 -2.524902E-04	-1.824225E-03 -2.012764E-03	-2.161973E-05 -3.148086E-05	-6.672774E-05 -7.496998E-06	3.530414E-05 4.776718E-06
2511	G	-1.826005E-03 -7.830357E-04	2.259387E-03 2.834619E-04	1.672610E-03 -1.115658E-03	-5.998628E-06 -1.383195E-06	-2.089633E-05 -1.550403E-05	-1.643595E-05 2.181689E-06
2572	G	-2.103651E-03 -8.427720E-04	-1.415793E-03 1.578528E-03	5.984494E-05 2.187681E-03	-2.696714E-05 -1.112215E-05	5.748739E-05 -5.129962E-06	-3.961230E-05 3.009723E-06
2649	G	-1.358620E-03 -1.323016E-03	-4.715570E-03 4.878966E-04	-4.157414E-03 3.294867E-03	-6.926227E-05 -2.652884E-06	9.683447E-05 -4.331507E-05	-2.599705E-05 -3.812148E-05
2697	G	-3.883303E-03 2.343236E-03	1.136363E-04 1.023442E-04	-2.764280E-03 8.107130E-04	1.482418E-04 -2.076594E-04	-6.401593E-05 5.314653E-05	3.578156E-04 -3.223148E-04
19777	G	-1.997080E-03 -1.546942E-04	4.327832E-04 -4.212939E-04	-3.883052E-03 7.956280E-04	-2.555724E-05 -1.673335E-05	5.413999E-05 3.946541E-05	5.031412E-05 -2.931769E-06

AH-1G THREE-DIMENSIONAL BUILTUP DYNAMICS MODEL W/ CONTROLS MODELED  
DIFFICULT COMPONENTS GVT CONFIGURATION #1 (FULL-UP)

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -9.500438E+00, -1.877942E+02

C O M P L E X E I G E N V E C T O R N O  
(REAL/IMAGINARY) 24

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-7.253062E-02 3.968068E-02	3.723782E-01 3.920957E-02	-2.368620E-01 -2.878566E-01	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-8.386898E-02 3.287666E-02	2.866696E-02 6.233837E-03	3.851139E-02 4.604422E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-6.980026E-02 -4.153995E-03	-2.134987E-01 -1.286942E-02	2.521182E-02 1.273110E-01	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-5.985199E-02 -4.471525E-02	-6.561727E-02 -2.451744E-02	3.816814E-02 -1.475913E-02	0.0 0.0	-2.084235E-03 -2.347577E-04	4.493775E-03 6.732663E-04
1007	G	-7.017355E-02 -7.848148E-02	1.842150E-01 3.081752E-02	7.958627E-02 4.028294E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	2.178750E-01 -4.487468E-02	3.138713E-02 3.118763E-02	-4.148153E-01 -3.986395E-02	-1.334162E-02 -9.153471E-04	1.221790E-03 2.559014E-03	-1.170013E-02 8.478983E-05
1013	G	-4.781754E-01 -1.657998E-01	3.138776E-02 3.118804E-02	-1.035414E-01 6.877880E-02	8.185955E-04 -2.880642E-03	1.222038E-03 2.559045E-03	-1.934925E-02 -4.972005E-03
1017	G	-3.552318E-01 -8.564249E-02	-1.941796E-02 -1.566552E-02	7.896917E-02 -7.435218E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	2.283517E-01 2.921190E-02	-1.874894E-02 -1.780744E-02	2.260768E-02 -2.178057E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	5.766954E-01 4.581979E-01	5.515231E-02 6.174419E-02	-4.319212E-02 -7.278778E-02	-5.930979E-03 -3.840583E-03	2.199834E-02 1.577307E-02	3.980205E-03 6.437014E-04
1022	G	-1.442822E-01 -1.128054E-01	-2.320589E-02 -1.985347E-02	-4.823202E-02 -7.888035E-02	4.345531E-03 3.523881E-03	-2.855441E-02 -2.174110E-02	2.551254E-05 -2.272565E-03
1023	G	9.837792E-02 -1.767861E-01	1.000000E+00 0.0	8.485054E-01 -1.334709E-01	4.820379E-03 1.594825E-03	2.958246E-02 -6.876278E-03	-3.527540E-02 1.186428E-03
1024	G	8.187209E-02 3.179023E-01	6.872132E-01 3.095282E-02	-4.251283E-01 3.224247E-02	1.950526E-03 -1.285213E-03	-1.616983E-02 1.571950E-03	-2.477268E-02 -1.642978E-03
1025	G	9.932674E-02 -1.785642E-01	5.083218E-02 -7.000806E-02	1.789413E-01 -3.858993E-02	-2.348212E-03 -7.000584E-04	-5.914815E-03 4.583919E-03	5.582728E-03 -3.085119E-03
1026	G	7.905521E-02 3.158568E-01	-1.402388E-01 -1.075503E-01	-1.897198E-01 -1.291430E-02	-7.845839E-03 -2.522604E-03	1.672303E-03 -4.558548E-03	-1.580389E-03 -4.245256E-03
1028	G	-4.431159E-01 -5.475677E-01	1.863008E-01 -7.238559E-04	-5.443584E-01 -7.077882E-02	-5.111416E-02 1.247486E-03	-4.729526E-03 -2.095189E-03	1.301138E-02 3.323327E-02

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -9.500438E+00, -1.877942E+02

C O M P L E X E I G E N V E C T O R N O. 24  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1025	G	-1.376209E-01 -2.574575E-01	-8.055024E-02 -4.459824E-02	5.280145E-02 3.803726E-02	-6.568836E-04 -1.849338E-03	2.196536E-03 -3.290328E-03	5.307521E-03 1.071406E-03
2511	G	-7.605089E-02 -6.332314E-02	3.336469E-01 7.611481E-02	6.146740E-02 1.814047E-01	7.292881E-04 -1.473002E-03	1.821873E-03 -2.234872E-04	-4.085400E-04 1.127091E-04
2572	G	-8.361421E-02 -1.017116E-01	-7.848373E-03 1.525248E-02	-1.535554E-01 -3.463576E-03	-3.709941E-03 -1.707858E-03	1.626067E-03 4.736716E-03	-5.976284E-03 -1.361617E-03
2649	G	-5.468100E-02 -5.862847E-02	-8.088802E-01 -1.844119E-01	-4.957742E-02 -1.837891E-01	-1.368087E-02 -3.755224E-03	3.619710E-03 5.801049E-03	-1.201082E-02 -2.514207E-03
2857	G	-3.778589E-01 -2.115424E-01	1.848452E-01 -5.776152E-03	4.322984E-02 -1.007034E-01	-2.400673E-02 4.592135E-03	-8.980916E-03 -5.127948E-03	-3.384247E-03 1.147607E-02
19777	G	-5.417817E-02 -4.116026E-02	-6.531613E-02 -2.191698E-02	3.894706E-02 -1.333052E-02	-7.212191E-04 -1.322783E-03	9.413727E-05 1.260840E-03	5.096643E-03 1.190261E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.222372E+00, -2.011526E+02

C O M P L E X E I G E N V E C T O R N O. 25  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-7.701222E-03 -9.484904E-03	4.168251E-02 -5.973189E-04	3.485427E-02 2.966992E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-7.248889E-03 -7.593356E-03	5.517263E-03 2.167315E-03	-3.889741E-03 -1.554616E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-2.174227E-03 -2.507758E-03	-2.373127E-02 3.036158E-03	-2.350282E-02 -1.361848E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.834718E-03 -1.320063E-04	-2.709915E-02 -1.337378E-02	-7.212757E-03 6.092962E-04	0.0 0.0	-2.727028E-04 3.314170E-05	6.486377E-04 -8.863561E-05
1007	G	3.145747E-03 2.359514E-03	2.139868E-03 -1.850086E-02	1.129557E-03 -2.301596E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	2.522831E-02 -2.292194E-02	1.183708E-02 5.362571E-03	-5.147770E-04 2.136376E-02	3.053579E-04 9.015820E-04	-5.238437E-05 -1.229434E-04	-1.086499E-03 1.086674E-03
1013	G	-1.555471E-02 2.764136E-02	1.183678E-02 5.362446E-03	-3.687121E-02 -2.252480E-02	1.440582E-03 9.696637E-04	-5.244082E-05 -1.228884E-04	-8.200146E-04 1.214869E-03
1017	G	-2.364658E-02 1.371819E-02	-2.578048E-02 -1.692657E-02	9.768832E-02 4.895463E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	2.984863E-02 -1.263759E-02	-2.515099E-02 -1.665557E-02	-8.176358E-02 4.131336E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-2.086383E-02 5.157104E-04	8.226582E-02 4.390063E-02	5.948359E-03 5.744984E-03	-4.764152E-03 -2.628110E-03	-7.871159E-04 1.117821E-04	7.257319E-04 1.991844E-05
1022	G	6.354295E-03 3.684310E-04	-2.628668E-02 -1.399240E-02	6.364101E-03 6.138853E-03	4.982571E-03 2.641257E-03	1.268188E-03 5.896887E-05	-3.137830E-04 -5.934546E-04
1023	G	-6.918653E-01 5.399525E-03	-8.178806E-01 -2.624842E-02	-9.778027E-01 1.821219E-02	-2.912817E-03 -6.339975E-04	-3.435849E-02 7.738021E-04	2.852481E-02 6.624706E-04
1024	G	6.897297E-01 -4.509557E-03	-8.268342E-01 -3.490143E-02	1.000000E+00 0.0	-2.853905E-03 -4.908214E-04	3.541845E-02 7.860010E-05	2.906240E-02 1.116757E-03
1025	G	-6.918653E-01 5.279265E-03	-2.504839E-01 -2.161365E-02	-5.309228E-02 9.110609E-03	-5.485795E-03 -5.198557E-04	1.149228E-02 -4.673786E-04	-1.393679E-02 -5.218726E-04
1026	G	6.895875E-01 -4.333725E-03	-2.548832E-01 -2.671968E-02	5.888102E-02 -5.003323E-03	-5.538259E-03 -6.167979E-04	-1.188289E-02 2.520768E-04	-1.409773E-02 -7.319366E-04
1028	G	1.962479E-02 6.090279E-02	1.538442E-02 -6.554498E-03	-4.878579E-02 8.078260E-03	-5.458456E-03 2.645859E-04	-3.120843E-04 1.176418E-04	-2.774530E-03 -4.621006E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.222372E+00, -2.011528E+02

C O M P L E X E I G E N V E C T O R N O. 25  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	5.723573E-03 7.130864E-03	5.140485E-03 8.890931E-03	7.856077E-05 -3.172935E-03	2.848729E-04 1.608091E-04	-1.851832E-04 -3.625221E-04	1.808999E-05 -5.177840E-04
2511	G	4.123052E-03 3.064219E-03	1.872172E-02 -2.433854E-02	-8.834543E-03 -9.186468E-03	4.181880E-04 1.767340E-04	1.397240E-04 -2.916587E-05	2.279832E-04 1.223383E-04
2572	G	3.053483E-03 2.776824E-03	1.505955E-02 1.008641E-02	-9.980060E-03 -3.816755E-04	1.882247E-04 4.420108E-04	2.429113E-05 -8.248668E-05	-2.975440E-04 3.968241E-04
2649	G	3.937288E-03 9.867614E-04	-4.381814E-02 4.648003E-02	1.054532E-02 1.088192E-02	-6.315796E-04 8.249744E-04	-5.870879E-04 -7.141766E-04	-9.341942E-04 4.578477E-04
2697	G	-1.571866E-02 1.386822E-02	1.585002E-02 -6.203235E-03	1.389378E-02 5.776102E-03	-2.533423E-03 1.301010E-05	-6.578386E-04 2.214503E-04	-1.688917E-03 -1.433741E-03
19777	G	2.274300E-03 -5.068706E-04	-2.820722E-02 -1.389828E-02	-8.021271E-03 2.457462E-04	7.486244E-04 3.366203E-04	-1.306846E-04 -1.198141E-04	6.248267E-04 -1.474064E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.018945E+00, -2.041893E+02

C O M P L E X E I G E N V E C T O R N O. 26  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-3.222492E-02 -2.369398E-03	1.053244E-01 -3.977431E-02	7.532788E-02 -2.997128E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.984723E-02 -1.991728E-03	1.285782E-02 -1.078603E-02	-2.383126E-02 6.271925E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.330997E-02 -1.397305E-03	-5.460837E-02 1.868560E-02	-5.762319E-02 2.082227E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-9.867978E-04 -4.480325E-03	-9.539800E-02 5.103737E-02	-1.133691E-02 1.618319E-02	0.0 0.0	-2.536869E-04 1.049363E-04	6.889998E-04 -2.736819E-04
1007	G	5.749588E-03 -6.127468E-03	-6.894219E-02 3.400154E-02	-2.202638E-02 1.255479E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-7.089150E-02 1.503208E-02	-3.186709E-02 -7.884417E-03	1.932915E-01 -8.119403E-02	8.370277E-03 -3.545188E-03	-5.727240E-04 1.428222E-04	3.333218E-03 -8.806828E-04
1013	G	8.043501E-02 -4.163596E-02	-3.188852E-02 -7.884133E-03	-1.410098E-01 5.458007E-02	6.745605E-03 -2.672384E-03	-5.731498E-04 1.427027E-04	3.595627E-03 -1.722538E-03
1017	G	7.363891E-03 -1.867585E-02	-1.063194E-01 5.828448E-02	3.644789E-01 -1.775324E-01	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	2.930468E-03 -3.319767E-04	-1.046152E-01 5.752981E-02	-3.328388E-01 1.793798E-01	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.732407E-02 5.831324E-02	2.688194E-01 -1.278156E-01	2.858457E-02 -1.077840E-02	-1.628897E-02 7.828602E-03	-3.817630E-04 2.289408E-03	1.284512E-03 -8.362197E-04
1022	G	7.585088E-03 -1.847179E-02	-8.753703E-02 4.221028E-02	3.061535E-02 -1.158925E-02	1.864050E-02 -8.069454E-03	1.504830E-03 -3.314456E-03	-2.501750E-03 1.051508E-03
1023	G	5.290224E-01 3.678775E-02	6.718097E-01 6.574186E-02	1.000000E+00 0.0	-1.895813E-03 1.779633E-03	3.512476E-02 -3.473165E-04	-2.537191E-02 -1.679469E-03
1024	G	-5.352190E-01 -2.183807E-02	6.841451E-01 3.619880E-02	-9.938848E-01 3.611585E-02	-1.351851E-03 1.459187E-03	-3.512129E-02 1.365928E-03	-2.530828E-02 -7.840448E-04
1025	G	5.298068E-01 3.882822E-02	-5.855151E-02 1.154348E-01	2.283919E-01 -5.187610E-02	-5.398858E-03 3.844727E-03	-1.476889E-02 1.106986E-03	4.883892E-03 3.343587E-03
1026	G	-5.358383E-01 -2.167603E-02	-6.278019E-02 9.888620E-02	-2.200057E-01 5.317344E-02	-5.428239E-03 3.361028E-03	1.407772E-02 -1.358860E-03	4.614861E-03 2.806181E-03
1028	G	1.244952E-01 -6.882902E-02	-8.715324E-03 -1.949488E-04	5.772870E-02 1.137002E-03	4.900075E-03 8.246154E-04	1.087035E-03 -1.334077E-04	-6.771270E-03 5.030880E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.018945E+00, -2.041893E+02

C O M P L E X E I G E N V E C T O R N O. 26  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.623570E-02 -3.763935E-03	4.678627E-02 -2.583557E-02	-2.718620E-02 1.573698E-02	1.443554E-03 -5.972509E-04	-2.051434E-03 1.383303E-03	-2.241325E-03 1.093302E-03
2511	G	3.725432E-03 -1.060500E-02	-7.581076E-02 2.835810E-02	-6.387866E-02 1.910831E-02	1.981820E-03 -6.564759E-04	-1.525263E-04 1.011282E-04	-2.474631E-04 -4.760885E-04
2572	G	9.817129E-03 -7.652565E-03	3.158329E-03 -2.099365E-02	1.411856E-02 -6.736397E-03	2.599183E-03 -1.018957E-03	-7.087014E-04 1.231303E-05	1.157984E-03 -4.312101E-04
2649	G	-4.876182E-04 -7.120167E-03	1.351307E-01 -4.403074E-02	3.663852E-02 -1.424028E-02	3.409974E-03 -1.007617E-03	-1.439728E-03 1.501204E-03	2.152316E-03 -3.049504E-04
2697	G	6.637869E-02 -1.825127E-02	-6.332915E-03 4.053239E-05	4.713053E-03 -8.247482E-03	1.453184E-03 3.641803E-04	2.017707E-03 -7.565025E-05	-1.008151E-03 1.587308E-03
19777	G	-8.858224E-04 -4.693504E-03	-9.977400E-02 5.312454E-02	-1.432848E-02 1.768514E-02	2.770895E-03 -1.380695E-03	-2.969873E-04 2.678168E-05	5.884745E-04 -2.361148E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.190737E+01, -2.249127E+02

C O M P L E X E I G E N V E C T O R N O. 27  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-1.743801E-01 -1.694476E-03	-9.334811E-03 -1.822033E-02	4.540230E-01 -8.579192E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-1.508294E-01 -1.759524E-03	2.092362E-02 7.303764E-03	-1.578242E-01 -5.474717E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-7.243070E-02 7.639653E-03	2.963674E-02 1.359013E-02	-2.180584E-01 4.689415E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-2.287961E-02 -2.695065E-03	-5.872228E-03 -1.131813E-03	7.355181E-02 -3.971093E-04	0.0 0.0	-8.398544E-04 1.854315E-04	-8.231489E-04 -2.168857E-04
1007	G	1.086135E-02 4.580768E-03	-4.305369E-02 1.055845E-03	1.011844E-01 1.756745E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-3.814843E-02 5.889018E-02	1.528672E-01 5.602207E-02	-6.741823E-01 -5.136133E-02	-2.705368E-02 7.167800E-05	-1.279321E-03 4.007016E-04	1.812294E-03 -2.800707E-03
1013	G	3.285508E-02 -3.742134E-03	1.525534E-01 5.802110E-02	-3.897862E-01 1.218647E-01	1.194578E-02 -7.857650E-03	-1.278742E-03 4.009174E-04	1.537978E-03 -2.876530E-04
1017	G	-6.383263E-03 2.677812E-02	-9.301358E-03 -5.986611E-03	-7.545211E-02 -1.648449E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.250302E-01 2.543176E-03	-1.059826E-02 -1.225136E-03	2.024114E-01 5.036400E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	1.721291E-01 7.405064E-02	-2.022304E-02 -1.712888E-02	4.068385E-02 -1.980810E-02	3.758310E-04 7.687080E-04	8.437267E-03 2.811273E-03	-5.387477E-04 -3.436439E-04
1022	G	-4.292948E-02 -1.962562E-02	4.482084E-03 4.931232E-03	4.388885E-02 -2.229587E-02	-9.204243E-04 -9.634054E-04	-9.212381E-03 -3.863481E-03	-1.438018E-03 -5.023288E-04
1023	G	8.731429E-02 8.305595E-02	9.080103E-02 9.543528E-02	3.231055E-01 1.015165E-01	-9.702851E-04 1.682184E-03	1.405643E-02 2.702491E-03	-4.581720E-03 -3.023222E-03
1024	G	-5.124328E-02 -6.940848E-02	-1.359841E-01 1.557899E-02	1.593870E-01 -3.812311E-02	1.511807E-03 5.875835E-04	7.217924E-03 -1.816507E-03	6.857414E-03 -1.164018E-03
1025	G	8.793859E-02 8.304677E-02	1.886715E-01 8.311010E-02	-2.327658E-02 -7.017185E-02	7.112582E-03 3.603620E-03	-1.880234E-03 1.082888E-03	5.482870E-03 2.851484E-03
1026	G	-5.030070E-02 -6.911417E-02	-4.185107E-02 7.398318E-02	1.384787E-01 4.273873E-02	2.018919E-03 3.107616E-03	-4.489432E-03 -1.785789E-05	-1.981394E-03 2.861169E-03
1028	G	1.000000E+00 0.0	7.263888E-02 3.111127E-03	-4.946347E-01 -5.050847E-02	-8.824640E-02 -3.972242E-03	-5.489849E-03 -8.936563E-04	-1.088520E-01 -1.188569E-03

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.190737E+01, -2.249127E+02

POINT ID	TYPE	C O M P L E X		E I G E N V E C T O R		NO.	[REAL/IMAGINARY]		
		T1	T2	T3	R1		R2	R3	
1029	G	2.264162E-01 -7.260937E-02	3.278990E-02 -1.141710E-02	1.031872E-01 2.583950E-03	9.572598E-04 -1.090727E-03	27	4.193725E-03 -1.466342E-03	1.337898E-04 1.484477E-04	
2511	G	1.295535E-02 1.530803E-02	-3.821158E-02 1.705014E-02	-5.979332E-02 5.137721E-02	1.589957E-04 -1.338431E-03		1.827314E-03 1.856618E-04	8.838252E-04 1.748188E-03	
2572	G	1.527551E-02 4.518810E-03	1.288273E-01 3.499523E-02	-2.354095E-01 -3.612935E-02	-4.473383E-04 -1.289208E-03		-8.993945E-04 5.421441E-04	5.757074E-04 -4.783455E-04	
2649	G	7.735196E-03 1.545601E-02	4.976830E-03 -7.938206E-02	1.901462E-01 -1.332334E-02	-1.862621E-03 -2.211783E-03		-3.637526E-03 -5.228966E-03	-4.580001E-03 -2.110835E-03	
2697	G	-2.064455E-01 -2.741625E-02	8.774601E-02 1.370860E-02	2.727487E-01 -2.310761E-03	-3.201292E-02 -4.226282E-03		-9.824678E-03 -1.289072E-03	-4.437141E-02 -1.730141E-03	
19777	G	-3.004055E-02 1.931467E-03	-4.972294E-03 5.563999E-04	7.435987E-02 5.790206E-04	-7.481971E-04 -9.038240E-04		-3.100695E-03 4.753934E-04	-1.462677E-03 -8.528760E-05	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.746958E+01, -2.478996E+02

POINT ID	TYPE	C O M P L E X		E I G E N V E C T O R		NO.	[REAL/IMAGINARY]		
		T1	T2	T3	R1		R2	R3	
1001	G	-4.403485E-02 -5.177730E-02	5.127575E-02 5.142360E-02	-2.188185E-02 2.849184E-02	0.0 0.0	28	0.0 0.0	0.0 0.0	
1003	G	-4.572966E-02 -4.843298E-02	-8.011785E-03 -4.518020E-03	9.005034E-03 -1.292129E-02	0.0 0.0		0.0 0.0	0.0 0.0	
1004	G	-4.244688E-02 -3.135659E-02	-4.209841E-02 -3.372970E-02	-1.508432E-02 -2.843319E-02	0.0 0.0		0.0 0.0	0.0 0.0	
1006	G	-2.485534E-02 -8.940684E-03	1.457506E-02 1.065172E-02	1.124536E-02 2.163004E-02	0.0 0.0		-7.268965E-04 -1.461588E-04	1.035907E-03 9.435874E-04	
1007	G	-1.880442E-02 -3.835854E-03	2.321711E-02 3.788438E-02	-2.024485E-02 -1.189884E-02	0.0 0.0		0.0 0.0	0.0 0.0	
1012	G	-1.789368E-01 1.952678E-02	-1.494424E-01 -1.034299E-01	1.000000E+00 0.0	4.537012E-02 -6.261888E-03		-7.547456E-04 -7.084747E-04	7.961887E-03 -2.334241E-03	
1013	G	-7.477004E-02 -6.118307E-02	-1.494380E-01 -1.034277E-01	4.170821E-01 1.919038E-01	-1.829328E-02 -4.873744E-03		-7.657500E-04 -7.079943E-04	-2.960743E-03 -2.406773E-03	
1017	G	-1.211512E-01 -8.751447E-02	3.384552E-02 2.417017E-02	-5.317232E-03 -1.938521E-02	0.0 0.0		0.0 0.0	0.0 0.0	
1018	G	4.887058E-02 4.858314E-02	2.950011E-02 2.448196E-02	-3.004976E-03 5.038538E-02	0.0 0.0		0.0 0.0	0.0 0.0	
1021	G	2.015308E-02 5.208848E-02	-4.307317E-03 -1.545756E-02	6.733518E-03 1.318773E-02	7.808651E-04 1.157977E-03		1.795054E-03 2.556713E-03	9.774800E-04 7.638702E-04	
1022	G	-7.325644E-03 -1.387748E-02	2.888797E-03 5.766930E-03	7.812752E-03 1.439840E-02	-8.035890E-04 -1.141759E-03		-1.803783E-03 -2.888280E-03	9.542798E-04 7.813188E-04	
1023	G	-2.186855E-03 -2.149343E-02	1.784398E-02 3.361527E-02	1.825280E-02 2.821400E-02	-5.578292E-05 3.557582E-05		1.227251E-03 1.514934E-03	-1.131145E-03 6.005293E-03	
1024	G	3.278882E-02 5.289721E-02	4.811718E-03 -7.467835E-03	1.937825E-02 5.480347E-02	1.081338E-04 3.094040E-04		6.893220E-04 2.038991E-03	-2.902868E-04 2.851583E-04	
1025	G	-2.157988E-03 -2.117123E-02	1.129639E-02 1.334204E-02	5.805898E-02 3.782919E-02	-1.380188E-03 -6.014175E-04		-2.530405E-03 1.124245E-03	8.605397E-04 6.005293E-04	
1026	G	3.288203E-02 5.244331E-02	8.848309E-03 -1.235740E-02	-4.503397E-02 -1.933773E-02	-1.288420E-03 -1.071852E-03		9.019308E-04 -6.763358E-04	8.804788E-05 -8.329204E-04	
1028	G	-4.912008E-01 -3.058299E-01	-5.878214E-02 -3.588488E-02	5.228314E-01 2.584512E-01	8.958451E-02 3.188443E-02		7.831980E-03 4.450060E-03	7.192340E-02 4.182407E-02	

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.746958E+01, -2.478996E+02

C O M P L E X E I G E N V E C T O R N O. 28  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.588429E-01 8.679875E-02	1.754707E-02 2.381778E-03	-1.528666E-02 -7.017431E-03	1.762957E-03 5.722476E-04	4.277071E-03 2.855971E-03	4.391909E-04 8.686146E-04
2511	G	-4.458965E-02 -3.067631E-02	-1.861231E-02 2.171381E-02	-7.867940E-02 -4.590180E-02	1.716394E-03 6.842388E-04	-1.081838E-03 -3.859830E-04	-2.626896E-03 -2.330043E-03
2572	G	-3.228211E-02 -9.618230E-03	-1.032929E-01 -9.825794E-02	2.279851E-01 1.213821E-01	2.723948E-03 -2.921005E-04	4.130790E-05 -1.898283E-03	5.375501E-04 -3.192987E-05
2649	G	-5.607889E-02 -4.146236E-02	1.295482E-01 6.258547E-02	-2.262119E-02 -2.360408E-03	4.908888E-03 2.038452E-03	-2.768755E-03 1.092597E-02	5.638848E-03 3.564684E-03
2697	G	3.378830E-01 1.722126E-01	-6.600005E-02 -4.893982E-02	-2.223805E-01 -9.640332E-02	2.489632E-02 1.520781E-02	1.489770E-02 8.437937E-03	3.164595E-02 1.714987E-02
19777	G	-2.364686E-02 -8.301327E-03	1.372306E-02 1.030179E-02	1.083507E-02 2.153719E-02	3.788953E-04 8.597117E-05	-4.522586E-05 -1.665744E-04	1.194342E-03 8.728545E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.500951E-03, 1.678272E-02

C O M P L E X E I G E N V E C T O R N O. 29  
(REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	5.528919E-02 -4.285988E-03	6.212157E-02 -5.340506E-02	1.000000E+00 0.0	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	5.477598E-02 -3.845672E-03	3.613957E-02 -3.115768E-02	8.810173E-01 -8.424708E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	5.477348E-02 -3.845181E-03	1.089732E-02 -9.528060E-03	7.854816E-01 -1.664315E-01	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	9.895253E-02 2.867333E-02	-2.964537E-02 2.339458E-02	6.520488E-01 -2.717015E-01	0.0 0.0	2.309374E-03 1.798387E-03	-5.530108E-04 4.734527E-04
1007	G	1.020393E-01 2.391843E-02	-5.875994E-02 4.837375E-02	5.325599E-01 -3.694758E-01	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	1.004752E-01 -6.653773E-03	-1.387899E-01 1.176710E-01	1.974611E-01 -6.506243E-01	4.487632E-04 -2.881553E-04	2.309665E-03 1.798348E-03	-5.530407E-04 4.734583E-04
1013	G	6.591021E-02 2.403743E-02	-1.387899E-01 1.176710E-01	1.894134E-01 -6.326146E-01	4.487630E-04 -2.881550E-04	2.309665E-03 1.798348E-03	-5.530407E-04 4.734593E-04
1017	G	1.343914E-01 -4.233342E-03	-3.328924E-02 2.657915E-02	6.855923E-01 -3.038254E-01	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	6.813479E-02 5.163430E-02	-3.328832E-02 2.657902E-02	6.128380E-01 -2.688232E-01	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	1.532555E-01 6.350528E-02	-4.106198E-02 3.109213E-02	6.484430E-01 -2.795586E-01	4.487850E-04 -2.881558E-04	2.309598E-03 1.798355E-03	-5.530085E-04 4.734469E-04
1022	G	3.119713E-01 1.873883E-01	-7.180121E-02 5.089422E-02	6.484430E-01 -2.795586E-01	4.487889E-04 -2.881562E-04	2.309603E-03 1.798358E-03	-5.530084E-04 4.734471E-04
1023	G	-5.107142E-02 -5.814957E-02	4.400428E-02 -3.415946E-02	8.378265E-01 -1.085300E-01	4.487823E-04 -2.881609E-04	2.308899E-03 1.798442E-03	-5.530009E-04 4.734549E-04
1024	G	-6.830883E-03 -9.702589E-02	4.400586E-02 -3.415964E-02	8.737270E-01 -1.285834E-01	4.487628E-04 -2.881609E-04	2.308877E-03 1.798438E-03	-5.530248E-04 4.734580E-04
1025	G	-5.107142E-02 -5.814957E-02	-2.498644E-02 2.488986E-02	5.498478E-01 -3.308319E-01	4.487519E-04 -2.881567E-04	2.309009E-03 1.798444E-03	-5.530121E-04 4.734666E-04
1026	G	-6.830882E-03 -9.702589E-02	-2.498628E-02 2.488986E-02	5.857470E-01 -3.538838E-01	4.487530E-04 -2.881560E-04	2.309063E-03 1.798426E-03	-5.529999E-04 4.734639E-04
1028	G	2.374491E-01 1.128325E-01	-2.327746E-01 1.921431E-01	-8.390063E-02 -8.815824E-01	4.487831E-04 -2.881561E-04	2.309866E-03 1.798349E-03	-5.530361E-04 4.734633E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -1.500951E-03, 1.678272E-02

C O M P L E X E I G E N V E C T O R N O . 29  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	1.526909E-01 6.335401E-02	-6.749514E-02 5.374603E-02	5.375783E-01 -3.658791E-01	4.487570E-04 -2.881528E-04	2.308687E-03 1.798341E-03	-5.530395E-04 4.734587E-04
2511	G	7.044873E-02 1.231015E-02	-8.140767E-02 6.874555E-02	4.127400E-01 -4.538175E-01	4.485120E-04 -2.881052E-04	2.308621E-03 1.788353E-03	-5.529725E-04 4.734368E-04
2572	G	5.822277E-02 -1.175748E-02	-1.339534E-01 1.146519E-01	1.817512E-01 -6.429323E-01	4.487630E-04 -2.881552E-04	2.308685E-03 1.798348E-03	-5.530407E-04 4.734593E-04
2649	G	6.032181E-02 7.006483E-03	-1.845670E-01 1.579599E-01	-1.048922E-02 -7.926142E-01	4.487626E-04 -2.881557E-04	2.308686E-03 1.798348E-03	-5.530406E-04 4.734595E-04
2697	G	2.304172E-01 1.205555E-01	-2.330853E-01 1.923693E-01	-9.094625E-02 -8.575994E-01	4.487633E-04 -2.881555E-04	2.308686E-03 1.798349E-03	-5.530390E-04 4.734608E-04
19777	G	1.025123E-01 3.242173E-02	-3.045314E-02 2.391325E-02	6.515639E-01 -2.713903E-01	4.487650E-04 -2.881544E-04	2.309443E-03 1.788375E-03	-5.530228E-04 4.734545E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE : -5.868273E-03, 2.339853E-02

C O M P L E X E I G E N V E C T O R N O . 30  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	2.766048E-02 -1.155106E-03	-2.818985E-01 -1.321079E-05	4.836886E-02 -1.365790E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	2.998890E-02 -1.152600E-03	-1.643294E-01 1.154518E-04	4.414648E-02 -1.538081E-02	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	2.998877E-02 -1.152590E-03	-4.899457E-02 2.398034E-04	3.888372E-02 -1.598123E-02	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	2.994586E-02 -4.937493E-04	1.198543E-01 6.981788E-05	2.944945E-02 -1.902082E-02	0.0 0.0	1.159932E-04 3.587016E-05	2.501953E-03 2.739241E-06
1007	G	7.065183E-03 -5.354510E-04	2.517886E-01 2.249154E-04	1.307086E-02 -2.077480E-02	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-7.206783E-02 -9.120617E-04	6.198786E-01 7.834427E-04	-4.480402E-02 -2.562008E-02	-1.290211E-03 1.766210E-05	1.160096E-04 3.566546E-05	2.501965E-03 2.738130E-06
1013	G	8.430498E-02 -7.409285E-04	6.198786E-01 7.834427E-04	3.583416E-02 -2.672398E-02	-1.290211E-03 1.766225E-05	1.160096E-04 3.566546E-05	2.501965E-03 2.738073E-06
1017	G	-1.405641E-01 -7.013984E-04	1.366408E-01 1.011906E-04	-5.771972E-02 -1.809367E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.546668E-01 -3.780865E-04	1.366408E-01 1.011731E-04	9.462554E-02 -2.017787E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	9.838422E-03 2.554018E-04	1.553044E-01 -3.037237E-04	1.887134E-02 -1.899152E-02	-1.290230E-03 1.765702E-05	1.160081E-04 3.566742E-05	2.501914E-03 2.740688E-06
1022	G	1.760853E-02 2.706875E-03	2.439882E-01 -1.516994E-03	1.887134E-02 -1.899152E-02	-1.290235E-03 1.765413E-05	1.160088E-04 3.566754E-05	2.501915E-03 2.741048E-06
1023	G	1.005634E-01 -2.449369E-03	-1.711678E-01 8.456848E-04	8.089205E-02 -1.849556E-02	-1.290221E-03 1.768040E-05	1.159476E-04 3.566215E-05	2.501950E-03 2.724945E-06
1024	G	-9.959118E-02 -2.667913E-03	-1.711677E-01 8.456853E-04	-2.232545E-02 -1.507923E-02	-1.290221E-03 1.768043E-05	1.159655E-04 3.569393E-05	2.501946E-03 2.725509E-06
1025	G	1.005634E-01 -2.449368E-03	1.408750E-01 1.185436E-03	6.642894E-02 -2.094370E-02	-1.290215E-03 1.767242E-05	1.159881E-04 3.567149E-05	2.501940E-03 2.724168E-06
1026	G	-9.959118E-02 -2.667915E-03	1.408750E-01 1.185432E-03	-3.678728E-02 -1.953060E-02	-1.290215E-03 1.767241E-05	1.159385E-04 3.566221E-05	2.501942E-03 2.723833E-06
1028	G	-3.290852E-02 1.347407E-03	9.989219E-01 8.411521E-06	-4.218555E-02 -3.010184E-02	-1.290211E-03 1.765575E-05	1.160101E-04 3.568458E-05	2.501975E-03 2.703260E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -5.868273E-03, 2.339853E-02

C D M P L E X E I G E N V E C T O R N O 30  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	9.608339E-03 2.466863E-04	2.750760E-01 -1.678950E-04	1.330288E-02 -2.070347E-02	-1.290209E-03 1.766303E-05	1.160130E-04 3.566604E-05	2.501965E-03 2.739401E-06
2511	G	4.183086E-02 -8.612239E-04	3.618194E-01 5.406111E-04	2.589668E-02 -2.278537E-02	-1.290220E-03 1.766617E-05	1.160067E-04 3.566666E-05	2.501968E-03 2.736602E-06
2572	G	4.763923E-03 -1.242955E-03	6.086403E-01 9.916858E-04	-4.569617E-03 -2.619807E-02	-1.290211E-03 1.766292E-05	1.160096E-04 3.566574E-05	2.501965E-03 2.737916E-06
2649	G	5.974367E-03 -8.708209E-04	8.283484E-01 1.035228E-03	-1.422545E-02 -2.916661E-02	-1.290212E-03 1.766435E-05	1.160101E-04 3.566516E-05	2.501965E-03 2.736543E-06
2697	G	4.229182E-03 1.405574E-03	1.000000E+00 0.0	-2.308445E-02 -3.036963E-02	-1.290212E-03 1.765625E-05	1.160104E-04 3.566362E-05	2.501969E-03 2.724809E-06
19777	G	2.985674E-02 -4.265867E-04	1.219766E-01 3.782764E-05	3.044268E-02 -1.903990E-02	-1.290217E-03 1.766103E-05	1.159863E-04 3.566881E-05	2.501954E-03 2.739513E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -1.092172E-02, 1.262680E-01

C D M P L E X E I G E N V E C T O R N O 31  
[REAL/IMAGINARY]

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	8.305505E-01 2.545260E-02	1.575657E-02 -1.527280E-03	-5.414809E-01 1.034404E-02	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	8.304237E-01 2.546931E-02	9.756902E-03 -6.693308E-04	-3.886793E-01 9.147582E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	8.304191E-01 2.546901E-02	3.777367E-03 1.803580E-04	-2.403715E-01 8.052854E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	7.702219E-01 2.587807E-02	-1.903277E-03 -2.348528E-04	-5.091268E-02 6.843198E-03	0.0 0.0	-3.251556E-03 2.379910E-05	-1.271607E-04 1.826437E-05
1007	G	7.730515E-01 2.572008E-02	-8.724562E-03 7.781706E-04	1.208017E-01 6.192345E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	8.035409E-01 2.495460E-02	-2.879403E-02 4.178151E-03	6.093300E-01 5.016978E-03	-9.280942E-05 7.821926E-05	-3.247474E-03 2.392155E-05	-1.276151E-04 1.824841E-05
1013	G	7.955657E-01 2.609527E-02	-2.879403E-02 4.178151E-03	6.151312E-01 1.273943E-04	-9.282808E-05 7.821583E-05	-3.247474E-03 2.392155E-05	-1.275920E-04 1.826280E-05
1017	G	7.809654E-01 2.464042E-02	-2.882149E-03 -5.152598E-05	-3.388404E-02 1.190814E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	7.859409E-01 2.679508E-02	-2.869559E-03 -5.110621E-05	-2.294437E-02 2.678170E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	7.008442E-01 2.624529E-02	-2.913798E-04 -1.889423E-03	-4.157758E-02 7.388663E-03	-9.275595E-05 7.822655E-05	-3.248231E-03 2.392706E-05	-1.269388E-04 1.828784E-05
1022	G	4.775389E-01 2.769170E-02	6.081811E-03 -7.245396E-03	-4.157758E-02 7.388663E-03	-9.274806E-05 7.823142E-05	-3.247918E-03 2.397936E-05	-1.269217E-04 1.828131E-05
1023	G	9.523512E-01 2.509892E-02	3.820384E-03 2.865658E-03	-3.305486E-01 6.372433E-03	-9.260429E-05 7.826056E-05	-3.257081E-03 2.359580E-05	-1.273103E-04 1.823473E-05
1024	G	9.826428E-01 2.363958E-02	3.838310E-03 2.666133E-03	-3.379454E-01 1.263743E-02	-9.263367E-05 7.825676E-05	-3.257016E-03 2.366540E-05	-1.276338E-04 1.822540E-05
1025	G	9.523512E-01 2.509892E-02	-1.208673E-02 4.939349E-03	7.565768E-02 3.427832E-03	-9.281945E-05 7.823614E-05	-3.256714E-03 2.363401E-05	-1.278025E-04 1.822463E-05
1026	G	9.826430E-01 2.363958E-02	-1.208458E-02 4.939450E-03	6.821635E-02 9.885126E-03	-9.281013E-05 7.823692E-05	-3.256025E-03 2.367192E-05	-1.273397E-04 1.823084E-05
1028	G	5.993994E-01 2.667880E-02	-3.823508E-02 1.478657E-03	9.980897E-01 1.163436E-02	-9.277141E-05 7.823258E-05	-3.247488E-03 2.392038E-05	-1.276180E-04 1.827514E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -1.092172E-02, 1.262680E-01

C O M P L E X E I G E N V E C T O R N O. 31  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	7.018411E-01 2.624501E-02	-6.432327E-03 -9.735755E-04	1.143073E-01 6.240222E-03	-9.284878E-05 7.821723E-05	-3.247234E-03 2.393520E-05	-1.275752E-04 1.825167E-05
2511	G	8.044678E-01 2.573758E-02	-1.595071E-02 2.477786E-03	2.820834E-01 3.888376E-03	-9.417643E-05 7.819511E-05	-3.247847E-03 2.391284E-05	-1.289800E-04 1.826889E-05
2572	G	8.374739E-01 2.524557E-02	-2.997103E-02 5.104818E-03	6.146012E-01 2.554200E-03	-9.282036E-05 7.821695E-05	-3.247480E-03 2.392114E-05	-1.278033E-04 1.825085E-05
2649	G	8.035898E-01 2.549517E-02	-3.962340E-02 5.807811E-03	8.848988E-01 5.832263E-04	-9.281364E-05 7.821698E-05	-3.247508E-03 2.392024E-05	-1.278037E-04 1.825196E-05
2697	G	5.958714E-01 2.696160E-02	-3.821015E-02 1.442344E-03	1.060000E+00 0.0	-8.279519E-05 7.822543E-05	-3.247488E-03 2.392202E-05	-1.276058E-04 1.826070E-05
19777	G	7.842332E-01 2.594068E-02	-1.736220E-03 3.756471E-04	-5.081253E-02 6.758720E-03	-9.273427E-05 7.822120E-05	-3.250651E-03 2.382737E-05	-1.273280E-04 1.826056E-05

AH-1G THREE-DIMENSIONAL BUILTUP DYNAMICS MODEL W/ CONTROLS MODELED  
 DIFFICULT COMPONENTS GVT CONFIGURATION #1 (FULL-UP)

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE = -3.863643E-02, 1.481380E-01

C O M P L E X E I G E N V E C T O R N O. 32  
 (REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.915770E-02 3.488442E-03	2.848682E-01 -3.200268E-03	1.038221E-01 -4.138030E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-3.180984E-02 3.577384E-03	1.254905E-01 1.390351E-03	1.137123E-01 -3.815514E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-3.189574E-02 3.576538E-03	-1.001033E-02 5.851672E-03	1.131008E-01 -3.800784E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-2.555823E-02 3.247451E-03	2.113150E-02 9.488025E-03	8.966122E-02 -2.966906E-03	0.0 0.0	1.084505E-05 -6.874326E-06	-2.967318E-03 9.771906E-05
1007	G	-2.054928E-03 2.476774E-03	-1.425376E-01 1.473801E-02	2.482526E-03 -1.739086E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	9.058032E-02 -6.204133E-04	-6.807743E-01 3.040952E-02	-3.408447E-01 2.714933E-03	-1.093543E-02 1.094538E-04	1.080152E-05 -6.832539E-06	-2.967096E-03 9.768889E-05
1013	G	-9.488324E-02 5.585475E-03	-6.807743E-01 3.040952E-02	3.426195E-01 -4.125174E-03	-1.093543E-02 1.094485E-04	1.080152E-05 -6.832541E-06	-2.967097E-03 9.769113E-05
1017	G	1.730164E-01 -3.289064E-03	-7.488490E-03 1.026004E-02	-5.422065E-01 4.382878E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.771324E-01 8.244731E-03	-7.488456E-03 1.026011E-02	-6.481647E-01 -8.498703E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.775234E-03 2.328482E-03	2.483739E-01 7.434707E-03	3.020867E-03 -2.080590E-03	-1.093706E-02 1.084542E-04	1.036284E-05 -6.826048E-06	-2.968389E-03 9.770280E-05
1022	G	-1.084753E-03 1.856173E-03	1.000000E+00 0.0	3.020867E-03 -2.080590E-03	-1.093782E-02 1.080123E-04	1.033215E-05 -6.826943E-06	-2.968312E-03 9.775475E-05
1023	G	-1.212700E-01 5.766621E-03	-3.484463E-01 7.324000E-03	4.418250E-01 -7.108073E-03	-1.094044E-02 1.097266E-04	1.587291E-05 -7.200116E-05	-2.963717E-03 9.735891E-05
1024	G	1.159329E-01 -1.036521E-03	-3.484471E-01 7.323907E-03	-4.338587E-01 1.714219E-03	-1.094044E-02 1.097265E-04	6.391845E-06 -6.507494E-06	-2.963709E-03 9.736218E-05
1025	G	-1.212707E-01 6.766656E-03	-7.180494E-01 1.946300E-02	4.409905E-01 -6.216408E-03	-1.093805E-02 1.095319E-04	1.232973E-05 -7.029931E-06	-2.963243E-03 9.732846E-05
1026	G	1.159336E-01 -1.036557E-03	-7.180494E-01 1.946297E-02	-4.348003E-01 2.532093E-03	-1.093805E-02 1.095325E-04	9.914943E-06 -6.686667E-06	-2.963242E-03 9.732464E-05
1028	G	5.338578E-02 2.837889E-04	-3.529320E-01 3.521988E-02	-2.025788E-01 2.158806E-03	-1.093574E-02 1.108328E-04	1.081839E-05 -6.898266E-06	-2.967390E-03 9.875966E-05

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THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -3.863843E-02, 1.481380E-01

C O M P L E X E I G E N V E C T O R N O. 32  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-1.824268E-03 2.327263E-03	1.032089E-01 1.214331E-02	2.513154E-03 -1.752564E-03	1.093557E-02 1.093312E-04	1.036435E-05 -6.785515E-06	-2.967238E-03 9.770919E-05
2511	G	-4.480030E-02 3.950378E-03	-4.006312E-01 2.066613E-02	1.591115E-01 -2.973886E-03	-1.093535E-02 1.093308E-04	1.061428E-05 -6.834277E-06	-2.967089E-03 9.768187E-05
2572	G	-2.285255E-03 2.612321E-03	-8.106332E-01 3.175880E-02	8.788610E-04 -7.001320E-04	-1.093542E-02 1.094246E-04	1.060317E-05 -6.841318E-06	-2.987098E-03 9.769962E-05
2649	G	-2.154648E-03 2.541027E-03	-9.434948E-01 3.875180E-02	-2.815730E-06 -1.313012E-04	-1.093546E-02 1.096553E-04	1.057370E-05 -6.750238E-06	-2.987129E-03 9.778056E-05
2697	G	9.415410E-03 1.740082E-03	-3.479278E-01 3.518079E-02	-4.051387E-02 5.185779E-04	-1.093552E-02 1.103786E-04	1.060548E-05 -6.855242E-06	-2.987229E-03 9.812573E-05
19777	G	-2.874308E-02 3.340655E-03	4.081528E-02 9.291369E-03	1.014714E-01 -3.084897E-03	-1.093536E-02 1.092506E-04	1.102599E-05 -6.854356E-06	-2.987318E-03 9.772322E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -8.303530E-03, 6.335569E-01

C O M P L E X E I G E N V E C T O R N O. 33  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.118511E-02 1.293216E-03	8.150288E-01 -2.663443E-02	-4.887106E-02 -4.548779E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.317771E-02 1.416779E-03	8.125887E-01 -2.055094E-02	-5.488491E-02 -4.907611E-03	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-2.324433E-02 1.417533E-03	7.130508E-01 -1.424495E-02	-5.582479E-02 -4.809472E-03	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.822250E-02 1.100771E-03	4.781860E-01 -1.516988E-02	-4.453255E-02 -3.725698E-03	0.0 0.0	1.875075E-05 -2.016073E-06	-2.174528E-03 1.336099E-04
1007	G	-1.058483E-03 4.455482E-05	3.657815E-01 -7.810207E-03	-2.219928E-04 9.300523E-05	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	6.883658E-02 -4.115766E-03	8.302120E-02 1.623961E-02	1.761496E-01 -1.502887E-02	5.747189E-03 4.880177E-04	2.136950E-05 -2.046755E-06	-2.178259E-03 1.336704E-04
1013	G	-6.930355E-02 4.238399E-03	8.302120E-02 1.623961E-02	-1.830470E-01 -1.422257E-02	5.747183E-03 4.880207E-04	2.136950E-05 -2.046754E-06	-2.178259E-03 1.336700E-04
1017	G	1.271133E-01 -7.835953E-03	4.865502E-01 -1.389738E-02	3.394882E-01 2.763105E-02	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.282072E-01 7.924899E-03	4.865521E-01 -1.389744E-02	-3.379549E-01 -2.763384E-02	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-4.886652E-04 -5.899031E-06	3.471480E-01 -2.489328E-02	8.590717E-04 -8.737133E-06	5.742972E-03 4.899978E-04	2.223179E-05 -2.054457E-06	-2.177183E-03 1.337195E-04
1022	G	1.080221E-03 -1.464419E-04	-4.752871E-02 -5.722920E-02	8.590722E-04 -9.737162E-06	5.743371E-03 4.709089E-04	2.226018E-05 -2.048930E-06	-2.177229E-03 1.336124E-04
1023	G	-8.984635E-02 5.514325E-03	1.000000E+00 0.0	-2.303171E-01 -1.887891E-02	5.783543E-03 4.676992E-04	-7.381858E-06 -1.688121E-06	-2.207152E-03 1.341188E-04
1024	G	8.530428E-02 -5.191538E-03	8.999849E-01 3.948059E-07	2.380678E-01 1.848116E-02	5.783535E-03 4.676958E-04	8.248443E-06 -2.523422E-06	-2.206807E-03 1.341073E-04
1025	G	-8.884367E-02 5.514295E-03	7.245778E-01 1.673237E-02	-2.299088E-01 -1.865998E-02	5.767160E-03 4.679480E-04	7.581189E-06 -1.616329E-06	-2.207140E-03 1.341488E-04
1026	G	8.530144E-02 -5.191504E-03	7.245747E-01 1.673245E-02	2.301211E-01 1.879055E-02	5.767161E-03 4.679448E-04	3.579319E-05 -2.340827E-06	-2.207424E-03 1.341588E-04
1028	G	4.037564E-02 -2.527170E-03	-5.353928E-01 3.055548E-03	1.002918E-01 9.267539E-03	5.748434E-03 4.860686E-04	2.128034E-06 -1.911111E-06	-2.178471E-03 1.332051E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -8.303530E-03, 8.335569E-01

C O M P L E X E I G E N V E C T O R N O.  
(REAL/IMAGINARY) 33

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-5.704355E-04 -8.877142E-07	2.440871E-01 -1.834567E-02	-1.684784E-04 8.860400E-05	5.747758E-03 4.682030E-04	2.417830E-05 -2.120284E-06	-2.175838E-03 1.336211E-04
2511	G	-3.257650E-02 1.888419E-03	3.172856E-01 3.567728E-03	-8.385178E-02 -6.533626E-03	5.746411E-03 4.681880E-04	2.132183E-05 -2.049151E-06	-2.178051E-03 1.336772E-04
2572	G	-1.483053E-03 8.520229E-05	1.485401E-01 2.180226E-02	-3.464281E-03 4.046404E-04	5.747086E-03 4.680308E-04	2.138889E-05 -2.043899E-06	-2.178219E-03 1.336613E-04
2649	G	-1.260067E-03 6.383002E-05	-9.273221E-02 2.804104E-02	-5.242474E-03 5.745564E-04	5.747557E-03 4.675180E-04	2.125630E-05 -2.173219E-06	-2.178338E-03 1.335835E-04
2697	G	8.101031E-03 -5.522961E-04	-5.386625E-01 2.842738E-03	1.508888E-02 2.358677E-03	5.748360E-03 4.667654E-04	2.126401E-05 -1.944673E-06	-2.178528E-03 1.334561E-04
19777	G	-2.053369E-02 1.241366E-03	4.678298E-01 -1.601270E-02	-5.073386E-02 -4.231518E-03	5.741949E-03 4.683502E-04	2.045317E-05 -2.064143E-06	-2.174080E-03 1.336044E-04

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.730964E-02, 1.987509E+01

C O M P L E X E I G E N V E C T O R N O.  
(REAL/IMAGINARY) 34

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-1.532181E-01 -1.003984E-04	2.073503E-03 -9.616358E-05	-2.414870E-01 -1.397516E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-1.532864E-01 -1.001433E-04	7.000104E-04 -4.575281E-05	-1.627944E-01 -9.683486E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.539242E-01 -7.881922E-05	-7.308450E-04 6.308970E-06	-8.759607E-02 -5.061338E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	-1.823314E-01 -3.334897E-04	-1.485582E-03 1.053123E-04	5.922851E-03 2.559776E-04	0.0 0.0	-1.271693E-03 -1.580860E-05	-7.980352E-05 8.450283E-08
1007	G	-1.848731E-01 -1.841638E-04	-8.182138E-04 8.530641E-05	7.632838E-02 8.921773E-04	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-1.759009E-01 8.178241E-06	2.241005E-03 -2.074824E-04	3.829784E-01 7.355314E-05	7.212480E-05 -2.090491E-06	-2.394537E-03 2.110871E-05	8.826310E-05 -1.797855E-06
1013	G	-1.743465E-01 -9.833835E-05	2.241029E-03 -2.074823E-04	3.873761E-01 2.942384E-04	-2.083760E-04 -4.631221E-06	-2.394537E-03 2.110868E-05	-3.945458E-05 -1.339595E-06
1017	G	-1.818666E-01 -2.924138E-04	-4.052458E-04 9.953258E-05	-1.006250E-03 2.404851E-04	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	-1.838308E-01 -2.513851E-04	-1.752182E-03 1.114187E-04	9.840363E-03 5.217806E-04	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	-1.189220E-01 -4.281748E-04	-1.632191E-03 1.006372E-04	-1.878858E-02 2.927871E-04	1.957638E-04 3.087432E-08	8.456515E-03 -3.593068E-06	-3.152160E-05 1.038484E-06
1022	G	1.000000E+00 0.0	3.515881E-03 -2.078317E-04	-1.880265E-02 2.929082E-04	-1.442077E-04 5.563851E-06	2.173783E-02 -1.373059E-05	7.455259E-04 1.708895E-06
1023	G	-9.998949E-02 4.408077E-04	-5.135616E-04 -5.534343E-05	-1.275888E-01 -8.442637E-04	-4.171887E-05 -2.181715E-06	-1.488855E-03 -1.284467E-05	-4.892599E-05 1.258688E-06
1024	G	-9.884931E-02 4.287988E-04	-6.822475E-03 -1.223406E-04	-1.323521E-01 -1.132798E-03	-1.362185E-04 -3.240037E-06	-1.502047E-03 -1.798844E-05	5.179643E-05 1.669888E-06
1025	G	-9.997939E-02 4.398097E-04	-8.820944E-03 -7.729755E-05	5.180198E-02 9.040860E-04	-7.158894E-05 -2.689132E-06	-1.370988E-03 -1.768929E-06	-5.438332E-05 1.653681E-06
1026	G	-9.885415E-02 4.281713E-04	-6.246045E-03 -1.049586E-05	5.550237E-02 7.089285E-04	-7.843573E-05 -1.324851E-06	-1.388037E-03 -1.584069E-05	-2.280722E-05 -1.845577E-06
1028	G	-3.852652E-01 3.016556E-03	-5.488184E-03 2.977045E-04	7.253379E-01 -4.848934E-03	9.142898E-04 -2.271274E-05	-2.995407E-03 4.868088E-05	5.437714E-04 -1.022685E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.730984E-02, 1.987508E+01

C O M P L E X E I G E N V E C T O R N O. 34  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1029	G	-2.233525E-01 -3.278485E-04	1.278547E-03 1.433401E-04	7.310281E-02 8.674155E-04	-1.071009E-04 -1.686207E-06	-1.685119E-03 -8.061212E-06	1.346421E-05 -9.651158E-07
2511	G	-1.681195E-01 -1.224891E-04	-9.278489E-04 1.258218E-06	1.654013E-01 1.162166E-03	-9.873688E-05 -3.512907E-06	-1.899949E-03 3.280308E-08	-3.401773E-05 7.695694E-07
2572	G	-1.461848E-01 -2.965579E-04	1.433112E-03 -2.496388E-04	3.849139E-01 1.599662E-04	-7.449960E-05 -3.834807E-06	-2.378977E-03 2.130896E-05	2.667848E-05 -1.869041E-06
2649	G	-1.697388E-01 -1.566377E-04	4.393860E-03 -3.312708E-04	6.065566E-01 -2.747777E-03	-9.873806E-06 -5.187701E-06	-2.440315E-03 4.617742E-05	5.296446E-05 -1.922802E-06
2697	G	-3.602759E-01 2.915044E-03	-5.641409E-03 3.057310E-04	7.147204E-01 -4.539096E-03	5.542691E-04 -2.029510E-05	-3.057900E-03 5.180941E-05	3.519804E-04 -8.196752E-06
19777	G	-1.848057E-01 -3.558622E-04	-1.830798E-03 1.076649E-04	5.777418E-03 2.570689E-04	1.344840E-04 -1.010444E-06	-1.344603E-03 -1.332015E-06	-4.999206E-05 1.484971E-06

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
COMPLEX EIGENVALUE = -2.305214E+00, 5.062188E+01

C O M P L E X E I G E N V E C T O R N O. 35  
(REAL/IMAGINARY)

POINT ID.	TYPE	T1	T2	T3	R1	R2	R3
1001	G	-2.518718E-02 2.476131E-04	7.288581E-02 -7.954086E-03	3.489790E-01 -1.566592E-03	0.0 0.0	0.0 0.0	0.0 0.0
1003	G	-2.317246E-02 3.272372E-04	4.102337E-02 -4.688620E-03	1.918997E-01 -8.544790E-04	0.0 0.0	0.0 0.0	0.0 0.0
1004	G	-1.461925E-02 6.946560E-05	1.075734E-02 -1.697022E-03	5.076582E-02 -5.198689E-04	0.0 0.0	0.0 0.0	0.0 0.0
1006	G	1.690447E-02 -6.533150E-04	-2.136227E-02 2.190734E-03	-7.333230E-02 3.627133E-04	0.0 0.0	1.408297E-03 -3.802624E-05	-4.717434E-04 4.762053E-05
1007	G	8.527147E-03 -6.384715E-04	-3.838189E-02 4.327209E-03	-1.372848E-01 1.322619E-03	0.0 0.0	0.0 0.0	0.0 0.0
1012	G	-4.703041E-02 1.783844E-03	2.243044E-02 -3.348821E-04	6.898238E-02 5.029348E-03	-1.033367E-04 4.676116E-05	-4.113836E-03 3.966009E-05	1.073622E-03 -8.319129E-05
1013	G	1.484138E-02 -3.681765E-03	2.243043E-02 -3.348819E-04	8.330418E-02 4.783038E-03	-4.208435E-04 -4.917271E-05	-4.113830E-03 3.966086E-05	9.725988E-04 -9.014167E-05
1017	G	4.740857E-02 -3.443518E-03	-2.441850E-02 2.567821E-03	-7.135372E-02 -1.531128E-03	0.0 0.0	0.0 0.0	0.0 0.0
1018	G	1.548548E-03 2.262125E-03	-2.431332E-02 2.515302E-03	-9.140052E-02 2.087493E-03	0.0 0.0	0.0 0.0	0.0 0.0
1021	G	6.307161E-02 -3.665822E-04	-2.385677E-02 2.548181E-03	-7.386148E-02 -1.098570E-04	-2.327800E-04 2.971943E-05	2.149315E-04 3.507537E-05	-4.703062E-04 5.333729E-05
1022	G	-3.903290E-02 2.854688E-03	5.977788E-03 -8.348399E-04	-7.416808E-02 -1.382838E-04	-5.782507E-04 6.447924E-05	-2.628353E-03 5.639541E-05	-5.867516E-04 5.048651E-05
1023	G	-1.101642E-01 2.581789E-04	5.302858E-03 -8.125689E-03	1.370234E-01 7.759918E-03	-1.167118E-04 -9.583661E-04	2.558341E-03 1.488065E-04	-2.060558E-04 1.084890E-04
1024	G	-7.518878E-02 -3.628933E-03	5.674977E-02 -1.315881E-03	1.568855E-01 3.681665E-03	5.363680E-04 1.563158E-05	3.002949E-03 1.158132E-04	-1.037335E-03 1.070065E-05
1025	G	-1.100491E-01 2.857641E-04	-1.480218E-02 3.298038E-03	-1.557187E-01 6.957260E-04	5.096160E-04 5.224806E-06	2.803889E-03 3.098810E-05	-3.860574E-04 7.349581E-05
1026	G	-7.514172E-02 -3.821486E-03	-3.980107E-02 7.328922E-04	-1.408535E-01 -2.251607E-03	-3.417982E-04 -6.577979E-05	2.494587E-03 4.889809E-05	-4.832359E-04 3.765476E-05
1028	G	-8.791679E-01 8.720438E-03	2.346759E-01 -3.250688E-02	1.000000E+00 0.0	5.989556E-03 6.997884E-04	-8.078778E-03 1.259280E-04	8.137812E-03 -1.868389E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL  
 COMPLEX EIGENVALUE - -2.305214E+00, 5.062168E+01

C O M P L E X E I G E N V E C T O R N O 35  
 (REAL/IMAGINARY)

POINT ID	TYPE	T1	T2	T3	R1	R2	R3
1029	G	2.704757E-02 -1.278220E-03	-4.885222E-02 5.388958E-03	-1.344189E-01 1.298586E-03	1.445058E-04 -3.498531E-05	1.077315E-03 -2.948007E-05	-8.227251E-05 2.236161E-05
2511	G	1.394868E-03 -9.080810E-04	-4.076775E-02 4.585536E-03	-1.522828E-01 3.174334E-03	1.430562E-04 -3.287063E-05	-5.764433E-04 -1.864551E-05	2.818633E-04 -3.908045E-05
2572	G	3.300672E-02 -1.424434E-03	2.053120E-02 -3.525790E-04	7.667932E-02 4.470507E-03	-1.737730E-04 1.076540E-05	-4.162583E-03 4.728377E-05	9.581670E-04 -8.724357E-05
2649	S	2.834098E-03 -1.814372E-03	1.308087E-01 -1.050322E-02	6.045728E-01 -5.344832E-03	-8.821271E-04 1.124665E-04	-4.857681E-03 6.919274E-04	1.710141E-03 -1.295516E-04
2687	G	-5.825584E-01 8.071732E-03	2.348750E-01 -3.258082E-02	9.372224E-01 -8.861572E-03	2.466035E-03 4.048186E-04	-9.694078E-03 1.433444E-04	5.611076E-03 -8.346472E-05
19777	G	1.850846E-02 -8.370557E-04	-2.137404E-02 2.260094E-03	-7.338466E-02 4.046722E-04	2.996293E-05 -3.885083E-05	1.649150E-03 -2.351448E-05	-3.374764E-04 5.424571E-05

THIS VERSION CONTAINS A BUILTUP TAILBOOM MODEL

\*\*\* END OF JOB \*\*\*

