NASA Contractor Report 170392

NASTRAN MODEL OF A LARGE FLEXIBLE SWING-WING BOMBER

Volume IV: NASTRAN Model Development—Fuselage Structure

W. D. Mock and R. A. Latham

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Volume IV: NASTRAN Model Development—Fuselage Structure

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Volume IV: NASTRAN Model Development—Fuselage Structure

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SUMMARY

This report describes the development and validation of the NASTRAN model of the B-1 aircraft 2 (A/C-2) structure. This NASTRAN model substructure will be utilized as part of the total aircraft structural model. Subsequently, the remaining structural components will be modeled for the assembly of the total aircraft NASTRAN model. The intent is to utilize the NASTRAN model computed stiffness matrix in conjunction with the FLEXSTAB program for aeroelastic analysis. The application of these advanced programs on a large, flexible aircraft that has accumulated flight data will add to the technology base for future transport aircraft.

During this contract phase, the NASTRAN model plan for the fuselage structure was expanded in detail to generate the NASTRAN model for this substructure. The grid point coordinates were coded for each element. The material properties and sizing data for each element were specified.

The fuselage substructure model was thoroughly checked out for continuity, connectivity, and constraints. This substructure was processed for structural influence coeffients (SIC) point loadings and the deflections were compared to those computed for the aircraft detail model. Finally, a demonstration and validation processing of this substructure was accomplished using the NASTRAN finite element program installed at the NASA/DFRC facility. The bulk data deck, stiffness matrices, and SIC output data were delivered to NASA DFRC.

INTRODUCTION

A/C-2 (shown in figure 1) is being employed in the airloads survey flight test program. This aircraft has undergone extensive ground testing

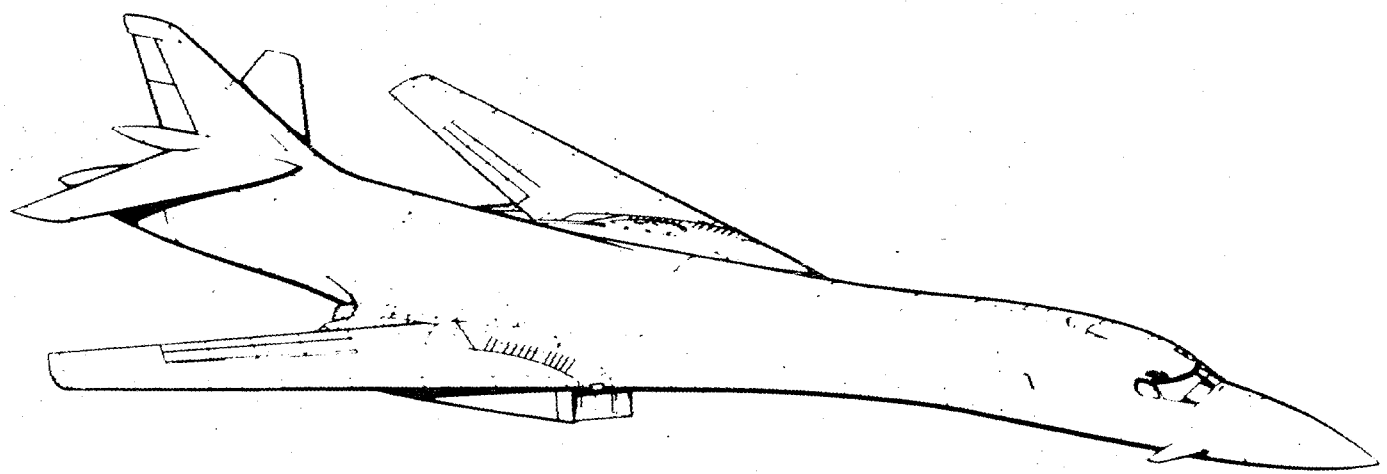


Figure 1. - B-1 aircraft.

to calibrate the strain gages utilized in the airloads survey. The aircraft provides a reasonable simulation of a future transport aircraft since it employs the large flexible structure (figure 2) envisioned in future transport designs.

The airloads data gathered during the flight test program can be utilized in the evaluation of NASA computer programs recently developed to enhance the analytical techniques of predicting aeroelastic response of large, flexible aircraft. These analytical techniques include computerized structural analysis programs such as NASTRAN and FLEXSTAB.

Since the B-1 development program involves all experimental tests needed to correlate the analytical predictions with actual measured results, detailed plans for constructing a NASTRAN structural model of the B-1 airframe, suitable for use on the NASA/DFRC Cyber computer, were initiated. This model is of minimum complexity to give satisfactory flexibility characteristics for the FLEXSTAB aeroelastic analysis. Included in this model are the control surfaces, the control system stiffness, and the secondary leading edge and trailing edge structure. During this contract phase, the detailed plans for constructing a NASTRAN structure model for the fuselage substructure was implemented. Grid point coordinates for this substructure were coded for each element, and the material properties and sizing data were specified. The bulk data were thoroughly checked using interactive graphics techniques. The data were evaluated for continuity, connectivity, and constraints. In addition, the SIC point loadings were applied to compute the deflections which were compared with the aircraft-computed deflections. A demonstration and validation processing of these NASTRAN model substructures were accomplished using the NASTRAN finite element program installed on the NASA/DFRC Cyber computer.

AIRCRAFT DESCRIPTION

The B-1 aircraft is a prototype long-range supersonic bomber with the capability of high speed flight at low altitude. Configuration dimensions and general arrangement are presented in figure A-1. The aircraft utilizes a blended wing-body concept with variable-sweep wings, a single vertical stabilizer with a three-section (upper, intermediate, and lower) rudder, and horizontal stabilizers which operate independently to provide both pitch and roll control. The variable-sweep (15 to 67.5 degrees) wing, equipped with slats, spoilers (which also function as speed brakes), and flaps provides the aircraft with a highly versatile operating envelope. Canted vanes, mounted on each side of the forward fuselage, are part of the structural modal control system which reduces structural bending oscillations in the vertical and lateral axes.

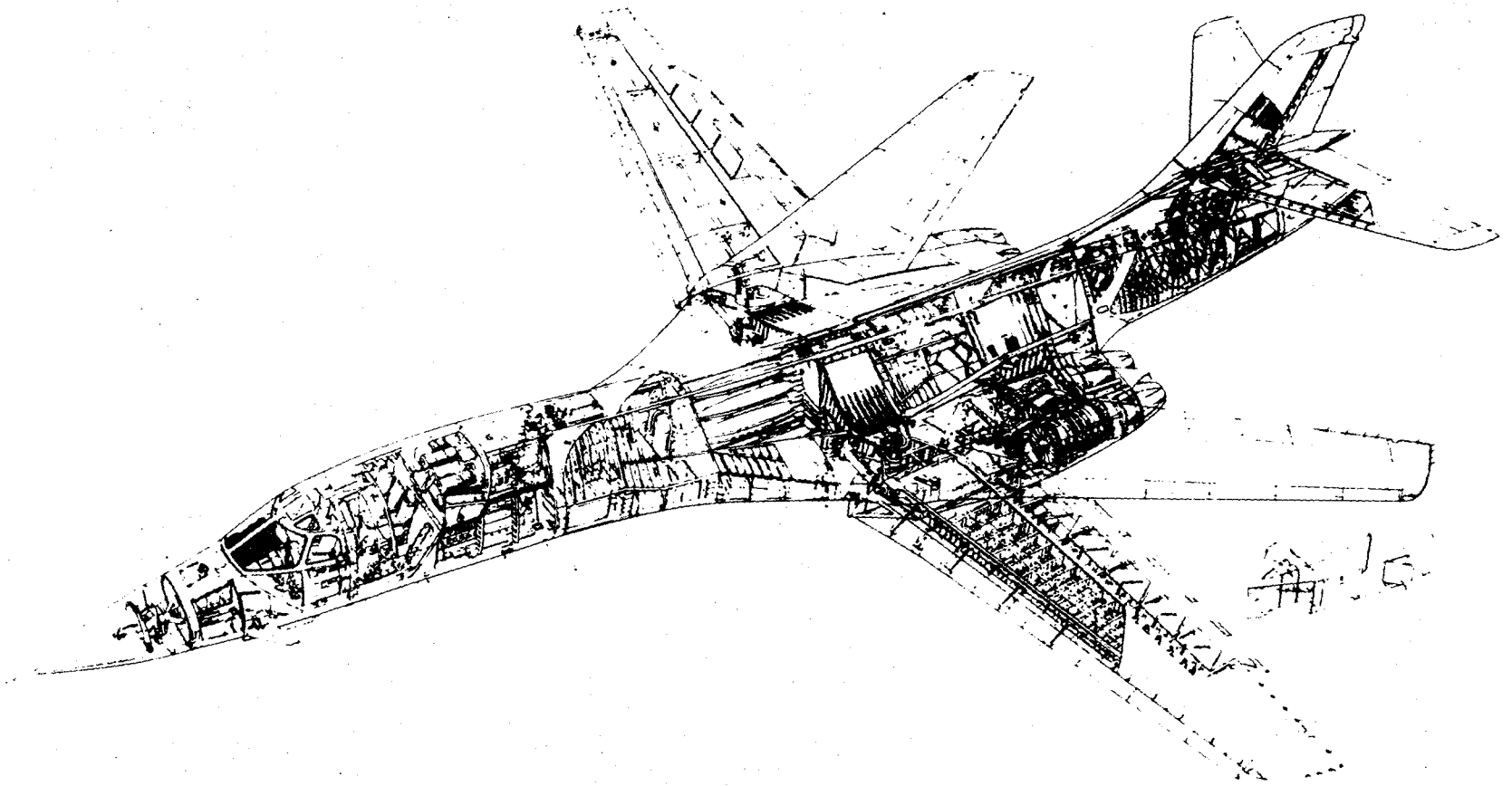


Figure 2. - Structural breakdown.

The aircraft is powered by four YF1-1-GE-100 dual-rotor augmented turbofan engines in the 30,000-pound-thrust class. The engines are mounted in twin nacelles below the wing, approximately at the left and right wing pivot points. For supersonic speeds, an air induction control system varies the internal geometry of the nacelle inlet ducts to maintain the required airflow to the engines for all flight conditions.

Fuselage

The fuselage (figure A-2) is constructed primarily of aluminum alloy materials arranged in a semimonocoque skin-frame-longeron type of construction. Titanium is used in the wing carry-through structure, in the nacelle and tail support structure, for various other structures where high load concentrations exist, and on aft fuselage skins where high temperatures and acoustic levels are prevalent. Dielectric materials such as polyimide quartz and fiberglass are used for radomes and antenna covers.

The fuselage structure is fabricated in six major sections and then mated together prior to attaching wings, empennage, landing gears, and nacelles. The following functional description of each section will provide a better understanding of the overall fuselage and its relationship to most of the aircraft subsystems.

The crew module assembly provides a sealed enclosure with crewmember provisions and is an ejectable unit for emergency escape. The structure is capable of pressurization for a 2439-meter (8000 feet) altitude environment and incorporates a clear-vision windshield designed to bird-proof requirements, additional crew windows, an entry door, and an emergency exit hatch for ingress and egress. The floor structure supports crew seating and ejection rocket loads. An unpressurized section aft of the crew quarters houses the escape system parachutes and provides support for the stabilizing fins. Two sets of deployable mechanical stabilizing spoilers are hinged in the side panel framework and at the lower forward edge of the module. Structural ties to the forward fuselage are severed by explosive charges for emergency escape.

The forward fuselage section includes the nose radome, forward avionics compartment, an in-flight refueling receptable, the nose gear well and support structure, a central avionics compartment, a section of the forward fuel tank, a Doppler radome, an environmental control system equipment bay, and the crew entry stairladder structure and mechanism installation. The section also includes many other items of equipment such as antennas and pressure sensing devices. Many large and small access doors are provided due to the high density of equipment installations in this assembly.

The forward intermediate section houses the forward and center weapons bays. Major bulkheads between the two bays and at each end of the bays provide support for the rotary weapons launchers. The aft bulkhead location also forms a part of the wing carry-through section. The forward bulkhead is also a closeout for the forward fuselage section. Large integral fuel tanks are incorporated into the forward intermediate fuselage structure, immediately outboard of the weapons bays. A systems routing tunnel occupies the upper structure area between longerons. Provisions for avionics are incorporated in the side fairing area, consisting of equipment bays, antennas, and radomes. Provisions for external stores pylons, wing sweep actuation components, and flap and slat drive mechanisms are also incorporated in the forward intermediate fuselage section.

The aft intermediate fuselage consists of the main gear well and the aft weapons bay. It incorporates a flight controls mixer compartment and a fuel tank above the main gear well. The gear uplock support structure is in the mixer compartment. Avionics provisions are made in the compartment between the wheel wells and in the structural compartments outboard of the wheels. Bulkheads at the forward and aft ends of the weapons bay support the weapons bay rotary weapons launcher. As in the forward intermediate fuselage, fuel is stored outboard of the weapons bay. A double-support frame for the aft portion of the nacelle extends outboard to the centerline beam of the nacelle. This support is approximately midway between weapons bay bulkheads. The upper centerline longeron and the lower outboard longerons are located and constructed so as to provide a high stiffness-to-weight ratio. The upper centerline longeron extends forward into the wing carry-through section and aft to the vertical stabilizer front spar.

The aft fuselage is a semimonocoque structure and consists of the aft fuel tank area, the dorsal area, the aft avionics bay, and the tail cone. The tank area is closed in the forward and aft ends by bulkheads. The forward bulkhead separates the aft fuel tank from the aft weapons bay. The aft bulkhead closes the tank and provides mounting support structure for the horizontal tail spindle fitting and the aft avionics bay. The dorsal area is a dry tunnel space which houses flight control cables and hardware and provides for the routing of the electric conduits.

NASTRAN MODELS

The detailed plans for the finite element modeling of the A/C-2 structure intended for use with the NASA/COSMIC release of NASTRAN level 16.0 on the NASA/DFRC Cyber computer constrains the model to the minimum complexity to give satisfactory flexibility characteristics for FLEXSTAB aeroelastic analysis

The NASTRAN model plans specify seven substructures consisting of the following:

(1) Horizontal stabilizer; leading edge, and trailing edge

(2) Vertical stabilizer; leading edge, and rudders

(3) Nacelle structure

(4) Wing outer panel, flaps, slats, and outboard transition ribs

(5) Forward fuselage structure

(6) Aft fuselage structure, wing carry-through structure (WCTS), and inboard transition lugs

(7) Overwing and underwing fairings

In addition to modeling the A/C-2 airframe structure to represent the flexibility characteristics, the model was designed to provide stress data at the airload survey strain gage locations for each component. In these regions, the model complexity was increased to provide the desired accuracy. In some regions, the complexity was dictated by the NASTRAN aspect ratio constraints. During this contract phase, the NASTRAN model plans for the fuselage structure were implemented to generate the NASTRAN model for this substructure. The description of this model, which was demonstrated and validated on the NASA/DFRC Cyber computer system, is presented in this report.

Fuselage NASTRAN Model

The NASTRAN model of the fuselage if configured to be representative of the B-1 aircraft No. 2 structure. The outer skins of the fuselage are defined using shear panels. Axial rods are utilized to represent the longitudinal stiffeners. Bar and membrane elements are used to represent the fuselage frames and bulkheads.

The inboard lugs of the wing-carry-thru structure are defined by plate elements. A summary of the NASTRAN elements used in the assembly of the fuselage substructure is presented in Table I.

TABLE I. - ARS NASTRAN MODEL STATISTICS

Description of Substructure	NASTRAN Model Elements					
	No. of Grids	Rods	Bars	Shear Panels	Membranes	Plates
Fuselage	967	1197	529	766	236	126

Element	NASTRAN nomenclature
Rod	= CONROD
Bar	= CBAR
Shear Panel	= CSHEAR
Membrane	= CQDMEM2 and CTRMEM
Plate	= CQUAD2 and CTRIA2

The material properties referenced by the fuselage finite elements represent aluminum for the forward and forward intermediate and aft intermediate fuselage. The wing-carry-thru region and aft fuselage are constructed primarily of titanium. The material properties of the axial longerons include aluminum, titanium, steel, steel-boron and titanium-boron composites. The specific material properties for each finite element of the NASTRAN model is listed in the bulk data section.

The NASTRAN bulk data identifying the coordinates and element sizing are presented on pages 143 through 238. A description of these bulk data is presented on pages 19 through 38 for each element-type utilized.

The Airloads Research Study NASTRAN model was thoroughly checked out for continuity, connectivity, and constraints, using interactive graphics techniques. This model was then processed for the loading applied at each structural influence coefficient point (Table C-1 and figure C-69) with the model constrained at the aft bulkhead of the wing-carry-thru box. The deflections computed for these SIC loadings were with identical constraints.

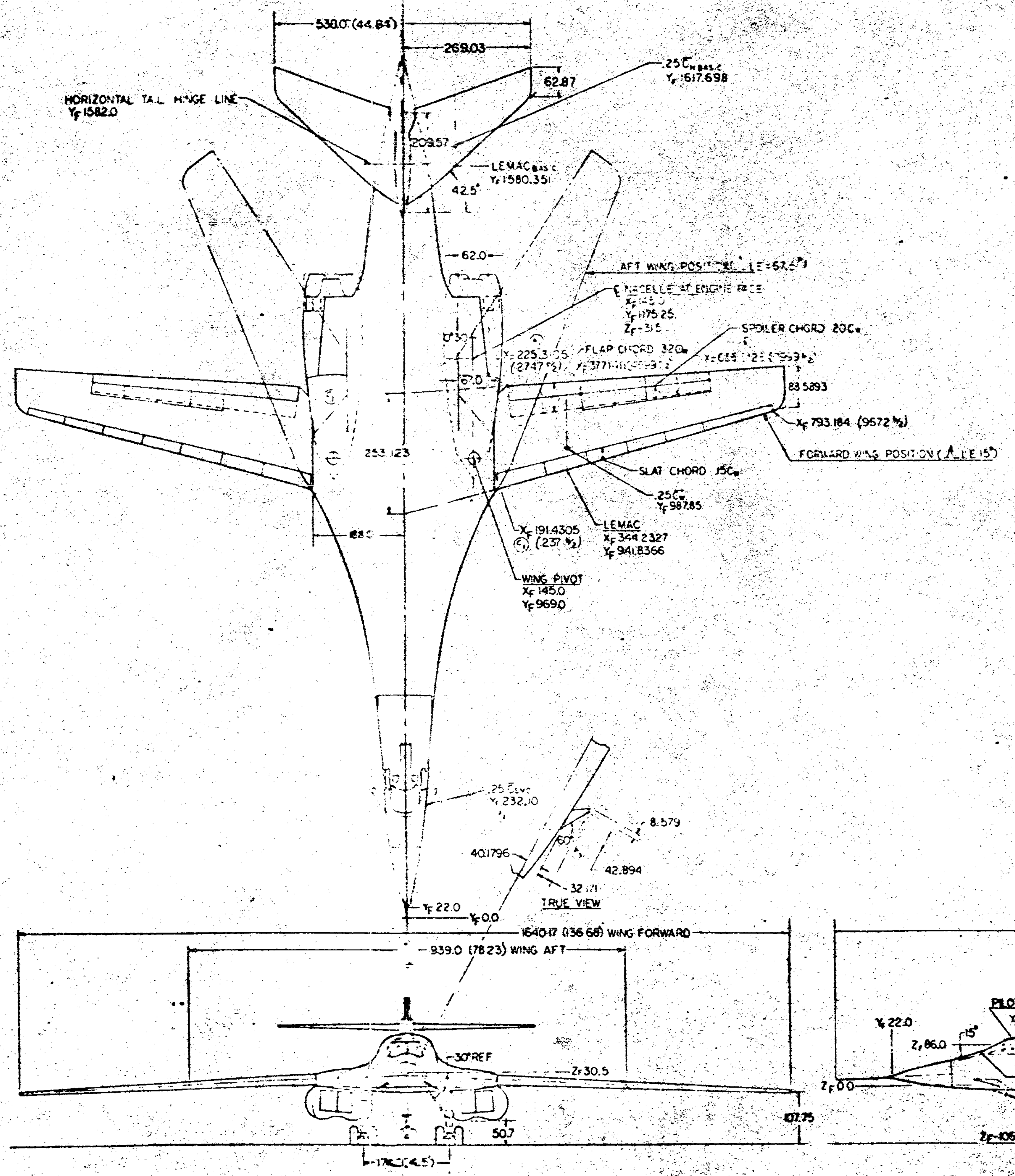
The comparison of the deflections along the forward fuselage is shown in figure C- 70 . Model deflections are compared to Structural Influence Coefficient deflections at SIC points 111 thru 117 for unit loads applied at each of these points. Figure C- 71 compares deflections along the aft fuselage for SIC points 125, 128, 129, 130, 132, and 133 for unit loads at each point.

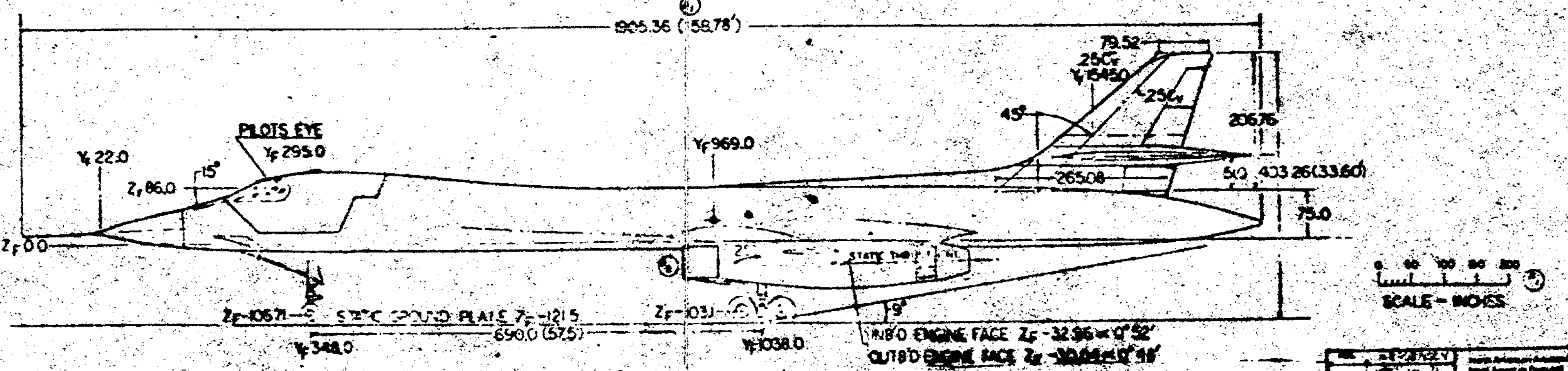
BULK DATA

The NASTRAN model coordinates, sizing, material properties, and loading data are presented in the NASTRAN program input format. Since these data are identified by column numbers for each element type, excerpts of the NASTRAN User's Manual are included. The format of the sorted bulk data for each element type is presented on pages 143 through 238 . This format is applicable to the NASTRAN model bulk data presented on pages 19 through 38 of this report.

Appendix A

FIGURES USING ENGINEERING UNITS





GEOMETRIC DATA

ITEM	WING FWD POSIT.	WING AFT POSIT.	HORIZONTAL TAIL TOTAL	VERTICAL TAIL TOTAL	STRUCTURAL MODE CONTROL
AREA ~ SQ. FT.	1946.0	1946 (REF)	509.0	247.4	11.5
ASPECT RATIO	9.6	3.14	3.95	1.2	2.5
TAPER RATIO	.35	—	.30	.30	.20
THICKNESS RATIO	REF LINES DRAWING #A69-1902 28-2.1		REF #69D 2114	.10 ROOT .05 ZF 126.0 TO TIP	.05
AIRFOIL SECTION				65A010 ROOT 65A005 ZF 26.0 TO TIP	65A005
LEADING EDGE SWEEP	15.0°	67.5°	42.5°	45° AT .25C	60°
DIHEDRAL ANGLE	-1.94°	—	0°	—	-30.0°
INCIDENCE ANGLE	[illegible]	—	0°	—	DEFL ±20.0°
MAC LENGTH - INCHES	154.053	—	149.385	188.954	29.55
MAC LOCATION - INCHES	344.2327	—	110.373	84.825	12.510 TRUE

CONTROL SURFACE DATA

ITEM	FLAP	SPOILER	SLAT	RUDDER	HORIZ. TAIL
TYPE	SINGLE-SLOTTED	UPPER SURFACE ONLY	POWERED	—	ALL MOVABLE
AREA - SQ FEET	310.34	115.0	187.62	60.6	474.5
DEFLECTION	25°	0° TO 70° UP	20.0°	FLAP ON ±25° FLAP UP ±15°	PITCH +10° -25° ROLL ±20°

LANDING GEAR DATA

ITEM	MAIN	AUXILIARY
TIRE SIZE & TYPE	C44.5×16.0-21 TWIN TANDEM	35×11.5-16 TWIN
PLY RATING	24	24
ROLLING RADIUS - INCHES	18.4	14.79
FLAT RADIUS - INCHES	13.6	11.3
STRUT-TOTAL STROKE - IN	16.5	22.0
STRUT-STATIC TO COMPRESSED	3.5	7.0

PROPULSION DATA

FOUR 100% SIZE GENERAL ELECTRIC YF101 - GE - 100 ENGINES

2-D VARIABLE RAMP INLETS CAPTURE AREA = 1441 SQ. IN. PER ENGINE

WEIGHT DATA

AIRCRAFT EMPTY WEIGHT	~ LB = ——— SEE SOW CODE II B-7
DESIGN USEFUL LOAD	~ LB = ——— SEE SOW CODE II B-7
DESIGN GROSS WEIGHT-TAXI	~ LB = 360,000
MAXIMUM GROSS WEIGHT	~ LB = 391,000

Figure A-1. - General arrangement - RDT&E A/C-1 and -2

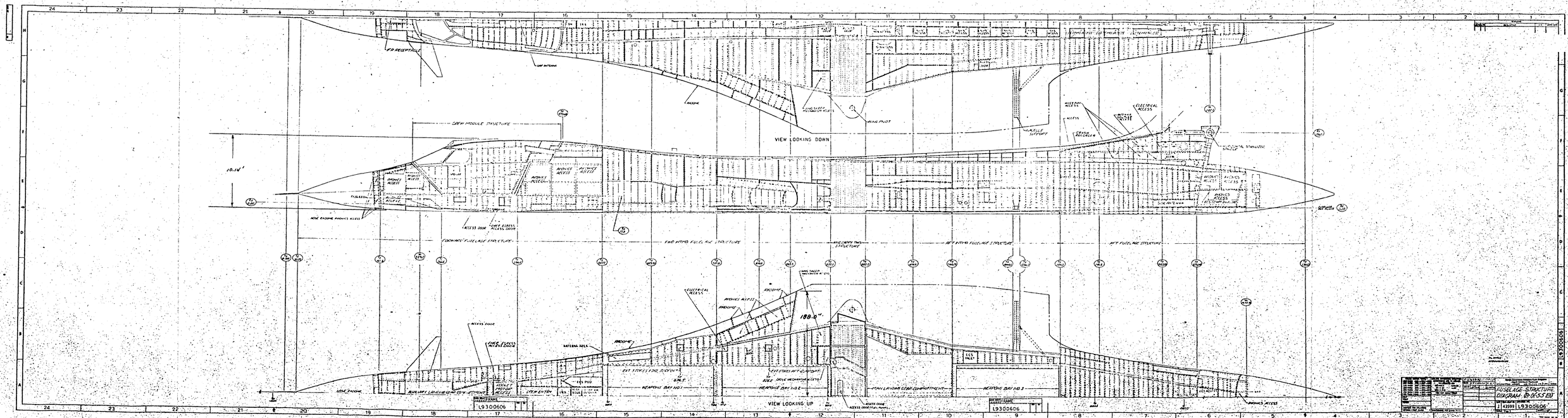


Figure A-7. - Fuselage structure diagram (B-1) (-55B).

Appendix B

NASTRAN MODEL BULK DATA FORMAT

Input Data Card CBAR Simple Beam Element Connection

Description: Defines a simple beam element (BAR) of the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CBAR	EID	PID	GA	GB	X1,G0	X2	X3	F	abc
CBAR	2	39	7	3	13			2	123
+bc	PA	PB	Z1A	Z2A	Z3A	Z1B	Z2B	Z3B	
+23		513							

Field	Contents
EID	Unique element identification number (Integer > 0)
PID	Identification number of a PBAR property card (Default is EID unless BARØR card has nonzero entry in field 3) (Integer > 0 or blank*)
GA,GB	Grid point identification numbers of connection points (Integer > 0; GA ≠ GB)
X1,X2,X3	Components of vector $\vec{v}$, at end a, (figure 1(a) on page 1.3-15) measured at end a, parallel to the components of the displacement coordinate system for GA, to determine (with the vector from end a to end b) the orientation of the element coordinate system for the bar element (Real, $X1^2 + X2^2 + X3^2 > 0$ or blank*, see below).
G0	Grid point identification number to optionally supply X1, X2, X3 (integer > 0 or blank*) (see below)
F	Flag to specify the nature of fields 6-8 as follows:

	6	7	8
F = blank*			
F = 1	X1	X2	X3
F = 2	G0	blank/0	blank/0

PA,PB	Pin flags for bar ends a and b, respectively, that are used to insure that the bar cannot resist a force or moment corresponding to the pin flag at that respective end of the bar. (Up to 5 of the unique digits 1-6 anywhere in the field with no imbedded blanks; integer > 0) (These degree of freedom codes refer to the element forces and not global forces. The bar must have stiffness associated with the pin flag. For example, if pin flag 4 is specified, the bar must have a value for J, the torsional constant.)
Z1A,Z2A,Z3A Z1B,Z2B,Z3B	Components of offset vectors $\vec{w}_a$ and $\vec{w}_b$, respectively, (see figure 1(a), page 1.3-15) in displacement coordinate systems at points GA and GB, respectively. (Real or blank)

Remarks: 1. Element identification numbers must be unique with respect to all other element identification numbers.

2. For an explanation of bar element geometry, see Section 1.3.2.

3. Zero (0) must be used in fields 7 and 8 in order to override entries in these fields associated with F = 1 in field 9 on a BARØR card.

4. If there are no pin flags or offsets, the continuation card may be omitted.

Input Data Card CØNRØD Rod Element Property and Connection

Description: Defines a rod element of the structural model without reference to a property card.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CØNRØD	EID	G1	G2	MID	A	J	C	NSM	
CØNRØD	2	16	17	23	2.69				

Field	Contents
EID	Unique element identification number (Integer > 0)
G1, G2	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2)
MID	Material identification number (Integer > 0)
A	Area of rod (Real)
J	Torsional constant (Real)
C	Coefficient for torsional stress determination (Real)
NSM	Nonstructural mass per unit length (Real)

Remarks:
1. Element identification numbers must be unique with respect to all other element identification numbers.
2. For structural problems, CØNRØD cards may only reference MAT1 material cards.
3. For heat transfer problems, CØNRØD cards may only reference MAT4 or MAT5 material cards.

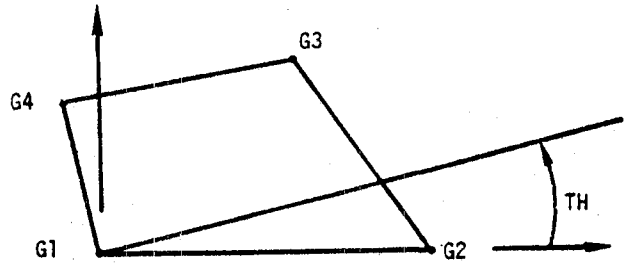
Input Data Card CQDMEM2 Quadrilateral Element Connection

Description: Defines a quadrilateral membrane element (QDMEM2) of the structural model consisting of four nonoverlapping TRMEM elements.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CQDMEM2	EID	PID	G1	G2	G3	G4	TH		
CQDMEM2	72	13	13	14	15	16	29.2		

Field	Contents
EID	Element identification number (Integer > 0)
PID	Identification number of a PQDMEM2 property card (Default is EID) (Integer > 0)
G1,G2,G3,G4	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2 ≠ G3 ≠ G4)
TH	Material property orientation angle in degrees (Real) The sketch below gives the sign convention for TH



Remarks:
1. Element identification numbers must be unique with respect to all other element identification numbers.
2. Grid points G1 through G4 must be ordered consecutively around the perimeter of the element.
3. All interior angles must be less than 180 degrees.

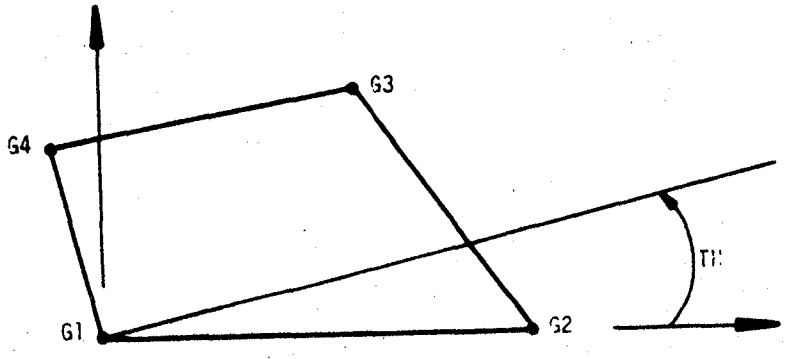
Input Data Card CQUAD2 Quadrilateral Element Connection

Description: Defines a homogeneous quadrilateral membrane and bending element (QUAD2) of the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CQUAD2	EID	PID	G1	G2	G3	G4	TH		
CQUAD2	72	13	13	14	15	16	29.2		

Field	Contents
EID	Element identification number (Integer > 0)
PID	Identification number of a PQUAD2 property card (Default is EID) (Integer > 0)
G1,G2,G3,G4	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2 ≠ G3 ≠ G4)
TH	Material property orientation angle in degrees (Real) The sketch below gives the sign convention for TH.



Remarks:
1. Element identification numbers must be unique with respect to all other element identification numbers.
2. Grid points G1 thru G4 must be ordered consecutively around the perimeter of the element.
3. All interior angles must be less than 180°.

Input Data Card CSHEAR Shear Panel Element Connection

Description: Defines a shear panel element (SHEAR) of the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CSHEAR	EID	PID	G1	G2	G3	G4			
CSHEAR	3	6	1	5	3	7			

Field	Contents
EID	Element identification number (Integer > 0)
PID	Identification number of a PSHEAR property card (Default is EID) (Integer > 0)
G1, G2, G3, G4	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2 ≠ G3 ≠ G4)

Remarks:
1. Element identification numbers must be unique with respect to all other element identification numbers.
2. Grid points G1 thru G4 must be ordered consecutively around the perimeter of the element.
3. All interior angles must be less than 180°.

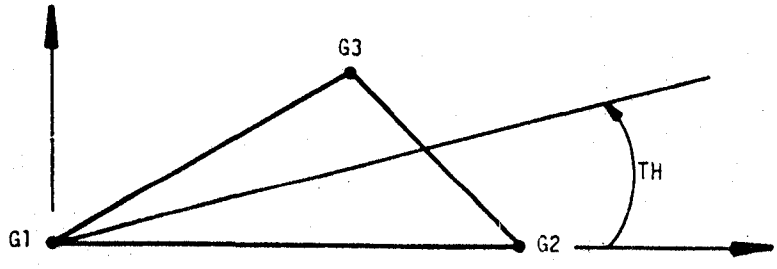
Input Data Card CTRIA2 Triangular Element Connection

Description: Defines a triangular membrane and bending element (TRIA2) of the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CTRIA2	EID	PID	G1	G2	G3	TH			
CTRIA2	16	2	12	1	3	16.2			

Field	Contents
EID	Element identification number (Integer > 0)
PID	Identification number of a PTRIA2 property card (Default is EID) (Integer > 0)
G1,G2,G3	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2 ≠ G3)
TH	Material property orientation angle in degrees (Real) - The sketch below gives the sign convention for TH.



Remarks: 1. Element identification numbers must be unique with respect to all other element identification numbers.

2. Interior angles must be less than 180°.

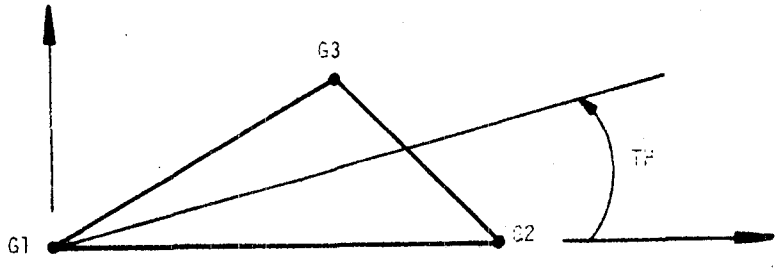
Input Data Card CTRMEM Triangular Element Connection

Description: Defines a triangular membrane element (TRMEM) of the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
CTRMEM	EID	PID	G1	G2	G3	TH			
CTRMEM	16	2	12	1	3	16.3			

Field	Contents
EID	Element identification number (Integer > 0)
PID	Identification number of a PTRMEM property card (Default is EID) (Integer > 0)
G1,G2,G3	Grid point identification numbers of connection points (Integer > 0; G1 ≠ G2 ≠ G3)
TH	Material property orientation angle in degrees (Real) - The sketch below gives the sign convention for TH.



Remarks: 1. Element identification numbers must be unique with respect to all other element identification numbers.

2. Interior angles must be less than 180°.

Input Data Card FØRCE Static Load

Description: Defines a static load at a grid point by specifying a vector.

Format and Example:

1	2	3	4	5	6	7	8	9	10
FØRCE	SID	G	CID	F	N1	N2	N3		
FØRCE	2	5	6	2.9	0.0	1.0	0.0		

Field	Contents
SID	Load set identification number (Integer > 0)
G	Grid point identification number (Integer > 0)
CID	Coordinate system identification number (Integer ≥ 0)
F	Scale factor (Real)
N1,N2,N3	Components of Vector measured in coordinate system defined by CID (Real; $N1^2 + N2^2 + N3^2 > 0.0$)

Remarks: 1. The static load applied to grid point G is given by

$$\vec{f} = F\,\vec{N}$$

where $\vec{N}$ is the vector defined in fields 6, 7 and 8.

2. Load sets must be selected in the Case Control Deck (LOAD=SID) to be used by NASTRAN.

3. A CID of zero references the basic coordinate system.

Input Data Card GRAV Gravity Vector

Description: Used to define gravity vectors for use in determining gravity loading for the structural model.

Format and Example:

1	2	3	4	5	6	7	8	9	10
GRAV	SID	CID	G	N1	N2	N3			
GRAV	1	3	32.2	0.0	0.0	-1.0			

Field	Contents
SID	Set identification number (Integer > 0)
CID	Coordinate system identification number (Integer ≥ 0)
G	Gravity vector scale factor (Real)
N1, N2, N3	Gravity vector components (Real; $N1^2 + N2^2 + N3^2 > 0.0$)

Remarks: 1. The gravity vector is defined by

$$\vec{g} = G \cdot (N1, N2, N3).$$

2. A CID of zero references the basic coordinate system.
3. Gravity loads may be combined with "simple loads" (e.g., FØRCE, MØMENT) only by specification on a LØAD card. That is, the SID on a GRAV card may not be the same as that on a simple load card.
4. Load sets must be selected in the Case Control Deck (LØAD=SID) to be used by NASTRAN.

Input Data Card GRID Grid Point

Description: Defines the location of a geometric grid point of the structural model, the directions of its displacement, and its permanent single-point constraints.

Format and Example:

1	2	3	4	5	6	7	8	9	10
GRID	ID	CP	X1	X2	X3	CD	PS		
GRID	2	3	1.0	2.0	3.0		316		

Field	Contents
ID	Grid point identification number (0<Integer<999999)
CP	Identification number of coordinate system in which the location of the grid point is defined (Integer ≥ 0 or blank*).
X1,X2,X3	Location of the grid point in coordinate system CP (Real)
CD	Identification number of coordinate system in which displacements, degrees of freedom, constraints, and solution vectors are defined at the grid point (Integer ≥ 0 or blank*)
PS	Permanent single-point constraints associated with grid point (any of the digits 1-6 with no imbedded blanks) (Integer ≥ 0 or blank*)

Remarks: 1. All grid point identification numbers must be unique with respect to all other structural, scalar, and fluid points.

2. The meaning of X1, X2 and X3 depend on the type of coordinate system, CP, as follows: (see CØRD__ card descriptions)

Type	X1	X2	X3
Rectangular	X	Y	Z
Cylindrical	R	Θ(degrees)	Z
Spherical	R	Θ(degrees)	Φ(degrees)

3. The collection of all CD coordinate systems defined on all GRID cards is called the Global Coordinate System. All degrees-of-freedom, constraints, and solution vectors are expressed in the Global Coordinate System.

* See the GRDSET card for default options for fields 3, 7 and 8.

Input Data Card MAT1 Material Property Definition

Description: Defines the material properties for linear, temperature-independent, isotropic materials.

Format and Example:

1	2	3	4	5	6	7	8	9	10
MAT1	MID	E	G	NU	RHØ	A	TREF	GE	+abc
MAT1	17	3.+7	1.9+7		4.28	0.19	5.37+2	0.23	ABC
+abc	ST	SC	SS						
+BC	20.+4	15.+4	12.+4						

Field	Contents
MID	Material identification number (Integer > 0)
E	Young's modulus (Real ≥ 0.0 or blank)
G	Shear modulus (Real ≥ 0.0 or blank)
NU	Poisson's ratio (-1.0 < Real ≤ 0.5 or blank)
RHØ	Mass density (Real)
A	Thermal expansion coefficient (Real)
TREF	Thermal expansion reference temperature (Real)
GE	Structural element damping coefficient (Real)
ST, SC, SS	Stress limits for tension, compression and shear (Real) (Required for Property Optimization calculations; otherwise optional if margins of safety are desired.)

Remarks:

1. One of E or G must be positive (i.e., either E > 0.0 or G > 0.0 or both E and G may be > 0.0).
2. If any one of E, G or NU is blank, it will be computed to satisfy the identity E = 2(1+NU)G; otherwise, values supplied by the user will be used.
3. The material identification number must be unique for all MAT1, MAT2 and MAT3 cards.
4. MAT1 materials may be made temperature dependent by use of the MATT1 card.
5. The mass density, RHØ, will be used to automatically compute mass for all structural elements except the two-dimensional bending only elements TRBSC, TRPLT and QDPLT.
6. If E and NU or G and NU are both blank they will be both given the value 0.0.
7. Weight density may be used in field 6 if the value $\frac{1}{g}$ is entered on the PARAM card WTMASS, where g is the acceleration of gravity.
8. Solid elements must not have NU equal to 0.5.

Input Data Card MPC Multipoint Constraint

Description: Defines a multipoint constraint equation of the form

$$\sum_j A_j u_j = 0$$

Format and Example:

1	2	3	4	5	6	7	8	9	10
MPC	SID	G	C	A	G	C	A		abc
MPC	3	28	3	6.2	2		4.29		+B
+bc		G	C	A	-etc.-				
+B		1	4	-2.91					

Field	Contents
SID	Set identification number (Integer > 0)
G	Identification number of grid or scalar point (Integer > 0)
C	Component number - any one of the digits 1-6 in the case of geometric grid points; blank or zero in the case of scalar points (Integer)
A	Coefficient (Real; the first A must be nonzero)

Remarks:

1. The first coordinate in the sequence is assumed to be the dependent coordinate and must be unique for all equations of the set.
2. Forces of multipoint constraint are not recovered.
3. Multipoint constraint sets must be selected in the Case Control Deck (MPC=SID) to be used by NASTRAN.
4. Dependent coordinates on MPC cards may not appear on ØMIT, ØMIT1, SUPØRT, SPC or SPC1 cards; nor may the dependent coordinates be redundantly implied on ASET, ASET1, or MPCADD cards. They also may not appear as dependent coordinates in CRIGD1, CRIGD2, CRIGD3, or CRIGDR elements.

Input Data Card PBAR Simple Beam Property

Description: Defines the properties of a simple beam (bar) which is used to create bar elements via the CBAR card.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PBAR	PID	MID	A	I1	I2	J	NSM		abc
PBAR	39	6	2.9		5.97				123
+bc	C1	C2	D1	D2	E1	E2	F1	F2	def
+23			2.0	4.0					
+ef	K1	K2	I12						

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
A	Area of bar cross-section (Real)
I1, I2, I12	Area moments of inertia (Real, $I_1 I_2 \geq I_{12}^2$)
J	Torsional constant (Real)
NSM	Nonstructural mass per unit length (Real)
K1, K2	Area factor for shear (Real)
Ci, Di, Ei, Fi	Stress recovery coefficients (Real)

Remarks: 1. For structural problems, PBAR cards may only reference MAT1 material cards.

2. See Section 1.3.2 for a discussion of bar element geometry.

3. For heat transfer problems, PBAR cards may only reference MAT4 or MAT5 material cards.

Input Data Card PQDMEM2 Quadrilateral Membrane Property

Description: Used to define the properties of a quadrilateral membrane. Referenced by the CQDMEM2 card. No bending properties are included.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PQDMEM2	PID	MID	T	NSM	PID	MID	T	NSM	
PQDMEM2	235	2	0.5	0.0					

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
T	Thickness of membrane (Real > 0.0)
NSM	Nonstructural mass per unit area (Real)

Remarks: 1. All PQDMEM2 cards must have unique property identification numbers.

2. One or two quadrilateral membrane properties may be defined on a single card.

Input Data Card PQUAD2 Homogeneous Quadrilateral Property

Decription : Defines the properties of a homogeneous quadrilateral element of the structural model, including bending, membrane and transverse shear effects. Referenced by the CQUAD2 card.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PQUAD2	PID	MID	T	NSM	PID	MID	T	NSM	
PQUAD2	32	16	2.98	9.0	45	16	5.29	6.32	

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
T	Thickness (Real> 0.0)
NSM	Nonstructual mass per unit area (Real)

Remarks:
1. All PQUAD2 cards must have unique identification numbers.
2. The thickness used to compute membrane and transverse shear properties is T.
3. The area moment of inertia per unit width used to compute the bending stiffness is $T^3/12$.
4. Outer fiber distances of $\pm T/2$ are assumed.
5. One or two homogeneous quadrilateral properties may be defined on a single card.

Input Data Card PSHEAR Shear Panel Property

Description: Defines the elastic properties of a shear panel. Referenced by the CSHEAR card.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PSHEAR	PID	MID	T	NSM	PID	MID	T	NSM	
PSHEAR	13	2	4.9	16.2	14	6	4.9	14.7	

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
T	Thickness of shear panel (Real ≠ 0.0)
NSM	Nonstructural mass per unit area (Real)

Remarks: 1. All PSHEAR cards must have unique identification numbers.

2. PSHEAR cards may only reference MAT1 material cards.

3. One or two shear panel properties may be defined on a single card.

Input Data Card PTRIA2 Homogeneous Triangular Element Property

Description: Defines the properties of a homogeneous triangular element of the structural model, including membrane, bending and transverse shear effects. Referenced by the CTRIA2 card.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PTRIA2	PID	MID	T	NSM	PID	MID	T	NSM	
PTRIA2	2	16	3.92	14.7	6	16	2.96		

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
T	Thickness (Real > 0.0)
NSM	Nonstructural mass per unit area (Real)

Remarks:

1. All PTRIA2 cards must have unique identification numbers.
2. The thickness used to compute the membrane and transverse shear properties is T.
3. The area moment of inertia per unit width used to compute the bending stiffness is $T^3/12$.
4. Outer fiber distances of $\pm T/2$ are assumed.
5. One or two homogeneous triangular element properties may be defined on a single card.

Input Data Card PTRMEM Triangular Membrane Property

Description: Used to define the properties of a triangular membrane element. Referenced by the CTRMEM card. No bending properties are included.

Format and Example:

1	2	3	4	5	6	7	8	9	10
PTRMEM	PID	MID	T	NSM	PID	MID	T	NSM	
PTRMEM	17	23	4.25	0.2					

Field	Contents
PID	Property identification number (Integer > 0)
MID	Material identification number (Integer > 0)
T	Membrane thickness (Real> 0.0)
NSM	Nonstructural mass per unit area (Real)

Remarks: 1. All PTRMEM cards must have unique property identification numbers.

2. One or two triangular membrane properties may be defined on a single card.

Input Data Card SPC1 Single-Point Constraint

Description: Defines sets of single-point constraints.

Format and Example:

1	2	3	4	5	6	7	8	9	10
SPC1	SID	C	G1	G2	G3	G4	G5	G6	abc
SPC1	3	2	1	3	10	9	6	5	ABC
+bc	G7	G8	G9	-etc.-					
+BC	2	8							

Alternate Form

SPC1	SID	C	GID1	"THRU"	GID2				
SPC1	313	12456	6	THRU	32				

Field	Contents
SID	Identification number of single-point constraint set (Integer > 0)
C	Component number (Any unique combination of the digits 1-6 (with no imbedded blanks) when point identification numbers are grid points; must be null if point identification numbers are scalar points)
Gi, GIDi	Grid or scalar point identification numbers (Integer > 0)

Remarks:

1. Note that enforced displacements are not available via this card. As many continuation cards as desired may appear when "THRU" is not used.
2. A coordinate referenced on this card may not appear as a dependent coordinate in a multipoint constraint relation, nor may it be referenced on a SPC, ØMIT, ØMIT1, SUPØRT card.
3. Single-point constraint sets must be selected in the Case Control Deck (SPC=SID) to be used by NASTRAN.
4. SPC degrees of freedom may be redundantly specified as permanent constraints on the GRID card.
5. All grid points referenced by GID1 thru GID2 must exist.

Input Data Card SPCADD Single-Point Constraint

Description: Defines a single-point constraint set as a union of single-point constraint sets defined via SPC or SPC1 cards.

Format and Example:

1	2	3	4	5	6	7	8	9	10
SPCADD	SID	S1	S2	S3	S4	S5	S6	S7	abc
SPCADD	100	3	2	9	1				
+bc	S8	S9	-etc.-						

-etc.-

Field	Contents
SID	Identification number for new single-point constraint set (Integer > 0; ≠ 101 or 102 if axisymmetric)
Si	Identification numbers of single-point constraint sets defined via SPC or SPC1 cards (Integer > 0; SID ≠ Si)

Remarks:
1. Single-point constraint sets must be selected in the Case Control Deck (SPC=SID) to be used by NASTRAN.
2. No Si may be the identification number of a single-point constraint set defined by another SPCADD card.
3. The Si values must be unique.
4. Set identification numbers of 101 or 102 cannot be used in axisymmetric problems.

Appendix C

FUSELAGE STRUCTURE

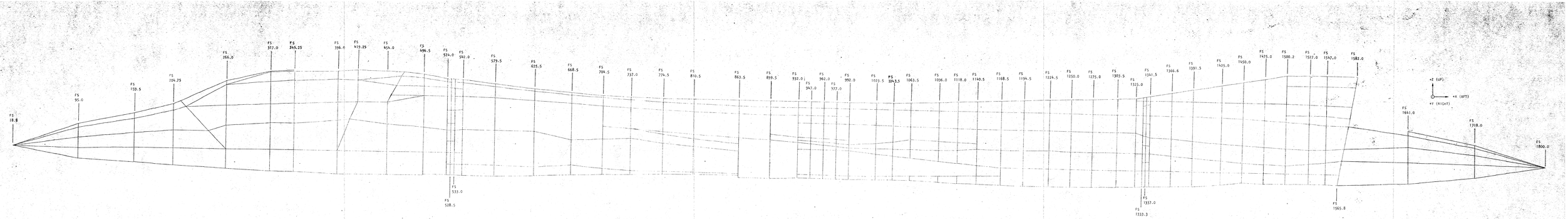


Figure C-1. - NASTRAN fuselage model - side view.

Figure C-2. - NASTRAN fuselage model - side view grid numbers.

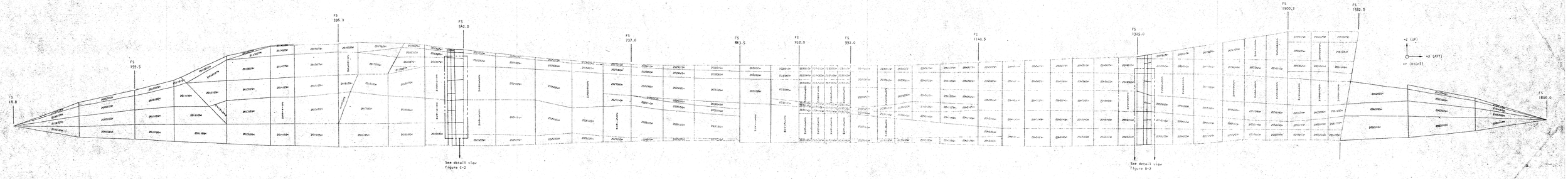


Figure 4.3. - NSTRAN fuselage model - side view axial elements.

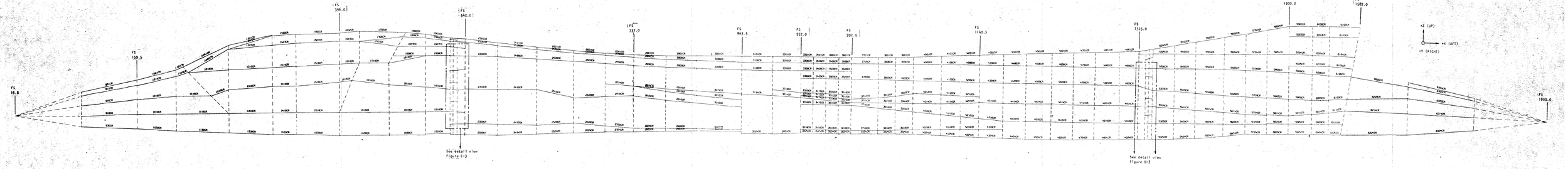


Figure C-4. - NASTRAN fuselage model - side view panel IB.

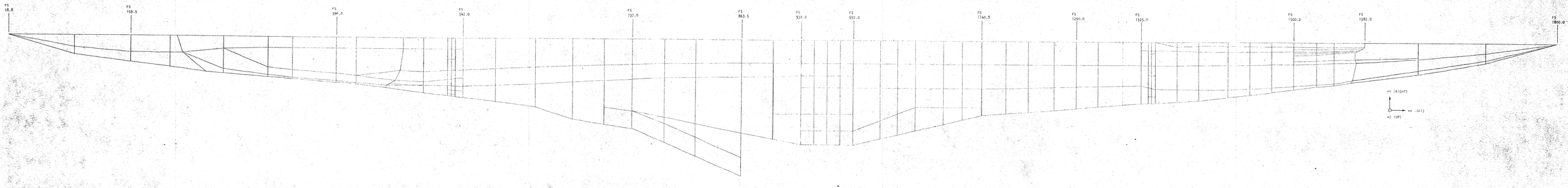


Figure C-5. - NASTRN fuselage model - top view.

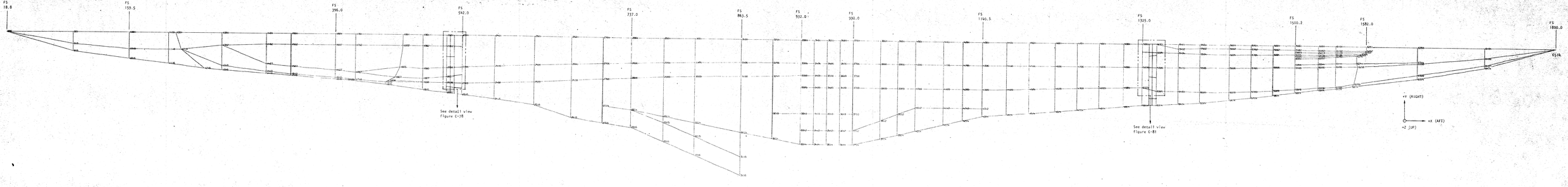


Figure C-6.- NASTRAN fuselage model - top view grid numbers.

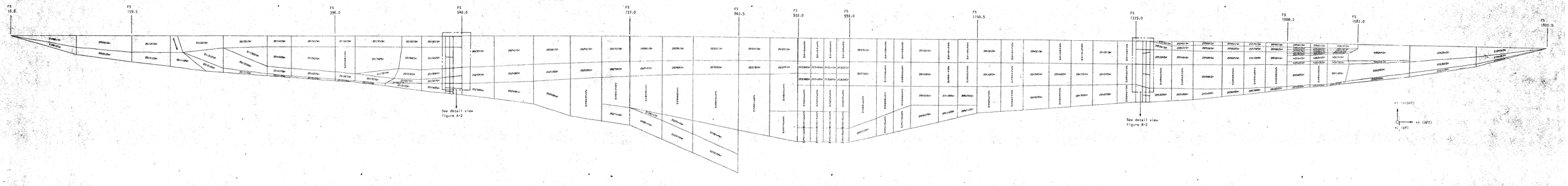


Figure C-2. - NASTRAN finelage model: top view axial elements.

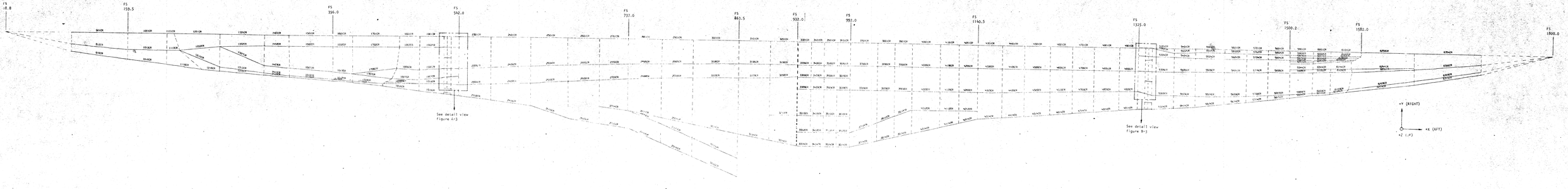


Figure C-8. - NASTRAN fuselage model - top view panel ID.

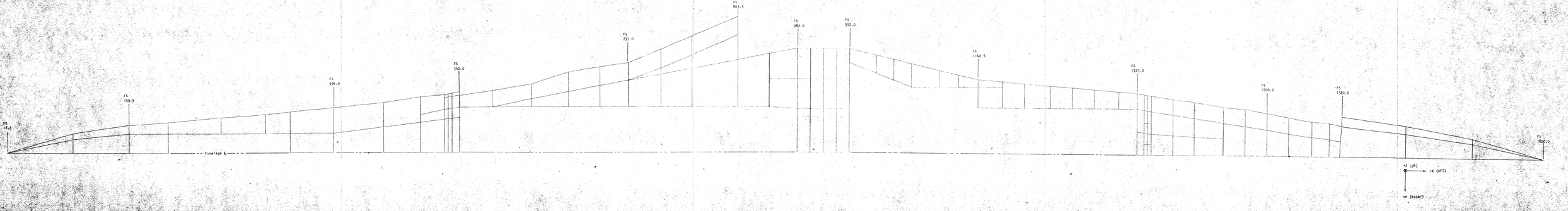


Figure C-9. - NASTRAN fineline model - bottom view.

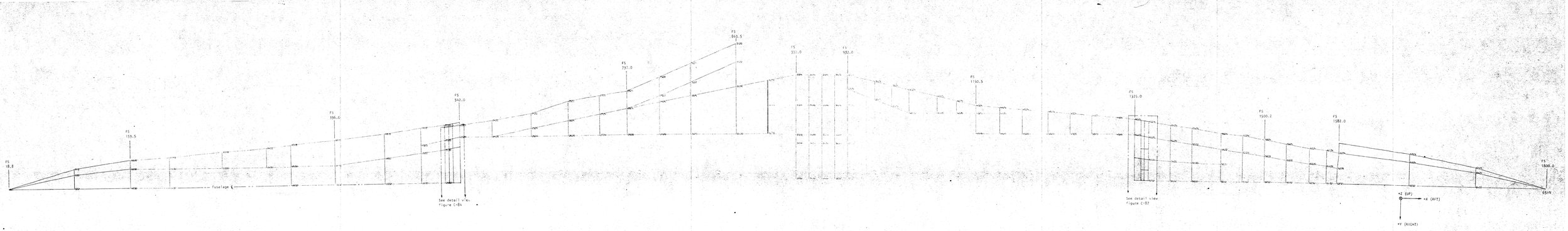


Figure C-10. - NASTRAN fuselage model - bottom view grid numbers.

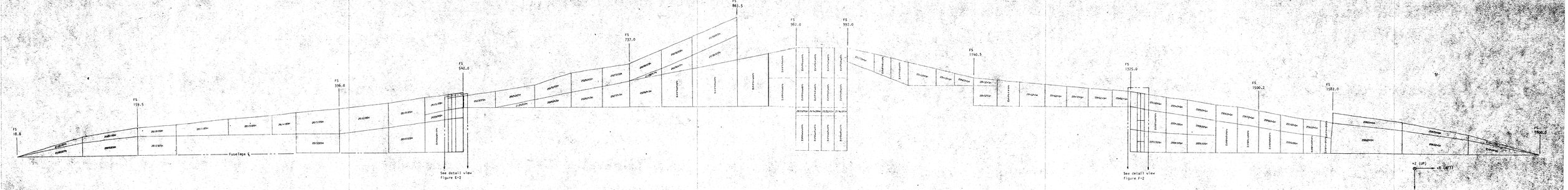


Figure C-11. - NASTRAN fuselage model - bottom view axial elements.

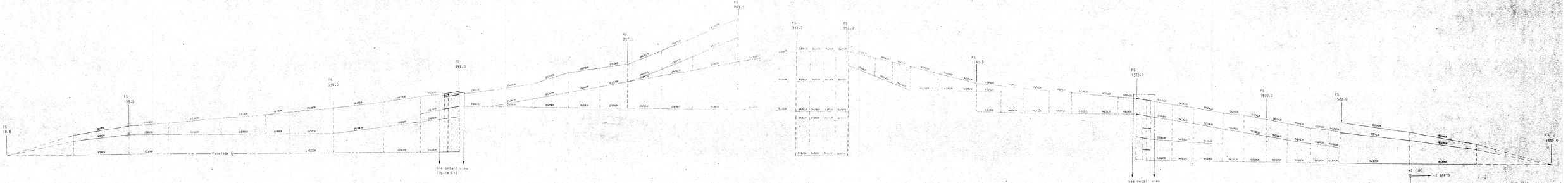


Figure C-12. - NASTRAN fuselage model - bottom view panel ID.

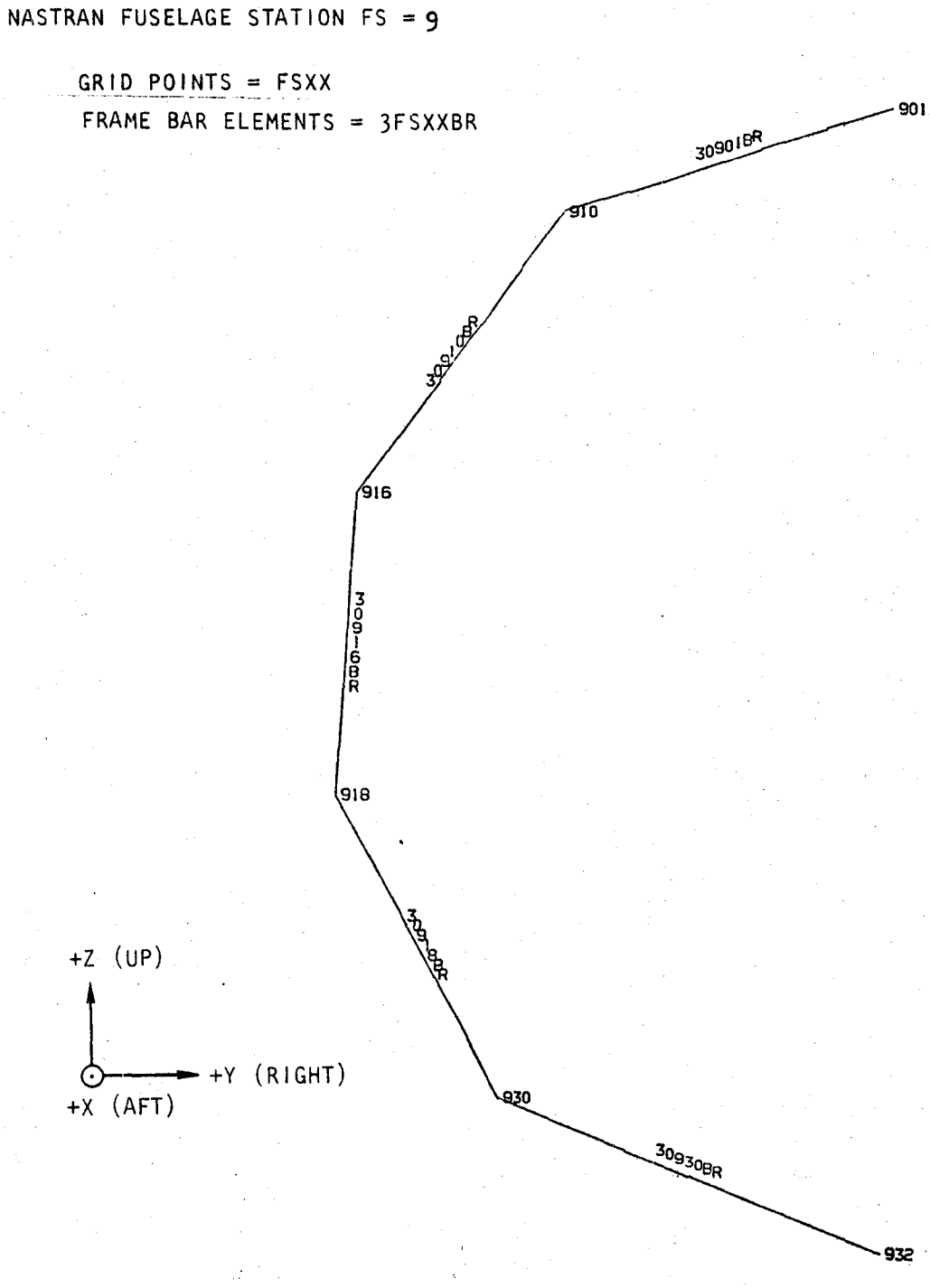


Figure C-13. - NASTRAN model fuselage station 95.0.

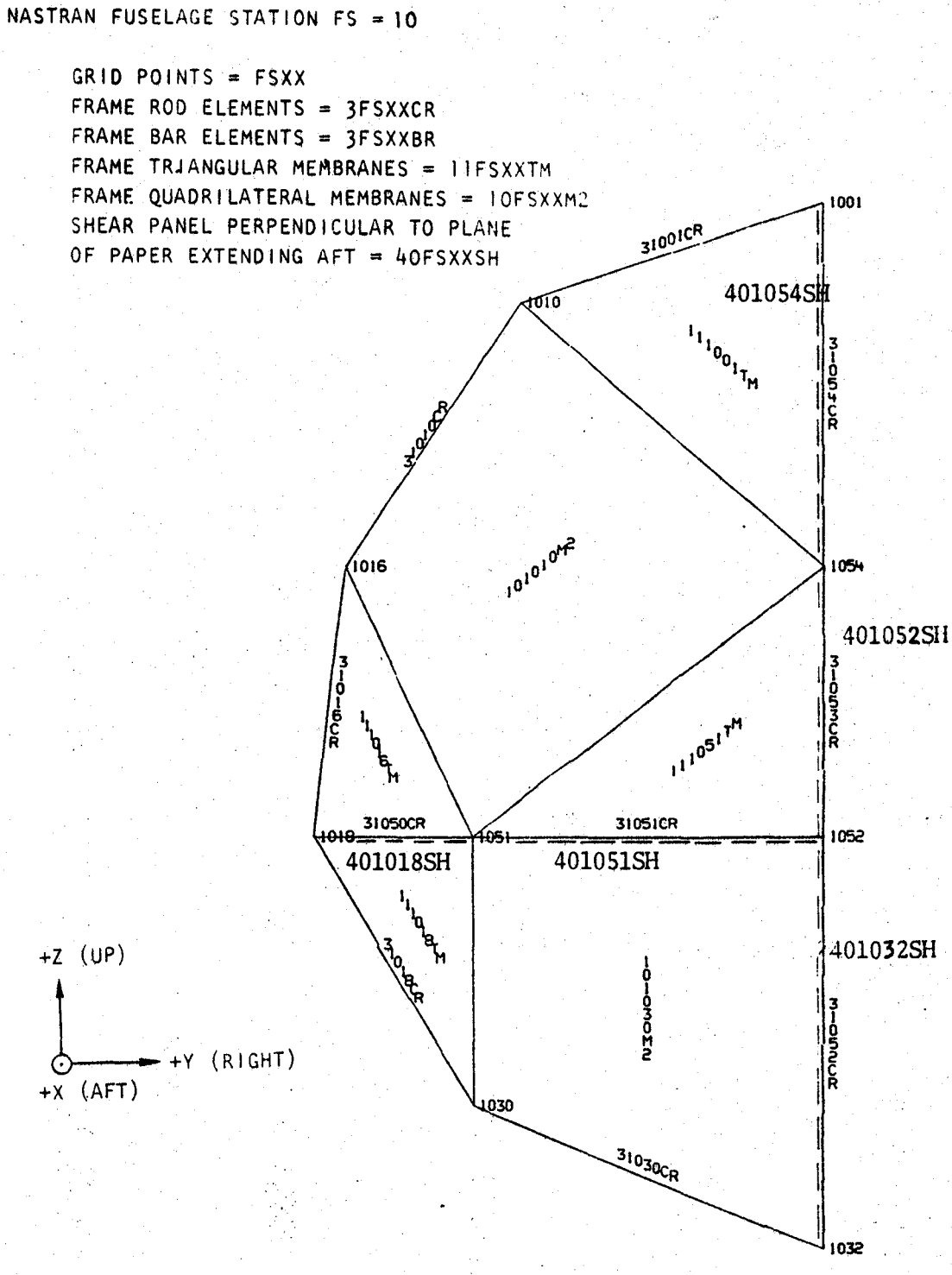


Figure C-14. - NASTRAN model fuselage station 159.5.

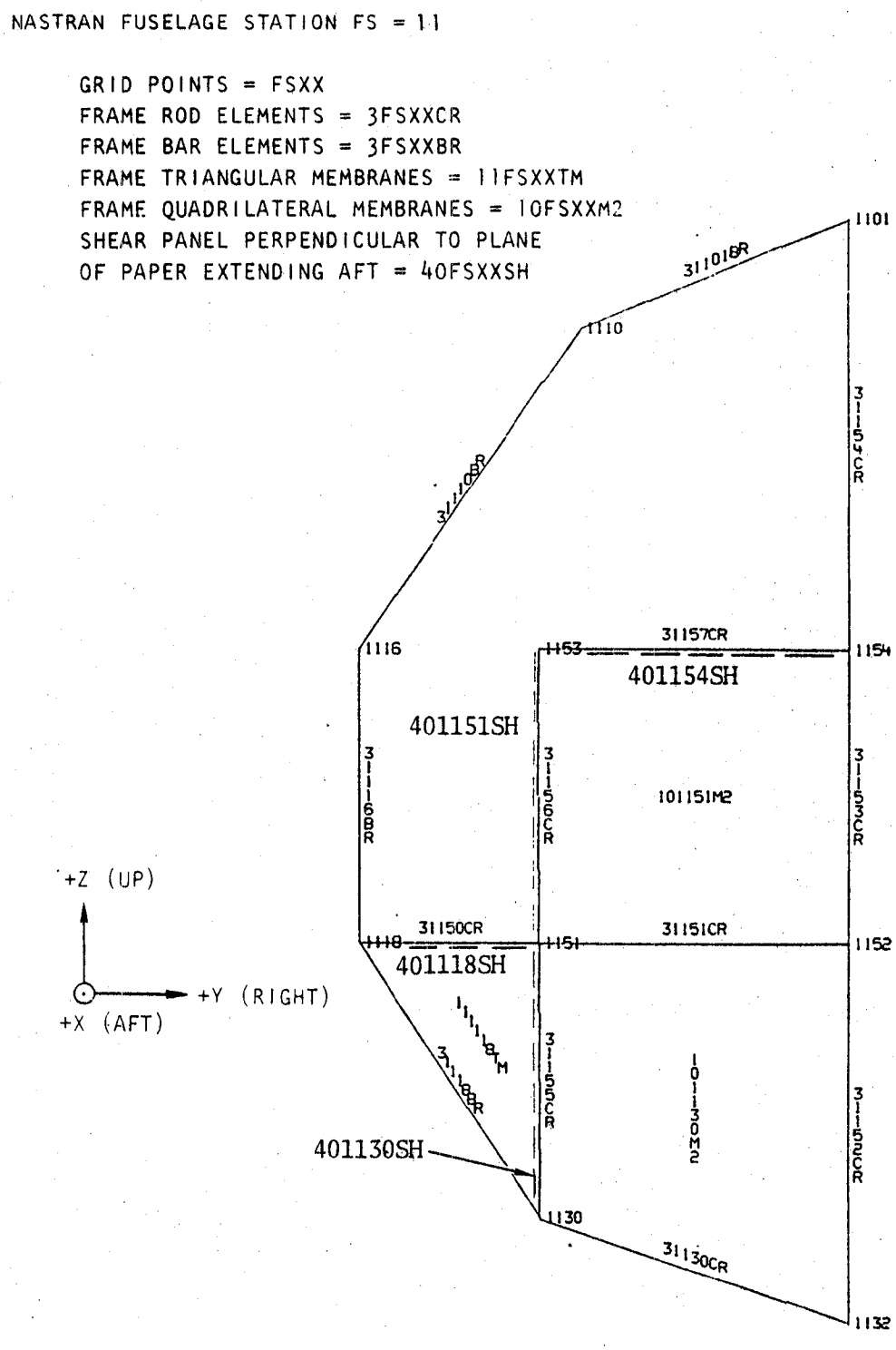


Figure C-15. - NASTRAN model fuselage station 204.75.

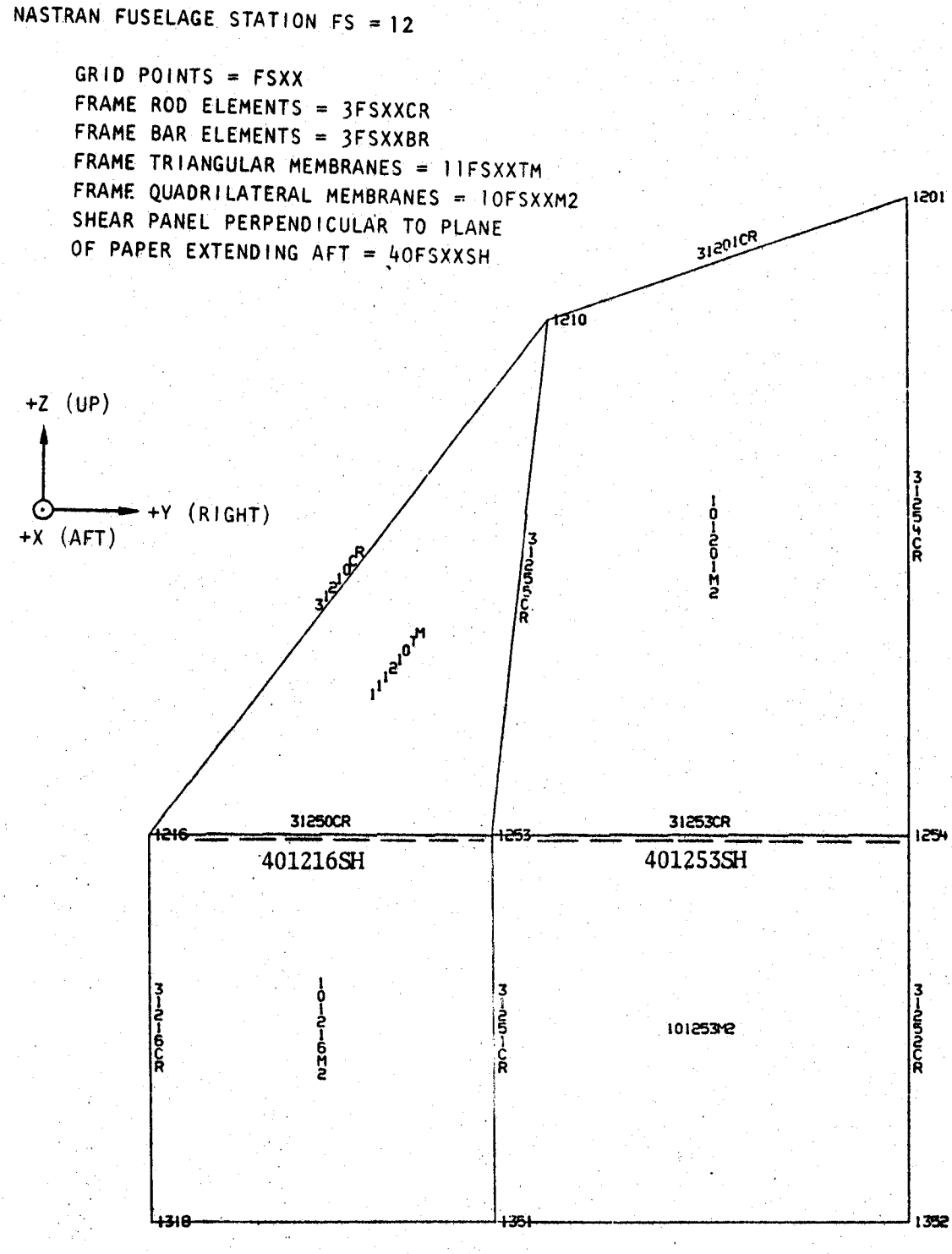


Figure C-16. - NASTRAN model fuselage crew cabin forward bulkhead.

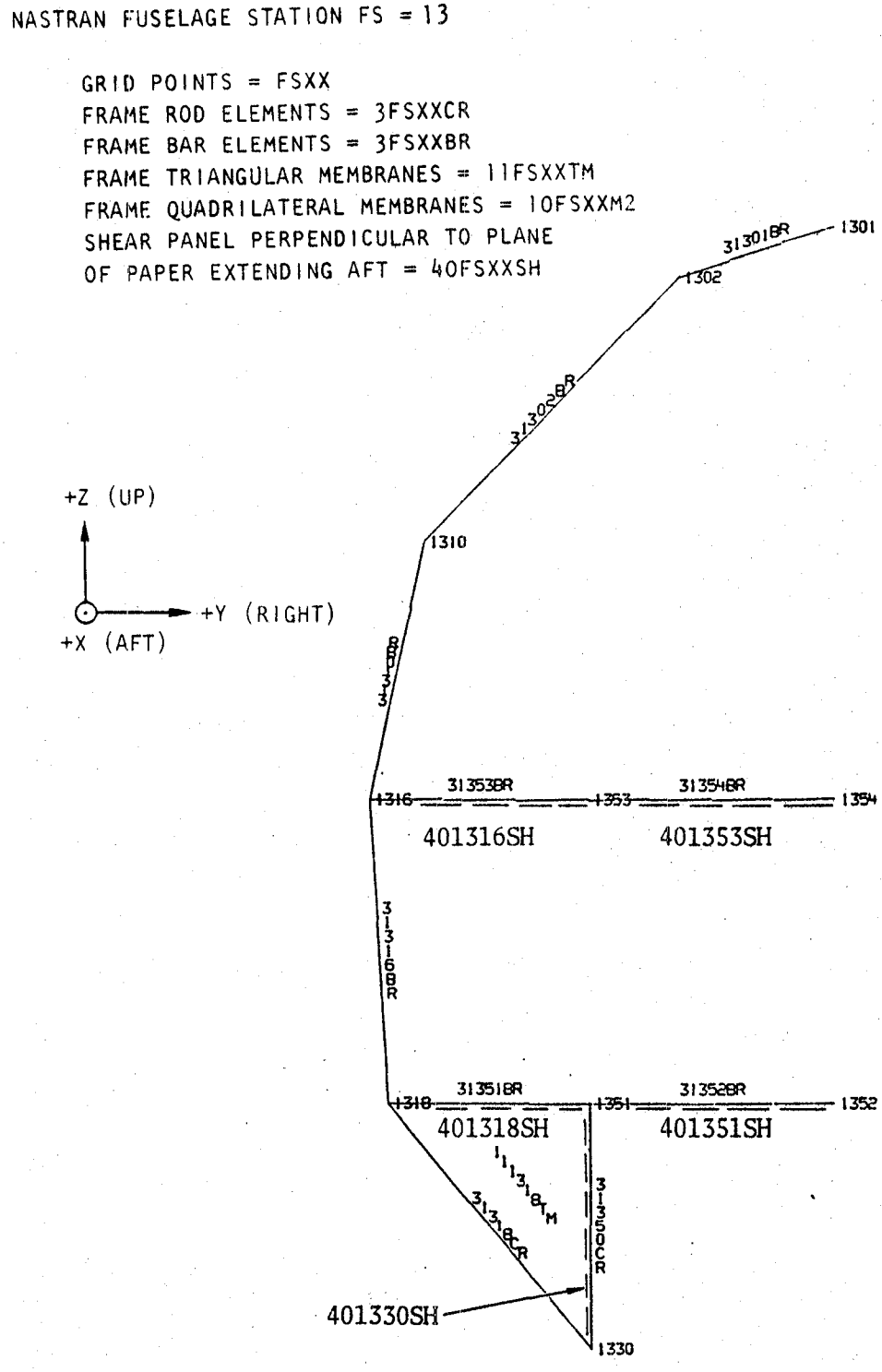


Figure C-17. - NASTRAN model fuselage station 266.0.

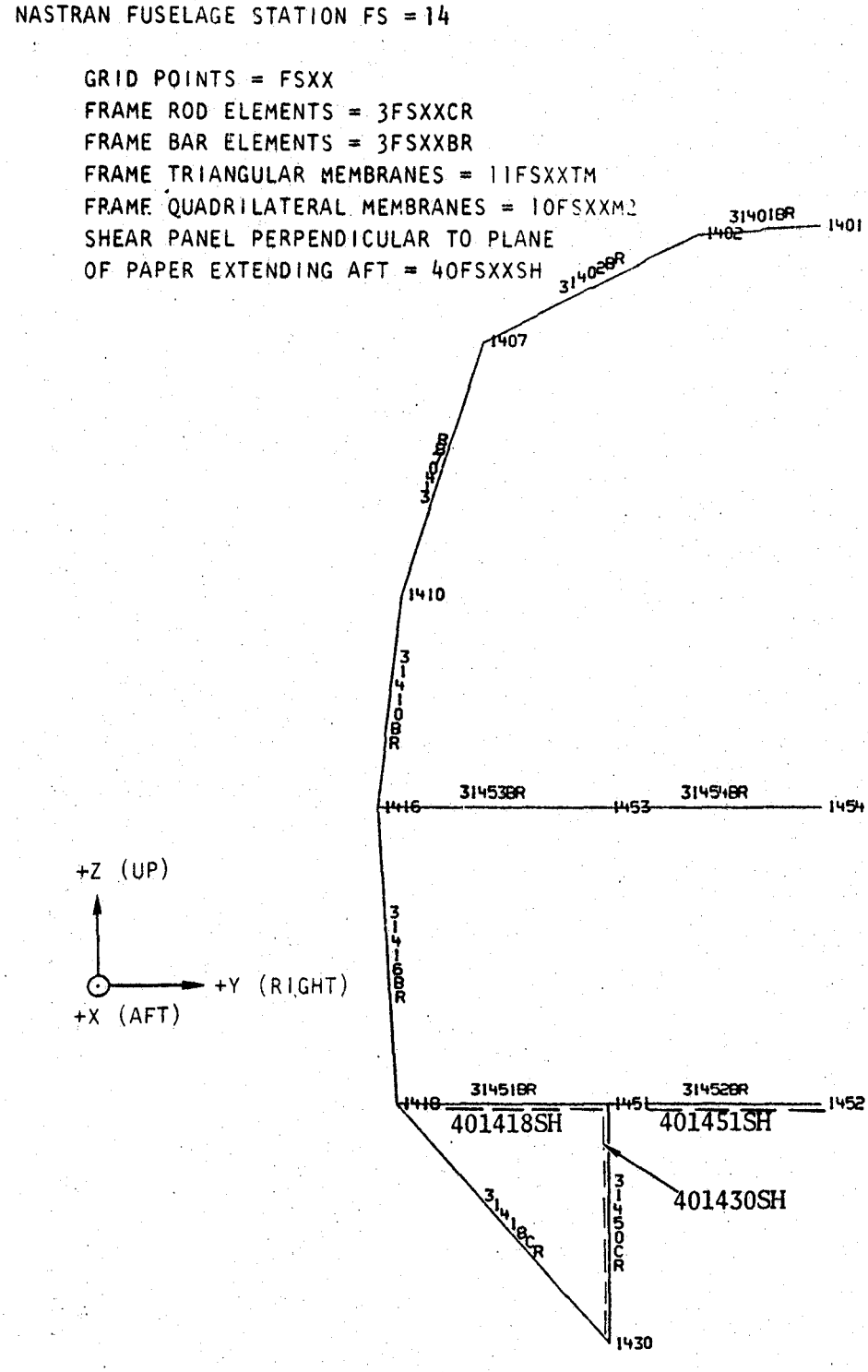


Figure C-18. - NASTRAN model fuselage station 317.0.

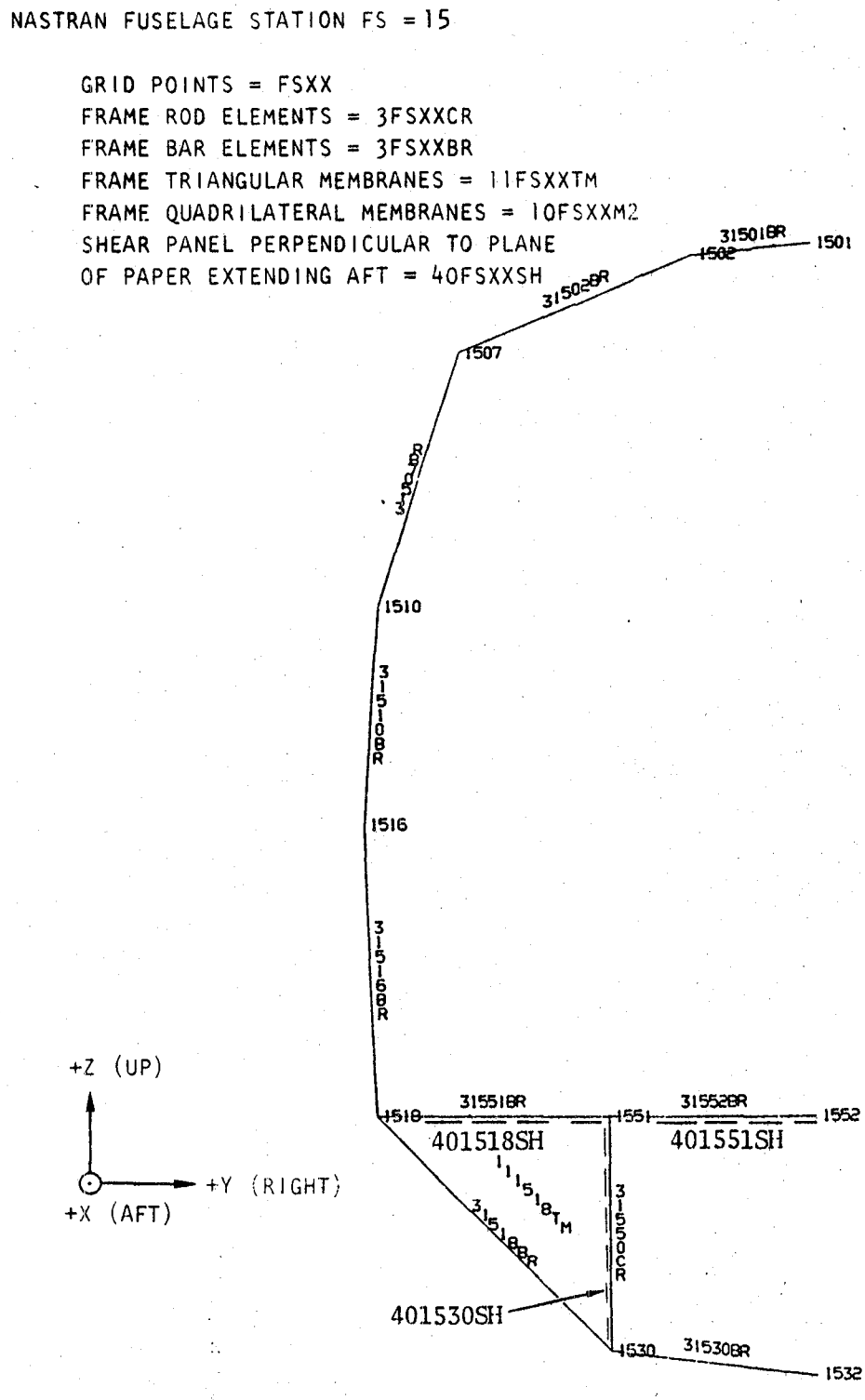


Figure C-19. - NASTRAN model fuselage station 345.25.

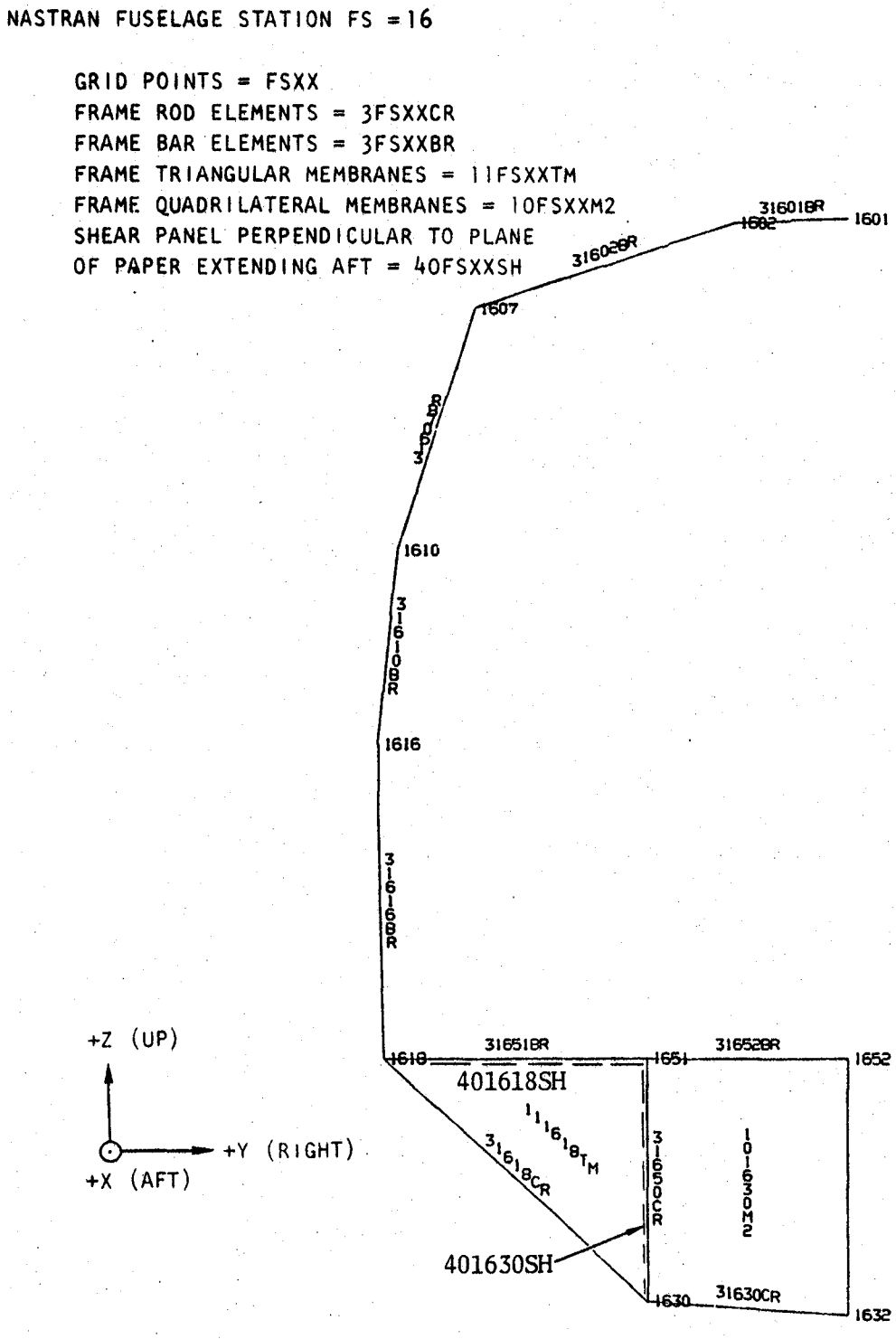


Figure C-20. - NASTRAN model fuselage station 396.0.

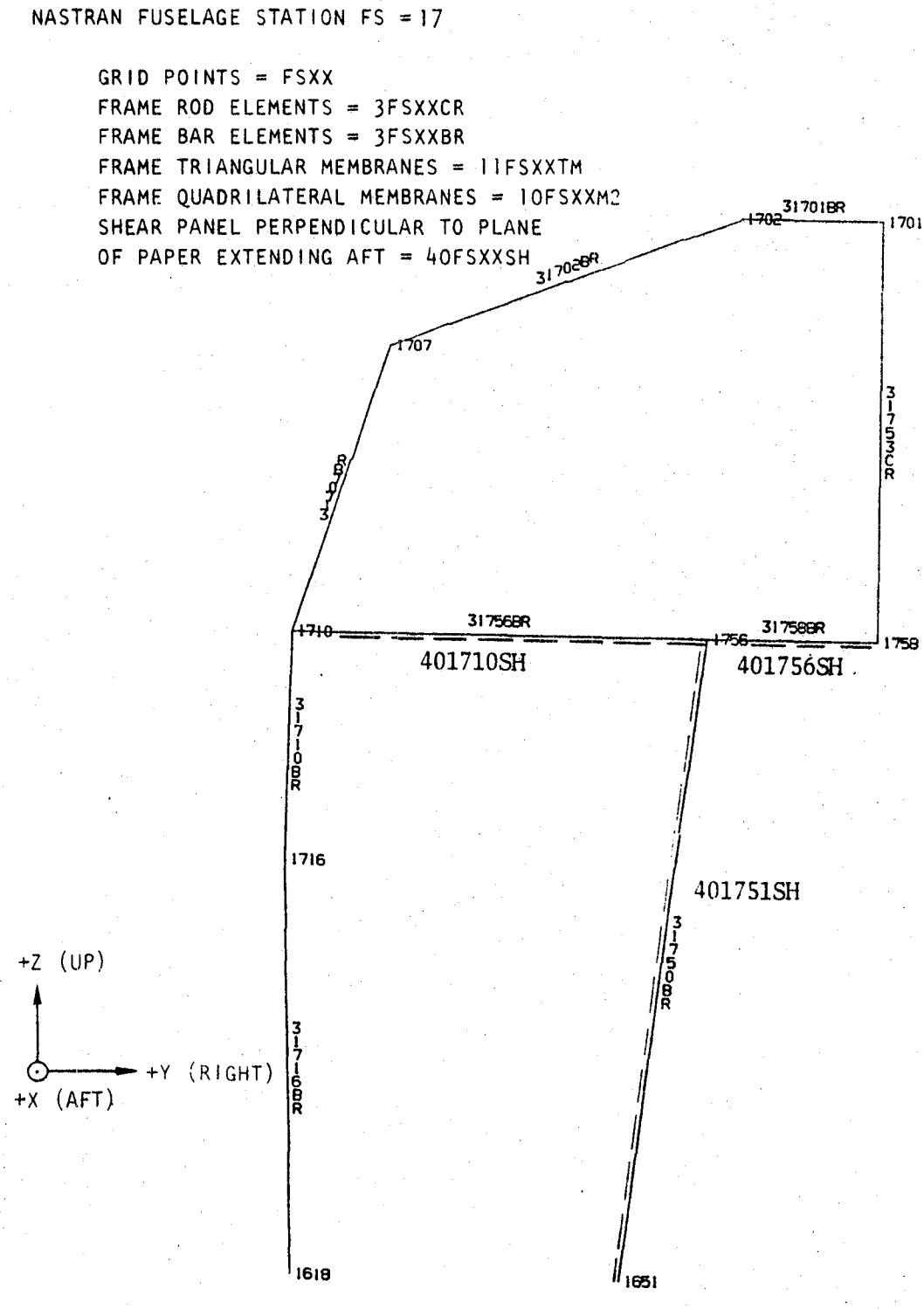


Figure C-21. - NASTRAN model fuselage station 419.25.

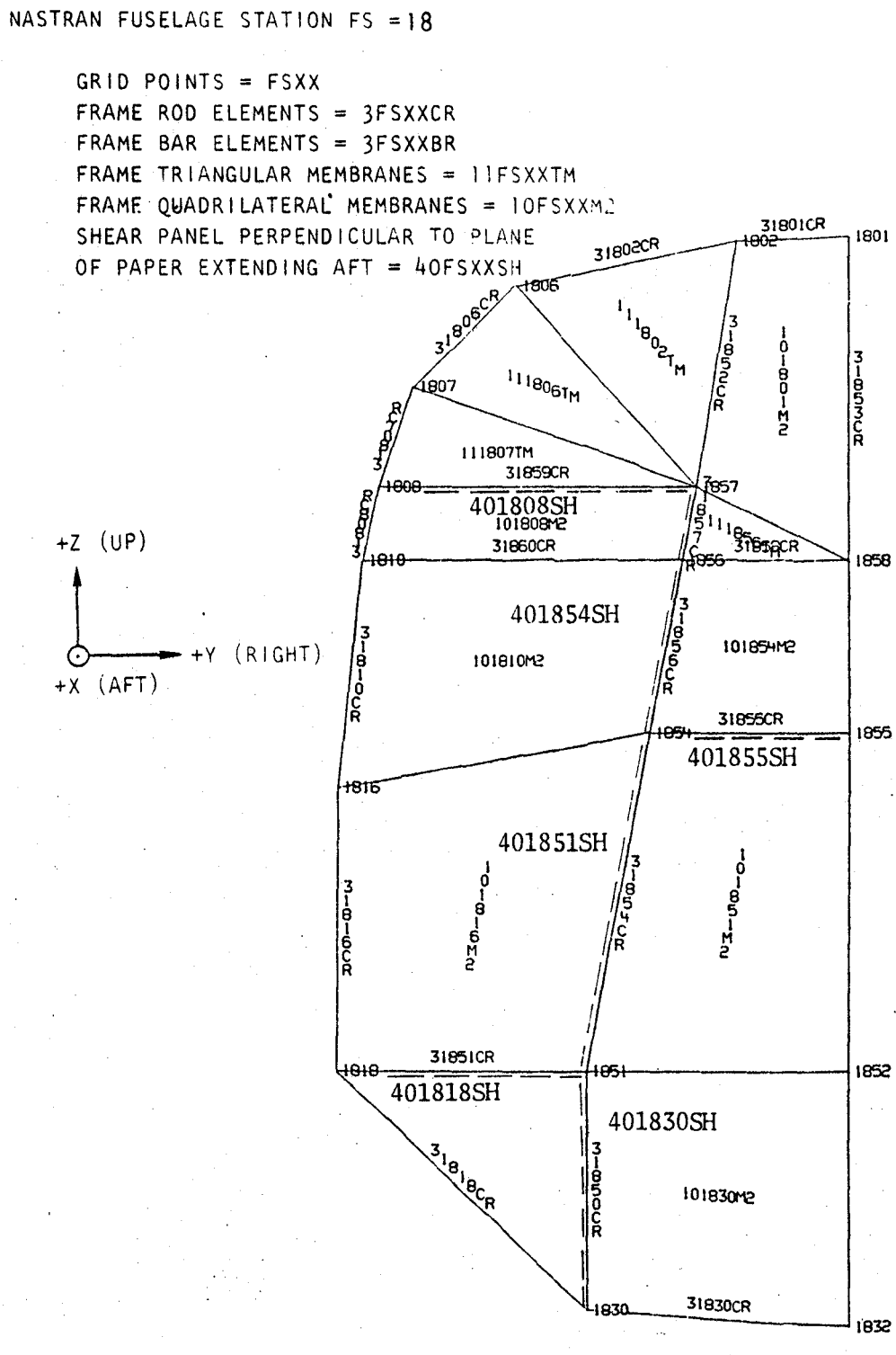


Figure C-22. - NASTRAN model fuselage station 454.0.

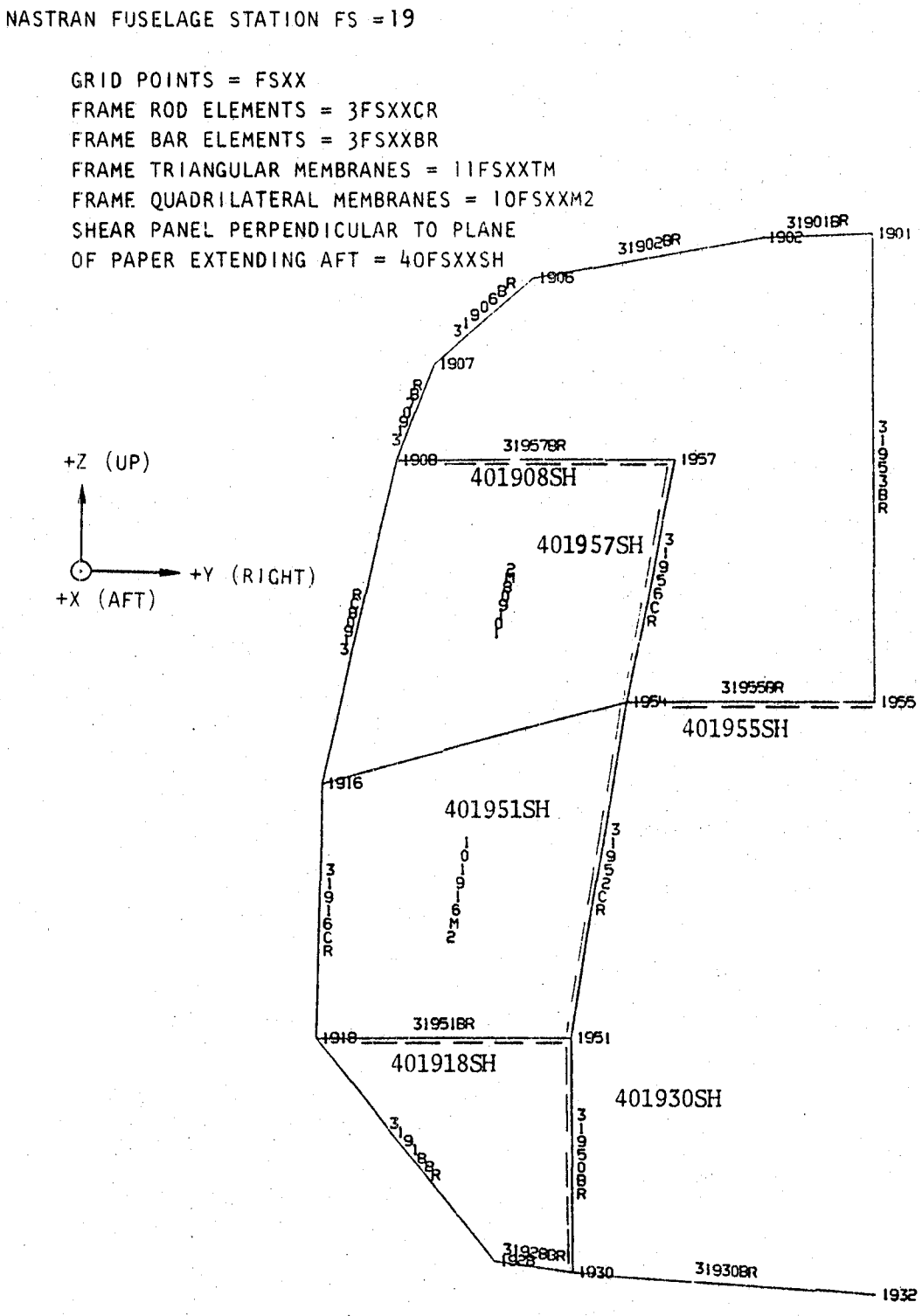


Figure C-23. - NASTRAN model fuselage station 496.5.

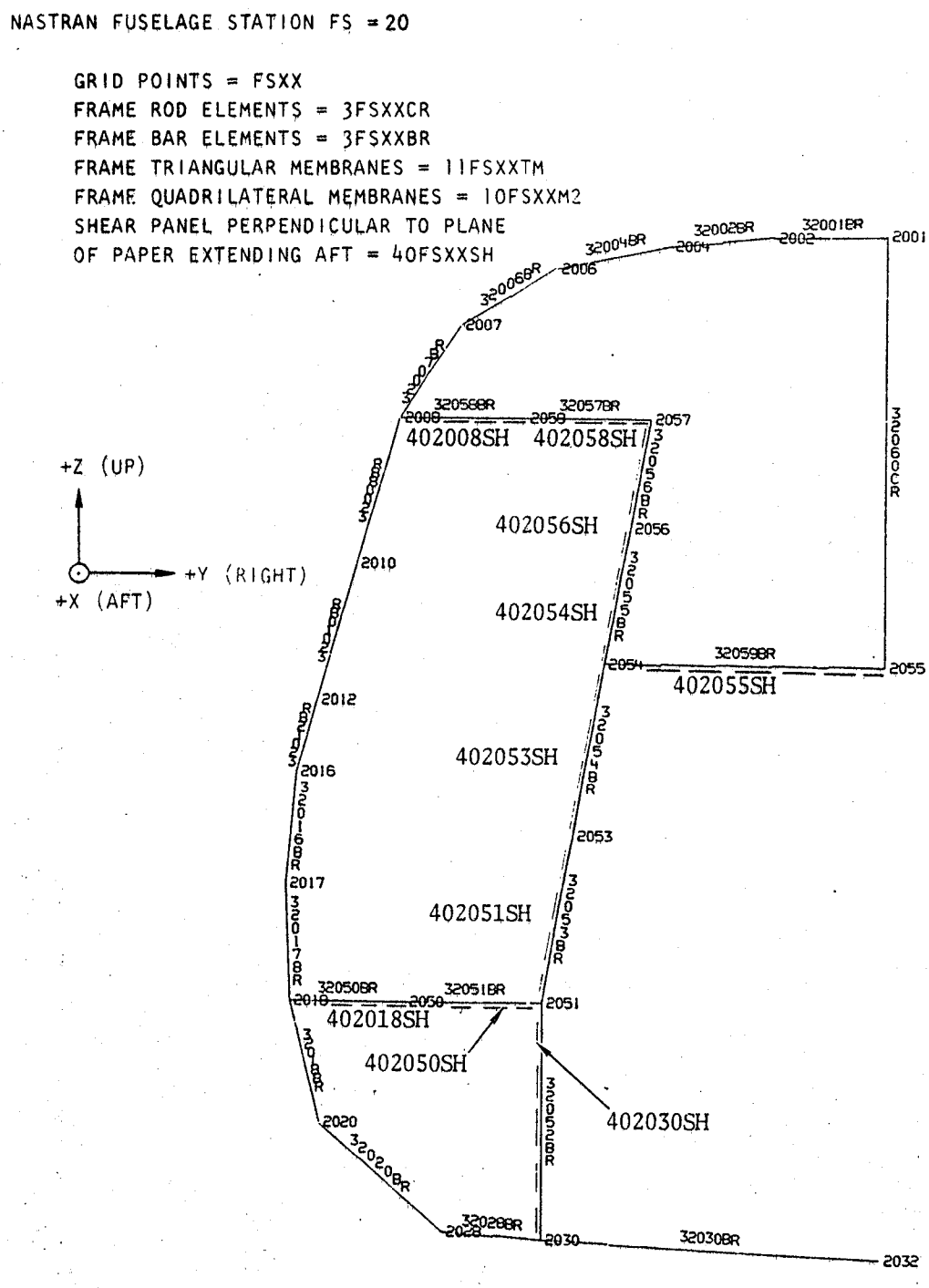


Figure C-24. - NASTRAN model fuselage station 524.0.

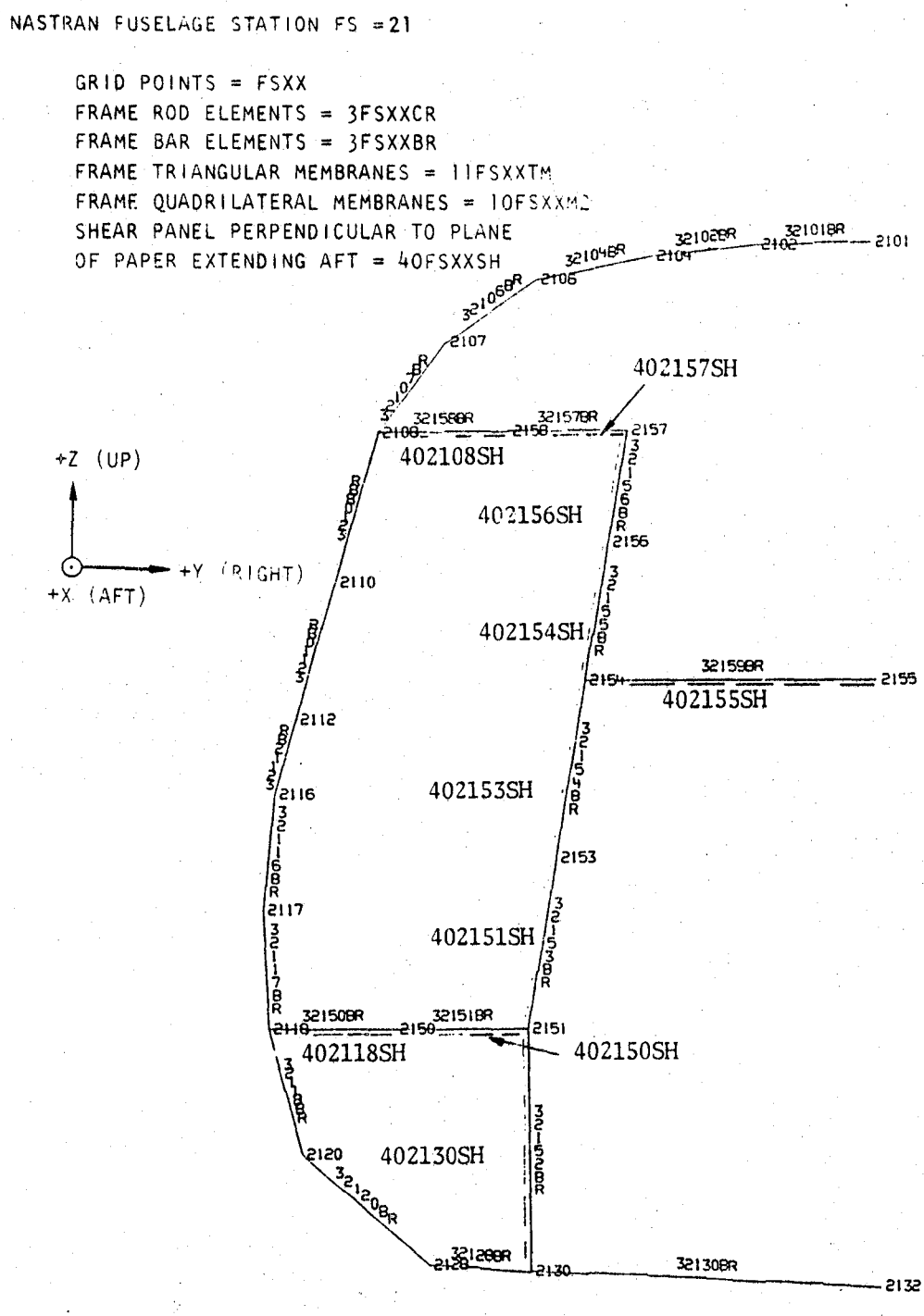


Figure C-25. - NASTRAN model fuselage station 528.5.

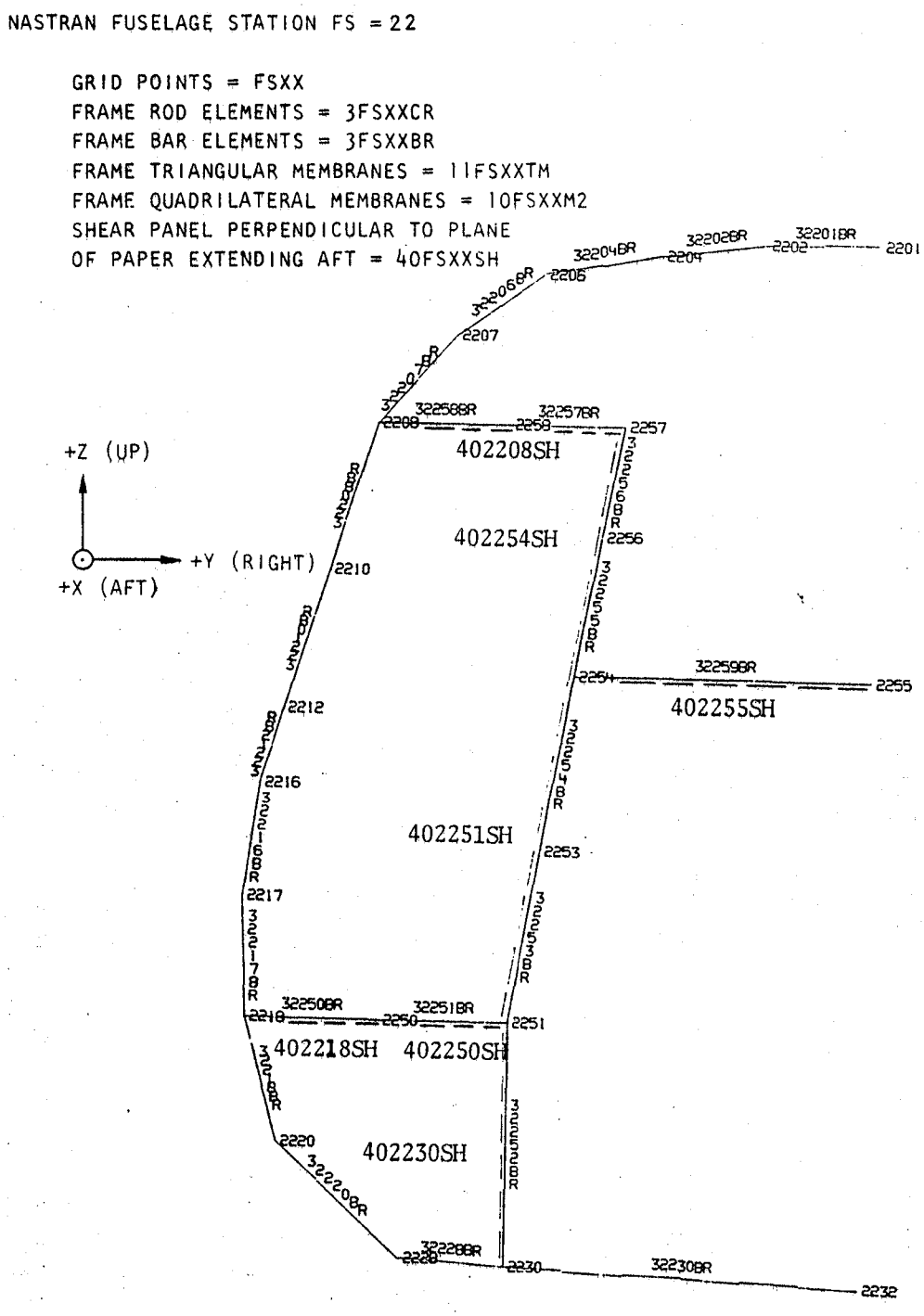


Figure C-26. - NASTRAN model fuselage station 533.0.

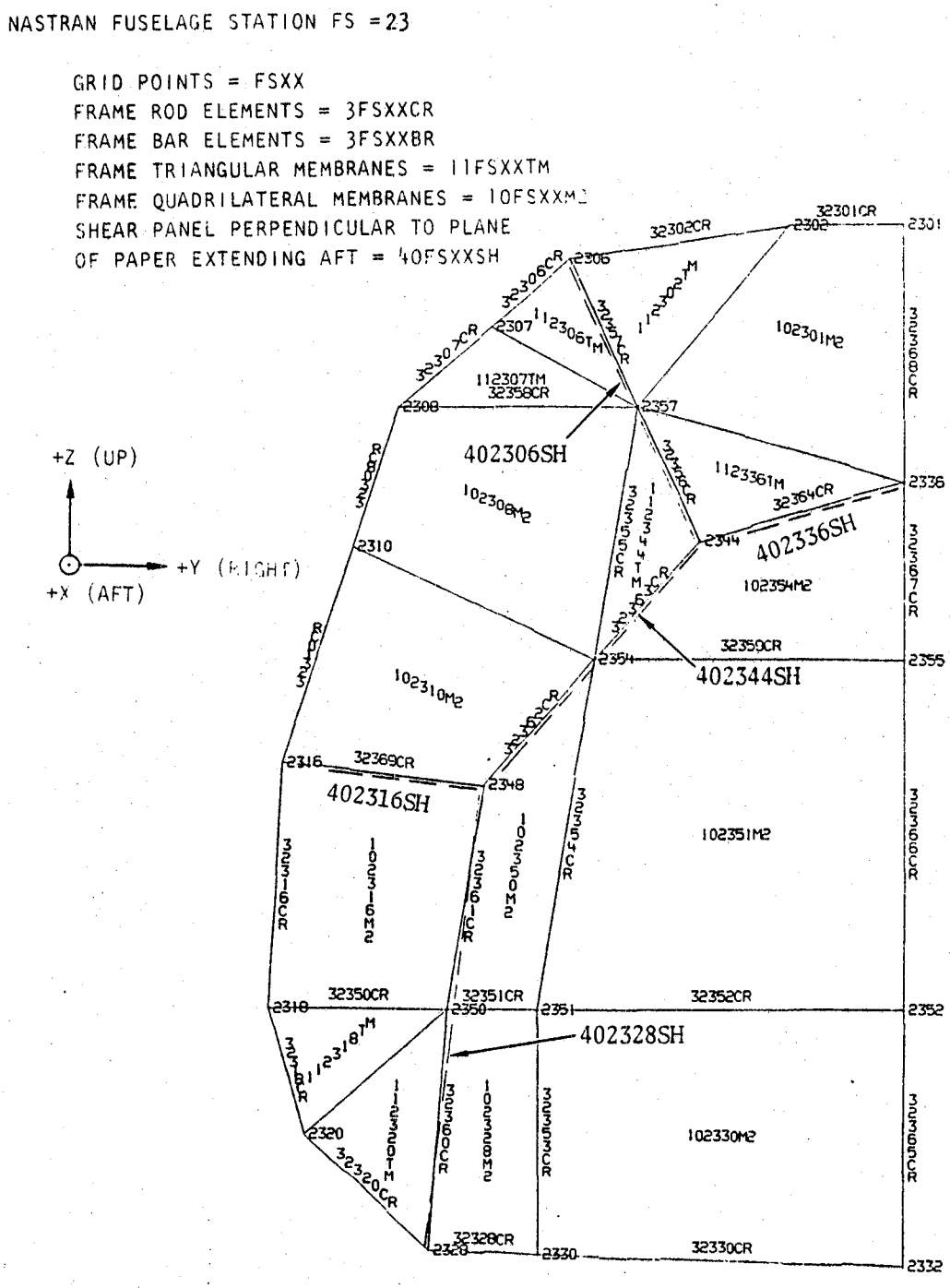


Figure C-27. - NASTRAN model fuselage station 542.0.

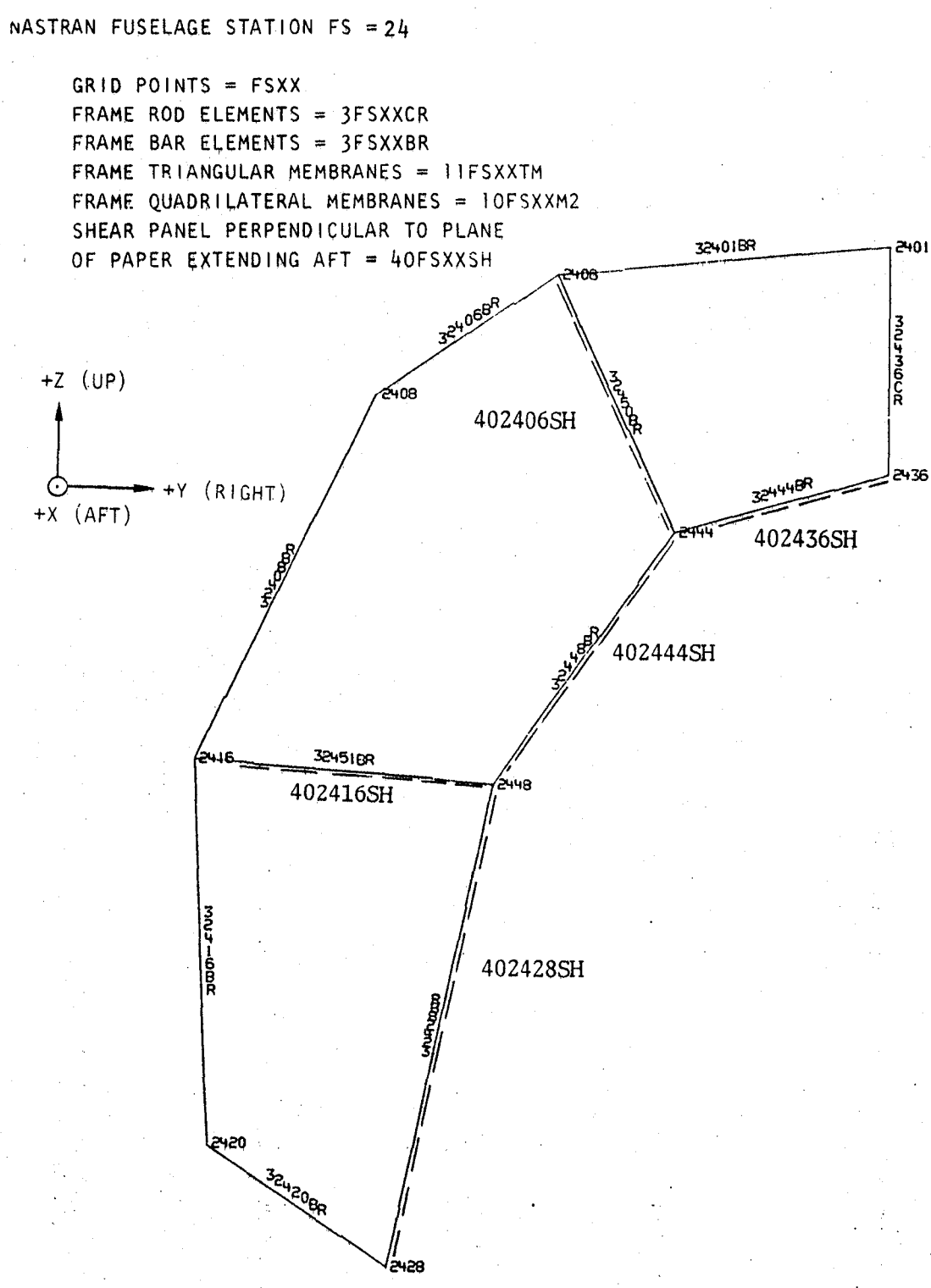


Figure C-28. - NASTRAN model fuselage station 579.5.

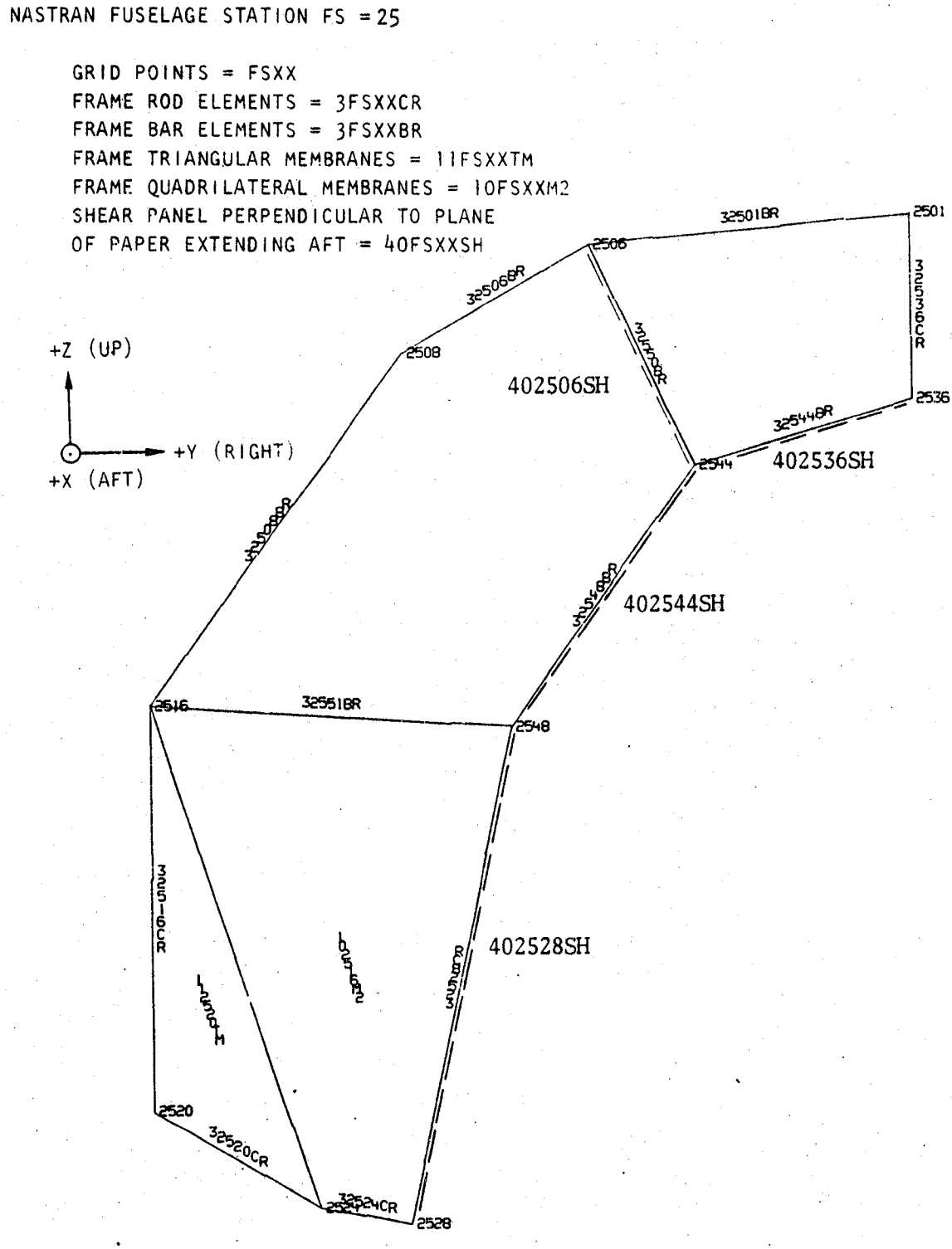


Figure C-29. - NASTRAN model fuselage station 625.5.

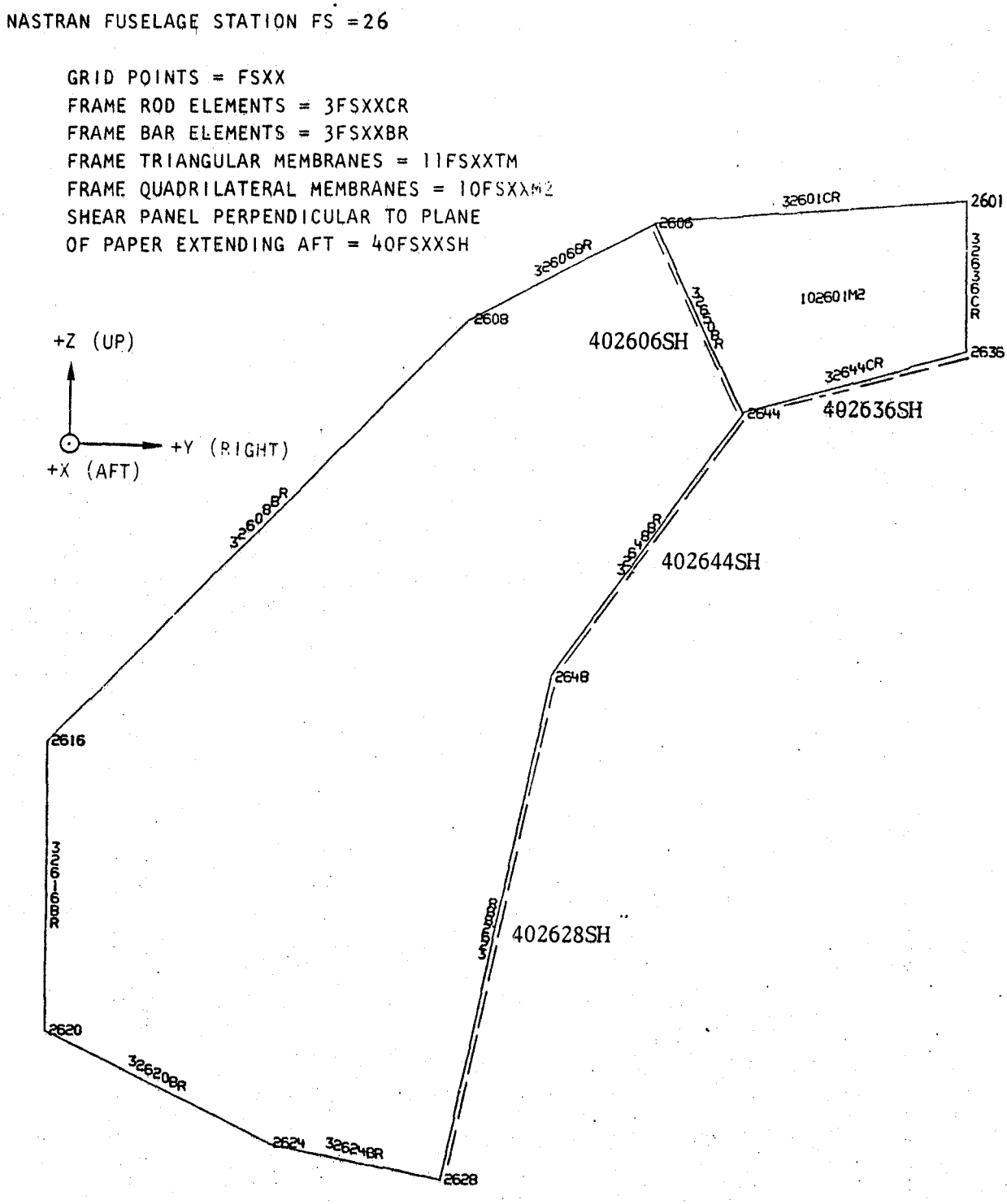


Figure C-30. - NASTRAN model fuselage station 668.5.

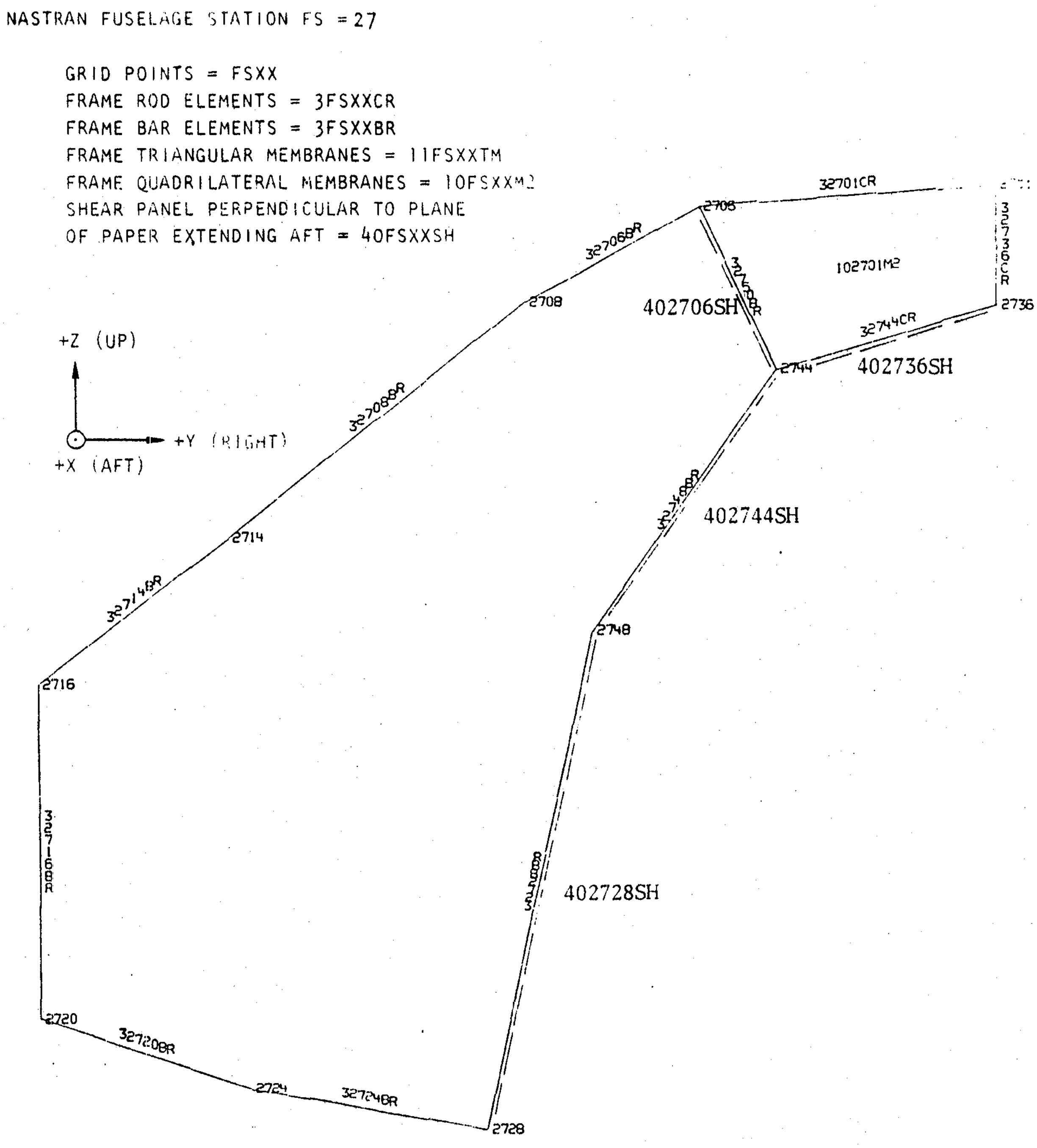


Figure C-31. - NASTRAN model fuselage station 704.5.

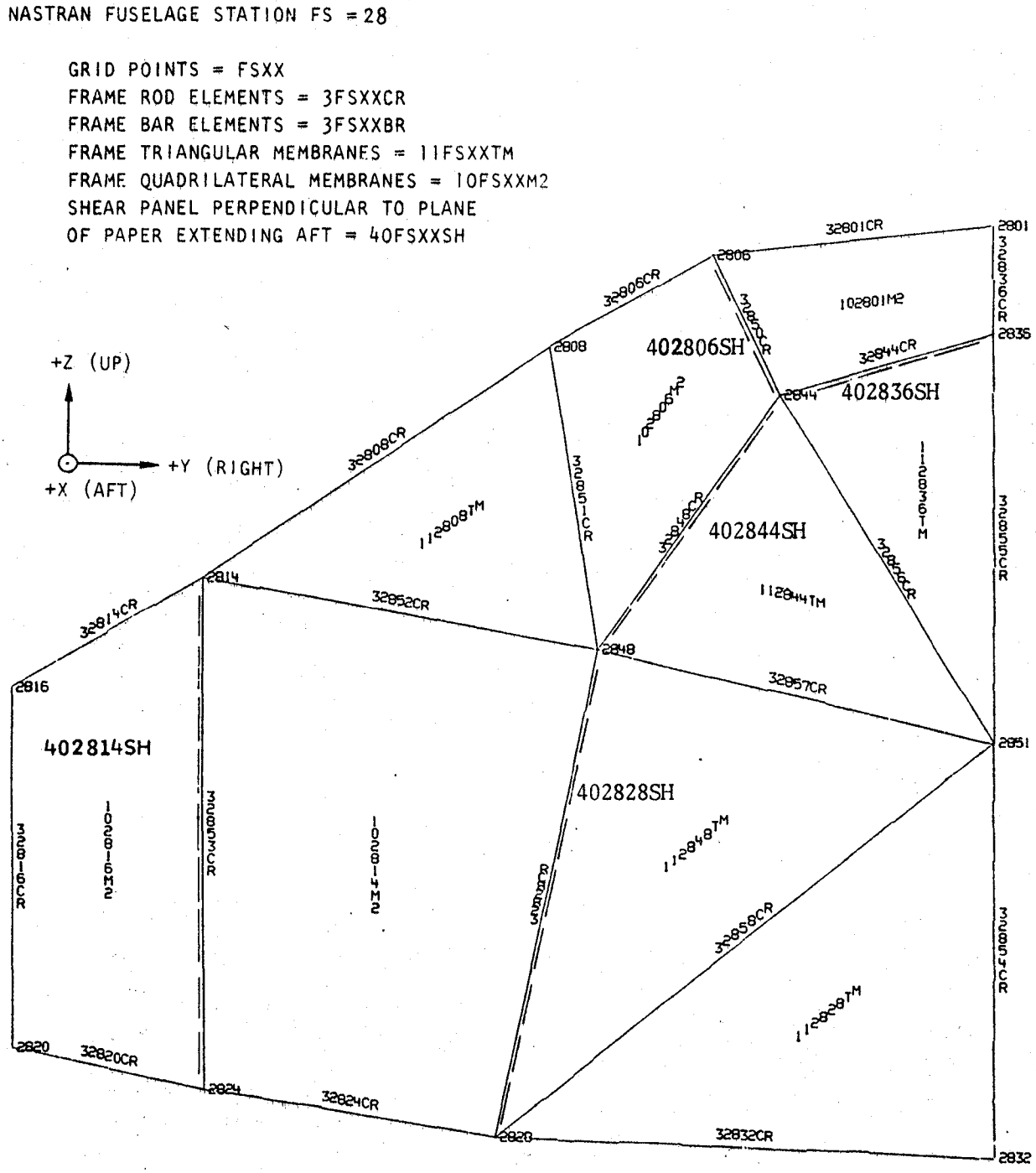


Figure C-32. - NASTRAN model fuselage station 737.0.

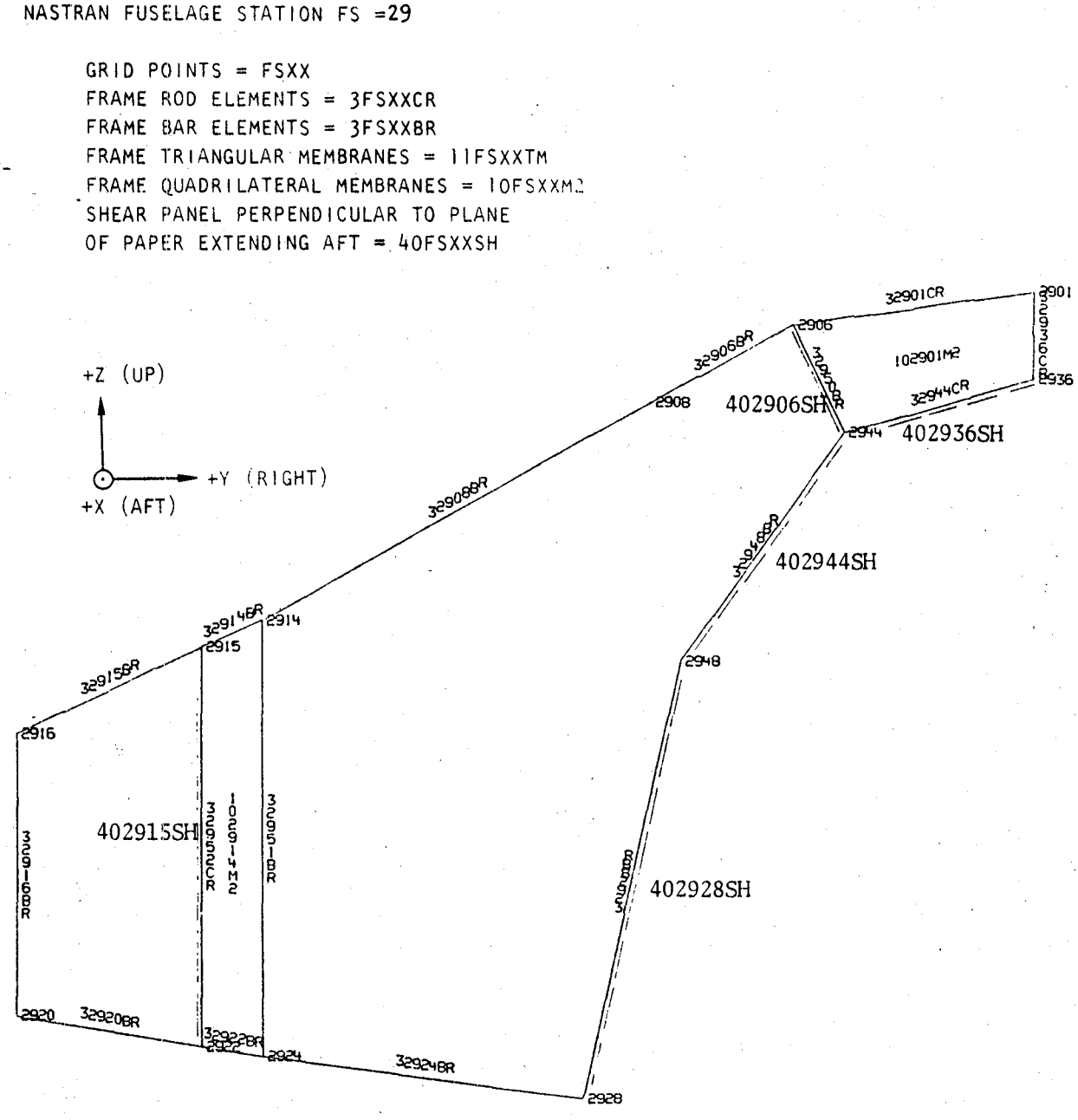


Figure C-33. - NASTRAN model fuselage station 774.5.

NASTRAN FUSELAGE STATION FS =30

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

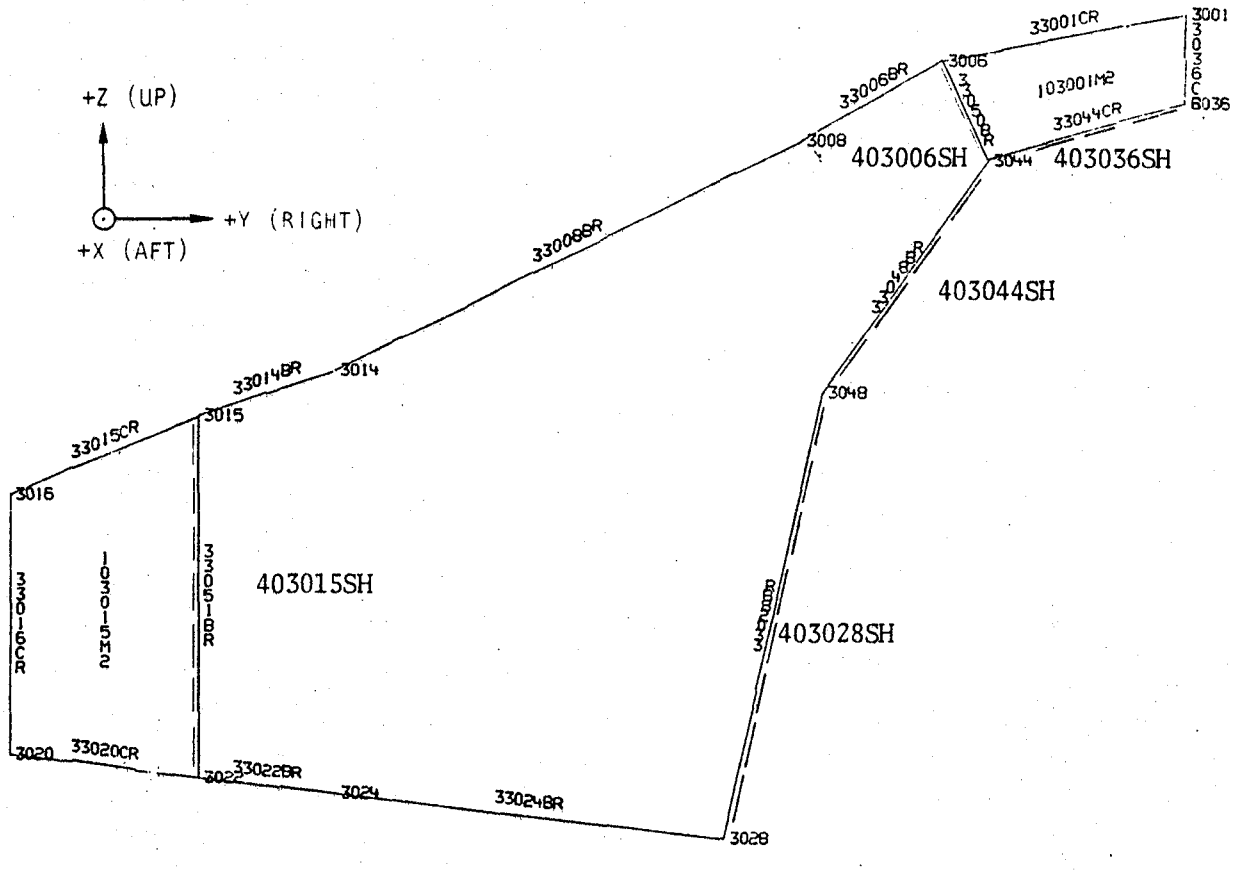


Figure C-34. - NASTRAN model fuselage station 810.5.

NASTRAN FUSELAGE STATION FS =31

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

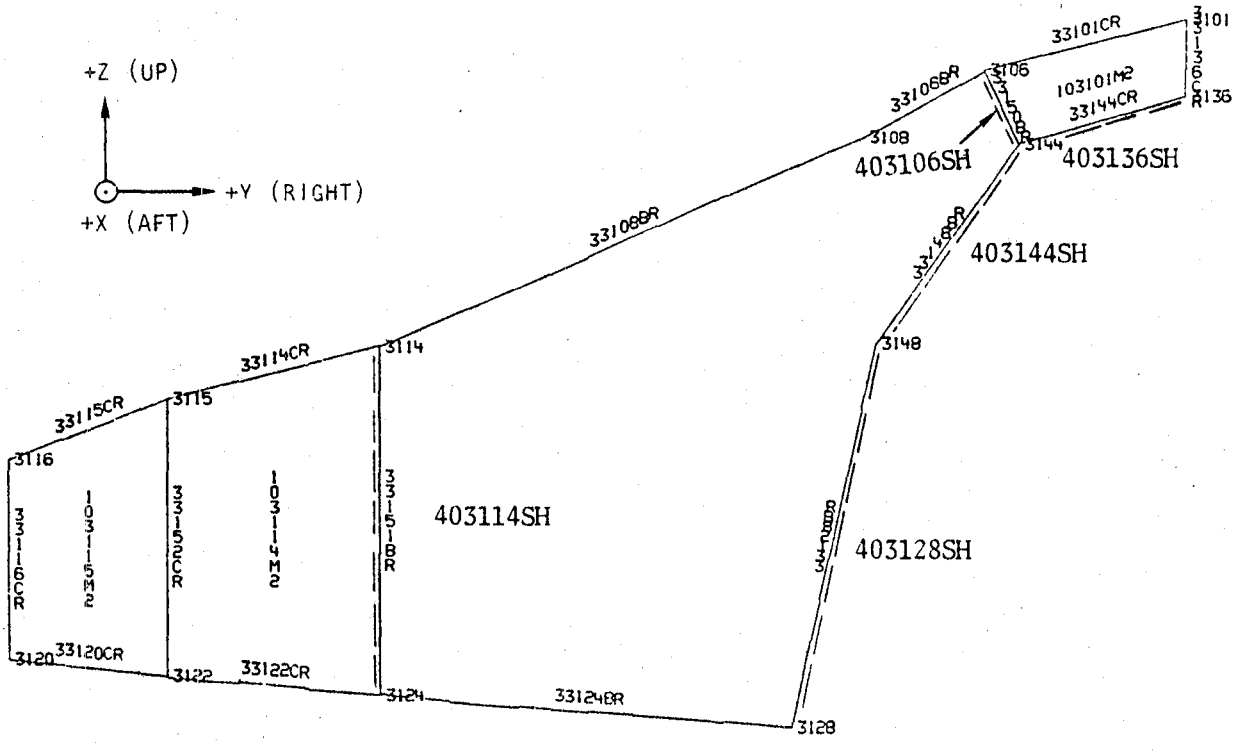


Figure C-35. - NASTRAN model fuselage station 863.5.

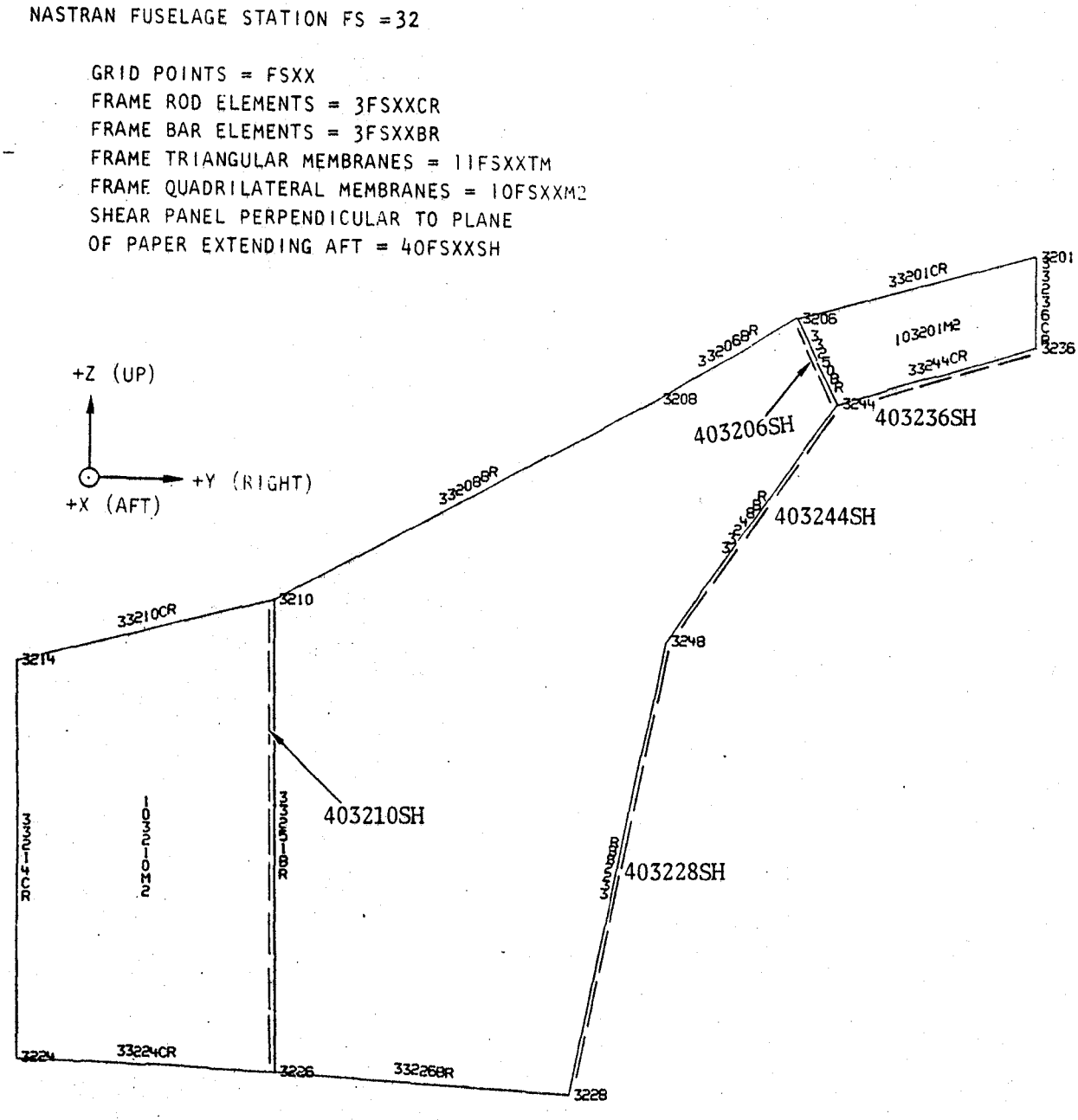


Figure C-36. - NASTRAN model fuselage station 899.5.

NASTRAN FUSELAGE STATION FS =33

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

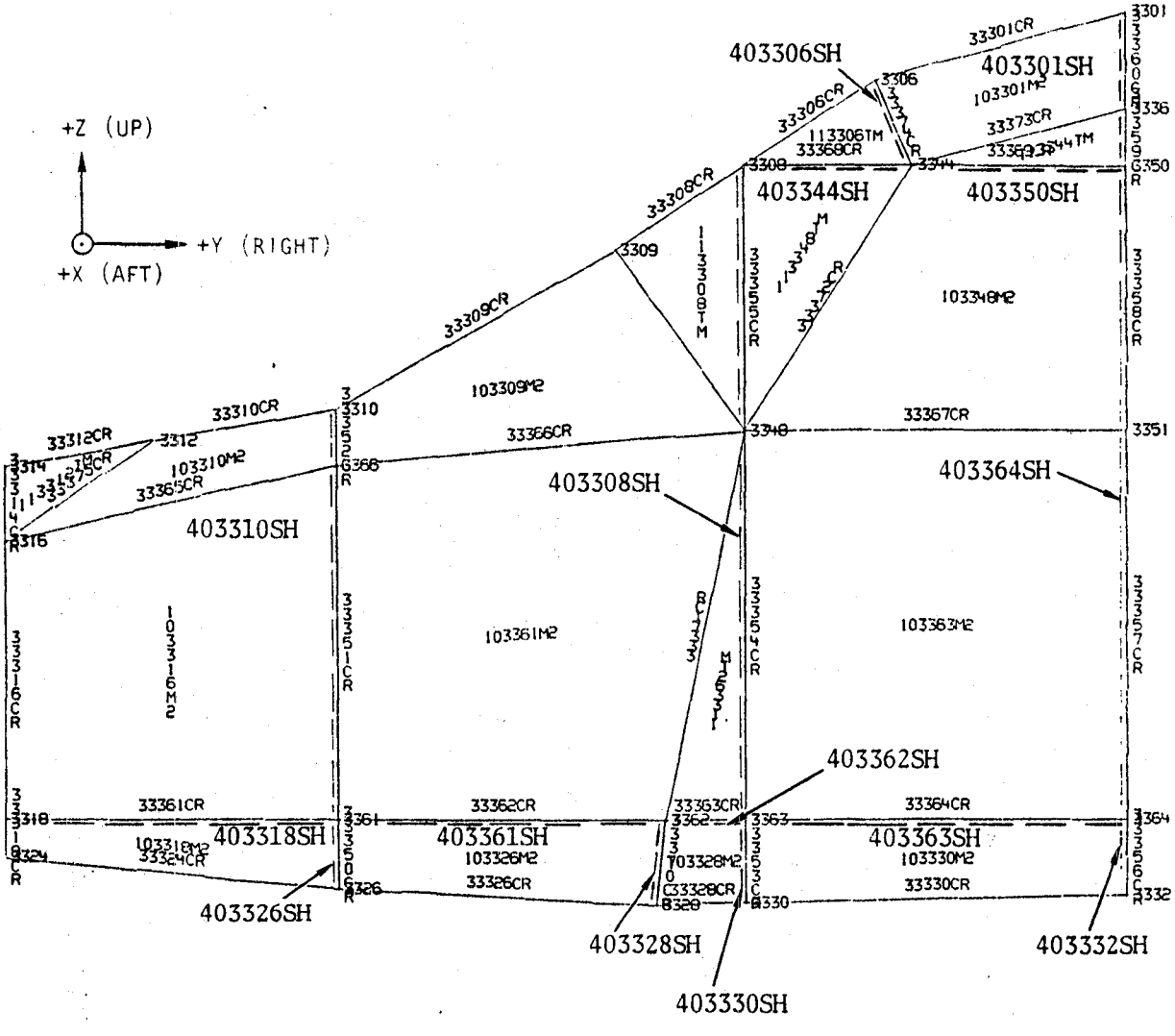


Figure C-37. - NASTRAN model fuselage station 932.0.

NASTRAN FUSELAGE STATION FS =34

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

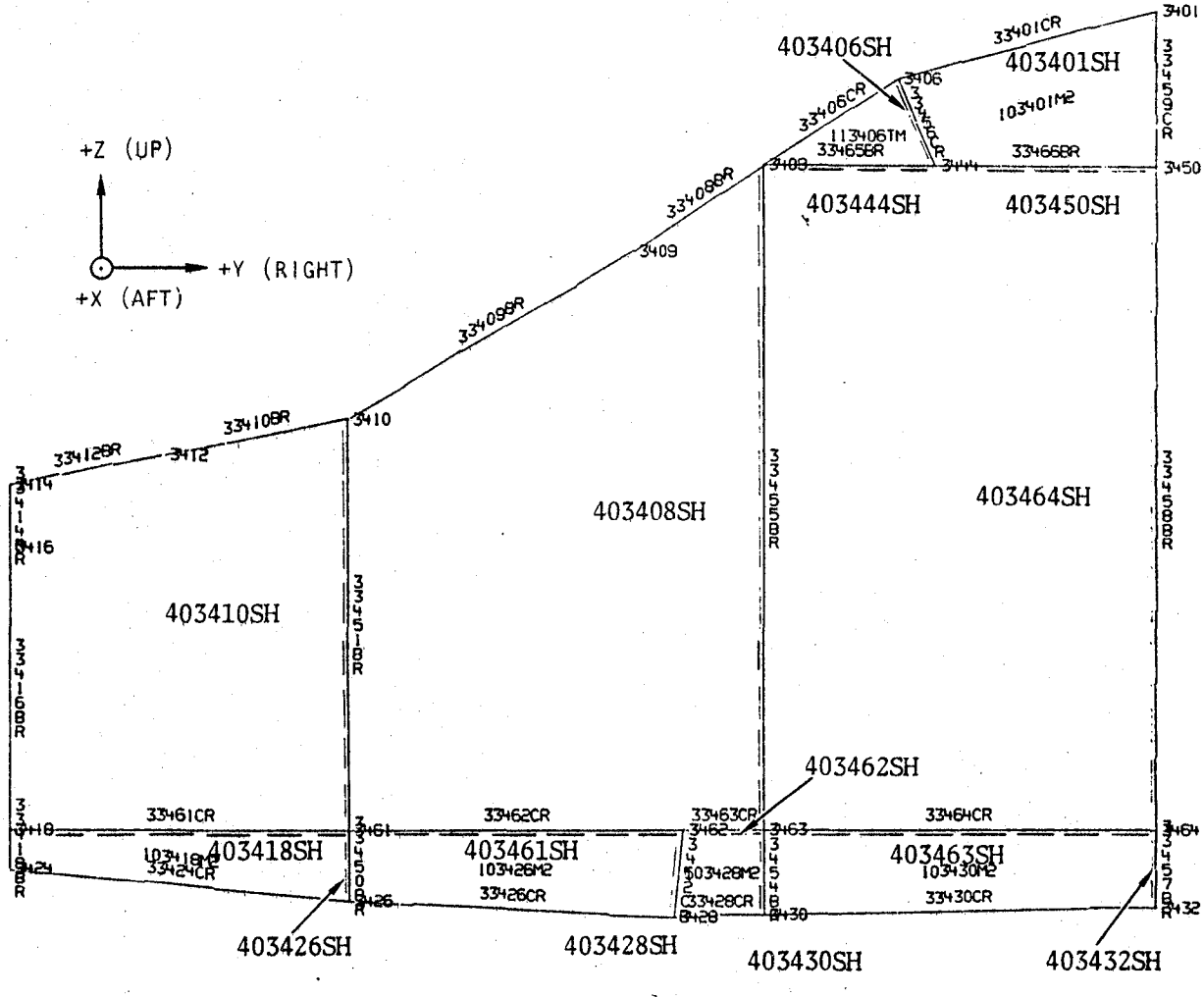


Figure C-38. - NASTRAN model fuselage station 947.0.

NASTRAN FUSELAGE STATION FS =35

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

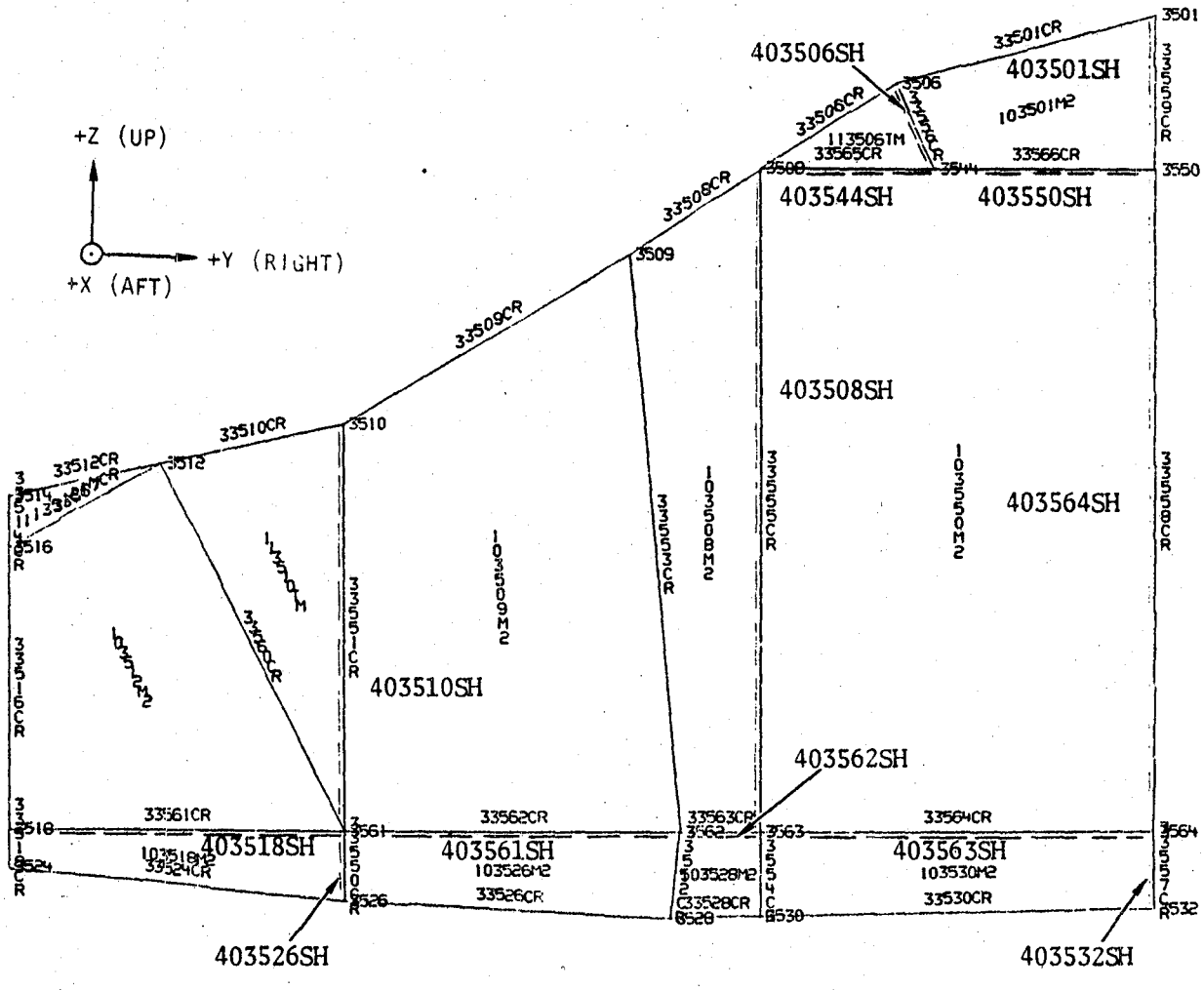


Figure C-39. - NASTRAN model fuselage station 962.0.

NASTRAN FUSELAGE STATION FS =36

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

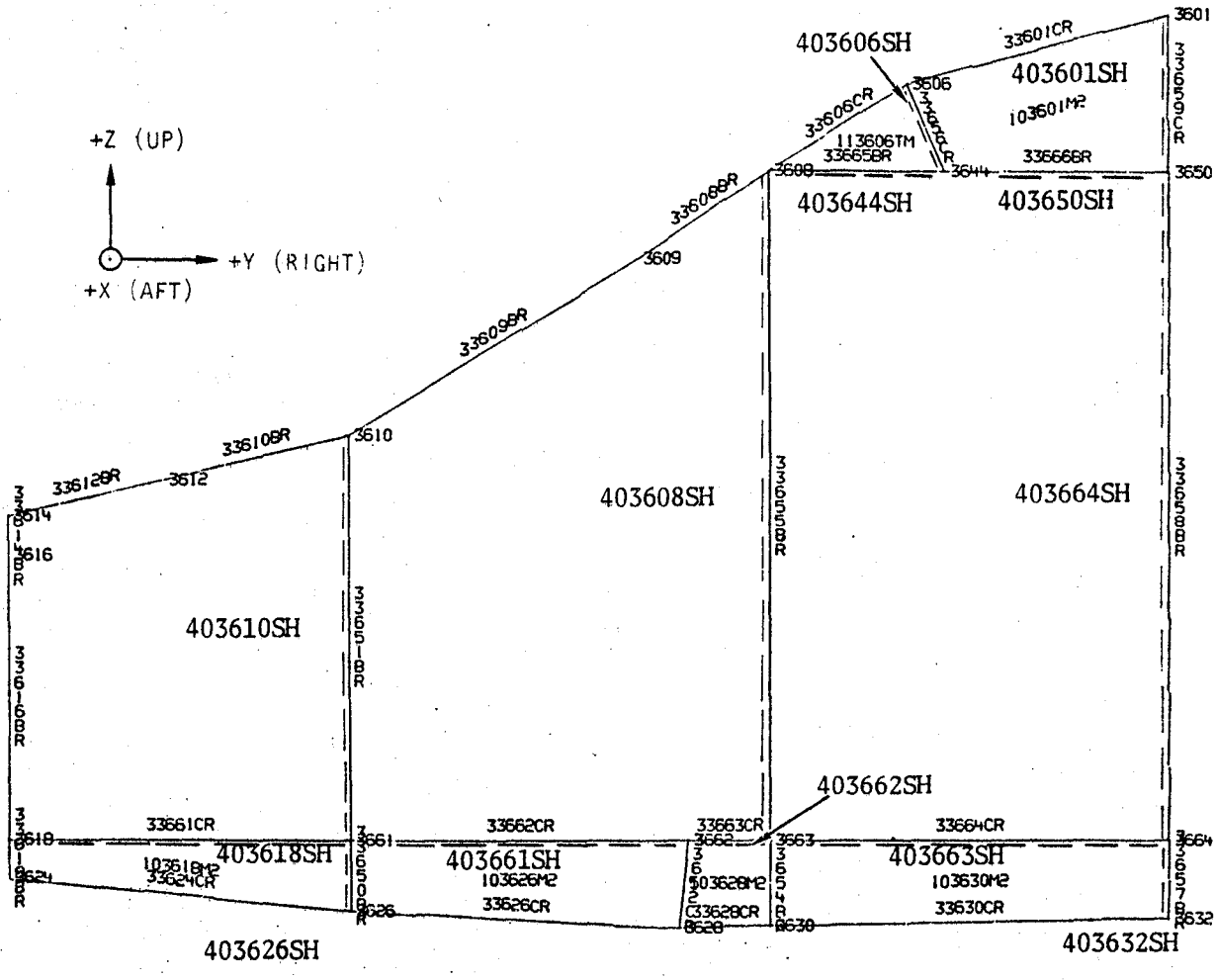


Figure C-40. - NASTRAN model fuselage station 977.0.

NASTRAN FUSELAGE STATION FS = 37

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL ,PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

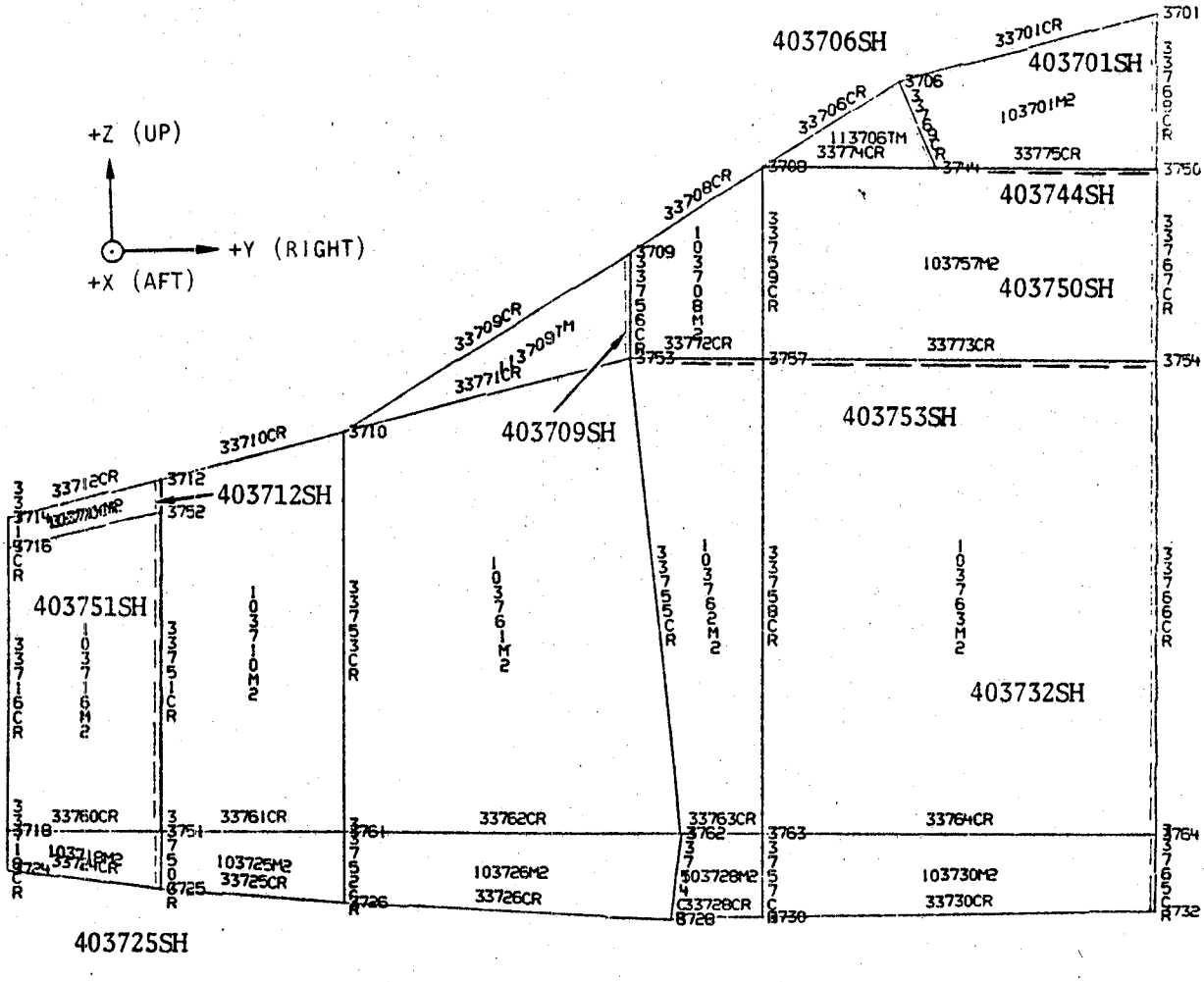


Figure C-41. - NASTRAN model fuselage station 992.0.

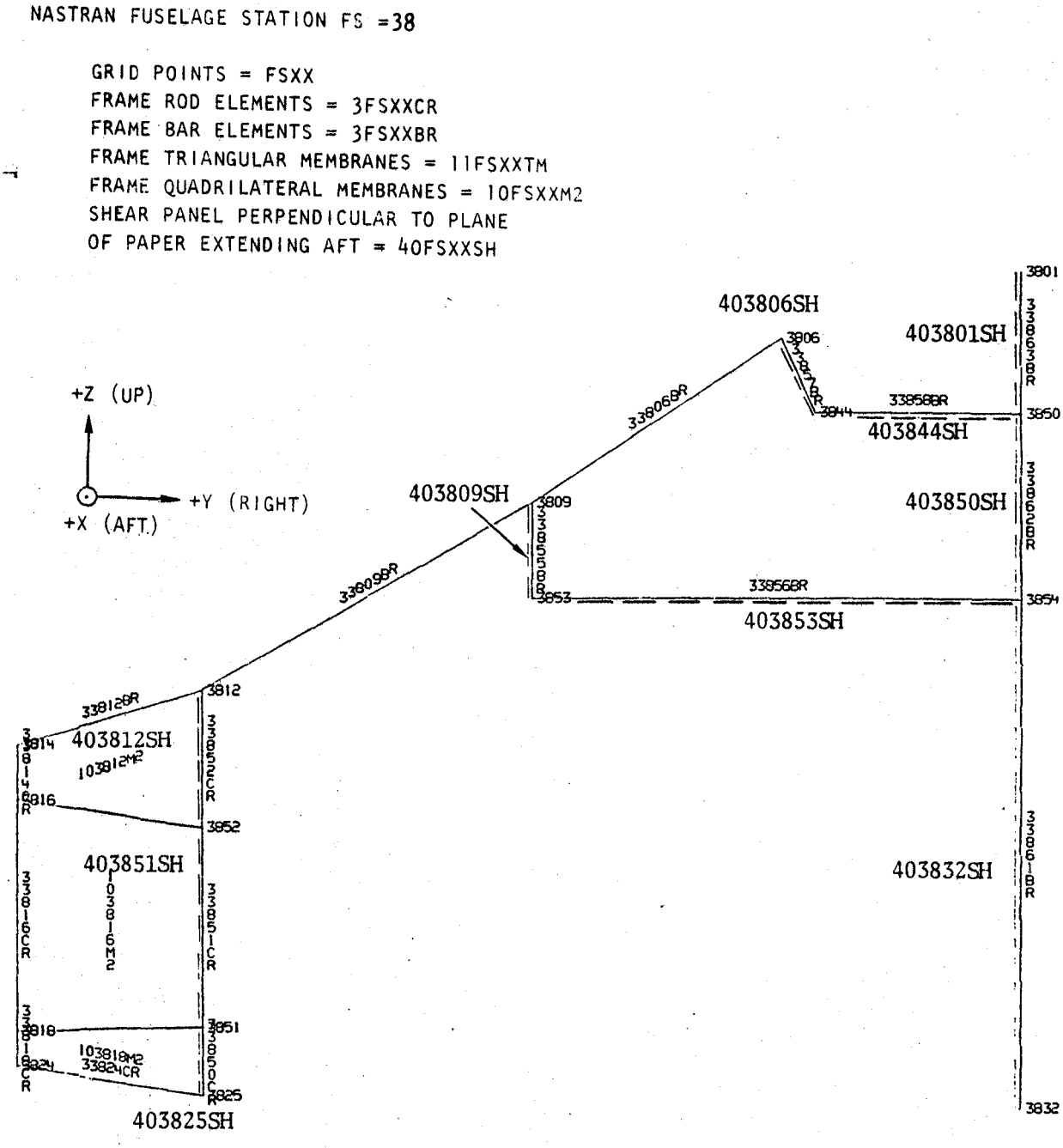


Figure C-42. - NASTRAN model fuselage station 1023.5.

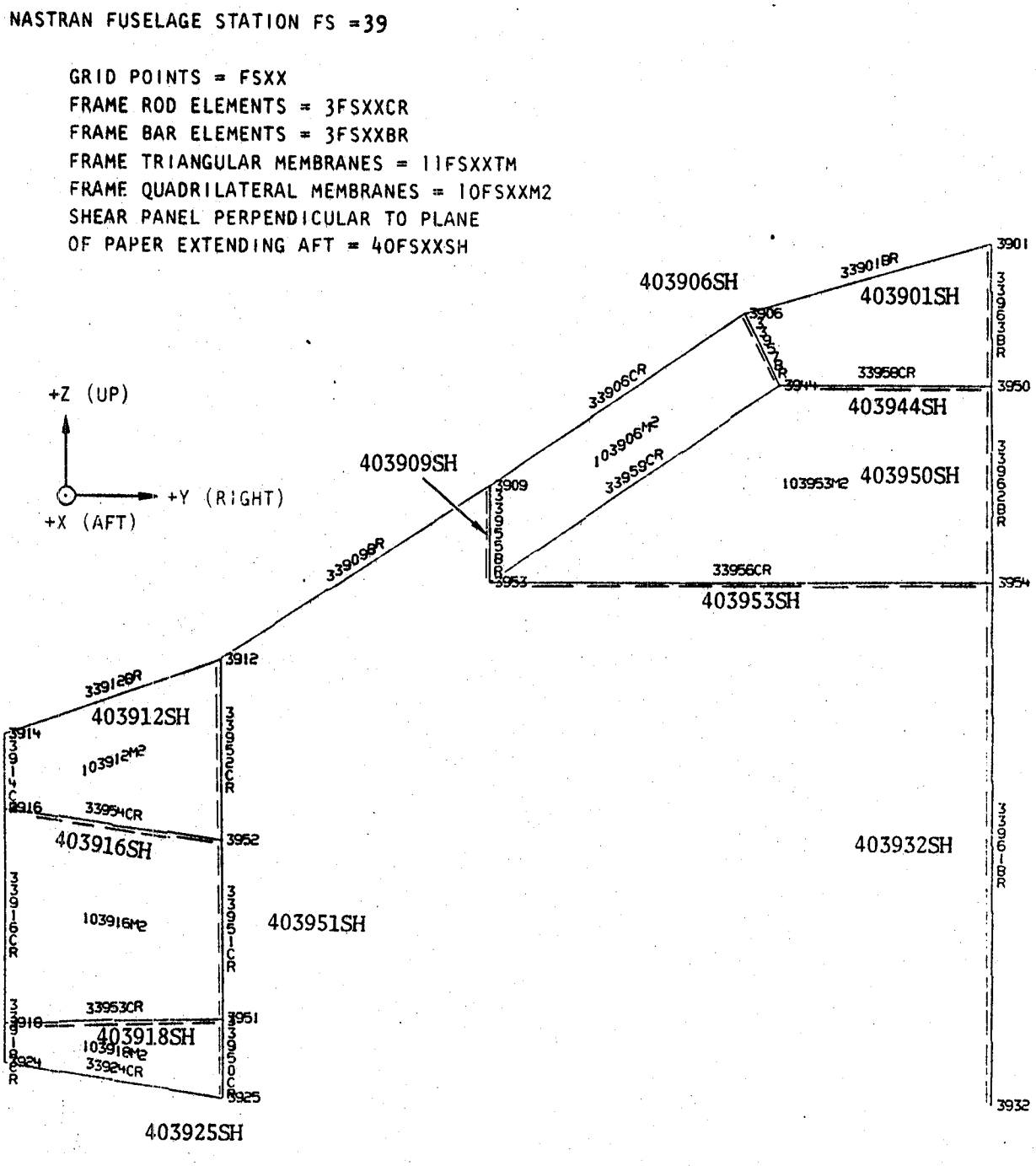


Figure C-43. - NASTRAN model fuselage station 1043.5.

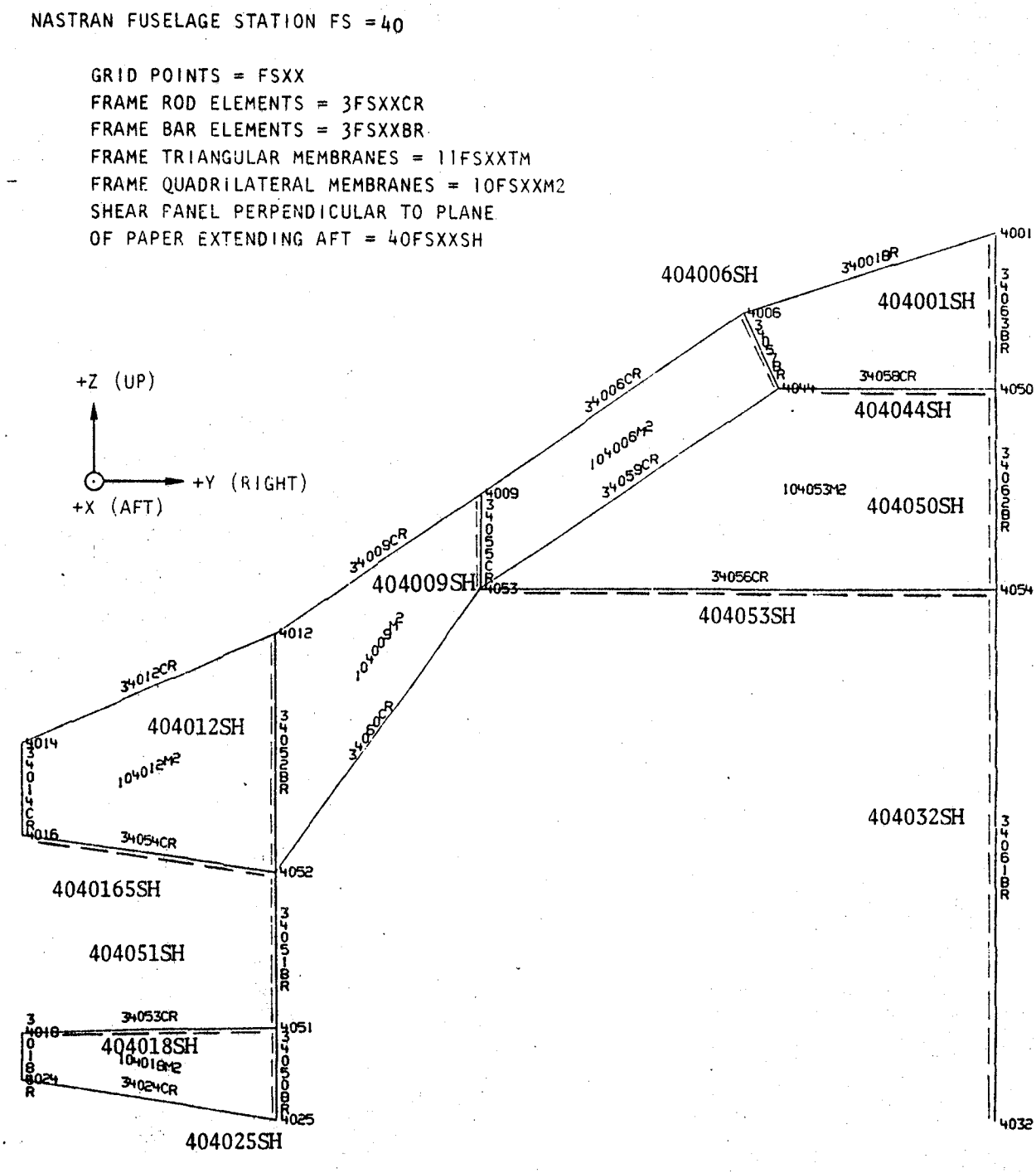


Figure C-44. - NASTRAN model fuselage station 1063.5.

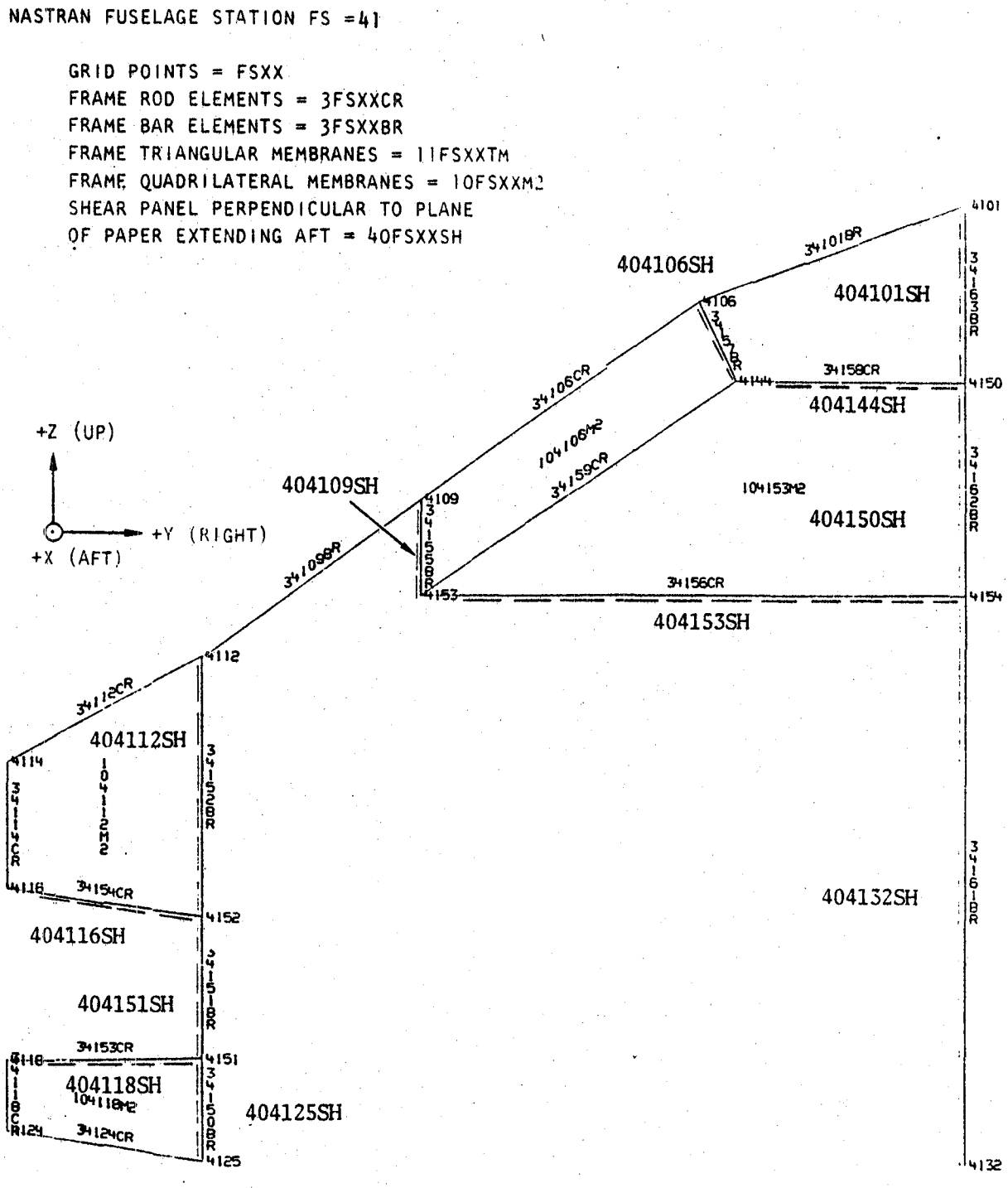


Figure C-45. - NASTRAN model fuselage station 1096.0.

NASTRAN FUSELAGE STATION FS =42

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

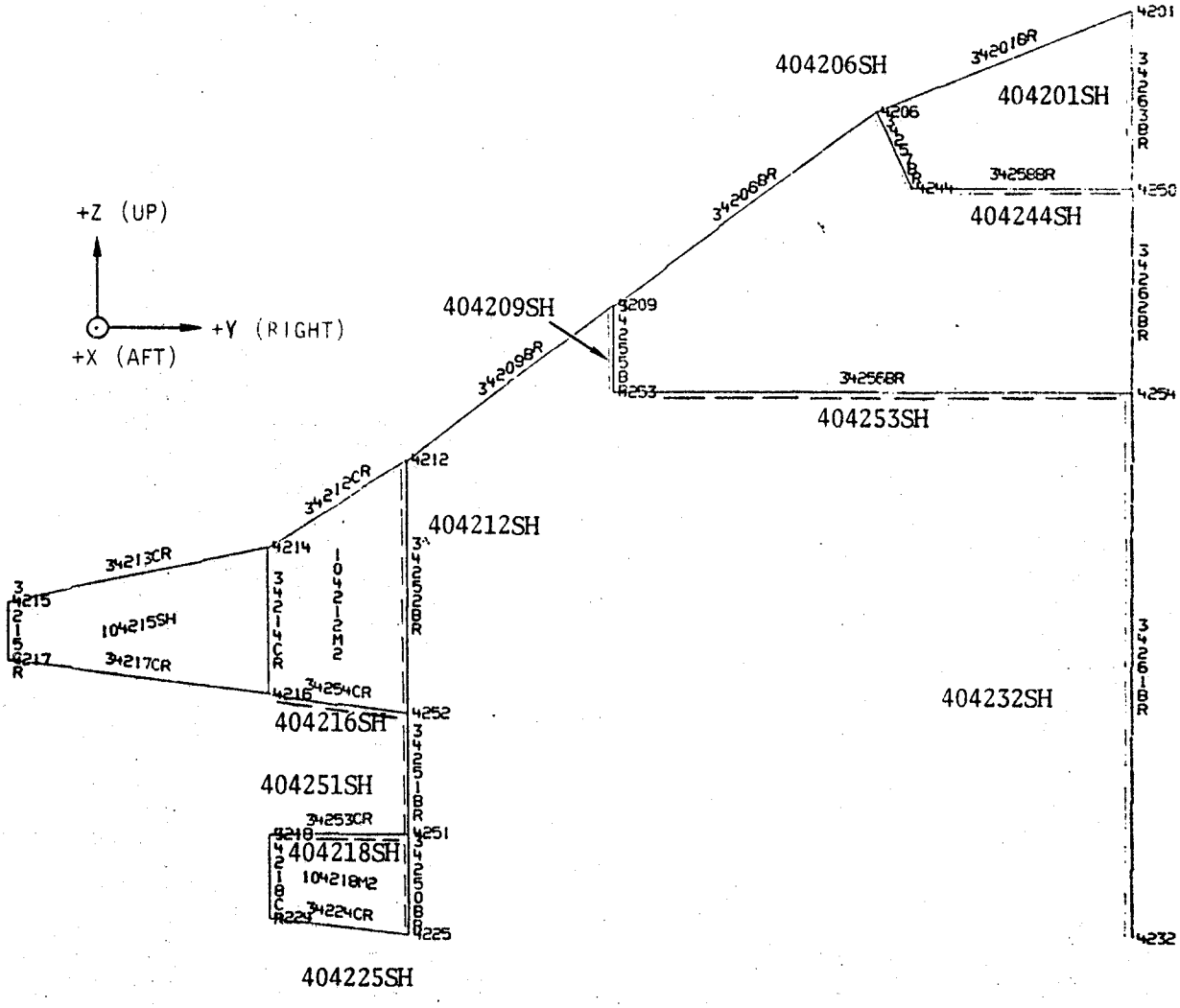


Figure C-46. - NASTRAN model fuselage station 1118.0.

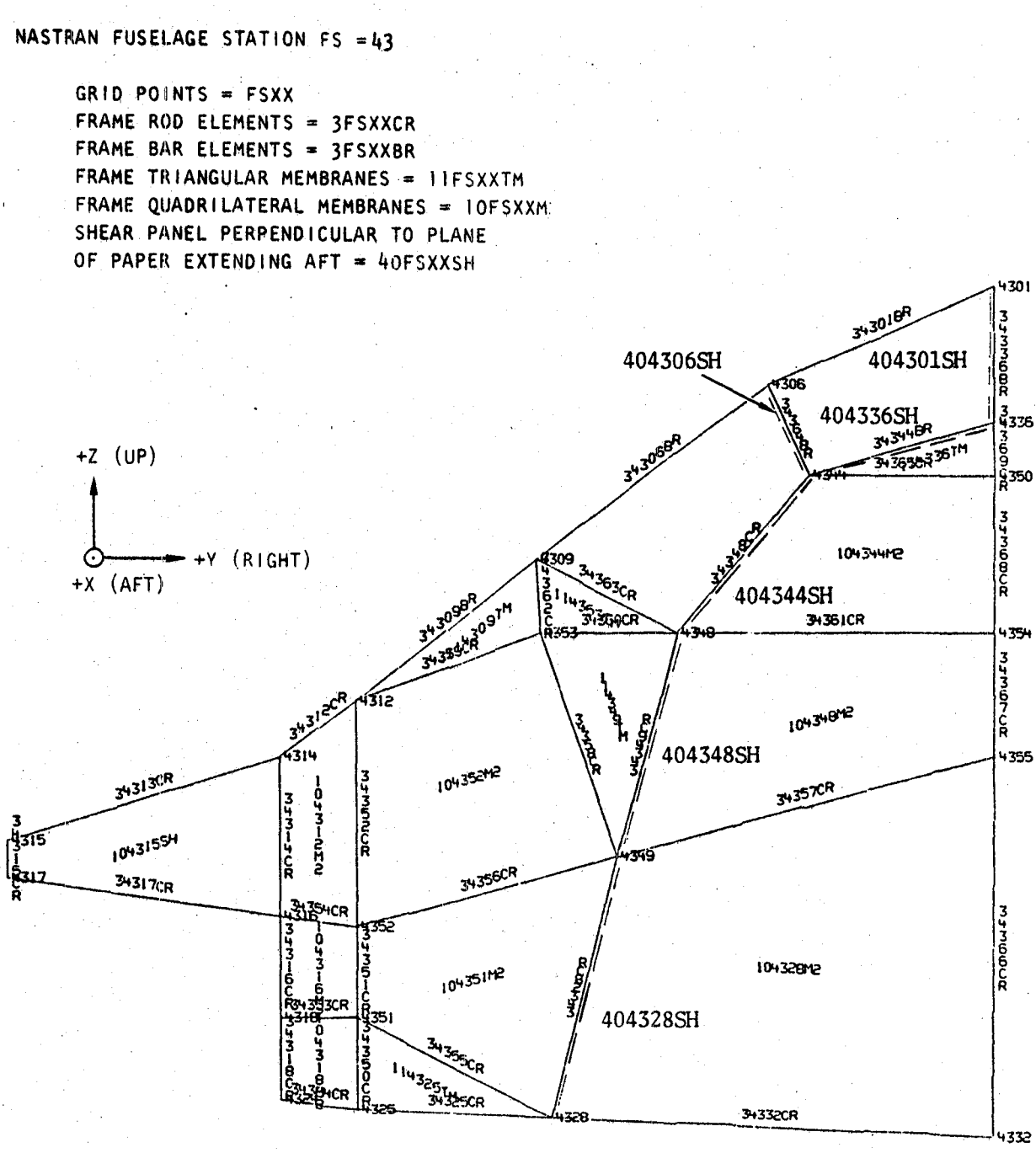


Figure C-47. - NASTRAN model fuselage station 1140.5.

NASTRAN FUSELAGE STATION FS =44

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

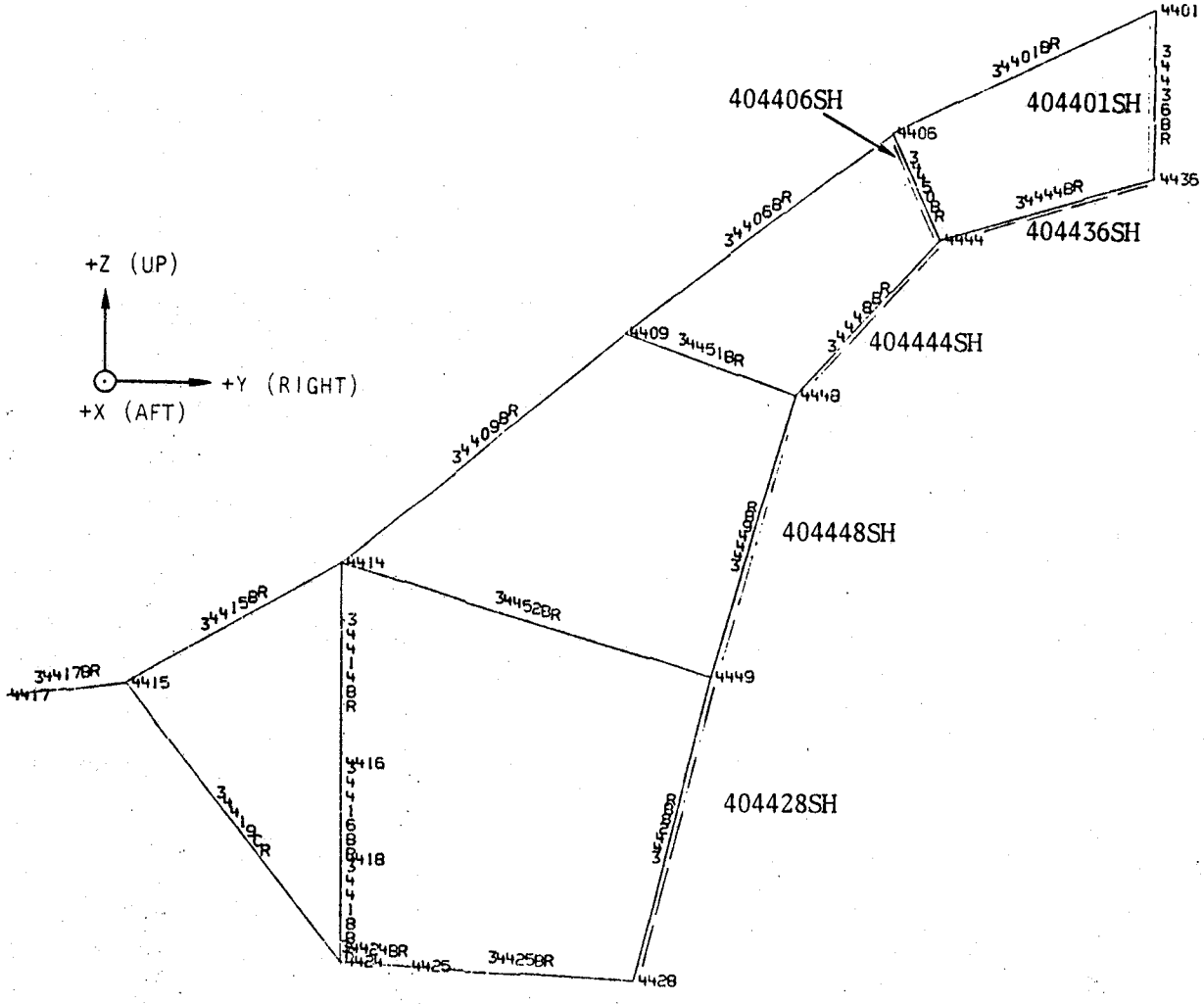


Figure C-48. - NASTRAN model fuselage station 1168.5.

NASTRAN FUSELAGE STATION FS = 45

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

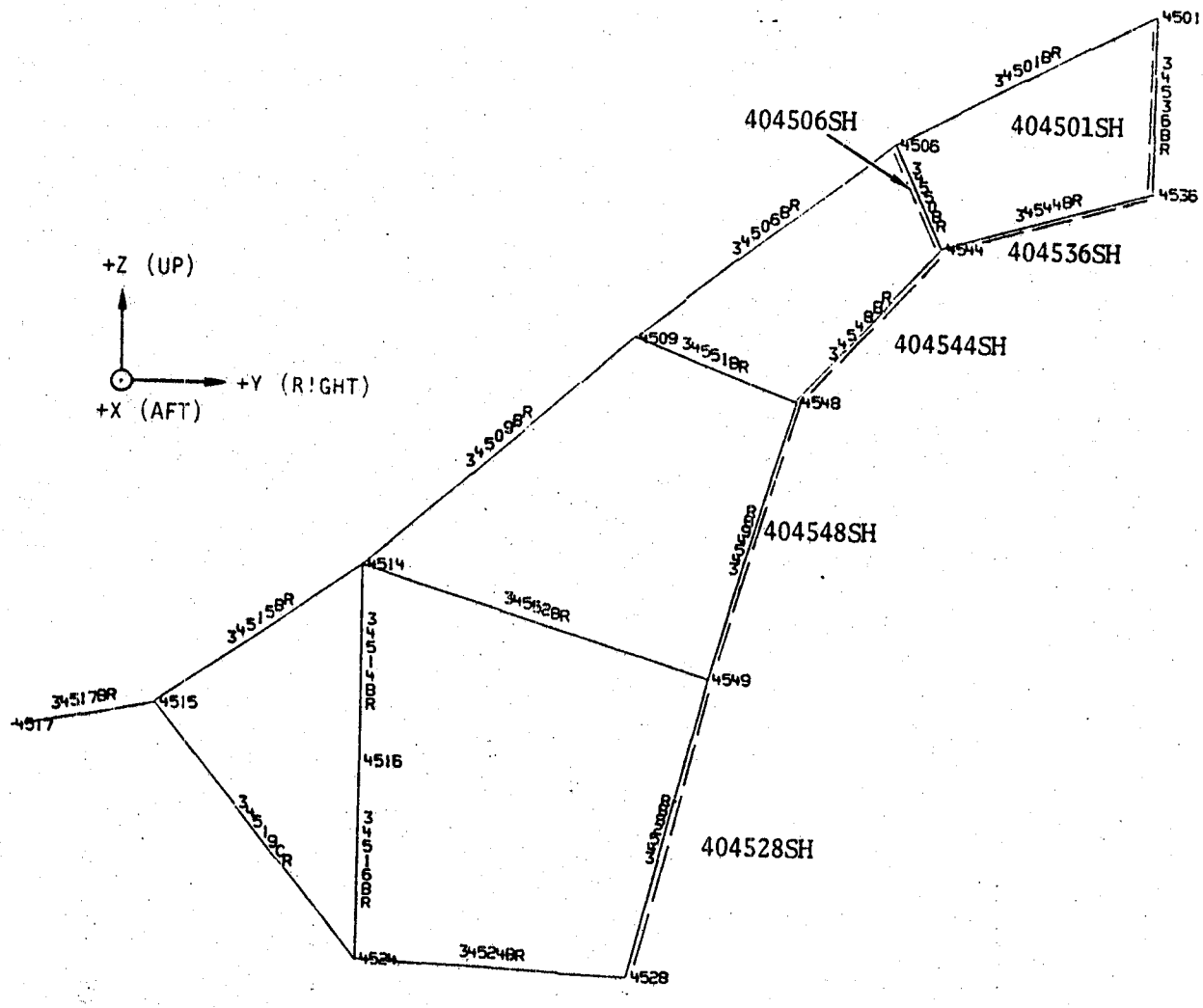


Figure C-49. - NASTRAN model fuselage station 1194.5.

NASTRAN FUSELAGE STATION FS = 46

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

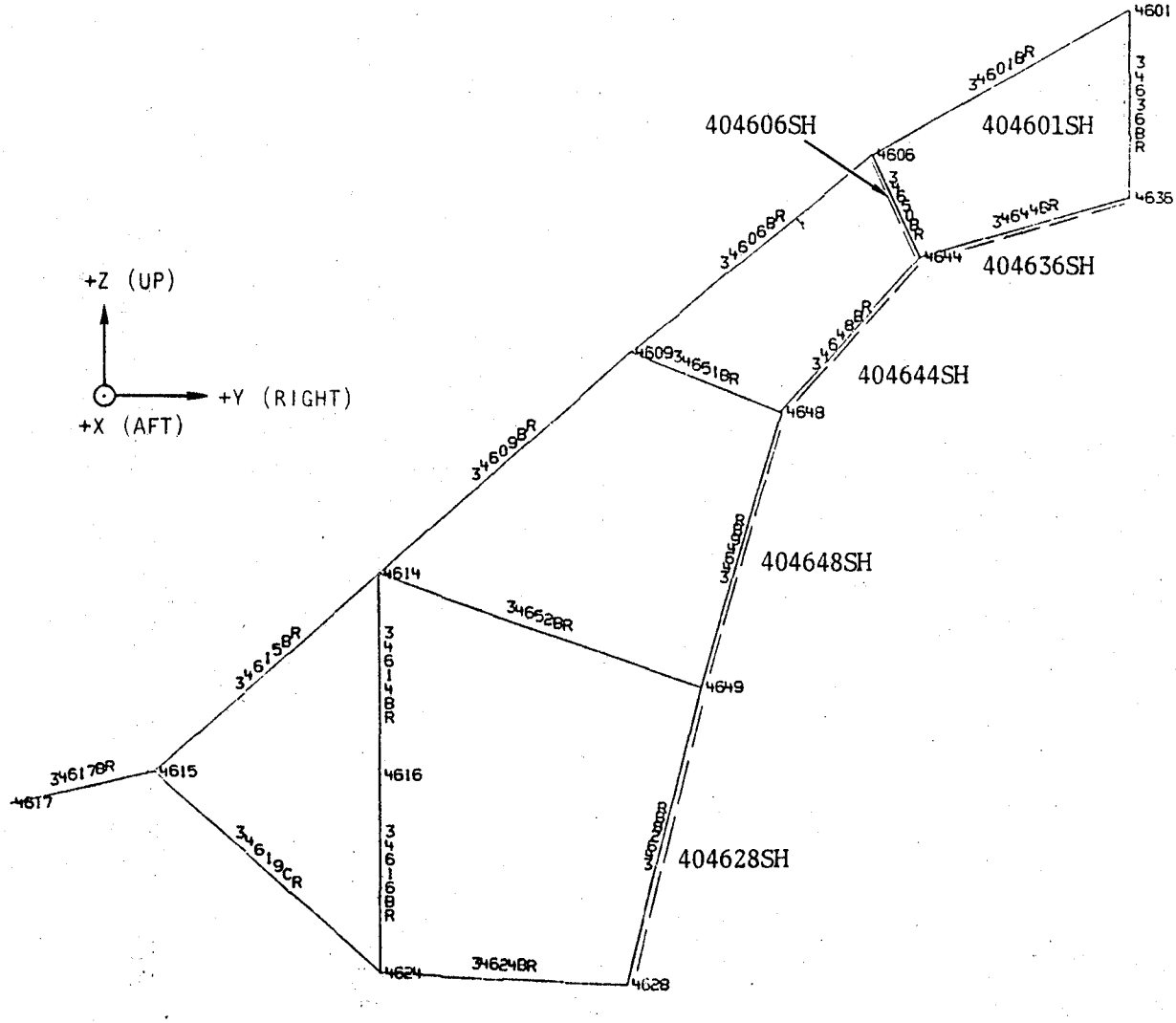


Figure C-50. - NASTRAN model fuselage station 1224.5.

NASTRAN FUSELAGE STATION FS =47

GRID POINTS = FSXX
FRAME ROD ELEMENTS = 3FSXXCR
FRAME BAR ELEMENTS = 3FSXXBR
FRAME TRIANGULAR MEMBRANES = 11FSXXTM
FRAME QUADRILATERAL MEMBRANES = 10FSXXM2
SHEAR PANEL PERPENDICULAR TO PLANE
OF PAPER EXTENDING AFT = 40FSXXSH

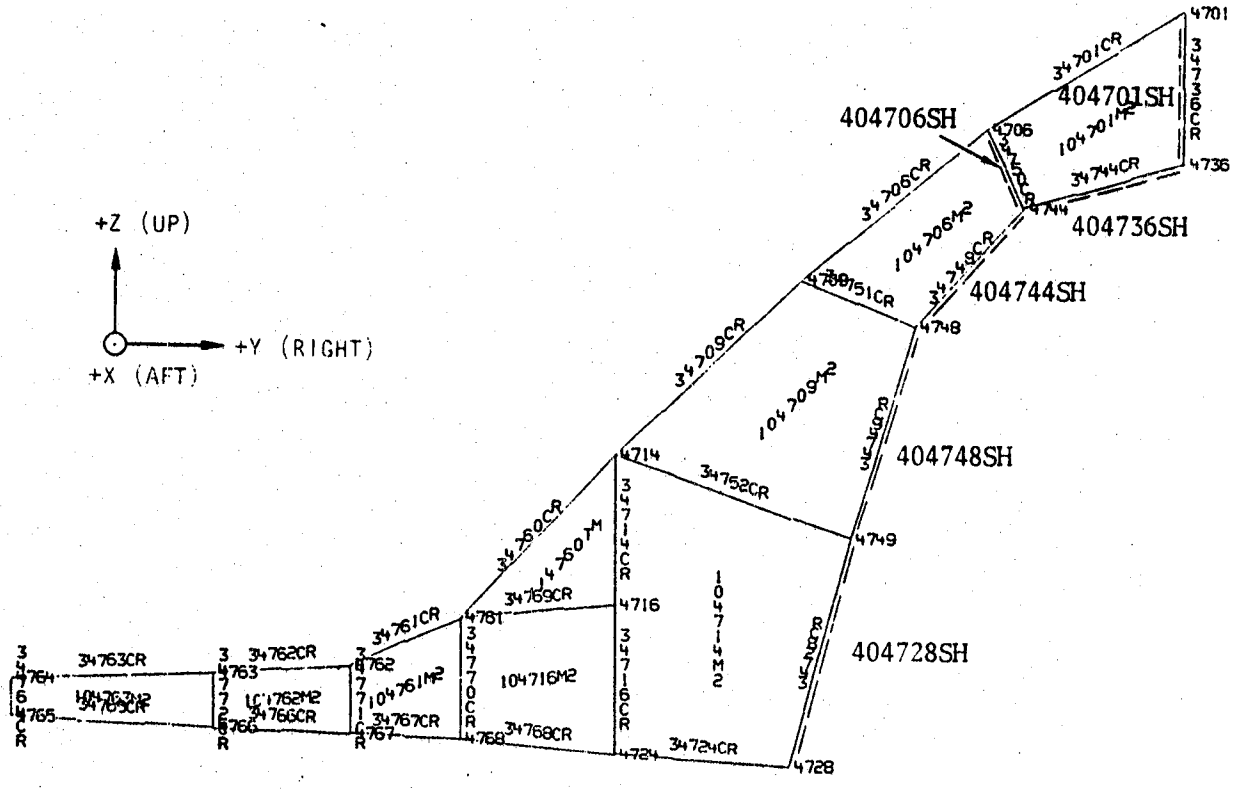


Figure C-51. - NASTRAN model fuselage station 1250.0.

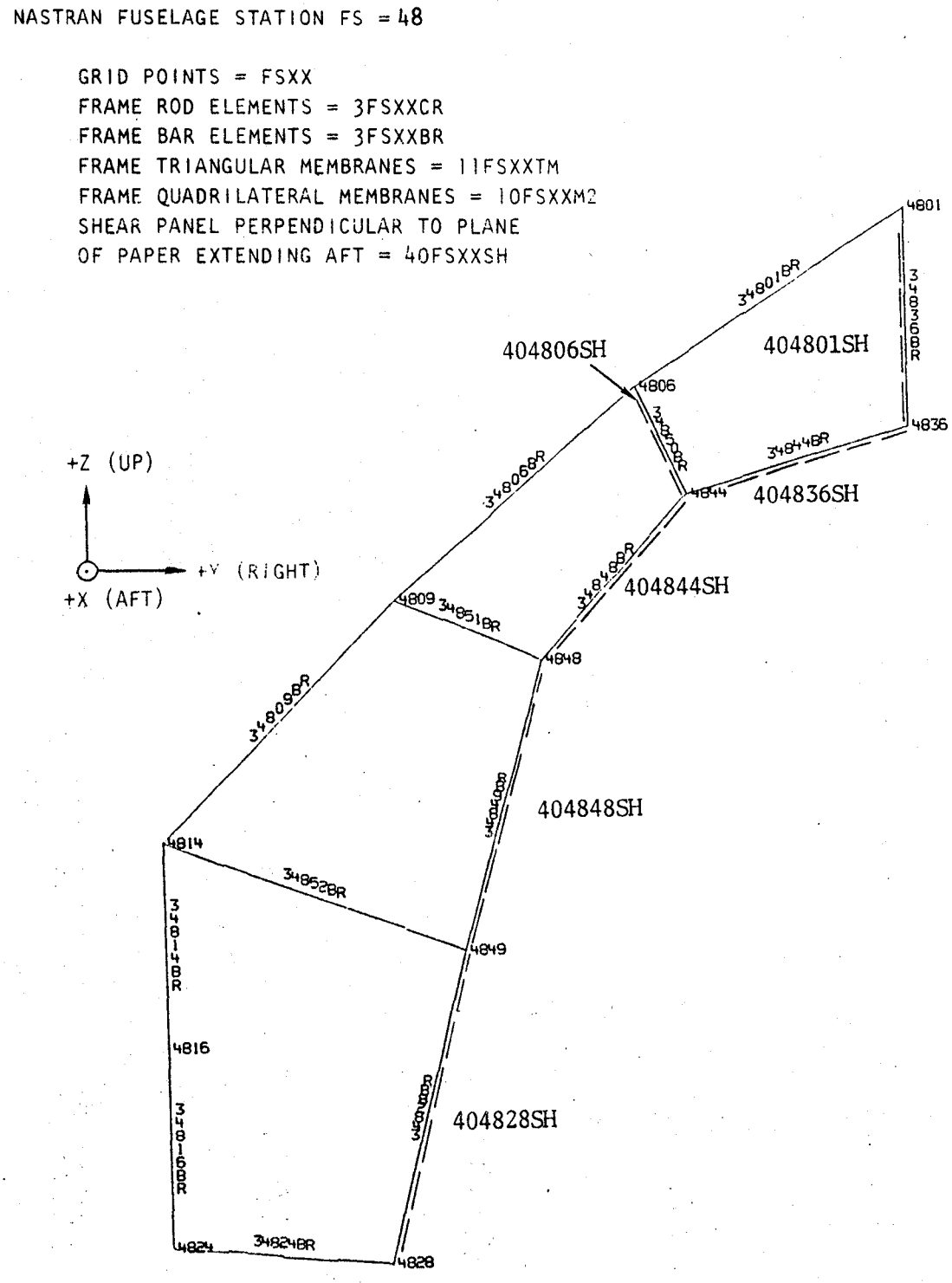


Figure C-52. - NASTRAN model fuselage station 1275.0.

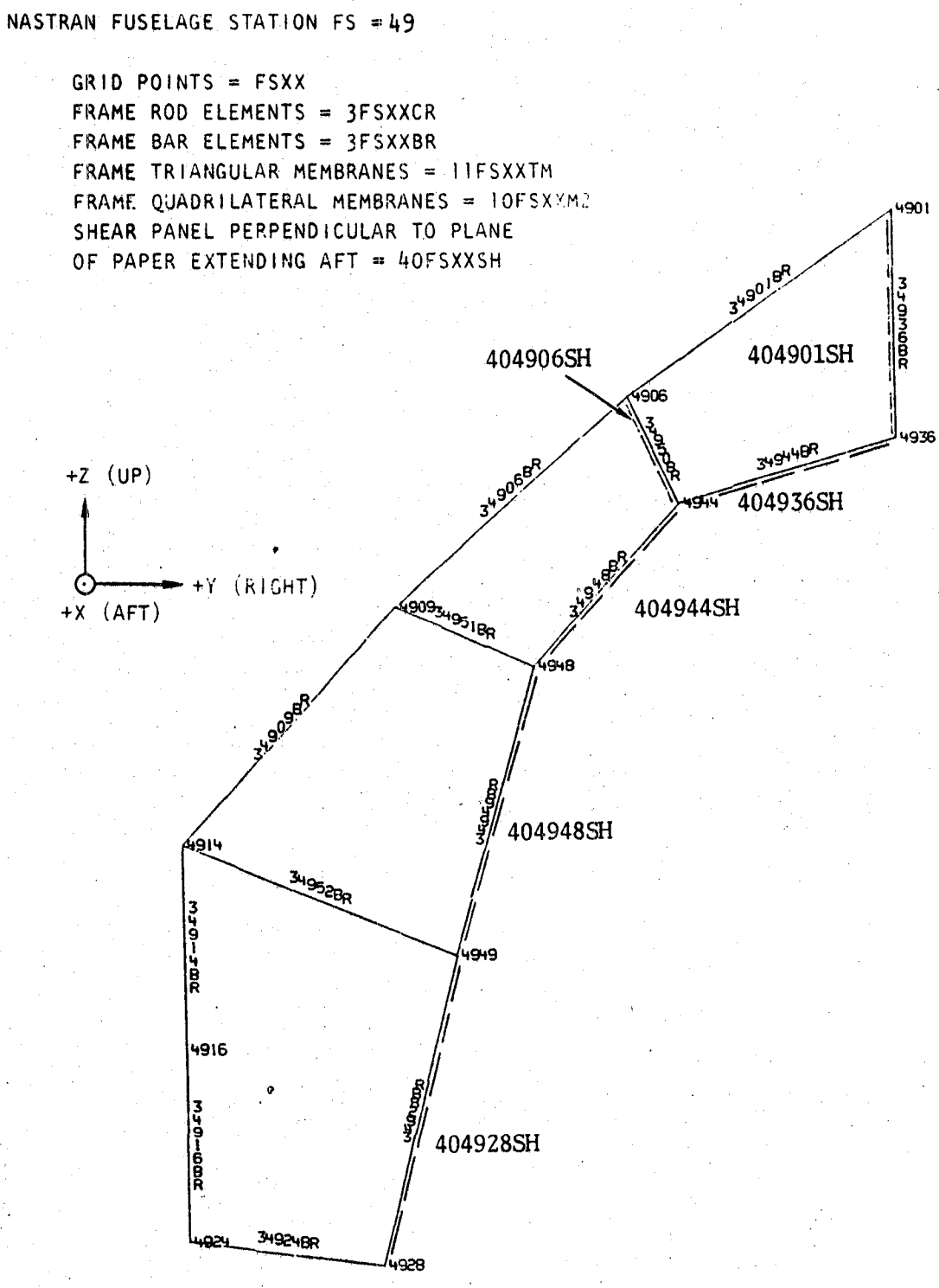


Figure C-53. - NASTRAN model fuselage station 1303.5.

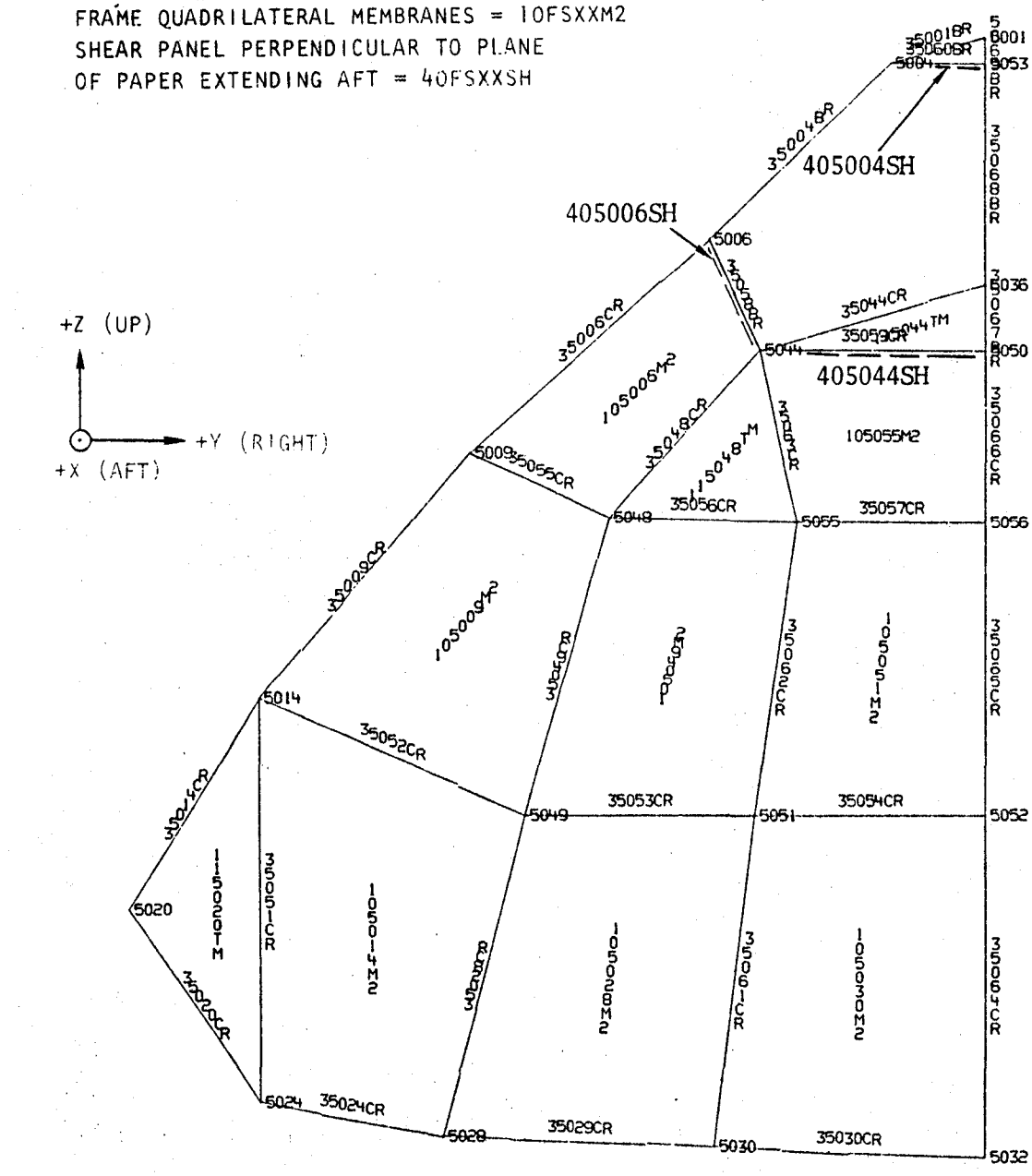


Figure C-54. - NASTRAN model fuselage station 1325.0.

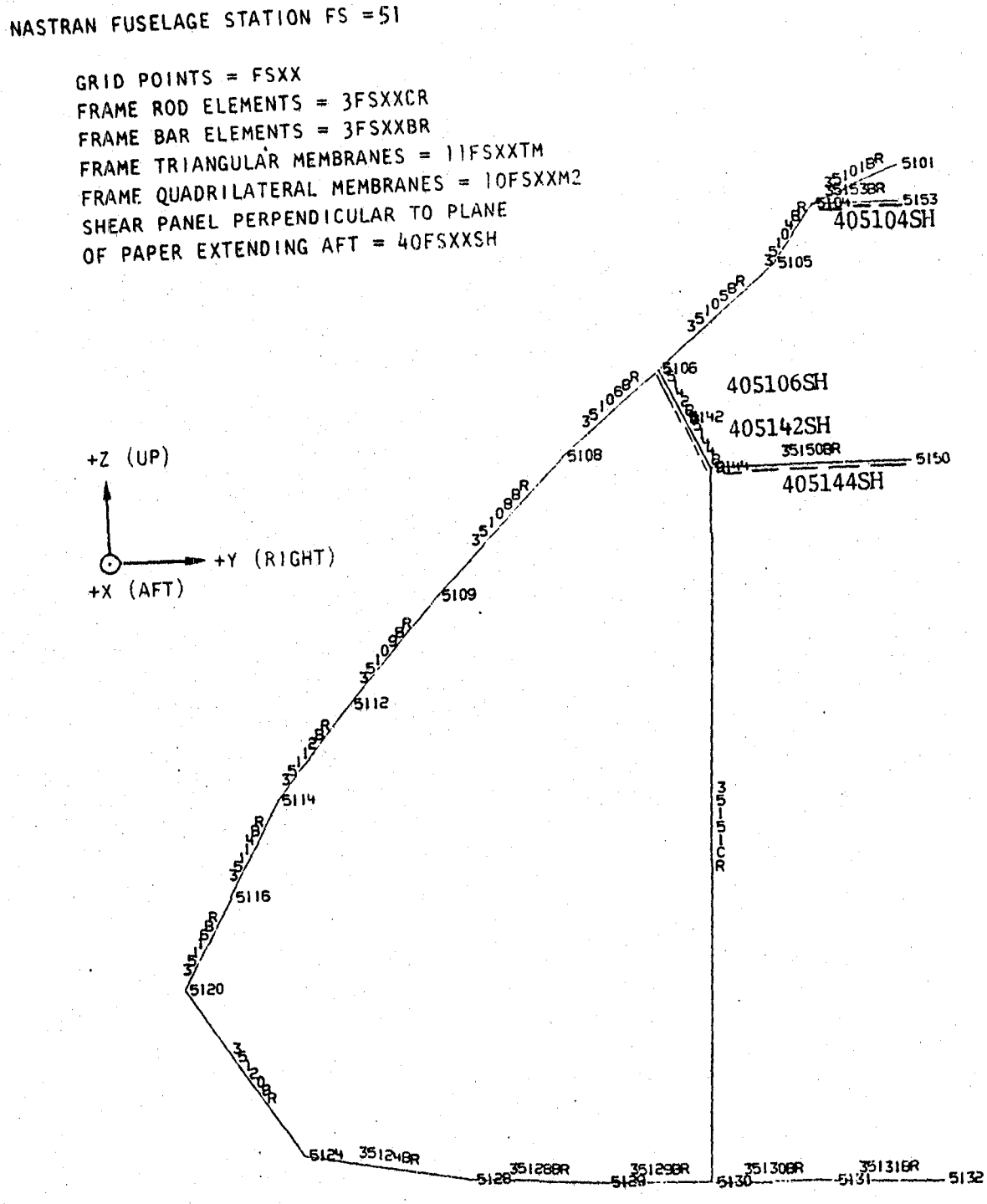


Figure C-55. - NASTRAN model fuselage station 1333.3.

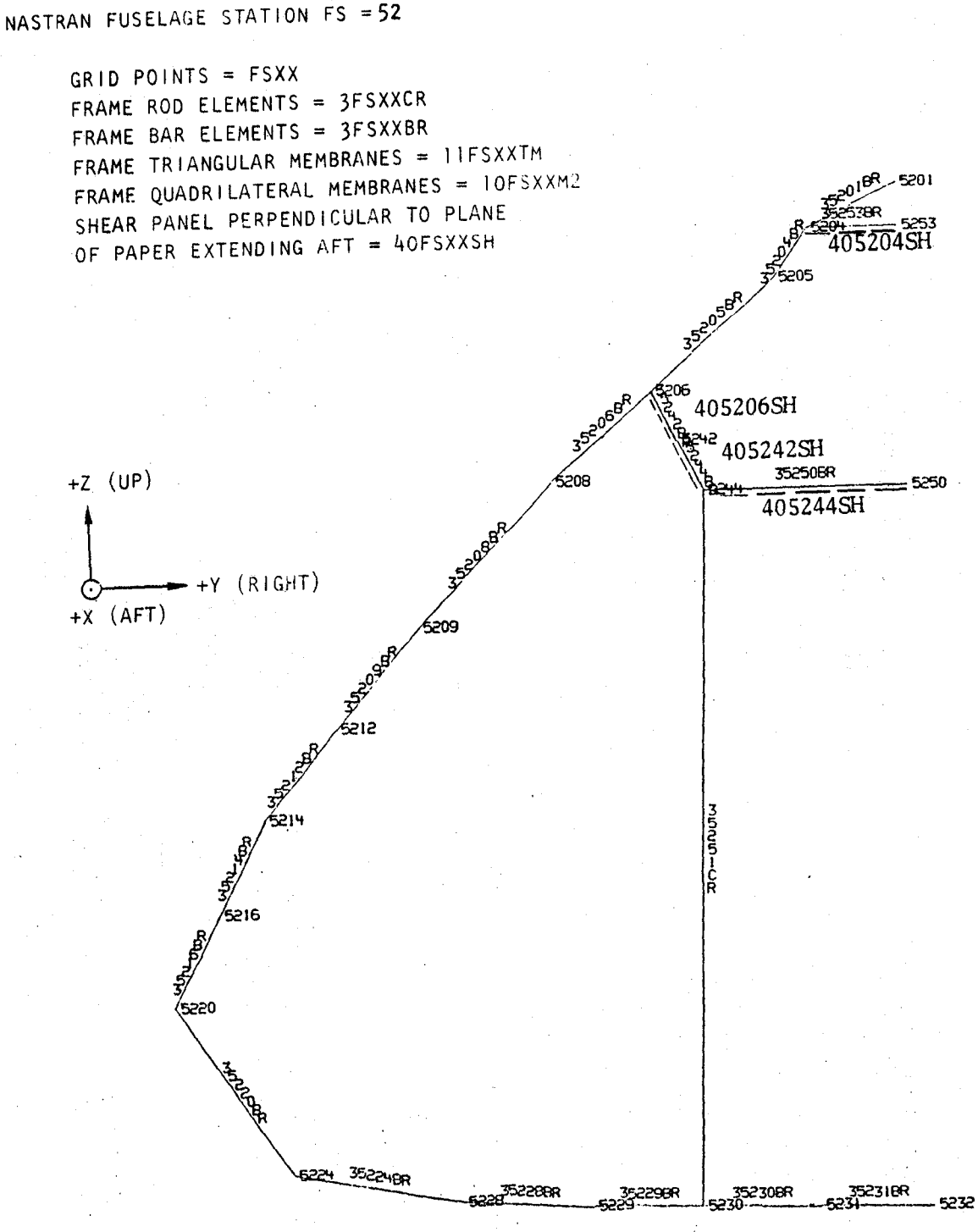


Figure C-56. - NASTRAN model fuselage station 1337.0.

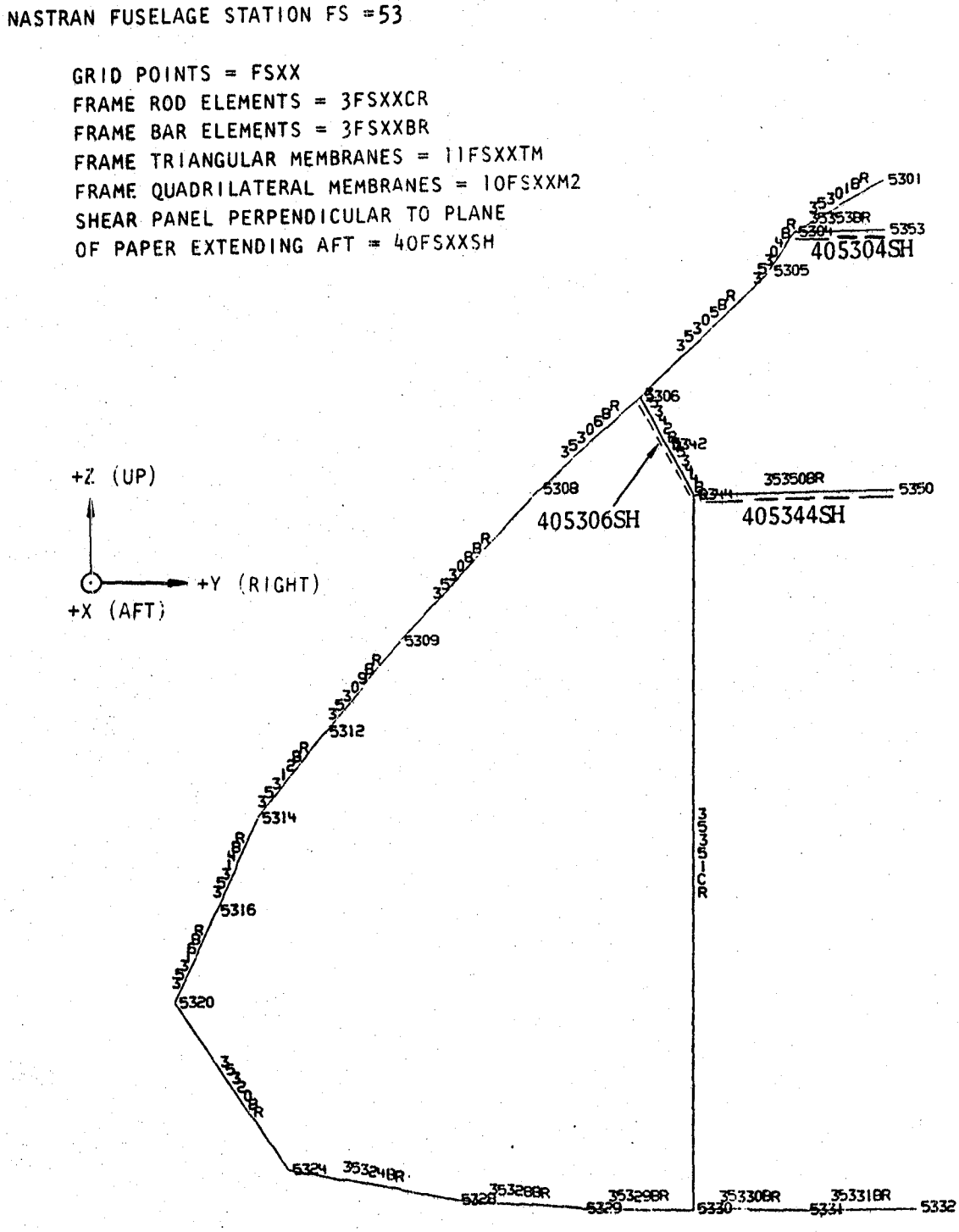


Figure C-57. - NASTRAN model fuselage station 1341.5.

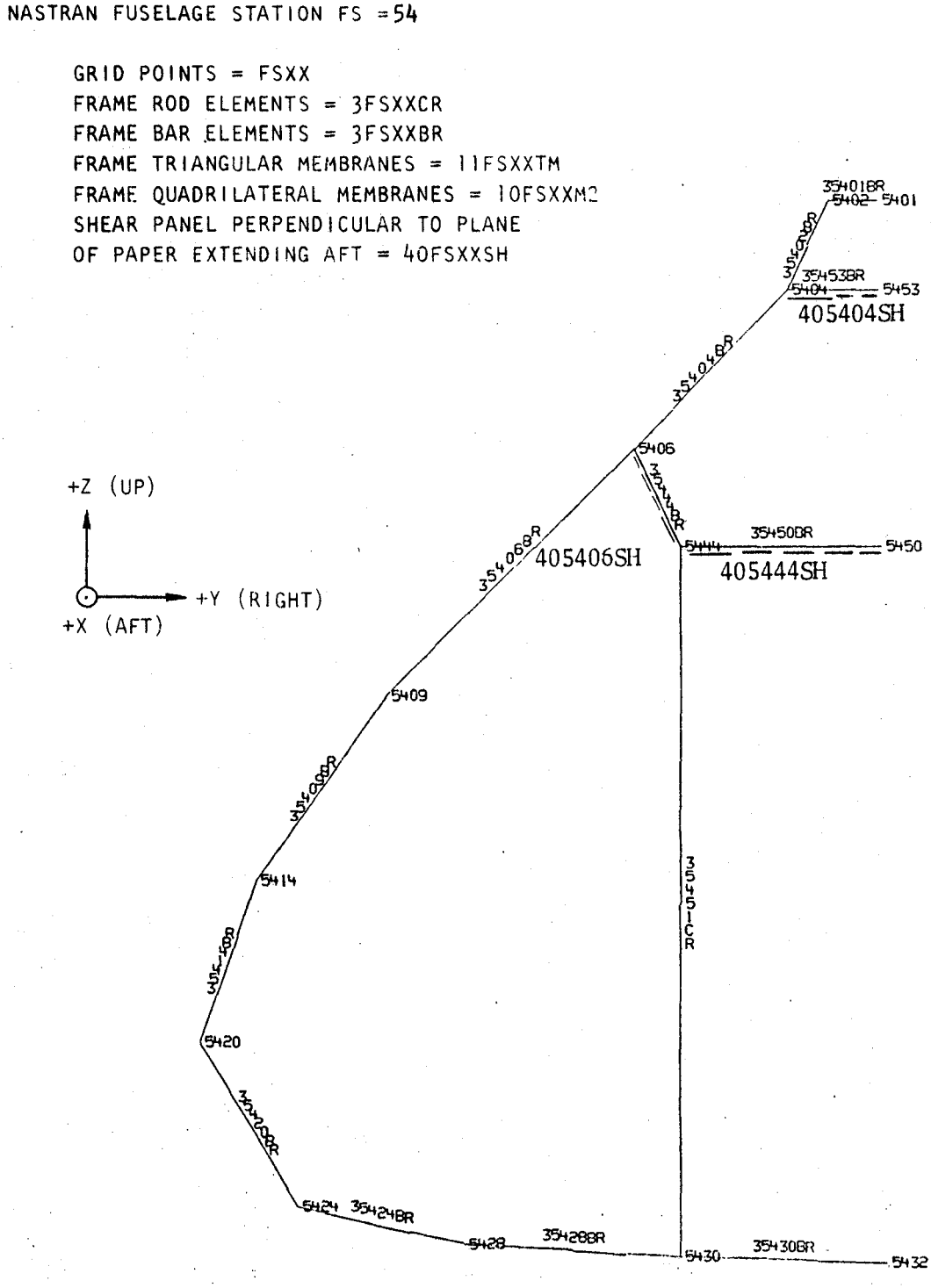


Figure C-58. - NASTRAN model fuselage station 1366.6.

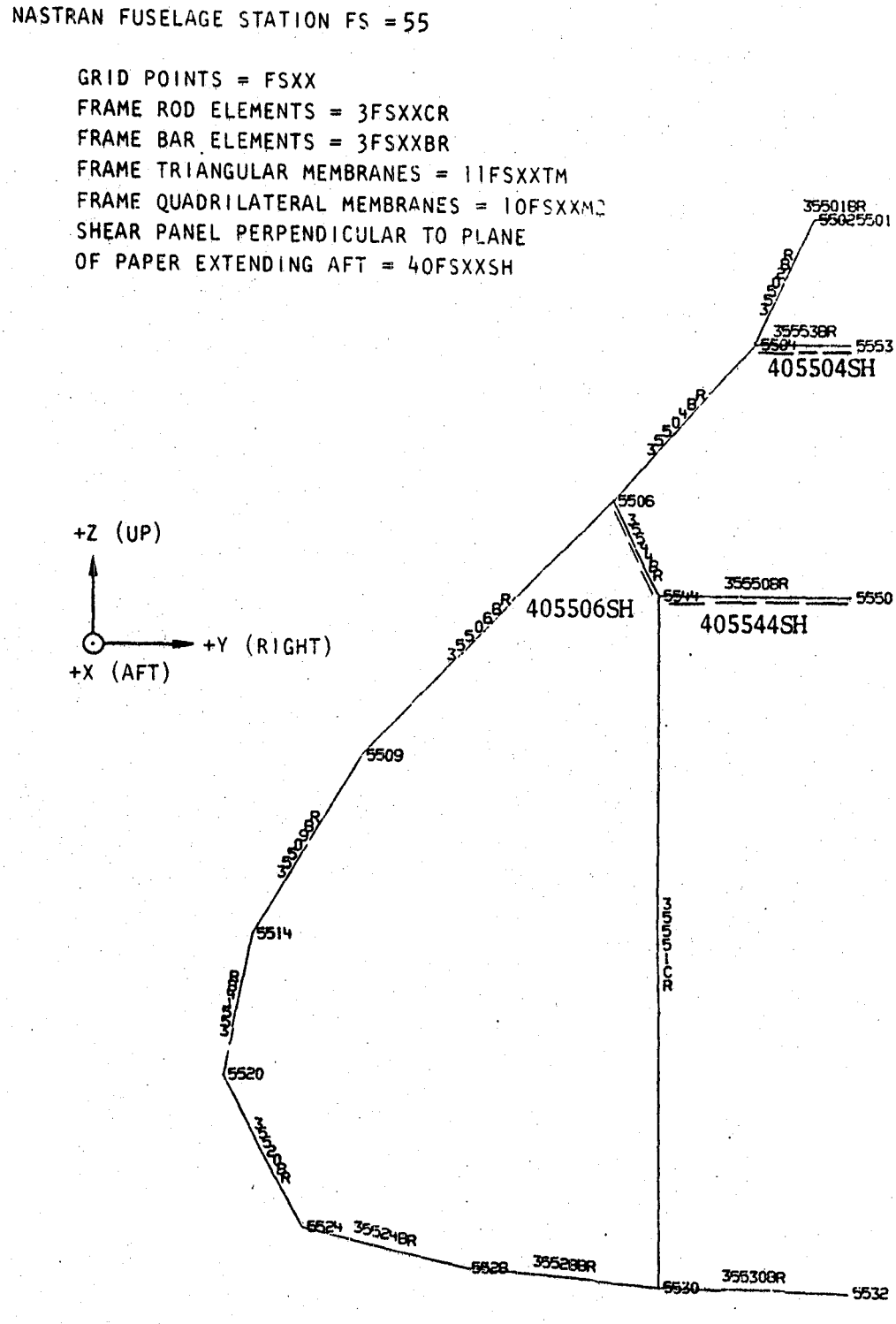


Figure C-59. - NASTRAN model fuselage station 1391.5.

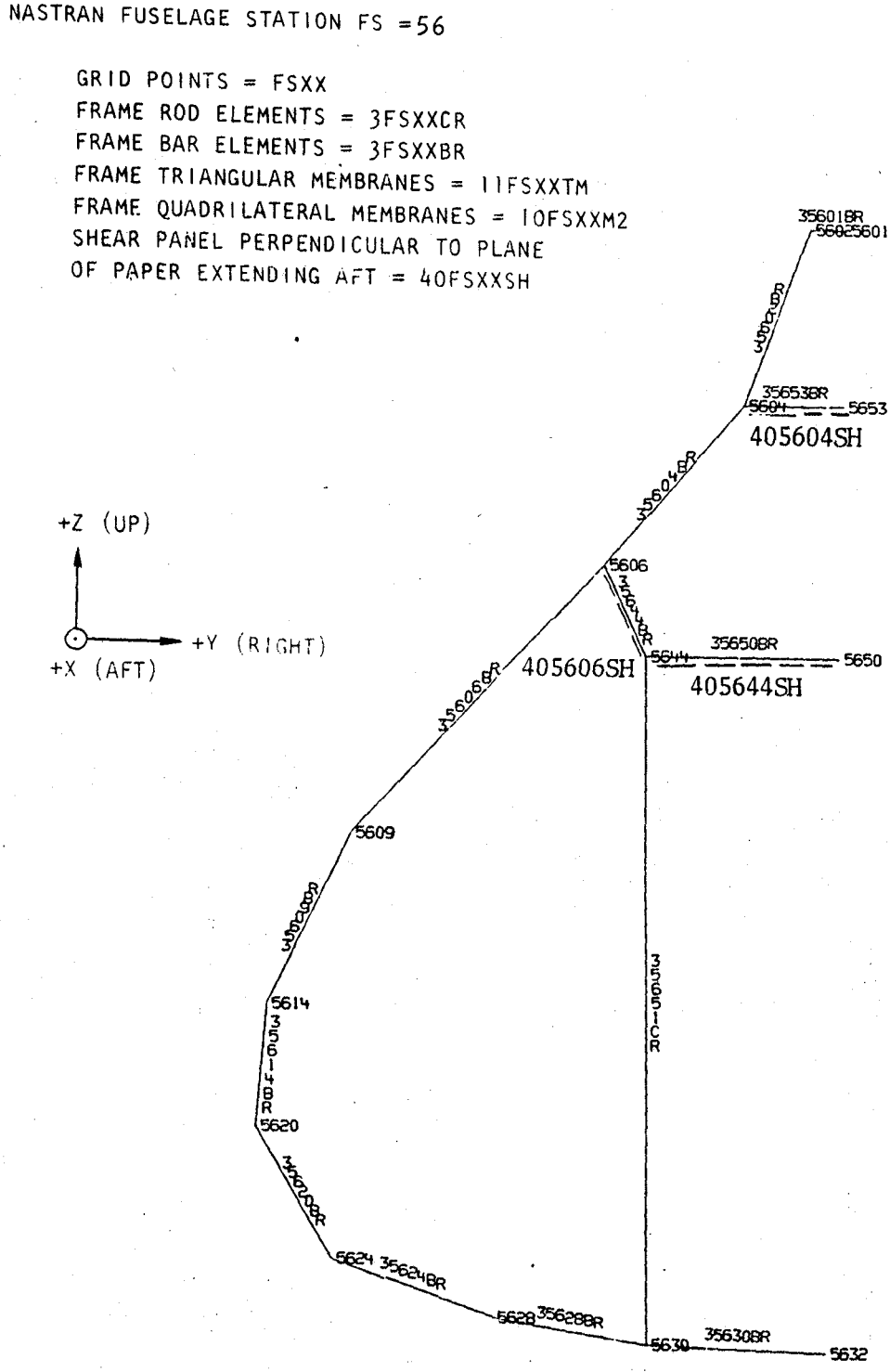


Figure C-60. - NASTRAN model fuselage station 1425.0.

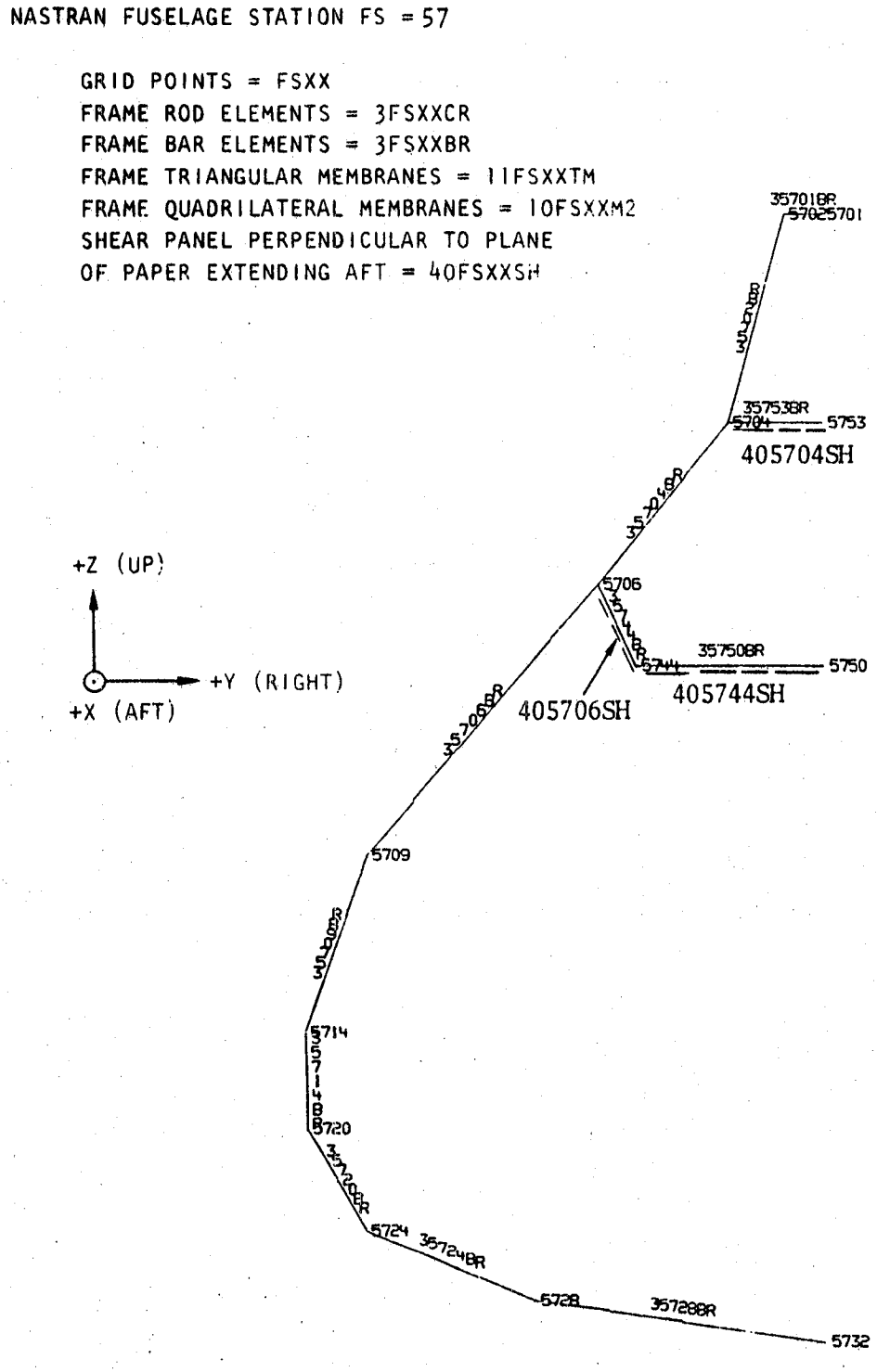


Figure C-61. - NASTRAN model fuselage station 1450.0.

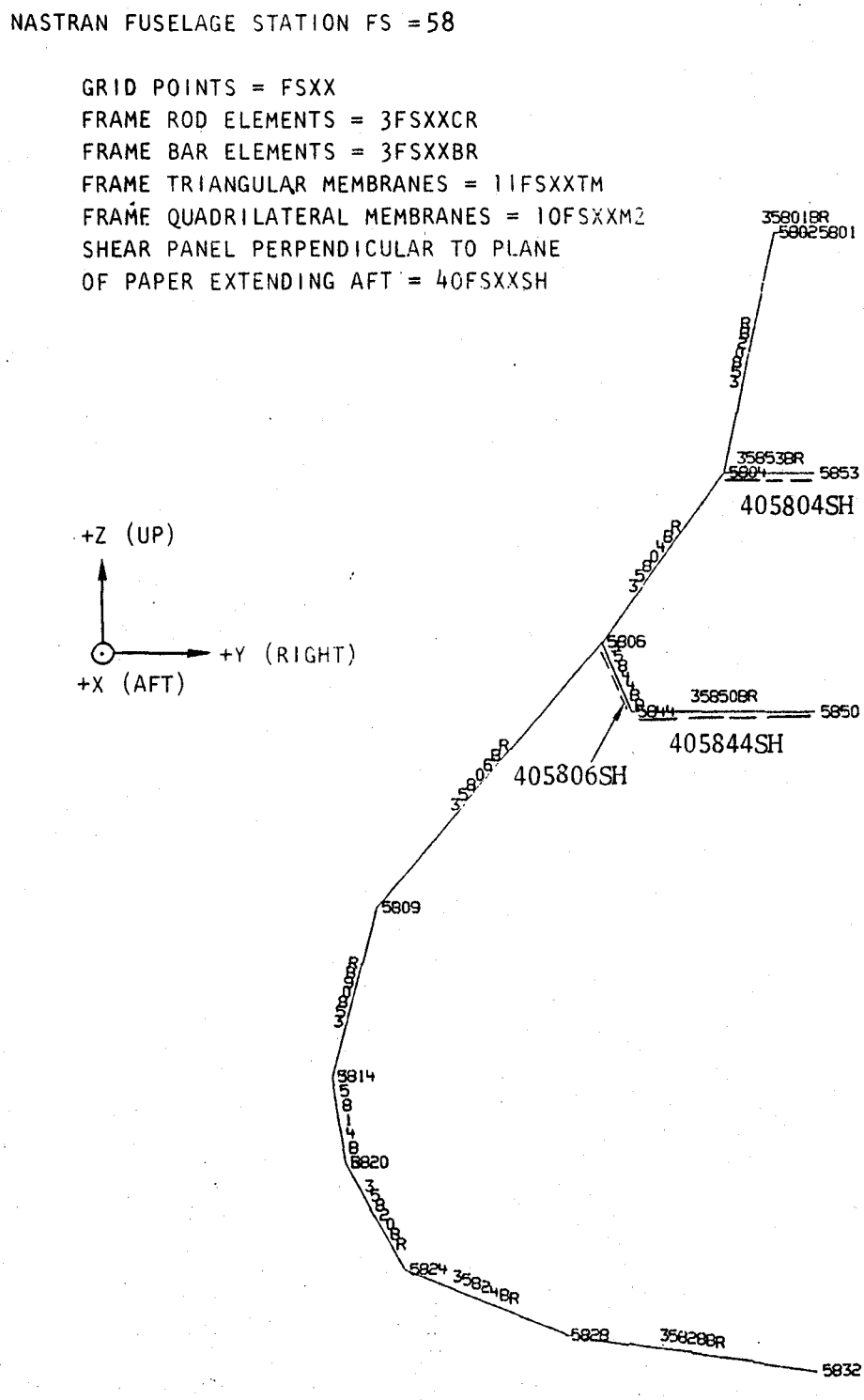


Figure C-62. - NASTRAN model fuselage station 1475.0.

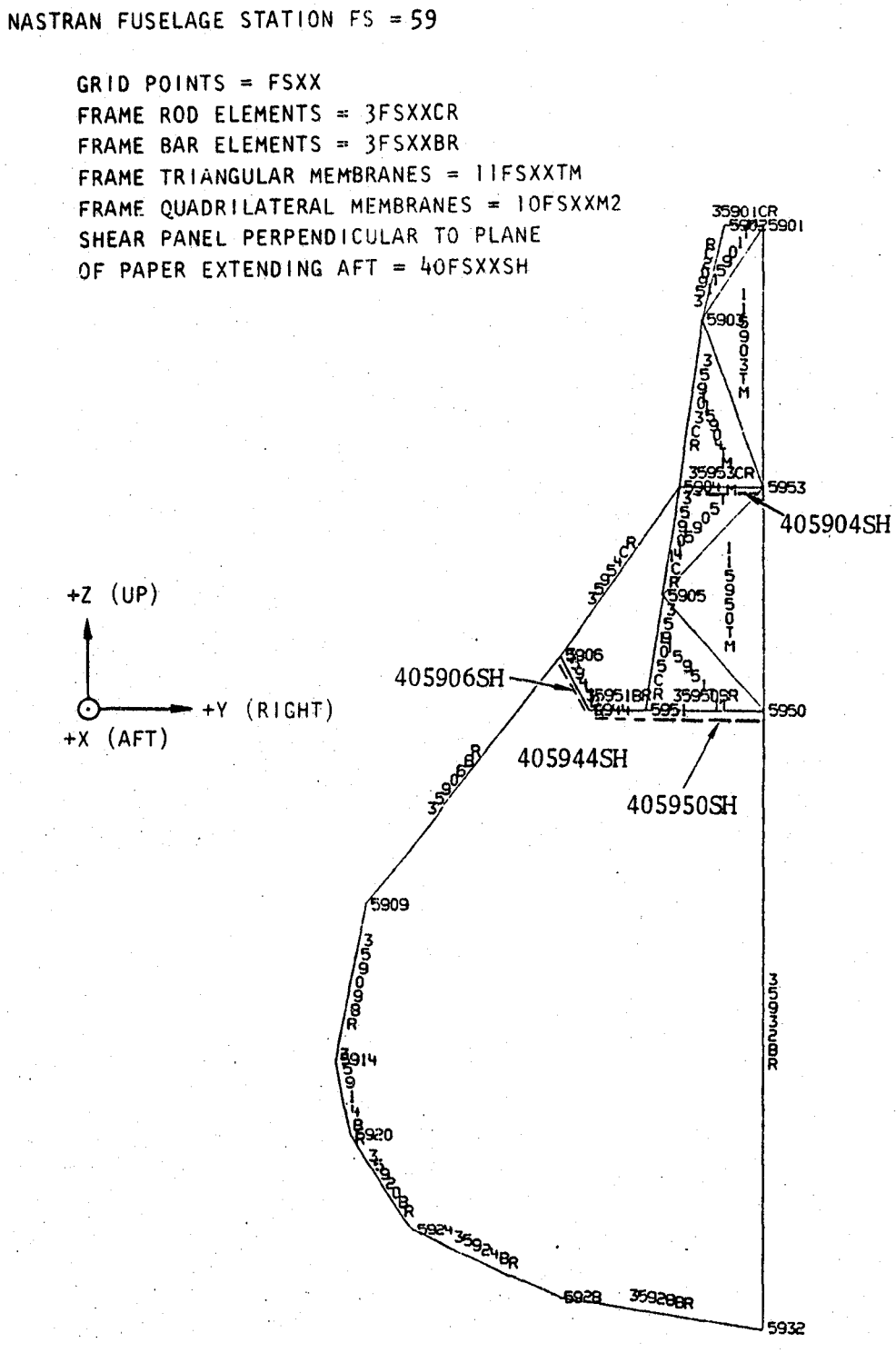


Figure C-63. - NASTRAN model fuselage station 1500.2.

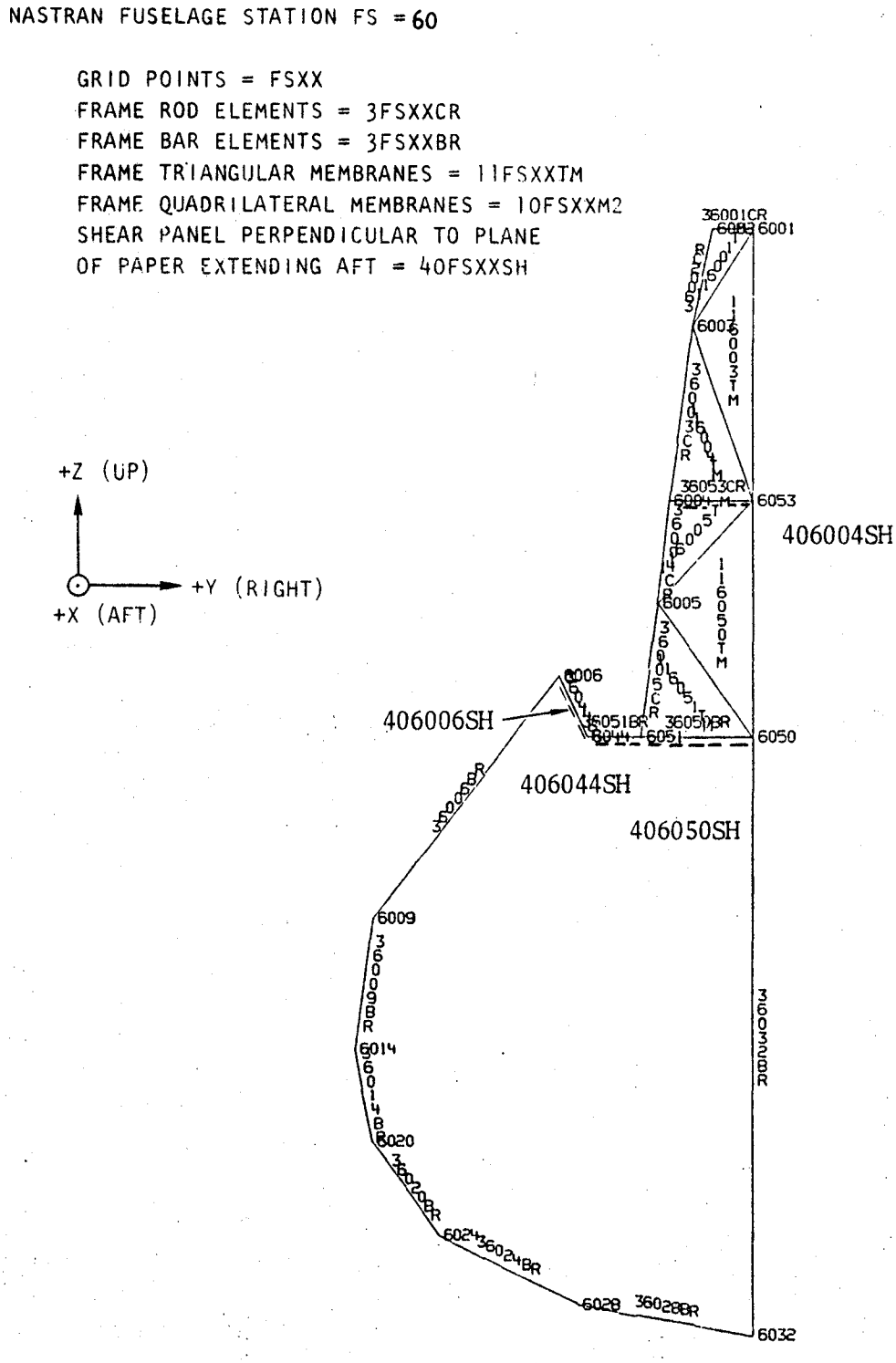


Figure C-64. - NASTRAN model fuselage station 1527.0.

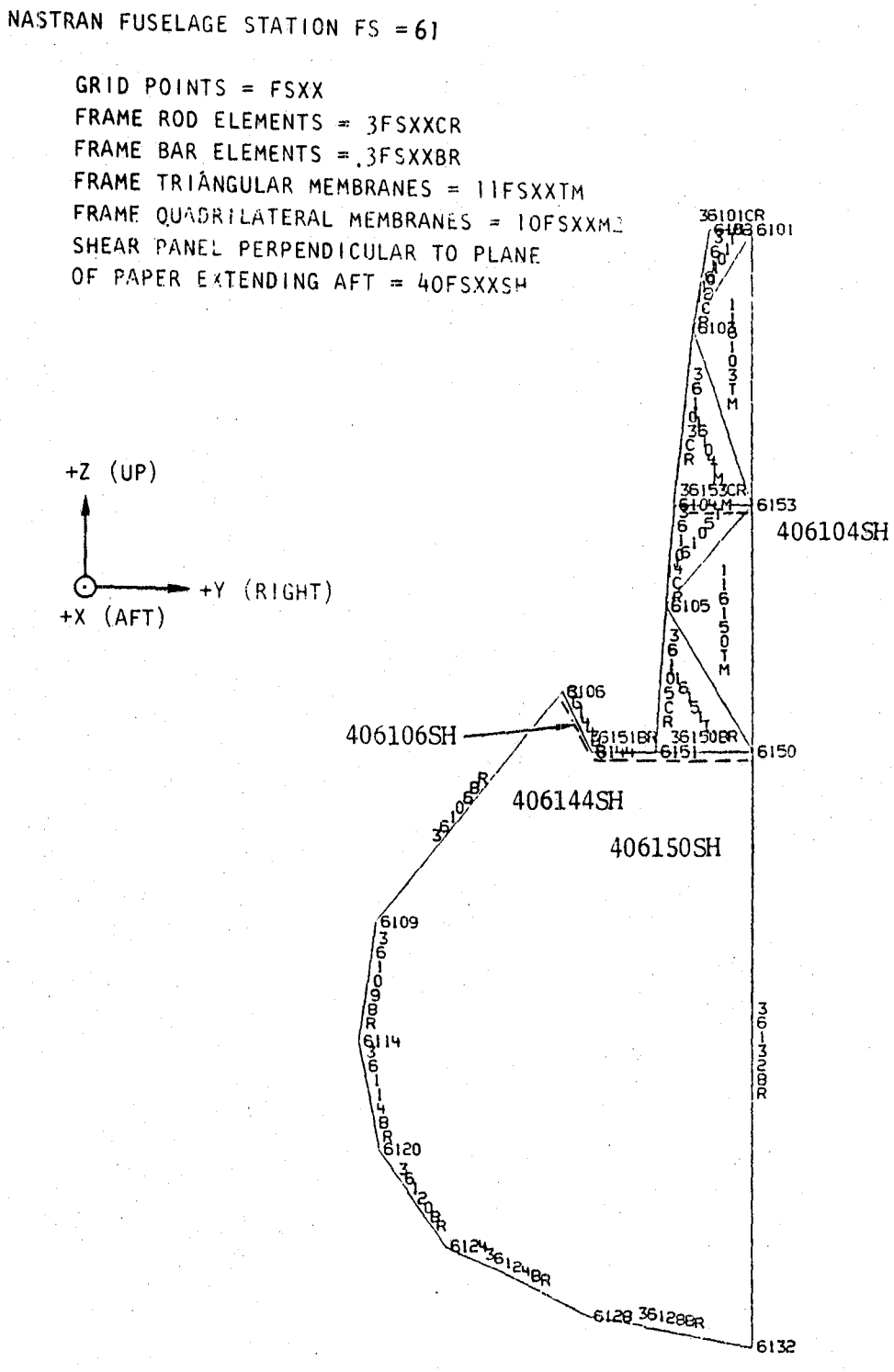


Figure C-65. - NASTRAN model fuselage station 1547.0.

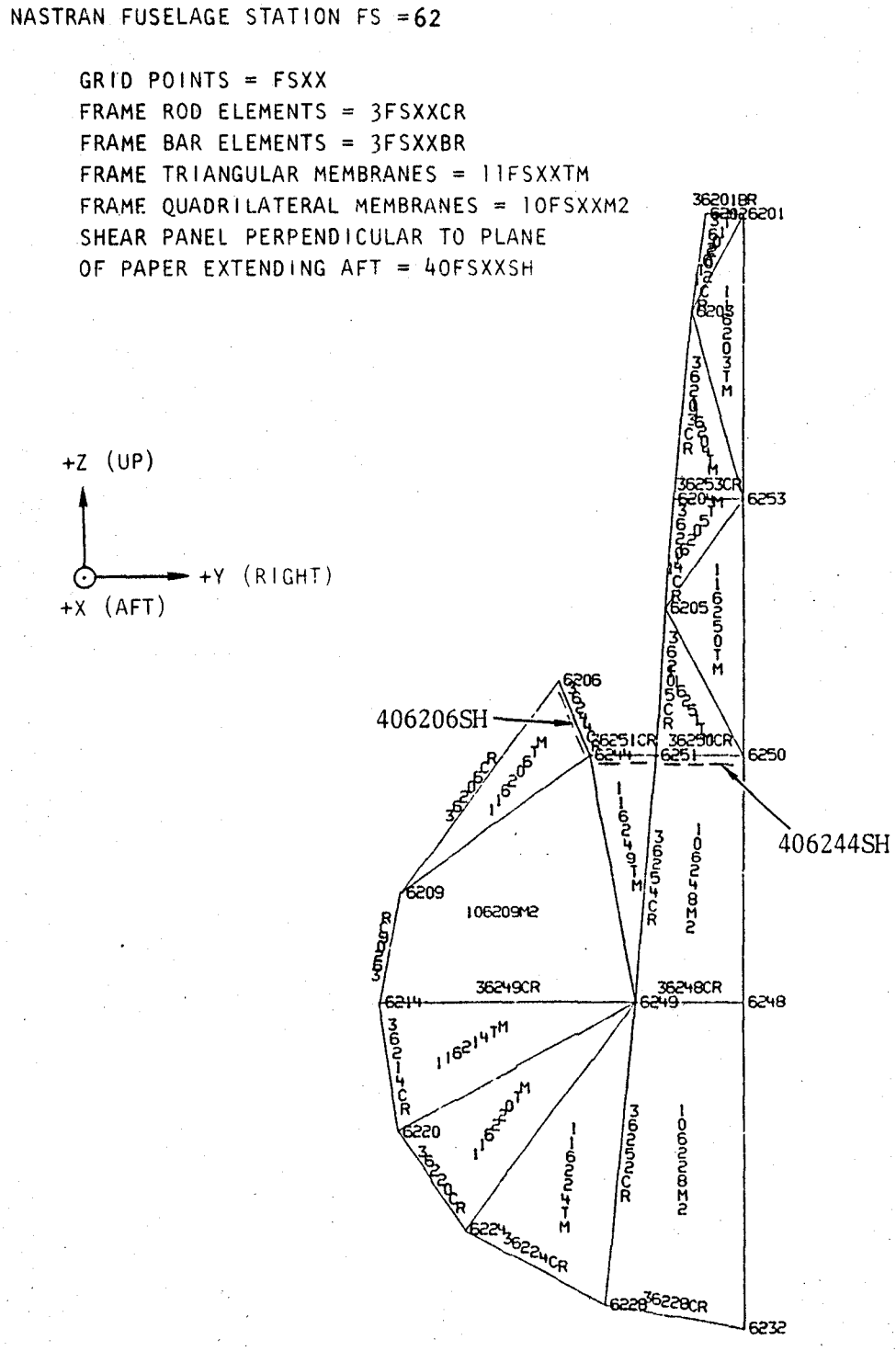


Figure C-66. - NASTRAN model fuselage station 1582.0.

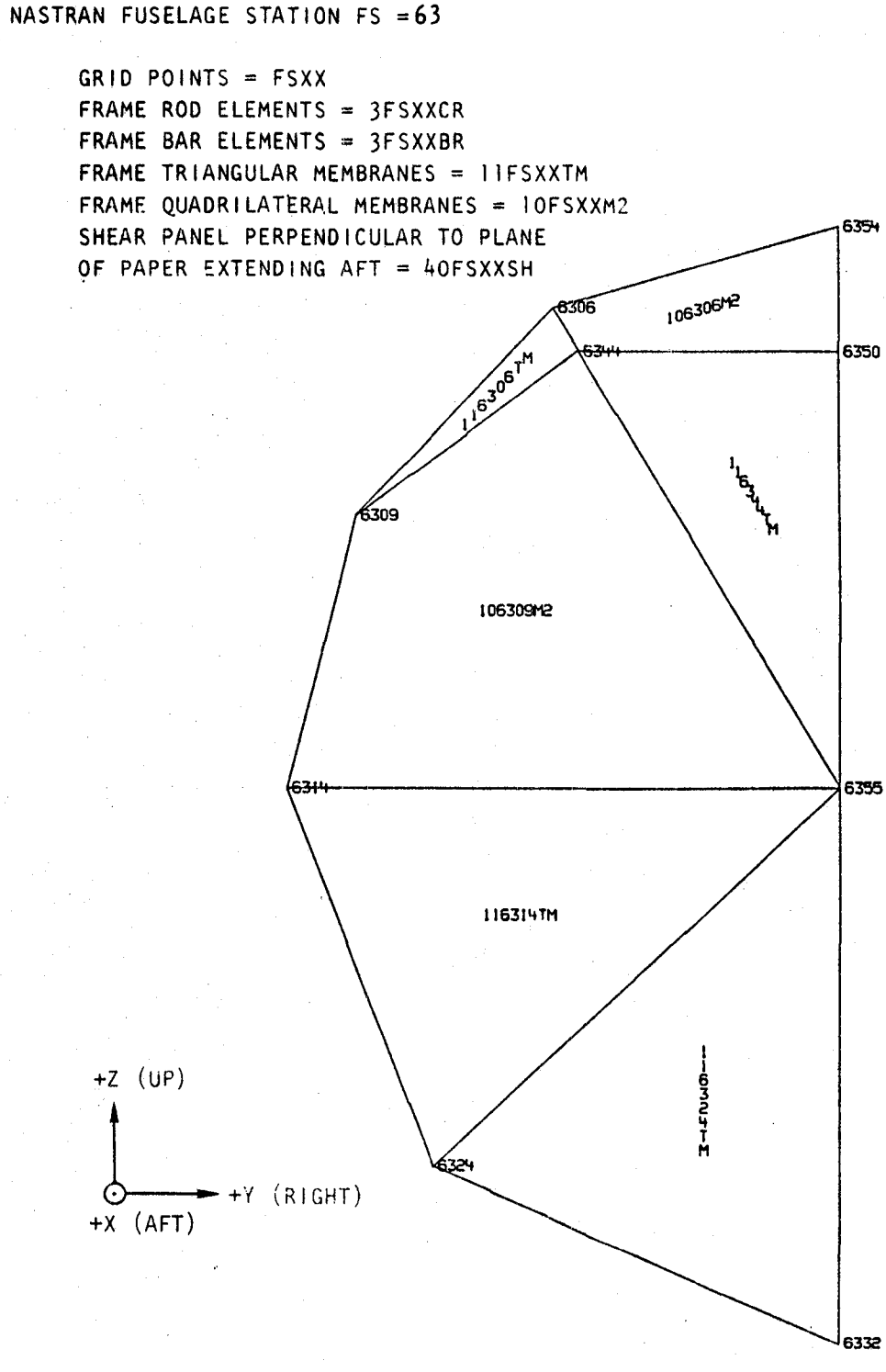


Figure C-67. - NASTRAN model fuselage station 1641.0.

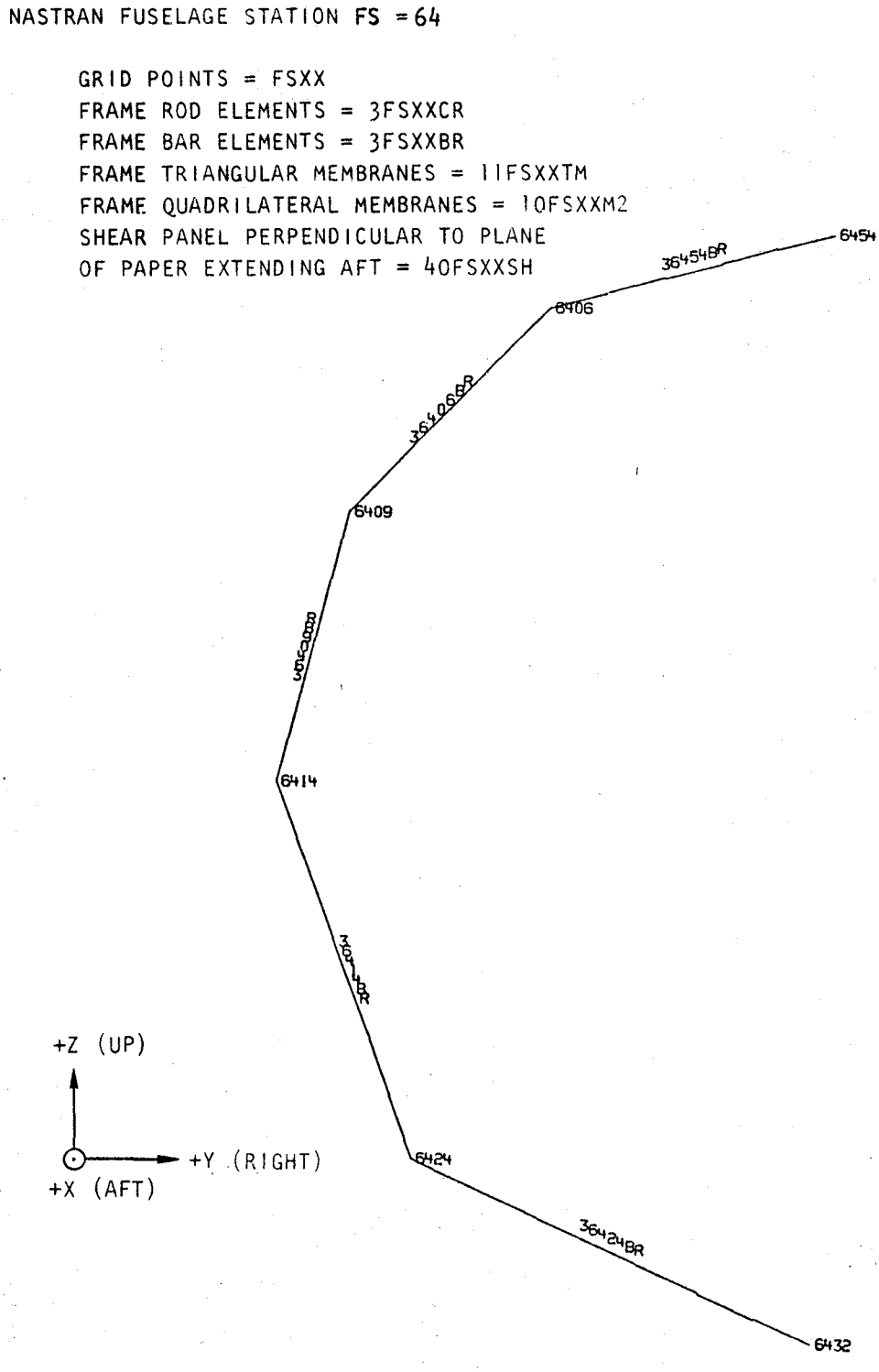


Figure C-68. - NASTRAN model fuselage station 1718.0.

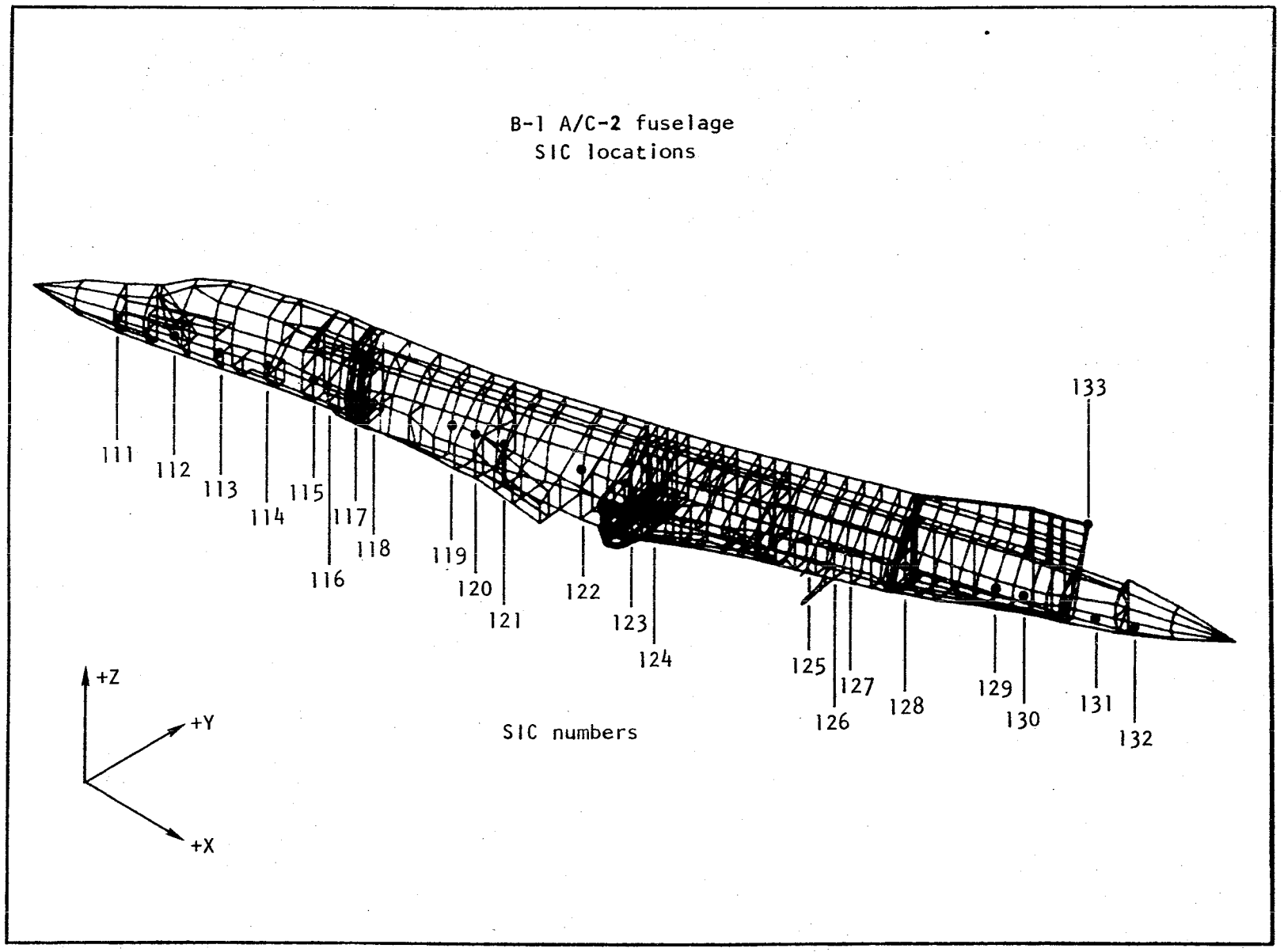


Figure C-69. - Airloads research study - B-1 A/C-2 fuselage NASTRAN model.

TABLE C-1 FUSELAGE INFLUENCE COEFFICIENT POINTS

SIC Point	Description	Coordinate		
		X	Y	Z
111	FORWARD RADOME Z LOAD	150.00	22.90	32.00
112	MODE CONTROL FIN	229.00	32.54	11.72
113	PILOT STATION	295.00	22.90	32.00
114	NOSE GEAR	340.00	22.90	32.00
115	CREW STATION	388.00	22.90	32.00
116	DISTRIBUTED LOAD	453.00	22.90	32.00
117	DISTRIBUTED LOAD	494.00	22.90	32.00
118	FORWARD BOMB BAY BULKHEAD	542.00	22.90	32.00
119	FORWARD BOMB BAY LAUNCHER	632.00	22.90	32.00
120	FORWARD BOMB BAY LAUNCHER	662.00	22.90	32.00
121	FORWARD & MID-BAY BULKHEAD	737.00	22.90	32.00
122	MID-BAY LAUNCHER	827.00	22.90	32.00
123	MID-BAY LAUNCHER	857.00	22.90	32.00
124	MID-BAY AFT BULKHEAD	932.00	22.90	32.00
125	AFT BOMB BAY - FWD BULKHEAD	1133.00	22.90	32.00
126	AFT BOMB BAY LAUNCHER	1221.00	22.90	32.00
127	AFT BOMB BAY LAUNCHER	1251.00	22.90	32.00
128	AFT BOMB BAY - AFT BULKHEAD	1325.00	22.90	32.00
129	DISTRIBUTED LOAD	1400.00	22.90	32.00
130	DISTRIBUTED LOAD	1500.00	22.90	32.00
131	DISTRIBUTED LOAD	1600.00	22.90	32.00
132	REAR RADOME Z LOAD	1654.00	22.90	32.00
133	EMPENNAGE	1582.00	0.0	126.00

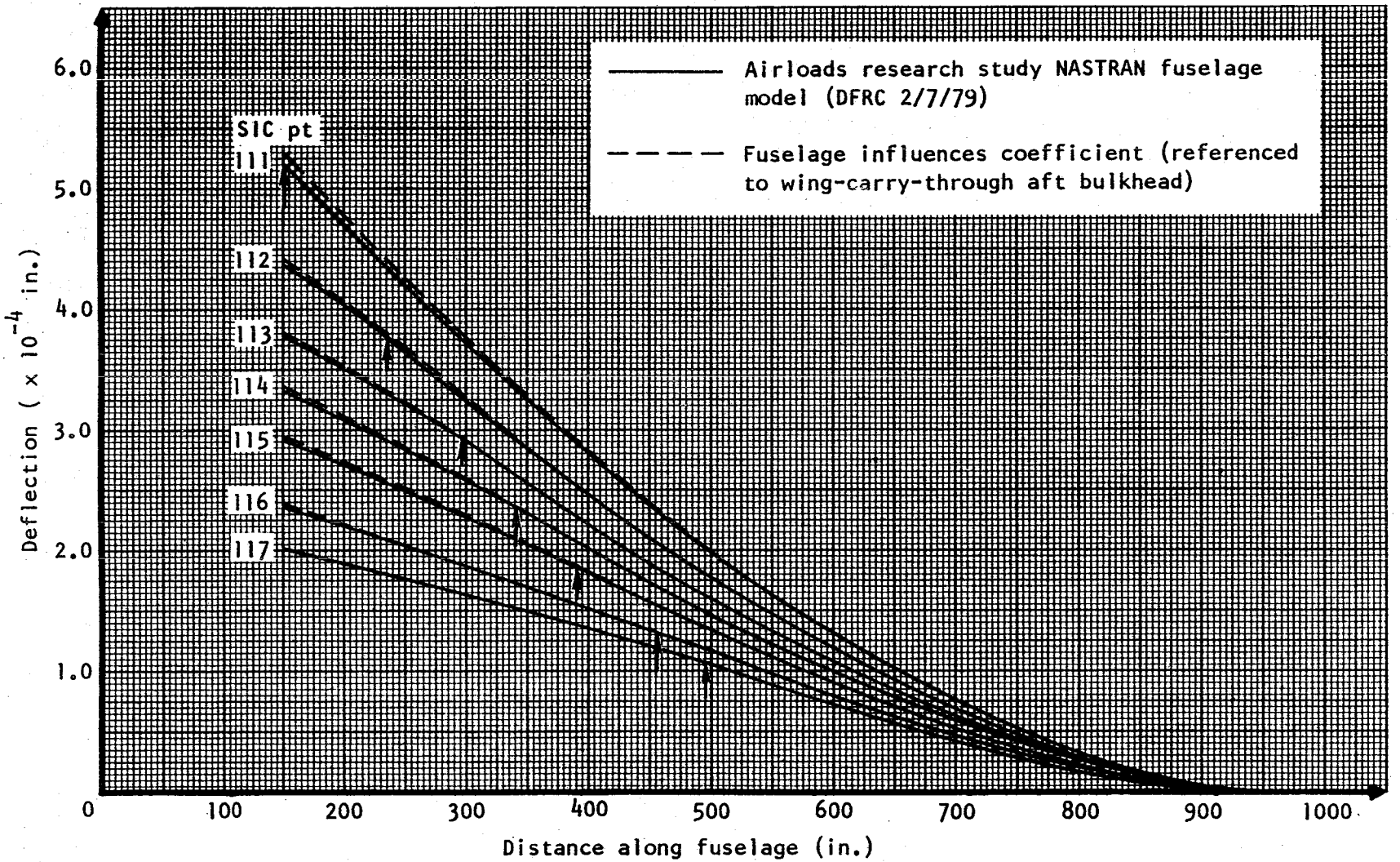


Figure C-70. - Airloads research study - B-1 A/C-2 NASTRAN forward fuselage deflections versus influence coefficients.

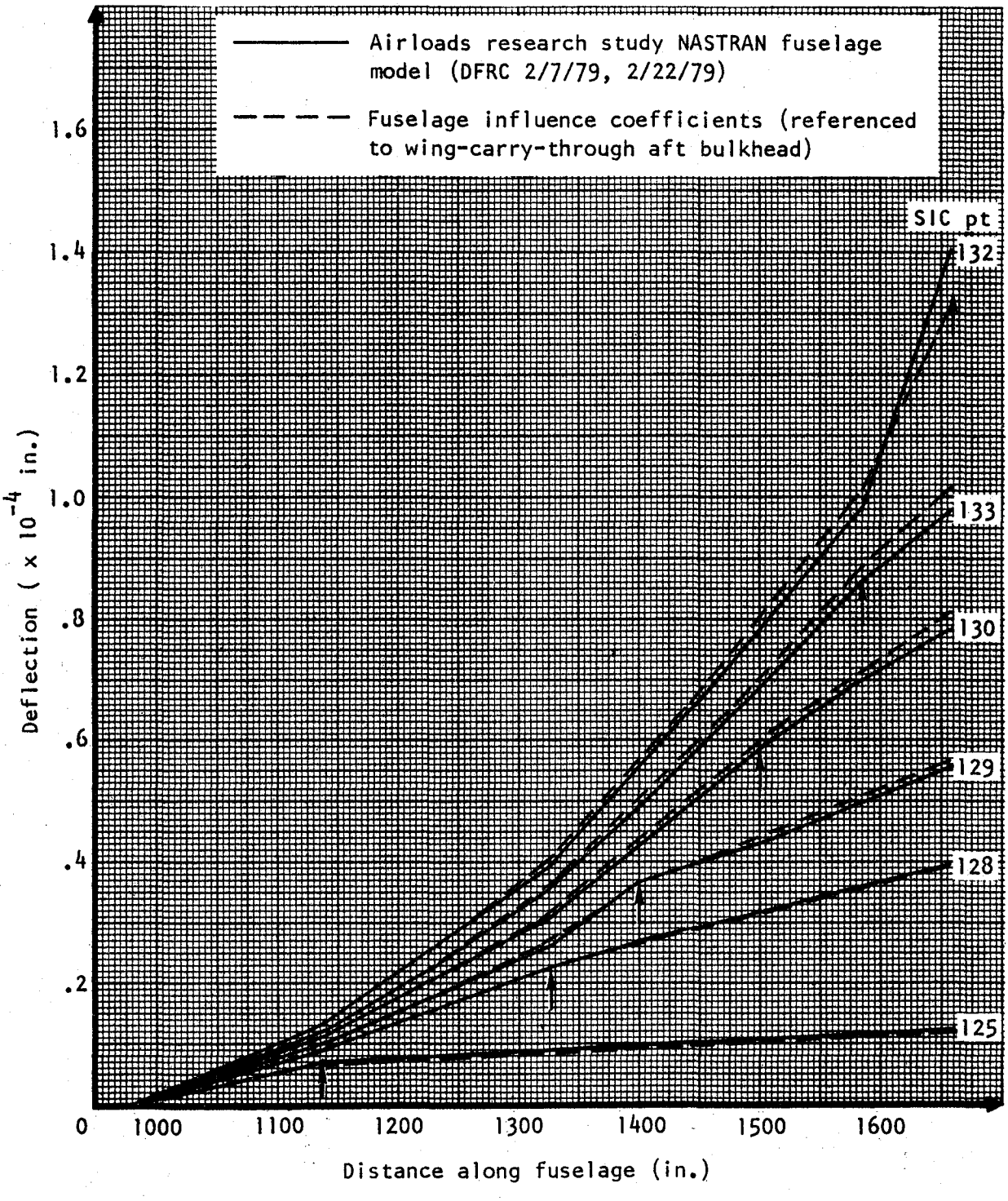


Figure C-71. - Airloads research study - B-1 A/C-2 aft fuselage deflections versus influence coefficients.

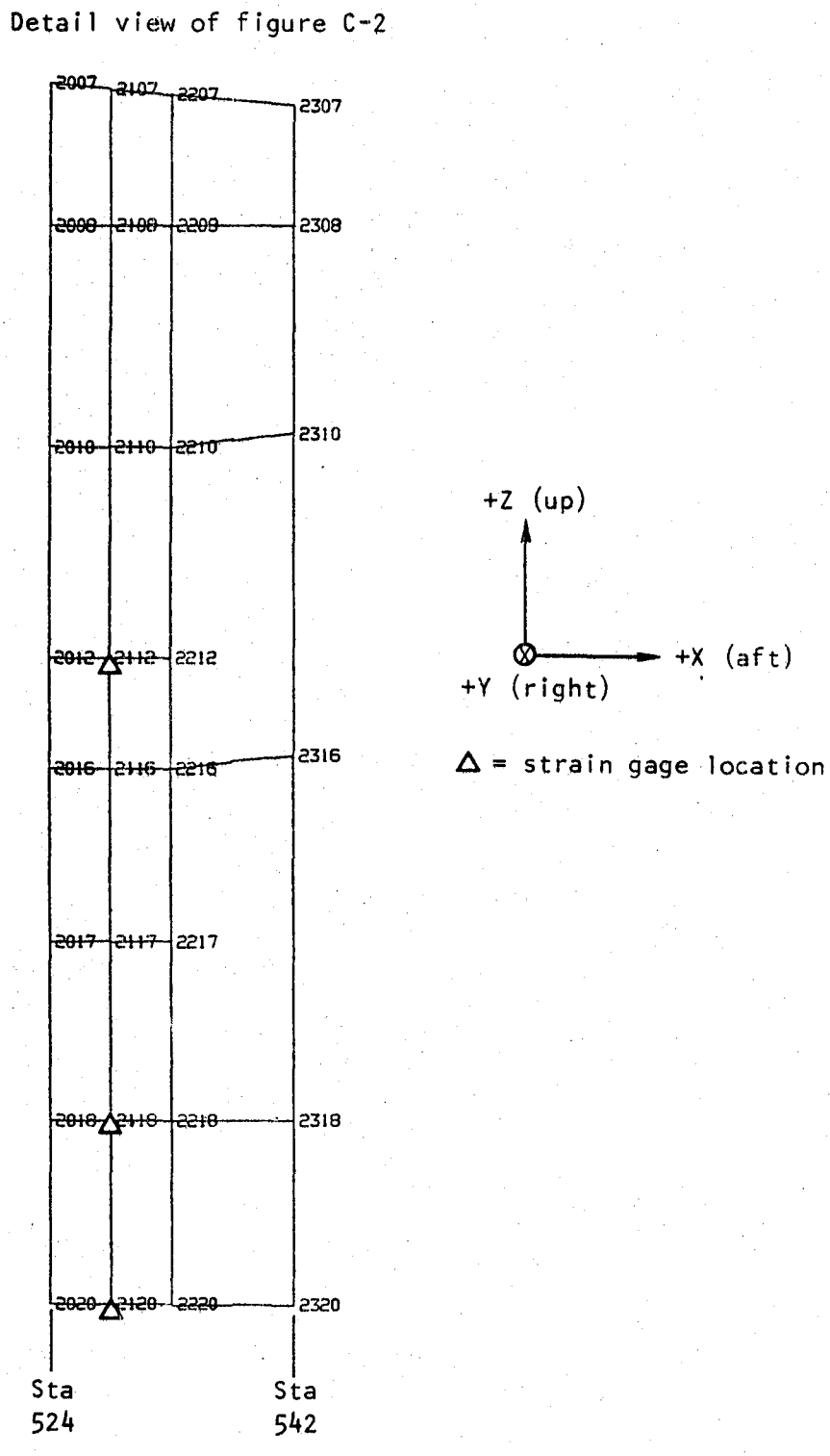


Figure C-72. - NASTRAN fuselage model - side-view grid numbers - stations 524 through 542.

Detail view of figure C-3

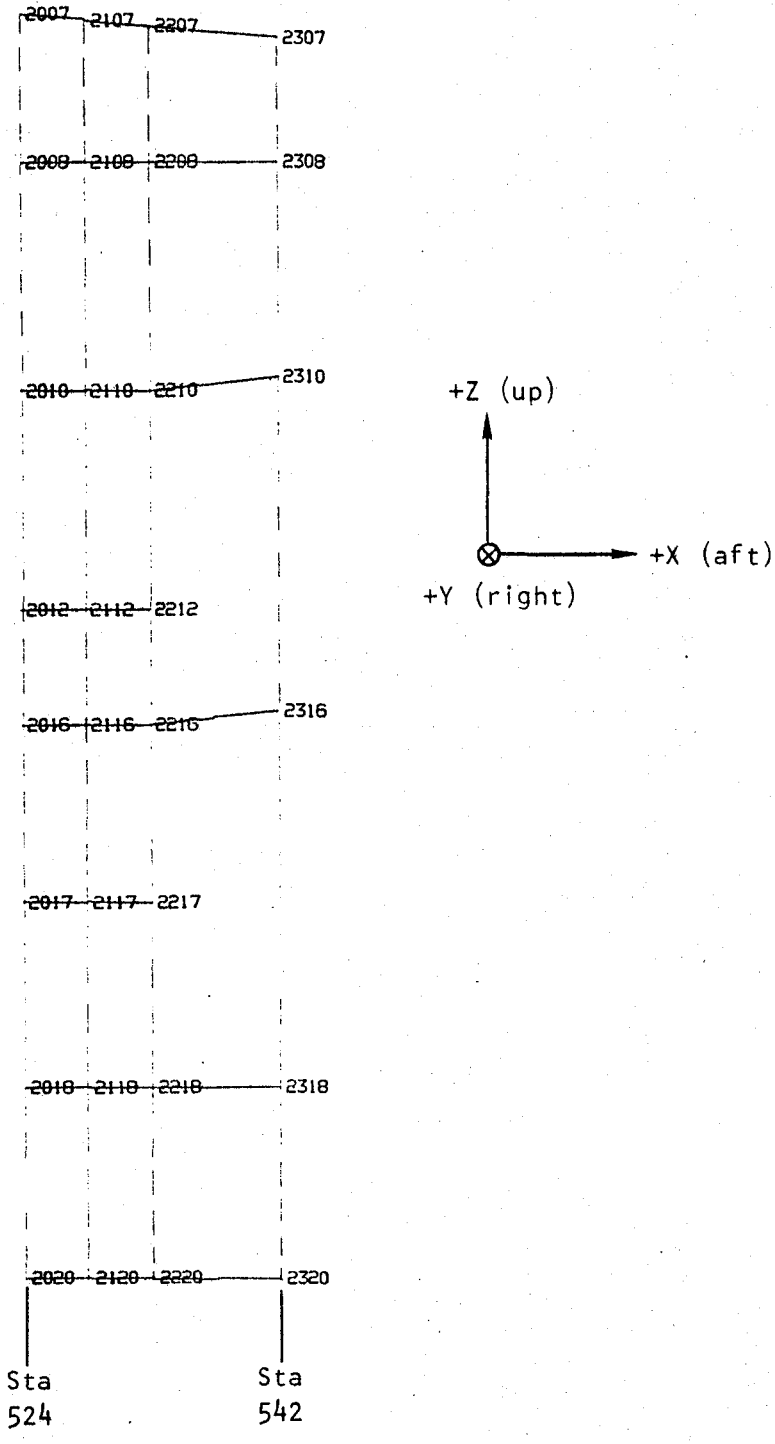


Figure C-73. - NASTRAN fuselage model - side-view axial elements - stations 524 through 542.

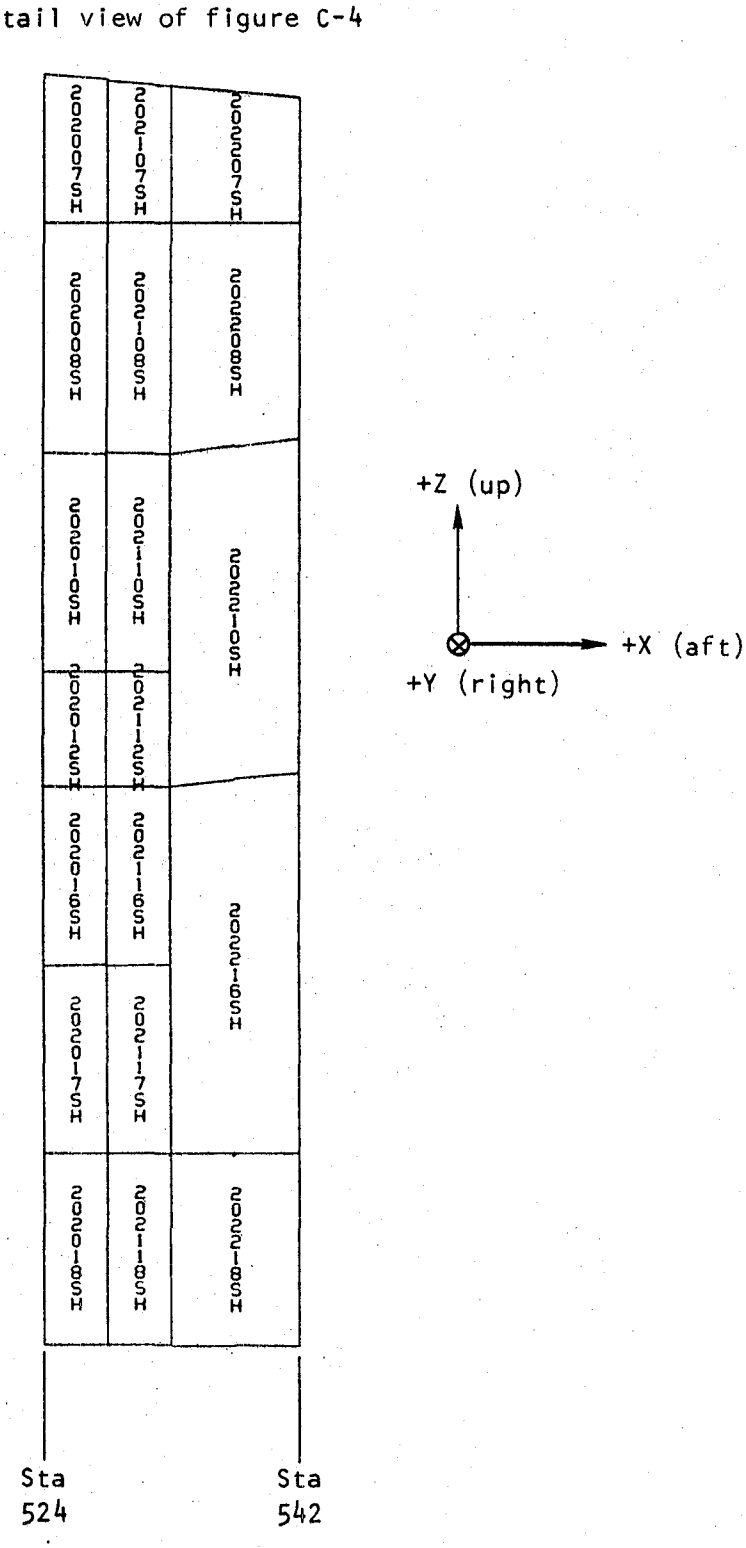


Figure C-74. - NASTRAN fuselage model - side-view panel identification - stations 524 through 542.

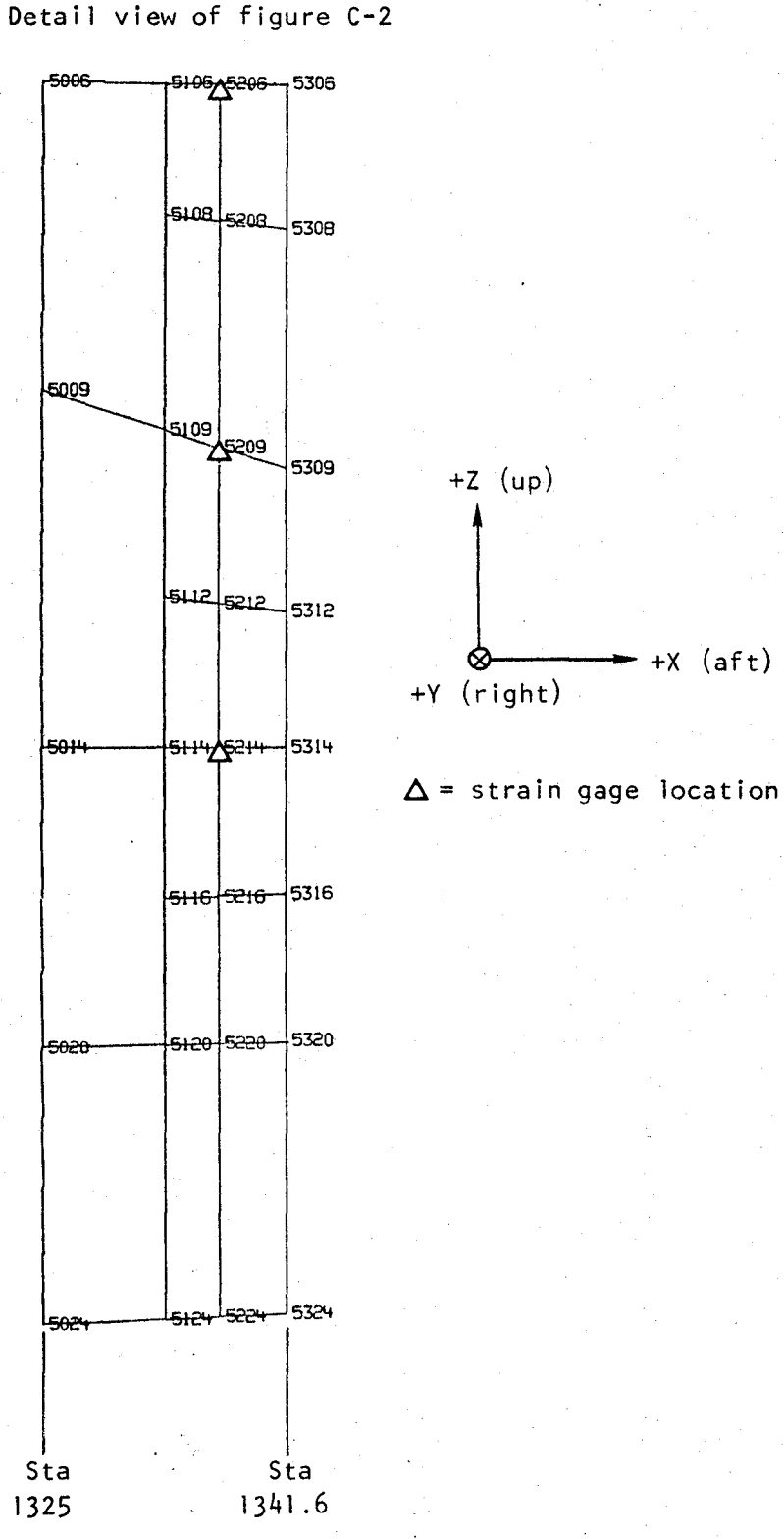


Figure C-75. - NASTRAN fuselage model - side-view grid numbers - stations 1325 through 1341.6

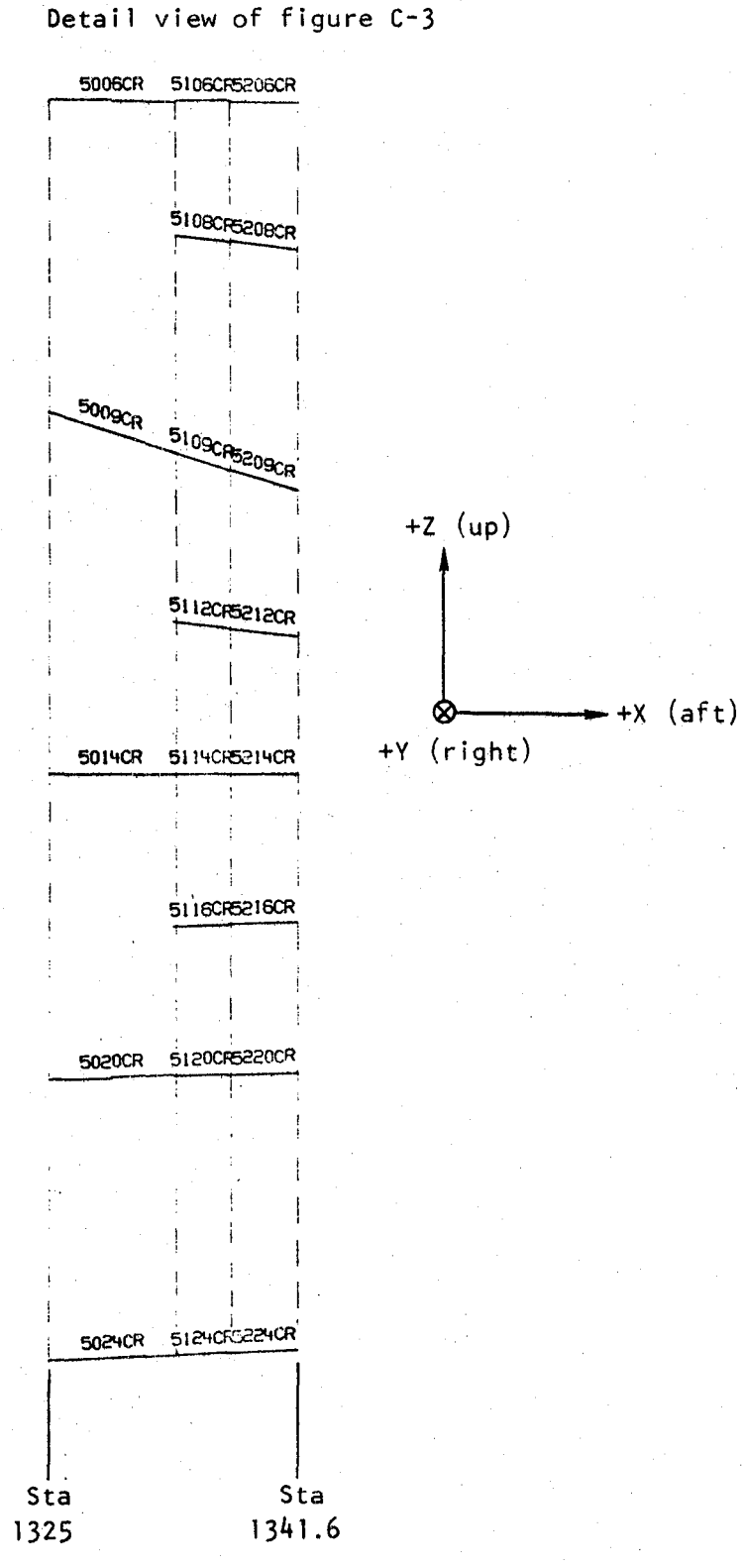


Figure C-76. - NASTRAN fuselage model - side-view axial elements - stations 1325 through 1341.6.

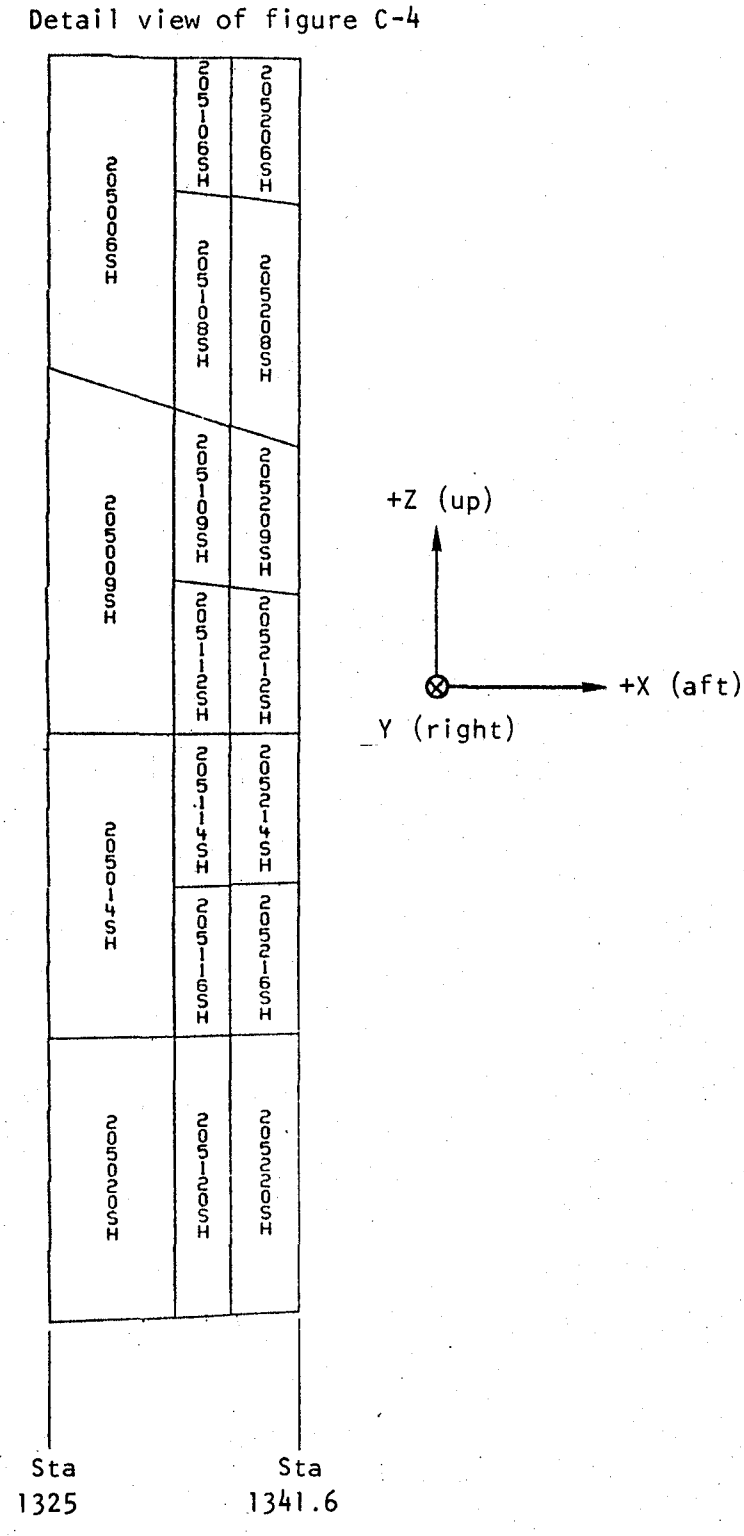


Figure C-77. - NASTRAN fuselage model - side-view panel identification - stations 1325 through 1341.6.

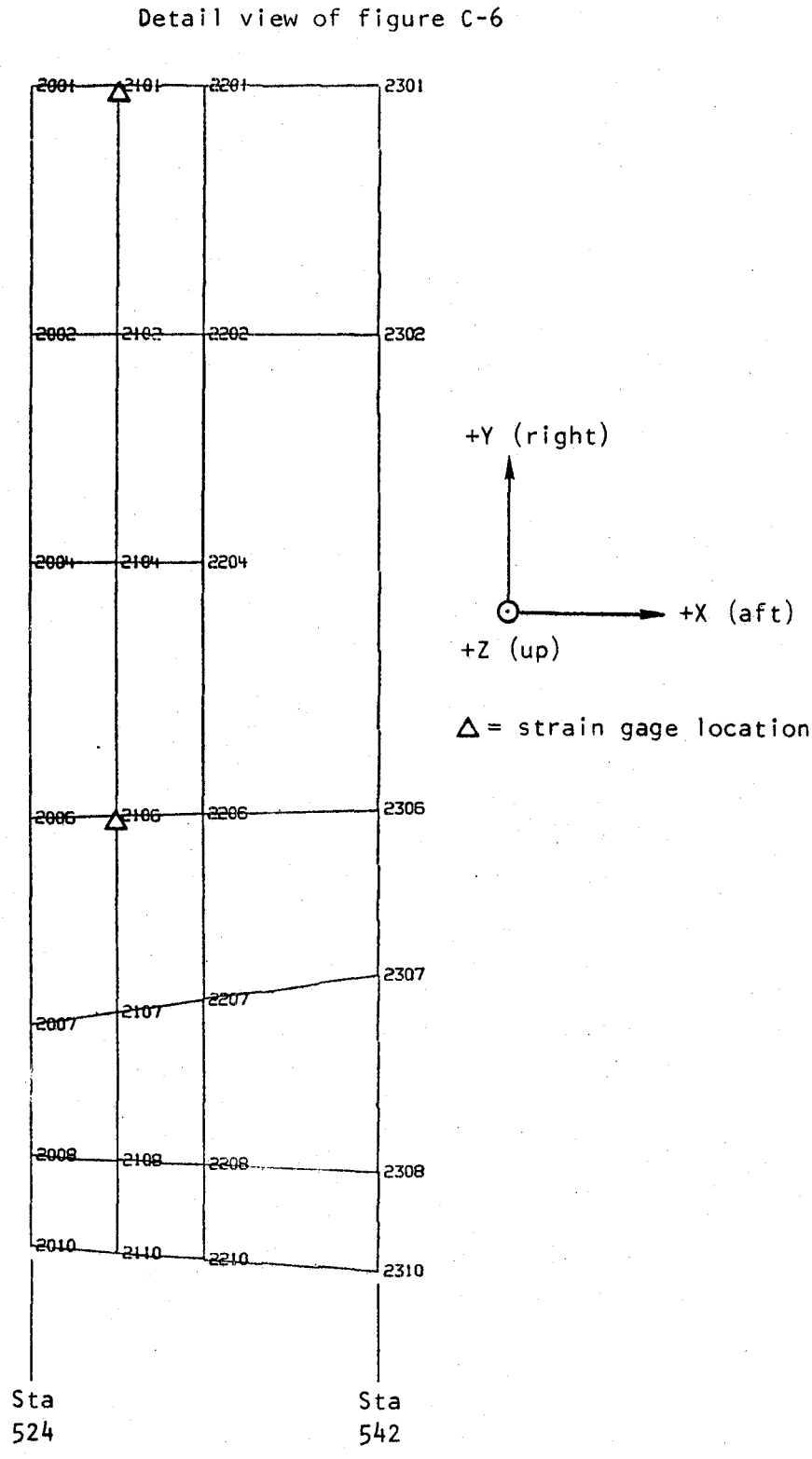


Figure C-78. - NASTRAN fuselage model - top-view grid numbers - stations 524 through 542.

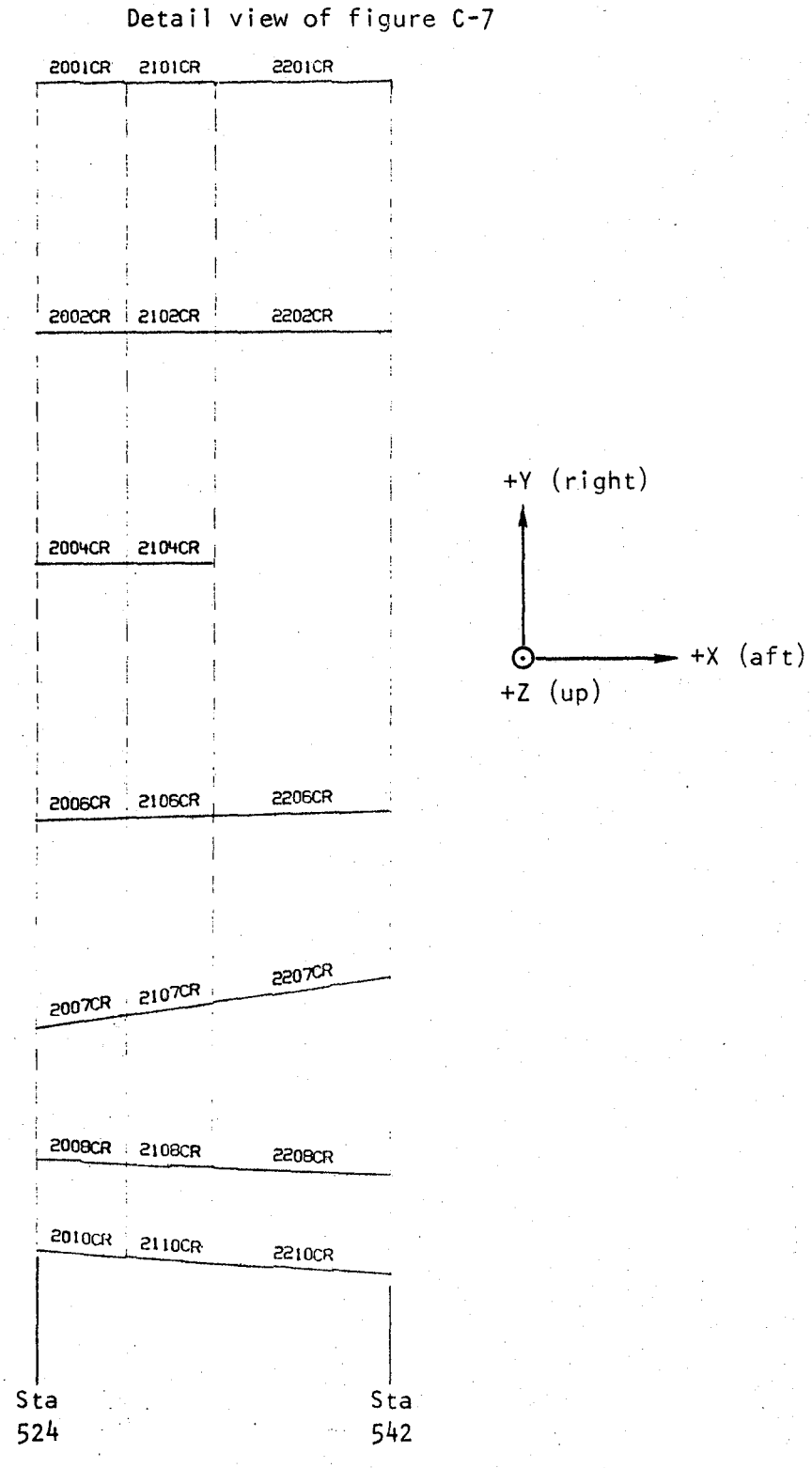


Figure C-79. - NASTRAN fuselage model - top-view axial elements - stations 524 through 542.

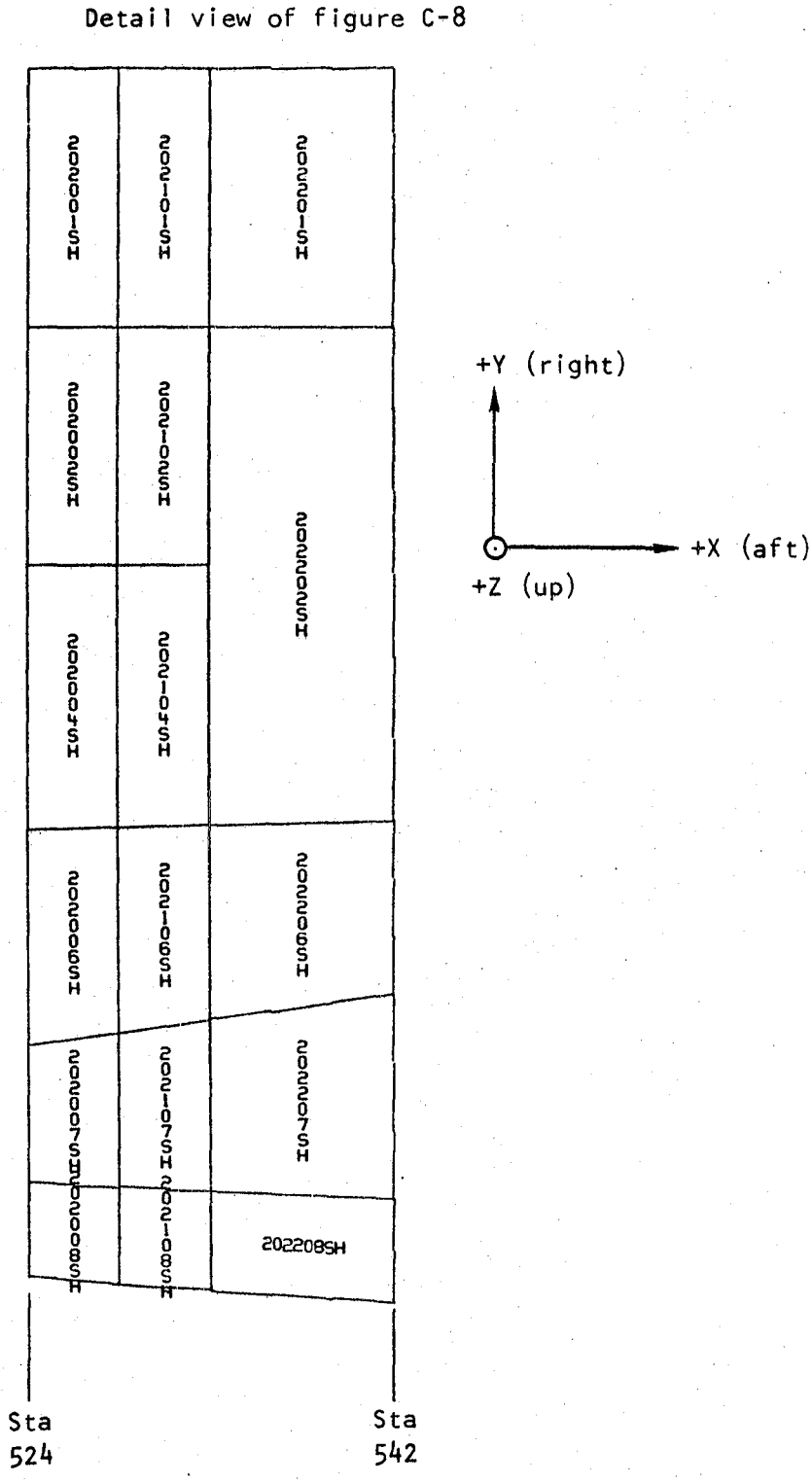


Figure C-80. - NASTRAN fuselage model - top-view panel identification - stations 524 through 542.

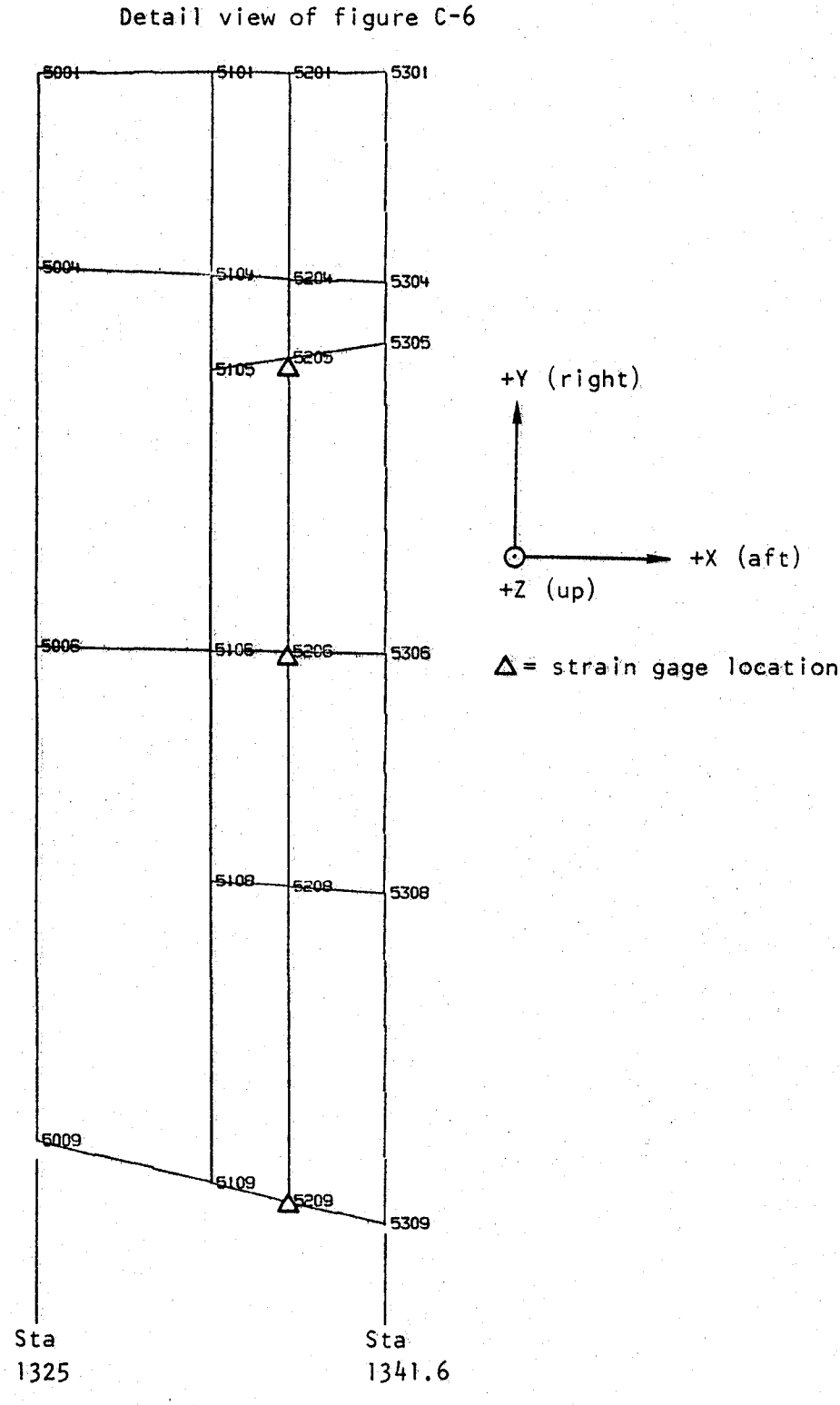


Figure C-81. - NASTRAN fuselage model - top-view grid numbers - stations 1325 through 1341.6.

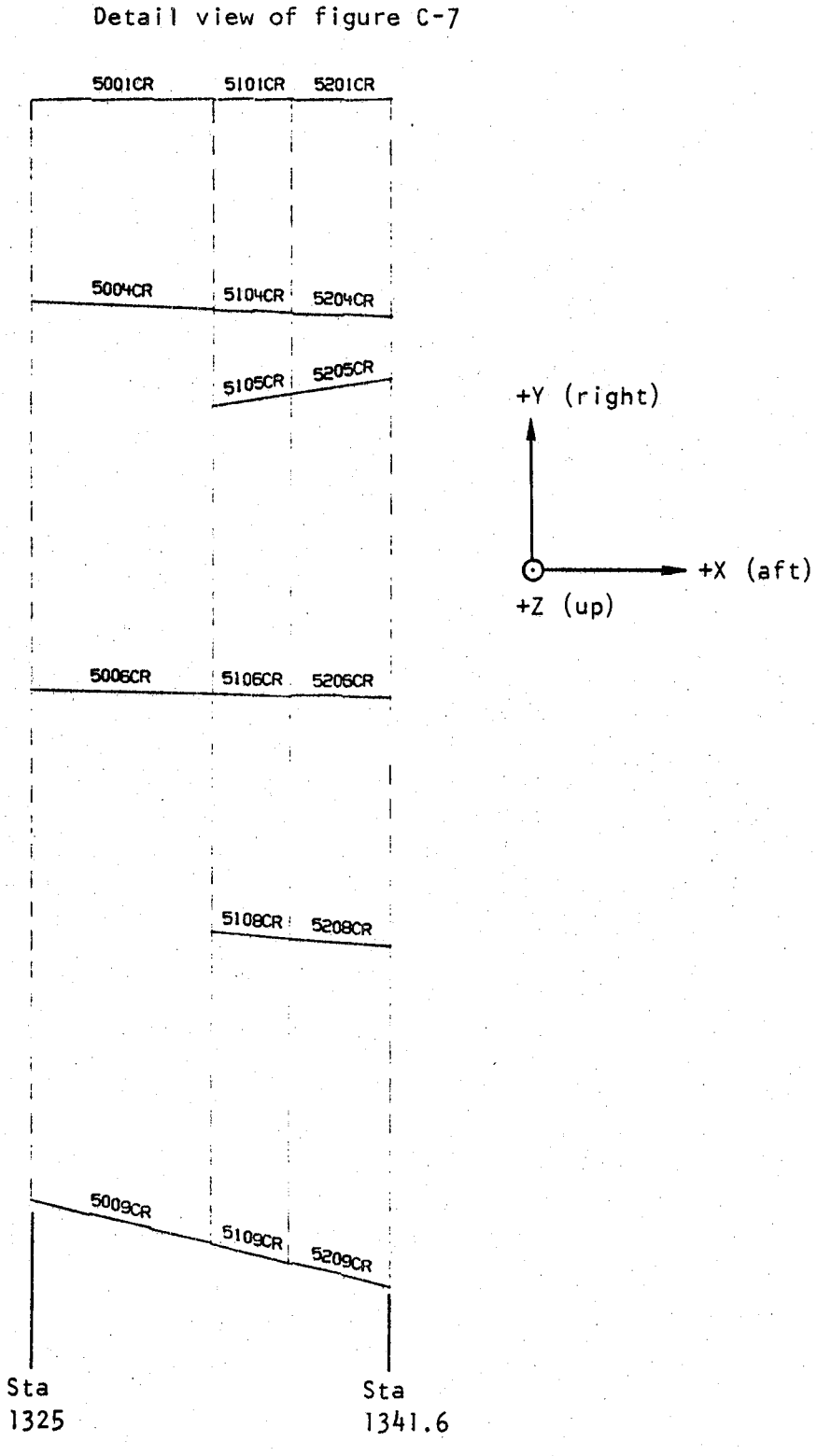


Figure C-82. - NASTRAN fuselage model - top-view axial elements - stations 1325 through 1341.6.

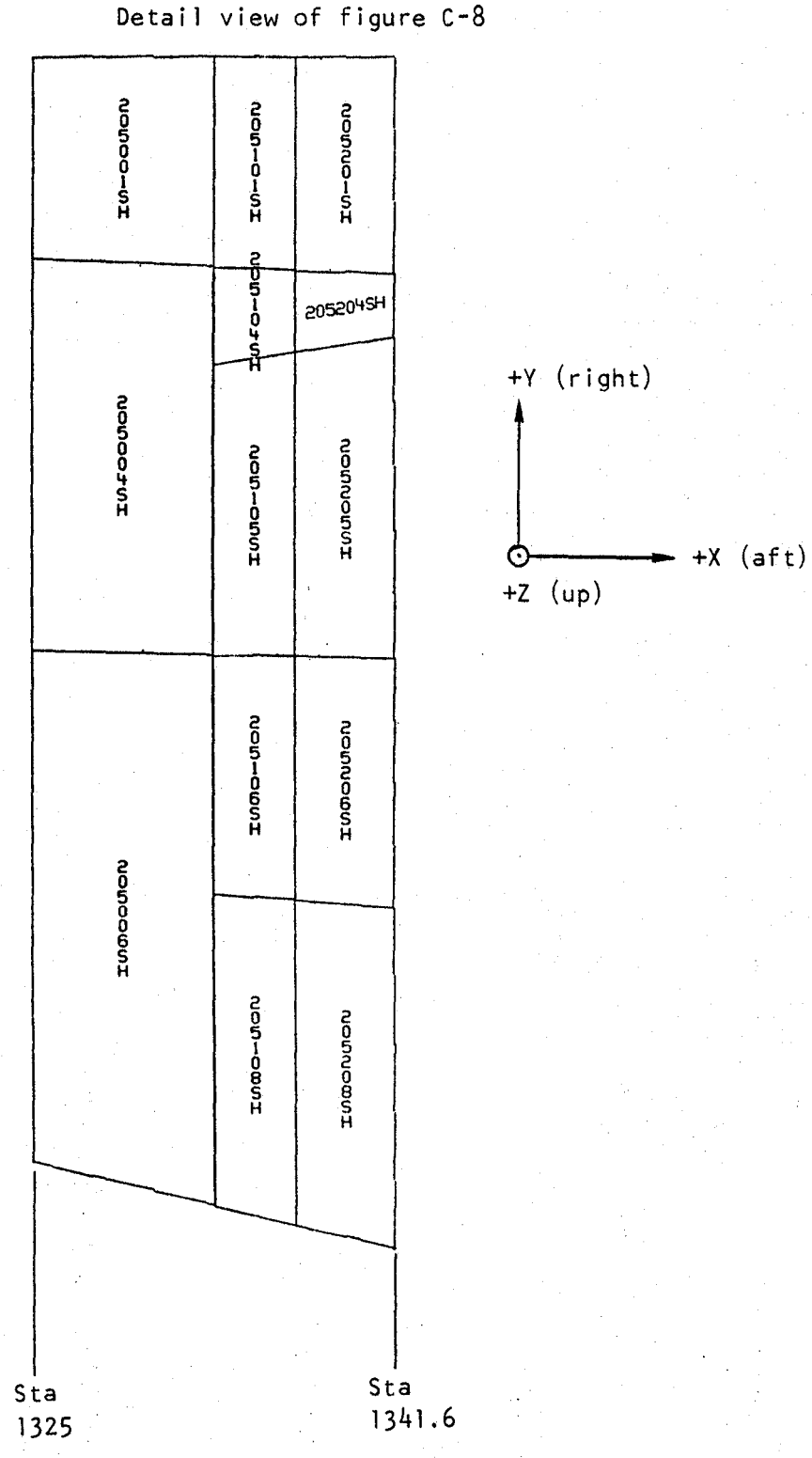


Figure C-83. - NASTRAN fuselage model - top-view panel identification - stations 1325 through 1341.6.

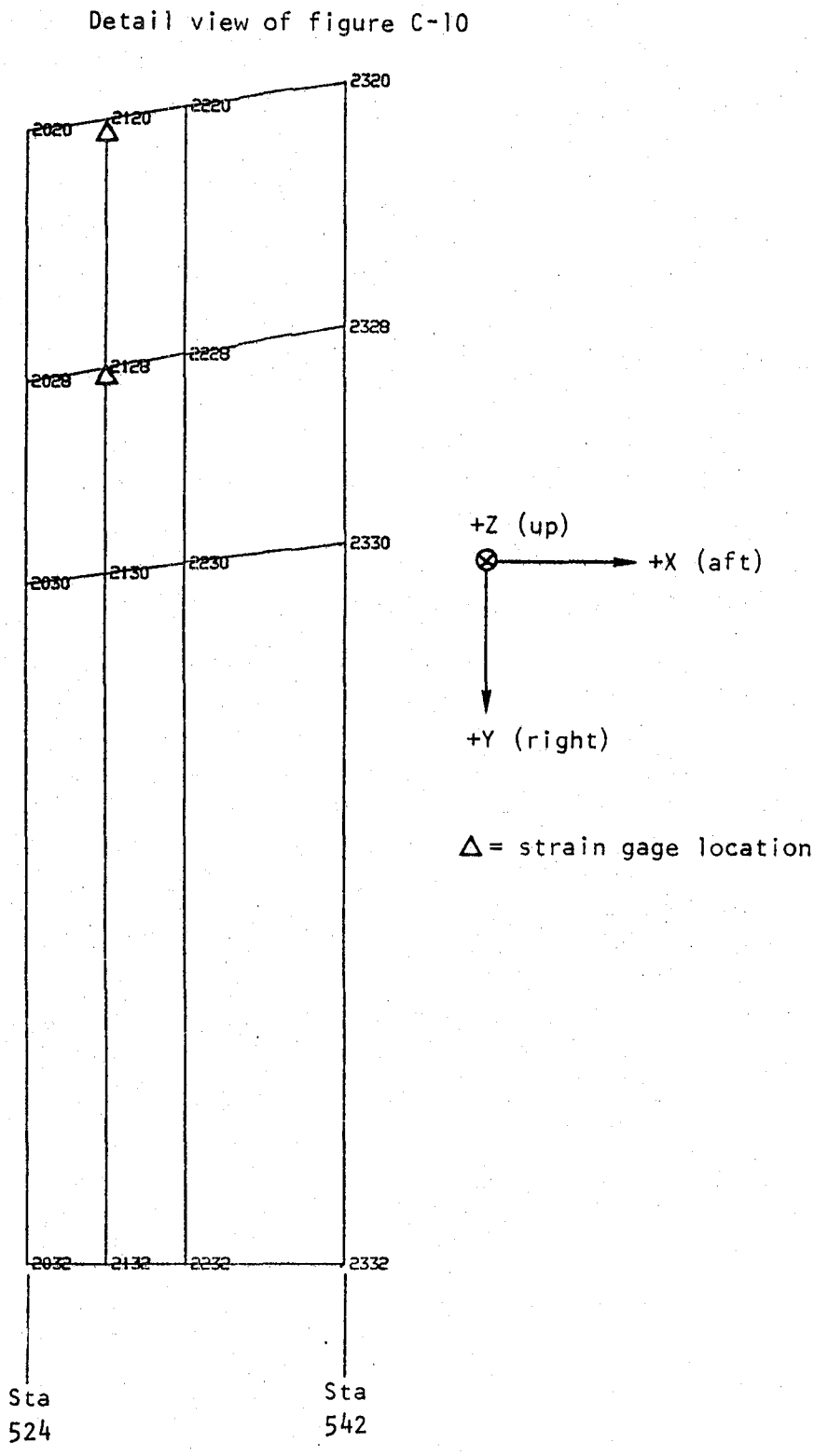


Figure C-84. - NASTRAN fuselage model - bottom-view grid numbers - stations 524 through 542.

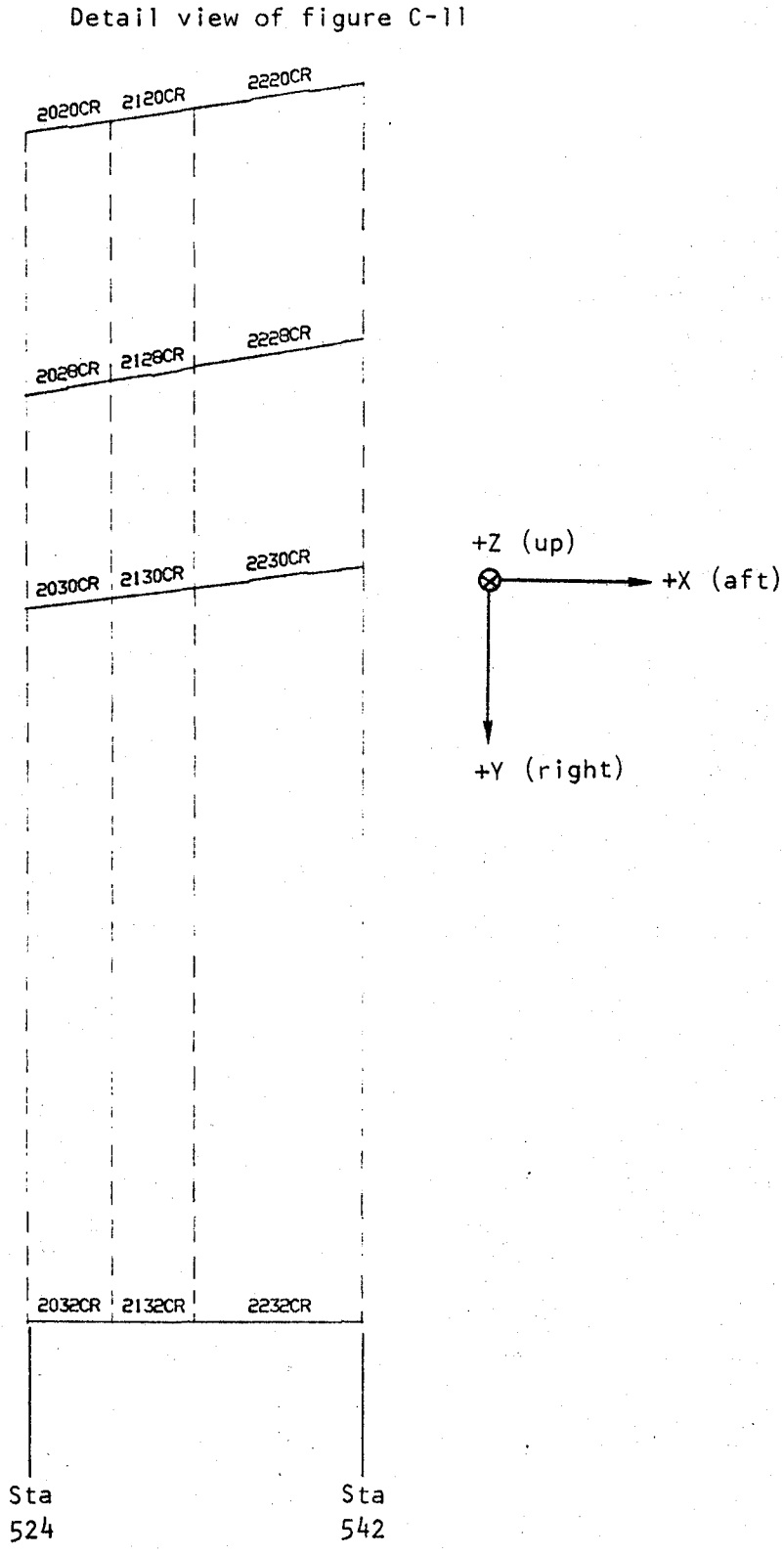


Figure C-85. - NASTRAN fuselage model - bottom-view axial elements - stations 524 through 542.

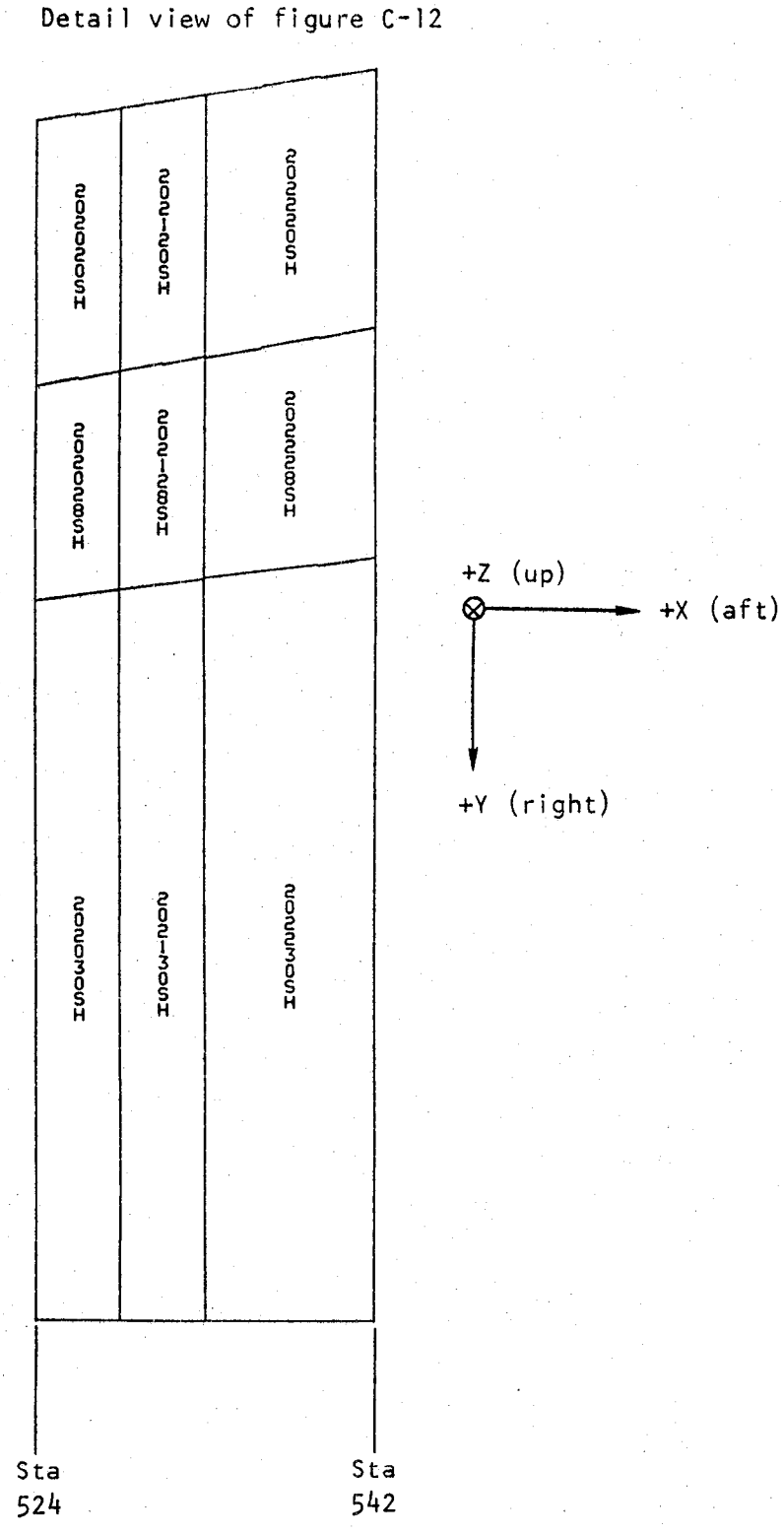


Figure C-86. - NASTRAN fuselage model - bottom-view panel identification - stations 524 through 542.

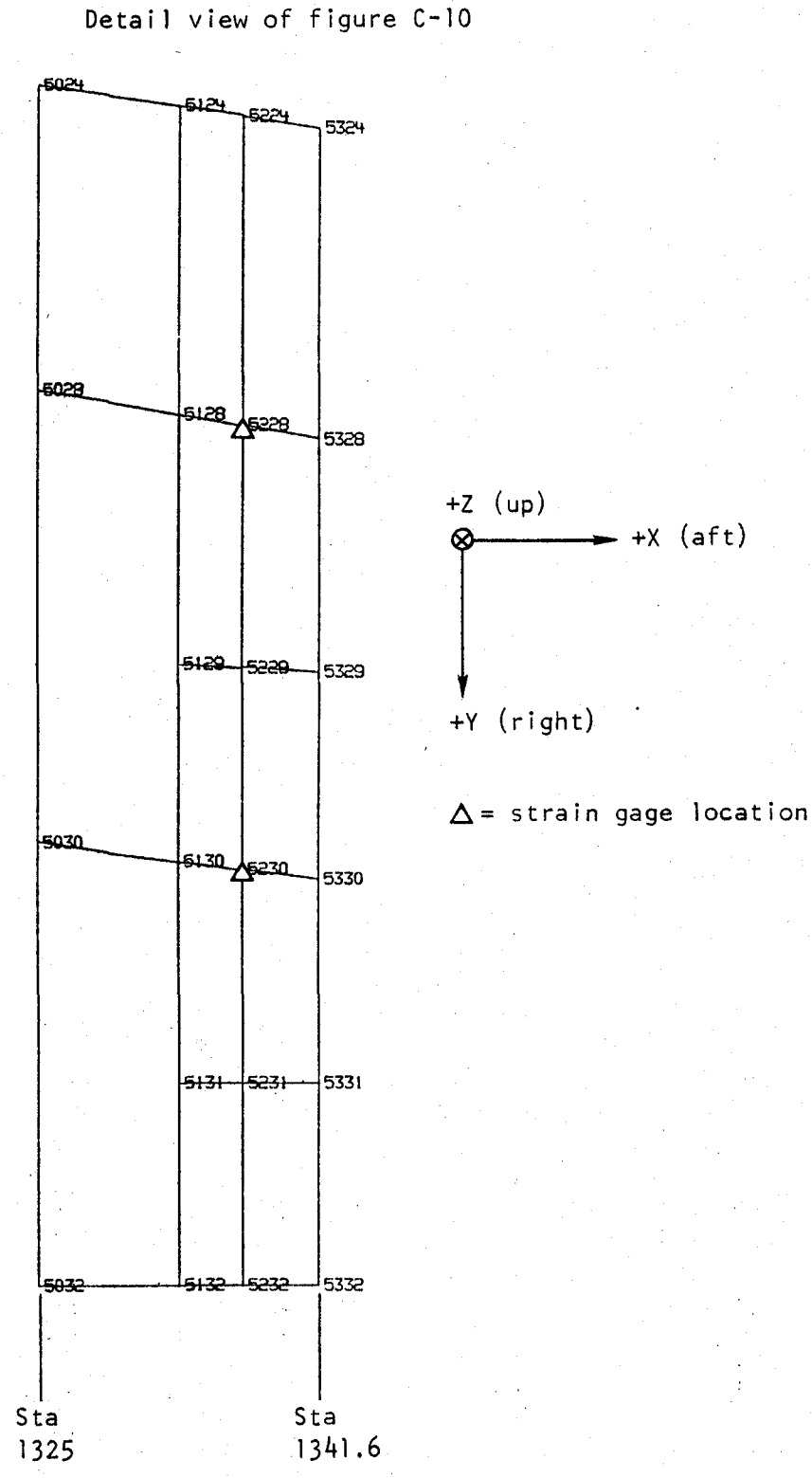


Figure C-87. - NASTRAN fuselage model - grid numbers - stations 1325 through 1341.6.

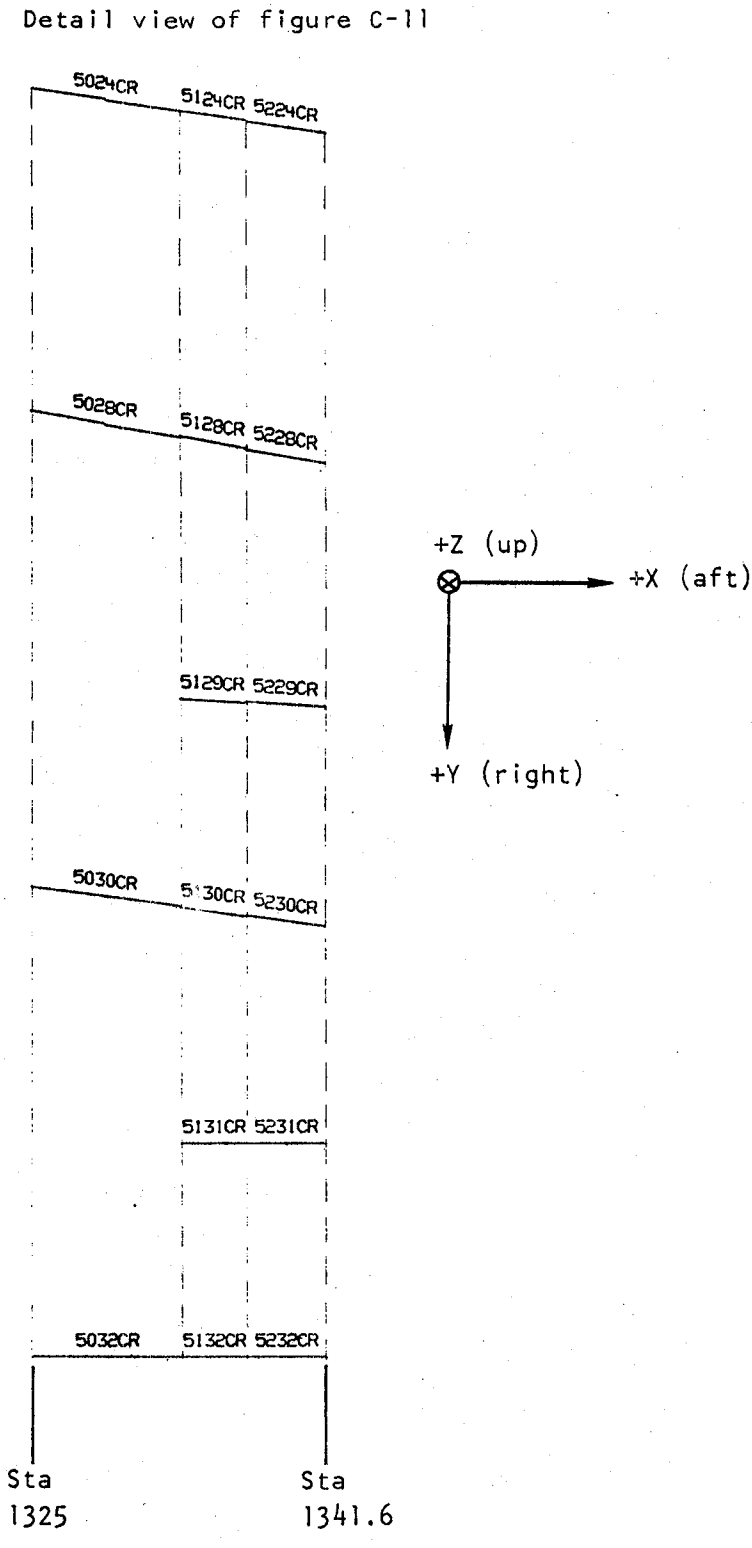


Figure C-88. - NASTRAN fuselage model - bottom-view axial elements - stations 1325 through 1341.6.

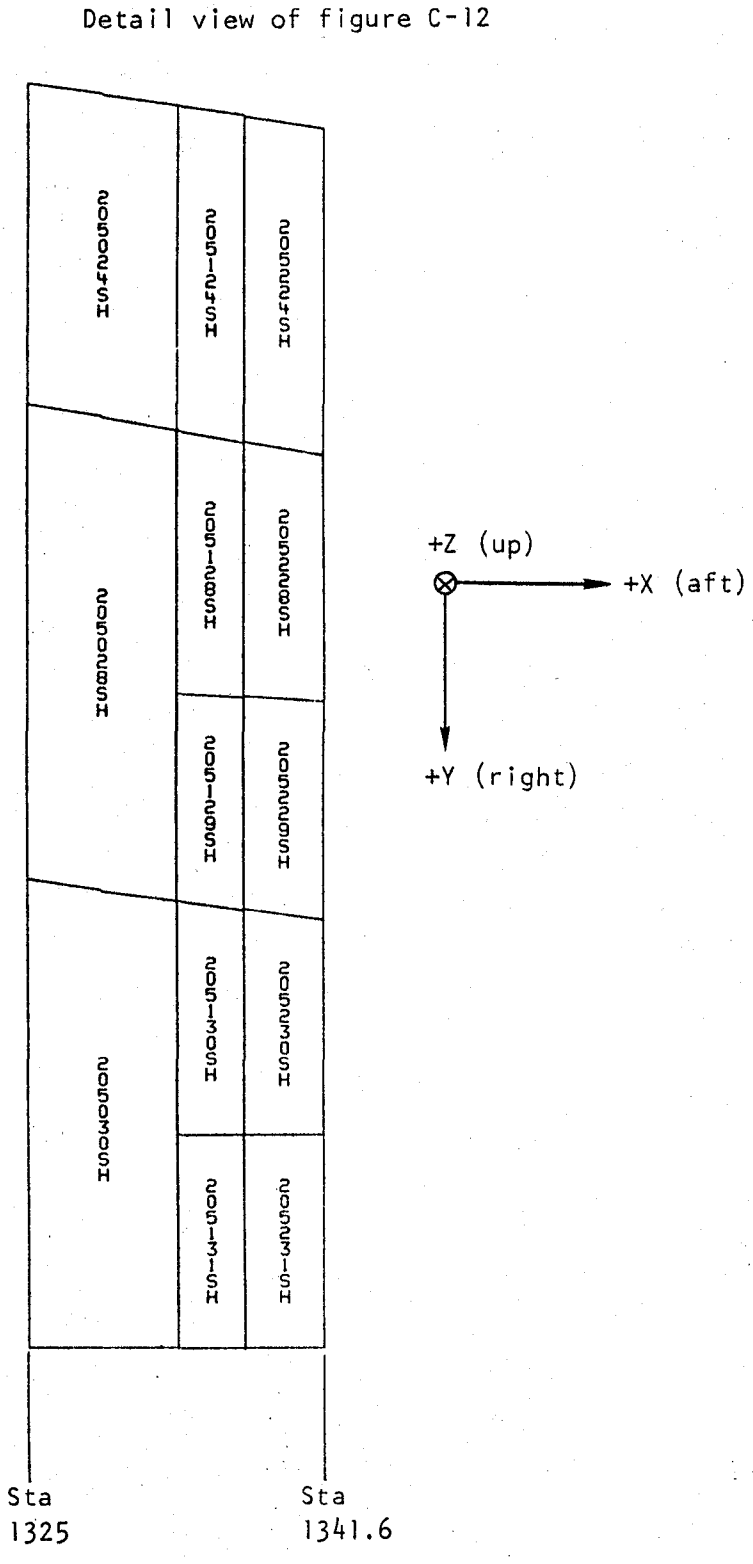


Figure C-89. - NASTRAN fuselage model - bottom-view panel identification - stations 1325 through 1341.6.

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1-	CBAR	30901	901	901	916	932			2	
2-	CBAR	30910	901	910	916	932			2	
3-	CBAR	30916	901	916	918	932			2	
4-	CBAR	30918	901	918	930	901			2	
5-	CBAR	30930	901	930	932	901			2	
6-	CBAR	31101	1101	1101	1110	1152			2	
7-	CBAR	31110	1101	1110	1116	1152			2	
8-	CBAR	31116	1101	1116	1118	1152			2	
9-	CBAR	31118	1102	1118	1130	1152			2	
10-	CBAR	31301	1301	1301	1302	1352			2	
11-	CBAR	31302	1301	1302	1310	1352			2	
12-	CBAR	31310	1301	1310	1316	1352			2	
13-	CBAR	31316	1301	1316	1318	1352			2	
14-	CBAR	31351	1302	1318	1351	.0	.0	10.0	1	
15-	CBAR	31352	1302	1351	1352	.0	.0	10.0	1	
16-	CBAR	31353	1303	1316	1353	.0	.0	10.0	1	
17-	CBAR	31354	1303	1353	1354	.0	.0	10.0	1	
18-	CBAR	31401	1401	1401	1402	1452			2	
19-	CBAR	31402	1401	1402	1407	1452			2	
20-	CBAR	31407	1401	1407	1410	1452			2	
21-	CBAR	31410	1402	1410	1416	1452			2	
22-	CBAR	31416	1403	1416	1418	1452			2	
23-	CBAR	31451	1404	1418	1451	.0	.0	10.0	1	
24-	CBAR	31452	1404	1451	1452	.0	.0	10.0	1	
25-	CBAR	31453	1405	1416	1453	.0	.0	10.0	1	
26-	CBAR	31454	1405	1453	1454	.0	.0	10.0	1	
27-	CBAR	31501	1501	1501	1502	1552			2	
28-	CBAR	31502	1501	1502	1507	1552			2	
29-	CBAR	31507	1502	1507	1510	1552			2	
30-	CBAR	31510	1503	1510	1516	1552			2	
31-	CBAR	31516	1504	1516	1518	1552			2	
32-	CBAR	31518	1507	1518	1530	1552			2	
33-	CBAR	31530	1505	1530	1532	1552			2	
34-	CBAR	31551	1506	1518	1551	.0	.0	10.0	1	
35-	CBAR	31552	1506	1551	1552	.0	.0	10.0	1	
36-	CBAR	31601	1601	1601	1602	1652			2	
37-	CBAR	31602	1601	1602	1607	1652			2	
38-	CBAR	31607	1601	1607	1610	1652			2	
39-	CBAR	31610	1602	1610	1616	1652			2	
40-	CBAR	31616	1603	1616	1618	1652			2	
41-	CBAR	31651	1604	1618	1651	.0	.0	10.0	1	
42-	CBAR	31652	1605	1651	1652	.0	.0	10.0	1	
43-	CBAR	31701	1701	1701	1702	1758			2	
44-	CBAR	31702	1702	1702	1707	1758			2	
45-	CBAR	31707	1703	1707	1710	1758			2	
46-	CBAR	31710	1704	1710	1716	1758			2	
47-	CBAR	31716	1704	1716	1618	1758			2	+B31716
48-	+B31716		456							
49-	CBAR	31750	1705	1756	1651	.0	10.0	.0	1	+B31750
50-	+B3175		456							

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
51-	CBAR	31756	1706	1710	1756	.0	.0	10.0		1
52-	CBAR	31758	1706	1756	1758	.0	.0	10.0		1
53-	CBAR	31901	1901	1901	1902	1954				2
54-	CBAR	31902	1902	1902	1906	1954				2
55-	CBAR	31906	1903	1906	1907	1954				2
56-	CBAR	31907	1904	1907	1908	1954				2
57-	CBAR	31918	1905	1918	1928	1954				2
58-	CBAR	31928	1905	1928	1930	1954				2
59-	CBAR	31930	1905	1930	1932	1954				2
60-	CBAR	31950	1906	1930	1951	.0	10.0	.0		1
61-	CBAR	31951	1909	1918	1951	.0	.0	10.0		1
62-	CBAR	31953	1908	1955	1951	.0	10.0	.0		1
63-	CBAR	31955	1907	1954	1955	.0	.0	10.0		1
64-	CBAR	31957	1910	1908	1957	.0	.0	10.0		1
65-	CBAR	32001	2001	2001	2002	2055				2
66-	CBAR	32002	2001	2002	2004	2055				2
67-	CBAR	32004	2001	2004	2006	2055				2
68-	CBAR	32006	2002	2006	2007	2055				2
69-	CBAR	32007	2002	2007	2008	2055				2
70-	CBAR	32008	2003	2008	2010	2055				2
71-	CBAR	32010	2003	2010	2012	2055				2
72-	CBAR	32012	2004	2012	2016	2055				2
73-	CBAR	32016	2005	2016	2017	2055				2
74-	CBAR	32017	2005	2017	2018	2055				2
75-	CBAR	32018	2006	2018	2020	2055				2
76-	CBAR	32020	2007	2020	2028	2055				2
77-	CBAR	32028	2008	2028	2030	2055				2
78-	CBAR	32030	2009	2030	2032	2055				2
79-	CBAR	32050	2010	2018	2050	.0	.0	10.0		1
80-	CBAR	32051	2010	2050	2051	.0	.0	10.0		1
81-	CBAR	32052	2011	2030	2051	.0	10.0	.0		1
82-	CBAR	32053	2012	2051	2053	.0	10.0	.0		1
83-	CBAR	32054	2012	2053	2054	.0	10.0	.0		1
84-	CBAR	32055	2013	2054	2056	.0	10.0	.0		1
85-	CBAR	32056	2013	2056	2057	.0	10.0	.0		1
86-	CBAR	32057	2014	2057	2058	.0	.0	10.0		1
87-	CBAR	32058	2014	2058	2060	.0	.0	10.0		1
88-	CBAR	32059	2006	2054	2055	.0	.0	10.0		1
89-	CBAR	32101	2001	2101	2102	2155				2
90-	CBAR	32102	2001	2102	2104	2155				2
91-	CBAR	32104	2001	2104	2106	2155				2
92-	CBAR	32106	2002	2106	2107	2155				2
93-	CBAR	32107	2002	2107	2108	2155				2
94-	CBAR	32108	2003	2108	2110	2155				2
95-	CBAR	32110	2003	2110	2112	2155				2
96-	CBAR	32112	2004	2112	2116	2155				2
97-	CBAR	32116	2005	2116	2117	2155				2
98-	CBAR	32117	2005	2117	2118	2155				2
99-	CBAR	32118	2006	2118	2120	2155				2
100-	CBAR	32120	2007	2120	2128	2155				2

S C P T E D B U L K D A T A E C H O

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
101-	CBAR	32128	2008	2128	2130	2155			2	
102-	CBAR	32130	2009	2130	2132	2155			2	
103-	CBAR	32150	2010	2118	2150	.0	.0	10.0	1	
104-	CBAR	32151	2010	2150	2151	.0	.0	10.0	1	
105-	CBAR	32152	2011	2130	2151	.0	10.0	.0	1	
106-	CBAR	32153	2012	2151	2153	.0	10.0	.0	1	
107-	CBAR	32154	2012	2153	2154	.0	10.0	.0	1	
108-	CBAR	32155	2013	2154	2156	.0	10.0	.0	1	
109-	CBAR	32156	2013	2156	2157	.0	10.0	.0	1	
110-	CBAR	32157	2014	2157	2158	.0	.0	10.0	1	
111-	CBAR	32158	2014	2158	2108	.0	.0	10.0	1	
112-	CBAR	32159	2006	2154	2155	.0	.0	10.0	1	
113-	CBAR	32201	2001	2201	2202	2255			2	
114-	CBAR	32202	2001	2202	2204	2255			2	
115-	CBAR	32204	2001	2204	2206	2255			2	
116-	CBAR	32206	2002	2206	2207	2255			2	
117-	CBAR	32207	2002	2207	2208	2255			2	
118-	CBAR	32208	2003	2208	2210	2255			2	
119-	CBAR	32210	2003	2210	2212	2255			2	
120-	CBAR	32212	2004	2212	2216	2255			2	
121-	CBAR	32216	2005	2216	2217	2255			2	
122-	CBAR	32217	2005	2217	2218	2255			2	
123-	CBAR	32218	2006	2218	2220	2255			2	
124-	CBAR	32220	2007	2220	2228	2255			2	
125-	CBAR	32228	2008	2228	2230	2255			2	
126-	CBAR	32230	2009	2230	2232	2255			2	
127-	CBAR	32250	2010	2218	2250	.0	.0	10.0	1	
128-	CBAR	32251	2010	2250	2251	.0	.0	10.0	1	
129-	CBAR	32252	2011	2230	2251	.0	10.0	.0	1	
130-	CBAR	32253	2012	2251	2253	.0	10.0	.0	1	
131-	CBAR	32254	2012	2253	2254	.0	10.0	.0	1	
132-	CBAR	32255	2013	2254	2256	.0	10.0	.0	1	
133-	CBAR	32256	2013	2256	2257	.0	10.0	.0	1	
134-	CBAR	32257	2014	2257	2258	.0	.0	10.0	1	
135-	CBAR	32258	2014	2258	2208	.0	.0	10.0	1	
136-	CBAR	32259	2006	2254	2255	.0	.0	10.0	1	
137-	CBAR	32401	2401	2401	2406	2428			2	
138-	CBAR	32406	2402	2406	2408	2428			2	
139-	CBAR	32408	2403	2408	2416	2428			2	
140-	CBAR	32416	2404	2416	2420	2428			2	
141-	CBAR	32420	2405	2420	2428	2408			2	
142-	CBAR	32428	2406	2428	2448	2408			2	
143-	CBAR	32444	2408	2444	2436	2408			2	+B32444
144-	+B32444	6								
145-	CBAR	32448	2407	2448	2444	2408			2	
146-	CBAR	32450	2409	2406	2444	2408			2	
147-	CBAR	32451	2410	2416	2448	2408			2	
148-	CBAR	32501	2501	2501	2506	2528			2	
149-	CBAR	32506	2502	2506	2508	2528			2	
150-	CBAR	32508	2502	2508	2516	2528			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
151-	CPAR	32544	2504	2544	2536	2508			2	+832544
152-	+832544	6								
153-	CBAR	32548	2503	2548	2544	2508			2	
154-	CBAR	32550	2505	2506	2544	2508			2	
155-	CPAR	32551	2506	2516	2548	2508			2	
156-	CBAR	32606	2601	2606	2608	2628			2	
157-	CBAR	32608	2602	2608	2616	2628			2	
158-	CBAR	32616	2603	2616	2620	2628			2	
159-	CBAR	32620	2604	2621	2624	2608			2	
160-	CBAR	32624	2604	2624	2628	2608			2	
161-	CBAR	32628	2605	2628	2648	2608			2	
162-	CBAR	32648	2606	2648	2644	2608			2	
163-	CBAR	32650	2607	2606	2644	2608			2	
164-	CBAR	32706	2702	2706	2708	2728			2	
165-	CBAR	32708	2703	2708	2714	2728			2	
166-	CBAR	32714	2704	2714	2716	2728			2	
167-	CBAR	32716	2705	2716	2720	2728			2	
168-	CBAR	32720	2706	2720	2724	2716			2	
169-	CBAR	32724	2707	2724	2728	2716			2	
170-	CBAR	32728	2708	2728	2748	2716			2	
171-	CBAR	32748	2709	2748	2744	2716			2	
172-	CBAR	32750	2701	2706	2744	2716			2	
173-	CBAR	32906	2902	2906	2908	2928			2	
174-	CBAR	32908	2903	2908	2914	2928			2	
175-	CPAR	32914	2911	2914	2915	2928			2	
176-	CBAR	32915	2904	2915	2916	2928			2	
177-	CBAR	32916	2905	2916	2920	2928			2	
178-	CBAR	32920	2906	2920	2922	2916			2	
179-	CBAR	32922	2911	2922	2924	2916			2	
180-	CBAR	32924	2907	2924	2928	2916			2	
181-	CBAR	32928	2908	2928	2948	2916			2	
182-	CBAR	32948	2909	2948	2944	2916			2	
183-	CBAR	32950	2901	2906	2944	2916			2	
184-	CBAR	32951	2910	2914	2924	2916			2	
185-	CPAR	33006	3001	3006	3008	3028			2	
186-	CBAR	33008	3002	3008	3014	3028			2	
187-	CBAR	33014	3003	3014	3015	3028			2	
188-	CBAR	33022	3004	3022	3024	3016			2	
189-	CPAR	33024	3005	3024	3028	3016			2	
190-	CBAR	33028	3006	3028	3048	3016			2	
191-	CBAR	33048	3007	3048	3044	3016			2	
192-	CBAR	33050	3008	3006	3044	3016			2	
193-	CPAR	33051	3009	3015	3022	3016			2	
194-	CBAR	33106	3102	3106	3108	3128			2	
195-	CBAR	33108	3103	3108	3114	3128			2	
196-	CBAR	33124	3104	3124	3128	3116			2	
197-	CBAR	33128	3105	3128	3148	3116			2	
198-	CBAR	33148	3106	3148	3144	3116			2	
199-	CBAR	33150	3101	3106	3144	3116			2	
200-	CPAR	33151	3107	3114	3124	3116			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
201-	CBAR	33206	3201	3206	3208	3228			2	
202-	CBAR	33208	3202	3208	3210	3228			2	
203-	CBAR	33226	3203	3226	3228	3214			2	
204-	CBAR	33228	3204	3228	3248	3214			2	
205-	CBAR	33248	3205	3248	3244	3214			2	
206-	CBAR	33250	3207	3206	3244	3214			2	
207-	CBAR	33251	3206	3210	3226	3214			2	
208-	CBAR	33408	3401	3408	3409	3432			2	
209-	CBAR	33409	3402	3409	3410	3432			2	
210-	CBAR	33410	3403	3410	3412	3432			2	
211-	CBAR	33412	3404	3412	3414	3432			2	
212-	CBAR	33414	3405	3414	3416	3432			2	
213-	CBAR	33416	3406	3416	3418	3432			2	
214-	CBAR	33418	3411	3418	3424	3432			2	
215-	CBAR	33450	3412	3426	3461	3432			2	
216-	CBAR	33451	3408	3410	3461	3432			2	
217-	CBAR	33454	3412	3430	3463	3432			2	
218-	CBAR	33455	3407	3408	3463	3432			2	
219-	CBAR	33457	3413	3432	3464	3463			2	
220-	CBAR	33458	3409	3464	3450	3463			2	
221-	CBAR	33465	3410	3408	3444	3463			2	
222-	CBAR	33466	3410	3444	3450	3463			2	
223-	CBAR	33608	3601	3608	3609	3632			2	
224-	CBAR	33609	3602	3609	3610	3632			2	
225-	CBAR	33610	3603	3610	3612	3632			2	
226-	CBAR	33612	3604	3612	3614	3632			2	
227-	CBAR	33614	3605	3614	3616	3632			2	
228-	CBAR	33616	3606	3616	3618	3632			2	
229-	CBAR	33618	3612	3618	3624	3632			2	
230-	CBAR	33650	3613	3626	3661	3632			2	
231-	CBAR	33651	3608	3610	3661	3632			2	
232-	CBAR	33654	3614	3630	3663	3632			2	
233-	CBAR	33655	3607	3608	3663	3632			2	
234-	CBAR	33657	3615	3632	3664	3663			2	
235-	CBAR	33658	3609	3664	3650	3663			2	
236-	CBAR	33665	3610	3608	3644	3663			2	
237-	CBAR	33666	3611	3644	3650	3663			2	
238-	CBAR	33806	3801	3806	3809	3854			2	
239-	CBAR	33809	3801	3809	3812	3854			2	
240-	CBAR	33812	3808	3812	3814	3816			2	
241-	CBAR	33855	3802	3809	3853	3854			2	
242-	CBAR	33856	3805	3853	3854	3861			2	
243-	CBAR	33857	3804	3806	3844	3801			2	
244-	CBAR	33858	3807	3844	3850	3801			2	
245-	CBAR	33861	3803	3832	3854	3853			2	
246-	CBAR	33862	3806	3854	3850	3853			2	
247-	CBAR	33863	3836	3850	3861	3853			2	
248-	CBAR	33901	3901	3901	3906	3944			2	
249-	CBAR	33909	3902	3909	3912	3953			2	
250-	CBAR	33912	3902	3912	3914	3916			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
251-	CBAR	33955	3906	3909	3953	3901			2	
252-	CBAR	33957	3905	3906	3944	3901			2	
253-	CBAR	33961	3953	3932	3954	3944			2	
254-	CBAR	33962	3907	3954	3950	3953			2	
255-	CBAR	33963	3904	3950	3901	3944			2	
256-	CBAR	34001	4001	4001	4006	4032			2	
257-	CBAR	34050	4004	4025	4051	4032			2	
258-	CBAR	34051	4004	4051	4052	4032			2	
259-	CBAR	34052	4006	4012	4052	4032			2	
260-	CBAR	34057	4005	4006	4044	4001			2	
261-	CBAR	34061	4003	4032	4054	4006			2	
262-	CBAR	34062	4007	4054	4050	4053			2	
263-	CBAR	34063	4002	4050	4001	4006			2	
264-	CBAR	34101	4101	4101	4106	4132			2	
265-	CBAR	34109	4102	4109	4112	4153			2	
266-	CBAR	34150	4106	4125	4151	4132			2	
267-	CBAR	34151	4104	4151	4152	4132			2	
268-	CBAR	34152	4109	4152	4112	4132			2	
269-	CBAR	34155	4108	4109	4153	4101			2	
270-	CBAR	34157	4107	4106	4144	4101			2	
271-	CBAR	34161	4103	4132	4154	4153			2	
272-	CBAR	34162	4110	4154	4150	4153			2	
273-	CBAR	34163	4105	4150	4101	4153			2	
274-	CBAR	34201	4201	4201	4206	4232			2	
275-	CBAR	34206	4202	4206	4209	4232			2	
276-	CBAR	34209	4203	4209	4212	4232			2	
277-	CBAR	34250	4207	4225	4251	4232			2	
278-	CBAR	34251	4207	4251	4252	4232			2	
279-	CBAR	34252	4207	4252	4212	4232			2	
280-	CBAR	34255	4206	4209	4253	4232			2	
281-	CBAR	34256	4208	4253	4254	4232			2	
282-	CBAR	34257	4205	4206	4244	4253			2	
283-	CBAR	34258	4209	4244	4250	4232			2	
284-	CBAR	34261	4204	4232	4254	4253			2	
285-	CBAR	34262	4210	4254	4250	4253			2	
286-	CBAR	34263	4208	4250	4201	4253			2	
287-	CBAR	34301	4301	4301	4306	4344			2	
288-	CBAR	34306	4303	4306	4309	4344			2	
289-	CBAR	34309	4304	4309	4312	4348			2	
290-	CBAR	34336	4302	4301	4336	4344			2	
291-	CBAR	34344	4304	4336	4344	4301			2	
292-	CBAR	34364	4304	4306	4344	4301			2	
293-	CBAR	34401	4401	4401	4406	4428			2	
294-	CBAR	34406	4402	4406	4409	4428			2	
295-	CBAR	34409	4402	4409	4414	4428			2	
296-	CBAR	34414	4403	4414	4416	4428			2	
297-	CBAR	34415	4413	4414	4415	4424			2	+834415
298-	+834415	6								
299-	CBAR	34416	4403	4416	4418	4428			2	
300-	CBAR	34417	4411	4415	4417	4424			2	

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
301-	CBAR	34418	4403	4418	4424	4428			2	
302-	CBAR	34424	4404	4424	4425	4414			2	
303-	CBAR	34425	4404	4425	4428	4414			2	
304-	CBAR	34428	4407	4428	4449	4414			2	
305-	CBAR	34436	4409	4436	4401	4406			2	
306-	CBAR	34444	4408	4444	4436	4406			2	
307-	CBAR	34448	4407	4448	4444	4406			2	
308-	CBAR	34449	4407	4449	4448	4414			2	
309-	CBAR	34450	4405	4406	4444	4414			2	
310-	CBAR	34451	4406	4409	4448	4414			2	
311-	CBAR	34452	4406	4414	4449	4428			2	
312-	CBAR	34501	4501	4501	4506	4528			2	
313-	CBAR	34506	4502	4506	4509	4528			2	
314-	CBAR	34509	4503	4509	4514	4528			2	
315-	CBAR	34514	4504	4514	4516	4528			2	
316-	CBAR	34515	4511	4514	4515	4524			2	+834515
317-	+834515	6								
318-	CBAR	34516	4504	4516	4524	4528			2	
319-	CBAR	34517	4512	4515	4517	4524			2	
320-	CBAR	34524	4505	4524	4528	4514			2	
321-	CBAR	34528	4508	4528	4549	4514			2	
322-	CBAR	34536	4510	4536	4501	4506			2	
323-	CBAR	34544	4509	4544	4536	4506			2	
324-	CBAR	34548	4508	4548	4544	4506			2	
325-	CBAR	34549	4508	4549	4548	4514			2	
326-	CBAR	34550	4506	4506	4544	4514			2	
327-	CBAR	34551	4507	4509	4548	4514			2	
328-	CBAR	34552	4507	4514	4549	4528			2	
329-	CBAR	34601	4601	4601	4606	4628			2	
330-	CBAR	34606	4602	4606	4609	4628			2	
331-	CBAR	34609	4602	4609	4614	4628			2	
332-	CBAR	34614	4603	4614	4616	4628			2	
333-	CBAR	34615	4611	4614	4615	4624			2	+834615
334-	+834615	6								
335-	CBAR	34616	4603	4616	4624	4628			2	
336-	CBAR	34617	4612	4615	4617	4624			2	
337-	CBAR	34624	4604	4624	4628	4614			2	
338-	CBAR	34628	4608	4628	4649	4614			2	
339-	CBAR	34636	4610	4636	4601	4606			2	
340-	CBAR	34644	4609	4644	4636	4606			2	
341-	CBAR	34648	4608	4648	4644	4606			2	
342-	CBAR	34649	4608	4649	4648	4614			2	
343-	CBAR	34650	4605	4606	4644	4614			2	
344-	CBAR	34651	4606	4609	4648	4614			2	
345-	CBAR	34652	4607	4614	4649	4628			2	
346-	CBAR	34801	4801	4801	4806	4828			2	
347-	CBAR	34806	4802	4806	4809	4828			2	
348-	CBAR	34809	4802	4809	4814	4828			2	
349-	CBAR	34814	4803	4814	4816	4828			2	
350-	CBAR	34816	4803	4816	4824	4828			2	

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
351-	CBAR	34824	4804	4824	4828	4814			2	
352-	CBAR	34828	4808	4828	4849	4814			2	
353-	CBAR	34836	4810	4836	4801	4806			2	
354-	CBAR	34844	4809	4844	4836	4806			2	
355-	CBAR	34848	4808	4848	4844	4806			2	
356-	CBAR	34849	4808	4849	4848	4814			2	
357-	CBAR	34850	4805	4806	4844	4814			2	
358-	CBAR	34851	4806	4809	4848	4814			2	
359-	CBAR	34852	4807	4814	4849	4828			2	
360-	CBAR	34901	4901	4901	4906	4928			2	
361-	CBAR	34906	4902	4906	4909	4928			2	
362-	CBAR	34909	4902	4909	4914	4928			2	
363-	CBAR	34914	4903	4914	4916	4928			2	
364-	CBAR	34916	4903	4916	4924	4928			2	
365-	CBAR	34924	4904	4924	4928	4914			2	
366-	CBAR	34928	4908	4928	4949	4914			2	
367-	CBAR	34936	4912	4936	4901	4906			2	
368-	CBAR	34944	4911	4944	4936	4906			2	
369-	CBAR	34948	4910	4948	4944	4906			2	
370-	CBAR	34949	4909	4949	4948	4914			2	
371-	CBAR	34950	4905	4906	4944	4914			2	
372-	CBAR	34951	4906	4909	4948	4914			2	
373-	CBAR	34952	4907	4914	4949	4928			2	
374-	CBAR	35001	5001	5001	5004	5050			2	
375-	CBAR	35004	5002	5004	5006	5050			2	
376-	CBAR	35058	5005	5006	5044	5050			2	
377-	CBAR	35061	5003	5004	5053	5050			2	
378-	CBAR	35067	5005	5050	5036	5044			2	
379-	CBAR	35068	5004	5036	5053	5004			2	
380-	CBAR	35069	5004	5053	5001	5004			2	
381-	CBAR	35101	5101	5101	5104	5150			2	
382-	CBAR	35104	5102	5104	5105	5150			2	
383-	CBAR	35105	5103	5105	5106	5150			2	
384-	CBAR	35106	5104	5106	5108	5150			2	
385-	CBAR	35108	5104	5108	5109	5150			2	
386-	CBAR	35109	5104	5109	5112	5150			2	
387-	CBAR	35112	5104	5112	5114	5150			2	
388-	CBAR	35114	5105	5114	5116	5150			2	
389-	CBAR	35116	5105	5116	5120	5150			2	
390-	CBAR	35120	5105	5120	5124	5150			2	
391-	CBAR	35124	5105	5124	5128	5150			2	
392-	CBAR	35128	5106	5128	5129	5150			2	
393-	CBAR	35129	5106	5129	5130	5150			2	
394-	CBAR	35130	5106	5130	5131	5150			2	
395-	CBAR	35131	5106	5131	5132	5150			2	
396-	CBAR	35142	5107	5106	5142	5150			2	
397-	CBAR	35144	5107	5142	5144	5150			2	
398-	CBAR	35150	5108	5144	5150	5101			2	
399-	CBAR	35153	5101	5153	5104	5101			2	
400-	CBAR	35201	5101	5201	5204	5250			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
401-	CBAR	35204	5102	5204	5205	5250			2	
402-	CBAR	35205	5103	5205	5206	5250			2	
403-	CBAR	35206	5104	5206	5208	5250			2	
404-	CBAR	35208	5104	5208	5209	5250			2	
405-	CBAR	35209	5104	5209	5212	5250			2	
406-	CBAR	35212	5104	5212	5214	5250			2	
407-	CBAR	35214	5105	5214	5216	5250			2	
408-	CBAR	35216	5105	5216	5220	5250			2	
409-	CBAR	35220	5105	5220	5224	5250			2	
410-	CBAR	35224	5105	5224	5228	5250			2	
411-	CBAR	35228	5106	5228	5229	5250			2	
412-	CBAR	35229	5106	5229	5230	5250			2	
413-	CBAR	35230	5106	5230	5231	5250			2	
414-	CBAR	35231	5106	5231	5232	5250			2	
415-	CBAR	35242	5107	5206	5242	5250			2	
416-	CBAR	35244	5107	5242	5244	5250			2	
417-	CBAR	35250	5108	5244	5250	5201			2	
418-	CBAR	35253	5101	5253	5204	5201			2	
419-	CBAR	35301	5101	5301	5304	5350			2	
420-	CBAR	35304	5102	5304	5305	5350			2	
421-	CBAR	35305	5103	5305	5306	5350			2	
422-	CBAR	35306	5104	5306	5308	5350			2	
423-	CBAR	35308	5104	5308	5309	5350			2	
424-	CBAR	35309	5104	5309	5312	5350			2	
425-	CBAR	35312	5104	5312	5314	5350			2	
426-	CBAR	35314	5105	5314	5316	5350			2	
427-	CBAR	35316	5105	5316	5320	5350			2	
428-	CBAR	35320	5105	5320	5324	5350			2	
429-	CBAR	35324	5105	5324	5328	5350			2	
430-	CBAR	35328	5106	5328	5329	5350			2	
431-	CBAR	35329	5106	5329	5330	5350			2	
432-	CBAR	35330	5106	5330	5331	5350			2	
433-	CBAR	35331	5106	5331	5332	5350			2	
434-	CBAR	35342	5107	5306	5342	5350			2	
435-	CBAR	35344	5107	5342	5344	5350			2	
436-	CBAR	35350	5108	5344	5350	5301			2	
437-	CBAR	35353	5101	5353	5304	5301			2	
438-	CBAR	35401	5401	5401	5402	5450			2	
439-	CBAR	35402	5401	5402	5404	5450			2	
440-	CBAR	35404	5402	5404	5406	5450			2	
441-	CBAR	35406	5403	5406	5409	5450			2	
442-	CBAR	35409	5403	5409	5414	5450			2	
443-	CBAR	35414	5404	5414	5420	5450			2	
444-	CBAR	35420	5404	5420	5424	5450			2	
445-	CBAR	35424	5404	5424	5428	5450			2	
446-	CBAR	35428	5405	5428	5430	5450			2	
447-	CBAR	35430	5405	5430	5432	5450			2	
448-	CBAR	35444	5406	5406	5444	5450			2	
449-	CBAR	35450	5406	5444	5450	5401			2	
450-	CBAR	35453	5407	5453	5404	5401			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
451-	CBAR	35501	5501	5501	5502	5550			2	
452-	CBAR	35502	5501	5502	5504	5550			2	
453-	CBAR	35504	5502	5504	5506	5550			2	
454-	CBAR	35506	5503	5506	5509	5550			2	
455-	CBAR	35509	5503	5509	5514	5550			2	
456-	CBAR	35514	5504	5514	5520	5550			2	
457-	CBAR	35520	5504	5520	5524	5550			2	
458-	CBAR	35524	5505	5524	5528	5550			2	
459-	CBAR	35528	5505	5528	5530	5550			2	
460-	CBAR	35530	5506	5530	5532	5550			2	
461-	CBAR	35544	5507	5506	5544	5550			2	
462-	CBAR	35550	5507	5544	5550	5501			2	
463-	CBAR	35553	5508	5553	5504	5501			2	
464-	CBAR	35601	5601	5601	5602	5650			2	
465-	CBAR	35602	5601	5602	5604	5650			2	
466-	CBAR	35604	5602	5604	5606	5650			2	
467-	CBAR	35606	5603	5606	5609	5650			2	
468-	CBAR	35609	5603	5609	5614	5650			2	
469-	CBAR	35614	5604	5614	5620	5650			2	
470-	CBAR	35620	5604	5620	5624	5650			2	
471-	CBAR	35624	5605	5624	5628	5650			2	
472-	CBAR	35628	5605	5628	5630	5650			2	
473-	CBAR	35630	5604	5630	5632	5650			2	
474-	CBAR	35644	5606	5606	5644	5650			2	
475-	CBAR	35650	5606	5644	5650	5601			2	
476-	CBAR	35653	5601	5653	5604	5601			2	
477-	CBAR	35701	5701	5701	5702	5750			2	
478-	CBAR	35702	5701	5702	5704	5750			2	
479-	CBAR	35704	5702	5704	5706	5750			2	
480-	CBAR	35706	5703	5706	5709	5750			2	
481-	CBAR	35709	5704	5709	5714	5750			2	
482-	CBAR	35714	5705	5714	5720	5750			2	
483-	CBAR	35720	5705	5720	5724	5750			2	
484-	CBAR	35724	5706	5724	5728	5750			2	
485-	CBAR	35728	5707	5728	5732	5750			2	
486-	CBAR	35744	5708	5706	5744	5750			2	
487-	CBAR	35750	5708	5744	5750	5701			2	
488-	CBAR	35753	5701	5753	5704	5701			2	
489-	CBAR	35801	5801	5801	5802	5850			2	
490-	CBAR	35802	5801	5802	5804	5850			2	
491-	CBAR	35804	5802	5804	5806	5850			2	
492-	CBAR	35806	5803	5806	5809	5850			2	
493-	CBAR	35809	5804	5809	5814	5850			2	
494-	CBAR	35814	5804	5814	5820	5850			2	
495-	CBAR	35820	5805	5820	5824	5850			2	
496-	CBAR	35824	5806	5824	5828	5850			2	
497-	CBAR	35828	5807	5828	5832	5850			2	
498-	CBAR	35844	5808	5806	5844	5850			2	
499-	CBAR	35850	5808	5844	5850	5801			2	
500-	CBAR	35853	5801	5853	5804	5801			2	

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
501-	CBAR	35906	5942	5906	5909	5950			2	
502-	CBAR	35909	5903	5909	5914	5950			2	
503-	CBAR	35914	5903	5914	5920	5950			2	
504-	CBAR	35920	5904	5920	5924	5950			2	
505-	CBAR	35924	5905	5924	5928	5950			2	
506-	CBAR	35928	5906	5928	5932	5950			2	
507-	CBAR	35932	5907	5932	5950	5944			2	
508-	CBAR	35944	5908	5906	5944	5950			2	
509-	CBAR	35950	5908	5951	5950	5901			2	
510-	CBAR	35951	5908	5944	5951	5901			2	
511-	CBAR	36006	6001	6006	6009	6050			2	
512-	CBAR	36009	6002	6009	6014	6050			2	
513-	CBAR	36014	6003	6014	6020	6050			2	
514-	CBAR	36020	6004	6020	6024	6050			2	
515-	CBAR	36024	6005	6024	6028	6050			2	
516-	CBAR	36028	6006	6028	6032	6050			2	
517-	CBAR	36032	6007	6032	6050	6044			2	
518-	CBAR	36044	6008	6006	6044	6050			2	
519-	CBAR	36050	6009	6051	6050	6001			2	
520-	CBAR	36051	6008	6044	6051	6001			2	
521-	CBAR	36106	6101	6106	6109	6150			2	
522-	CBAR	36109	6102	6109	6114	6150			2	
523-	CBAR	36114	6102	6114	6120	6150			2	
524-	CBAR	36120	6103	6120	6124	6150			2	
525-	CBAR	36124	6104	6124	6128	6150			2	
526-	CBAR	36128	6105	6128	6132	6150			2	
527-	CBAR	36132	6106	6132	6150	6144			2	
528-	CBAR	36144	6107	6106	6144	6150			2	
529-	CBAR	36150	6108	6151	6150	6101			2	
530-	CBAR	36151	6107	6144	6151	6101			2	
531-	CBAR	36201	6201	6201	6202	6253			2	
532-	CBAR	36406	6401	6406	6409	6432			2	
533-	CBAR	36409	6401	6409	6414	6432			2	
534-	CBAR	36414	6401	6414	6424	6454			2	
535-	CBAR	36424	6401	6424	6432	6454			2	
536-	CBAR	36454	6401	6454	6406	6432			2	
537-	CONROD	901	901	1001	1	1.5				
538-	CONROD	910	910	1010	1	3.0				
539-	CONROD	916	916	1016	1	.80				
540-	CONROD	918	918	1018	1	3.0				
541-	CONROD	930	930	1030	1	3.0				
542-	CONROD	932	932	1032	1	.65				
543-	CONROD	1001	1001	1101	1	1.57				
544-	CONROD	1010	1010	1110	1	3.91				
545-	CONROD	1016	1016	1116	1	.81				
546-	CONROD	1018	1018	1118	1	4.75				
547-	CONROD	1030	1030	1130	2	2.16				
548-	CONROD	1032	1032	1132	1	.65				
549-	CONROD	1051	1051	1151	1	1.24				
550-	CONROD	1052	1052	1152	1	.01				

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
551-	CONRCD	1054	1054	1154	1	.30				
552-	CONRCD	1101	1101	1201	1	1.57				
553-	CONRCD	1110	1110	1210	1	3.91				
554-	CONROD	1116	1116	1216	1	1.35				
555-	CONRCD	1118	1118	1318	1	3.31				
556-	CONROD	1130	1130	1330	2	1.90				
557-	CONROD	1151	1151	1351	1	3.13				
558-	CONRCD	1152	1152	1352	1	.01				
559-	CONROD	1153	1153	1253	1	1.05				
560-	CONROD	1154	1154	1254	1	.37				
561-	CONRCD	1201	1201	1301	1	1.58				
562-	CONRCD	1202	1210	1302	1	.01				
563-	CONRCD	1210	1210	1310	1	4.55				
564-	CONROD	1216	1216	1316	1	1.71				
565-	CONRCD	1253	1253	1353	1	1.52				
566-	CONROD	1254	1254	1354	1	.58				
567-	CONROD	1301	1301	1401	1	1.58				
568-	CONROD	1302	1302	1402	1	.60				
569-	CONRCD	1307	1302	1407	1	1.40				
570-	CONROD	1310	1310	1410	1	4.16				
571-	CONRCD	1316	1316	1416	1	1.56				
572-	CONROD	1318	1318	1418	1	3.24				
573-	CONRCD	1330	1330	1430	2	3.07				
574-	CONRCD	1351	1351	1451	1	5.00				
575-	CONROD	1352	1352	1452	1	.30				
576-	CONROD	1353	1353	1453	1	.66				
577-	CONRCD	1354	1354	1454	1	.22				
578-	CONROD	1401	1401	1501	1	1.58				
579-	CONRCD	1402	1402	1502	1	1.24				
580-	CONRCD	1407	1407	1507	1	1.39				
581-	CONRCD	1410	1410	1510	1	2.45				
582-	CONRCD	1416	1416	1516	1	1.80				
583-	CONROD	1418	1418	1518	1	3.33				
584-	CONROD	1430	1430	1530	2	3.20				
585-	CONROD	1451	1451	1551	1	5.00				
586-	CONROD	1452	1452	1552	1	.76				
587-	CONRCD	1501	1501	1601	1	1.13				
588-	CONROD	1502	1502	1602	1	1.13				
589-	CONRCD	1507	1507	1607	1	1.41				
590-	CONRCD	1510	1510	1610	1	2.33				
591-	CONRCD	1516	1516	1616	1	3.00				
592-	CONRCD	1518	1518	1618	1	3.33				
593-	CONRCD	1530	1530	1630	2	2.62				
594-	CONRCD	1532	1532	1632	1	.31				
595-	CONROD	1551	1551	1651	1	4.55				
596-	CONROD	1552	1552	1652	1	.96				
597-	CONROD	1601	1601	1701	1	1.12				
598-	CONRCD	1602	1602	1702	1	1.13				
599-	CONROD	1607	1607	1707	1	2.01				
600-	CONRCD	1610	1610	1710	1	3.03				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
601-	CONRCD	1616	1616	1716	1	4.81				
602-	CONRCD	1618	1618	1818	1	2.78				
603-	CONRCD	1630	1630	1830	2	2.75				
604-	CONRCD	1651	1651	1851	1	3.50				
605-	CONRCD	1701	1701	1801	1	1.12				
606-	CONRCD	1702	1702	1802	1	2.20				
607-	CONRCD	1706	1707	1806	1	1.00				
608-	CONRCD	1707	1707	1807	1	1.00				
609-	CONRCD	1710	1710	1810	1	3.02				
610-	CONRCD	1716	1716	1816	1	4.26				
611-	CONRCD	1756	1756	1856	1	.30				
612-	CONRCD	1758	1758	1858	1	.30				
613-	CONRCD	1801	1801	1901	1	.70				
614-	CONRCD	1802	1802	1902	1	2.31				
615-	CONRCD	1806	1806	1906	1	1.15				
616-	CONRCD	1807	1807	1907	1	1.00				
617-	CONRCD	1808	1808	1908	1	1.43				
618-	CONRCD	1810	1810	1908	1	1.30				
619-	CONRCD	1816	1816	1916	1	3.44				
620-	CONRCD	1818	1818	1918	1	3.71				
621-	CONRCD	1830	1830	1930	2	2.86				
622-	CONRCD	1832	1832	1932	2	3.65				
623-	CONRCD	1851	1851	1951	1	3.50				
624-	CONRCD	1854	1854	1954	1	1.00				
625-	CONRCD	1855	1855	1955	1	1.00				
626-	CONRCD	1857	1857	1957	1	1.00				
627-	CONRCD	1901	1901	2001	1	.01				
628-	CONRCD	1902	1902	2002	1	2.26				
629-	CONRCD	1906	1906	2006	1	2.72				
630-	CONRCD	1907	1907	2007	1	1.00				
631-	CONRCD	1908	1908	2008	1	1.66				
632-	CONRCD	1916	1916	2016	1	3.76				
633-	CONRCD	1918	1918	2018	1	3.77				
634-	CONRCD	1928	1928	2028	1	2.54				
635-	CONRCD	1930	1930	2030	2	1.63				
636-	CONRCD	1932	1932	2032	1	3.41				
637-	CONRCD	1951	1951	2051	1	2.44				
638-	CONRCD	1954	1954	2054	1	1.00				
639-	CONRCD	1955	1955	2055	1	1.00				
640-	CONRCD	1957	1957	2057	1	1.00				
641-	CONRCD	2001	2001	2101	1	.01				
642-	CONRCD	2002	2002	2102	1	2.38				
643-	CONRCD	2004	2004	2104	1	.01				
644-	CONRCD	2006	2006	2106	1	3.18				
645-	CONRCD	2007	2007	2107	1	1.00				
646-	CONRCD	2008	2008	2108	1	1.60				
647-	CONRCD	2010	2010	2110	1	.01				
648-	CONRCD	2012	2012	2112	1	.01				
649-	CONRCD	2016	2016	2116	1	3.76				
650-	CONRCD	2017	2017	2117	1	.01				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
651-	CONROD	2018	2018	2118	1	2.99				
652-	CONROD	2020	2020	2120	1	1.34				
653-	CONROD	2028	2028	2128	1	3.29				
654-	CONROD	2030	2030	2130	2	.57				
655-	CONROD	2032	2032	2132	1	3.31				
656-	CONROD	2050	2050	2150	1	.01				
657-	CONROD	2051	2051	2151	1	1.83				
658-	CONROD	2053	2053	2153	1	.30				
659-	CONROD	2054	2054	2154	1	.75				
660-	CONROD	2055	2055	2155	1	.75				
661-	CONROD	2056	2056	2156	1	.30				
662-	CONROD	2057	2057	2157	1	.75				
663-	CONROD	2058	2058	2158	1	.30				
664-	CONROD	2101	2101	2201	1	.01				
665-	CONROD	2102	2102	2202	1	2.31				
666-	CONROD	2104	2104	2204	1	.01				
667-	CONROD	2106	2106	2206	1	3.33				
668-	CONROD	2107	2107	2207	1	1.00				
669-	CONROD	2108	2108	2208	1	1.59				
670-	CONROD	2110	2110	2210	1	.01				
671-	CONROD	2112	2112	2212	1	.01				
672-	CONROD	2116	2116	2216	1	3.74				
673-	CONROD	2117	2117	2217	1	.01				
674-	CONROD	2118	2118	2218	1	2.70				
675-	CONROD	2120	2120	2220	1	1.35				
676-	CONROD	2128	2128	2228	1	3.27				
677-	CONROD	2130	2130	2230	2	.52				
678-	CONROD	2132	2132	2232	1	2.94				
679-	CONROD	2150	2150	2250	1	.01				
680-	CONROD	2151	2151	2251	1	1.85				
681-	CONROD	2153	2153	2253	1	.30				
682-	CONROD	2154	2154	2254	1	.50				
683-	CONROD	2155	2155	2255	1	.50				
684-	CONROD	2156	2156	2256	1	.30				
685-	CONROD	2157	2157	2257	1	.50				
686-	CONROD	2158	2158	2258	1	.30				
687-	CONROD	2201	2201	2301	1	.01				
688-	CONROD	2202	2202	2302	1	1.64				
689-	CONROD	2206	2206	2306	1	3.26				
690-	CONROD	2207	2207	2307	1	1.00				
691-	CONROD	2208	2208	2308	1	2.09				
692-	CONROD	2210	2210	2310	1	.01				
693-	CONROD	2216	2216	2316	1	4.24				
694-	CONROD	2218	2218	2318	1	1.80				
695-	CONROD	2220	2220	2320	1	2.17				
696-	CONROD	2228	2228	2328	1	4.15				
697-	CONROD	2230	2230	2330	2	.49				
698-	CONROD	2232	2232	2332	1	1.70				
699-	CONROD	2250	2250	2350	1	.01				
700-	CONROD	2251	2251	2351	1	.85				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
701-	CONROD	2254	2254	2354	1	.50				
702-	CONROD	2255	2255	2355	1	.50				
703-	CONROD	2257	2257	2357	1	.50				
704-	CONROD	2301	2301	2401	1	1.30				
705-	CONROD	2306	2306	2406	1	3.65				
706-	CONROD	2308	2308	2408	1	1.86				
707-	CONROD	2316	2316	2416	1	4.73				
708-	CONROD	2320	2320	2420	1	3.81				
709-	CONROD	2328	2328	2428	1	6.65				
710-	CONROD	2336	2336	2436	1	.46				
711-	CONROD	2344	2344	2444	1	.92				
712-	CONROD	2348	2348	2448	1	3.86				
713-	CONROD	2401	2401	2501	1	.89				
714-	CONROD	2406	2406	2506	1	3.17				
715-	CONROD	2408	2408	2508	1	2.26				
716-	CONROD	2416	2416	2516	1	5.06				
717-	CONROD	2420	2420	2520	1	3.78				
718-	CONROD	2424	2428	2524	1	1.35				
719-	CONROD	2428	2428	2528	1	4.60				
720-	CONROD	2436	2436	2536	1	.46				
721-	CONROD	2444	2444	2544	1	.92				
722-	CONROD	2448	2448	2548	1	3.11				
723-	CONROD	2501	2501	2601	1	1.15				
724-	CONROD	2506	2506	2606	1	2.81				
725-	CONROD	2508	2508	2608	1	1.85				
726-	CONROD	2516	2516	2616	1	3.36				
727-	CONROD	2520	2520	2620	1	2.63				
728-	CONROD	2524	2524	2624	1	2.77				
729-	CONROD	2528	2528	2628	1	4.39				
730-	CONROD	2536	2536	2636	1	.46				
731-	CONROD	2544	2544	2644	1	.92				
732-	CONROD	2548	2548	2648	1	2.02				
733-	CONROD	2601	2601	2701	1	1.26				
734-	CONROD	2606	2606	2706	1	3.16				
735-	CONROD	2608	2608	2708	1	2.14				
736-	CONROD	2616	2616	2716	1	3.05				
737-	CONROD	2620	2620	2720	1	2.47				
738-	CONROD	2624	2624	2724	1	3.77				
739-	CONROD	2628	2628	2728	1	5.18				
740-	CONROD	2636	2636	2736	1	.46				
741-	CONROD	2644	2644	2744	1	.92				
742-	CONROD	2648	2648	2748	1	2.13				
743-	CONROD	2701	2701	2801	1	1.20				
744-	CONROD	2706	2706	2806	1	3.78				
745-	CONROD	2708	2708	2808	1	2.09				
746-	CONROD	2714	2714	2814	1	.45				
747-	CONROD	2716	2716	2816	1	3.07				
748-	CONROD	2720	2720	2820	1	2.26				
749-	CONROD	2724	2724	2824	1	4.31				
750-	CONROD	2728	2728	2828	1	6.09				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
751-	CONROD	2736	2736	2836	1	.46				
752-	CONROD	2744	2744	2844	1	.92				
753-	CONROD	2748	2748	2848	1	2.13				
754-	CONROD	2801	2801	2901	1	1.45				
755-	CONROD	2806	2806	2906	1	4.36				
756-	CONROD	2808	2808	2908	1	1.71				
757-	CONROD	2814	2814	2914	1	2.32				
758-	CONROD	2815	2814	2915	1	1.16				
759-	CONROD	2816	2816	2916	1	1.94				
760-	CONROD	2820	2820	2920	1	1.58				
761-	CONROD	2822	2824	2922	1	1.23				
762-	CONROD	2824	2824	2924	1	4.48				
763-	CONROD	2828	2828	2928	1	5.76				
764-	CONROD	2836	2836	2936	1	.46				
765-	CONROD	2844	2844	2944	1	.92				
766-	CONROD	2848	2848	2948	1	2.13				
767-	CONROD	2901	2901	3001	1	1.74				
768-	CONROD	2906	2906	3006	1	4.74				
769-	CONROD	2908	2908	3008	1	1.99				
770-	CONROD	2914	2914	3014	1	2.66				
771-	CONROD	2915	2915	3015	1	1.75				
772-	CONROD	2916	2916	3016	1	1.63				
773-	CONROD	2920	2920	3020	1	1.39				
774-	CONROD	2922	2922	3022	1	2.01				
775-	CONROD	2924	2924	3024	1	6.06				
776-	CONROD	2928	2928	3028	1	6.35				
777-	CONROD	2936	2936	3036	1	.46				
778-	CONROD	2944	2944	3044	1	.92				
779-	CONROD	2948	2948	3048	1	2.11				
780-	CONROD	3001	3001	3101	1	2.61				
781-	CONROD	3006	3006	3106	1	5.20				
782-	CONROD	3008	3008	3108	1	2.67				
783-	CONROD	3014	3014	3114	1	4.39				
784-	CONROD	3015	3015	3115	1	2.19				
785-	CONROD	3016	3016	3116	1	1.66				
786-	CONROD	3020	3020	3120	1	1.38				
787-	CONROD	3022	3022	3122	1	2.54				
788-	CONROD	3024	3024	3124	1	7.90				
789-	CONROD	3028	3028	3128	1	6.98				
790-	CONROD	3036	3036	3136	1	.46				
791-	CONROD	3044	3044	3144	1	.92				
792-	CONROD	3048	3048	3148	1	2.11				
793-	CONROD	3101	3101	3201	1	4.03				
794-	CONROD	3106	3106	3206	1	5.28				
795-	CONROD	3108	3108	3208	1	3.76				
796-	CONROD	3114	3114	3214	1	6.73				
797-	CONROD	3124	3124	3224	1	8.04				
798-	CONROD	3128	3128	3228	1	7.43				
799-	CONROD	3136	3136	3236	1	.46				
800-	CONROD	3144	3144	3244	1	.92				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
801-	CONRCD	3148	3148	3248	1	2.11				
802-	CONRCD	3201	3201	3301	1	4.99				
803-	CONRCD	3206	3206	3306	1	6.03				
804-	CONRCD	3208	3208	3308	1	3.26				
805-	CONRCD	3210	3210	3310	1	5.13				
806-	CONRCD	3214	3214	3314	1	7.96				
807-	CONRCD	3224	3224	3324	1	8.09				
808-	CONRCD	3226	3226	3326	1	2.53				
809-	CONRCD	3228	3228	3328	1	7.12				
810-	CONRCD	3236	3236	3336	1	.46				
811-	CONRCD	3244	3244	3344	1	.92				
812-	CONRCD	3248	3248	3348	1	2.11				
813-	CONRCD	3301	3301	3401	3	3.06				
814-	CONRCD	3306	3306	3406	1	7.72				
815-	CONRCD	3308	3308	3408	1	10.19				
816-	CONRCD	3309	3309	3409	1	4.68				
817-	CONRCD	3310	3310	3410	1	9.95				
818-	CONRCD	3312	3312	3412	1	6.34				
819-	CONRCD	3314	3314	3414	1	16.25				
820-	CONRCD	3316	3316	3416	1	9.53				
821-	CONRCD	3318	3318	3418	3	8.66				
822-	CONRCD	3324	3324	3424	3	2.08				
823-	CONRCD	3326	3326	3426	1	.01				
824-	CONRCD	3328	3328	3428	1	6.41				
825-	CONRCD	3330	3330	3430	1	3.42				
826-	CONRCD	3332	3332	3432	1	.01				
827-	CONRCD	3344	3344	3444	1	4.80				
828-	CONRCD	3350	3350	3450	2	3.73				
829-	CONRCD	3361	3361	3461	1	14.38				
830-	CONRCD	3362	3362	3462	1	7.88				
831-	CONRCD	3363	3363	3463	1	7.35				
832-	CONRCD	3364	3364	3464	1	2.88				
833-	CONRCD	3401	3401	3501	3	4.13				
834-	CONRCD	3406	3406	3506	1	7.68				
835-	CONRCD	3408	3408	3508	1	11.88				
836-	CONRCD	3409	3409	3509	1	6.56				
837-	CONRCD	3410	3410	3510	1	11.90				
838-	CONRCD	3412	3412	3512	1	10.70				
839-	CONRCD	3414	3414	3514	1	24.77				
840-	CONRCD	3416	3416	3516	1	6.54				
841-	CONRCD	3418	3418	3518	3	13.21				
842-	CONRCD	3424	3424	3524	3	1.00				
843-	CONRCD	3426	3426	3526	1	.01				
844-	CONRCD	3428	3428	3528	1	.01				
845-	CONRCD	3430	3430	3530	1	3.42				
846-	CONRCD	3432	3432	3532	1	.01				
847-	CONRCD	3444	3444	3544	1	6.89				
848-	CONRCD	3450	3450	3550	2	5.61				
849-	CONRCD	3461	3461	3561	1	17.60				
850-	CONRCD	3462	3462	3562	1	9.03				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
851-	CONRCD	3463	3463	3563	1	9.97				
852-	CONRCD	3464	3464	3564	1	5.08				
853-	CONRCD	3501	3501	3601	3	5.15				
854-	CONRCD	3506	3506	3606	1	8.15				
855-	CONROD	3508	3508	3608	1	8.75				
856-	CONRCD	3509	3509	3609	1	5.66				
857-	CONROD	3510	3510	3610	1	11.01				
858-	CONROD	3512	3512	3612	1	11.70				
859-	CONRCD	3514	3514	3614	1	24.77				
860-	CONRCD	3516	3516	3616	1	.01				
861-	CONRCD	3518	3518	3618	3	12.99				
862-	CONRCD	3524	3524	3624	3	.01				
863-	CONROD	3526	3526	3626	1	.01				
864-	CONRCD	3528	3528	3628	1	.01				
865-	CONRCD	3530	3530	3630	1	.01				
866-	CONROD	3532	3532	3632	1	1.30				
867-	CONRCD	3544	3544	3644	1	5.60				
868-	CONRCD	3550	3550	3650	2	5.03				
869-	CONRCD	3561	3561	3661	1	16.39				
870-	CONRCD	3562	3562	3662	1	7.59				
871-	CONROD	3563	3563	3663	1	10.37				
872-	CONRCD	3564	3564	3664	1	7.16				
873-	CONRCD	3601	3601	3701	3	6.00				
874-	CONRCD	3606	3606	3706	1	8.74				
875-	CONRCD	3608	3608	3708	1	5.32				
876-	CONRCD	3609	3609	3709	1	4.95				
877-	CONRCD	3610	3610	3710	1	9.34				
878-	CONROD	3612	3612	3712	1	8.60				
879-	CONRCD	3614	3614	3714	1	29.33				
880-	CONRCD	3616	3616	3716	1	.01				
881-	CONRCD	3618	3618	3718	3	16.44				
882-	CONRCD	3624	3624	3724	3	.01				
883-	CONROD	3626	3626	3726	1	.01				
884-	CONPCD	3628	3628	3728	1	.01				
885-	CONRCD	3630	3630	3730	1	.01				
886-	CONRCD	3632	3632	3732	1	2.99				
887-	CONRCD	3644	3644	3744	1	5.50				
888-	CONROD	3650	3650	3750	2	4.25				
889-	CONRCD	3661	3661	3761	1	14.26				
890-	CONRCD	3662	3662	3762	1	6.61				
891-	CONRCD	3663	3663	3763	1	7.72				
892-	CONRCD	3664	3664	3764	1	5.49				
893-	CONROD	3701	3701	3801	3	6.37				
894-	CONRCD	3706	3706	3806	1	9.82				
895-	CONRCD	3709	3709	3809	1	4.98				
896-	CONRCD	3712	3712	3812	1	4.09				
897-	CONRCD	3714	3714	3814	1	26.29				
898-	CONROD	3716	3716	3816	1	.01				
899-	CONRCD	3718	3718	3818	3	15.97				
900-	CONRCD	3724	3724	3824	3	1.99				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
901-	CONROD	3725	3725	3825	1	5.43				
902-	CONROD	3732	3732	3832	1	4.14				
903-	CONROD	3744	3744	3844	1	3.57				
904-	CONROD	3750	3750	3850	1	2.92				
905-	CONROD	3751	3751	3851	2	4.57				
906-	CONROD	3752	3752	3852	1	.85				
907-	CONROD	3753	3753	3853	1	2.69				
908-	CONROD	3754	3754	3854	1	3.21				
909-	CONROD	3801	3801	3901	3	6.13				
910-	CONROD	3806	3806	3906	1	9.77				
911-	CONROD	3809	3809	3909	1	4.60				
912-	CONROD	3812	3812	3912	1	3.70				
913-	CONROD	3814	3814	3914	1	16.26				
914-	CONROD	3816	3816	3916	1	.85				
915-	CONROD	3818	3818	3918	3	6.75				
916-	CONROD	3824	3824	3924	3	4.74				
917-	CONROD	3825	3825	3925	1	8.78				
918-	CONROD	3832	3832	3932	1	4.49				
919-	CONROD	3844	3844	3944	1	1.67				
920-	CONROD	3850	3850	3950	1	1.72				
921-	CONROD	3851	3851	3951	2	2.46				
922-	CONROD	3852	3852	3952	1	1.33				
923-	CONROD	3853	3853	3953	1	2.91				
924-	CONROD	3854	3854	3954	1	4.67				
925-	CONROD	3901	3901	4001	3	6.00				
926-	CONROD	3906	3906	4006	1	9.76				
927-	CONROD	3909	3909	4009	1	4.23				
928-	CONROD	3912	3912	4012	1	3.48				
929-	CONROD	3914	3914	4014	1	12.15				
930-	CONROD	3916	3916	4016	1	2.01				
931-	CONROD	3918	3918	4018	3	3.41				
932-	CONROD	3924	3924	4024	3	5.78				
933-	CONROD	3925	3925	4025	1	8.26				
934-	CONROD	3932	3932	4032	1	4.23				
935-	CONROD	3944	3944	4044	1	1.54				
936-	CONROD	3950	3950	4050	1	1.72				
937-	CONROD	3951	3951	4051	2	1.46				
938-	CONROD	3952	3952	4052	1	2.06				
939-	CONROD	3953	3953	4053	1	3.82				
940-	CONROD	3954	3954	4054	1	4.93				
941-	CONROD	4001	4001	4101	3	5.97				
942-	CONROD	4006	4006	4106	1	8.90				
943-	CONROD	4009	4009	4109	1	4.07				
944-	CONROD	4012	4012	4112	1	3.41				
945-	CONROD	4014	4014	4114	1	8.15				
946-	CONROD	4016	4016	4116	1	1.82				
947-	CONROD	4018	4018	4118	3	1.53				
948-	CONROD	4024	4024	4124	3	6.15				
949-	CONROD	4025	4025	4125	1	5.34				
950-	CONROD	4032	4032	4132	1	3.76				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
951-	CONRCD	4044	4044	4144	1	1.44				
952-	CONRCD	4050	4050	4150	1	1.72				
953-	CONRCD	4051	4051	4151	2	1.20				
954-	CONRCD	4052	4052	4152	1	2.34				
955-	CONROD	4053	4053	4153	1	3.82				
956-	CONRCD	4054	4054	4154	1	4.93				
957-	CONRCD	4101	4101	4201	3	6.01				
958-	CONROD	4106	4106	4206	1	7.73				
959-	CONRCD	4109	4109	4209	1	4.07				
960-	CONRCD	4112	4112	4212	1	3.04				
961-	CONRCD	4114	4114	4214	1	7.14				
962-	CONRCD	4116	4116	4216	1	2.25				
963-	CONROD	4118	4118	4218	3	.98				
964-	CONROD	4124	4124	4224	3	7.23				
965-	CONRCD	4125	4125	4225	1	3.50				
966-	CONROD	4132	4132	4232	1	2.81				
967-	CONRCD	4144	4144	4244	1	1.17				
968-	CONRCD	4150	4150	4250	1	1.72				
969-	CONROD	4151	4151	4251	2	1.20				
970-	CONRCD	4152	4152	4252	1	2.81				
971-	CONRCD	4153	4153	4253	1	3.82				
972-	CONRCD	4154	4154	4254	1	4.93				
973-	CONRCD	4201	4201	4301	3	6.06				
974-	CONROD	4206	4206	4306	1	7.14				
975-	CONRCD	4209	4209	4309	1	5.24				
976-	CONRCD	4212	4212	4312	1	2.41				
977-	CONROD	4214	4214	4314	1	7.14				
978-	CONRCD	4216	4216	4316	1	2.58				
979-	CONROD	4218	4218	4318	3	.37				
980-	CONRCD	4224	4224	4324	3	8.05				
981-	CONRCD	4225	4225	4325	1	3.00				
982-	CONROD	4232	4232	4328	1	1.32				
983-	CONRCD	4236	4250	4336	1	1.05				
984-	CONRCD	4244	4244	4344	1	1.16				
985-	CONRCD	4250	4250	4350	1	1.72				
986-	CONROD	4251	4251	4351	2	.70				
987-	CONROD	4252	4252	4352	1	1.62				
988-	CONROD	4253	4253	4353	1	3.82				
989-	CONRCD	4254	4254	4354	1	3.71				
990-	CONRCD	4301	4301	4401	3	6.04				
991-	CONRCD	4306	4306	4406	1	6.61				
992-	CONROD	4309	4309	4409	1	5.51				
993-	CONROD	4314	4314	4414	1	7.72				
994-	CONRCD	4316	4316	4416	1	1.77				
995-	CONROD	4318	4318	4418	3	.01				
996-	CONROD	4324	4324	4424	3	8.43				
997-	CONRCD	4325	4325	4425	1	1.14				
998-	CONROD	4328	4328	4428	1	4.30				
999-	CONROD	4336	4336	4436	1	1.05				
1000-	CONRCD	4344	4344	4444	1	1.79				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1001-	CONRCD	4348	4348	4448	1	1.15				
1002-	CONRCD	4349	4349	4449	1	.37				
1003-	CONROD	4401	4401	4501	3	5.87				
1004-	CONRCD	4406	4406	4506	1	6.23				
1005-	CONRCD	4409	4409	4509	1	6.01				
1006-	CONROD	4414	4414	4514	1	8.07				
1007-	CONROD	4416	4416	4516	1	1.13				
1008-	CONROD	4424	4424	4524	3	8.63				
1009-	CONRCD	4428	4428	4528	1	6.45				
1010-	CONRCD	4436	4436	4536	1	1.05				
1011-	CONRCD	4444	4444	4544	1	2.10				
1012-	CONRCD	4448	4448	4548	1	1.15				
1013-	CONROD	4449	4449	4549	1	.96				
1014-	CONRCD	4501	4501	4601	3	5.71				
1015-	CONRCD	4506	4506	4606	1	5.62				
1016-	CONRCD	4509	4509	4609	1	5.67				
1017-	CONRCD	4514	4514	4614	1	9.80				
1018-	CONROD	4516	4516	4616	1	.01				
1019-	CONRCD	4524	4524	4624	3	8.76				
1020-	CONRCD	4528	4528	4628	1	7.99				
1021-	CONRCD	4536	4536	4636	1	1.05				
1022-	CONRCD	4544	4544	4644	1	2.10				
1023-	CONROD	4548	4548	4648	1	1.15				
1024-	CONRCD	4549	4549	4649	1	1.15				
1025-	CONRCD	4601	4601	4701	3	5.57				
1026-	CONRCD	4606	4606	4706	1	4.94				
1027-	CONRCD	4609	4609	4709	1	4.96				
1028-	CONROD	4614	4614	4714	1	8.29				
1029-	CONRCD	4616	4616	4716	1	.01				
1030-	CONRCD	4624	4624	4724	3	7.27				
1031-	CONRCD	4628	4628	4728	1	8.57				
1032-	CONRCD	4636	4636	4736	1	1.05				
1033-	CONROD	4644	4644	4744	1	2.10				
1034-	CONRCD	4648	4648	4748	1	1.15				
1035-	CONROD	4649	4649	4749	1	1.15				
1036-	CONRCD	4701	4701	4801	3	5.38				
1037-	CONRCD	4706	4706	4806	1	4.72				
1038-	CONROD	4709	4709	4809	1	4.29				
1039-	CONROD	4714	4714	4814	1	8.06				
1040-	CONRCD	4716	4716	4816	1	.01				
1041-	CONRCD	4724	4724	4824	3	6.57				
1042-	CONRCD	4728	4728	4828	1	9.10				
1043-	CONROD	4736	4736	4836	1	1.05				
1044-	CONRCD	4744	4744	4844	1	2.10				
1045-	CONROD	4748	4748	4848	1	.98				
1046-	CONRCD	4749	4749	4849	1	1.15				
1047-	CONRCD	4801	4801	4901	3	5.17				
1048-	CONRCD	4806	4806	4906	1	4.59				
1049-	CONRCD	4809	4809	4909	1	3.68				
1050-	CONRCD	4814	4814	4914	1	7.72				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1051-	CONRCD	4816	4816	4916	1	.01				
1052-	CONRCD	4824	4824	4924	3	5.55				
1053-	CONRCD	4828	4828	4928	1	10.34				
1054-	CONRCD	4836	4836	4936	1	1.05				
1055-	CONRCD	4844	4844	4944	1	2.10				
1056-	CONRCD	4848	4848	4948	1	.67				
1057-	CONRCD	4849	4849	4949	1	.91				
1058-	CONRCD	4901	4901	5001	3	5.17				
1059-	CONRCD	4906	4906	5006	1	4.87				
1060-	CONRCD	4909	4909	5009	1	2.80				
1061-	CONRCD	4914	4914	5014	1	7.18				
1062-	CONRCD	4916	4916	5020	1	.01				
1063-	CONRCD	4924	4924	5024	3	4.20				
1064-	CONRCD	4928	4928	5028	1	11.11				
1065-	CONRCD	4936	4936	5036	1	1.08				
1066-	CONRCD	4944	4944	5044	1	2.20				
1067-	CONRCD	4948	4948	5048	1	.28				
1068-	CONRCD	4949	4949	5049	1	.42				
1069-	CONRCD	5001	5001	5101	3	5.51				
1070-	CONRCD	5004	5004	5104	1	3.19				
1071-	CONRCD	5006	5006	5106	1	5.35				
1072-	CONRCD	5009	5009	5109	2	1.32				
1073-	CONRCD	5014	5014	5114	2	3.64				
1074-	CONRCD	5020	5020	5120	2	1.37				
1075-	CONRCD	5024	5024	5124	2	5.08				
1076-	CONRCD	5028	5028	5128	5	4.22				
1077-	CONRCD	5030	5030	5130	2	.01				
1078-	CONRCD	5032	5032	5132	2	1.38				
1079-	CONRCD	5044	5044	5144	1	2.65				
1080-	CONRCD	5050	5050	5150	1	2.14				
1081-	CONRCD	5053	5053	5153	1	.01				
1082-	CONRCD	5101	5101	5201	3	5.12				
1083-	CONRCD	5104	5104	5204	1	3.32				
1084-	CONRCD	5105	5105	5205	1	.01				
1085-	CONRCD	5106	5106	5206	1	5.02				
1086-	CONRCD	5108	5108	5208	2	.01				
1087-	CONRCD	5109	5109	5209	2	1.55				
1088-	CONRCD	5112	5112	5212	2	.01				
1089-	CONRCD	5114	5114	5214	2	3.40				
1090-	CONRCD	5116	5116	5216	2	.01				
1091-	CONRCD	5120	5120	5220	2	1.19				
1092-	CONRCD	5124	5124	5224	2	5.75				
1093-	CONRCD	5128	5128	5228	5	4.06				
1094-	CONRCD	5129	5129	5229	2	.01				
1095-	CONRCD	5130	5130	5230	2	.01				
1096-	CONRCD	5131	5131	5231	2	.01				
1097-	CONRCD	5132	5132	5232	2	1.18				
1098-	CONRCD	5142	5142	5242	1	.01				
1099-	CONRCD	5144	5144	5244	1	2.35				
1100-	CONRCD	5150	5150	5250	1	2.55				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1101-	CONROD	5153	5153	5253	1	.01				
1102-	CONROD	5201	5201	5301	3	4.85				
1103-	CONROD	5204	5204	5304	1	3.34				
1104-	CONROD	5205	5205	5305	1	.01				
1105-	CONROD	5206	5206	5306	1	4.77				
1106-	CONROD	5208	5208	5308	2	.01				
1107-	CONROD	5209	5209	5309	2	1.70				
1108-	CONROD	5212	5212	5312	2	.01				
1109-	CONROD	5214	5214	5314	2	3.11				
1110-	CONROD	5216	5216	5316	2	.01				
1111-	CONROD	5220	5220	5320	2	1.23				
1112-	CONROD	5224	5224	5324	2	5.36				
1113-	CONROD	5228	5228	5328	5	3.93				
1114-	CONROD	5229	5229	5329	2	.01				
1115-	CONROD	5230	5230	5330	2	.01				
1116-	CONROD	5231	5231	5331	2	.01				
1117-	CONROD	5232	5232	5332	2	1.03				
1118-	CONROD	5242	5242	5342	1	.01				
1119-	CONROD	5244	5244	5344	1	2.22				
1120-	CONROD	5250	5250	5350	1	2.81				
1121-	CONROD	5253	5253	5353	1	.01				
1122-	CONROD	5301	5301	5401	3	4.21				
1123-	CONROD	5302	5301	5402	1	2.44				
1124-	CONROD	5304	5304	5404	1	2.24				
1125-	CONROD	5306	5306	5406	1	4.47				
1126-	CONROD	5309	5309	5409	2	1.72				
1127-	CONROD	5314	5314	5414	2	2.45				
1128-	CONROD	5320	5320	5420	2	1.17				
1129-	CONROD	5324	5324	5424	2	4.43				
1130-	CONROD	5328	5328	5428	5	3.86				
1131-	CONROD	5330	5330	5430	2	.01				
1132-	CONROD	5332	5332	5432	2	.89				
1133-	CONROD	5344	5344	5444	1	2.45				
1134-	CONROD	5350	5350	5450	1	2.88				
1135-	CONROD	5353	5353	5453	1	.01				
1136-	CONROD	5401	5401	5501	3	3.58				
1137-	CONROD	5402	5402	5502	1	2.44				
1138-	CONROD	5404	5404	5504	1	2.12				
1139-	CONROD	5406	5406	5506	1	4.05				
1140-	CONROD	5409	5409	5509	2	1.54				
1141-	CONROD	5414	5414	5514	2	2.09				
1142-	CONROD	5420	5420	5520	2	1.15				
1143-	CONROD	5424	5424	5524	2	3.05				
1144-	CONROD	5428	5428	5528	5	4.39				
1145-	CONROD	5430	5430	5530	2	.01				
1146-	CONROD	5432	5432	5532	2	.74				
1147-	CONROD	5444	5444	5544	1	2.83				
1148-	CONROD	5450	5450	5550	1	2.26				
1149-	CONROD	5453	5453	5553	1	.01				
1150-	CONROD	5501	5501	5601	3	2.81				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1151-	CONRCD	5512	5502	5602	1	2.58				
1152-	CONROD	5504	5504	5604	1	2.60				
1153-	CONROD	5506	5506	5606	1	3.83				
1154-	CONRCD	5509	5509	5609	2	1.46				
1155-	CONRCD	5514	5514	5614	2	1.93				
1156-	CONRCD	5520	5520	5620	2	1.10				
1157-	CONROD	5524	5524	5624	2	1.66				
1158-	CONRCD	5528	5528	5628	5	4.80				
1159-	CONRCD	5530	5530	5630	2	.01				
1160-	CONROD	5532	5532	5632	2	.63				
1161-	CONRCD	5544	5544	5644	1	2.89				
1162-	CONROD	5550	5550	5650	1	2.42				
1163-	CONRCD	5553	5553	5653	1	.21				
1164-	CONRCD	5601	5601	5701	3	2.09				
1165-	CONRCD	5602	5602	5702	1	3.05				
1166-	CONRCD	5604	5604	5704	1	2.96				
1167-	CONROD	5606	5606	5706	1	3.53				
1168-	CONROD	5609	5609	5709	2	1.30				
1169-	CONRCD	5614	5614	5714	2	1.87				
1170-	CONRCD	5620	5620	5720	2	1.17				
1171-	CONROD	5624	5624	5724	2	.01				
1172-	CONROD	5628	5628	5728	5	4.46				
1173-	CONRCD	5632	5632	5732	2	.57				
1174-	CONRCD	5644	5644	5744	1	2.95				
1175-	CONROD	5650	5650	5750	1	2.57				
1176-	CONRCD	5653	5653	5753	1	.28				
1177-	CONROD	5701	5701	5801	3	1.60				
1178-	CONRCD	5702	5702	5802	1	3.67				
1179-	CONRCD	5704	5704	5804	1	3.56				
1180-	CONRCD	5706	5706	5806	1	3.62				
1181-	CONRCD	5709	5709	5809	2	1.27				
1182-	CONROD	5714	5714	5814	2	1.57				
1183-	CONRCD	5720	5720	5820	2	1.23				
1184-	CONROD	5724	5724	5824	2	.01				
1185-	CONRCD	5728	5728	5828	5	4.17				
1186-	CONRCD	5732	5732	5832	2	.52				
1187-	CONROD	5744	5744	5844	1	3.03				
1188-	CONRCD	5750	5750	5850	1	2.59				
1189-	CONRCD	5753	5753	5853	1	.28				
1190-	CONRCD	5801	5801	5901	3	1.14				
1191-	CONRCD	5802	5802	5902	1	5.17				
1192-	CONROD	5804	5804	5904	1	4.35				
1193-	CONRCD	5806	5806	5906	1	3.68				
1194-	CONRCD	5809	5809	5909	2	1.26				
1195-	CONRCD	5814	5814	5914	2	1.41				
1196-	CONRCD	5820	5820	5920	2	1.18				
1197-	CONROD	5824	5824	5924	2	.01				
1198-	CONRCD	5828	5828	5928	5	3.98				
1199-	CONRCD	5832	5832	5932	2	.51				
1200-	CONRCD	5844	5844	5944	1	2.91				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1201-	CONROD	5850	5850	5950	1	2.54				
1202-	CONROD	5853	5853	5953	1	.36				
1203-	CONROD	5901	5901	6001	1	2.09				
1204-	CONROD	5902	5902	6002	1	7.67				
1205-	CONROD	5903	5903	6003	1	4.82				
1206-	CONROD	5904	5904	6004	1	4.18				
1207-	CONROD	5905	5905	6005	1	1.27				
1208-	CONROD	5906	5906	6006	1	3.76				
1209-	CONROD	5909	5909	6009	2	1.29				
1210-	CONROD	5914	5914	6014	2	1.45				
1211-	CONROD	5920	5920	6020	2	1.00				
1212-	CONROD	5924	5924	6024	2	.01				
1213-	CONROD	5928	5928	6028	5	3.46				
1214-	CONROD	5932	5932	6032	2	.42				
1215-	CONROD	5944	5944	6044	1	2.04				
1216-	CONROD	5950	5950	6050	1	.92				
1217-	CONROD	5951	5951	6051	1	2.02				
1218-	CONROD	5953	5953	6053	1	.42				
1219-	CONROD	6001	6001	6101	1	1.79				
1220-	CONROD	6002	6002	6102	1	10.92				
1221-	CONROD	6003	6003	6103	1	7.02				
1222-	CONROD	6004	6004	6104	1	4.47				
1223-	CONROD	6005	6005	6105	1	3.54				
1224-	CONROD	6006	6006	6106	1	3.57				
1225-	CONROD	6009	6009	6109	2	1.39				
1226-	CONROD	6014	6014	6114	2	2.45				
1227-	CONROD	6020	6020	6120	2	.01				
1228-	CONROD	6024	6024	6124	2	.01				
1229-	CONROD	6028	6028	6128	5	2.71				
1230-	CONROD	6032	6032	6132	2	.30				
1231-	CONROD	6044	6044	6144	1	2.04				
1232-	CONROD	6050	6050	6150	1	.86				
1233-	CONROD	6051	6051	6151	1	2.26				
1234-	CONROD	6053	6053	6153	1	.40				
1235-	CONROD	6101	6101	6201	1	1.77				
1236-	CONROD	6102	6102	6202	1	11.08				
1237-	CONROD	6103	6103	6203	1	8.01				
1238-	CONROD	6104	6104	6204	1	5.30				
1239-	CONROD	6105	6105	6205	1	3.93				
1240-	CONROD	6106	6106	6206	1	3.27				
1241-	CONROD	6109	6109	6209	2	1.41				
1242-	CONROD	6114	6114	6214	2	2.75				
1243-	CONROD	6120	6120	6220	2	.01				
1244-	CONROD	6124	6124	6224	2	2.0				
1245-	CONROD	6128	6128	6228	5	2.41				
1246-	CONROD	6132	6132	6232	2	.30				
1247-	CONROD	6144	6144	6244	1	2.01				
1248-	CONROD	6150	6150	6250	1	.86				
1249-	CONROD	6151	6151	6251	1	2.48				
1250-	CONROD	6153	6153	6253	1	.38				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1251-	CONRCD	6206	6206	6306	1	2.0				
1252-	CONROD	6209	6209	6309	1	1.2				
1253-	CONRCD	6214	6214	6314	1	2.0				
1254-	CONRCD	6224	6224	6324	1	3.0				
1255-	CONRCD	6232	6232	6332	1	.3				
1256-	CONRCD	6244	6244	6344	1	1.5				
1257-	CONROD	6250	6250	6350	1	.5				
1258-	CONRCD	6306	6306	6406	1	1.2				
1259-	CONRCD	6309	6309	6409	1	1.0				
1260-	CONRCD	6314	6314	6414	1	1.0				
1261-	CONRCD	6324	6324	6424	1	2.0				
1262-	CONROD	6332	6332	6432	1	.3				
1263-	CONRCD	6354	6354	6454	1	.3				
1264-	CONRCD	31001	1001	1010	1	.5				
1265-	CONRCD	31010	1010	1016	1	.5				
1266-	CONRCD	31016	1016	1018	1	.5				
1267-	CONROD	31018	1018	1030	1	.5				
1268-	CONRCD	31030	1030	1032	1	.5				
1269-	CONRCD	31050	1018	1051	1	.4				
1270-	CONRCD	31051	1051	1052	1	.4				
1271-	CONRCD	31052	1032	1052	1	.4				
1272-	CONROD	31053	1052	1054	1	.4				
1273-	CONRCD	31054	1054	1001	1	.4				
1274-	CONRCD	31130	1130	1132	1	1.0				
1275-	CONRCD	31150	1118	1151	1	1.5				
1276-	CONROD	31151	1151	1152	1	1.0				
1277-	CONROD	31152	1132	1152	1	.8				
1278-	CONROD	31153	1152	1154	1	.8				
1279-	CONRCD	31154	1154	1101	1	1.0				
1280-	CONROD	31155	1130	1151	1	1.5				
1281-	CONRCD	31156	1151	1153	1	1.5				
1282-	CONROD	31157	1153	1154	1	1.0				
1283-	CONROD	31201	1201	1210	1	.5				
1284-	CONRCD	31210	1210	1216	1	.5				
1285-	CONRCD	31216	1216	1318	1	.5				
1286-	CONRCD	31250	1216	1253	1	.5				
1287-	CONROD	31251	1253	1351	1	.5				
1288-	CONRCD	31252	1254	1352	1	.5				
1289-	CONRCD	31253	1253	1254	1	.5				
1290-	CONRCD	31254	1201	1254	1	.5				
1291-	CONRCD	31255	1210	1253	1	.5				
1292-	CONROD	31318	1318	1330	1	.5				
1293-	CONRCD	31350	1330	1351	1	.5				
1294-	CONRCD	31418	1418	1430	1	.7				
1295-	CONRCD	31450	1430	1451	1	1.2				
1296-	CONRCD	31550	1530	1551	2	.75				
1297-	CONRCD	31618	1618	1630	1	.5				
1298-	CONRCD	31630	1630	1632	1	.5				
1299-	CONRCD	31650	1630	1651	1	.5				
1300-	CONRCD	31753	1758	1701	1	.85				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1301-	CONRCD	31801	1801	1802	1	.5				
1302-	CONRCD	31802	1802	1806	1	.5				
1303-	CONRCD	31806	1806	1807	1	.5				
1304-	CONRCD	31807	1807	1808	1	.5				
1305-	CONROD	31808	1808	1810	1	.5				
1306-	CONROD	31810	1810	1816	1	.5				
1307-	CONROD	31816	1816	1818	1	.5				
1308-	CONRCD	31818	1818	1830	1	.5				
1309-	CONRCD	31830	1830	1832	1	.5				
1310-	CONRCD	31850	1830	1851	1	1.7				
1311-	CONROD	31851	1818	1851	1	.6				
1312-	CONROD	31852	1857	1802	1	.2				
1313-	CONRCD	31853	1858	1801	1	.2				
1314-	CONROD	31854	1851	1854	1	.5				
1315-	CONRCD	31855	1854	1855	1	.2				
1316-	CONRCD	31856	1854	1856	1	.5				
1317-	CONROD	31857	1856	1857	1	.2				
1318-	CONRCD	31858	1856	1858	1	.2				
1319-	CONROD	31859	1808	1857	1	.2				
1320-	CONRCD	31860	1810	1856	1	.2				
1321-	CONRCD	31908	1908	1916	1	1.0				
1322-	CONRCD	31916	1916	1918	1	1.0				
1323-	CONRCD	31952	1951	1954	1	2.5				
1324-	CONROD	31956	1954	1957	1	1.7				
1325-	CONRCD	32060	2001	2055	1	.4				
1326-	CONRCD	32301	2301	2302	1	.75				
1327-	CONRCD	32302	2302	2306	1	.75				
1328-	CONRCD	32306	2306	2307	1	.5				
1329-	CONROD	32307	2307	2308	1	.5				
1330-	CONRCD	32308	2308	2310	1	.8				
1331-	CONRCD	32310	2310	2316	1	.8				
1332-	CONRCD	32316	2316	2318	1	.8				
1333-	CONROD	32318	2318	2320	1	.7				
1334-	CONRCD	32320	2320	2328	1	.7				
1335-	CONRCD	32328	2328	2330	1	2.0				
1336-	CONROD	32330	2330	2332	1	2.0				
1337-	CONROD	32350	2318	2350	1	.5				
1338-	CONRCD	32351	2350	2351	1	.5				
1339-	CONRCD	32352	2351	2352	1	.5				
1340-	CONRCD	32353	2330	2351	1	.5				
1341-	CONROD	32354	2351	2354	1	.5				
1342-	CONROD	32355	2354	2357	1	.8				
1343-	CONROD	32356	2344	2357	1	.5				
1344-	CONROD	32357	2357	2306	1	.5				
1345-	CONRCD	32358	2308	2357	1	.5				
1346-	CONRCD	32359	2354	2355	1	.5				
1347-	CONRCD	32360	2328	2350	1	.7				
1348-	CONRCD	32361	2350	2348	1	.8				
1349-	CONROD	32362	2348	2354	1	.8				
1350-	CONRCD	32363	2354	2344	1	.5				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1351-	CONRCD	32364	2344	2336	1	.5				
1352-	CONRCD	32365	2352	2332	1	2.0				
1353-	CONROD	32366	2355	2352	1	2.0				
1354-	CONRCD	32367	2336	2355	1	2.0				
1355-	CONRCD	32368	2361	2336	1	.5				
1356-	CONRCD	32369	2316	2348	1	.5				
1357-	CONRCD	32436	2436	2401	1	.5				
1358-	CONROD	32516	2516	2520	1	6.0				
1359-	CONRCD	32520	2520	2524	1	6.0				
1360-	CONRCD	32524	2524	2528	1	6.0				
1361-	CONRCD	32528	2528	2548	1	4.0				
1362-	CONRCD	32536	2536	2501	1	.5				
1363-	CONROD	32601	2601	2606	1	.7				
1364-	CONROD	32636	2636	2601	1	.5				
1365-	CONRCD	32644	2644	2636	1	.5				
1366-	CONROD	32701	2701	2706	1	1.0				
1367-	CONROD	32736	2736	2701	1	.5				
1368-	CONROD	32744	2744	2736	1	.7				
1369-	CONRCD	32801	2801	2806	1	.5				
1370-	CONRCD	32806	2806	2808	1	.5				
1371-	CONRCD	32808	2808	2814	1	.5				
1372-	CONRCD	32814	2814	2816	1	.5				
1373-	CONROD	32816	2816	2820	1	.5				
1374-	CONRCD	32820	2820	2824	1	.5				
1375-	CONRCD	32824	2824	2828	1	.5				
1376-	CONRCD	32828	2828	2848	1	.5				
1377-	CONROD	32832	2832	2828	1	2.0				
1378-	CONROD	32836	2836	2801	1	.5				
1379-	CONRCD	32844	2844	2836	1	.5				
1380-	CONRCD	32848	2848	2844	1	.5				
1381-	CONROD	32850	2806	2844	1	.5				
1382-	CONRCD	32851	2808	2848	1	.5				
1383-	CONROD	32852	2814	2848	1	.5				
1384-	CONROD	32853	2824	2814	1	.5				
1385-	CONRCD	32854	2832	2851	1	2.0				
1386-	CONRCD	32855	2851	2836	1	2.0				
1387-	CONRCD	32856	2851	2844	1	2.0				
1388-	CONROD	32857	2848	2851	1	.5				
1389-	CONRCD	32858	2828	2851	1	.5				
1390-	CONROD	32901	2901	2906	1	2.5				
1391-	CONRCD	32936	2936	2901	1	1.0				
1392-	CONRCD	32944	2944	2936	1	2.0				
1393-	CONROD	32952	2915	2922	1	2.5				
1394-	CONRCD	33001	3001	3006	1	1.5				
1395-	CONRCD	33015	3015	3016	1	1.0				
1396-	CONRCD	33016	3016	3020	1	1.0				
1397-	CONRCD	33020	3020	3022	1	1.5				
1398-	CONROD	33036	3036	3001	1	.5				
1399-	CONRCD	33044	3044	3036	1	1.0				
1400-	CONRCD	33101	3101	3106	1	1.5				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1401-	CONRCD	33114	3114	3115	1	1.5				
1402-	CONRCD	33115	3115	3116	1	.5				
1403-	CONROD	33116	3116	3120	1	.5				
1404-	CONRCD	33120	3120	3122	1	.5				
1405-	CONRCD	33122	3122	3124	1	1.0				
1406-	CONRCD	33136	3136	3101	1	.5				
1407-	CONROD	33144	3144	3136	1	1.0				
1408-	CONROD	33152	3115	3122	1	1.0				
1409-	CONRCD	33201	3201	3206	1	1.0				
1410-	CONRCD	33210	3210	3214	1	1.5				
1411-	CONRCD	33214	3214	3224	1	1.0				
1412-	CONRCD	33224	3224	3226	1	1.5				
1413-	CONROD	33236	3236	3201	1	.5				
1414-	CONROD	33244	3244	3236	1	1.0				
1415-	CONRCD	33301	3301	3306	2	1.0				
1416-	CONRCD	33306	3306	3308	2	2.0				
1417-	CONROD	33308	3308	3309	2	5.0				
1418-	CONRCD	33309	3309	3310	2	10.0				
1419-	CONRCD	33310	3310	3312	2	7.0				
1420-	CONRCD	33312	3312	3314	2	5.0				
1421-	CONROD	33314	3314	3316	2	16.2				
1422-	CONRCD	33316	3316	3318	2	17.0				
1423-	CONROD	33318	3318	3324	2	17.4				
1424-	CONROD	33324	3324	3326	2	1.5				
1425-	CONRCD	33326	3326	3328	2	1.0				
1426-	CONRCD	33328	3328	3330	2	1.0				
1427-	CONRCD	33330	3330	3332	2	1.0				
1428-	CONROD	33350	3326	3361	2	1.2				
1429-	CONROD	33351	3361	3366	2	1.2				
1430-	CONROD	33352	3310	3366	2	1.2				
1431-	CONRCD	33353	3330	3363	2	1.0				
1432-	CONRCD	33354	3363	3348	2	1.0				
1433-	CONROD	33355	3308	3348	2	1.2				
1434-	CONROD	33356	3332	3364	2	1.5				
1435-	CONROD	33357	3364	3351	2	1.5				
1436-	CONRCD	33358	3351	3350	2	1.5				
1437-	CONRCD	33359	3350	3336	2	1.5				
1438-	CONROD	33360	3336	3301	2	1.5				
1439-	CONRCD	33361	3318	3361	2	9.0				
1440-	CONROD	33362	3361	3362	2	6.0				
1441-	CONROD	33363	3362	3363	2	6.0				
1442-	CONRCD	33364	3363	3364	2	6.0				
1443-	CONROD	33365	3316	3366	2	2.0				
1444-	CONRCD	33366	3366	3348	2	1.0				
1445-	CONRCD	33367	3348	3351	2	1.0				
1446-	CONRCD	33368	3308	3344	2	5.0				
1447-	CONRCD	33369	3344	3350	2	1.0				
1448-	CONROD	33370	3328	3362	2	1.2				
1449-	CONRCD	33371	3362	3348	2	1.0				
1450-	CONRCD	33372	3348	3344	2	1.0				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1451-	CONRCD	33373	3344	3336	2	5.0				
1452-	CONRCD	33374	3306	3344	2	1.0				
1453-	CONROD	33375	3312	3316	2	5.0				
1454-	CONROD	33401	3401	3406	2	1.0				
1455-	CONRCD	33406	3406	3408	2	5.0				
1456-	CONROD	33424	3424	3426	2	1.5				
1457-	CONRCD	33426	3426	3428	2	1.0				
1458-	CONROD	33428	3428	3430	2	1.0				
1459-	CONRCD	33430	3430	3432	2	1.0				
1460-	CONRCD	33452	3428	3462	2	1.0				
1461-	CONROD	33456	3406	3444	2	1.0				
1462-	CONRCD	33459	3450	3401	2	1.0				
1463-	CONROD	33461	3418	3461	2	10.0				
1464-	CONRCD	33462	3461	3462	2	7.0				
1465-	CONROD	33463	3462	3463	2	6.0				
1466-	CONRCD	33464	3463	3464	2	5.0				
1467-	CONRCD	33501	3501	3506	2	1.0				
1468-	CONRCD	33506	3506	3508	2	2.0				
1469-	CONRCD	33508	3508	3509	2	6.0				
1470-	CONROD	33509	3509	3510	2	7.0				
1471-	CONRCD	33510	3510	3512	2	9.0				
1472-	CONRCD	33512	3512	3514	2	10.0				
1473-	CONRCD	33514	3514	3516	2	12.2				
1474-	CONROD	33516	3516	3518	2	12.0				
1475-	CONRCD	33518	3518	3524	2	11.8				
1476-	CONRCD	33524	3524	3526	2	1.5				
1477-	CONRCD	33526	3526	3528	2	1.0				
1478-	CONRCD	33528	3528	3530	2	1.0				
1479-	CONROD	33530	3530	3532	2	1.0				
1480-	CONRCD	33550	3526	3561	2	1.2				
1481-	CONRCD	33551	3510	3561	2	1.2				
1482-	CONRCD	33552	3528	3562	2	1.0				
1483-	CONRCD	33553	3509	3562	2	1.0				
1484-	CONROD	33554	3530	3563	2	1.0				
1485-	CONRCD	33555	3508	3563	2	1.0				
1486-	CONRCD	33556	3506	3544	2	1.0				
1487-	CONRCD	33557	3532	3564	2	1.5				
1488-	CONRCD	33558	3564	3550	2	1.0				
1489-	CONROD	33559	3550	3501	2	1.5				
1490-	CONRCD	33560	3512	3561	2	1.0				
1491-	CONRCD	33561	3518	3561	2	10.0				
1492-	CONROD	33562	3561	3562	2	7.0				
1493-	CONRCD	33563	3562	3563	2	6.0				
1494-	CONROD	33564	3563	3564	2	5.0				
1495-	CONROD	33565	3508	3544	2	5.0				
1496-	CONRCD	33566	3544	3550	2	2.0				
1497-	CONRCD	33567	3516	3512	2	10.0				
1498-	CONRCD	33601	3601	3606	2	1.0				
1499-	CONROD	33606	3606	3608	2	5.0				
1500-	CONRCD	33624	3624	3626	2	1.5				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1501-	CONROD	33626	3626	3628	2	1.0				
1502-	CONROD	33628	3628	3630	2	1.0				
1503-	CONROD	33630	3630	3632	2	1.0				
1504-	CONROD	33652	3628	3662	2	1.0				
1505-	CONROD	33656	3606	3644	2	1.0				
1506-	CONROD	33659	3601	3650	2	1.0				
1507-	CONROD	33661	3618	3661	2	10.0				
1508-	CONROD	33662	3661	3662	2	7.0				
1509-	CONROD	33663	3662	3663	2	6.0				
1510-	CONROD	33664	3663	3664	2	5.0				
1511-	CONROD	33701	3701	3706	2	1.0				
1512-	CONROD	33706	3706	3708	2	2.0				
1513-	CONROD	33708	3708	3709	2	4.0				
1514-	CONROD	33709	3709	3710	2	5.0				
1515-	CONROD	33710	3710	3712	2	7.0				
1516-	CONROD	33712	3712	3714	2	10.0				
1517-	CONROD	33714	3714	3716	2	9.0				
1518-	CONROD	33716	3716	3718	2	9.0				
1519-	CONROD	33718	3718	3724	2	8.6				
1520-	CONROD	33724	3724	3725	2	1.5				
1521-	CONROD	33725	3725	3726	2	1.0				
1522-	CONROD	33726	3726	3728	2	1.5				
1523-	CONROD	33728	3728	3730	2	1.0				
1524-	CONROD	33730	3730	3732	2	1.0				
1525-	CONROD	33750	3725	3751	2	1.2				
1526-	CONROD	33751	3752	3751	2	1.2				
1527-	CONROD	33752	3726	3761	2	1.2				
1528-	CONROD	33753	3710	3761	2	2.0				
1529-	CONROD	33754	3728	3762	2	1.0				
1530-	CONROD	33755	3753	3762	2	1.0				
1531-	CONROD	33756	3709	3753	2	1.2				
1532-	CONROD	33757	3730	3763	2	1.2				
1533-	CONROD	33758	3757	3763	2	2.0				
1534-	CONROD	33759	3708	3757	2	1.2				
1535-	CONROD	33760	3718	3751	2	10.0				
1536-	CONROD	33761	3751	3761	2	8.0				
1537-	CONROD	33762	3761	3762	2	7.0				
1538-	CONROD	33763	3762	3763	2	6.0				
1539-	CONROD	33764	3763	3764	2	5.0				
1540-	CONROD	33765	3732	3764	2	2.0				
1541-	CONROD	33766	3764	3754	2	1.5				
1542-	CONROD	33767	3754	3750	2	1.5				
1543-	CONROD	33768	3750	3701	2	1.8				
1544-	CONROD	33769	3706	3744	2	1.0				
1545-	CONROD	33770	3716	3752	2	5.0				
1546-	CONROD	33771	3710	3753	2	1.0				
1547-	CONROD	33772	3753	3757	2	1.0				
1548-	CONROD	33773	3757	3754	2	1.0				
1549-	CONROD	33774	3744	3708	2	5.0				
1550-	CONROD	33775	3744	3750	2	2.0				

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1551-	CONRCD	33776	3712	3752	2	1.2				
1552-	CONRCD	33814	3814	3816	1	3.0				
1553-	CONROD	33816	3816	3818	1	3.0				
1554-	CONRCD	33818	3818	3824	1	3.0				
1555-	CONRCD	33824	3824	3825	1	4.7				
1556-	CONROD	33850	3825	3851	1	2.0				
1557-	CONRCD	33851	3851	3852	1	2.0				
1558-	CONROD	33852	3852	3812	1	2.0				
1559-	CONRCD	33906	3906	3909	1	2.2				
1560-	CONRCD	33914	3914	3916	1	2.8				
1561-	CONRCD	33916	3916	3918	1	2.8				
1562-	CONROD	33918	3918	3924	1	2.2				
1563-	CONROD	33924	3924	3925	1	2.7				
1564-	CONROD	33950	3925	3951	1	5.0				
1565-	CONRCD	33951	3951	3952	1	5.0				
1566-	CONROD	33952	3952	3912	1	3.4				
1567-	CONRCD	33953	3918	3951	1	2.0				
1568-	CONROD	33954	3916	3952	1	2.0				
1569-	CONRCD	33956	3953	3954	1	1.0				
1570-	CONRCD	33958	3944	3950	1	3.0				
1571-	CONRCD	33959	3953	3944	1	1.0				
1572-	CONRCD	34006	4006	4009	1	1.3				
1573-	CONROD	34009	4009	4012	1	.8				
1574-	CONRCD	34012	4012	4014	1	.8				
1575-	CONRCD	34014	4014	4016	1	1.0				
1576-	CONROD	34018	4018	4024	1	1.0				
1577-	CONRCD	34024	4024	4025	1	1.5				
1578-	CONROD	34053	4018	4051	1	1.0				
1579-	CONROD	34054	4016	4052	1	1.0				
1580-	CONRCD	34055	4009	4053	1	1.0				
1581-	CONROD	34056	4053	4054	1	1.0				
1582-	CONRCD	34058	4044	4050	1	2.0				
1583-	CONROD	34059	4053	4044	1	1.0				
1584-	CONRCD	34060	4052	4053	1	.2				
1585-	CONRCD	34106	4106	4109	1	2.2				
1586-	CONROD	34112	4112	4114	1	1.0				
1587-	CONRCD	34114	4114	4116	1	1.0				
1588-	CONROD	34118	4118	4124	1	1.0				
1589-	CONRCD	34124	4124	4125	1	1.5				
1590-	CONRCD	34153	4118	4151	1	1.5				
1591-	CONRCD	34154	4116	4152	1	1.2				
1592-	CONROD	34156	4153	4154	1	1.0				
1593-	CONROD	34158	4144	4150	1	1.2				
1594-	CONRCD	34159	4153	4144	1	1.0				
1595-	CONRCD	34212	4212	4214	1	1.0				
1596-	CONRCD	34213	4214	4215	1	.5				
1597-	CONRCD	34214	4214	4216	1	.5				
1598-	CONROD	34215	4215	4217	1	.5				
1599-	CONRCD	34217	4216	4217	1	.4				
1600-	CONRCD	34218	4218	4224	1	.5				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1601-	CONRCD	34224	4224	4225	1	1.0				
1602-	CONROD	34253	4218	4251	1	1.0				
1603-	CONRCD	34254	4216	4252	1	1.0				
1604-	CONRCD	34312	4312	4314	1	1.0				
1605-	CONROD	34313	4314	4315	1	1.0				
1606-	CONROD	34314	4314	4316	1	1.5				
1607-	CONRCD	34315	4315	4317	1	1.0				
1608-	CONRCD	34316	4316	4318	1	1.5				
1609-	CONRCD	34317	4316	4317	1	.5				
1610-	CONROD	34318	4318	4324	1	1.5				
1611-	CONRCD	34324	4324	4325	1	3.6				
1612-	CONRCD	34325	4325	4328	1	3.6				
1613-	CONRCD	34328	4328	4349	1	2.0				
1614-	CONRCD	34332	4328	4332	1	3.6				
1615-	CONROD	34348	4348	4344	1	2.0				
1616-	CONRCD	34349	4349	4348	1	2.0				
1617-	CONRCD	34350	4325	4351	1	1.0				
1618-	CONRCD	34351	4351	4352	1	1.0				
1619-	CONRCD	34352	4352	4312	1	1.0				
1620-	CONROD	34353	4318	4351	1	1.0				
1621-	CONRCD	34354	4316	4352	1	1.0				
1622-	CONRCD	34355	4351	4328	1	1.0				
1623-	CONRCD	34356	4352	4349	1	1.0				
1624-	CONRCD	34357	4349	4355	1	2.0				
1625-	CONROD	34358	4353	4349	1	1.0				
1626-	CONRCD	34359	4312	4353	1	.5				
1627-	CONRCD	34360	4353	4348	1	.5				
1628-	CONRCD	34361	4348	4354	1	1.0				
1629-	CONRCD	34362	4309	4353	1	1.0				
1630-	CONROD	34363	4309	4348	1	.5				
1631-	CONRCD	34365	4344	4350	1	1.5				
1632-	CONROD	34366	4332	4355	1	1.0				
1633-	CONRCD	34367	4355	4354	1	3.0				
1634-	CONRCD	34368	4354	4350	1	1.0				
1635-	CONROD	34369	4350	4336	1	1.5				
1636-	CONRCD	34419	4415	4424	1	.2				
1637-	CONRCD	34519	4515	4524	1	.2				
1638-	CONROD	34619	4615	4624	1	.2				
1639-	CONRCD	34701	4701	4706	1	1.9				
1640-	CONRCD	34706	4706	4709	1	3.0				
1641-	CONRCD	34709	4709	4714	1	5.0				
1642-	CONRCD	34714	4714	4716	1	2.0				
1643-	CONROD	34716	4716	4724	1	2.0				
1644-	CONRCD	34724	4724	4728	1	11.2				
1645-	CONRCD	34728	4728	4749	1	1.0				
1646-	CONRCD	34736	4736	4701	1	.6				
1647-	CONRCD	34744	4744	4736	1	.7				
1648-	CONROD	34748	4748	4744	1	1.0				
1649-	CONRCD	34749	4749	4748	1	1.0				
1650-	CONRCD	34750	4706	4744	1	1.0				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1651-	CONROD	34751	4709	4748	1	.5				
1652-	CONROD	34752	4714	4749	1	.5				
1653-	CONROD	34760	4714	4761	2	7.0				
1654-	CONROD	34761	4761	4762	2	7.0				
1655-	CONROD	34762	4762	4763	2	5.0				
1656-	CONROD	34763	4763	4764	2	2.0				
1657-	CONROD	34764	4764	4765	2	1.0				
1658-	CONROD	34765	4765	4766	2	2.0				
1659-	CONROD	34766	4766	4767	2	5.0				
1660-	CONROD	34767	4767	4768	2	7.0				
1661-	CONROD	34768	4768	4724	2	7.0				
1662-	CONROD	34769	4716	4761	2	.01				
1663-	CONROD	34770	4761	4768	2	1.0				
1664-	CONROD	34771	4762	4767	2	1.0				
1665-	CONROD	34772	4763	4766	2	1.0				
1666-	CONROD	35006	5006	5009	1	2.0				
1667-	CONROD	35009	5009	5014	1	2.0				
1668-	CONROD	35014	5014	5020	1	1.0				
1669-	CONROD	35020	5020	5024	1	1.0				
1670-	CONROD	35024	5024	5028	1	2.5				
1671-	CONROD	35028	5028	5049	1	2.0				
1672-	CONROD	35029	5028	5030	1	2.0				
1673-	CONROD	35030	5030	5032	1	2.0				
1674-	CONROD	35044	5044	5036	1	1.5				
1675-	CONROD	35048	5048	5044	1	2.0				
1676-	CONROD	35049	5049	5048	1	2.0				
1677-	CONROD	35051	5024	5014	1	4.0				
1678-	CONROD	35052	5014	5049	1	1.5				
1679-	CONROD	35053	5049	5051	1	2.0				
1680-	CONROD	35054	5051	5052	1	2.0				
1681-	CONROD	35055	5009	5048	1	1.0				
1682-	CONROD	35056	5048	5055	1	2.0				
1683-	CONROD	35057	5055	5056	1	2.0				
1684-	CONROD	35059	5044	5050	1	1.5				
1685-	CONROD	35061	5030	5051	1	1.0				
1686-	CONROD	35062	5051	5055	1	1.0				
1687-	CONROD	35063	5055	5044	1	1.0				
1688-	CONROD	35064	5032	5052	1	1.0				
1689-	CONROD	35065	5052	5056	1	1.0				
1690-	CONROD	35066	5056	5050	1	1.0				
1691-	CONROD	35151	5130	5144	1	3.0				
1692-	CONROD	35251	5230	5244	1	.3				
1693-	CONROD	35351	5330	5344	1	.3				
1694-	CONROD	35451	5430	5444	1	1.0				
1695-	CONROD	35551	5530	5544	1	1.3				
1696-	CONROD	35651	5630	5644	1	1.1				
1697-	CONROD	35901	5901	5902	2	.5				
1698-	CONROD	35902	5902	5903	1	1.0				
1699-	CONROD	35903	5903	5904	1	1.0				
1700-	CONROD	35904	5905	5904	1	1.0				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1701-	CONRCD	35905	5951	5905	1	1.0				
1702-	CONROD	35953	5904	5953	2	3.0				
1703-	CONRCD	35954	5904	5906	1	.5				
1704-	CONRCD	36001	6001	6002	1	6.0				
1705-	CONRCD	36002	6002	6003	1	1.0				
1706-	CONROD	36003	6003	6004	1	1.0				
1707-	CONROD	36004	6004	6005	1	1.0				
1708-	CONRCD	36005	6005	6051	1	1.0				
1709-	CONROD	36053	6004	6053	1	2.0				
1710-	CONROD	36101	6101	6102	2	9.5				
1711-	CONROD	36102	6102	6103	1	2.0				
1712-	CONROD	36103	6103	6104	1	2.0				
1713-	CONRCD	36104	6104	6105	1	2.0				
1714-	CONRCD	36105	6105	6151	1	2.0				
1715-	CONROD	36153	6104	6153	2	20.0				
1716-	CONROD	36202	6202	6203	3	11.0				
1717-	CONRCD	36203	6203	6204	3	9.0				
1718-	CONROD	36204	6204	6205	3	7.0				
1719-	CONRCD	36205	6205	6251	3	6.0				
1720-	CONRCD	36206	6206	6209	2	1.0				
1721-	CONROD	36209	6209	6214	2	1.0				
1722-	CONRCD	36214	6214	6220	2	1.0				
1723-	CONRCD	36220	6220	6224	2	1.0				
1724-	CONRCD	36224	6224	6228	2	1.0				
1725-	CONRCD	36228	6228	6232	2	1.0				
1726-	CONROD	36244	6244	6206	1	1.0				
1727-	CONRCD	36248	6248	6249	3	1.0				
1728-	CONRCD	36249	6249	6214	1	1.0				
1729-	CONRCD	36250	6250	6251	3	3.0				
1730-	CONRCD	36251	6251	6244	1	1.0				
1731-	CONROD	36252	6228	6249	1	1.5				
1732-	CONRCD	36253	6253	6204	3	3.0				
1733-	CONROD	36254	6249	6251	1	4.0				
1734-	CQDMEM2	101010	1050	1010	1054	1051	1016			
1735-	CQDMEM2	101030	1050	1030	1051	1052	1032			
1736-	CQDMEM2	101130	1060	1130	1151	1152	1132			
1737-	CQDMEM2	101151	1060	1151	1153	1154	1152			
1738-	CQDMEM2	101201	1060	1201	1254	1253	1210			
1739-	CQDMEM2	101216	1060	1216	1253	1351	1318			
1740-	CQDMEM2	101253	1060	1253	1254	1352	1351			
1741-	CQDMEM2	101630	1040	1630	1651	1652	1632			
1742-	CQDMEM2	101801	1040	1801	1858	1857	1802			
1743-	CQDMEM2	101808	1040	1808	1857	1856	1810			
1744-	CQDMEM2	101810	1040	1810	1856	1854	1816			
1745-	CQDMEM2	101816	1040	1816	1854	1851	1818			
1746-	CQDMEM2	101830	1040	1830	1851	1852	1832			
1747-	CQDMEM2	101851	1040	1851	1854	1855	1852			
1748-	CQDMEM2	101854	1040	1854	1856	1858	1855			
1749-	CQDMEM2	101908	1030	1908	1957	1954	1916			
1750-	CQDMEM2	101916	1030	1916	1954	1951	1918			

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1751-	CQDMEM2	102301	1050	2301	2336	2357	2302			
1752-	CQDMEM2	102308	1050	2308	2357	2354	2310			
1753-	CQDMEM2	102310	1050	2310	2354	2348	2316			
1754-	CQDMEM2	102316	1115	2316	2348	2350	2318			
1755-	CQDMEM2	102328	1180	2328	2350	2351	2330			
1756-	CQDMEM2	102330	1070	2330	2351	2352	2332			
1757-	CQDMEM2	102350	1100	2350	2348	2354	2351			
1758-	CQDMEM2	102351	1070	2351	2354	2355	2352			
1759-	CQDMEM2	102354	1070	2354	2344	2336	2355			
1760-	CQDMEM2	102516	1045	2516	2548	2528	2524			
1761-	CQDMEM2	102601	1080	2601	2636	2644	2606			
1762-	CQDMEM2	102701	1120	2701	2736	2744	2706			
1763-	CQDMEM2	102801	1050	2801	2836	2844	2806			
1764-	CQDMEM2	102806	1050	2806	2844	2848	2808			
1765-	CQDMEM2	102814	1050	2814	2848	2828	2824			
1766-	CQDMEM2	102816	1080	2816	2814	2824	2820			
1767-	CQDMEM2	102901	1160	2901	2936	2944	2906			
1768-	CQDMEM2	102914	1212	2914	2924	2922	2915			
1769-	CQDMEM2	103001	1080	3001	3036	3044	3006			
1770-	CQDMEM2	103015	1030	3015	3022	3020	3016			
1771-	CQDMEM2	103101	1120	3101	3136	3144	3106			
1772-	CQDMEM2	103114	1090	3114	3124	3122	3115			
1773-	CQDMEM2	103115	1090	3115	3122	3120	3116			
1774-	CQDMEM2	103201	1080	3201	3236	3244	3206			
1775-	CQDMEM2	103210	1040	3210	3226	3224	3214			
1776-	CQDMEM2	103301	2150	3301	3336	3344	3306			
1777-	CQDMEM2	103309	2282	3309	3348	3366	3310			
1778-	CQDMEM2	103310	2750	3310	3366	3316	3312			
1779-	CQDMEM2	103316	2450	3316	3366	3361	3318			
1780-	CQDMEM2	103318	2125	3318	3361	3326	3324			
1781-	CQDMEM2	103326	2140	3326	3361	3362	3328			
1782-	CQDMEM2	103328	2080	3328	3362	3363	3330			
1783-	CQDMEM2	103330	2070	3330	3363	3364	3332			
1784-	CQDMEM2	103348	2080	3348	3344	3350	3351			
1785-	CQDMEM2	103361	2282	3361	3366	3348	3362			
1786-	CQDMEM2	103363	2080	3363	3348	3351	3364			
1787-	CQDMEM2	103401	2040	3401	3450	3444	3406			
1788-	CQDMEM2	103418	2190	3418	3461	3426	3424			
1789-	CQDMEM2	103426	2120	3426	3461	3462	3428			
1790-	CQDMEM2	103428	2100	3428	3462	3463	3430			
1791-	CQDMEM2	103430	2040	3430	3463	3464	3432			
1792-	CQDMEM2	103501	2040	3501	3550	3544	3506			
1793-	CQDMEM2	103508	2140	3508	3563	3562	3509			
1794-	CQDMEM2	103509	2140	3509	3562	3561	3510			
1795-	CQDMEM2	103512	2108	3512	3561	3518	3516			
1796-	CQDMEM2	103518	2070	3518	3561	3526	3524			
1797-	CQDMEM2	103526	2040	3526	3561	3562	3528			
1798-	CQDMEM2	103528	2120	3528	3562	3563	3530			
1799-	CQDMEM2	103530	2060	3530	3563	3564	3532			
1800-	CQDMEM2	103550	2016	3550	3564	3563	3508			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
1801-	CQDMEM2	103601	2040	3601	3650	3644	3606			
1802-	CQDMEM2	103618	2080	3618	3661	3626	3624			
1803-	CQDMEM2	103626	2080	3626	3661	3662	3628			
1804-	CQDMEM2	103628	2040	3628	3662	3663	3630			
1805-	CQDMEM2	103630	2040	3630	3663	3664	3632			
1806-	CQDMEM2	103701	2070	3701	3750	3744	3706			
1807-	CQDMEM2	103708	2163	3708	3757	3753	3709			
1808-	CQDMEM2	103710	2284	3710	3761	3751	3712			
1809-	CQDMEM2	103714	2284	3714	3712	3752	3716			
1810-	CQDMEM2	103716	2284	3716	3752	3751	3718			
1811-	CQDMEM2	103718	2640	3724	3718	3751	3725			
1812-	CQDMEM2	103725	2160	3725	3751	3761	3726			
1813-	CQDMEM2	103726	2160	3726	3761	3762	3728			
1814-	CQDMEM2	103728	2170	3728	3762	3763	3738			
1815-	CQDMEM2	103730	2076	3730	3763	3764	3732			
1816-	CQDMEM2	103757	2190	3757	3708	3750	3754			
1817-	CQDMEM2	103761	2163	3761	3710	3753	3762			
1818-	CQDMEM2	103762	2163	3762	3753	3757	3763			
1819-	CQDMEM2	103763	2240	3763	3757	3754	3764			
1820-	CQDMEM2	103812	1240	3812	3852	3816	3814			
1821-	CQDMEM2	103816	1240	3816	3852	3851	3818			
1822-	CQDMEM2	103818	1240	3818	3851	3825	3824			
1823-	CQDMEM2	103906	1071	3906	3944	3953	3909			
1824-	CQDMEM2	103912	1188	3912	3952	3916	3914			
1825-	CQDMEM2	103916	1100	3916	3952	3951	3918			
1826-	CQDMEM2	103918	1228	3918	3951	3925	3924			
1827-	CQDMEM2	103953	1071	3953	3944	3950	3954			
1828-	CQDMEM2	104006	1063	4006	4044	4053	4009			
1829-	CQDMEM2	104009	1071	4009	4053	4052	4012			
1830-	CQDMEM2	104012	1135	4012	4052	4016	4014			
1831-	CQDMEM2	104018	1125	4018	4051	4025	4024			
1832-	CQDMEM2	104053	1063	4053	4044	4050	4054			
1833-	CQDMEM2	104106	1063	4106	4144	4153	4109			
1834-	CQDMEM2	104112	1233	4112	4152	4116	4114			
1835-	CQDMEM2	104118	1205	4118	4151	4125	4124			
1836-	CQDMEM2	104153	1063	4153	4144	4150	4154			
1837-	CQDMEM2	104212	1151	4212	4252	4216	4214			
1838-	CQDMEM2	104218	1151	4218	4251	4225	4224			
1839-	CQDMEM2	104312	1100	4312	4352	4316	4314			
1840-	CQDMEM2	104316	1100	4316	4352	4351	4318			
1841-	CQDMEM2	104318	1100	4318	4351	4325	4324			
1842-	CQDMEM2	104328	1100	4328	4349	4355	4332			
1843-	CQDMEM2	104344	1090	4348	4344	4350	4354			
1844-	CQDMEM2	104348	1090	4349	4348	4354	4355			
1845-	CQDMEM2	104351	1250	4351	4352	4349	4328			
1846-	CQDMEM2	104352	1063	4352	4312	4353	4349			
1847-	CQDMEM2	104701	1050	4701	4736	4744	4706			
1848-	CQDMEM2	104706	1140	4706	4744	4748	4709			
1849-	CQDMEM2	104709	1190	4709	4748	4749	4714			
1850-	CQDMEM2	104714	1240	4714	4749	4728	4724			

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
1851-	CQDMEM2	104716	2500	4716	4724	4768	4761			
1852-	CQDMEM2	104761	2600	4761	4768	4767	4762			
1853-	CQDMEM2	104762	2600	4762	4767	4766	4763			
1854-	CQDMEM2	104763	2600	4763	4766	4765	4764			
1855-	CQDMEM2	105006	1065	5006	5044	5048	5009			
1856-	CQDMEM2	105009	1065	5009	5048	5049	5014			
1857-	CQDMEM2	105014	1120	5014	5049	5028	5024			
1858-	CQDMEM2	105028	1070	5028	5049	5051	5030			
1859-	CQDMEM2	105030	1070	5030	5051	5052	5032			
1860-	CQDMEM2	105049	1070	5049	5048	5055	5051			
1861-	CQDMEM2	105051	1070	5051	5055	5056	5052			
1862-	CQDMEM2	105055	1065	5055	5044	5050	5056			
1863-	CQDMEM2	106209	2085	6209	6244	6249	6214			
1864-	CQDMEM2	106228	3100	6228	6249	6248	6232			
1865-	CQDMEM2	106248	3175	6248	6249	6251	6250			
1866-	CQDMEM2	106306	1050	6306	6354	6350	6344			
1867-	CQDMEM2	106309	1050	6309	6344	6355	6314			
1868-	CQUAD2	203315	21385	3315	3317	3419	3319			
1869-	CQUAD2	203319	21445	3319	3419	3322	3321			
1870-	CQUAD2	203320	21504	3322	3420	3421	3323			
1871-	CQUAD2	203321	21535	3321	3322	3333	3331			
1872-	CQUAD2	203322	21504	3322	3323	3433	3333			
1873-	CQUAD2	203331	21215	3331	3333	3335	3334			
1874-	CQUAD2	203333	21504	3333	3433	3435	3335			
1875-	CQUAD2	203334	21000	3334	3335	3338	3337			
1876-	CQUAD2	203335	21504	3335	3435	3437	3338			
1877-	CQUAD2	203337	21000	3337	3338	3340	3339			
1878-	CQUAD2	203338	21504	3338	3437	3439	3340			
1879-	CQUAD2	203339	21000	3339	3340	3342	3341			
1880-	CQUAD2	203340	21504	3340	3439	3441	3342			
1881-	CQUAD2	203365	21670	3365	3367	3469	3369			
1882-	CQUAD2	203369	21670	3369	3469	3372	3371			
1883-	CQUAD2	203370	21590	3372	3470	3471	3373			
1884-	CQUAD2	203371	21740	3371	3372	3383	3381			
1885-	CQUAD2	203372	22010	3372	3373	3483	3383			
1886-	CQUAD2	203381	21820	3381	3383	3385	3384			
1887-	CQUAD2	203383	22696	3383	3483	3485	3385			
1888-	CQUAD2	203384	21820	3384	3385	3388	3387			
1889-	CQUAD2	203385	22696	3385	3485	3487	3388			
1890-	CQUAD2	203387	21820	3387	3388	3390	3389			
1891-	CQUAD2	203388	22696	3388	3487	3489	3390			
1892-	CQUAD2	203389	21820	3389	3390	3392	3391			
1893-	CQUAD2	203390	22696	3390	3489	3491	3392			
1894-	CQUAD2	203415	21225	3415	3417	3420	3419			
1895-	CQUAD2	203417	21504	3417	3515	3519	3420			
1896-	CQUAD2	203421	22006	3421	3519	3521	3422			
1897-	CQUAD2	203422	22006	3323	3421	3422	3423			
1898-	CQUAD2	203423	22006	3323	3423	3434	3433			
1899-	CQUAD2	203433	22006	3433	3434	3436	3435			
1900-	CQUAD2	203435	22006	3435	3436	3438	3437			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
1901-	CQUAD2	203437	22006	3437	3438	3440	3439			
1902-	CQUAD2	203439	22006	3439	3440	3442	3441			
1903-	CQUAD2	203465	21520	3465	3467	3470	3469			
1904-	CQUAD2	203467	21715	3467	3565	3569	3478			
1905-	CQUAD2	203471	23235	3471	3569	3571	3472			
1906-	CQUAD2	203472	22370	3373	3471	3472	3473			
1907-	CQUAD2	203473	23460	3373	3473	3484	3483			
1908-	CQUAD2	203483	23596	3483	3484	3486	3485			
1909-	CQUAD2	203485	23596	3485	3486	3488	3487			
1910-	CQUAD2	203487	23596	3487	3488	3490	3489			
1911-	CQUAD2	203489	23596	3489	3490	3492	3491			
1912-	CQUAD2	203515	21504	3515	3517	3520	3519			
1913-	CQUAD2	203517	21504	3517	3615	3619	3528			
1914-	CQUAD2	203519	22006	3519	3520	3522	3521			
1915-	CQUAD2	203528	22006	3523	3522	3520	3619			
1916-	CQUAC2	203521	22006	3523	3619	3621	3622			
1917-	CQUAD2	203522	22006	3622	3621	3721	3623			
1918-	CQUAD2	203523	22006	3623	3721	3534	3533			
1919-	CQUAD2	203533	22006	3533	3534	3536	3535			
1920-	CQUAD2	203534	21705	3534	3633	3635	3536			
1921-	CQUAD2	203535	22006	3535	3536	3538	3537			
1922-	CQUAD2	203536	21504	3536	3635	3637	3538			
1923-	CQUAD2	203537	22006	3537	3538	3540	3539			
1924-	CQUAD2	203538	21504	3538	3637	3639	3540			
1925-	CQUAD2	203539	22006	3539	3540	3441	3442			
1926-	CQUAD2	203540	21504	3540	3639	3342	3441			
1927-	CQUAD2	203565	21745	3565	3567	3570	3569			
1928-	CQUAD2	203567	21520	3567	3665	3669	3570			
1929-	CQUAD2	203569	23145	3569	3570	3572	3571			
1930-	CQUAD2	203570	23145	3573	3572	3570	3669			
1931-	CQUAD2	203571	23235	3573	3669	3671	3672			
1932-	CQUAD2	203572	22370	3672	3671	3771	3673			
1933-	CQUAD2	203573	23460	3673	3771	3584	3583			
1934-	CQUAD2	203583	23596	3583	3584	3586	3585			
1935-	CQUAD2	203584	22696	3584	3683	3685	3586			
1936-	CQUAD2	203585	23596	3585	3586	3588	3587			
1937-	CQUAD2	203586	22696	3586	3685	3687	3588			
1938-	CQUAD2	203587	23596	3587	3588	3590	3589			
1939-	CQUAD2	203588	22696	3588	3687	3689	3590			
1940-	CQUAD2	203589	23596	3589	3590	3491	3492			
1941-	CQUAD2	203590	22696	3590	3689	3392	3491			
1942-	CQUAD2	203615	21504	3615	3617	3620	3619			
1943-	CQUAD2	203617	21504	3617	3715	3719	3620			
1944-	CQUAD2	203620	21300	3620	3719	3723	3722			
1945-	CQUAD2	203621	21504	3621	3620	3722	3721			
1946-	CQUAC2	203633	21000	3633	3634	3636	3635			
1947-	CQUAD2	203635	21000	3635	3636	3638	3637			
1948-	CQUAD2	203637	21000	3637	3638	3640	3639			
1949-	CQUAC2	203639	21000	3639	3640	3341	3342			
1950-	CQUAD2	203665	21520	3665	3667	3670	3669			

S O R T E D B U L K D A T A E C H O

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
1951-	CQUAD2	203667	21715	3667	3765	3769	3670			
1952-	CQUAD2	203670	21820	3670	3769	3773	3772			
1953-	CQUAD2	203671	21965	3671	3670	3772	3771			
1954-	CQUAD2	203683	21820	3683	3684	3686	3685			
1955-	CQUAD2	203685	21820	3685	3686	3688	3687			
1956-	CQUAD2	203687	21820	3687	3688	3690	3689			
1957-	CQUAD2	203689	21820	3689	3690	3391	3392			
1958-	CQUAD2	203721	21705	3721	3722	3633	3534			
1959-	CQUAD2	203722	21100	3722	3723	3634	3633			
1960-	CQUAD2	203771	22435	3771	3772	3683	3584			
1961-	CQUAD2	203772	21820	3772	3773	3684	3683			
1962-	CSHEAR	104215	1050	4215	4214	4216	4217			
1963-	CSHEAR	104315	1150	4315	4314	4316	4317			
1964-	CSHEAR	200901	4210	901	910	1010	1001			
1965-	CSHEAR	200910	4210	910	916	1016	1010			
1966-	CSHEAR	200916	4210	916	918	1018	1016			
1967-	CSHEAR	200918	4210	918	930	1030	1018			
1968-	CSHEAR	200930	4210	930	932	1032	1030			
1969-	CSHEAR	201001	1090	1001	1010	1110	1101			
1970-	CSHEAR	201010	1025	1010	1016	1116	1110			
1971-	CSHEAR	201016	1025	1016	1018	1118	1116			
1972-	CSHEAR	201018	1025	1018	1030	1130	1118			
1973-	CSHEAR	201030	1100	1030	1032	1132	1130			
1974-	CSHEAR	201101	1090	1101	1110	1210	1201			
1975-	CSHEAR	201110	1045	1110	1116	1216	1210			
1976-	CSHEAR	201116	1045	1116	1118	1318	1216			
1977-	CSHEAR	201118	1042	1118	1130	1330	1318			
1978-	CSHEAR	201201	1040	1201	1210	1302	1301			
1979-	CSHEAR	201210	1045	1210	1216	1316	1310			
1980-	CSHEAR	201301	1040	1301	1302	1402	1401			
1981-	CSHEAR	201302	1040	1302	1310	1410	1407			
1982-	CSHEAR	201310	1043	1310	1316	1416	1410			
1983-	CSHEAR	201316	1060	1316	1318	1418	1416			
1984-	CSHEAR	201318	1045	1318	1330	1430	1418			
1985-	CSHEAR	201401	1040	1401	1402	1502	1501			
1986-	CSHEAR	201402	1040	1402	1407	1507	1502			
1987-	CSHEAR	201407	1049	1407	1410	1510	1507			
1988-	CSHEAR	201410	1046	1410	1416	1516	1510			
1989-	CSHEAR	201416	1062	1416	1418	1518	1516			
1990-	CSHEAR	201418	1041	1418	1430	1530	1518			
1991-	CSHEAR	201501	1040	1501	1502	1602	1601			
1992-	CSHEAR	201502	1040	1502	1507	1607	1602			
1993-	CSHEAR	201507	1047	1507	1510	1610	1607			
1994-	CSHEAR	201510	1048	1510	1516	1616	1610			
1995-	CSHEAR	201516	1061	1516	1518	1618	1616			
1996-	CSHEAR	201518	1050	1518	1530	1630	1618			
1997-	CSHEAR	201530	1032	1530	1532	1632	1630			
1998-	CSHEAR	201601	1040	1601	1602	1702	1701			
1999-	CSHEAR	201602	1040	1602	1607	1707	1702			
2000-	CSHEAR	201607	1045	1607	1610	1710	1707			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2001-	CSHEAR	201610	1049	1610	1616	1716	1710			
2002-	CSHEAR	201618	1041	1618	1630	1830	1818			
2003-	CSHEAR	201701	1030	1701	1702	1802	1801			
2004-	CSHEAR	201702	1047	1702	1707	1806	1802			
2005-	CSHEAR	201707	1045	1707	1710	1810	1807			
2006-	CSHEAR	201710	1025	1710	1716	1816	1810			
2007-	CSHEAR	201716	1025	1716	1618	1818	1816			
2008-	CSHEAR	201801	1001	1801	1802	1902	1901			
2009-	CSHEAR	201802	1050	1802	1806	1906	1902			
2010-	CSHEAR	201806	1063	1806	1807	1907	1906			
2011-	CSHEAR	201807	1040	1807	1808	1908	1907			
2012-	CSHEAR	201810	1025	1810	1816	1916	1908			
2013-	CSHEAR	201816	1025	1816	1818	1918	1916			
2014-	CSHEAR	201818	1052	1818	1830	1930	1918			
2015-	CSHEAR	201830	1015	1830	1832	1932	1930			
2016-	CSHEAR	201901	1013	1901	1902	2002	2001			
2017-	CSHEAR	201902	1050	1902	1906	2006	2002			
2018-	CSHEAR	201906	1061	1906	1907	2007	2006			
2019-	CSHEAR	201907	1041	1907	1908	2008	2007			
2020-	CSHEAR	201908	1025	1908	1916	2016	2008			
2021-	CSHEAR	201916	1025	1916	1918	2018	2016			
2022-	CSHEAR	201918	1050	1918	1928	2028	2018			
2023-	CSHEAR	201928	1100	1928	1930	2030	2028			
2024-	CSHEAR	201930	1001	1930	1932	2032	2030			
2025-	CSHEAR	202001	1051	2001	2002	2102	2101			
2026-	CSHEAR	202002	1050	2002	2004	2104	2102			
2027-	CSHEAR	202004	1050	2004	2006	2106	2104			
2028-	CSHEAR	202006	1080	2006	2007	2107	2106			
2029-	CSHEAR	202007	1046	2007	2008	2108	2107			
2030-	CSHEAR	202008	1025	2008	2010	2110	2108			
2031-	CSHEAR	202010	1025	2010	2012	2112	2110			
2032-	CSHEAR	202012	1025	2012	2016	2116	2112			
2033-	CSHEAR	202016	1025	2016	2017	2117	2116			
2034-	CSHEAR	202017	1025	2017	2018	2118	2117			
2035-	CSHEAR	202018	1050	2018	2020	2120	2118			
2036-	CSHEAR	202020	1050	2020	2028	2128	2120			
2037-	CSHEAR	202028	1100	2028	2030	2130	2128			
2038-	CSHEAR	202030	1001	2030	2032	2132	2130			
2039-	CSHEAR	202101	1051	2101	2102	2202	2201			
2040-	CSHEAR	202102	1050	2102	2104	2204	2202			
2041-	CSHEAR	202104	1050	2104	2106	2206	2204			
2042-	CSHEAR	202106	1080	2106	2107	2207	2206			
2043-	CSHEAR	202107	1046	2107	2108	2208	2207			
2044-	CSHEAR	202108	1025	2108	2110	2210	2208			
2045-	CSHEAR	202110	1025	2110	2112	2212	2210			
2046-	CSHEAR	202112	1025	2112	2116	2216	2212			
2047-	CSHEAR	202116	1025	2116	2117	2217	2216			
2048-	CSHEAR	202117	1025	2117	2118	2218	2217			
2049-	CSHEAR	202118	1050	2118	2120	2220	2218			
2050-	CSHEAR	202120	1050	2120	2128	2228	2220			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2051-	CSHEAR	202128	1100	2128	2130	2230	2228			
2052-	CSHEAR	202130	1001	2130	2132	2232	2230			
2053-	CSHEAR	202201	1051	2201	2202	2302	2301			
2054-	CSHEAR	202202	1050	2202	2206	2306	2302			
2055-	CSHEAR	202206	1065	2206	2207	2307	2306			
2056-	CSHEAR	202207	1046	2207	2208	2308	2307			
2057-	CSHEAR	202208	1025	2208	2210	2310	2308			
2058-	CSHEAR	202210	1025	2210	2216	2316	2310			
2059-	CSHEAR	202216	1025	2216	2218	2318	2316			
2060-	CSHEAR	202218	1050	2218	2220	2320	2318			
2061-	CSHEAR	202220	1050	2220	2228	2328	2320			
2062-	CSHEAR	202228	1100	2228	2230	2330	2328			
2063-	CSHEAR	202230	1001	2230	2232	2332	2330			
2064-	CSHEAR	202301	1053	2301	2306	2406	2401			
2065-	CSHEAR	202306	1065	2306	2308	2408	2406			
2066-	CSHEAR	202308	1061	2308	2316	2416	2408			
2067-	CSHEAR	202316	1060	2316	2320	2420	2416			
2068-	CSHEAR	202320	1064	2320	2328	2428	2420			
2069-	CSHEAR	202401	1053	2401	2406	2506	2501			
2070-	CSHEAR	202406	1050	2406	2408	2508	2506			
2071-	CSHEAR	202408	1055	2408	2416	2516	2508			
2072-	CSHEAR	202416	1054	2416	2420	2520	2516			
2073-	CSHEAR	202420	1063	2420	2428	2524	2520			
2074-	CSHEAR	202501	1053	2501	2506	2606	2601			
2075-	CSHEAR	202506	1050	2506	2508	2608	2606			
2076-	CSHEAR	202508	1057	2508	2516	2616	2608			
2077-	CSHEAR	202516	1065	2516	2520	2620	2616			
2078-	CSHEAR	202520	1065	2520	2524	2624	2620			
2079-	CSHEAR	202524	1065	2524	2528	2628	2624			
2080-	CSHEAR	202601	1053	2601	2606	2706	2701			
2081-	CSHEAR	202606	1077	2606	2608	2708	2706			
2082-	CSHEAR	202608	1057	2608	2616	2716	2708			
2083-	CSHEAR	202616	1050	2616	2620	2720	2716			
2084-	CSHEAR	202620	1070	2620	2624	2724	2720			
2085-	CSHEAR	202624	1054	2624	2628	2728	2724			
2086-	CSHEAR	202701	1053	2701	2706	2806	2801			
2087-	CSHEAR	202706	1125	2706	2708	2808	2806			
2088-	CSHEAR	202708	1057	2708	2714	2814	2808			
2089-	CSHEAR	202714	1057	2714	2716	2816	2814			
2090-	CSHEAR	202716	1057	2716	2720	2820	2816			
2091-	CSHEAR	202720	1054	2720	2724	2824	2820			
2092-	CSHEAR	202724	1054	2724	2728	2828	2824			
2093-	CSHEAR	202801	1049	2801	2806	2906	2901			
2094-	CSHEAR	202806	1050	2806	2808	2908	2906			
2095-	CSHEAR	202808	1050	2808	2814	2914	2908			
2096-	CSHEAR	202814	1061	2814	2816	2916	2915			
2097-	CSHEAR	202816	1040	2816	2820	2920	2916			
2098-	CSHEAR	202820	1066	2820	2824	2922	2920			
2099-	CSHEAR	202824	1061	2824	2828	2928	2924			
2100-	CSHEAR	202901	1049	2901	2906	3006	3001			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2101-	CSHEAR	202906	1056	2906	2908	3008	3006			
2102-	CSHEAR	202908	1054	2908	2914	3014	3008			
2103-	CSHEAR	202914	1054	2914	2915	3015	3014			
2104-	CSHEAR	202915	1061	2915	2916	3016	3015			
2105-	CSHEAR	202916	1040	2916	2920	3020	3016			
2106-	CSHEAR	202920	1052	2920	2922	3022	3020			
2107-	CSHEAR	202922	1061	2922	2924	3024	3022			
2108-	CSHEAR	202924	1061	2924	2928	3028	3024			
2109-	CSHEAR	203001	1058	3001	3006	3106	3101			
2110-	CSHEAR	203006	1062	3006	3008	3108	3106			
2111-	CSHEAR	203008	1062	3008	3014	3114	3108			
2112-	CSHEAR	203014	1065	3014	3015	3115	3114			
2113-	CSHEAR	203015	1061	3015	3016	3116	3115			
2114-	CSHEAR	203016	1040	3016	3020	3120	3116			
2115-	CSHEAR	203020	1060	3020	3022	3122	3120			
2116-	CSHEAR	203022	1061	3022	3024	3124	3122			
2117-	CSHEAR	203024	1061	3024	3028	3128	3124			
2118-	CSHEAR	203101	1070	3101	3106	3206	3201			
2119-	CSHEAR	203106	1085	3106	3108	3208	3206			
2120-	CSHEAR	203108	1085	3108	3114	3214	3208			
2121-	CSHEAR	203114	1060	3114	3124	3224	3214			
2122-	CSHEAR	203124	1071	3124	3128	3228	3224			
2123-	CSHEAR	203201	1033	3201	3206	3306	3301			
2124-	CSHEAR	203206	1110	3206	3208	3308	3306			
2125-	CSHEAR	203208	1110	3208	3210	3310	3308			
2126-	CSHEAR	203210	1110	3210	3214	3314	3310			
2127-	CSHEAR	203214	1130	3214	3224	3324	3314			
2128-	CSHEAR	203224	1062	3224	3226	3326	3324			
2129-	CSHEAR	203226	1073	3226	3228	3328	3326			
2130-	CSHEAR	203301	2001	3301	3306	3406	3401			
2131-	CSHEAR	203306	2058	3306	3308	3408	3406			
2132-	CSHEAR	203308	2261	3308	3309	3409	3408			
2133-	CSHEAR	203309	2261	3309	3310	3410	3409			
2134-	CSHEAR	203310	2315	3310	3312	3412	3410			
2135-	CSHEAR	203312	2711	3312	3314	3414	3412			
2136-	CSHEAR	203314	2600	3314	3316	3416	3414			
2137-	CSHEAR	203316	2600	3316	3318	3418	3416			
2138-	CSHEAR	203318	2600	3318	3324	3424	3418			
2139-	CSHEAR	203324	4060	3324	3326	3426	3424			
2140-	CSHEAR	203326	4060	3326	3328	3428	3426			
2141-	CSHEAR	203328	4060	3328	3330	3430	3428			
2142-	CSHEAR	203330	4060	3330	3332	3432	3430			
2143-	CSHEAR	203401	2001	3401	3406	3506	3501			
2144-	CSHEAR	203406	2058	3406	3408	3508	3506			
2145-	CSHEAR	203408	2261	3408	3409	3509	3508			
2146-	CSHEAR	203409	2261	3409	3410	3510	3509			
2147-	CSHEAR	203410	2315	3410	3412	3512	3510			
2148-	CSHEAR	203412	2711	3412	3414	3514	3512			
2149-	CSHEAR	203414	2600	3414	3416	3516	3514			
2150-	CSHEAR	203416	2600	3416	3418	3518	3516			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2151-	CSHEAR	203418	2608	3418	3424	3524	3518			
2152-	CSHEAR	203424	4060	3424	3426	3526	3524			
2153-	CSHEAR	203426	4060	3426	3428	3528	3526			
2154-	CSHEAR	203428	4060	3428	3430	3530	3528			
2155-	CSHEAR	203430	4060	3430	3432	3532	3530			
2156-	CSHEAR	203501	2001	3501	3506	3606	3601			
2157-	CSHEAR	203506	2058	3506	3508	3608	3606			
2158-	CSHEAR	203508	2245	3508	3509	3609	3608			
2159-	CSHEAR	203509	2262	3509	3510	3610	3609			
2160-	CSHEAR	203510	2319	3510	3512	3612	3610			
2161-	CSHEAR	203512	2768	3512	3514	3614	3612			
2162-	CSHEAR	203514	2450	3514	3516	3616	3614			
2163-	CSHEAR	203516	2450	3516	3518	3618	3616			
2164-	CSHEAR	203518	2450	3518	3524	3624	3618			
2165-	CSHEAR	203524	4060	3524	3526	3626	3624			
2166-	CSHEAR	203526	4060	3526	3528	3628	3626			
2167-	CSHEAR	203528	4060	3528	3530	3630	3628			
2168-	CSHEAR	203530	4060	3530	3532	3632	3630			
2169-	CSHEAR	203601	2001	3601	3606	3706	3701			
2170-	CSHEAR	203606	2058	3606	3608	3708	3706			
2171-	CSHEAR	203608	2245	3608	3609	3709	3708			
2172-	CSHEAR	203609	2262	3609	3610	3710	3709			
2173-	CSHEAR	203610	2319	3610	3612	3712	3710			
2174-	CSHEAR	203612	2768	3612	3614	3714	3712			
2175-	CSHEAR	203614	2450	3614	3616	3716	3714			
2176-	CSHEAR	203616	2450	3616	3618	3718	3716			
2177-	CSHEAR	203618	2450	3618	3624	3724	3718			
2178-	CSHEAR	203624	4060	3624	3626	3726	3724			
2179-	CSHEAR	203626	4060	3626	3628	3728	3726			
2180-	CSHEAR	203628	4060	3628	3630	3730	3728			
2181-	CSHEAR	203630	4060	3630	3632	3732	3730			
2182-	CSHEAR	203701	1001	3701	3706	3806	3801			
2183-	CSHEAR	203706	1100	3706	3709	3809	3806			
2184-	CSHEAR	203709	1090	3709	3712	3812	3809			
2185-	CSHEAR	203712	2132	3712	3714	3814	3812			
2186-	CSHEAR	203714	2270	3714	3716	3816	3814			
2187-	CSHEAR	203716	2270	3716	3718	3818	3816			
2188-	CSHEAR	203718	3250	3718	3724	3824	3818			
2189-	CSHEAR	203724	1217	3724	3725	3825	3824			
2190-	CSHEAR	203801	1001	3801	3806	3906	3901			
2191-	CSHEAR	203806	1100	3806	3809	3909	3906			
2192-	CSHEAR	203809	1090	3809	3812	3912	3909			
2193-	CSHEAR	203812	2077	3812	3814	3914	3912			
2194-	CSHEAR	203814	2225	3814	3816	3916	3914			
2195-	CSHEAR	203816	2225	3816	3818	3918	3916			
2196-	CSHEAR	203818	3250	3818	3824	3924	3918			
2197-	CSHEAR	203824	1150	3824	3825	3925	3924			
2198-	CSHEAR	203901	1071	3901	3906	4006	4001			
2199-	CSHEAR	203906	1100	3906	3909	4009	4006			
2200-	CSHEAR	203909	1090	3909	3912	4012	4009			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2201-	CSHEAR	203912	1072	3912	3914	4014	4012			
2202-	CSHEAR	203914	1233	3914	3916	4016	4014			
2203-	CSHEAR	203918	1179	3918	3924	4024	4018			
2204-	CSHEAR	203924	1125	3924	3925	4025	4024			
2205-	CSHEAR	204001	1071	4001	4006	4106	4101			
2206-	CSHEAR	204006	1100	4006	4009	4109	4106			
2207-	CSHEAR	204009	1090	4009	4012	4112	4109			
2208-	CSHEAR	204012	1072	4012	4014	4114	4112			
2209-	CSHEAR	204014	1146	4014	4016	4116	4114			
2210-	CSHEAR	204018	1163	4018	4024	4124	4118			
2211-	CSHEAR	204024	1100	4024	4025	4125	4124			
2212-	CSHEAR	204101	1071	4101	4106	4206	4201			
2213-	CSHEAR	204106	1100	4106	4109	4209	4206			
2214-	CSHEAR	204109	1090	4109	4112	4212	4209			
2215-	CSHEAR	204112	1086	4112	4114	4214	4212			
2216-	CSHEAR	204114	1180	4114	4116	4216	4214			
2217-	CSHEAR	204118	1170	4118	4124	4224	4218			
2218-	CSHEAR	204124	1100	4124	4125	4225	4224			
2219-	CSHEAR	204201	1071	4201	4206	4306	4301			
2220-	CSHEAR	204206	1100	4206	4209	4309	4306			
2221-	CSHEAR	204209	1090	4209	4212	4312	4309			
2222-	CSHEAR	204212	1125	4212	4214	4314	4312			
2223-	CSHEAR	204214	1202	4214	4216	4316	4314			
2224-	CSHEAR	204218	1180	4218	4224	4324	4318			
2225-	CSHEAR	204224	1100	4224	4225	4325	4324			
2226-	CSHEAR	204301	1090	4301	4306	4406	4401			
2227-	CSHEAR	204306	1110	4306	4309	4409	4406			
2228-	CSHEAR	204309	1122	4309	4314	4414	4409			
2229-	CSHEAR	204314	1184	4314	4316	4416	4414			
2230-	CSHEAR	204316	1292	4316	4318	4418	4416			
2231-	CSHEAR	204318	1184	4318	4324	4424	4418			
2232-	CSHEAR	204324	2109	4324	4325	4425	4424			
2233-	CSHEAR	204325	2170	4325	4328	4428	4425			
2234-	CSHEAR	204401	1088	4401	4406	4506	4501			
2235-	CSHEAR	204406	1122	4406	4409	4509	4506			
2236-	CSHEAR	204409	1187	4409	4414	4514	4509			
2237-	CSHEAR	204414	1187	4414	4416	4516	4514			
2238-	CSHEAR	204416	1187	4416	4424	4524	4516			
2239-	CSHEAR	204424	2109	4424	4428	4528	4524			
2240-	CSHEAR	204501	1093	4501	4506	4606	4601			
2241-	CSHEAR	204506	1130	4506	4509	4609	4606			
2242-	CSHEAR	204509	1183	4509	4514	4614	4609			
2243-	CSHEAR	204514	1163	4514	4516	4616	4614			
2244-	CSHEAR	204516	1163	4516	4524	4624	4616			
2245-	CSHEAR	204524	2170	4524	4528	4628	4624			
2246-	CSHEAR	204601	1082	4601	4606	4706	4701			
2247-	CSHEAR	204606	1096	4606	4609	4709	4706			
2248-	CSHEAR	204609	1131	4609	4614	4714	4709			
2249-	CSHEAR	204614	1126	4614	4616	4716	4714			
2250-	CSHEAR	204616	1126	4616	4624	4724	4716			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2251-	CSHEAR	204624	2096	4624	4628	4728	4724			
2252-	CSHEAR	204701	1080	4701	4706	4806	4801			
2253-	CSHEAR	204706	1090	4706	4709	4809	4806			
2254-	CSHEAR	204709	1090	4709	4714	4814	4809			
2255-	CSHEAR	204714	1090	4714	4716	4816	4814			
2256-	CSHEAR	204716	1090	4716	4724	4824	4816			
2257-	CSHEAR	204724	2105	4724	4728	4828	4824			
2258-	CSHEAR	204801	1081	4801	4806	4906	4901			
2259-	CSHEAR	204806	1090	4806	4809	4909	4906			
2260-	CSHEAR	204809	1090	4809	4814	4914	4909			
2261-	CSHEAR	204814	1090	4814	4816	4916	4914			
2262-	CSHEAR	204816	1090	4816	4824	4924	4916			
2263-	CSHEAR	204824	2124	4824	4828	4928	4924			
2264-	CSHEAR	204901	1084	4901	4906	5006	5001			
2265-	CSHEAR	204906	1090	4906	4909	5009	5006			
2266-	CSHEAR	204909	1090	4909	4914	5014	5009			
2267-	CSHEAR	204914	1090	4914	4916	5020	5014			
2268-	CSHEAR	204916	1090	4916	4924	5024	5020			
2269-	CSHEAR	204924	2140	4924	4928	5028	5024			
2270-	CSHEAR	205001	3115	5001	5004	5104	5101			
2271-	CSHEAR	205004	1119	5004	5006	5106	5104			
2272-	CSHEAR	205006	2054	5006	5009	5109	5106			
2273-	CSHEAR	205009	2054	5009	5014	5114	5109			
2274-	CSHEAR	205014	2059	5014	5020	5120	5114			
2275-	CSHEAR	205020	2053	5020	5024	5124	5120			
2276-	CSHEAR	205024	2046	5024	5028	5128	5124			
2277-	CSHEAR	205028	2061	5028	5030	5130	5128			
2278-	CSHEAR	205030	2061	5030	5032	5132	5130			
2279-	CSHEAR	205101	3115	5101	5104	5204	5201			
2280-	CSHEAR	205104	1119	5104	5105	5205	5204			
2281-	CSHEAR	205105	1119	5105	5106	5206	5205			
2282-	CSHEAR	205106	2054	5106	5108	5208	5206			
2283-	CSHEAR	205108	2054	5108	5109	5209	5208			
2284-	CSHEAR	205109	2054	5109	5112	5212	5209			
2285-	CSHEAR	205112	2054	5112	5114	5214	5212			
2286-	CSHEAR	205114	2059	5114	5116	5216	5214			
2287-	CSHEAR	205116	2059	5116	5120	5220	5216			
2288-	CSHEAR	205120	2053	5120	5124	5224	5220			
2289-	CSHEAR	205124	2046	5124	5128	5228	5224			
2290-	CSHEAR	205128	2061	5128	5129	5229	5228			
2291-	CSHEAR	205129	2061	5129	5130	5230	5229			
2292-	CSHEAR	205130	2061	5130	5131	5231	5230			
2293-	CSHEAR	205131	2061	5131	5132	5232	5231			
2294-	CSHEAR	205201	3115	5201	5204	5304	5301			
2295-	CSHEAR	205204	1119	5204	5205	5305	5304			
2296-	CSHEAR	205205	1119	5205	5206	5306	5305			
2297-	CSHEAR	205206	2054	5206	5208	5308	5306			
2298-	CSHEAR	205208	2054	5208	5209	5309	5308			
2299-	CSHEAR	205209	2054	5209	5212	5312	5309			
2300-	CSHEAR	205212	2054	5212	5214	5314	5312			

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10. .
2301-	CSHEAR	205214	2059	5214	5216	5316	5314			
2302-	CSHEAR	205216	2059	5216	5220	5320	5316			
2303-	CSHEAR	205220	2053	5220	5224	5324	5320			
2304-	CSHEAR	205224	2046	5224	5228	5328	5324			
2305-	CSHEAR	205228	2061	5228	5229	5329	5328			
2306-	CSHEAR	205229	2061	5229	5230	5330	5329			
2307-	CSHEAR	205230	2061	5230	5231	5331	5330			
2308-	CSHEAR	205231	2061	5231	5232	5332	5331			
2309-	CSHEAR	205301	3115	5301	5304	5404	5402			
2310-	CSHEAR	205304	1075	5304	5306	5406	5404			
2311-	CSHEAR	205306	2051	5306	5309	5409	5406			
2312-	CSHEAR	205309	2051	5309	5314	5414	5409			
2313-	CSHEAR	205314	2046	5314	5320	5420	5414			
2314-	CSHEAR	205320	2050	5320	5324	5424	5420			
2315-	CSHEAR	205324	2046	5324	5328	5428	5424			
2316-	CSHEAR	205328	2052	5328	5330	5430	5428			
2317-	CSHEAR	205330	2052	5330	5332	5432	5430			
2318-	CSHEAR	205401	3115	5401	5402	5502	5501			
2319-	CSHEAR	205402	1060	5402	5404	5504	5502			
2320-	CSHEAR	205404	1069	5404	5406	5506	5504			
2321-	CSHEAR	205406	2050	5406	5409	5509	5506			
2322-	CSHEAR	205409	2050	5409	5414	5514	5509			
2323-	CSHEAR	205414	2047	5414	5420	5520	5514			
2324-	CSHEAR	205420	2048	5420	5424	5524	5520			
2325-	CSHEAR	205424	2047	5424	5428	5528	5524			
2326-	CSHEAR	205428	2051	5428	5430	5530	5528			
2327-	CSHEAR	205430	2051	5430	5432	5532	5530			
2328-	CSHEAR	205501	3115	5501	5502	5602	5601			
2329-	CSHEAR	205502	1059	5502	5504	5604	5602			
2330-	CSHEAR	205504	1065	5504	5506	5606	5604			
2331-	CSHEAR	205506	2051	5506	5509	5609	5606			
2332-	CSHEAR	205509	2051	5509	5514	5614	5609			
2333-	CSHEAR	205514	2049	5514	5520	5620	5614			
2334-	CSHEAR	205520	2049	5520	5524	5624	5620			
2335-	CSHEAR	205524	2049	5524	5528	5628	5624			
2336-	CSHEAR	205528	2051	5528	5530	5630	5628			
2337-	CSHEAR	205530	2051	5530	5532	5632	5630			
2338-	CSHEAR	205601	3115	5601	5602	5702	5701			
2339-	CSHEAR	205602	1061	5602	5604	5704	5702			
2340-	CSHEAR	205604	1058	5604	5606	5706	5704			
2341-	CSHEAR	205606	2050	5606	5609	5709	5706			
2342-	CSHEAR	205609	2050	5609	5614	5714	5709			
2343-	CSHEAR	205614	2047	5614	5620	5720	5714			
2344-	CSHEAR	205620	2047	5620	5624	5724	5720			
2345-	CSHEAR	205624	2047	5624	5628	5728	5724			
2346-	CSHEAR	205628	2052	5628	5632	5732	5728			
2347-	CSHEAR	205701	3115	5701	5702	5802	5801			
2348-	CSHEAR	205702	1065	5702	5704	5804	5802			
2349-	CSHEAR	205704	1060	5704	5706	5806	5804			
2350-	CSHEAR	205706	2051	5706	5709	5809	5806			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2351-	CSHEAR	205709	2051	5709	5714	5814	5809			
2352-	CSHEAR	205714	2047	5714	5720	5820	5814			
2353-	CSHEAR	205720	2047	5720	5724	5824	5820			
2354-	CSHEAR	205724	2047	5724	5728	5828	5824			
2355-	CSHEAR	205728	2052	5728	5732	5832	5828			
2356-	CSHEAR	205801	3115	5801	5802	5902	5901			
2357-	CSHEAR	205802	1064	5802	5804	5904	5902			
2358-	CSHEAR	205804	1062	5804	5806	5906	5904			
2359-	CSHEAR	205806	2050	5806	5809	5909	5906			
2360-	CSHEAR	205809	2050	5809	5814	5914	5909			
2361-	CSHEAR	205814	2047	5814	5820	5920	5914			
2362-	CSHEAR	205820	2058	5820	5824	5924	5920			
2363-	CSHEAR	205824	2047	5824	5828	5928	5924			
2364-	CSHEAR	205828	2050	5828	5832	5932	5928			
2365-	CSHEAR	205901	1278	5901	5902	6002	6001			
2366-	CSHEAR	205902	1100	5902	5903	6003	6002			
2367-	CSHEAR	205903	1120	5903	5904	6004	6003			
2368-	CSHEAR	205904	1110	5904	5905	6005	6004			
2369-	CSHEAR	205905	1110	5905	5951	6051	6005			
2370-	CSHEAR	205906	2050	5906	5909	6009	6006			
2371-	CSHEAR	205909	2050	5909	5914	6014	6009			
2372-	CSHEAR	205914	2048	5914	5920	6020	6014			
2373-	CSHEAR	205920	2065	5920	5924	6024	6020			
2374-	CSHEAR	205924	2047	5924	5928	6028	6024			
2375-	CSHEAR	205928	2048	5928	5932	6032	6028			
2376-	CSHEAR	206001	1250	6001	6002	6102	6101			
2377-	CSHEAR	206002	1150	6002	6003	6103	6102			
2378-	CSHEAR	206003	1160	6003	6004	6104	6103			
2379-	CSHEAR	206004	1135	6004	6005	6105	6104			
2380-	CSHEAR	206005	1135	6005	6051	6151	6105			
2381-	CSHEAR	206006	2051	6006	6009	6109	6106			
2382-	CSHEAR	206009	2049	6009	6014	6114	6109			
2383-	CSHEAR	206014	2050	6014	6020	6120	6114			
2384-	CSHEAR	206020	2067	6020	6024	6124	6120			
2385-	CSHEAR	206024	2046	6024	6028	6128	6124			
2386-	CSHEAR	206028	2049	6028	6032	6132	6128			
2387-	CSHEAR	206101	1250	6101	6102	6202	6201			
2388-	CSHEAR	206102	1230	6102	6103	6203	6202			
2389-	CSHEAR	206103	1230	6103	6104	6204	6203			
2390-	CSHEAR	206104	1180	6104	6105	6205	6204			
2391-	CSHEAR	206105	1180	6105	6151	6251	6205			
2392-	CSHEAR	206106	2050	6106	6109	6209	6206			
2393-	CSHEAR	206109	2049	6109	6114	6214	6209			
2394-	CSHEAR	206114	2050	6114	6120	6220	6214			
2395-	CSHEAR	206120	2067	6120	6124	6224	6220			
2396-	CSHEAR	206124	2053	6124	6128	6228	6224			
2397-	CSHEAR	206128	2049	6128	6132	6232	6228			
2398-	CSHEAR	206206	1055	6206	6209	6309	6306			
2399-	CSHEAR	206209	1071	6209	6214	6314	6309			
2400-	CSHEAR	206214	1071	6214	6224	6324	6314			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2401-	CSHEAR	206224	1055	6224	6232	6332	6324			
2402-	CSHEAR	206306	1051	6306	6309	6409	6406			
2403-	CSHEAR	206309	1051	6309	6314	6414	6409			
2404-	CSHEAR	206314	1051	6314	6324	6424	6414			
2405-	CSHEAR	206324	1051	6324	6332	6432	6424			
2406-	CSHEAR	206354	1051	6354	6306	6406	6454			
2407-	CSHEAR	401018	1030	1018	1051	1151	1118			
2408-	CSHEAR	401032	1032	1032	1132	1152	1052			
2409-	CSHEAR	401051	1030	1051	1052	1152	1151			
2410-	CSHEAR	401052	1030	1052	1152	1154	1054			
2411-	CSHEAR	401054	1030	1054	1154	1101	1001			
2412-	CSHEAR	401118	1040	1118	1151	1351	1318			
2413-	CSHEAR	401130	1055	1130	1330	1351	1151			
2414-	CSHEAR	401151	1040	1151	1351	1353	1153			
2415-	CSHEAR	401153	1040	1153	1154	1354	1353			
2416-	CSHEAR	401216	1030	1216	1253	1353	1316			
2417-	CSHEAR	401253	1030	1253	1254	1354	1353			
2418-	CSHEAR	401316	1024	1316	1353	1453	1416			
2419-	CSHEAR	401318	1070	1318	1351	1451	1418			
2420-	CSHEAR	401330	1030	1330	1430	1451	1351			
2421-	CSHEAR	401351	1040	1351	1352	1452	1451			
2422-	CSHEAR	401353	1024	1353	1354	1454	1453			
2423-	CSHEAR	401418	1077	1418	1451	1551	1518			
2424-	CSHEAR	401430	1053	1430	1530	1551	1451			
2425-	CSHEAR	401451	1040	1451	1452	1552	1551			
2426-	CSHEAR	401518	1090	1518	1551	1651	1618			
2427-	CSHEAR	401530	1080	1530	1630	1651	1551			
2428-	CSHEAR	401551	1040	1551	1552	1652	1651			
2429-	CSHEAR	401618	1056	1618	1651	1851	1818			
2430-	CSHEAR	401630	1030	1630	1830	1851	1651			
2431-	CSHEAR	401710	1080	1710	1756	1856	1810			
2432-	CSHEAR	401751	1040	1756	1651	1851	1856			
2433-	CSHEAR	401756	1080	1758	1858	1856	1756			
2434-	CSHEAR	401808	1040	1808	1857	1957	1908			
2435-	CSHEAR	401818	1040	1818	1851	1951	1918			
2436-	CSHEAR	401830	1030	1830	1930	1951	1851			
2437-	CSHEAR	401851	1040	1851	1951	1954	1854			
2438-	CSHEAR	401854	1040	1854	1954	1957	1857			
2439-	CSHEAR	401855	1040	1854	1855	1955	1954			
2440-	CSHEAR	401908	1140	1908	1957	2057	2008			
2441-	CSHEAR	401918	1040	1918	1951	2051	2018			
2442-	CSHEAR	401930	1030	1930	2030	2051	1951			
2443-	CSHEAR	401951	1040	1951	2051	2054	1954			
2444-	CSHEAR	401954	1040	1954	2054	2057	1957			
2445-	CSHEAR	401955	1040	1955	2055	2054	1954			
2446-	CSHEAR	402008	1040	2008	2058	2158	2108			
2447-	CSHEAR	402018	1040	2018	2050	2150	2118			
2448-	CSHEAR	402030	1030	2030	2130	2151	2051			
2449-	CSHEAR	402050	1040	2050	2051	2151	2150			
2450-	CSHEAR	402051	1040	2051	2151	2153	2053			

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2451-	CSHEAR	402053	1040	2053	2153	2154	2054			
2452-	CSHEAR	402054	1040	2054	2154	2156	2056			
2453-	CSHEAR	402055	1035	2055	2155	2154	2054			
2454-	CSHEAR	402056	1040	2056	2156	2157	2057			
2455-	CSHEAR	402057	1040	2057	2157	2158	2058			
2456-	CSHEAR	402108	1040	2108	2158	2258	2208			
2457-	CSHEAR	402118	1040	2118	2150	2250	2218			
2458-	CSHEAR	402130	1030	2130	2230	2251	2151			
2459-	CSHEAR	402150	1040	2150	2151	2251	2250			
2460-	CSHEAR	402151	1040	2151	2251	2253	2153			
2461-	CSHEAR	402153	1040	2153	2253	2254	2154			
2462-	CSHEAR	402154	1040	2154	2254	2256	2156			
2463-	CSHEAR	402155	1035	2155	2255	2254	2154			
2464-	CSHEAR	402156	1040	2156	2256	2257	2157			
2465-	CSHEAR	402157	1040	2157	2257	2258	2158			
2466-	CSHEAR	402208	1040	2208	2257	2357	2308			
2467-	CSHEAR	402218	1040	2218	2250	2350	2318			
2468-	CSHEAR	402230	1030	2230	2330	2351	2251			
2469-	CSHEAR	402250	1040	2250	2251	2351	2350			
2470-	CSHEAR	402251	1040	2251	2351	2354	2254			
2471-	CSHEAR	402254	1040	2254	2354	2357	2257			
2472-	CSHEAR	402255	1035	2255	2355	2354	2254			
2473-	CSHEAR	402306	1055	2306	2344	2444	2406			
2474-	CSHEAR	402316	1058	2316	2348	2448	2416			
2475-	CSHEAR	402328	1088	2328	2428	2448	2348			
2476-	CSHEAR	402336	1032	2344	2444	2436	2336			
2477-	CSHEAR	402344	1078	2348	2448	2444	2344			
2478-	CSHEAR	402406	1044	2406	2444	2544	2506			
2479-	CSHEAR	402416	1043	2416	2448	2548	2516			
2480-	CSHEAR	402428	1050	2428	2528	2548	2448			
2481-	CSHEAR	402436	1032	2444	2544	2536	2436			
2482-	CSHEAR	402444	1040	2448	2548	2544	2444			
2483-	CSHEAR	402506	1043	2506	2544	2644	2606			
2484-	CSHEAR	402528	1050	2528	2628	2648	2548			
2485-	CSHEAR	402536	1032	2544	2644	2636	2536			
2486-	CSHEAR	402544	1043	2548	2648	2644	2544			
2487-	CSHEAR	402606	1043	2606	2644	2744	2706			
2488-	CSHEAR	402628	1050	2628	2728	2748	2648			
2489-	CSHEAR	402636	1032	2644	2744	2736	2636			
2490-	CSHEAR	402644	1040	2648	2748	2744	2644			
2491-	CSHEAR	402706	1043	2706	2744	2844	2806			
2492-	CSHEAR	402728	1050	2728	2828	2848	2748			
2493-	CSHEAR	402736	1032	2744	2844	2836	2736			
2494-	CSHEAR	402744	1040	2748	2848	2844	2744			
2495-	CSHEAR	402806	1043	2806	2844	2944	2906			
2496-	CSHEAR	402814	1050	2814	2824	2924	2914			
2497-	CSHEAR	402828	1050	2828	2928	2948	2848			
2498-	CSHEAR	402836	1032	2844	2944	2936	2836			
2499-	CSHEAR	402844	1040	2848	2948	2944	2844			
2500-	CSHEAR	402906	1043	2906	2944	3044	3006			

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	.10 .
2501-	CSHEAR	402915	1050	2915	2922	3022	3015			
2502-	CSHEAR	402928	1050	2928	3028	3048	2948			
2503-	CSHEAR	402936	1032	2944	3044	3036	2936			
2504-	CSHEAR	402944	1040	2948	3048	3044	2944			
2505-	CSHEAR	403006	1045	3006	3044	3144	3106			
2506-	CSHEAR	403015	1060	3015	3022	3122	3115			
2507-	CSHEAR	403028	1050	3028	3128	3148	3048			
2508-	CSHEAR	403036	1032	3044	3144	3136	3036			
2509-	CSHEAR	403044	1040	3048	3148	3144	3044			
2510-	CSHEAR	403106	1058	3106	3144	3244	3206			
2511-	CSHEAR	403114	1060	3114	3124	3224	3214			
2512-	CSHEAR	403128	1050	3128	3228	3248	3148			
2513-	CSHEAR	403136	1032	3144	3244	3236	3136			
2514-	CSHEAR	403144	1040	3148	3248	3244	3144			
2515-	CSHEAR	403206	1080	3206	3244	3344	3306			
2516-	CSHEAR	403210	1037	3210	3226	3326	3310			
2517-	CSHEAR	403228	1071	3228	3328	3348	3248			
2518-	CSHEAR	403236	1013	3244	3344	3336	3236			
2519-	CSHEAR	403244	1068	3248	3348	3344	3244			
2520-	CSHEAR	403301	2100	3350	3301	3401	3450			
2521-	CSHEAR	403306	2063	3344	3306	3406	3444			
2522-	CSHEAR	403308	2133	3363	3308	3408	3463			
2523-	CSHEAR	403310	2140	3361	3310	3410	3461			
2524-	CSHEAR	403318	2736	3318	3361	3461	3418			
2525-	CSHEAR	403326	2050	3326	3361	3461	3426			
2526-	CSHEAR	403328	2087	3328	3362	3462	3428			
2527-	CSHEAR	403330	2124	3330	3363	3463	3430			
2528-	CSHEAR	403332	2180	3332	3364	3464	3432			
2529-	CSHEAR	403344	2222	3308	3344	3444	3408			
2530-	CSHEAR	403350	2233	3344	3350	3450	3444			
2531-	CSHEAR	403361	2225	3361	3362	3462	3461			
2532-	CSHEAR	403362	2228	3362	3363	3463	3462			
2533-	CSHEAR	403363	2170	3363	3364	3464	3463			
2534-	CSHEAR	403364	2040	3364	3350	3450	3464			
2535-	CSHEAR	403401	2100	3450	3401	3501	3550			
2536-	CSHEAR	403406	2063	3444	3406	3506	3544			
2537-	CSHEAR	403408	2133	3463	3408	3508	3563			
2538-	CSHEAR	403410	2140	3461	3410	3510	3561			
2539-	CSHEAR	403418	2736	3418	3461	3561	3518			
2540-	CSHEAR	403426	2050	3426	3461	3561	3526			
2541-	CSHEAR	403428	2074	3428	3462	3562	3528			
2542-	CSHEAR	403430	2133	3430	3463	3563	3530			
2543-	CSHEAR	403432	2180	3432	3464	3564	3532			
2544-	CSHEAR	403444	2222	3408	3444	3544	3508			
2545-	CSHEAR	403450	2233	3444	3450	3550	3544			
2546-	CSHEAR	403461	2225	3461	3462	3562	3561			
2547-	CSHEAR	403462	2228	3462	3463	3563	3562			
2548-	CSHEAR	403463	2170	3463	3464	3564	3563			
2549-	CSHEAR	403464	2040	3464	3450	3550	3564			
2550-	CSHEAR	403501	2095	3550	3501	3601	3650			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2551-	CSHEAR	403506	2100	3544	3506	3606	3644			
2552-	CSHEAR	403508	2130	3563	3508	3608	3663			
2553-	CSHEAR	403510	2132	3561	3510	3610	3661			
2554-	CSHEAR	403518	2736	3618	3561	3661	3618			
2555-	CSHEAR	403526	2050	3626	3561	3661	3626			
2556-	CSHEAR	403532	2185	3632	3564	3664	3632			
2557-	CSHEAR	403544	2219	3608	3544	3644	3608			
2558-	CSHEAR	403550	2202	3544	3550	3650	3644			
2559-	CSHEAR	403561	2204	3561	3562	3662	3661			
2560-	CSHEAR	403562	2215	3562	3563	3663	3662			
2561-	CSHEAR	403563	2221	3563	3564	3664	3663			
2562-	CSHEAR	403564	2040	3564	3550	3650	3664			
2563-	CSHEAR	403601	2095	3650	3601	3701	3750			
2564-	CSHEAR	403606	2100	3644	3606	3706	3744			
2565-	CSHEAR	403608	2130	3663	3608	3708	3763			
2566-	CSHEAR	403610	2132	3661	3610	3710	3761			
2567-	CSHEAR	403618	2736	3618	3661	3761	3718			
2568-	CSHEAR	403626	2050	3626	3661	3761	3726			
2569-	CSHEAR	403632	2185	3632	3664	3764	3732			
2570-	CSHEAR	403644	2219	3608	3644	3744	3708			
2571-	CSHEAR	403650	2202	3644	3650	3750	3744			
2572-	CSHEAR	403661	2206	3661	3662	3762	3761			
2573-	CSHEAR	403662	2215	3662	3663	3763	3762			
2574-	CSHEAR	403663	2221	3663	3664	3764	3763			
2575-	CSHEAR	403664	2040	3664	3650	3750	3764			
2576-	CSHEAR	403701	1040	3750	3701	3801	3850			
2577-	CSHEAR	403706	1171	3744	3706	3806	3844			
2578-	CSHEAR	403709	1100	3753	3709	3809	3853			
2579-	CSHEAR	403712	1100	3752	3712	3812	3852			
2580-	CSHEAR	403725	2170	3725	3751	3851	3825			
2581-	CSHEAR	403732	1080	3732	3754	3854	3832			
2582-	CSHEAR	403744	1202	3744	3750	3850	3844			
2583-	CSHEAR	403750	1040	3754	3750	3850	3854			
2584-	CSHEAR	403751	1100	3751	3752	3852	3851			
2585-	CSHEAR	403753	1100	3753	3754	3854	3853			
2586-	CSHEAR	403801	1040	3850	3801	3901	3950			
2587-	CSHEAR	403806	1090	3844	3806	3906	3944			
2588-	CSHEAR	403809	1090	3853	3809	3909	3953			
2589-	CSHEAR	403812	1125	3852	3812	3912	3952			
2590-	CSHEAR	403825	2135	3825	3851	3951	3925			
2591-	CSHEAR	403832	1080	3832	3854	3954	3932			
2592-	CSHEAR	403844	1085	3844	3850	3950	3944			
2593-	CSHEAR	403850	1040	3854	3850	3950	3954			
2594-	CSHEAR	403851	1125	3851	3852	3952	3951			
2595-	CSHEAR	403853	1100	3853	3854	3954	3953			
2596-	CSHEAR	403901	1025	3950	3901	4001	4050			
2597-	CSHEAR	403906	1069	3944	3906	4006	4044			
2598-	CSHEAR	403909	1090	3953	3909	4009	4053			
2599-	CSHEAR	403912	1100	3952	3912	4012	4052			
2600-	CSHEAR	403916	1100	3916	3952	4052	4016			

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
2601-	CSHEAR	403918	1101	3918	3951	4051	4018			
2602-	CSHEAR	403925	2118	3925	3951	4051	4025			
2603-	CSHEAR	403932	1080	3932	3954	4054	4032			
2604-	CSHEAR	403944	1060	3944	3950	4050	4044			
2605-	CSHEAR	403950	1040	3954	3950	4050	4054			
2606-	CSHEAR	403951	1224	3951	3952	4052	4051			
2607-	CSHEAR	403953	1100	3953	3954	4054	4053			
2608-	CSHEAR	404001	1025	4050	4001	4101	4150			
2609-	CSHEAR	404006	1066	4044	4006	4106	4144			
2610-	CSHEAR	404009	1090	4053	4009	4109	4153			
2611-	CSHEAR	404012	1100	4052	4012	4112	4152			
2612-	CSHEAR	404016	1128	4016	4052	4152	4116			
2613-	CSHEAR	404018	1106	4018	4051	4151	4118			
2614-	CSHEAR	404025	1125	4025	4051	4151	4125			
2615-	CSHEAR	404032	1080	4032	4054	4154	4132			
2616-	CSHEAR	404044	1060	4044	4050	4150	4144			
2617-	CSHEAR	404050	1040	4054	4050	4150	4154			
2618-	CSHEAR	404051	1224	4051	4052	4152	4151			
2619-	CSHEAR	404053	1097	4053	4054	4154	4153			
2620-	CSHEAR	404101	1025	4150	4101	4201	4250			
2621-	CSHEAR	404106	1062	4144	4106	4206	4244			
2622-	CSHEAR	404109	1090	4153	4109	4209	4253			
2623-	CSHEAR	404112	1100	4152	4112	4212	4252			
2624-	CSHEAR	404116	1198	4116	4152	4252	4216			
2625-	CSHEAR	404118	1132	4118	4151	4251	4218			
2626-	CSHEAR	404125	1113	4125	4151	4251	4225			
2627-	CSHEAR	404132	1080	4132	4154	4254	4232			
2628-	CSHEAR	404144	1070	4144	4150	4250	4244			
2629-	CSHEAR	404150	1040	4154	4150	4250	4254			
2630-	CSHEAR	404151	1220	4151	4152	4252	4251			
2631-	CSHEAR	404153	1100	4153	4154	4254	4253			
2632-	CSHEAR	404201	1025	4201	4301	4336	4250			
2633-	CSHEAR	404206	1059	4244	4206	4306	4344			
2634-	CSHEAR	404209	1090	4253	4209	4309	4353			
2635-	CSHEAR	404212	1200	4252	4212	4312	4352			
2636-	CSHEAR	404216	1220	4216	4252	4352	4316			
2637-	CSHEAR	404218	1140	4218	4251	4351	4318			
2638-	CSHEAR	404225	1100	4225	4251	4351	4325			
2639-	CSHEAR	404232	1068	4232	4254	4354	4332			
2640-	CSHEAR	404244	1063	4244	4250	4350	4344			
2641-	CSHEAR	404251	1215	4251	4252	4352	4351			
2642-	CSHEAR	404253	1100	4253	4254	4354	4353			
2643-	CSHEAR	404301	1039	4336	4301	4401	4436			
2644-	CSHEAR	404306	1060	4344	4306	4406	4444			
2645-	CSHEAR	404328	1090	4328	4349	4449	4428			
2646-	CSHEAR	404336	1058	4344	4336	4436	4444			
2647-	CSHEAR	404344	1090	4348	4344	4444	4448			
2648-	CSHEAR	404348	1090	4349	4348	4448	4449			
2649-	CSHEAR	404401	1039	4436	4401	4501	4536			
2650-	CSHEAR	404406	1060	4444	4406	4506	4544			

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2651-	CSHEAR	404428	1090	4428	4449	4549	4528			
2652-	CSHEAR	404436	1059	4444	4436	4536	4544			
2653-	CSHEAR	404444	1090	4448	4444	4544	4548			
2654-	CSHEAR	404448	1090	4449	4448	4548	4549			
2655-	CSHEAR	404501	1030	4536	4501	4601	4636			
2656-	CSHEAR	404506	1082	4544	4506	4606	4644			
2657-	CSHEAR	404528	1090	4528	4549	4649	4628			
2658-	CSHEAR	404536	1059	4544	4536	4636	4644			
2659-	CSHEAR	404544	1090	4548	4544	4644	4648			
2660-	CSHEAR	404548	1090	4549	4548	4648	4649			
2661-	CSHEAR	404601	1024	4636	4601	4701	4736			
2662-	CSHEAR	404606	1052	4644	4606	4706	4744			
2663-	CSHEAR	404628	1088	4628	4649	4749	4728			
2664-	CSHEAR	404636	1054	4644	4636	4736	4744			
2665-	CSHEAR	404644	1074	4648	4644	4744	4748			
2666-	CSHEAR	404648	1076	4649	4648	4748	4749			
2667-	CSHEAR	404701	1018	4736	4701	4801	4836			
2668-	CSHEAR	404706	1050	4744	4706	4806	4844			
2669-	CSHEAR	404728	1100	4728	4749	4849	4828			
2670-	CSHEAR	404736	1053	4744	4736	4836	4844			
2671-	CSHEAR	404744	1079	4748	4744	4844	4848			
2672-	CSHEAR	404748	1080	4749	4748	4848	4849			
2673-	CSHEAR	404801	1016	4836	4801	4901	4936			
2674-	CSHEAR	404806	1050	4844	4806	4906	4944			
2675-	CSHEAR	404828	1089	4828	4849	4949	4928			
2676-	CSHEAR	404836	1053	4844	4836	4936	4944			
2677-	CSHEAR	404844	1070	4848	4844	4944	4948			
2678-	CSHEAR	404848	1080	4849	4848	4948	4949			
2679-	CSHEAR	404901	1024	4936	4901	5001	5036			
2680-	CSHEAR	404906	1050	4944	4906	5006	5044			
2681-	CSHEAR	404928	1095	4928	4949	5049	5028			
2682-	CSHEAR	404936	1055	4944	4936	5036	5044			
2683-	CSHEAR	404944	1085	4948	4944	5044	5048			
2684-	CSHEAR	404948	1090	4949	4948	5048	5049			
2685-	CSHEAR	405004	1060	5004	5053	5153	5104			
2686-	CSHEAR	405006	1045	5006	5044	5144	5106			
2687-	CSHEAR	405044	1030	5044	5050	5150	5144			
2688-	CSHEAR	405104	1060	5104	5153	5253	5204			
2689-	CSHEAR	405106	1045	5106	5142	5242	5206			
2690-	CSHEAR	405142	1045	5142	5144	5244	5242			
2691-	CSHEAR	405144	1030	5144	5150	5250	5244			
2692-	CSHEAR	405204	1060	5204	5253	5353	5304			
2693-	CSHEAR	405206	1045	5206	5242	5342	5306			
2694-	CSHEAR	405242	1045	5242	5244	5344	5342			
2695-	CSHEAR	405244	1030	5244	5250	5350	5344			
2696-	CSHEAR	405304	1049	5304	5353	5453	5404			
2697-	CSHEAR	405306	1052	5306	5344	5444	5406			
2698-	CSHEAR	405344	1037	5344	5350	5450	5444			
2699-	CSHEAR	405404	1039	5404	5453	5553	5504			
2700-	CSHEAR	405406	1088	5406	5444	5544	5506			

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Original Document

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
2801-	CTRMEM	114336	1090	4344	4336	4350				
2802-	CTRMEM	114349	1063	4349	4353	4348				
2803-	CTRMEM	114353	1063	4353	4309	4348				
2804-	CTRMEM	114760	2500	4714	4716	4761				
2805-	CTRMEM	115020	1100	5014	5024	5020				
2806-	CTRMEM	115044	1065	5044	5036	5050				
2807-	CTRMEM	115048	1065	5048	5044	5055				
2808-	CTRMEM	115901	1080	5901	5903	5902				
2809-	CTRMEM	115903	1080	5903	5901	5953				
2810-	CTRMEM	115904	1080	5904	5903	5953				
2811-	CTRMEM	115905	1080	5905	5904	5953				
2812-	CTRMEM	115950	1080	5950	5905	5953				
2813-	CTRMEM	115951	1080	5951	5905	5950				
2814-	CTRMEM	116001	1100	6001	6003	6002				
2815-	CTRMEM	116003	1100	6003	6001	6053				
2816-	CTRMEM	116004	1100	6004	6003	6053				
2817-	CTRMEM	116005	1080	6005	6004	6053				
2818-	CTRMEM	116050	1080	6050	6005	6053				
2819-	CTRMEM	116051	1080	6051	6005	6050				
2820-	CTRMEM	116101	1100	6101	6103	6102				
2821-	CTRMEM	116103	1100	6103	6101	6153				
2822-	CTRMEM	116104	1100	6104	6103	6153				
2823-	CTRMEM	116105	1100	6105	6104	6153				
2824-	CTRMEM	116150	1100	6150	6105	6153				
2825-	CTRMEM	116151	1100	6151	6105	6150				
2826-	CTRMEM	116201	3400	6201	6203	6202				
2827-	CTRMEM	116203	3350	6203	6201	6253				
2828-	CTRMEM	116204	3300	6204	6203	6253				
2829-	CTRMEM	116205	3160	6205	6204	6253				
2830-	CTRMEM	116206	2085	6206	6244	6209				
2831-	CTRMEM	116214	1125	6214	6249	6220				
2832-	CTRMEM	116220	1140	6220	6249	6224				
2833-	CTRMEM	116224	1165	6224	6249	6228				
2834-	CTRMEM	116249	2085	6249	6244	6251				
2835-	CTRMEM	116250	3160	6250	6205	6253				
2836-	CTRMEM	116251	3160	6251	6205	6250				
2837-	CTRMEM	116306	1050	6306	6344	6309				
2838-	CTRMEM	116314	1050	6314	6355	6324				
2839-	CTRMEM	116324	1050	6324	6355	6332				
2840-	CTRMEM	116344	1050	6344	6350	6355				
2841-	CTRMEM	210801	4210	801	910	901				
2842-	CTRMEM	210810	4210	801	916	910				
2843-	CTRMEM	210816	4210	801	918	916				
2844-	CTRMEM	210818	4210	801	930	918				
2845-	CTRMEM	210830	4210	801	932	930				
2846-	CTRMEM	211210	1040	1210	1310	1302				
2847-	CTRMEM	211216	1045	1216	1318	1316				
2848-	CTRMEM	211302	1040	1302	1407	1402				
2849-	CTRMEM	211616	1045	1616	1618	1716				
2850-	CTRMEM	211707	1043	1707	1807	1806				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2851-	CTRMEM	211808	1040	1808	1810	1908				
2852-	CTRMEM	212428	1063	2428	2528	2524				
2853-	CTRMEM	212814	1061	2814	2915	2914				
2854-	CTRMEM	212824	1061	2824	2924	2922				
2855-	CTRMEM	215301	3115	5301	5402	5401				
2856-	CTRMEM	216406	1051	6406	6409	6514				
2857-	CTRMEM	216409	1051	6409	6414	6514				
2858-	CTRMEM	216414	1051	6414	6424	6514				
2859-	CTRMEM	216424	1051	6424	6432	6514				
2860-	CTRMEM	216454	1051	6454	6406	6514				
2861-	CTRMEM	414250	1025	4250	4336	4350				
2862-	FORCE	111	111		1.0	.0	.0	1.0		
2863-	FORCE	112	112		1.0	.0	.0	1.0		
2864-	FORCE	113	113		1.0	.0	.0	1.0		
2865-	FORCE	114	114		1.0	.0	.0	1.0		
2866-	FORCE	115	115		1.0	.0	.0	1.0		
2867-	FORCE	116	116		1.0	.0	.0	1.0		
2868-	FORCE	117	117		1.0	.0	.0	1.0		
2869-	FORCE	118	118		1.0	.0	.0	1.0		
2870-	FORCE	119	119		1.0	.0	.0	1.0		
2871-	FORCE	120	120		1.0	.0	.0	1.0		
2872-	FORCE	121	121		1.0	.0	.0	1.0		
2873-	FORCE	122	122		1.0	.0	.0	1.0		
2874-	FORCE	123	123		1.0	.0	.0	1.0		
2875-	FORCE	124	124		1.0	.0	.0	1.0		
2876-	FORCE	125	125		1.0	.0	.0	1.0		
2877-	FORCE	126	126		1.0	.0	.0	1.0		
2878-	FORCE	127	127		1.0	.0	.0	1.0		
2879-	FORCE	128	128		1.0	.0	.0	1.0		
2880-	FORCE	129	129		1.0	.0	.0	1.0		
2881-	FORCE	130	130		1.0	.0	.0	1.0		
2882-	FORCE	131	131		1.0	.0	.0	1.0		
2883-	FORCE	132	132		1.0	.0	.0	1.0		
2884-	FORCE	133	133		1.0	.0	.0	1.0		
2885-	GRAV	1		1.0	1.0	.0	.0			
2886-	GRAV	2		1.0	.0	1.0	.0			
2887-	GRAV	3		1.0	.0	.0	1.			
2888-	GRID	111		150.00	-22.90	32.00		12456		
2889-	GRID	112		229.00	-32.54	11.72		12456		
2890-	GRID	113		295.00	-22.90	32.00		12456		
2891-	GRID	114		340.00	-22.90	32.00		12456		
2892-	GRID	115		386.00	-22.90	32.00		12456		
2893-	GRID	116		453.00	-22.90	32.00		12456		
2894-	GRID	117		494.00	-22.90	32.00		12456		
2895-	GRID	118		542.00	-22.90	32.00		12456		
2896-	GRID	119		632.00	-22.90	32.00		12456		
2897-	GRID	120		662.00	-22.90	32.00		12456		
2898-	GRID	121		737.00	-22.90	32.00		12456		
2899-	GRID	122		827.00	-22.90	32.00		12456		
2900-	GRID	123		857.00	-22.90	32.00		12456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2901-	GRID	124		932.00	-22.90	32.00		12456		
2902-	GRID	125		1133.00	-22.90	32.00		12456		
2903-	GRID	126		1221.00	-22.90	32.00		12456		
2904-	GRID	127		1251.00	-22.90	32.00		12456		
2905-	GRID	128		1325.00	-22.90	32.00		12456		
2906-	GRID	129		1400.00	-22.90	32.00		12456		
2907-	GRID	130		1500.00	-22.90	32.00		12456		
2908-	GRID	131		1600.00	-22.90	32.00		12456		
2909-	GRID	132		1654.00	-22.90	32.00		12456		
2910-	GRID	133		1562.00	.00	126.00		12456		
2911-	GRID	801		18.8	.0	16.44		456		
2912-	GRID	901		95.0	.0	43.25		56		
2913-	GRID	910		95.0	-13.32	38.96		56		
2914-	GRID	916		95.0	-21.63	27.71		56		
2915-	GRID	918		95.0	-22.33	15.74		56		
2916-	GRID	930		95.0	-15.60	3.77		56		
2917-	GRID	932		95.0	.0	-2.39		56		
2918-	GRID	999		992.0	.0	.0				
2919-	GRID	1001		159.5	0.0	56.80		456		
2920-	GRID	1010		159.5	-19.0	50.62		456		
2921-	GRID	1016		159.5	-30.0	34.30		456		
2922-	GRID	1018		159.5	-32.0	17.50		456		
2923-	GRID	1030		159.5	-22.0	0.70		456		
2924-	GRID	1032		159.5	0.0	-8.40		456		
2925-	GRID	1051		159.5	-22.0	17.50		456		
2926-	GRID	1052		159.5	0.0	17.50		456		
2927-	GRID	1054		159.5	0.0	34.30		456		
2928-	GRID	1101		204.75	0.0	68.25		56		
2929-	GRID	1110		204.75	-19.1	60.50		56		
2930-	GRID	1116		204.75	-35.0	38.00		56		
2931-	GRID	1118		204.75	-35.0	17.50		56		
2932-	GRID	1130		204.75	-22.0	-2.00		56		
2933-	GRID	1132		204.75	0.0	-9.5		456		
2934-	GRID	1151		204.75	-22.0	17.50		456		
2935-	GRID	1152		204.75	0.0	17.50		456		
2936-	GRID	1153		204.75	-22.0	38.00		456		
2937-	GRID	1154		204.75	0.0	38.00		456		
2938-	GRID	1201		213.0	0.0	71.5		456		
2939-	GRID	1210		219.38	-19.0	65.0		456		
2940-	GRID	1216		245.88	-40.3	38.0		456		
2941-	GRID	1253		245.88	-22.0	38.0		456		
2942-	GRID	1254		245.88	0.0	38.0		456		
2943-	GRID	1301		266.0	0.0	95.40		56		
2944-	GRID	1302		266.0	-14.0	91.00		56		
2945-	GRID	1310		266.0	-37.0	67.40		56		
2946-	GRID	1316		266.0	-41.9	44.50		56		
2947-	GRID	1318		266.0	-40.3	17.50		56		
2948-	GRID	1330		266.0	-22.0	-4.80		456		
2949-	GRID	1351		266.0	-22.0	17.50		56		
2950-	GRID	1352		266.0	0.0	17.50		56		

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
2951-	GRID	1353		266.0	-22.0	44.5		56		
2952-	GRID	1354		266.0	0.0	44.5		56		
2953-	GRID	1401		317.0	0.0	107.00		56		
2954-	GRID	1402		317.0	-12.5	106.20		56		
2955-	GRID	1407		317.0	-34.8	95.25		56		
2956-	GRID	1410		317.0	-43.2	69.50		56		
2957-	GRID	1416		317.0	-45.6	48.0		56		
2958-	GRID	1418		317.0	-43.8	17.50		56		
2959-	GRID	1430		317.0	-22.0	-7.30		456		
2960-	GRID	1451		317.0	-22.0	17.50		56		
2961-	GRID	1452		317.0	0.0	17.50		56		
2962-	GRID	1453		317.0	-22.0	48.0		56		
2963-	GRID	1454		317.0	0.0	48.0		56		
2964-	GRID	1501		345.25	0.0	108.70		56		
2965-	GRID	1502		345.25	-12.5	107.60		56		
2966-	GRID	1507		345.25	-37.4	97.30		56		
2967-	GRID	1510		345.25	-46.1	70.80		56		
2968-	GRID	1516		345.25	-47.7	48.00		56		
2969-	GRID	1518		345.25	-46.6	17.50		56		
2970-	GRID	1530		345.25	-22.0	-7.60		56		
2971-	GRID	1532		345.25	0.0	-10.20		56		
2972-	GRID	1551		345.25	-22.0	17.50		56		
2973-	GRID	1552		345.25	0.0	17.50		56		
2974-	GRID	1601		396.0	0.0	109.10		56		
2975-	GRID	1602		396.0	-12.5	108.60		56		
2976-	GRID	1607		396.0	-41.05	99.25		56		
2977-	GRID	1610		396.0	-49.5	73.00		56		
2978-	GRID	1616		396.0	-51.6	52.00		56		
2979-	GRID	1618		396.0	-51.0	17.50		56		
2980-	GRID	1630		396.0	-22.0	-9.40		456		
2981-	GRID	1632		396.0	0.0	-11.00		456		
2982-	GRID	1651		396.0	-22.0	17.50		56		
2983-	GRID	1652		396.0	0.0	17.50		56		
2984-	GRID	1701		419.25	0.0	110.30		56		
2985-	GRID	1702		419.25	-12.5	110.30		56		
2986-	GRID	1707		419.25	-43.3	98.80		56		
2987-	GRID	1710		419.25	-51.6	73.84		56		
2988-	GRID	1716		419.25	-52.0	54.0		56		
2989-	GRID	1756		419.25	-15.0	73.84		56		
2990-	GRID	1758		419.25	0.0	73.84		56		
2991-	GRID	1801		473.5	0.0	109.50		456		
2992-	GRID	1802		473.5	-12.5	109.00		456		
2993-	GRID	1806		470.0	-37.0	104.0		456		
2994-	GRID	1807		464.5	-48.5	93.00		456		
2995-	GRID	1808		458.0	-52.31	82.00		456		
2996-	GRID	1810		454.0	-54.00	73.84		456		
2997-	GRID	1816		454.0	-56.7	49.0		456		
2998-	GRID	1818		454.0	-57.0	17.50		456		
2999-	GRID	1839		454.0	-29.14	-9.00		456		
3000-	GRID	1832		454.0	0.0	-11.00		456		

S O R T E D B U L K D A T A E C H O

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
3001-	GRID	1851		454.0	-29.14	17.50		456		
3002-	GRID	1852		454.0	.0	17.50		1456		
3003-	GRID	1854		454.0	-22.0	55.00		456		
3004-	GRID	1855		454.0	0.0	55.00		456		
3005-	GRID	1856		454.0	-18.41	73.84		456		
3006-	GRID	1857		458.0	-16.86	82.0		456		
3007-	GRID	1858		454.0	0.0	73.84		456		
3008-	GRID	1901		496.5	0.0	107.40		56		
3009-	GRID	1902		496.5	-12.5	106.90		56		
3010-	GRID	1906		496.5	-38.4	102.40		56		
3011-	GRID	1907		496.5	-49.6	92.80		56		
3012-	GRID	1908		496.5	-54.0	82.00		56		
3013-	GRID	1916		496.5	-62.5	46.00		456		
3014-	GRID	1918		496.5	-63.4	17.50		56		
3015-	GRID	1928		496.5	-43.23	-8.00		56		
3016-	GRID	1930		496.5	-34.38	-9.20		56		
3017-	GRID	1932		496.5	0.0	-11.80		56		
3018-	GRID	1951		496.5	-34.38	17.50		56		
3019-	GRID	1954		496.5	-27.87	55.00		56		
3020-	GRID	1955		496.5	0.0	55.00		56		
3021-	GRID	1957		496.5	-22.5	82.00		56		
3022-	GRID	2001		524.0	0.0	102.59		56		
3023-	GRID	2002		524.0	-12.5	102.32		56		
3024-	GRID	2004		524.0	-24.0	101.24		56		
3025-	GRID	2006		524.0	-36.85	98.53		56		
3026-	GRID	2007		524.0	-47.37	92.23		56		
3027-	GRID	2008		524.0	-54.08	82.00		56		
3028-	GRID	2010		524.0	-58.69	66.00		56		
3029-	GRID	2012		524.0	-63.01	51.0		56		
3030-	GRID	2016		524.0	-65.32	43.00		56		
3031-	GRID	2017		524.0	-66.58	30.5		56		
3032-	GRID	2018		524.0	-66.08	17.5		56		
3033-	GRID	2020		524.0	-62.69	4.0		56		
3034-	GRID	2028		524.0	-48.89	-8.19		56		
3035-	GRID	2030		524.0	-37.78	-9.08		56		
3036-	GRID	2032		524.0	0.0	-11.00		56		
3037-	GRID	2050		524.0	-53.0	17.50		56		
3038-	GRID	2051		524.0	-37.78	17.50		56		
3039-	GRID	2053		524.0	-34.42	36.00		56		
3040-	GRID	2054		524.0	-30.97	55.00		56		
3041-	GRID	2055		524.0	0.0	55.00		56		
3042-	GRID	2056		524.0	-28.24	70.00		56		
3043-	GRID	2057		524.0	-26.06	82.00		56		
3044-	GRID	2058		524.0	-40.0	82.00		56		
3045-	GRID	2101		528.5	0.0	102.32		56		
3046-	GRID	2102		528.5	-12.5	102.11		56		
3047-	GRID	2104		528.5	-24.00	100.87		56		
3048-	GRID	2106		528.5	-36.73	98.37		56		
3049-	GRID	2107		528.5	-46.74	91.82		56		
3050-	GRID	2108		528.5	-54.29	82.00		56		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3051-	GRID	2110		528.5	-59.06	66.00		56		
3052-	GRID	2112		528.5	-63.53	51.0		56		
3053-	GRID	2116		528.5	-65.92	43.00		56		
3054-	GRID	2117		528.5	-67.36	30.5		56		
3055-	GRID	2118		528.5	-66.86	17.50		56		
3056-	GRID	2120		528.5	-63.37	4.0		56		
3057-	GRID	2128		528.5	-49.65	-8.33		56		
3058-	GRID	2130		528.5	-38.34	-9.13		56		
3059-	GRID	2132		528.5	0.0	-11.00		56		
3060-	GRID	2150		528.5	-53.00	17.5		56		
3061-	GRID	2151		528.5	-38.34	17.50		56		
3062-	GRID	2153		528.5	-35.03	36.0		56		
3063-	GRID	2154		528.5	-31.63	55.00		56		
3064-	GRID	2155		528.5	0.0	55.00		56		
3065-	GRID	2156		528.5	-28.95	70.0		56		
3066-	GRID	2157		528.5	-26.80	82.00		56		
3067-	GRID	2158		528.5	-40.0	82.00		56		
3068-	GRID	2201		533.0	0.0	102.08		56		
3069-	GRID	2202		533.0	-12.5	101.91		56		
3070-	GRID	2204		533.0	-24.0	100.50		56		
3071-	GRID	2206		533.0	-36.62	98.22		56		
3072-	GRID	2207		533.0	-46.11	91.42		56		
3073-	GRID	2208		533.0	-54.49	82.00		56		
3074-	GRID	2210		533.0	-59.42	66.0		56		
3075-	GRID	2212		533.0	-64.04	51.0		56		
3076-	GRID	2216		533.0	-66.51	43.0		56		
3077-	GRID	2217		533.0	-68.14	30.5		56		
3078-	GRID	2218		533.0	-67.64	17.5		56		
3079-	GRID	2220		533.0	-64.05	4.0		56		
3080-	GRID	2228		533.0	-50.40	-8.47		56		
3081-	GRID	2230		533.0	-38.89	-9.19		56		
3082-	GRID	2232		533.0	0.0	-11.00		56		
3083-	GRID	2250		533.0	-53.0	17.50		56		
3084-	GRID	2251		533.0	-38.89	17.50		56		
3085-	GRID	2253		533.0	-35.63	36.0		56		
3086-	GRID	2254		533.0	-32.29	55.00		56		
3087-	GRID	2255		533.0	0.0	55.00		56		
3088-	GRID	2256		533.0	-29.64	70.00		56		
3089-	GRID	2257		533.0	-27.53	82.00		56		
3090-	GRID	2258		533.0	-40.0	82.00		56		
3091-	GRID	2301		542.0	0.0	101.70		456		
3092-	GRID	2302		542.0	-12.5	101.50		456		
3093-	GRID	2306		542.0	-36.4	97.90		456		
3094-	GRID	2307		542.0	-44.84	90.60		456		
3095-	GRID	2308		542.0	-54.90	82.00		456		
3096-	GRID	2310		542.0	-60.0	67.0		456		
3097-	GRID	2316		542.0	-67.70	43.90		456		
3098-	GRID	2318		542.0	-69.20	17.50		456		
3099-	GRID	2320		542.0	-65.40	3.90		456		
3100-	GRID	2328		542.0	-51.90	-8.75		456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3101-	GRID	2330		542.0	-40.0	-9.3		456		
3102-	GRID	2332		542.0	0.0	-10.5		456		
3103-	GRID	2336		542.0	0.0	74.00		456		
3104-	GRID	2344		542.0	-22.1	67.60		456		
3105-	GRID	2348		542.0	-45.6	41.50		456		
3106-	GRID	2350		542.0	-49.75	17.5		456		
3107-	GRID	2351		542.0	-40.0	17.50		456		
3108-	GRID	2352		542.0	0.0	17.50		1456		
3109-	GRID	2354		542.0	-33.6	55.00		456		
3110-	GRID	2355		542.0	0.0	55.00		456		
3111-	GRID	2357		542.0	-29.0	82.00		456		
3112-	GRID	2401		579.5	0.0	97.44		56		
3113-	GRID	2406		579.5	-34.59	94.16		56		
3114-	GRID	2408		579.5	-53.45	81.56		56		
3115-	GRID	2416		579.5	-72.09	43.94		56		
3116-	GRID	2420		579.5	-70.68	3.97		56		
3117-	GRID	2428		579.5	-51.90	-8.75		56		
3118-	GRID	2436		579.5	0.0	74.0		56		
3119-	GRID	2444		579.5	-22.1	67.6		56		
3120-	GRID	2448		579.5	-40.9	41.5		56		
3121-	GRID	2501		625.5	0.0	92.7		56		
3122-	GRID	2506		625.5	-32.6	89.8		56		
3123-	GRID	2508		625.5	-51.8	79.1		56		
3124-	GRID	2516		625.5	-77.8	44.0		56		
3125-	GRID	2520		625.5	-77.9	3.1		456		
3126-	GRID	2524		625.5	-61.1	-7.0		456		
3127-	GRID	2528		625.5	-51.9	-8.75		456		
3128-	GRID	2536		625.5	0.0	74.0		56		
3129-	GRID	2544		625.5	-22.1	67.6		56		
3130-	GRID	2548		625.5	-40.9	41.5		56		
3131-	GRID	2601		668.5	0.0	89.0		456		
3132-	GRID	2606		668.5	-30.9	86.3		56		
3133-	GRID	2608		668.5	-49.23	76.73		56		
3134-	GRID	2616		668.5	-91.5	34.9		56		
3135-	GRID	2620		668.5	-91.6	6.0		56		
3136-	GRID	2624		668.5	-69.09	-5.2		56		
3137-	GRID	2628		668.5	-51.9	-8.75		56		
3138-	GRID	2636		668.5	0.0	74.0		456		
3139-	GRID	2644		668.5	-22.1	67.6		56		
3140-	GRID	2648		668.5	-40.9	41.5		56		
3141-	GRID	2701		704.5	0.0	86.17		456		
3142-	GRID	2706		704.5	-29.82	83.96		56		
3143-	GRID	2708		704.5	-47.46	74.36		56		
3144-	GRID	2714		704.5	-77.75	51.00		56		
3145-	GRID	2716		704.5	-97.35	36.49		56		
3146-	GRID	2720		704.5	-97.35	2.81		56		
3147-	GRID	2724		704.5	-75.86	-4.46		56		
3148-	GRID	2728		704.5	-51.9	-8.75		56		
3149-	GRID	2736		704.5	0.0	74.0		456		
3150-	GRID	2744		704.5	-22.1	67.6		56		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3151-	GRID	2748		704.5	-40.9	41.5		56		
3152-	GRID	2801		737.0	0.0	85.1		456		
3153-	GRID	2806		737.0	-28.9	81.9		456		
3154-	GRID	2808		737.0	-45.9	72.5		456		
3155-	GRID	2814		737.0	-82.1	48.9		456		
3156-	GRID	2816		737.0	-102.1	37.6		456		
3157-	GRID	2820		737.0	-102.1	0.4		456		
3158-	GRID	2824		737.0	-82.1	-4.0		456		
3159-	GRID	2828		737.0	-51.9	-8.75		456		
3160-	GRID	2832		737.0	0.0	-11.0		1456		
3161-	GRID	2836		737.0	0.0	74.0		456		
3162-	GRID	2844		737.0	-22.1	67.6		456		
3163-	GRID	2848		737.0	-40.9	41.5		456		
3164-	GRID	2851		737.0	0.0	32.0		1456		
3165-	GRID	2901		774.5	0.0	84.07		456		
3166-	GRID	2906		774.5	-27.94	79.92		56		
3167-	GRID	2908		774.5	-44.28	70.89		56		
3168-	GRID	2914		774.5	-89.18	46.05		56		
3169-	GRID	2915		774.5	-96.14	43.02		56		
3170-	GRID	2916		774.5	-117.84	32.93		56		
3171-	GRID	2920		774.5	-117.84	.6		56		
3172-	GRID	2922		774.5	-96.14	-2.74		56		
3173-	GRID	2924		774.5	-89.18	-3.84		56		
3174-	GRID	2928		774.5	-51.9	-8.75		56		
3175-	GRID	2936		774.5	0.0	74.0		456		
3176-	GRID	2944		774.5	-22.1	67.6		56		
3177-	GRID	2948		774.5	-40.9	41.5		56		
3178-	GRID	3001		810.5	0.0	84.0		456		
3179-	GRID	3006		810.5	-27.4	78.7		56		
3180-	GRID	3008		810.5	-43.3	69.6		56		
3181-	GRID	3014		810.5	-95.91	43.8		56		
3182-	GRID	3015		810.5	-111.27	38.7		56		
3183-	GRID	3016		810.5	-132.9	29.8		456		
3184-	GRID	3020		810.5	-132.9	0.5		456		
3185-	GRID	3022		810.5	-111.27	-2.1		56		
3186-	GRID	3024		810.5	-95.91	-3.8		56		
3187-	GRID	3028		810.5	-51.9	-8.75		56		
3188-	GRID	3036		810.5	0.0	74.0		456		
3189-	GRID	3044		810.5	-22.1	67.6		56		
3190-	GRID	3048		810.5	-40.9	41.5		56		
3191-	GRID	3101		863.5	0.0	84.0		456		
3192-	GRID	3106		863.5	-26.7	77.2		56		
3193-	GRID	3108		863.5	-42.5	68.4		56		
3194-	GRID	3114		863.5	-106.08	41.8		56		
3195-	GRID	3115		863.5	-134.1	34.0		456		
3196-	GRID	3116		863.5	-155.2	25.9		456		
3197-	GRID	3120		863.5	-155.2	-0.2		456		
3198-	GRID	3122		863.5	-134.1	-2.2		456		
3199-	GRID	3124		863.5	-106.08	-4.4		56		
3200-	GRID	3128		863.5	-51.9	-8.75		56		

SORTED BULK DATA ECHO

CARD COUNT	. 1 ..	2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
3201-	GRID	3136		863.5	0.0	74.0		456		
3202-	GRID	3144		863.5	-22.1	67.6		56		
3203-	GRID	3148		863.5	-40.9	41.5		56		
3204-	GRID	3201		899.5	0.0	84.0		456		
3205-	GRID	3206		899.5	-26.5	76.9		56		
3206-	GRID	3208		899.5	-41.9	68.0		56		
3207-	GRID	3210		899.5	-84.38	45.9		56		
3208-	GRID	3214		899.5	-112.9	39.3		456		
3209-	GRID	3224		899.5	-112.9	-4.8		456		
3210-	GRID	3226		899.5	-84.38	-6.4		56		
3211-	GRID	3228		899.5	-51.9	-8.75		56		
3212-	GRID	3236		899.5	0.0	74.0		456		
3213-	GRID	3244		899.5	-22.1	67.6		56		
3214-	GRID	3248		899.5	-40.9	41.5		56		
3215-	GRID	3301		932.0	0.0	84.0		456		
3216-	GRID	3306		932.0	-26.5	76.8		456		
3217-	GRID	3308		932.0	-40.5	68.0		456		
3218-	GRID	3309		932.0	-54.0	59.2		456		
3219-	GRID	3310		932.0	-84.0	42.7		456		
3220-	GRID	3312		932.0	-103.0	39.46		456		
3221-	GRID	3314		932.0	-119.0	36.76		6		
3222-	GRID	3315		932.000	-128.477	32.910		6		
3223-	GRID	3316		932.0	-119.0	29.0		456		
3224-	GRID	3317		939.500	-128.477	32.580		6		
3225-	GRID	3318		932.0	-119.0	0.0		6		
3226-	GRID	3319		936.620	-134.202	32.210		6		
3227-	GRID	3321		941.301	-140.003	31.621		6		
3228-	GRID	3322		952.700	-140.000	31.160		6		
3229-	GRID	3323		958.527	-141.329	30.875		6		
3230-	GRID	3324		932.0	-119.0	-4.0		456		
3231-	GRID	3326		932.0	-84.0	-7.3		456		
3232-	GRID	3328		932.0	-50.0	-9.0		456		
3233-	GRID	3330		932.0	-40.5	-8.83		456		
3234-	GRID	3331		946.232	-145.680	30.968		6		
3235-	GRID	3332		932.0	0.0	-8.1		456		
3236-	GRID	3333		954.520	-145.690	30.640		6		
3237-	GRID	3334		952.450	-152.501	30.171		6		
3238-	GRID	3335		956.215	-151.010	30.156		6		
3239-	GRID	3336		932.0	0.0	74.0		456		
3240-	GRID	3337		956.931	-157.866	29.560		6		
3241-	GRID	3338		959.233	-155.574	29.665		6		
3242-	GRID	3339		962.569	-161.571	29.043		6		
3243-	GRID	3340		963.810	-158.576	29.246		6		
3244-	GRID	3341		969.127	-162.890	28.691		6		
3245-	GRID	3342		969.128	-159.647	28.961		6		
3246-	GRID	3344		932.0	-22.7	68.0		456		
3247-	GRID	3348		932.0	-40.5	40.5		456		
3248-	GRID	3350		932.0	0.0	68.0		456		
3249-	GRID	3351		932.0	0.0	40.5		1456		
3250-	GRID	3361		932.0	-84.0	0.0		456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3251-	GRID	3362		932.0	-48.9	0.0		456		
3252-	GRID	3363		932.0	-40.5	0.0		456		
3253-	GRID	3364		932.0	0.0	0.0		456		
3254-	GRID	3365		932.000	-126.500	0.0		6		
3255-	GRID	3366		932.0	-84.0	36.9		1456		
3256-	GRID	3367		939.500	-126.500	0.0		6		
3257-	GRID	3369		936.500	-131.600	0.0		6		
3258-	GRID	3371		940.500	-136.400	0.0		6		
3259-	GRID	3372		950.500	-136.400	0.0		6		
3260-	GRID	3373		957.684	-140.044	0.0		6		
3261-	GRID	3381		948.089	-144.707	0.0		6		
3262-	GRID	3383		954.225	-144.707	0.0		6		
3263-	GRID	3384		953.095	-151.091	0.0		6		
3264-	GRID	3385		956.355	-149.921	0.0		6		
3265-	GRID	3387		957.275	-156.374	0.0		6		
3266-	GRID	3388		959.308	-154.341	0.0		6		
3267-	GRID	3389		962.628	-159.951	0.0		6		
3268-	GRID	3390		963.728	-157.294	0.0		6		
3269-	GRID	3391		968.942	-161.267	0.0		6		
3270-	GRID	3392		968.942	-158.331	0.0		6		
3271-	GRID	3401		947.0	0.0	84.0		456		
3272-	GRID	3406		947.0	-26.5	76.8		456		
3273-	GRID	3408		947.0	-40.5	68.0		56		
3274-	GRID	3409		947.0	-54.0	59.2		56		
3275-	GRID	3410		947.0	-84.0	42.25		56		
3276-	GRID	3412		947.0	-103.0	38.6		56		
3277-	GRID	3414		947.0	-119.0	35.57		6		
3278-	GRID	3415		947.000	-128.477	32.530		6		
3279-	GRID	3416		947.0	-119.0	29.0		56		
3280-	GRID	3417		954.500	-128.477	32.110		6		
3281-	GRID	3418		947.0	-119.0	0.0		6		
3282-	GRID	3419		947.000	-134.202	31.850		6		
3283-	GRID	3420		954.500	-134.202	31.630		6		
3284-	GRID	3421		961.007	-137.575	31.095		6		
3285-	GRID	3422		962.995	-139.556	30.857		6		
3286-	GRID	3423		961.109	-142.370	30.693		6		
3287-	GRID	3424		947.0	-119.0	-4.0		56		
3288-	GRID	3426		947.0	-84.0	-7.3		56		
3289-	GRID	3428		947.0	-50.0	-9.0		456		
3290-	GRID	3430		947.0	-40.5	-8.83		56		
3291-	GRID	3432		947.0	0.0	-8.10		56		
3292-	GRID	3433		957.635	-145.691	30.545		6		
3293-	GRID	3434		960.449	-145.688	30.441		6		
3294-	GRID	3435		958.523	-150.051	30.150		6		
3295-	GRID	3436		961.108	-149.004	30.142		6		
3296-	GRID	3437		961.001	-153.800	29.747		6		
3297-	GRID	3438		962.990	-151.614	29.638		6		
3298-	GRID	3439		964.760	-156.270	29.403		6		
3299-	GRID	3440		965.808	-153.689	29.579		6		
3300-	GRID	3441		969.129	-157.153	29.168		6		

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3301-	GRID	3442		969.130	-154.345	29.401		6		
3302-	GRID	3444		947.0	-22.7	68.0		56		
3303-	GRID	3450		947.0	0.0	68.0		56		
3304-	GRID	3461		947.0	-84.0	0.0		56		
3305-	GRID	3462		947.0	-48.9	0.0		456		
3306-	GRID	3463		947.0	-40.5	0.0		56		
3307-	GRID	3464		947.0	0.0	0.0		56		
3308-	GRID	3465		947.000	-126.500	0.0		6		
3309-	GRID	3467		954.500	-126.500	0.0		6		
3310-	GRID	3469		947.000	-132.120	0.0		6		
3311-	GRID	3470		954.500	-132.120	0.0		6		
3312-	GRID	3471		960.326	-136.091	0.0		6		
3313-	GRID	3472		963.462	-139.225	0.0		6		
3314-	GRID	3473		961.784	-141.741	0.0		6		
3315-	GRID	3483		958.195	-144.707	0.0		6		
3316-	GRID	3484		961.195	-144.707	0.0		6		
3317-	GRID	3485		959.013	-148.820	0.0		6		
3318-	GRID	3486		961.785	-147.674	0.0		6		
3319-	GRID	3487		961.343	-152.306	0.0		6		
3320-	GRID	3488		963.465	-150.189	0.0		6		
3321-	GRID	3489		964.829	-154.636	0.0		6		
3322-	GRID	3490		965.979	-151.869	0.0		6		
3323-	GRID	3491		968.942	-155.454	0.0		6		
3324-	GRID	3492		968.944	-152.459	0.0		6		
3325-	GRID	3501		962.0	0.0	84.0		456		
3326-	GRID	3506		962.0	-26.5	76.8		456		
3327-	GRID	3508		962.0	-40.5	68.0		456		
3328-	GRID	3509		962.0	-54.0	59.2		456		
3329-	GRID	3510		962.0	-84.0	41.8		456		
3330-	GRID	3512		962.0	-103.0	37.73		456		
3331-	GRID	3514		962.0	-119.0	34.38		6		
3332-	GRID	3515		962.000	-128.477	31.830		6		
3333-	GRID	3516		962.0	-119.0	29.0		456		
3334-	GRID	3517		969.135	-128.477	31.551		6		
3335-	GRID	3518		962.0	-119.0	0.0		6		
3336-	GRID	3519		964.370	-134.202	31.230		6		
3337-	GRID	3520		969.135	-134.202	31.075		6		
3338-	GRID	3521		965.812	-137.674	30.909		6		
3339-	GRID	3522		969.135	-137.010	30.841		6		
3340-	GRID	3523		972.458	-137.666	30.664		6		
3341-	GRID	3524		962.0	-119.0	-4.0		456		
3342-	GRID	3526		962.0	-84.0	-7.3		456		
3343-	GRID	3528		962.0	-50.0	-9.0		456		
3344-	GRID	3530		962.0	-40.5	-8.83		456		
3345-	GRID	3532		962.0	0.0	-8.10		456		
3346-	GRID	3533		977.817	-145.667	29.801		6		
3347-	GRID	3534		980.630	-145.664	29.696		6		
3348-	GRID	3535		977.156	-148.985	29.550		6		
3349-	GRID	3536		979.739	-150.025	29.368		6		
3350-	GRID	3537		975.270	-151.799	29.386		6		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3351-	GRID	3538		977.258	-153.780	29.148		6		
3352-	GRID	3539		972.453	-153.681	29.334		6		
3353-	GRID	3540		973.498	-156.259	29.081		6		
3354-	GRID	3544		962.0	-22.7	68.0		456		
3355-	GRID	3550		962.0	0.0	68.0		456		
3356-	GRID	3561		962.0	-84.0	0.0		456		
3357-	GRID	3562		962.0	-48.9	0.0		456		
3358-	GRID	3563		962.0	-40.5	0.0		456		
3359-	GRID	3564		962.0	0.0	0.0		456		
3360-	GRID	3565		962.000	-126.500	0.0		6		
3361-	GRID	3567		968.941	-126.500	0.0		6		
3362-	GRID	3569		963.728	-132.120	0.0		6		
3363-	GRID	3570		968.941	-132.120	0.0		6		
3364-	GRID	3571		965.976	-137.546	0.0		6		
3365-	GRID	3572		968.941	-136.955	0.0		6		
3366-	GRID	3573		971.906	-137.546	0.0		6		
3367-	GRID	3583		976.691	-144.707	0.0		6		
3368-	GRID	3584		979.689	-144.707	0.0		6		
3369-	GRID	3585		976.101	-147.674	0.0		6		
3370-	GRID	3586		978.871	-148.820	0.0		6		
3371-	GRID	3587		974.423	-150.189	0.0		6		
3372-	GRID	3588		976.541	-152.306	0.0		6		
3373-	GRID	3589		971.909	-151.869	0.0		6		
3374-	GRID	3590		973.055	-154.636	0.0		6		
3375-	GRID	3601		977.0	0.0	84.0		456		
3376-	GRID	3606		977.0	-26.5	76.8		456		
3377-	GRID	3608		977.0	-40.5	68.0		56		
3378-	GRID	3609		977.0	-54.0	59.2		56		
3379-	GRID	3610		977.0	-84.0	41.35		56		
3380-	GRID	3612		977.0	-103.0	36.86		56		
3381-	GRID	3614		977.0	-119.0	33.19		6		
3382-	GRID	3615		977.000	-128.477	31.273		6		
3383-	GRID	3616		977.0	-119.0	29.0		56		
3384-	GRID	3617		984.500	-128.477	30.850		6		
3385-	GRID	3618		977.0	-119.0	0.0		6		
3386-	GRID	3619		974.170	-134.202	30.900		6		
3387-	GRID	3620		984.500	-134.202	30.510		6		
3388-	GRID	3621		977.262	-137.555	30.496		6		
3389-	GRID	3622		975.275	-139.541	30.404		6		
3390-	GRID	3623		977.157	-142.351	30.101		6		
3391-	GRID	3624		977.0	-119.0	-4.0		56		
3392-	GRID	3626		977.0	-84.0	-7.3		56		
3393-	GRID	3628		977.0	-50.0	-9.0		456		
3394-	GRID	3630		977.0	-40.5	-8.83		56		
3395-	GRID	3632		977.0	0.0	-8.1		56		
3396-	GRID	3633		982.800	-145.850	29.600		6		
3397-	GRID	3634		987.301	-146.152	29.411		6		
3398-	GRID	3635		982.048	-150.971	29.204		6		
3399-	GRID	3636		985.047	-152.204	28.991		6		
3400-	GRID	3637		979.027	-155.544	28.936		6		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3401-	GRID	3638		981.326	-157.837	28.660		6		
3402-	GRID	3639		974.447	-158.562	28.854		6		
3403-	GRID	3640		975.687	-161.555	28.560		6		
3404-	GRID	3644		977.0	-22.7	68.0		56		
3405-	GRID	3650		977.0	0.0	68.0		56		
3406-	GRID	3661		977.0	-84.0	0.0		56		
3407-	GRID	3662		977.0	-48.9	0.0		456		
3408-	GRID	3663		977.0	-40.5	0.0		56		
3409-	GRID	3664		977.0	0.0	0.0		56		
3410-	GRID	3665		977.000	-126.500	0.0		6		
3411-	GRID	3667		984.500	-126.500	0.0		6		
3412-	GRID	3669		974.156	-132.120	0.0		6		
3413-	GRID	3670		984.500	-132.120	0.0		6		
3414-	GRID	3671		977.559	-136.091	0.0		6		
3415-	GRID	3672		974.421	-139.225	0.0		6		
3416-	GRID	3673		976.100	-141.741	0.0		6		
3417-	GRID	3683		982.566	-144.707	0.0		6		
3418-	GRID	3684		986.819	-144.707	0.0		6		
3419-	GRID	3685		981.529	-149.921	0.0		6		
3420-	GRID	3686		984.186	-151.021	0.0		6		
3421-	GRID	3687		979.576	-154.341	0.0		6		
3422-	GRID	3688		980.609	-156.374	0.0		6		
3423-	GRID	3689		974.156	-157.294	0.0		6		
3424-	GRID	3690		975.256	-159.951	0.0		6		
3425-	GRID	3701		992.0	0.0	84.0		456		
3426-	GRID	3706		992.0	-26.5	76.8		456		
3427-	GRID	3708		992.0	-40.5	68.0		456		
3428-	GRID	3709		992.0	-54.0	59.2		456		
3429-	GRID	3710		992.0	-84.0	40.90		456		
3430-	GRID	3712		992.0	-103.0	36.00		456		
3431-	GRID	3714		992.0	-119.0	32.00		6		
3432-	GRID	3715		992.000	-128.477	30.705		6		
3433-	GRID	3716		992.0	-119.0	29.0		456		
3434-	GRID	3718		992.0	-119.0	0.0		6		
3435-	GRID	3719		992.000	-134.202	30.275		6		
3436-	GRID	3721		979.742	-141.304	30.093		6		
3437-	GRID	3722		983.300	-140.000	30.120		6		
3438-	GRID	3723		989.720	-140.000	29.880		6		
3439-	GRID	3724		992.0	-119.0	-4.0		456		
3440-	GRID	3725		992.0	-103.0	-6.00		456		
3441-	GRID	3726		992.0	-84.0	-7.3		456		
3442-	GRID	3728		992.0	-50.0	-9.0		456		
3443-	GRID	3730		992.0	-40.5	-8.83		456		
3444-	GRID	3732		992.0	0.0	-8.1		456		
3445-	GRID	3744		992.0	-22.7	68.0		456		
3446-	GRID	3750		992.0	0.0	68.0		456		
3447-	GRID	3751		992.0	-103.0	0.0		456		
3448-	GRID	3752		992.0	-103.0	32.60		456		
3449-	GRID	3753		992.0	-54.0	48.4		456		
3450-	GRID	3754		992.0	0.0	48.4		456		

S O R T E D B U L K D A T A E C H O

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
3451-	GRID	3757		992.0	-40.5	48.4		1456		
3452-	GRID	3761		992.0	-84.0	0.0		456		
3453-	GRID	3762		992.0	-46.9	0.0		456		
3454-	GRID	3763		992.0	-40.5	0.0		456		
3455-	GRID	3764		992.0	0.0	0.0		456		
3456-	GRID	3765		992.000	-126.500	0.0		6		
3457-	GRID	3769		992.000	-132.120	0.0		6		
3458-	GRID	3771		980.200	-140.044	0.0		6		
3459-	GRID	3772		983.500	-138.894	0.0		6		
3460-	GRID	3773		989.080	-138.894	0.0		6		
3461-	GRID	3801		1023.5	0.0	84.2		56		
3462-	GRID	3806		1023.5	-26.47	76.76		56		
3463-	GRID	3809		1023.5	-54.0	58.65		56		
3464-	GRID	3812		1023.5	-90.88	38.04		56		
3465-	GRID	3814		1023.5	-111.70	32.0		56		
3466-	GRID	3816		1023.5	-111.70	25.85		456		
3467-	GRID	3818		1023.5	-111.70	0.34		456		
3468-	GRID	3824		1023.5	-111.70	-3.6		456		
3469-	GRID	3825		1023.5	-90.88	-6.86		456		
3470-	GRID	3832		1023.5	0.0	-8.1		56		
3471-	GRID	3844		1023.5	-22.79	68.61		56		
3472-	GRID	3850		1023.5	0.0	68.61		56		
3473-	GRID	3851		1023.5	-90.88	0.8		456		
3474-	GRID	3852		1023.5	-90.88	22.92		456		
3475-	GRID	3853		1023.5	-54.0	48.16		56		
3476-	GRID	3854		1023.5	0.0	48.16		56		
3477-	GRID	3901		1043.5	0.0	84.32		56		
3478-	GRID	3906		1043.5	-26.47	76.76		56		
3479-	GRID	3909		1043.5	-54.0	58.3		56		
3480-	GRID	3912		1043.5	-83.19	40.0		56		
3481-	GRID	3914		1043.5	-107.06	31.95		56		
3482-	GRID	3916		1043.5	-107.06	24.0		456		
3483-	GRID	3918		1043.5	-107.06	0.95		456		
3484-	GRID	3924		1043.5	-107.06	-3.29		456		
3485-	GRID	3925		1043.5	-83.19	-7.17		456		
3486-	GRID	3932		1043.5	0.0	-8.1		56		
3487-	GRID	3944		1043.5	-22.85	69.0		56		
3488-	GRID	3950		1043.5	0.0	69.0		56		
3489-	GRID	3951		1043.5	-83.19	1.57		456		
3490-	GRID	3952		1043.5	-83.19	20.65		456		
3491-	GRID	3953		1043.5	-54.0	48.0		56		
3492-	GRID	3954		1043.5	0.0	48.0		56		
3493-	GRID	4001		1063.5	0.0	85.15		56		
3494-	GRID	4006		1063.5	-26.47	76.76		56		
3495-	GRID	4009		1063.5	-54.0	57.96		456		
3496-	GRID	4012		1063.5	-75.5	43.29		56		
3497-	GRID	4014		1063.5	-102.42	31.82		456		
3498-	GRID	4016		1063.5	-102.42	22.15		456		
3499-	GRID	4018		1063.5	-102.42	1.48		456		
3500-	GRID	4024		1063.5	-102.42	-3.45		456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3501-	GRID	4025		1063.5	-75.5	-7.71		56		
3502-	GRID	4032		1063.5	0.0	-8.1		56		
3503-	GRID	4044		1063.5	-22.85	69.0		56		
3504-	GRID	4050		1063.5	0.0	69.0		56		
3505-	GRID	4051		1063.5	-75.5	2.0		56		
3506-	GRID	4052		1063.5	-75.5	18.37		56		
3507-	GRID	4053		1063.5	-54.0	48.0		456		
3508-	GRID	4054		1063.5	0.0	48.0		56		
3509-	GRID	4101		1096.0	0.0	86.49		56		
3510-	GRID	4106		1096.0	-26.47	76.76		56		
3511-	GRID	4109		1096.0	-54.0	57.45		56		
3512-	GRID	4112		1096.0	-75.5	41.95		56		
3513-	GRID	4114		1096.0	-94.86	31.55		456		
3514-	GRID	4116		1096.0	-94.86	19.13		456		
3515-	GRID	4118		1096.0	-94.86	2.12		456		
3516-	GRID	4124		1096.0	-94.86	-4.84		456		
3517-	GRID	4125		1096.0	-75.5	-7.71		56		
3518-	GRID	4132		1096.0	0.0	-8.10		56		
3519-	GRID	4144		1096.0	-22.85	69.0		56		
3520-	GRID	4150		1096.0	0.0	69.0		56		
3521-	GRID	4151		1096.0	-75.5	2.42		56		
3522-	GRID	4152		1096.0	-75.5	16.41		56		
3523-	GRID	4153		1096.0	-54.0	48.0		56		
3524-	GRID	4154		1096.0	0.0	48.0		56		
3525-	GRID	4201		1118.0	0.0	87.4		56		
3526-	GRID	4206		1118.0	-26.47	76.76		56		
3527-	GRID	4209		1118.0	-54.0	57.0		56		
3528-	GRID	4212		1118.0	-75.5	41.05		56		
3529-	GRID	4214		1118.0	-89.75	32.05		456		
3530-	GRID	4215		1118.0	-116.5	26.5		1456		
3531-	GRID	4216		1118.0	-89.75	17.09		456		
3532-	GRID	4217		1118.0	-116.5	20.4		1456		
3533-	GRID	4218		1118.0	-89.75	2.55		456		
3534-	GRID	4224		1118.0	-89.75	-6.07		456		
3535-	GRID	4225		1118.0	-75.5	-7.71		56		
3536-	GRID	4232		1118.0	0.0	-8.10		56		
3537-	GRID	4244		1118.0	-22.85	69.0		56		
3538-	GRID	4250		1118.0	0.0	69.0		56		
3539-	GRID	4251		1118.0	-75.5	2.71		56		
3540-	GRID	4252		1118.0	-75.5	15.09		56		
3541-	GRID	4253		1118.0	-54.0	48.0		56		
3542-	GRID	4254		1118.0	0.0	48.0		56		
3543-	GRID	4301		1140.5	0.0	88.33		56		
3544-	GRID	4306		1140.5	-26.47	76.76		56		
3545-	GRID	4309		1140.5	-54.0	56.5		56		
3546-	GRID	4312		1140.5	-75.5	40.0		56		
3547-	GRID	4314		1140.5	-84.5	33.5		456		
3548-	GRID	4315		1140.5	-116.5	23.6		1456		
3549-	GRID	4316		1140.5	-84.5	15.0		456		
3550-	GRID	4317		1140.5	-116.5	19.2		1456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3551-	GRID	4318		1140.5	-84.5	3.0		456		
3552-	GRID	4324		1140.5	-84.5	-6.57		456		
3553-	GRID	4325		1140.5	-75.5	-7.7		456		
3554-	GRID	4328		1140.5	-52.34	-8.71		456		
3555-	GRID	4332		1140.5	0.0	-11.0		456		
3556-	GRID	4336		1140.5	0.0	72.5		456		
3557-	GRID	4344		1140.5	-21.6	66.27		456		
3558-	GRID	4348		1140.5	-37.2	48.0		456		
3559-	GRID	4349		1140.5	-44.38	22.11		456		
3560-	GRID	4350		1140.5	0.0	66.27		456		
3561-	GRID	4351		1140.5	-75.5	3.0		456		
3562-	GRID	4352		1140.5	-75.5	13.74		456		
3563-	GRID	4353		1140.5	-53.5	48.0		456		
3564-	GRID	4354		1140.5	0.0	48.0		456		
3565-	GRID	4355		1140.5	0.0	33.5		1456		
3566-	GRID	4401		1168.5	0.0	89.47		56		
3567-	GRID	4406		1168.5	-26.47	76.76		56		
3568-	GRID	4409		1168.5	-53.49	56.5		56		
3569-	GRID	4414		1168.5	-82.32	33.21		56		
3570-	GRID	4415		1168.5	-104.1	20.98		156		
3571-	GRID	4416		1168.5	-82.32	13.00		56		
3572-	GRID	4417		1168.5	-116.5	19.48		156		
3573-	GRID	4418		1168.5	-82.32	3.35		56		
3574-	GRID	4424		1168.5	-82.32	-7.03		56		
3575-	GRID	4425		1168.5	-75.5	-7.41		56		
3576-	GRID	4428		1168.5	-52.34	-8.72		56		
3577-	GRID	4436		1168.5	0.0	72.50		56		
3578-	GRID	4444		1168.5	-21.6	66.27		56		
3579-	GRID	4448		1168.5	-36.09	50.39		56		
3580-	GRID	4449		1168.5	-44.38	22.11		56		
3581-	GRID	4501		1194.5	0.0	90.56		56		
3582-	GRID	4506		1194.5	-26.47	76.76		56		
3583-	GRID	4509		1194.5	-52.68	56.5		56		
3584-	GRID	4514		1194.5	-80.27	33.02		56		
3585-	GRID	4515		1194.5	-101.46	18.36		156		
3586-	GRID	4516		1194.5	-80.27	13.00		56		
3587-	GRID	4517		1194.5	-116.5	15.6		156		
3588-	GRID	4524		1194.5	-80.27	-7.49		56		
3589-	GRID	4528		1194.5	-52.34	-8.72		56		
3590-	GRID	4536		1194.5	0.0	72.5		56		
3591-	GRID	4544		1194.5	-21.6	66.27		56		
3592-	GRID	4548		1194.5	-36.09	50.39		56		
3593-	GRID	4549		1194.5	-44.38	22.11		56		
3594-	GRID	4601		1224.5	0.0	91.79		56		
3595-	GRID	4606		1224.5	-26.47	76.76		56		
3596-	GRID	4609		1224.5	-51.66	56.5		56		
3597-	GRID	4614		1224.5	-77.91	33.71		56		
3598-	GRID	4615		1224.5	-101.27	13.36		156		
3599-	GRID	4616		1224.5	-77.91	13.00		56		
3600-	GRID	4617		1224.5	-116.5	10.03		156		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3601-	GRID	4624		1224.5	-77.91	-7.52		56		
3602-	GRID	4628		1224.5	-52.34	-8.72		56		
3603-	GRID	4636		1224.5	0.0	72.5		56		
3604-	GRID	4644		1224.5	-21.6	66.27		56		
3605-	GRID	4648		1224.5	-36.09	50.39		56		
3606-	GRID	4649		1224.5	-44.38	22.11		56		
3607-	GRID	4701		1250.0	0.0	92.83		456		
3608-	GRID	4706		1250.0	-26.47	76.76		456		
3609-	GRID	4709		1250.0	-51.1	56.5		456		
3610-	GRID	4714		1250.0	-75.91	33.1		456		
3611-	GRID	4716		1250.0	-75.91	13.00		456		
3612-	GRID	4724		1250.0	-75.91	-7.1		456		
3613-	GRID	4728		1250.0	-52.34	-8.72		456		
3614-	GRID	4736		1250.0	0.0	72.5		456		
3615-	GRID	4744		1250.0	-21.6	66.27		456		
3616-	GRID	4748		1250.0	-36.09	50.39		456		
3617-	GRID	4749		1250.0	-44.38	22.11		456		
3618-	GRID	4761		1250.0	-96.914	10.967		1456		
3619-	GRID	4762		1250.0	-111.87	4.582		1456		
3620-	GRID	4763		1250.0	-130.51	3.402		1456		
3621-	GRID	4764		1250.0	-158.08	2.425		1456		
3622-	GRID	4765		1250.0	-158.08	-2.605		1456		
3623-	GRID	4766		1250.0	-130.51	-3.798		1456		
3624-	GRID	4767		1250.0	-111.87	-4.608		1456		
3625-	GRID	4768		1250.0	-96.914	-5.093		1456		
3626-	GRID	4801		1275.0	0.0	93.87		56		
3627-	GRID	4806		1275.0	-26.47	76.76		56		
3628-	GRID	4809		1275.0	-50.55	56.5		56		
3629-	GRID	4814		1275.0	-73.92	33.15		56		
3630-	GRID	4816		1275.0	-73.92	13.00		56		
3631-	GRID	4824		1275.0	-73.92	-6.76		56		
3632-	GRID	4828		1275.0	-52.34	-8.72		56		
3633-	GRID	4836		1275.0	0.0	72.5		56		
3634-	GRID	4844		1275.0	-21.6	66.27		56		
3635-	GRID	4848		1275.0	-36.09	50.39		56		
3636-	GRID	4849		1275.0	-44.38	22.11		56		
3637-	GRID	4901		1303.5	0.0	95.03		56		
3638-	GRID	4906		1303.5	-26.47	76.76		56		
3639-	GRID	4909		1303.5	-49.99	56.5		56		
3640-	GRID	4914		1303.5	-71.69	33.19		56		
3641-	GRID	4916		1303.5	-71.69	13.00		56		
3642-	GRID	4924		1303.5	-71.69	-6.23		56		
3643-	GRID	4928		1303.5	-52.34	-8.72		56		
3644-	GRID	4936		1303.5	0.0	72.5		56		
3645-	GRID	4944		1303.5	-21.6	66.27		56		
3646-	GRID	4948		1303.5	-36.09	50.39		56		
3647-	GRID	4949		1303.5	-44.38	22.11		56		
3648-	GRID	5001		1325.0	0.0	95.92		56		
3649-	GRID	5004		1325.0	-9.0	93.5		56		
3650-	GRID	5006		1325.0	-26.47	76.76		56		

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
3651-	GRID	5009		1325.0	-49.55	56.5		456		
3652-	GRID	5014		1325.0	-70.0	33.0		456		
3653-	GRID	5020		1325.0	-82.58	13.0		456		
3654-	GRID	5024		1325.0	-70.0	-5.55		456		
3655-	GRID	5028		1325.0	-52.34	-8.72		456		
3656-	GRID	5030		1325.0	-26.17	-9.76		456		
3657-	GRID	5032		1325.0	0.0	-10.8		456		
3658-	GRID	5036		1325.0	0.0	72.5		56		
3659-	GRID	5044		1325.0	-21.6	66.27		56		
3660-	GRID	5048		1325.0	-36.09	50.39		456		
3661-	GRID	5049		1325.0	-44.38	22.11		456		
3662-	GRID	5050		1325.0	0.0	66.27		56		
3663-	GRID	5051		1325.0	-22.19	22.12		1456		
3664-	GRID	5052		1325.0	0.0	22.12		1456		
3665-	GRID	5053		1325.0	0.0	93.5		56		
3666-	GRID	5055		1325.0	-18.14	50.0		1456		
3667-	GRID	5056		1325.0	0.0	50.0		1456		
3668-	GRID	5101		1333.3	0.0	97.38		56		
3669-	GRID	5104		1333.3	-9.35	93.5		56		
3670-	GRID	5105		1333.3	-13.74	87.31		56		
3671-	GRID	5106		1333.3	-26.64	76.68		56		
3672-	GRID	5108		1333.3	-37.35	67.99		56		
3673-	GRID	5109		1333.3	-51.54	53.88		56		
3674-	GRID	5112		1333.3	-61.5	42.87		56		
3675-	GRID	5114		1333.3	-69.75	33.0		56		
3676-	GRID	5116		1333.3	-75.33	23.0		56		
3677-	GRID	5120		1333.3	-80.78	13.25		56		
3678-	GRID	5124		1333.3	-68.74	-5.17		56		
3679-	GRID	5128		1333.3	-50.91	-8.61		56		
3680-	GRID	5129		1333.3	-36.5	-9.5		56		
3681-	GRID	5130		1333.3	-25.08	-10.03		56		
3682-	GRID	5131		1333.3	-12.0	-10.40		56		
3683-	GRID	5132		1333.3	0.0	-10.8		56		
3684-	GRID	5142		1333.3	-24.1	71.41		56		
3685-	GRID	5144		1333.3	-21.55	66.13		56		
3686-	GRID	5150		1333.3	0.0	66.13		56		
3687-	GRID	5153		1333.3	0.0	93.5		56		
3688-	GRID	5201		1337.0	0.0	98.03		56		
3689-	GRID	5204		1337.0	-9.51	93.5		56		
3690-	GRID	5205		1337.0	-13.18	88.3		56		
3691-	GRID	5206		1337.0	-26.71	76.64		56		
3692-	GRID	5208		1337.0	-37.64	67.54		56		
3693-	GRID	5209		1337.0	-52.42	52.72		56		
3694-	GRID	5212		1337.0	-61.68	42.43		56		
3695-	GRID	5214		1337.0	-69.64	33.0		56		
3696-	GRID	5216		1337.0	-74.85	23.11		56		
3697-	GRID	5220		1337.0	-79.98	13.36		56		
3698-	GRID	5224		1337.0	-68.18	-5.00		56		
3699-	GRID	5228		1337.0	-50.27	-8.56		56		
3700-	GRID	5229		1337.0	-36.27	-9.64		56		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3701-	GRID	5230		1337.0	-24.59	-10.08		56		
3702-	GRID	5231		1337.0	-12.0	-10.40		56		
3703-	GRID	5232		1337.0	0.0	-10.8		56		
3704-	GRID	5242		1337.0	-24.13	71.36		56		
3705-	GRID	5244		1337.0	-21.53	66.07		56		
3706-	GRID	5250		1337.0	0.0	66.07		56		
3707-	GRID	5253		1337.0	0.0	93.5		56		
3708-	GRID	5301		1341.5	0.0	98.82		56		
3709-	GRID	5304		1341.5	-9.7	93.5		56		
3710-	GRID	5305		1341.5	-12.5	89.5		56		
3711-	GRID	5306		1341.5	-26.8	76.6		56		
3712-	GRID	5308		1341.5	-38.0	67.0		56		
3713-	GRID	5309		1341.5	-53.5	51.3		56		
3714-	GRID	5312		1341.5	-61.9	41.9		56		
3715-	GRID	5314		1341.5	-69.5	33.0		56		
3716-	GRID	5316		1341.5	-74.25	23.25		56		
3717-	GRID	5320		1341.5	-79.0	13.5		56		
3718-	GRID	5324		1341.5	-67.5	-4.8		56		
3719-	GRID	5328		1341.5	-49.5	-8.5		56		
3720-	GRID	5329		1341.5	-36.0	-9.8		56		
3721-	GRID	5330		1341.5	-24.0	-10.2		56		
3722-	GRID	5331		1341.5	-12.0	-10.6		56		
3723-	GRID	5332		1341.5	0.0	-10.8		56		
3724-	GRID	5342		1341.5	-24.15	71.3		56		
3725-	GRID	5344		1341.5	-21.5	66.0		56		
3726-	GRID	5350		1341.5	0.0	66.0		56		
3727-	GRID	5353		1341.5	0.0	93.5		56		
3728-	GRID	5401		1366.6	0.0	102.96		56		
3729-	GRID	5402		1366.6	-5.29	102.96		56		
3730-	GRID	5404		1366.6	-9.85	93.5		56		
3731-	GRID	5406		1366.6	-26.60	76.45		56		
3732-	GRID	5409		1366.6	-53.60	50.60		56		
3733-	GRID	5414		1366.6	-67.75	30.80		56		
3734-	GRID	5420		1366.6	-74.20	13.5		56		
3735-	GRID	5424		1366.6	-63.75	-4.25		56		
3736-	GRID	5428		1366.6	-45.90	-8.50		56		
3737-	GRID	5430		1366.6	-22.49	-10.05		56		
3738-	GRID	5432		1366.6	0.0	-10.95		56		
3739-	GRID	5444		1366.6	-21.65	66.0		56		
3740-	GRID	5450		1366.6	0.0	66.0		56		
3741-	GRID	5453		1366.6	0.0	93.5		56		
3742-	GRID	5501		1391.5	0.0	107.21		56		
3743-	GRID	5502		1391.5	-4.2	107.21		56		
3744-	GRID	5504		1391.5	-10.6	93.5		56		
3745-	GRID	5506		1391.5	-26.3	76.35		56		
3746-	GRID	5509		1391.5	-54.0	48.5		56		
3747-	GRID	5514		1391.5	-66.2	29.0		56		
3748-	GRID	5520		1391.5	-69.5	13.5		56		
3749-	GRID	5524		1391.5	-60.6	-3.5		56		
3750-	GRID	5528		1391.5	-42.4	-8.0		56		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3751-	GRID	5530		1391.5	-21.0	-9.9		56		
3752-	GRID	5532		1391.5	0.0	-10.5		56		
3753-	GRID	5544		1391.5	-21.2	66.0		56		
3754-	GRID	5550		1391.5	0.0	66.0		56		
3755-	GRID	5553		1391.5	0.0	93.5		56		
3756-	GRID	5601		1425.0	0.0	112.89		56		
3757-	GRID	5602		1425.0	-4.08	112.89		56		
3758-	GRID	5604		1425.0	-11.0	93.5		56		
3759-	GRID	5606		1425.0	-26.0	76.0		56		
3760-	GRID	5609		1425.0	-53.5	46.2		56		
3761-	GRID	5614		1425.0	-62.5	27.0		56		
3762-	GRID	5620		1425.0	-63.5	13.5		56		
3763-	GRID	5624		1425.0	-55.0	-1.8		56		
3764-	GRID	5628		1425.0	-37.0	-7.2		56		
3765-	GRID	5630		1425.0	-20.00	-10.00		56		
3766-	GRID	5632		1425.0	0.0	-10.8		56		
3767-	GRID	5644		1425.0	-21.3	66.0		56		
3768-	GRID	5650		1425.0	0.0	66.0		56		
3769-	GRID	5653		1425.0	0.0	93.5		56		
3770-	GRID	5701		1450.0	0.0	117.10		56		
3771-	GRID	5702		1450.0	-4.40	117.10		56		
3772-	GRID	5704		1450.0	-10.85	93.5		56		
3773-	GRID	5706		1450.0	-25.90	75.10		56		
3774-	GRID	5709		1450.0	-52.60	44.75		56		
3775-	GRID	5714		1450.0	-59.85	24.60		56		
3776-	GRID	5720		1450.0	-59.65	13.5		56		
3777-	GRID	5724		1450.0	-53.00	1.90		56		
3778-	GRID	5728		1450.0	-33.60	-6.35		56		
3779-	GRID	5732		1450.0	0.0	-11.10		56		
3780-	GRID	5744		1450.0	-21.45	66.0		56		
3781-	GRID	5750		1450.0	0.0	66.0		56		
3782-	GRID	5753		1450.0	0.0	93.5		56		
3783-	GRID	5801		1475.0	0.0	121.38		56		
3784-	GRID	5802		1475.0	-4.65	121.38		56		
3785-	GRID	5804		1475.0	-10.5	93.5		56		
3786-	GRID	5806		1475.0	-24.9	74.0		56		
3787-	GRID	5809		1475.0	-51.5	43.3		56		
3788-	GRID	5814		1475.0	-57.0	23.6		56		
3789-	GRID	5820		1475.0	-55.5	13.5		56		
3790-	GRID	5824		1475.0	-48.6	1.0		56		
3791-	GRID	5828		1475.0	-29.6	-6.7		56		
3792-	GRID	5832		1475.0	0.0	-11.0		56		
3793-	GRID	5844		1475.0	-21.4	66.0		56		
3794-	GRID	5850		1475.0	0.0	66.0		56		
3795-	GRID	5853		1475.0	0.0	93.5		56		
3796-	GRID	5901		1500.2	0.0	125.66		456		
3797-	GRID	5902		1500.2	-4.75	125.66		456		
3798-	GRID	5903		1500.2	-7.45	114.[illegible]		456		
3799-	GRID	5904		1500.2	-10.3	93.5		456		
3800-	GRID	5905		1500.2	-12.36	80.0		456		

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3801-	GRID	5906		1500.2	-25.0	72.6		56		
3802-	GRID	5909		1500.2	-49.7	42.1		56		
3803-	GRID	5914		1500.2	-53.5	22.8		56		
3804-	GRID	5920		1500.2	-51.7	13.50		56		
3805-	GRID	5924		1500.2	-44.0	1.55		56		
3806-	GRID	5928		1500.2	-25.5	-7.0		56		
3807-	GRID	5932		1500.2	0.0	-10.8		56		
3808-	GRID	5944		1500.2	-21.5	66.0		56		
3809-	GRID	5950		1500.2	0.0	66.0		56		
3810-	GRID	5951		1500.2	-14.5	66.0		56		
3811-	GRID	5953		1500.2	0.0	93.5		456		
3812-	GRID	6001		1527.0	0.0	126.0		456		
3813-	GRID	6002		1527.0	-5.1	126.0		456		
3814-	GRID	6003		1527.0	-7.59	114.0		456		
3815-	GRID	6004		1527.0	-10.3	92.7		456		
3816-	GRID	6005		1527.0	-11.87	80.0		456		
3817-	GRID	6006		1527.0	-24.0	71.0		56		
3818-	GRID	6009		1527.0	-47.6	41.1		56		
3819-	GRID	6014		1527.0	-50.0	25.0		56		
3820-	GRID	6020		1527.0	-47.8	13.5		56		
3821-	GRID	6024		1527.0	-39.5	1.7		56		
3822-	GRID	6028		1527.0	-21.97	-7.19		56		
3823-	GRID	6032		1527.0	0.0	-10.9		56		
3824-	GRID	6044		1527.0	-20.5	63.6		56		
3825-	GRID	6050		1527.0	0.0	63.6		56		
3826-	GRID	6051		1527.0	-13.90	63.6		56		
3827-	GRID	6053		1527.0	0.0	92.7		456		
3828-	GRID	6101		1547.0	0.0	126.0		456		
3829-	GRID	6102		1547.0	-5.19	126.0		456		
3830-	GRID	6103		1547.0	-7.23	114.0		456		
3831-	GRID	6104		1547.0	-9.5	92.3		456		
3832-	GRID	6105		1547.0	-10.44	80.0		456		
3833-	GRID	6106		1547.0	-23.1	69.5		56		
3834-	GRID	6109		1547.0	-46.3	41.5		56		
3835-	GRID	6114		1547.0	-48.5	26.8		56		
3836-	GRID	6120		1547.0	-46.0	13.5		56		
3837-	GRID	6124		1547.0	-37.8	1.6		56		
3838-	GRID	6128		1547.0	-20.0	-7.3		56		
3839-	GRID	6132		1547.0	0.0	-11.1		56		
3840-	GRID	6144		1547.0	-19.5	62.2		56		
3841-	GRID	6150		1547.0	0.0	62.2		56		
3842-	GRID	6151		1547.0	-11.8	62.2		56		
3843-	GRID	6153		1547.0	0.0	92.3		456		
3844-	GRID	6201		1582.000	0.0	126.0		5		
3845-	GRID	6202		1582.000	-4.72	126.0		5		
3846-	GRID	6203		1579.985	-6.45	114.00		456		
3847-	GRID	6204		1576.148	-8.66	91.14		456		
3848-	GRID	6205		1573.916	-9.71	77.85		456		
3849-	GRID	6206		1572.429	-22.9	68.99		456		
3850-	GRID	6209		1568.066	-42.74	43.00		456		

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
3851-	GRID	6214		1565.799	-45.5	29.5		456		
3852-	GRID	6220		1563.113	-43.2	13.5		456		
3853-	GRID	6224		1561.082	-35.00	1.40		456		
3854-	GRID	6228		1559.504	-17.5	-8.0		456		
3855-	GRID	6232		1559.0000.0		-11.0		456		
3856-	GRID	6244		1570.920	-19.0	60.0		456		
3857-	GRID	6248		1565.799.0		29.50		1456		
3858-	GRID	6249		1565.799	-13.50	29.50		1456		
3859-	GRID	6250		1570.9200.0		60.0		456		
3860-	GRID	6251		1570.920	-10.86	60.0		456		
3861-	GRID	6253		1576.1480.0		91.14		456		
3862-	GRID	6306		1641.0	-18.54	59.06		456		
3863-	GRID	6309		1641.0	-31.49	45.65		456		
3864-	GRID	6314		1641.0	-36.0	28.2		456		
3865-	GRID	6324		1641.0	-26.54	3.88		456		
3866-	GRID	6332		1641.0	.0	-7.80		456		
3867-	GRID	6344		1641.0	-16.85	56.25		456		
3868-	GRID	6350		1641.0	.0	56.25		456		
3869-	GRID	6354		1641.0	.0	64.2		456		
3870-	GRID	6355		1641.0	.0	28.2		1456		
3871-	GRID	6406		1718.0	-11.53	45.17		56		
3872-	GRID	6409		1718.0	-19.58	36.84		56		
3873-	GRID	6414		1718.0	-22.38	25.99		56		
3874-	GRID	6424		1718.0	-16.50	10.87		56		
3875-	GRID	6432		1718.0	.0	3.61		56		
3876-	GRID	6454		1718.0	.0	48.37		56		
3877-	GRID	6514		1800.0	.0	22.81		456		
3878-	MAT1	1	10.5+6	4.0+6	.33	.100				
3879-	MAT1	2	16.2+6	6.4+6	.33	.160				
3880-	MAT1	3	30.+6	12.+6	.33	.300				
3881-	MAT1	4	3.6+6	1.4+6	.14	.075				
3882-	MAT1	5	26.0+6	10.0+6	.33	.15				
3883-	MAT1	6	.4+6	.16+6	.33					
3884-	MPC	1	111	3	-1.000	901	3	-.003760		+111A
3885-	+111A		918	3	.151047	1018	3	.076744		+111B
3886-	+111B		1051	3	.775969					
3887-	MPC	1	112	3	-1.000	1118	3	.041649		+112A
3888-	+112A		1151	3	.559948	1318	3	.019594		+112B
3889-	+112B		1351	3	.378809					
3890-	MPC	1	113	3	-1.000	1118	3	.003780		+113A
3891-	+113A		1151	3	.050826	1318	3	.018338		+113B
3892-	+113B		1351	3	.354539	1418	3	.019018		+113C
3893-	+113C		1451	3	.441647	1518	3	.004092		+113D
3894-	+113D		1551	3	.107760					
3895-	MPC	1	114	3	-1.000	1318	3	.001301		+114A
3896-	+114A		1351	3	.025154	1418	3	.012442		+114B
3897-	+114B		1451	3	.288936	1518	3	.020727		+114C
3898-	+114C		1551	3	.545815	1618	3	.003278		+114D
3899-	+114D		1651	3	.102347					
3900-	MPC	1	115	3	-1.000	1518	3	.008555		+115A

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3901-	+115A		1551	3	.225272	1618	3	.021711		+115B
3902-	+115B		1651	3	.677853	1818	3	.001713		+115C
3903-	+115C		1854	3	.064896					
3904-	MPC	1	116	3	-1.000	1710	3	.042161		+116A
3905-	+116A		1756	3	.153167	1810	3	.084380		+116B
3906-	+116B		1856	3	.584456	1954	3	.111612		+116C
3907-	+116C		1955	3	.024224					
3908-	MPC	1	117	3	-1.000	1810	3	.023432		+117A
3909-	+117A		1856	3	.138867	1954	3	.556607		+117B
3910-	+117B		1955	3	.120801	2054	3	.118525		+117C
3911-	+117C		2055	3	.041768					
3912-	MPC	1	118	3	-1.000	1954	3	.074744		+118A
3913-	+118A		1955	3	.016222	2054	3	.228692		+118B
3914-	+118B		2055	3	.080592	2354	3	.030626		+118C
3915-	+118C		2344	3	.409624	2448	3	.003509		+118D
3916-	+118D		2444	3	.078951	2548	3	.003088		+118E
3917-	+118E		2544	3	.069297	2648	3	.000198		+118F
3918-	+118F		2644	3	.004465					
3919-	MPC	1	119	3	-1.000	2351	3	.161539		+119A
3920-	+119A		2352	3	.376923	2851	3	.326123		+119B
3921-	+119B		2848	3	.135415					
3922-	MPC	1	120	3	-1.000	2351	3	.115385		+120A
3923-	+120A		2352	3	.269231	2851	3	.434831		+120B
3924-	+120B		2848	3	.180553					
3925-	MPC	1	121	3	-1.000	2544	3	.052725		+121A
3926-	+121A		2548	3	.002343	2644	3	.176509		+121B
3927-	+121B		2648	3	.007845	2744	3	.165169		+121C
3928-	+121C		2748	3	.007341	2844	3	.183811		+121D
3929-	+121D		2848	3	.008169	2944	3	.165274		+121E
3930-	+121E		2948	3	.007346	3044	3	.187279		+121F
3931-	+121F		3048	3	.008323	3144	3	.026680		+121G
3932-	+121G		3148	3	.001186					
3933-	MPC	1	122	3	-1.000	2851	3	.380478		+122A
3934-	+122A		2848	3	.157984	3348	3	.136752		+122B
3935-	+122B		3351	3	.324786					
3936-	MPC	1	123	3	-1.000	2851	3	.271770		+123A
3937-	+123A		2848	3	.112845	3348	3	.182336		+123B
3938-	+123B		3351	3	.433049					
3939-	MPC	1	124	3	-1.000	3044	3	.044514		+124A
3940-	+124A		3048	3	.001978	3144	3	.178071		+124B
3941-	+124B		3148	3	.007914	3244	3	.176350		+124C
3942-	+124C		3248	3	.007838	3308	3	.068866		+124D
3943-	+124D		3350	3	.052928	3408	3	.043487		+124E
3944-	+124E		3450	3	.033423	3508	3	.043487		+124F
3945-	+124F		3550	3	.033423	3608	3	.043487		+124G
3946-	+124G		3650	3	.033423	3708	3	.067431		+124H
3947-	+124H		3750	3	.051825	3844	3	.103742		+124I
3948-	+124I		3806	3	.003197	3944	3	.004552		+124J
3949-	+124J		3906	3	.000064					
3950-	MPC	1	125	3	-1.000	3806	3	.000436		+125A

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
3951-	+125A		3844	3	.014151	3906	3	.001209		+125B
3952-	+125B		3944	3	.086311	4006	3	.001762		+125C
3953-	+125C		4044	3	.125823	4106	3	.001828		+125D
3954-	+125D		4144	3	.130544	4206	3	.001525		+125E
3955-	+125E		4244	3	.108916	4344	3	.118414		+125F
3956-	+125F		4348	3	.010765	4444	3	.136919		+125G
3957-	+125G		4449	3	.008287	4544	3	.144454		+125H
3958-	+125H		4549	3	.008743	4644	3	.087788		+125I
3959-	+125I		4649	3	.005308	4744	3	.006428		+125J
3960-	+125J		4749	3	.000389					
3961-	MPC	1	126	3	-1.000	4349	3	.152416		+126A
3962-	+126A		4355	3	.411270	5049	3	.117976		+126B
3963-	+126B		5052	3	.318338					
3964-	MPC	1	127	3	-1.000	4349	3	.108450		+127A
3965-	+127A		4355	3	.292634	5049	3	.161942		+127B
3966-	+127B		5052	3	.436974					
3967-	MPC	1	128	3	-1.000	4644	3	.004579		+128A
3968-	+128A		4649	3	.000277	4744	3	.040126		+128B
3969-	+128B		4749	3	.002428	4844	3	.100818		+128C
3970-	+128C		4849	3	.006102	4944	3	.123478		+128D
3971-	+128D		4949	3	.007473	5044	3	.210662		+128E
3972-	+128E		5049	3	.012750	5330	3	.197464		+128F
3973-	+128F		5344	3	.144807	5428	3	.002610		+128G
3974-	+128G		5430	3	.146426					
3975-	MPC	1	129	3	-1.000	5428	3	.003514		+129A
3976-	+129A		5430	3	.197137	5528	3	.039374		+129B
3977-	+129B		5530	3	.404102	5628	3	.049947		+129C
3978-	+129C		5630	3	.242846	5728	3	.007528		+129D
3979-	+129D		5744	3	.055552					
3980-	MPC	1	130	3	-1.000	5728	3	.013064		+130A
3981-	+130A		5744	3	.096406	5828	3	.049998		+130B
3982-	+130B		5844	3	.223326	5928	3	.089973		+130C
3983-	+130C		5944	3	.167092	6024	3	.012250		+130D
3984-	+130D		6028	3	.218647	6124	3	.021057		+130E
3985-	+130E		6128	3	.108187					
3986-	MPC	1	131	3	-1.000	6214	3	.160154		+131A
3987-	+131A		6249	3	.385052	6314	3	.289300		+131B
3988-	+131B		6355	3	.165494					
3989-	MPC	1	132	3	-1.000	6314	3	.528716		+132A
3990-	+132A		6355	3	.302453	6414	3	.172754		+132B
3991-	+132B		6454	3	-.003923					
3992-	MPC	1	133	3	-1.000	6201	3	1.000		
3993-	MPC	1	3701	1	-.04556	999	1	-1.0		+1A
3994-	+1A		3706	1	-.0635943708		1	-.005274		+1B
3995-	+1B		3709	1	.004674	3712	1	.052242		+1C
3996-	+1C		3714	1	.288878	3718	1	.499422		+1D
3997-	+1D		3732	1	.131688	3744	1	-.01447		+1E
3998-	+1E		3750	1	-.01727	3751	1	.150810		+1F
3999-	+1F		3753	1	.010106	3754	1	.008348		+1G
4000-	+1G		3706	2	-.0240743708		2	-.037608		+1H

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4001-	+1H		3709	2	.026556	3712	2	.070516		+1I
4002-	+1I		3714	2	.066880	3718	2	.115626		+1J
4003-	+1J		3724	2	.017364	3725	2	.017250		+1K
4004-	+1K		3744	2	-.0421143750		2	-.037376		+1L
4005-	+1L		3751	2	.058034	3752	2	.000004		+1M
4006-	+1M		3753	2	.034508	3754	2	.078462		+1N
4007-	+1N		3757	2	.112398	3764	2	.000390		+1O
4008-	+1O		3701	3	-.0010563706		3	.000006		+1P
4009-	+1P		3708	3	-.02357	3709	3	-.009190		+1Q
4010-	+1Q		3712	3	.024682	3714	3	-.004862		+1R
4011-	+1R		3716	3	-.055770	3718	3	-.055740		+1S
4012-	+1S		3724	3	-.0069123725		3	-.002496		+1T
4013-	+1T		3732	3	.000316	3744	3	.007744		+1U
4014-	+1U		3750	3	.041428	3751	3	.037398		+1V
4015-	+1V		3752	3	.039242	3753	3	-.026060		+1W
4016-	+1W		3757	3	.035800	3764	3	-.000960		
4017-	MPC	1	3701	3	.021976	999	3	-1.000		+3A
4018-	+3A		3706	3	.012077	3708	3	-.358390		+3B
4019-	+3B		3709	3	-.3159543712		3	.116350		+3C
4020-	+3C		3714	3	-.0008913716		3	-.010031		+3D
4021-	+3D		3718	3	-.0257713724		3	-.026761		+3E
4022-	+3E		3725	3	.016334	3732	3	.009338		+3F
4023-	+3F		3744	3	.133146	3750	3	.604752		+3G
4024-	+3G		3751	3	.223923	3752	3	.212572		+3H
4025-	+3H		3753	3	-.2696913754		3	.591454		+3I
4026-	+3I		3764	3	-.0655673706		2	-.367266		+3J
4027-	+3J		3708	2	-.5619203709		2	-.149134		+3K
4028-	+3K		3712	2	.256921	3724	2	.084672		+3L
4029-	+3L		3725	2	.084112	3744	2	-.617192		+3M
4030-	+3M		3750	2	-.5393833751		2	-.000033		+3N
4031-	+3N		3752	2	.000066	3753	2	.386207		+3O
4032-	+3O		3754	2	.969774	3757	2	1.354826		+3P
4033-	+3P		3764	2	-.018380					
4034-	MPC	1	3706	2	-.000158999		5	-1.000		+4A
4035-	+4A		3708	2	-.000160	3709	2	-.000284		+4B
4036-	+4B		3712	2	-.0002203714		2	-.000238		+4C
4037-	+4C		3718	2	-.0018783724		2	-.000018		+4D
4038-	+4D		3725	2	-.0000183744		2	.000158		+4E
4039-	+4E		3751	2	.000216	3751	2	-.000944		+4F
4040-	+4F		3753	2	-.0000663754		2	-.000378		+4G
4041-	+4G		3757	2	-.0004943764		2	-.000008		+4H
4042-	+4H		3701	3	.000130	3706	3	.000048		+4I
4043-	+4I		3708	3	-.0001523709		3	-.000216		+4J
4044-	+4J		3712	3	-.0000903714		3	.000032		+4K
4045-	+4K		3716	3	.000386	3718	3	.000378		+4L
4046-	+4L		3724	3	.000028	3725	3	.000092		+4M
4047-	+4M		3744	3	.000142	3750	3	-.000336		+4N
4048-	+4N		3751	3	-.0000323752		3	-.000130		+4O
4049-	+4O		3753	3	-.0000103754		3	-.000296		+4P
4050-	+4P		3764	3	.000026	3701	1	.002932		+4Q

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4051-	+4Q		3706	1	.004903	3708	1	.000662		+4R
4052-	+4R		3709	1	.001268	3712	1	.000012		+4S
4053-	+4S		3714	1	-.001032	3718	1	-.008107		+4T
4054-	+4T		3732	1	-.002316	3744	1	.001818		+4U
4055-	+4U		3750	1	.001816	3751	1	-.002448		+4V
4056-	+4V		3753	1	.000270	3754	1	.000222		
4057-	PBAR	901	4		10.	.2				
4058-	PBAR	1101	1		1.0	1.0				
4059-	PBAR	1102	1		1.3	2.0				
4060-	PBAR	1301	1		1.0	2.0				
4061-	PBAR	1302	1		1.5	8.0				
4062-	PBAR	1303	1		.7	2.0				
4063-	PBAR	1401	1		1.0	4.0				
4064-	PBAR	1402	1		1.5	9.0				
4065-	PBAR	1403	1		1.8	15.0				
4066-	PBAR	1404	1		3.0	25.0				
4067-	PBAR	1405	1		.9	2.0				
4068-	PBAR	1501	1		1.4	5.0				
4069-	PBAR	1502	1		1.7	10.0				
4070-	PBAR	1503	1		2.0	45.0				
4071-	PBAR	1504	1		2.2	65.0				
4072-	PBAR	1505	1		.5	.5				
4073-	PBAR	1506	1		4.5	50.0				
4074-	PBAR	1507	1		.5	30.0				
4075-	PBAR	1601	1		1.5	5.0				
4076-	PBAR	1602	1		2.0	7.0				
4077-	PBAR	1603	1		1.7	6.0				
4078-	PBAR	1604	1		1.5	5.0				
4079-	PBAR	1605	1		3.0	10.0				
4080-	PBAR	1701	1		2.9	3.4				
4081-	PBAR	1702	1		3.2	4.2				
4082-	PBAR	1703	1		2.5	3.0				
4083-	PBAR	1704	1		2.8	2.8				
4084-	PBAR	1705	1		2.5	5.0				
4085-	PBAR	1706	1		1.5	4.0				
4086-	PBAR	1901	1		1.5	1.6				
4087-	PBAR	1902	1		1.5	2.2				
4088-	PBAR	1903	1		1.6	1.7				
4089-	PBAR	1904	1		2.1	2.7				
4090-	PBAR	1905	1		1.0	1.5				
4091-	PBAR	1906	1		1.0	1.3				
4092-	PBAR	1907	1		1.5	2.0				
4093-	PBAR	1908	1		.65	20.0				
4094-	PBAR	1909	1		2.5	2.0				
4095-	PBAR	1910	1		3.3	3.0				
4096-	PBAR	2001	1		1.3	1.4				
4097-	PBAR	2002	1		2.0	2.3				
4098-	PBAR	2003	1		1.7	1.5				
4099-	PBAR	2004	1		1.3	1.1				
4100-	PBAR	2005	1		.9	.7				

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4101-	PBAR	2006	1	.7	.8					
4102-	PBAR	2007	1	1.0	1.0					
4103-	PBAR	2008	1	.9	1.2					
4104-	PBAR	2009	1	.7	1.0					
4105-	PBAR	2010	1	.7	1.1					
4106-	PBAR	2011	1	.3	.4					
4107-	PBAR	2012	1	1.5	2.0					
4108-	PBAR	2013	1	.4	.8					
4109-	PBAR	2014	1	.5	.7					
4110-	PBAR	2401	1	3.6	120.					
4111-	PBAR	2402	1	2.6	21.					
4112-	PBAR	2403	1	2.6	18.					
4113-	PBAR	2404	1	3.9	2.					
4114-	PBAR	2405	1	1.6	11.					
4115-	PBAR	2406	1	3.2	30.					
4116-	PBAR	2407	1	2.5	15.					
4117-	PBAR	2408	1	1.9	3.					
4118-	PBAR	2409	1	2.4	45.					
4119-	PBAR	2410	1	2.5	20.					
4120-	PBAR	2501	1	3.5	100.					
4121-	PBAR	2502	1	4.0	38.					
4122-	PBAR	2503	1	3.8	27.					
4123-	PBAR	2504	1	2.4	3.					
4124-	PBAR	2505	1	3.7	125.					
4125-	PBAR	2506	1	2.5	18.					
4126-	PBAR	2601	1	1.9	23.					
4127-	PBAR	2602	1	1.9	27.					
4128-	PBAR	2603	1	4.0	50.					
4129-	PBAR	2604	1	3.0	165.					
4130-	PBAR	2605	1	2.2	30.					
4131-	PBAR	2606	1	2.0	16.					
4132-	PBAR	2607	1	2.0	125.					
4133-	PBAR	2701	1	2.5	150.					
4134-	PBAR	2702	1	2.5	33.					
4135-	PBAR	2703	1	2.5	40.					
4136-	PBAR	2704	1	2.5	50.					
4137-	PBAR	2705	1	5.0	35.					
4138-	PBAR	2706	1	3.0	65.					
4139-	PBAR	2707	1	3.0	90.					
4140-	PBAR	2708	1	3.2	45.					
4141-	PBAR	2709	1	3.0	28.					
4142-	PBAR	2901	1	3.8	23.					
4143-	PBAR	2902	1	4.0	30.					
4144-	PBAR	2903	1	4.0	45.					
4145-	PBAR	2904	1	1.5	3.					
4146-	PBAR	2905	1	4.0	5.					
4147-	PBAR	2906	1	2.0	3.					
4148-	PBAR	2907	1	4.0	125.					
4149-	PBAR	2908	1	4.5	70.					
4150-	PBAR	2909	1	4.2	35.					

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4151-	PBAR	2910	1	1.5	25.					
4152-	PBAR	2911	1	4.0	10.0					
4153-	PBAR	3001	1	2.8	23.					
4154-	PBAR	3002	1	2.8	30.					
4155-	PBAR	3003	1	2.8	50.					
4156-	PBAR	3004	1	3.0	90.					
4157-	PBAR	3005	1	3.0	140.					
4158-	PBAR	3006	1	2.7	40.					
4159-	PBAR	3007	1	2.7	20.					
4160-	PBAR	3008	1	2.2	100.					
4161-	PBAR	3009	1	1.8	40.					
4162-	PBAR	3101	1	2.5	130.					
4163-	PBAR	3102	1	2.7	20.					
4164-	PBAR	3103	1	2.7	35.					
4165-	PBAR	3104	1	2.5	80.					
4166-	PBAR	3105	1	2.5	32.					
4167-	PBAR	3106	1	2.5	18.					
4168-	PBAR	3107	1	1.5	30.					
4169-	PBAR	3201	1	2.2	10.					
4170-	PBAR	3202	1	2.2	17.					
4171-	PBAR	3203	1	2.6	275.					
4172-	PBAR	3204	1	2.0	20.					
4173-	PBAR	3205	1	2.0	15.					
4174-	PBAR	3206	1	1.5	20.					
4175-	PBAR	3207	1	1.8	115.					
4176-	PBAR	3401	2	4.8	15.0					
4177-	PBAR	3402	2	5.0	12.0					
4178-	PBAR	3403	2	6.0	40.0					
4179-	PBAR	3404	2	14.0	120.0					
4180-	PBAR	3405	2	8.0	100.0					
4181-	PBAR	3406	2	12.0	110.0					
4182-	PBAR	3407	2	.8	5.0					
4183-	PBAR	3408	2	1.5	4.0					
4184-	PBAR	3409	2	1.0	.5					
4185-	PBAR	3410	2	10.0	10.0					
4186-	PBAR	3411	2	8.0	50.0					
4187-	PBAR	3412	2	1.0	5.0					
4188-	PBAR	3413	2	1.0	1.0					
4189-	PBAR	3601	2	8.0	50.0					
4190-	PBAR	3602	2	6.6	15.0					
4191-	PBAR	3603	2	10.0	40.0					
4192-	PBAR	3604	2	15.0	65.0					
4193-	PBAR	3605	2	7.0	110.0					
4194-	PBAR	3606	2	12.0	110.0					
4195-	PBAR	3607	2	.5	4.0					
4196-	PBAR	3608	2	.6	1.5					
4197-	PBAR	3609	2	1.0	.5					
4198-	PBAR	3610	2	10.0	10.0					
4199-	PBAR	3611	2	5.0	25.0					
4200-	PBAR	3612	2	6.0	50.0					

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4201-	PBAR	3613	2	1.0	2.0					
4202-	PBAR	3614	2	1.0	5.0					
4203-	PBAR	3615	2	1.0	1.0					
4204-	PBAR	3801	1	3.3	5.0					
4205-	PBAR	3802	1	1.5	3.0					
4206-	PBAR	3803	1	1.2	20.0					
4207-	PBAR	3804	1	1.5	4.0					
4208-	PBAR	3805	1	1.5	1.0					
4209-	PBAR	3806	1	1.0	.8					
4210-	PBAR	3807	1	5.0	2.0					
4211-	PBAR	3808	1	4.7	5.0					
4212-	PBAR	3901	1	2.1	.5					
4213-	PBAR	3902	1	2.5	5.0					
4214-	PBAR	3903	1	3.5	16[illegible]					
4215-	PBAR	3904	1	1.5	.6					
4216-	PBAR	3905	1	2.0	2.0					
4217-	PBAR	3906	1	1.5	3.0					
4218-	PBAR	3907	1	1.5	10.0					
4219-	PBAR	4001	1	2.0	.6					
4220-	PBAR	4002	1	.9	.4					
4221-	PBAR	4003	1	3.3	160.0					
4222-	PBAR	4004	1	4.4	5.0					
4223-	PBAR	4005	1	1.0	1.0					
4224-	PBAR	4006	1	2.0	2.0					
4225-	PBAR	4007	1	1.0	10.0					
4226-	PBAR	4101	1	2.2	1.5					
4227-	PBAR	4102	1	1.8	3.4					
4228-	PBAR	4103	1	5.7	275.0					
4229-	PBAR	4104	1	4.9	6.0					
4230-	PBAR	4105	1	.8	.2					
4231-	PBAR	4106	1	4.5	5.0					
4232-	PBAR	4107	1	1.5	1.5					
4233-	PBAR	4108	1	2.5	3.0					
4234-	PBAR	4109	1	4.9	5.0					
4235-	PBAR	4110	1	.8	10.0					
4236-	PBAR	4201	1	1.9	1.0					
4237-	PBAR	4202	1	1.6	3.4					
4238-	PBAR	4203	1	1.5	3.0					
4239-	PBAR	4204	1	4.8	235.0					
4240-	PBAR	4205	1	.8	1.8					
4241-	PBAR	4206	1	1.7	.5					
4242-	PBAR	4207	1	3.3	4.0					
4243-	PBAR	4208	1	.5	.2					
4244-	PBAR	4209	1	.25	.6					
4245-	PBAR	4210	1	.5	10.0					
4246-	PBAR	4301	1	2.0	1.8					
4247-	PBAR	4302	1	.2	.1					
4248-	PBAR	4303	1	1.5	1.0					
4249-	PBAR	4304	1	1.0	1.0					
4250-	PBAR	4401	1	2.4	2.0					

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
4251-	PBAR	4402	1	4.1	4.5					
4252-	PBAR	4403	1	6.9	17[illegible].0					
4253-	PBAR	4404	1	6.5	15.0					
4254-	PBAR	4405	1	3.1	3.5					
4255-	PBAR	4406	1	1.3	1.3					
4256-	PBAR	4407	1	3.5	3.6					
4257-	PBAR	4408	1	1.0	.4					
4258-	PBAR	4409	1	.8	.2					
4259-	PBAR	4410	1	.5	.6					
4260-	PBAR	4411	1	.6	1.2					
4261-	PBAR	4501	1	2.6	1.6					
4262-	PBAR	4502	1	4.4	5.0					
4263-	PBAR	4503	1	4.0	.9					
4264-	PBAR	4504	1	6.3	4.3					
4265-	PBAR	4505	1	4.0	10.0					
4266-	PBAR	4506	1	3.0	3.5					
4267-	PBAR	4507	1	1.3	1.3					
4268-	PBAR	4508	1	3.5	3.6					
4269-	PBAR	4509	1	1.0	.4					
4270-	PBAR	4510	1	.8	.2					
4271-	PBAR	4511	1	.6	.7					
4272-	PBAR	4512	1	.7	3.6					
4273-	PBAR	4601	1	3.3	2.3					
4274-	PBAR	4602	1	5.8	6.5					
4275-	PBAR	4603	1	8.0	120.0					
4276-	PBAR	4604	1	9.3	15.0					
4277-	PBAR	4605	1	4.2	4.7					
4278-	PBAR	4606	1	1.7	1.8					
4279-	PBAR	4607	1	1.9	2.7					
4280-	PBAR	4608	1	4.6	4.8					
4281-	PBAR	4609	1	1.4	.6					
4282-	PBAR	4610	1	1.3	.3					
4283-	PBAR	4611	1	.6	1.4					
4284-	PBAR	4612	1	.8	5.0					
4285-	PBAR	4801	1	2.7	2.5					
4286-	PBAR	4802	1	4.5	5.0					
4287-	PBAR	4803	1	2.8	3.5					
4288-	PBAR	4804	1	6.3	11.0					
4289-	PBAR	4805	1	2.1	3.5					
4290-	PBAR	4806	1	1.3	1.3					
4291-	PBAR	4807	1	1.6	2.7					
4292-	PBAR	4808	1	3.5	3.6					
4293-	PBAR	4809	1	1.0	.4					
4294-	PBAR	4810	1	1.0	.2					
4295-	PBAR	4901	1	2.3	1.4					
4296-	PBAR	4902	1	3.6	3.9					
4297-	PBAR	4903	1	3.0	3.6					
4298-	PBAR	4904	1	8.5	50.0					
4299-	PBAR	4905	1	3.1	3.5					
4300-	PBAR	4906	1	1.3	1.3					

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4301-	PBAR	4907	1	1.3	2.7					
4302-	PBAR	4908	1	4.4	18.0					
4303-	PBAR	4909	1	3.3	4.5					
4304-	PBAR	4910	1	3.2	3.7					
4305-	PBAR	4911	1	1.0	.4					
4306-	PBAR	4912	1	1.0	.2					
4307-	PBAR	5001	1	1.0	1.5					
4308-	PBAR	5002	1	1.0	.5					
4309-	PBAR	5003	1	1.5	1.0					
4310-	PBAR	5004	1	2.1	6.0					
4311-	PBAR	5005	1	1.0	1.0					
4312-	PBAR	5101	1	.3	.3					
4313-	PBAR	5102	1	.3	1.0					
4314-	PBAR	5103	1	.3	5.0					
4315-	PBAR	5104	2	.7	8.0					
4316-	PBAR	5105	2	.8	20.0					
4317-	PBAR	5106	2	.7	11.0					
4318-	PBAR	5107	1	.5	2.0					
4319-	PBAR	5108	1	.3	1.3					
4321-	PBAR	5401	1	2.5	2.0					
4321-	PBAR	5402	1	2.6	5.0					
4322-	PBAR	5403	2	2.7	35.0					
4323-	PBAR	5404	2	3.0	75.0					
4324-	PBAR	5405	2	2.9	45.0					
4325-	PBAR	5406	1	1.5	8.0					
4326-	PBAR	5407	1	2.0	1.5					
4327-	PBAR	5501	1	2.4	2.4					
4328-	PBAR	5502	1	2.9	7.0					
4329-	PBAR	5503	2	3.0	50.0					
4330-	PBAR	5504	2	3.2	85.0					
4331-	PBAR	5505	2	3.2	55.0					
4332-	PBAR	5506	2	3.2	70.0					
4333-	PBAR	5507	1	2.7	15.0					
4334-	PBAR	5508	1	.9	.9					
4335-	PBAR	5601	1	.3	.3					
4336-	PBAR	5602	1	1.0	10.0					
4337-	PBAR	5603	2	1.7	25.0					
4338-	PBAR	5604	2	1.9	45.0					
4339-	PBAR	5605	2	1.9	30.0					
4340-	PBAR	5606	1	1.0	6.0					
4341-	PBAR	5701	1	1.3	1.3					
4342-	PBAR	5702	1	.9	2.4					
4343-	PBAR	5703	2	2.8	45.0					
4344-	PBAR	5704	2	2.8	55.0					
4345-	PBAR	5705	2	3.0	70.0					
4346-	PBAR	5706	2	3.1	60.0					
4347-	PBAR	5707	2	2.8	65.0					
4348-	PBAR	5708	1	2.4	13.0					
4349-	PBAR	5801	1	2.0	2.0					
4350-	PBAR	5802	1	.8	1.4					

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4351-	PBAR	5803	2	2.8	30.0					
4352-	PBAR	5804	2	3.1	65.0					
4353-	PBAR	5805	2	4.2	110.0					
4354-	PBAR	5806	2	3.2	55.0					
4355-	PBAR	5807	2	3.0	50.0					
4356-	PBAR	5808	1	2.8	11.0					
4357-	PBAR	5901	1	.5	.5					
4358-	PBAR	5902	2	1.2	110.					
4359-	PBAR	5903	2	1.2	75.					
4360-	PBAR	5904	2	1.0	25.					
4361-	PBAR	5905	2	1.2	45.					
4362-	PBAR	5906	2	1.2	35.					
4363-	PBAR	5907	1	.9	75.					
4364-	PBAR	5908	1	1.8	160.					
4365-	PBAR	6001	2	3.2	115.					
4366-	PBAR	6002	2	3.2	100.					
4367-	PBAR	6003	2	3.6	115.					
4368-	PBAR	6004	2	3.4	65.					
4369-	PBAR	6005	2	3.4	90.					
4370-	PBAR	6006	2	3.2	75.					
4371-	PBAR	6007	1	.8	50.					
4372-	PBAR	6008	1	2.5	125.					
4373-	PBAR	6009	1	3.6	225.					
4374-	PBAR	6101	2	1.5	150.					
4375-	PBAR	6102	2	1.4	100.					
4376-	PBAR	6103	2	1.2	30.					
4377-	PBAR	6104	2	1.4	60.					
4378-	PBAR	6105	2	1.3	50.					
4379-	PBAR	6106	1	1.4	80.					
4380-	PBAR	6107	1	2.1	210.					
4381-	PBAR	6108	1	3.0	301.					
4382-	PBAR	6201	3	24.0	386.0	386.0				
4383-	PBAR	6401	1	5.56	2.3					
4384-	PQDMEM2	1030	1	.030						
4385-	PQDMEM2	1040	1	.040						
4386-	PQDMEM2	1045	1	.045						
4387-	PQDMEM2	1050	1	.050						
4388-	PQDMEM2	1060	1	.060						
4389-	PQDMEM2	1063	1	.063						
4390-	PQDMEM2	1065	1	.065						
4391-	PQDMEM2	1070	1	.070						
4392-	PQDMEM2	1071	1	.071						
4393-	PQDMEM2	1080	1	.080						
4394-	PQDMEM2	1090	1	.090						
4395-	PQDMEM2	1100	1	.100						
4396-	PQDMEM2	1115	1	.115						
4397-	PQDMEM2	1120	1	.120						
4398-	PQDMEM2	1125	1	.125						
4399-	PQDMEM2	1135	1	.135						
4400-	PQDMEM2	1140	1	.140						

SORTED BULK DATA ECHO

CARD COUNT	. 1 .. 2 ..	3 ..	4 ..	5 ..	6 ..	7 ..	8 ..	9 ..	10 .
4401-	PQDMEM2 1151	1	.151						
4402-	PQDMEM2 1160	1	.160						
4403-	PQDMEM2 1180	1	.180						
4404-	PQDMEM2 1188	1	.188						
4405-	PQDMEM2 1190	1	.190						
4406-	PQDMEM2 1205	1	.205						
4407-	PQDMEM2 1212	1	.212						
4408-	PQDMEM2 1228	1	.228						
4409-	PQDMEM2 1233	1	.233						
4410-	PQDMEM2 1240	1	.240						
4411-	PQDMEM2 1250	1	.250						
4412-	PQDMEM2 2016	2	.016						
4413-	PQDMEM2 2040	2	.040						
4414-	PQDMEM2 2060	2	.060						
4415-	PQDMEM2 2070	2	.070						
4416-	PQDMEM2 2076	2	.076						
4417-	PQDMEM2 2080	2	.080						
4418-	PQDMEM2 2085	2	.085						
4419-	PQDMEM2 2100	2	.100						
4420-	PQDMEM2 2108	2	.108						
4421-	PQDMEM2 2120	2	.120						
4422-	PQDMEM2 2125	2	.125						
4423-	PQDMEM2 2140	2	.140						
4424-	PQDMEM2 2150	2	.150						
4425-	PQDMEM2 2160	2	.160						
4426-	PQDMEM2 2163	2	.163						
4427-	PQDMEM2 2170	2	.170						
4428-	PQDMEM2 2190	2	.190						
4429-	PQDMEM2 2240	2	.240						
4430-	PQDMEM2 2282	2	.282						
4431-	PQDMEM2 2284	2	.284						
4432-	PQDMEM2 2450	2	.450						
4433-	PQDMEM2 2500	2	.500						
4434-	PQDMEM2 2600	2	.600						
4435-	PQDMEM2 2640	2	.640						
4436-	PQDMEM2 2750	2	.750						
4437-	PQDMEM2 3100	3	.100						
4438-	PQDMEM2 3175	3	.175						
4439-	PQUAD2 21000	2	1.000						
4440-	PQUAD2 21100	2	1.100						
4441-	PQUAD2 21215	2	1.215						
4442-	PQUAD2 21225	2	1.225						
4443-	PQUAD2 21300	2	1.300						
4444-	PQUAD2 21385	2	1.385						
4445-	PQUAD2 21445	2	1.445						
4446-	PQUAD2 21504	2	1.504						
4447-	PQUAD2 21520	2	1.520						
4448-	PQUAD2 21535	2	1.535						
4449-	PQUAD2 21590	2	1.590						
4450-	PQUAD2 21670	2	1.670						

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
4451-	PQUAD2	21705	2	1.705						
4452-	PQUAD2	21715	2	1.715						
4453-	PQUAD2	21740	2	1.740						
4454-	PQUAD2	21745	2	1.745						
4455-	PQUAD2	21820	2	1.820						
4456-	PQUAD2	21965	2	1.965						
4457-	PQUAD2	22006	2	2.006						
4458-	PQUAD2	22010	2	2.010						
4459-	PQUAD2	22370	2	2.370						
4460-	PQUAD2	22435	2	2.435						
4461-	PQUAD2	22696	2	2.696						
4462-	PQUAD2	23145	2	3.145						
4463-	PQUAD2	23235	2	3.235						
4464-	PQUAD2	23460	2	3.460						
4465-	PQUAD2	23596	2	3.596						
4466-	PSHEAR	1001	1	.001						
4467-	PSHEAR	1010	1	.010						
4468-	PSHEAR	1013	1	.013						
4469-	PSHEAR	1014	1	.014						
4470-	PSHEAR	1015	1	.015						
4471-	PSHEAR	1016	1	.016						
4472-	PSHEAR	1018	1	.018						
4473-	PSHEAR	1023	1	.023						
4474-	PSHEAR	1024	1	.024						
4475-	PSHEAR	1025	1	.025						
4476-	PSHEAR	1030	1	.030						
4477-	PSHEAR	1032	1	.032						
4478-	PSHEAR	1033	1	.033						
4479-	PSHEAR	1034	1	.034						
4480-	PSHEAR	1035	1	.035						
4481-	PSHEAR	1036	1	.036						
4482-	PSHEAR	1037	1	.037						
4483-	PSHEAR	1038	1	.038						
4484-	PSHEAR	1039	1	.039						
4485-	PSHEAR	1040	1	.040						
4486-	PSHEAR	1041	1	.041						
4487-	PSHEAR	1042	1	.042						
4488-	PSHEAR	1043	1	.043						
4489-	PSHEAR	1044	1	.044						
4490-	PSHEAR	1045	1	.045						
4491-	PSHEAR	1046	1	.046						
4492-	PSHEAR	1047	1	.047						
4493-	PSHEAR	1048	1	.048						
4494-	PSHEAR	1049	1	.049						
4495-	PSHEAR	1050	1	.050						
4496-	PSHEAR	1051	1	.051						
4497-	PSHEAR	1052	1	.052						
4498-	PSHEAR	1053	1	.053						
4499-	PSHEAR	1054	1	.054						
4500-	PSHEAR	1055	1	.055						

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4501-	PSHEAR	1056	1	.056						
4502-	PSHEAR	1057	1	.057						
4503-	PSHEAR	1058	1	.058						
4504-	PSHEAR	1059	1	.059						
4505-	PSHEAR	1060	1	.060						
4506-	PSHEAR	1061	1	.061						
4507-	PSHEAR	1062	1	.062						
4508-	PSHEAR	1063	1	.063						
4509-	PSHEAR	1064	1	.064						
4510-	PSHEAR	1065	1	.065						
4511-	PSHEAR	1066	1	.066						
4512-	PSHEAR	1067	1	.067						
4513-	PSHEAR	1068	1	.068						
4514-	PSHEAR	1069	1	.069						
4515-	PSHEAR	1070	1	.070						
4516-	PSHEAR	1071	1	.071						
4517-	PSHEAR	1072	1	.072						
4518-	PSHEAR	1073	1	.073						
4519-	PSHEAR	1074	1	.074						
4520-	PSHEAR	1075	1	.075						
4521-	PSHEAR	1076	1	.076						
4522-	PSHEAR	1077	1	.077						
4523-	PSHEAR	1078	1	.078						
4524-	PSHEAR	1080	1	.080						
4525-	PSHEAR	1081	1	.081						
4526-	PSHEAR	1082	1	.082						
4527-	PSHEAR	1084	1	.084						
4528-	PSHEAR	1085	1	.085						
4529-	PSHEAR	1086	1	.086						
4530-	PSHEAR	1088	1	.088						
4531-	PSHEAR	1089	1	.089						
4532-	PSHEAR	1090	1	.090						
4533-	PSHEAR	1091	1	.091						
4534-	PSHEAR	1092	1	.092						
4535-	PSHEAR	1093	1	.093						
4536-	PSHEAR	1095	1	.095						
4537-	PSHEAR	1096	1	.096						
4538-	PSHEAR	1097	1	.097						
4539-	PSHEAR	1098	1	.098						
4540-	PSHEAR	1099	1	.099						
4541-	PSHEAR	1100	1	.100						
4542-	PSHEAR	1101	1	.101						
4543-	PSHEAR	1106	1	.106						
4544-	PSHEAR	1110	1	.110						
4545-	PSHEAR	1112	1	.112						
4546-	PSHEAR	1113	1	.113						
4547-	PSHEAR	1115	1	.115						
4548-	PSHEAR	1118	1	.118						
4549-	PSHEAR	1119	1	.119						
4550-	PSHEAR	1120	1	.120						

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4551-	PSHEAR	1122	1	.122						
4552-	PSHEAR	1123	1	.123						
4553-	PSHEAR	1124	1	.124						
4554-	PSHEAR	1125	1	.125						
4555-	PSHEAR	1126	1	.126						
4556-	PSHEAR	1128	1	.128						
4557-	PSHEAR	1130	1	.130						
4558-	PSHEAR	1131	1	.131						
4559-	PSHEAR	1132	1	.132						
4560-	PSHEAR	1135	1	.135						
4561-	PSHEAR	1140	1	.140						
4562-	PSHEAR	1146	1	.146						
4563-	PSHEAR	1150	1	.150						
4564-	PSHEAR	1160	1	.160						
4565-	PSHEAR	1163	1	.163						
4566-	PSHEAR	1165	1	.165						
4567-	PSHEAR	1170	1	.170						
4568-	PSHEAR	1171	1	.171						
4569-	PSHEAR	1179	1	.179						
4570-	PSHEAR	1180	1	.180						
4571-	PSHEAR	1183	1	.183						
4572-	PSHEAR	1184	1	.184						
4573-	PSHEAR	1187	1	.187						
4574-	PSHEAR	1190	1	.190						
4575-	PSHEAR	1200	1	.200						
4576-	PSHEAR	1202	1	.202						
4577-	PSHEAR	1215	1	.215						
4578-	PSHEAR	1217	1	.217						
4579-	PSHEAR	1220	1	.220						
4580-	PSHEAR	1224	1	.224						
4581-	PSHEAR	1230	1	.230						
4582-	PSHEAR	1233	1	.233						
4583-	PSHEAR	1236	1	.236						
4584-	PSHEAR	1250	1	.250						
4585-	PSHEAR	1278	1	.278						
4586-	PSHEAR	1292	1	.292						
4587-	PSHEAR	1300	1	.300						
4588-	PSHEAR	2001	2	.001						
4589-	PSHEAR	2040	2	.040						
4590-	PSHEAR	2046	2	.046						
4591-	PSHEAR	2047	2	.047						
4592-	PSHEAR	2048	2	.048						
4593-	PSHEAR	2049	2	.049						
4594-	PSHEAR	2050	2	.050						
4595-	PSHEAR	2051	2	.051						
4596-	PSHEAR	2052	2	.052						
4597-	PSHEAR	2053	2	.053						
4598-	PSHEAR	2054	2	.054						
4599-	PSHEAR	2058	2	.058						
4600-	PSHEAR	2059	2	.059						

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4601-	PSHEAR	2061	2	.061						
4602-	PSHEAR	2063	2	.063						
4603-	PSHEAR	2065	2	.065						
4604-	PSHEAR	2067	2	.067						
4605-	PSHEAR	2074	2	.074						
4606-	PSHEAR	2077	2	.077						
4607-	PSHEAR	2080	2	.080						
4608-	PSHEAR	2087	2	.087						
4609-	PSHEAR	2095	2	.095						
4610-	PSHEAR	2096	2	.096						
4611-	PSHEAR	2100	2	.100						
4612-	PSHEAR	2105	2	.105						
4613-	PSHEAR	2109	2	.109						
4614-	PSHEAR	2118	2	.118						
4615-	PSHEAR	2120	2	.120						
4616-	PSHEAR	2124	2	.124						
4617-	PSHEAR	2130	2	.130						
4618-	PSHEAR	2132	2	.132						
4619-	PSHEAR	2133	2	.133						
4620-	PSHEAR	2135	2	.135						
4621-	PSHEAR	2140	2	.140						
4622-	PSHEAR	2170	2	.170						
4623-	PSHEAR	2180	2	.180						
4624-	PSHEAR	2185	2	.185						
4625-	PSHEAR	2202	2	.202						
4626-	PSHEAR	2204	2	.204						
4627-	PSHEAR	2206	2	.206						
4628-	PSHEAR	2215	2	.215						
4629-	PSHEAR	2219	2	.219						
4630-	PSHEAR	2221	2	.221						
4631-	PSHEAR	2222	2	.222						
4632-	PSHEAR	2225	2	.225						
4633-	PSHEAR	2228	2	.228						
4634-	PSHEAR	2233	2	.233						
4635-	PSHEAR	2245	2	.245						
4636-	PSHEAR	2261	2	.261						
4637-	PSHEAR	2262	2	.262						
4638-	PSHEAR	2270	2	.270						
4639-	PSHEAR	2315	2	.315						
4640-	PSHEAR	2319	2	.319						
4641-	PSHEAR	2450	2	.450						
4642-	PSHEAR	2600	2	.600						
4643-	PSHEAR	2711	2	.711						
4644-	PSHEAR	2736	2	.736						
4645-	PSHEAR	2750	2	.750						
4646-	PSHEAR	2768	2	.768						
4647-	PSHEAR	3115	3	.115						
4648-	PSHEAR	3120	3	.120						
4649-	PSHEAR	3250	3	.250						
4650-	PSHEAR	3275	3	.275						

SORTED BULK DATA ECHO

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4651-	PSHEAR	4060	4	.160						
4652-	PSHEAR	4210	4	.210						
4653-	PTRIA2	20880	2	.880						
4654-	PTRIA2	21504	2	1.504						
4655-	PTRIA2	21520	2	1.520						
4656-	PTRIA2	21540	2	1.540						
4657-	PTRIA2	21565	2	1.565						
4658-	PTRIA2	21670	2	1.670						
4659-	PTRIA2	21715	2	1.715						
4660-	PTRIA2	21725	2	1.725						
4661-	PTRIA2	21745	2	1.745						
4662-	PTRIA2	21755	2	1.755						
4663-	PTRIA2	21820	2	1.820						
4664-	PTRIA2	21850	2	1.850						
4665-	PTRIA2	21875	2	1.875						
4666-	PTRIA2	22200	2	2.200						
4667-	PTRMEM	1025	1	.025						
4668-	PTRMEM	1030	1	.030						
4669-	PTRMEM	1040	1	.040						
4670-	PTRMEM	1043	1	.043						
4671-	PTRMEM	1045	1	.045						
4672-	PTRMEM	1050	1	.050						
4673-	PTRMEM	1051	1	.051						
4674-	PTRMEM	1060	1	.060						
4675-	PTRMEM	1061	1	.061						
4676-	PTRMEM	1063	1	.063						
4677-	PTRMEM	1065	1	.065						
4678-	PTRMEM	1070	1	.070						
4679-	PTRMEM	1080	1	.080						
4680-	PTRMEM	1090	1	.090						
4681-	PTRMEM	1100	1	.100						
4682-	PTRMEM	1120	1	.120						
4683-	PTRMEM	1125	1	.125						
4684-	PTRMEM	1126	1	.126						
4685-	PTRMEM	1140	1	.140						
4686-	PTRMEM	1150	1	.150						
4687-	PTRMEM	1165	1	.165						
4688-	PTRMEM	1180	1	.180						
4689-	PTRMEM	1250	1	.250						
4690-	PTRMEM	2040	2	.040						
4691-	PTRMEM	2045	2	.045						
4692-	PTRMEM	2080	2	.080						
4693-	PTRMEM	2085	2	.085						
4694-	PTRMEM	2090	2	.090						
4695-	PTRMEM	2108	2	.108						
4696-	PTRMEM	2150	2	.150						
4697-	PTRMEM	2200	2	.200						
4698-	PTRMEM	2206	2	.206						
4699-	PTRMEM	2500	2	.500						
4700-	PTRMEM	2720	2	.720						

SORTED BULK DATA ECHO

CARD COUNT	. 1	.. 2	.. 3	.. 4	.. 5	.. 6	.. 7	.. 8	.. 9	.. 10 .
4701-	PTRMEM	2750	2	.750						
4702-	PTRMEM	2840	2	.840						
4703-	PTRMEM	3115	3	.115						
4704-	PTRMEM	3160	3	.160						
4705-	PTRMEM	3300	3	.300						
4706-	PTRMEM	3350	3	.350						
4707-	PTRMEM	3400	3	.400						
4708-	PTRMEM	4210	4	.210						
4709-	SPC1	1	123456	999						
4710-	SPC1	101	246	1001	1032	1052	1054	1101	1132	
4711-	SPC1	101	246	1201	1152	1154	1254	1301	1352	
4712-	SPC1	101	246	1354	1401	1452	1454	1501	1532	
4713-	SPC1	101	246	1552	1601	1632	1652	1701	1758	
4714-	SPC1	101	246	1801	1832	1855	1858	1852	1901	
4715-	SPC1	101	246	1932	1955	2001	2032	2055	2101	
4716-	SPC1	101	246	2132	2155	2201	2232	2255	2301	
4717-	SPC1	101	246	2332	2352	2355	2336	2401	2436	
4718-	SPC1	101	246	2501	2536	2601	2636	2701	2736	
4719-	SPC1	101	246	2801	2836	2832	2851	2901	2936	
4720-	SPC1	101	246	3001	3036	3101	3136	3201	3236	
4721-	SPC1	101	246	3301	3332	3364	3351	3350	3336	
4722-	SPC1	101	246	3401	3432	3464	3450	3501	3532	
4723-	SPC1	101	246	3564	3550	3601	3632	3664	3650	
4724-	SPC1	101	246	3701	3732	3764	3754	3750	3801	
4725-	SPC1	101	246	3832	3854	3850	3901	3932	3954	
4726-	SPC1	101	246	3950	4001	4032	4054	4050	4101	
4727-	SPC1	101	246	4132	4154	4150	4201	4232	4254	
4728-	SPC1	101	246	4250	4301	4332	4355	4354	4350	
4729-	SPC1	101	246	4336	4401	4436	4501	4536	4601	
4730-	SPC1	101	246	4636	4701	4736	4801	4836	4901	
4731-	SPC1	101	246	4936	5001	5032	5052	5056	5050	
4732-	SPC1	101	246	5136	5053	5101	5132	5150	5153	
4733-	SPC1	101	246	5201	5232	5250	5253	5301	5332	
4734-	SPC1	101	246	5350	5353	5401	5432	5450	5453	
4735-	SPC1	101	246	5501	5532	5550	5553	5601	5632	
4736-	SPC1	101	246	5650	5653	5701	5732	5750	5753	
4737-	SPC1	101	246	5801	5832	5850	5853	5901	5932	
4738-	SPC1	101	246	5950	5953	6001	6032	6050	6053	
4739-	SPC1	101	246	6101	6132	6150	6153	6201	6232	
4740-	SPC1	101	246	6248	6250	6253				
4741-	SPC1	201	135	1001	1032	1052	1054	1101	1132	
4742-	SPC1	201	135	1201	1152	1154	1254	1301	1352	
4743-	SPC1	201	135	1354	1401	1452	1454	1501	1532	
4744-	SPC1	201	135	1552	1601	1632	1652	1701	1758	
4745-	SPC1	201	135	1801	1832	1855	1858	1852	1901	
4746-	SPC1	201	135	1932	1955	2001	2032	2055	2101	
4747-	SPC1	201	135	2132	2155	2201	2232	2255	2301	
4748-	SPC1	201	135	2332	2352	2355	2336	2401	2436	
4749-	SPC1	201	135	2501	2536	2601	2636	2701	2736	
4750-	SPC1	201	135	2801	2836	2832	2851	2901	2936	

S O R T E D B U L K D A T A E C H O

CARD COUNT	1	2	3	4	5	6	7	8	9	10
4751-	SPC1	201	135	3001	3036	3101	3136	3201	3236	
4752-	SPC1	201	135	3301	3332	3364	3351	3350	3336	
4753-	SPC1	201	135	3401	3432	3464	3450	3501	3532	
4754-	SPC1	201	135	3564	3550	3601	3632	3664	3650	
4755-	SPC1	201	135	3701	3732	3764	3754	3750	3801	
4756-	SPC1	201	135	3832	3854	3850	3901	3932	3954	
4757-	SPC1	201	135	3950	4001	4032	4054	4050	4101	
4758-	SPC1	201	135	4132	4154	4150	4201	4232	4254	
4759-	SPC1	201	135	4250	4301	4332	4355	4354	4350	
4760-	SPC1	201	135	4336	4401	4436	4501	4536	4601	
4761-	SPC1	201	135	4636	4701	4736	4801	4836	4901	
4762-	SPC1	201	135	4936	5001	5032	5052	5056	5051	
4763-	SPC1	201	135	5036	5053	5101	5132	5150	5153	
4764-	SPC1	201	135	5201	5232	5250	5253	5301	5332	
4765-	SPC1	201	135	5350	5353	5401	5432	5450	5453	
4766-	SPC1	201	135	5501	5532	5550	5553	5601	5632	
4767-	SPC1	201	135	5650	5653	5701	5732	5750	5753	
4768-	SPC1	201	135	5801	5832	5850	5853	5901	5932	
4769-	SPC1	201	135	5950	5953	6001	6032	6050	6053	
4770-	SPC1	201	135	6101	6132	6150	6153	6201	6232	
4771-	SPC1	201	135	6248	6250	6253				
4772-	SPCADD	10	1	101						
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15. Supplementary Notes

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16. Abstract

This report describes the planning, development, and validation of the NASTRAN models of the B-1 aircraft No. 2 structure. Volume I describes the initial planning of the entire modeling effort. Volumes II to V describe, in detail, the development and validation of component structural models. The report includes applicable engineering drawings, NASTRAN structural model plots, and listings of the NASTRAN bulk data deck for each component structure. Validation is documented by comparisons with results from static structural tests.

The subtitles of the volumes included in this report are as follows:

Volume I. NASTRAN Model Plans
Volume II. NASTRAN Model Development—Horizontal Stabilizer, Vertical Stabilizer, and Nacelle Structures
Volume III. NASTRAN Model Development—Wing Structure
Volume IV. NASTRAN Model Development—Fuselage Structure
Volume V. NASTRAN Model Development—Fairing Structure

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