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8408-6148-R8000

TOTAL PAGES: 77

CSM ERROR ANALYSIS FOR TRAJECTORY 4.5S GROUND-BASED NAVIGATION RETARGETING AFTER LEM DOCKING, TEI INJECTION COVARIANCES QUADRUPLED (U)

February 25, 1966

Approved By: B. H. Whalen

B. H. Whalen
Project Manager

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TABLE OF CONTENTS

MEAN AND COVARIANCE DATA

	Page No.
CSM After Translunar Injection	1
CSM Before First Translunar Midcourse Correction	3
CSM After First Translunar Midcourse Correction	6
CSM Before Second Translunar Midcourse Correction	10
CSM After Second Translunar Midcourse Correction	13
CSM Before Third Translunar Midcourse Correction	17
CSM After Third Translunar Midcourse Correction	20
CSM Before Hyperbolic Deboost Into Lunar Parking Orbit	24
CSM After Hyperbolic Deboost Into Lunar Parking Orbit	26
CSM Before LEM Hohmann Injection	28
CSM At The Time of LEM Plane Change Maneuver	30
CSM After Docking (Re-Targeted)	32
CSM Before Transearth Injection	34
CSM After Transearth Injection	36
CSM Before First Transearth Midcourse Correction	38
CSM After First Transearth Midcourse Correction	41
CSM Before Second Transearth Midcourse Correction	45
CSM After Second Transearth Midcourse Correction	48
CSM Before Third Transearth Midcourse Correction	52
CSM After Third Transearth Midcourse Correction	55
CSM At Entry	59

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CROSS COVARIANCE MATRIX

Page No.

Sample Cross Covariance Matrix of Actual Dev. (UVW), Weight Above Nominal Before Hohmann Inj. As Col. and Actual Dev. (UVW) After Translunar Inj. as Row 61

Sample Cross Covariance Matrix of Actual Dev. (UVW), Weight Above Nominal Before Hohmann Inj. As Col. and Actual Dev. (UVW) After Translunar MC1 as Row 62

Sample Cross Covariance Matrix of Actual Dev. (UVW), Weight Above Nominal Before Hohmann Inj. As Col. and Actual Dev. (UVW) After Translunar MC2 as Row 63

Sample Cross Covariance Matrix of Actual Dev. (UVW), Weight Above Nominal Before Hohmann Inj. As Col. and Actual Dev. (UVW) After Translunar MC3 as Row 64

Sample Cross Covariance Matrix of Actual Dev. (UVW), Weight Above Nominal Before Hohmann Inj. As Col. and Actual Dev. (UVW) After Hyp. Deboost as Row 65

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW) after Translunar Inj. as Row 66

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW) after Translunar MC1 as Row 67

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW) after Translunar MC2 as Row 68

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW) after Translunar MC3 as Row 69

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW), After Hyperbolic Deboost as Row 70

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW), After Transearth Inj. as Row 71

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW), After Transearth MC1 as Row 72

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW), After Transearth MC2 as Row 73

Sample Cross Cov. Matrix of Actual Dev. (UVW), Weight Above Nominal at Entry as Col. and Actual Dev. (UVW), After Transearth MC3 as Row 74

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TIME (HOURS)
2.6379977E 00

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.8772243E 02	-3.8203897E 03	2.7210224E 03	1.8394444E-01	1.5023323E-01	4.2818539E 00

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-9.9124686E 01	-3.8427903E 03	2.4391469E 03	5.9773207E-01	-2.1709738E-01	2.4763046E 00

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

8.8597767E 01	-2.2400505E 01	-2.8187559E 02	4.1378793E-01	-3.6733064E-01	-1.8055492E 00

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.2950713E 07	4.6816101E 07	-1.9708419E 07	5.6026263E 04	-2.5200133E 04	-3.8928141E 04
2	4.6816101E 07	5.3114210E 09	-2.0407619E 09	-4.2995595E 06	5.3577102E 05	-4.3489007E 06
3	-1.9708419E 07	-2.0407619E 09	9.5757525E 08	1.6736463E 06	-1.8129739E 05	2.1156806E 06
4	5.6026263E 04	-4.2995595E 06	1.6736463E 06	4.1209408E 03	-5.8557287E 02	3.5908944E 03
5	-2.5200133E 04	5.3577102E 05	-1.8129739E 05	-5.8557287E 02	1.0520163E 02	-3.5488902E 02
6	-3.8928141E 04	-4.3489007E 06	2.1156806E 06	3.5908944E 03	-3.5488902E 02	4.9055987E 03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	1.3408858E-01	-1.3294354E-01	1.8217777E-01	-5.1285371E-01	-1.1601645E-01
2	1.3408858E-01	9.9999998E-01	-9.0489985E-01	-9.1901037E-01	7.1674161E-01	-8.5197748E-01
3	-1.3294354E-01	-9.0489985E-01	1.0000000E 00	8.4251771E-01	-5.7120743E-01	9.7615243E-01
4	1.8217777E-01	-9.1901037E-01	8.4251771E-01	1.0000000E 00	-8.8934757E-01	7.9865358E-01
5	-5.1285371E-01	7.1674161E-01	-5.7120743E-01	-8.8934757E-01	1.0000000E 00	-4.9400952E-01
6	-1.1601645E-01	-8.5197748E-01	9.7615243E-01	7.9865358E-01	-4.9400952E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.2345704E 07	-4.0536090E 06	3.1485122E 05	8.5212497E 04	-2.0791958E 04	1.9174262E 03
2	-4.0536090E 06	1.3826086E 06	-8.5809220E 05	-2.8289250E 04	6.4151351E 03	-5.5259373E 03
3	3.1485122E 05	-8.5809220E 05	1.2682225E 07	7.0743018E 03	7.0909287E 03	8.2397792E 04
4	8.5212497E 04	-2.8289250E 04	7.0743018E 03	6.0270371E 02	-1.4445621E 02	3.9298925E 01
5	-2.0791958E 04	6.4151351E 03	7.0909287E 03	-1.4445621E 02	4.1015218E 01	4.8065726E 01
6	1.9174262E 03	-5.5259373E 03	8.2397792E 04	3.9298925E 01	4.8065726E 01	5.3799908E 02

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.8114748E-01	2.5162265E-02	9.8785553E-01	-9.2398505E-01	2.3527185E-02
2	-9.8114748E-01	9.9999998E-01	-2.0492105E-01	-9.7998599E-01	8.5189027E-01	-2.0261218E-01
3	2.5162265E-02	-2.0492105E-01	9.9999998E-01	8.0915909E-02	3.1090870E-01	9.9753256E-01
4	9.8785553E-01	-9.7998599E-01	8.0915909E-02	1.0000000E 00	-9.1878051E-01	6.9014122E-02
5	-9.2398505E-01	8.5189027E-01	3.1090870E-01	-9.1878051E-01	9.9999998E-01	3.2357296E-01
6	2.3527185E-02	-2.0261218E-01	9.9753256E-01	6.9014122E-02	3.2357296E-01	1.0000000E 00

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TIME (HOURS)
7.6379920E 00

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.8870841E 03	3.8278232E 04	-2.6733217E 03	-3.9896465E-01	1.5453351E 00	-6.1210139E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-1.8872283E 03	3.8281183E 04	-2.6807914E 03	-3.9902868E-01	1.5454211E 00	-6.1243285E-01

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.4403177E-01	2.9500520E 00	-7.4694338E 00	-6.4025846E-05	8.5944926E-05	-3.3146122E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	1.8284907E 10	-1.3557931E 10	5.7151476E 09	1.3464156E 06	-7.5422556E 05	3.3252817E 05
2	-1.3557931E 10	1.3793760E 11	-8.9271228E 09	-2.4162588E 06	5.4553763E 06	-6.5051054E 04
3	5.7151476E 09	-8.9271228E 09	1.0526987E 10	6.3616259E 05	-3.7242493E 05	-1.4546026E 05
4	1.3464156E 06	-2.4162588E 06	6.3616259E 05	1.1869263E 02	-1.0879612E 02	1.5827565E 01
5	-7.5422556E 05	5.4553763E 06	-3.7242493E 05	-1.0879612E 02	2.1886572E 02	-8.4600048E 00
6	3.3252817E 05	-6.5051054E 04	-1.4546026E 05	1.5827565E 01	-8.4600048E 00	2.3093018E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-2.6996391E-01	4.1193532E-01	9.1394674E-01	-3.7702139E-01	5.1217474E-01
2	-2.6996391E-01	1.0000000E 00	-2.3427078E-01	-5.9715936E-01	9.9287483E-01	-3.6479519E-02
3	4.1193532E-01	-2.3427078E-01	9.9999998E-01	5.6912048E-01	-2.4535665E-01	-2.9527618E-01
4	9.1394674E-01	-5.9715936E-01	5.6912048E-01	1.0000000E 00	-6.7501384E-01	3.0257868E-01
5	-3.7702139E-01	9.9287483E-01	-2.4535665E-01	-6.7501384E-01	1.0000000E 00	-1.1910167E-01
6	5.1217474E-01	-3.6479519E-02	-2.9527618E-01	3.0257868E-01	-1.1910167E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.8560433E 02	-6.9158608E 02	5.2882258E 02	2.0935015E-02	-2.8799370E-02	1.6235122E-02
2	-6.9158608E 02	1.9929893E 04	-4.2640449E 03	-2.3316959E-01	8.1316785E-01	-6.5346975E-02
3	5.2882258E 02	-4.2640449E 03	2.0195195E 04	7.2839507E-02	-1.9386631E-01	5.0954397E-01
4	2.0935015E-02	-2.3316959E-01	7.2839507E-02	3.8014431E-06	-9.4860315E-06	1.8460985E-06
5	-2.8799370E-02	8.1316785E-01	-1.9386631E-01	-9.4860315E-06	3.3299768E-05	-2.8938453E-06
6	1.6235122E-02	-6.5346975E-02	5.0954397E-01	1.8460985E-06	-2.8938453E-06	1.4519306E-05

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-3.5958346E-01	2.7314416E-01	7.8814293E-01	-3.6632650E-01	3.1274369E-01
2	-3.5958346E-01	1.0000000E 00	-2.1254224E-01	-8.4712045E-01	9.9817595E-01	-1.2147868E-01
3	2.7314416E-01	-2.1254224E-01	9.9999998E-01	2.6288676E-01	-2.3640557E-01	9.4098935E-01
4	7.8814293E-01	-8.4712045E-01	2.6288676E-01	1.0000000E 00	-8.4312061E-01	2.4848930E-01
5	-3.6632650E-01	9.9817595E-01	-2.3640557E-01	-8.4312061E-01	1.0000000E 00	-1.3160785E-01
6	3.1274369E-01	-1.2147868E-01	9.4098935E-01	2.4848930E-01	-1.3160785E-01	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

1.4067110E 04	1.9293246E 05	-5.3440094E 04	1.3743770E-02	5.0061724E-01	-2.4733401E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

1.4057660E 04	1.9294999E 05	-5.3476657E 04	1.3683454E-02	5.0065734E-01	-2.4744463E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

-9.4574108E 00	1.7534383E 01	-3.6561342E 01	-6.0271508E-05	4.0097290E-05	-1.1059692E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	1.0285400E 13	-4.5266998E 12	-1.1703514E 11	7.8174886E 07	-1.8641092E 07	-8.0391799E 06
2	-4.5266998E 12	4.7545019E 12	4.1591048E 11	-3.6504591E 07	1.5326498E 07	5.0661491E 06
3	-1.1703514E 11	4.1591048E 11	4.9144733E 11	-1.5105045E 06	1.0129819E 06	2.6139982E 06
4	7.8174886E 07	-3.6504591E 07	-1.5105045E 06	5.9603942E 02	-1.4698140E 02	-6.4085847E 01
5	-1.8641092E 07	1.5326498E 07	1.0129819E 06	-1.4698140E 02	5.2207476E 01	1.7736788E 01
6	-8.0391799E 06	5.0661491E 06	2.6139982E 06	-6.4085847E 01	1.7736788E 01	1.9498010E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-6.4731936E-01	-5.2055571E-02	9.9843357E-01	-8.0444139E-01	-5.6768317E-01
2	-6.4731936E-01	1.0000000E 00	2.7208767E-01	-6.8573684E-01	9.7280113E-01	5.2617512E-01
3	-5.2055571E-02	2.7208767E-01	1.0000000E 00	-8.8256367E-02	1.9998473E-01	8.4444554E-01
4	9.9843357E-01	-6.8573684E-01	-8.8256367E-02	1.0000000E 00	-8.3321781E-01	-5.9446937E-01
5	-8.0444139E-01	9.7280113E-01	1.9998473E-01	-8.3321781E-01	1.0000000E 00	5.5592150E-01
6	-5.6768317E-01	5.2617512E-01	8.4444554E-01	-5.9446937E-01	5.5592150E-01	1.0000000E 00

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	1.3354088E 05	-2.4911951E 04	3.3340033E 04	9.7745318E-01	-1.3883974E-01	3.8811455E-02
2	-2.4911951E 04	4.9542575E 05	1.3607506E 04	-5.0932742E-01	1.3024617E 00	2.8327477E-01
3	3.3340033E 04	1.3607506E 04	1.6166841E 05	1.3185606E-01	5.7521023E-02	3.7759408E-01
4	9.7745318E-01	-5.0932742E-01	1.3185606E-01	7.4373155E-06	-1.8926606E-06	-1.3181835E-07
5	-1.3883974E-01	1.3024617E 00	5.7521023E-02	-1.8926606E-06	3.4772893E-06	8.0568820E-07
6	3.8811455E-02	2.8327477E-01	3.7759408E-01	-1.3181835E-07	8.0568820E-07	1.1763705E-06

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6852610E-02	2.2690617E-01	9.8080064E-01	-2.0374467E-01	9.7922103E-02
2	-9.6852610E-02	1.0000000E 00	4.8081351E-02	-2.6533813E-01	9.9232798E-01	3.7106205E-01
3	2.2690617E-01	4.8081351E-02	1.0000000E 00	1.2024843E-01	7.6717350E-02	8.6584575E-01
4	9.8080064E-01	-2.6533813E-01	1.2024843E-01	1.0000000E 00	-3.7217244E-01	-4.4565184E-02
5	-2.0374467E-01	9.9232798E-01	7.6717350E-02	-3.7217244E-01	1.0000000E 00	3.9835890E-01
6	9.7922103E-02	3.7106205E-01	8.6584575E-01	-4.4565184E-02	3.9835890E-01	1.0000000E 00

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TIME (HOURS)
7.6379920E 00

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.8870841E 03	3.8278232E 04	-2.6733217E 03	-7.1920062E-02	2.2764481E-01	-1.8002748E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-1.8872283E 03	3.8281183E 04	-2.6807914E 03	-6.9102563E-02	2.3174671E-01	-1.7240271E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.4403177E-01	2.9500520E 00	-7.4694338E 00	2.8175022E-03	4.1019049E-03	7.6247857E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	1.8284907E 10	-1.3557931E 10	5.7151476E 09	-3.9318495E 05	-1.3459743E 05	3.9565710E 04
2	-1.3557931E 10	1.3793760E 11	-8.9271228E 09	-8.5739055E 04	8.5044219E 05	-5.6138800E 04
3	5.7151476E 09	-8.9271228E 09	1.0526987E 10	-1.0845842E 05	-7.0149484E 04	6.7414867E 04
4	-3.9318495E 05	-8.5739055E 04	-1.0845842E 05	9.5725870E 00	6.7788092E-01	-7.6786973E-01
5	-1.3459743E 05	8.5044219E 05	-7.0149484E 04	6.7788092E-01	5.4017730E 00	-4.5234669E-01
6	3.9565710E 04	-5.6138800E 04	6.7414867E 04	-7.6786973E-01	-4.5234669E-01	4.3515707E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-2.6996391E-01	4.1193532E-01	-9.3980086E-01	-4.2827452E-01	4.4355711E-01
2	-2.6996391E-01	1.0000000E 00	-2.3427078E-01	-7.4614406E-02	9.8522471E-01	-2.2913886E-01
3	4.1193532E-01	-2.3427078E-01	9.9999998E-01	-3.4166192E-01	-2.9417399E-01	9.9604881E-01
4	-9.3980086E-01	-7.4614406E-02	-3.4166192E-01	1.0000000E 00	9.4269365E-02	-3.7622692E-01
5	-4.2827452E-01	9.8522471E-01	-2.9417399E-01	9.4269365E-02	1.0000000E 00	-2.9503954E-01
6	4.4355711E-01	-2.2913886E-01	9.9604881E-01	-3.7622692E-01	-2.9503954E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.8560433E 02	-6.9158608E 02	5.2882258E 02	-3.5169839E-02	5.2611120E-02	1.1011972E-04
2	-6.9158608E 02	1.9929893E 04	-4.2640449E 03	-5.6031344E-01	1.3749021E 00	-3.7525916E-01
3	5.2882258E 02	-4.2640449E 03	2.0195195E 04	-5.5300137E-01	-3.1658987E-01	8.7549469E-01
4	-3.5169839E-02	-5.6031344E-01	-5.5300137E-01	4.8743982E-03	-1.9342558E-03	1.4913144E-04
5	5.2611120E-02	1.3749021E 00	-3.1658987E-01	-1.9342558E-03	5.1776304E-03	-3.8477846E-04
6	1.1011972E-04	-3.7525916E-01	8.7549469E-01	1.4913144E-04	-3.8477846E-04	2.9010164E-03

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-3.5958346E-01	2.7314416E-01	-3.6975650E-02	5.3668316E-02	1.5007071E-04
2	-3.5958346E-01	1.0000000E 00	-2.1254224E-01	-5.6848374E-02	1.3534860E-01	-4.9351881E-02
3	2.7314416E-01	-2.1254224E-01	9.9999998E-01	-5.5736755E-02	-3.0960464E-02	1.1438113E-01
4	-3.6975650E-02	-5.6848374E-02	-5.5736755E-02	1.0000000E 00	-3.8502407E-01	3.9658255E-02
5	5.3668316E-02	1.3534860E-01	-3.0960464E-02	-3.8502407E-01	1.0000000E 00	-9.9281911E-02
6	1.5007071E-04	-4.9351881E-02	1.1438113E-01	3.9658255E-02	-9.9281911E-02	9.9999998E-01

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

-1.0876340E 03 -2.8282645E 02 -1.4574945E 02 -7.1456448E-02 -2.7368026E-01 -1.9501824E-02

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

-1.4296107E 00 -2.4668624E-01 6.4406076E-01 -6.3441691E-02 -2.7287234E-01 -1.9352849E-02

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

1.0862044E 03 2.8257976E 02 1.4639351E 02 8.0147530E-03 8.0790858E-04 1.4897556E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.1285398E 08	-9.7067297E 07	-1.6569834E 07	1.7052484E 03	-2.9965337E 03	9.9479449E 02
2	-9.7067297E 07	1.3464521E 08	5.5950311E 06	8.3746831E 02	5.9285578E 03	9.2035677E 02
3	-1.6569834E 07	5.5950311E 06	5.3899820E 07	-7.7711567E 02	-1.2373295E 03	3.0230367E 02
4	1.7052484E 03	8.3746831E 02	-7.7711567E 02	4.8857512E-01	1.3562789E 00	2.2306334E-01
5	-2.9965337E 03	5.9285578E 03	-1.2373295E 03	1.3562789E 00	7.3374869E 00	4.1084647E-01
6	9.9479449E 02	9.2035677E 02	3.0230367E 02	2.2306334E-01	4.1084647E-01	5.5079000E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-4.7294064E-01	-1.2760088E-01	1.3792758E-01	-6.2542416E-02	7.5782601E-02
2	-4.7294064E-01	9.9999998E-01	6.5677012E-02	1.0325409E-01	1.8861661E-01	1.0687293E-01
3	-1.2760088E-01	6.5677012E-02	9.9999998E-01	-1.5143502E-01	-6.2218285E-02	5.5482591E-02
4	1.3792758E-01	1.0325409E-01	-1.5143502E-01	9.9999998E-01	7.1632424E-01	4.3000103E-01
5	-6.2542416E-02	1.8861661E-01	-6.2218285E-02	7.1632424E-01	1.0000000E 00	2.0436799E-01
6	7.5782601E-02	1.0687293E-01	5.5482591E-02	4.3000103E-01	2.0436799E-01	1.0000000E 00

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	3.1285989E 08	-9.7066637E 07	-1.6560338E 07	2.3985968E 03	-4.9406155E 02	-2.6889027E 02
2	-9.7066637E 07	1.3462644E 08	5.5953288E 06	-7.7703325E 02	5.7758046E 02	1.0104180E 02
3	-1.6560338E 07	5.5953288E 06	5.3889741E 07	-1.5744846E 02	3.5974222E 01	2.5959423E 02
4	2.3985968E 03	-7.7703325E 02	-1.5744846E 02	1.8417028E-02	-3.9255167E-03	-2.2074279E-03
5	-4.9406155E 02	5.7758046E 02	3.5974222E 01	-3.9255167E-03	2.5050228E-03	5.3277658E-04
6	-2.6889027E 02	1.0104180E 02	2.5959423E 02	-2.2074279E-03	5.3277658E-04	1.3700066E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-4.7296594E-01	-1.2753847E-01	9.9924623E-01	-5.5808489E-01	-4.1071334E-01
2	-4.7296594E-01	1.0000000E 00	6.5691230E-02	-4.9347441E-01	9.9458401E-01	2.3527434E-01
3	-1.2753847E-01	6.5691230E-02	1.0000000E 00	-1.5804312E-01	9.7911234E-02	9.5538992E-01
4	9.9924623E-01	-4.9347441E-01	-1.5804312E-01	1.0000000E 00	-5.7793794E-01	-4.3945602E-01
5	-5.5808489E-01	9.9458401E-01	9.7911234E-02	-5.7793794E-01	1.0000000E 00	2.8759276E-01
6	-4.1071334E-01	2.3527434E-01	9.5538992E-01	-4.3945602E-01	2.8759276E-01	9.9999996E-01

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
1.6488667E 01

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
8.7620311E 01

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	1.7776897E 02	-9.1645653E 01	1.8547915E 01
2	-9.1645653E 01	1.5569644E 02	-5.1752358E 00
3	1.8547915E 01	-5.1752358E 00	2.5183239E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	1.0000000E 00	-5.5086420E-01	2.7721155E-01
2	-5.5086420E-01	9.9999998E-01	-8.2648504E-02
3	2.7721155E-01	-8.2648504E-02	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.3636683E 02

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CSM AFTER FIRST TRANSLUNAR MIDCOURSE CORRECTION

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
5.9943217E 03

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
0.

[redacted]

[redacted]

TIME (HOURS)
5.7233943E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.0876289E 03	-2.8282608E 02	-1.4574727E 02	-7.1456348E-02	-2.7368002E-01	-1.9501791E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-1.0874646E 03	-2.6290560E 02	-2.0557320E 02	-7.1429392E-02	-2.7359351E-01	-1.9877839E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

1.6426255E-01	1.9920496E 01	-5.9825937E 01	2.6957065E-05	8.6507993E-05	-3.7604840E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	3.1285412E 08	-9.7067388E 07	-1.6569791E 07	1.7052253E 03	-2.9966783E 03	9.9478573E 02
2	-9.7067388E 07	1.3464505E 08	5.5949762E 06	8.3746885E 02	5.9285378E 03	9.2036172E 02
3	-1.6569791E 07	5.5949762E 06	5.3899825E 07	-7.7712415E 02	-1.2373828E 03	3.0230362E 02
4	1.7052253E 03	8.3746885E 02	-7.7712415E 02	4.8857420E-01	1.3562750E 00	2.2306300E-01
5	-2.9966783E 03	5.9285378E 03	-1.2373828E 03	1.3562750E 00	7.3374746E 00	4.1084523E-01
6	9.9478573E 02	9.2036172E 02	3.0230362E 02	2.2306300E-01	4.1084523E-01	5.5078976E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	-4.7294126E-01	-1.2760051E-01	1.3792581E-01	-6.2545472E-02	7.5781932E-02
2	-4.7294126E-01	1.0000000E 00	6.5676405E-02	1.0325431E-01	1.8861624E-01	1.0687360E-01
3	-1.2760051E-01	6.5676405E-02	1.0000000E 00	-1.5143681E-01	-6.2221016E-02	5.5482591E-02
4	1.3792581E-01	1.0325431E-01	-1.5143681E-01	1.0000000E 00	7.1632348E-01	4.3000088E-01
5	-6.2545472E-02	1.8861624E-01	-6.2221016E-02	7.1632348E-01	1.0000000E 00	2.0436759E-01
6	7.5781932E-02	1.0687360E-01	5.5482591E-02	4.3000088E-01	2.0436759E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.6594215E 02	9.9491194E 02	-5.0231025E 03	4.1942077E-03	5.2946955E-03	-2.5088888E-02
2	9.9491194E 02	1.1027777E 05	-1.2822976E 05	2.0619015E-02	3.5029847E-01	-6.9311787E-01
3	-5.0231025E 03	-1.2822976E 05	4.3872323E 05	-2.2513824E-01	-4.5388438E-01	2.4944362E 00
4	4.1942077E-03	2.0619015E-02	-2.2513824E-01	1.6421442E-07	1.3809001E-07	-1.2699928E-06
5	5.2946955E-03	3.5029847E-01	-4.5388438E-01	1.3809001E-07	1.2885626E-06	-2.6105905E-06
6	-2.5088888E-02	-6.9311787E-01	2.4944362E 00	-1.2699928E-06	-2.6105905E-06	1.5014269E-05

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	2.3257461E-01	-5.8870587E-01	8.0346310E-01	3.6208444E-01	-5.0263296E-01
2	2.3257461E-01	1.0000000E 00	-5.8297445E-01	1.5322099E-01	9.2926909E-01	-5.3865539E-01
3	-5.8870587E-01	-5.8297445E-01	1.0000000E 00	-8.3878046E-01	-6.0366661E-01	9.7190762E-01
4	8.0346310E-01	1.5322099E-01	-8.3878046E-01	9.9999998E-01	3.0019528E-01	-8.0880438E-01
5	3.6208444E-01	9.2926909E-01	-6.0366661E-01	3.0019528E-01	1.0000000E 00	-5.9351798E-01
6	-5.0263296E-01	-5.3865539E-01	9.7190762E-01	-8.0880438E-01	-5.9351798E-01	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

-5.8128138E 03	4.9700611E 03	-5.6586035E 03	-4.2608126E 00	2.3032323E 00	3.9293774E 00

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

-5.8711158E 03	5.1037424E 03	-5.6386361E 03	-4.3413736E 00	2.3200313E 00	3.9139545E 00

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

-5.8302309E 01	1.3368123E 02	1.9967547E 01	-8.0561243E-02	1.6798916E-02	-1.5423086E-02

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.1333917E 09	-3.7973150E 09	2.3433386E 09	2.8154374E 06	-1.1604565E 06	-1.6275857E 06
2	-3.7973150E 09	6.0461723E 09	-2.8908579E 09	-4.0773772E 06	1.3006399E 06	2.0151541E 06
3	2.3433386E 09	-2.8908579E 09	3.2381180E 09	2.1357894E 06	-8.6120808E 05	-2.2518840E 06
4	2.8154374E 06	-4.0773772E 06	2.1357894E 06	2.8364412E 03	-9.9394249E 02	-1.4868397E 03
5	-1.1604565E 06	1.3006399E 06	-8.6120808E 05	-9.9394249E 02	4.3754651E 02	5.9759511E 02
6	-1.6275857E 06	2.0151541E 06	-2.2518840E 06	-1.4868397E 03	5.9759511E 02	1.5662878E 03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.7242682E-01	7.3566715E-01	9.4439056E-01	-9.9108157E-01	-7.3468425E-01
2	-8.7242682E-01	9.9999996E-01	-6.5334135E-01	-9.8458618E-01	7.9965875E-01	6.5483549E-01
3	7.3566715E-01	-6.5334135E-01	9.9999998E-01	7.0473395E-01	-7.2351851E-01	-9.9991683E-01
4	9.4439056E-01	-9.8458618E-01	7.0473395E-01	1.0000000E 00	-8.9220006E-01	-7.0540978E-01
5	-9.9108157E-01	7.9965875E-01	-7.2351851E-01	-8.9220006E-01	1.0000000E 00	7.2187023E-01
6	-7.3468425E-01	6.5483549E-01	-9.9991683E-01	-7.0540978E-01	7.2187023E-01	1.0000000E 00

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	4.1253926E 05	-9.5268579E 05	-1.1802832E 05	5.7310674E 02	-1.1829804E 02	9.1324872E 01
2	-9.5268579E 05	2.2010866E 06	2.7409872E 05	-1.3239590E 03	2.7310607E 02	-2.1208954E 02
3	-1.1802832E 05	2.7409872E 05	5.9527981E 04	-1.6470677E 02	3.3718757E 01	-4.6194125E 01
4	5.7310674E 02	-1.3239590E 03	-1.6470677E 02	7.9638578E-01	-1.6430410E-01	1.2744470E-01
5	-1.1829804E 02	2.7310607E 02	3.3718757E 01	-1.6430410E-01	3.3929253E-02	-2.6089464E-02
6	9.1324872E 01	-2.1208954E 02	-4.6194125E 01	1.2744470E-01	-2.6089464E-02	3.5848278E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.9976625E-01	-7.5316997E-01	9.9986445E-01	-9.9990270E-01	7.5096946E-01
2	-9.9976625E-01	1.0000000E 00	7.5723008E-01	-9.9998671E-01	9.9936844E-01	-7.5503405E-01
3	-7.5316997E-01	7.5723008E-01	1.0000000E 00	-7.5646549E-01	7.5028080E-01	-9.9998162E-01
4	9.9986445E-01	-9.9998671E-01	-7.5646549E-01	1.0000000E 00	-9.9953841E-01	7.5426834E-01
5	-9.9990270E-01	9.9936844E-01	7.5028080E-01	-9.9953841E-01	1.0000000E 00	-7.4807279E-01
6	7.5096946E-01	-7.5503405E-01	-9.9998162E-01	7.5426834E-01	-7.4807279E-01	9.9999998E-01

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TIME (HOURS)
5.7233943E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.0876289E 03	-2.8282608E 02	-1.4574727E 02	2.5807206E-02	5.3535602E-03	3.7586180E-03

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-1.0874646E 03	-2.6290560E 02	-2.0557320E 02	2.5267891E-02	5.3846610E-03	3.1760645E-03

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

1.6426255E-01	1.9920496E 01	-5.9825937E 01	-5.3931345E-04	3.1100817E-05	-5.8255348E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	3.1285412E 08	-9.7067388E 07	-1.6569791E 07	-7.4739274E 03	2.3820739E 03	1.2361056E 03
2	-9.7067388E 07	1.3464505E 08	5.5949762E 06	2.3921139E 03	-3.0018091E 03	-4.2400562E 02
3	-1.6569791E 07	5.5949762E 06	5.3899825E 07	4.9233209E 02	-2.1564010E 02	-1.3963832E 03
4	-7.4739274E 03	2.3921139E 03	4.9233209E 02	1.7959619E-01	-5.7712390E-02	-3.1776485E-02
5	2.3820739E 03	-3.0018091E 03	-2.1564010E 02	-5.7712390E-02	7.2830582E-02	1.2182567E-02
6	1.2361056E 03	-4.2400562E 02	-1.3963832E 03	-3.1776485E-02	1.2182567E-02	3.9375408E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	-4.7294126E-01	-1.2760051E-01	-9.9707854E-01	4.9903084E-01	3.5218600E-01
2	-4.7294126E-01	1.0000000E 00	6.5676405E-02	4.8644988E-01	-9.5858576E-01	-1.8414668E-01
3	-1.2760051E-01	6.5676405E-02	1.0000000E 00	1.5823987E-01	-1.0883760E-01	-9.5851387E-01
4	-9.9707854E-01	4.8644988E-01	1.5823987E-01	9.9999998E-01	-5.0461901E-01	-3.7787205E-01
5	4.9903084E-01	-9.5858576E-01	-1.0883760E-01	-5.0461901E-01	1.0000000E 00	2.2749370E-01
6	3.5218600E-01	-1.8414668E-01	-9.5851387E-01	-3.7787205E-01	2.2749370E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.6594215E 02	9.9491194E 02	-5.0231025E 03	-4.0730059E-02	-4.3469079E-02	-1.1590211E-02
2	9.9491194E 02	1.1027777E 05	-1.2822976E 05	-6.2546459E-01	1.5751199E 00	-6.2317077E-01
3	-5.0231025E 03	-1.2822976E 05	4.3872323E 05	1.4428834E 00	-1.1789151E-01	3.8925155E 00
4	-4.0730059E-02	-6.2546459E-01	1.4428834E 00	8.4232637E-04	9.5865765E-04	2.0625052E-04
5	-4.3469079E-02	1.5751199E 00	-1.1789151E-01	9.5865765E-04	5.5214111E-03	-2.1032160E-05
6	-1.1590211E-02	-6.2317077E-01	3.8925155E 00	2.0625052E-04	-2.1032160E-05	6.6561224E-04

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	2.3257461E-01	-5.8870587E-01	-1.0894229E-01	-4.5412670E-02	-3.4874047E-02
2	2.3257461E-01	1.0000000E 00	-5.8297445E-01	-6.4896092E-02	6.3832904E-02	-7.2736506E-02
3	-5.8870587E-01	-5.8297445E-01	1.0000000E 00	7.5057781E-02	-2.3953125E-03	2.2778461E-01
4	-1.0894229E-01	-6.4896092E-02	7.5057781E-02	1.0000000E 00	4.4452716E-01	2.7545091E-01
5	-4.5412670E-02	6.3832904E-02	-2.3953125E-03	4.4452716E-01	1.0000000E 00	-1.0971050E-02
6	-3.4874047E-02	-7.2736506E-02	2.2778461E-01	2.7545091E-01	-1.0971050E-02	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

7.9466112E 01 -1.3946699E 02 -2.0345426E 01 1.2634285E-01 -1.2298155E-02 2.3415507E-02

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

2.0365730E-01 -3.7006677E-01 1.3176620E-02 3.5937471E-02 1.3597901E-02 7.7199367E-03

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

-7.9262456E 01 1.3909692E 02 2.0358603E 01 -9.0405374E-02 2.5896057E-02 -1.5695571E-02

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.1676038E 06	-4.0045769E 06	1.3137062E 06	2.8079873E 03	-1.2110406E 03	-9.9724774E 02
2	-4.0045769E 06	7.0495239E 06	-1.2529648E 06	-4.4353594E 03	1.3817603E 03	1.0196074E 03
3	1.3137062E 06	-1.2529648E 06	2.4959677E 06	9.8693388E 02	-5.4097908E 02	-1.7103275E 03
4	2.8079873E 03	-4.4353594E 03	9.8693388E 02	3.1533301E 00	-8.6745994E-01	-9.0793099E-01
5	-1.2110406E 03	1.3817603E 03	-5.4097908E 02	-8.6745994E-01	5.5650611E-01	3.2805491E-01
6	-9.9724774E 02	1.0196074E 03	-1.7103275E 03	-9.0793099E-01	3.2805491E-01	1.4536863E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.4744458E-01	4.6721129E-01	8.8847454E-01	-9.1213325E-01	-4.6473169E-01
2	-8.4744458E-01	1.0000000E 00	-2.9870293E-01	-9.4072827E-01	6.9761828E-01	3.1850608E-01
3	4.6721129E-01	-2.9870293E-01	1.0000000E 00	3.5179029E-01	-4.5901409E-01	-8.9789273E-01
4	8.8847454E-01	-9.4072827E-01	3.5179029E-01	1.0000000E 00	-6.5483177E-01	-4.2406535E-01
5	-9.1213325E-01	6.9761828E-01	-4.5901409E-01	-6.5483177E-01	1.0000000E 00	3.6473399E-01
6	-4.6473169E-01	3.1850608E-01	-8.9789273E-01	-4.2406535E-01	3.6473399E-01	1.0000000E 00

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	3.1675452E 06	-4.0045264E 06	1.3140589E 06	2.9229002E 03	-1.1554580E 03	-8.9968997E 02
2	-4.0045264E 06	7.0489164E 06	-1.2528977E 06	-4.5892772E 03	1.3233128E 03	8.4675224E 02
3	1.3140589E 06	-1.2528977E 06	2.4959526E 06	1.0303404E 03	-5.0977400E 02	-1.7352787E 03
4	2.9229002E 03	-4.5892772E 03	1.0303404E 03	3.0995808E 00	-1.0043579E 00	-7.0050720E-01
5	-1.1554580E 03	1.3233128E 03	-5.0977400E 02	-1.0043579E 00	4.3102198E-01	3.4986665E-01
6	-8.9968997E 02	8.4675224E 02	-1.7352787E 03	-7.0050720E-01	3.4986665E-01	1.2068291E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.4747826E-01	4.6734248E-01	9.3282695E-01	-9.8887870E-01	-4.6015970E-01
2	-8.4747826E-01	1.0000000E 00	-2.9870072E-01	-9.8181945E-01	7.5919197E-01	2.9031687E-01
3	4.6734248E-01	-2.9870072E-01	1.0000000E 00	3.7043420E-01	-4.9148448E-01	-9.9983461E-01
4	9.3282695E-01	-9.8181945E-01	3.7043420E-01	9.9999998E-01	-8.6893499E-01	-3.6219148E-01
5	-9.8887870E-01	7.5919197E-01	-4.9148448E-01	-8.6893499E-01	9.9999998E-01	4.8509851E-01
6	-4.6015970E-01	2.9031687E-01	-9.9983461E-01	-3.6219148E-01	4.8509851E-01	1.0000000E 00

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
2.4688201E 00

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
2.9656225E 00

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	7.4403818E-01	1.2384126E 00	1.8638081E-01
2	1.2384126E 00	7.6560671E 00	4.1748919E-01
3	1.8638081E-01	4.1748919E-01	6.0276467E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	1.0000000E 00	5.1887757E-01	2.7831056E-01
2	5.1887757E-01	1.0000000E 00	1.9434281E-01
3	2.7831056E-01	1.9434281E-01	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.5678409E 02

[redacted]

[redacted]

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
7.8908293E 03

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
0.

SAMPLE MEAN OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
1.8958174E 01

SAMPLE VARIANCE OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
1.1537497E 02

[redacted]

[redacted]

TIME (HOURS)
6.7705968E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

8.2336264E 01	-9.9121237E 01	-5.8079162E 01	5.9667233E-03	3.0502404E-02	5.8466275E-03

SAMPLE MEAN OF ESTIMATED DEVIATIONS

7.2195768E 01	-1.0063675E 02	-9.5206833E 01	5.3548261E-03	3.0657879E-02	5.2210861E-03

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.0140506E 01	-1.5155152E 00	-3.7127675E 01	-6.1189700E-04	1.5547482E-04	-6.2554162E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.3628186E 06	1.3990496E 05	1.3908634E 06	3.0400283E 01	6.9114785E 01	-1.4196332E 02
2	1.3990496E 05	5.3392012E 06	5.7524242E 05	1.9980640E 02	-8.8757902E 02	2.5768071E 02
3	1.3908634E 06	5.7524242E 05	8.3227180E 06	3.1721944E 00	2.2832812E 02	-4.8844293E 02
4	3.0400283E 01	1.9980640E 02	3.1721944E 00	3.6066480E-02	-3.5975513E-02	1.8884225E-02
5	6.9114785E 01	-8.8757902E 02	2.2832812E 02	-3.5975513E-02	1.9958299E-01	-6.5281394E-02
6	-1.4196332E 02	2.5768071E 02	-4.8844293E 02	1.8884225E-02	-6.5281394E-02	1.1367329E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	3.9389436E-02	3.1364380E-01	1.0413832E-01	1.0064542E-01	-2.7392504E-01
2	3.9389436E-02	9.9999998E-01	8.6293912E-02	4.5532277E-01	-8.5981917E-01	3.3076119E-01
3	3.1364380E-01	8.6293912E-02	9.9999998E-01	5.7899566E-03	1.7715975E-01	-5.0217143E-01
4	1.0413832E-01	4.5532277E-01	5.7899566E-03	1.0000000E 00	-4.2402685E-01	2.9492939E-01
5	1.0064542E-01	-8.5981917E-01	1.7715975E-01	-4.2402685E-01	1.0000000E 00	-4.3340951E-01
6	-2.7392504E-01	3.3076119E-01	-5.0217143E-01	2.9492939E-01	-4.3340951E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	2.0540577E 04	4.5510010E 03	-3.0547511E 04	2.2098357E 00	1.2439148E-01	-4.0698227E-01
2	4.5510010E 03	1.4740857E 03	3.2383673E 03	5.5402038E-01	5.5978910E-02	-1.8494372E-01
3	-3.0547511E 04	3.2383673E 03	4.0119429E 05	-2.4883413E 00	1.8336129E-01	-7.8218521E-01
4	2.2098357E 00	5.5402038E-01	-2.4883413E 00	3.0957555E-04	4.3638053E-05	-1.0419586E-04
5	1.2439148E-01	5.5978910E-02	1.8336129E-01	4.3638053E-05	1.3614439E-05	-2.5866946E-05
6	-4.0698227E-01	-1.8494372E-01	-7.8218521E-01	-1.0419586E-04	-2.5866946E-05	1.2993093E-04

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	8.2706419E-01	-3.3650547E-01	8.7633532E-01	2.3522551E-01	-2.4912246E-01
2	8.2706419E-01	9.9999998E-01	1.3316416E-01	8.2012684E-01	3.9515108E-01	-4.2259264E-01
3	-3.3650547E-01	1.3316416E-01	1.0000000E 00	-2.2327971E-01	7.8456768E-02	-1.0833679E-01
4	8.7633532E-01	8.2012684E-01	-2.2327971E-01	1.0000000E 00	6.7217470E-01	-5.1953028E-01
5	2.3522551E-01	3.9515108E-01	7.8456768E-02	6.7217470E-01	1.0000000E 00	-6.1501966E-01
6	-2.4912246E-01	-4.2259264E-01	-1.0833679E-01	-5.1953028E-01	-6.1501966E-01	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

7.9466120E 01 -1.3946701E 02 -2.0345431E 01 1.2634285E-01 -1.2298144E-02 2.3415507E-02

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

7.1421637E 01 -1.2142751E 02 -4.5597509E 01 1.1540453E-01 -9.9362091E-03 3.9860884E-02

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

-8.0444813E 00 1.8039485E 01 -2.5252083E 01 -1.0938320E-02 2.3619344E-03 1.6445377E-02

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.1676035E 06	-4.0045767E 06	1.3137061E 06	2.8079871E 03	-1.2110405E 03	-9.9724770E 02
2	-4.0045767E 06	7.0495237E 06	-1.2529649E 06	-4.4353593E 03	1.3817603E 03	1.0196076E 03
3	1.3137061E 06	-1.2529649E 06	2.4959676E 06	9.8693395E 02	-5.4097904E 02	-1.7103274E 03
4	2.8079871E 03	-4.4353593E 03	9.8693395E 02	3.1533302E 00	-8.6745970E-01	-9.0793107E-01
5	-1.2110405E 03	1.3817603E 03	-5.4097904E 02	-8.6745970E-01	5.5650622E-01	3.2805489E-01
6	-9.9724770E 02	1.0196076E 03	-1.7103274E 03	-9.0793107E-01	3.2805489E-01	1.4536862E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.4744459E-01	4.6721128E-01	8.8847450E-01	-9.1213313E-01	-4.6473169E-01
2	-8.4744459E-01	1.0000000E 00	-2.9870298E-01	-9.4072826E-01	6.9761820E-01	3.1850617E-01
3	4.6721128E-01	-2.9870298E-01	1.0000000E 00	3.5179032E-01	-4.5901402E-01	-8.9789271E-01
4	8.8847450E-01	-9.4072826E-01	3.5179032E-01	1.0000000E 00	-6.5483152E-01	-4.2406537E-01
5	-9.1213313E-01	6.9761820E-01	-4.5901402E-01	-6.5483152E-01	9.9999998E-01	3.6473393E-01
6	-4.6473169E-01	3.1850617E-01	-8.9789271E-01	-4.2406537E-01	3.6473393E-01	9.9999998E-01

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	2.3059453E 04	-4.3982611E 04	-1.3932275E 04	2.8327229E 01	-7.8934819E 00	8.5267239E 00
2	-4.3982611E 04	8.5581452E 04	3.8042746E 04	-5.4745989E 01	1.4872941E 01	-2.4480771E 01
3	-1.3932275E 04	3.8042746E 04	1.5903082E 05	-2.2198392E 01	3.8675103E 00	-1.0998937E 02
4	2.8327229E 01	-5.4745989E 01	-2.2198392E 01	3.5105124E-02	-9.6243227E-03	1.4101701E-02
5	-7.8934819E 00	1.4872941E 01	3.8675103E 00	-9.6243227E-03	2.7290280E-03	-2.2436968E-03
6	8.5267239E 00	-2.4480771E 01	-1.0998937E 02	1.4101701E-02	-2.2436968E-03	7.6394678E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.9007176E-01	-2.3006835E-01	9.9562165E-01	-9.9503901E-01	2.0315436E-01
2	-9.9007176E-01	1.0000000E 00	3.2609292E-01	-9.9879698E-01	9.7320211E-01	-3.0276363E-01
3	-2.3006835E-01	3.2609292E-01	1.0000000E 00	-2.9709517E-01	1.8564652E-01	-9.9788047E-01
4	9.9562165E-01	-9.9879698E-01	-2.9709517E-01	9.9999998E-01	-9.8328841E-01	2.7230442E-01
5	-9.9503901E-01	9.7320211E-01	1.8564652E-01	-9.8328841E-01	1.0000000E 00	-1.5539199E-01
6	2.0315436E-01	-3.0276363E-01	-9.9788047E-01	2.7230442E-01	-1.5539199E-01	9.9999998E-01

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TIME (HOURS)
6.7705968E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

8.2336264E 01	-9.9121237E 01	-5.8079162E 01	-2.0286062E-02	2.4970815E-02	2.2536217E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

7.2195768E 01	-1.0063675E 02	-9.5206833E 01	-2.2207667E-02	2.4520679E-02	2.2622865E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.0140506E 01	-1.5155152E 00	-3.7127675E 01	-1.9216036E-03	-4.5013673E-04	8.6648490E-05

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.3628186E 06	1.3990496E 05	1.3908634E 06	-8.3907284E 02	-1.1372977E 02	-3.0925379E 02
2	1.3990496E 05	5.3392012E 06	5.7524242E 05	-2.2009447E 02	-1.3151633E 03	-1.4555768E 02
3	1.3908634E 06	5.7524242E 05	8.3227180E 06	-4.7860348E 02	-1.7764031E 02	-1.8780116E 03
4	-8.3907284E 02	-2.2009447E 02	-4.7860348E 02	3.0802949E-01	8.3019987E-02	1.0436722E-01
5	-1.1372977E 02	-1.3151633E 03	-1.7764031E 02	8.3019987E-02	3.2719252E-01	4.3773940E-02
6	-3.0925379E 02	-1.4555768E 02	-1.8780116E 03	1.0436722E-01	4.3773940E-02	4.4506438E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	3.9389436E-02	3.1364380E-01	-9.8353162E-01	-1.2934728E-01	-3.0157019E-01
2	3.9389436E-02	9.9999998E-01	8.6293912E-02	-1.7162274E-01	-9.9503843E-01	-9.4424685E-02
3	3.1364380E-01	8.6293912E-02	9.9999998E-01	-2.9891458E-01	-1.0764832E-01	-9.7578523E-01
4	-9.8353162E-01	-1.7162274E-01	-2.9891458E-01	1.0000000E 00	2.6150791E-01	2.8187500E-01
5	-1.2934728E-01	-9.9503843E-01	-1.0764832E-01	2.6150791E-01	9.9999998E-01	1.1471033E-01
6	-3.0157019E-01	-9.4424685E-02	-9.7578523E-01	2.8187500E-01	1.1471033E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	2.0540577E 04	4.5510010E 03	-3.0547511E 04	1.5855612E 00	3.8817545E-02	-9.2464639E-02
2	4.5510010E 03	1.4740857E 03	3.2383673E 03	3.7868621E-01	2.4580490E-02	-8.9547455E-02
3	-3.0547511E 04	3.2383673E 03	4.0119429E 05	-1.7026607E 00	2.6667604E-01	-7.7861172E-01
4	1.5855612E 00	3.7868621E-01	-1.7026607E 00	6.1267778E-04	1.0801947E-04	1.1706717E-04
5	3.8817545E-02	2.4580490E-02	2.6667604E-01	1.0801947E-04	1.3796420E-04	1.7064450E-05
6	-9.2464639E-02	-8.9547455E-02	-7.7861172E-01	1.1706717E-04	1.7064450E-05	5.4287099E-04

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	8.2706419E-01	-3.3650547E-01	4.4695171E-01	2.3058896E-02	-2.7689877E-02
2	8.2706419E-01	9.9999998E-01	1.3316416E-01	3.9847589E-01	5.4506204E-02	-1.0010218E-01
3	-3.3650547E-01	1.3316416E-01	1.0000000E 00	-1.0860121E-01	3.5844574E-02	-5.2758840E-02
4	4.4695171E-01	3.9847589E-01	-1.0860121E-01	1.0000000E 00	3.7153759E-01	2.0298817E-01
5	2.3058896E-02	5.4506204E-02	3.5844574E-02	3.7153759E-01	1.0000000E 00	6.2353489E-02
6	-2.7689877E-02	-1.0010218E-01	-5.2758840E-02	2.0298817E-01	6.2353489E-02	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

1.9305552E 01	-2.2577857E 01	2.6275605E 01	5.0324203E-02	2.0797059E-02	1.7615302E-02

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

6.9758153E 00	1.5208695E 00	3.0113085E 00	3.4668204E-02	2.5232611E-02	3.3813041E-02

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

-1.2329736E 01	2.4098727E 01	-2.3264296E 01	-1.5656000E-02	4.4355499E-03	1.6197740E-02

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.0227347E 04	-4.9507896E 04	-1.0972330E 04	3.8276849E 01	-3.1209633E 01	-1.4177204E 01
2	-4.9507896E 04	9.9101175E 04	3.0563162E 04	-7.1228726E 01	5.7138255E 01	1.5855476E 01
3	-1.0972330E 04	3.0563162E 04	1.6630639E 05	-3.5506521E 00	1.5654793E 01	-2.8804035E 01
4	3.8276849E 01	-7.1228726E 01	-3.5506521E 00	4.4946198E-01	1.0993477E-01	2.0757747E-02
5	-3.1209633E 01	5.7138255E 01	1.5654793E 01	1.0993477E-01	2.0885596E-01	-9.7240829E-02
6	-1.4177204E 01	1.5855476E 01	-2.8804035E 01	2.0757747E-02	-9.7240829E-02	1.0680966E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.0455514E-01	-1.5475489E-01	3.2838981E-01	-3.9279432E-01	-7.8901510E-02
2	-9.0455514E-01	1.0000000E 00	2.3806985E-01	-3.3749651E-01	3.9715875E-01	4.8734286E-02
3	-1.5475489E-01	2.3806985E-01	9.9999998E-01	-1.2986950E-02	8.3998088E-02	-6.8342928E-02
4	3.2838981E-01	-3.3749651E-01	-1.2986950E-02	1.0000000E 00	3.5881052E-01	2.9959080E-02
5	-3.9279432E-01	3.9715875E-01	8.3998088E-02	3.5881052E-01	1.0000000E 00	-2.0588275E-01
6	-7.8901510E-02	4.8734286E-02	-6.8342928E-02	2.9959080E-02	-2.0588275E-01	1.0000000E 00

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SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	2.4020200E 04	-4.2919228E 04	-1.0816468E 04	2.8692250E 01	-8.3279351E 00	7.6080815E 00
2	-4.2919228E 04	8.3008820E 04	3.1735289E 04	-5.3345594E 01	1.4828854E 01	-2.2458294E 01
3	-1.0816468E 04	3.1735289E 04	1.6226637E 05	-1.8214711E 01	2.3147641E 00	-1.1040117E 02
4	2.8692250E 01	-5.3345594E 01	-1.8214711E 01	3.4982768E-02	-9.9285817E-03	1.2871357E-02
5	-8.3279351E 00	1.4828854E 01	2.3147641E 00	-9.9285817E-03	3.0161589E-03	-1.7326406E-03
6	7.6080815E 00	-2.2458294E 01	-1.1040117E 02	1.2871357E-02	-1.7326406E-03	7.6448296E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6117280E-01	-1.7325385E-01	9.8980402E-01	-9.7841231E-01	1.7754275E-01
2	-9.6117280E-01	9.9999998E-01	2.7344254E-01	-9.8994107E-01	9.3716992E-01	-2.8192314E-01
3	-1.7325385E-01	2.7344254E-01	9.9999998E-01	-2.4175805E-01	1.0463220E-01	-9.9123244E-01
4	9.8980402E-01	-9.8994107E-01	-2.4175805E-01	1.0000000E 00	-9.6656934E-01	2.4889338E-01
5	-9.7841231E-01	9.3716992E-01	1.0463220E-01	-9.6656934E-01	9.9999998E-01	-1.1410311E-01
6	1.7754275E-01	-2.8192314E-01	-9.9123244E-01	2.4889338E-01	-1.1410311E-01	1.0000000E 00

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
7.0123175E-01

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
3.1852466E-01

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	3.7869631E-01	9.0774070E-02	8.5898545E-02
2	9.0774070E-02	9.3141721E-02	8.7653947E-02
3	8.5898545E-02	8.7653947E-02	3.3986790E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	9.9999998E-01	4.8333043E-01	2.3943366E-01
2	4.8333043E-01	1.0000000E 00	4.9265656E-01
3	2.3943366E-01	4.9265656E-01	9.9999998E-01

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.6258253E 02

[redacted]

[redacted]

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
8.0778508E 03

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
1.2437811E 01

SAMPLE MEAN OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
1.9659315E 01

SAMPLE VARIANCE OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
1.1810947E 02

[redacted]

[redacted]

TIME (HOURS)
6.8705968E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.9305552E 01	-2.2577857E 01	2.6275605E 01	5.0324203E-02	2.0797059E-02	1.7615302E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

6.9758153E 00	1.5208695E 00	3.0113085E 00	3.4668204E-02	2.5232611E-02	3.3813[illegible]E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.2329736E 01	2.4098727E 01	-2.3264296E 01	-1.5656000E-02	4.4355499E-03	1.6197740E-02

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	3.0227347E 04	-4.9507896E 04	-1.0972330E 04	3.8276849E 01	-3.1209633E 01	-1.4177204E 01
2	-4.9507896E 04	9.9101175E 04	3.0563162E 04	-7.1228726E 01	5.7138255E 01	1.5855476E 01
3	-1.0972330E 04	3.0563162E 04	1.6630639E 05	-3.5506521E 00	1.5654793E 01	-2.8804035E 01
4	3.8276849E 01	-7.1228726E 01	-3.5506521E 00	4.4946198E-01	1.0993477E-01	2.0757747E-02
5	-3.1209633E 01	5.7138255E 01	1.5654793E 01	1.0993477E-01	2.0885596E-01	-9.7240829E-02
6	-1.4177204E 01	1.5855476E 01	-2.8804035E 01	2.0757747E-02	-9.7240829E-02	1.0680963E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.0455514E-01	-1.5475489E-01	3.2838981E-01	-3.9279432E-01	-7.8901510E-02
2	-9.0455514E-01	1.0000000E 00	2.3806985E-01	-3.3749651E-01	3.9715875E-01	4.8734286E-02
3	-1.5475489E-01	2.3806985E-01	9.9999998E-01	-1.2986950E-02	8.3998088E-02	-6.8342928E-02
4	3.2838981E-01	-3.3749651E-01	-1.2986950E-02	1.0000000E 00	3.5881052E-01	2.9959080E-02
5	-3.9279432E-01	3.9715875E-01	8.3998088E-02	3.5881052E-01	1.0000000E 00	-2.0588275E-01
6	-7.8901510E-02	4.8734286E-02	-6.8342928E-02	2.9959080E-02	-2.0588275E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	2.4020200E 04	-4.2919228E 04	-1.0816468E 04	2.8692250E 01	-8.3279351E 00	7.6080815E 00
2	-4.2919228E 04	8.3008820E 04	3.1735289E 04	-5.3345594E 01	1.4828854E 01	-2.2458294E 01
3	-1.0816468E 04	3.1735289E 04	1.6226637E 05	-1.8214711E 01	2.3147641E 00	-1.1040117E 02
4	2.8692250E 01	-5.3345594E 01	-1.8214711E 01	3.4982768E-02	-9.9285817E-03	1.2871357E-02
5	-8.3279351E 00	1.4828854E 01	2.3147641E 00	-9.9285817E-03	3.0161589E-03	-1.7326406E-03
6	7.6080815E 00	-2.2458294E 01	-1.1040117E 02	1.2871357E-02	-1.7326406E-03	7.6448296E-02

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[redacted]

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6117280E-01	-1.7325385E-01	9.8980402E-01	-9.7841231E-01	1.7754275E-01
2	-9.6117280E-01	9.9999998E-01	2.7344254E-01	-9.8994107E-01	9.3716992E-01	-2.8192314E-01
3	-1.7325385E-01	2.7344254E-01	9.9999998E-01	-2.4175805E-01	1.0463220E-01	-9.9123244E-01
4	9.8980402E-01	-9.8994107E-01	-2.4175805E-01	1.0000000E 00	-9.6656934E-01	2.4889338E-01
5	-9.7841231E-01	9.3716992E-01	1.0463220E-01	-9.6656934E-01	9.9999998E-01	-1.1410311E-01
6	1.7754275E-01	-2.8192314E-01	-9.9123244E-01	2.4889338E-01	-1.1410311E-01	1.0000000E 00

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TIME (HOURS)
6.8805947E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

3.7686914E 01	-1.8197550E 02	-8.0158181E 01	1.1231086E-01	-7.3977021E-02	-2.4706585E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

6.2639996E 01	-1.4707585E 02	-6.3314595E 01	1.2613465E-01	-1.6616418E-02	-1.3220608E-03

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

2.4953079E 01	3.4899650E 01	1.6843594E 01	1.3823791E-02	5.7360604E-02	2.4574381E-01

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	7.2630923E 05	-6.4159735E 04	-1.6782268E 05	3.2880982E 03	1.2604903E 02	-6.7652921E 02
2	-6.4159735E 04	4.5125188E 06	1.8068659E 06	-4.1516508E 03	1.5762812E 03	-8.3126055E 02
3	-1.6782268E 05	1.8068659E 06	1.5180117E 06	-2.7649922E 03	-8.5157769E 02	2.4168537E 03
4	3.2880982E 03	-4.1516508E 03	-2.7649922E 03	2.2221321E 01	-7.2134576E-01	-3.6502803E 00
5	1.2604903E 02	1.5762812E 03	-8.5157769E 02	-7.2134576E-01	8.6640505E 00	-5.4895601E 00
6	-6.7652921E 02	-8.3126055E 02	2.4168537E 03	-3.6502803E 00	-5.4895601E 00	1.4260518E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-3.5439882E-02	-1.5982779E-01	8.1846298E-01	5.0247938E-02	-2.1021229E-01
2	-3.5439882E-02	1.0000000E 00	6.9036512E-01	-4.1459720E-01	2.5209469E-01	-1.0362392E-01
3	-1.5982779E-01	6.9036512E-01	1.0000000E 00	-4.7607064E-01	-2.3481521E-01	5.1945167E-01
4	8.1846298E-01	-4.1459720E-01	-4.7607064E-01	1.0000000E 00	-5.1987395E-02	-2.0505653E-01
5	5.0247938E-02	2.5209469E-01	-2.3481521E-01	-5.1987395E-02	1.0000000E 00	-4.9386630E-01
6	-2.1021229E-01	-1.0362392E-01	5.1945167E-01	-2.0505653E-01	-4.9386630E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	6.6299206E 05	-2.0304841E 04	-1.5718531E 05	3.1169581E 03	2.1009714E 01	-5.6185915E 02
2	-2.0304841E 04	3.8395529E 05	-1.1538494E 05	-3.1369502E 02	1.5045752E 03	-9.4813325E 02
3	-1.5718531E 05	-1.1538494E 05	5.4204681E 05	-9.5590879E 02	-8.9057289E 02	2.3671436E 03
4	3.1169581E 03	-3.1369502E 02	-9.5590879E 02	1.8671841E 01	-5.9675798E-01	-3.5438890E 00
5	2.1009714E 01	1.5045752E 03	-8.9057289E 02	-5.9675798E-01	8.5415901E 00	-5.5021507E 00
6	-5.6185915E 02	-9.4813325E 02	2.3671436E 03	-3.5438890E 00	-5.5021507E 00	1.4307765E 01

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-4.0244365E-02	-2.6220405E-01	8.8589698E-01	8.8286971E-03	-1.8242627E-01
2	-4.0244365E-02	1.0000000E 00	-2.5292421E-01	-1.1715848E-01	8.3081478E-01	-4.0452293E-01
3	-2.6220405E-01	-2.5292421E-01	1.0000000E 00	-3.0047233E-01	-4.1388693E-01	8.5000271E-01
4	8.8589698E-01	-1.1715848E-01	-3.0047233E-01	1.0000000E 00	-4.7253643E-02	-2.1682064E-01
5	8.8286971E-03	8.3081478E-01	-4.1388693E-01	-4.7253643E-02	1.0000000E 00	-4.9771097E-01
6	-1.8242627E-01	-4.0452293E-01	8.5000271E-01	-2.1682064E-01	-4.9771097E-01	9.9999998E-01

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.5423072E 02

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.4339408E 04

SAMPLE MEAN OF THE FUEL EXPENDED IN THIS MANEUVER
-8.3518239E 00

SAMPLE VARIANCE OF THE FUEL EXPENDED IN THIS MANEUVER
6.1142813E 03

[redacted]

[redacted]

TIME (HOURS)
7.2625977E 01

SAMPLE MEAN OF ACTUAL DEVIATIONS

3.3510472E 01	1.7674088E 03	1.4880557E 02	-1.4585201E 00	-7.0408944E-02	-2.2263086E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

3.3452327E 01	1.7671900E 03	1.3949917E 02	-1.4584005E 00	-7.0346010E-02	-2.2917222E-01

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-5.8136012E-02	-2.1877871E-01	-9.3063873E 00	1.1952922E-04	6.2933418E-05	-6.5413789E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	1.0630016E 07	-1.8238298E 08	1.0213719E 06	1.4132321E 05	-4.8596147E 03	-6.1606519E 02
2	-1.8238298E 08	1.8763631E 10	-1.9319355E 08	-1.5570877E 07	-2.6425559E 05	2.2017861E 05
3	1.0213719E 06	-1.9319355E 08	7.7674549E 06	1.6113928E 05	3.4675044E 03	-7.7146728E 03
4	1.4132321E 05	-1.5570877E 07	1.6113928E 05	1.2933044E 04	2.2770121E 02	-1.8425661E 02
5	-4.8596147E 03	-2.6425559E 05	3.4675044E 03	2.2770121E 02	9.9534289E 00	-4.3505992E 00
6	-6.1606519E 02	2.2017861E 05	-7.7146728E 03	-1.8425661E 02	-4.3505992E 00	9.6972070E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-4.0837476E-01	1.1240292E-01	3.8115020E-01	-4.7244201E-01	-6.0678714E-02
2	-4.0837476E-01	1.0000000E 00	-5.0605160E-01	-9.9954934E-01	-6.1147596E-01	5.1617070E-01
3	1.1240292E-01	-5.0605160E-01	1.0000000E 00	5.0840716E-01	3.9435858E-01	-8.8890387E-01
4	3.8115020E-01	-9.9954934E-01	5.0840716E-01	1.0000000E 00	6.3464170E-01	-5.2029465E-01
5	-4.7244201E-01	-6.1147596E-01	3.9435858E-01	6.3464170E-01	9.9999998E-01	-4.4283239E-01
6	-6.0678714E-02	5.1617070E-01	-8.8890387E-01	-5.2029465E-01	-4.4283239E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	7.8428651E 00	-2.2080458E 00	-1.4796938E 02	2.9767857E-03	-6.4943390E-03	-2.4096434E-02
2	-2.2080458E 00	1.2204412E 02	-3.0369211E 03	-9.2671132E-02	1.6173533E-03	2.4003513E 00
3	-1.4796938E 02	-3.0369211E 03	1.1556289E 05	2.4889959E 00	1.1239776E-01	-9.0516212E 01
4	2.9767857E-03	-9.2671132E-02	2.4889959E 00	7.3796176E-05	-2.2471600E-06	-2.0667810E-03
5	-6.4943390E-03	1.6173533E-03	1.1239776E-01	-2.2471600E-06	5.4192029E-06	3.3529696E-05
6	-2.4096434E-02	2.4003513E 00	-9.0516212E 01	-2.0667810E-03	3.3529696E-05	8.7559680E-02

[redacted]

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-7.1369437E-02	-1.5542657E-01	1.2373520E-01	-9.9616177E-01	-2.9077919E-02
2	-7.1369437E-02	1.0000000E 00	-8.0865984E-01	-9.7649293E-01	6.2889588E-02	7.3428440E-01
3	-1.5542657E-01	-8.0865984E-01	1.0000000E 00	8.5231091E-01	1.4203022E-01	-8.9983957E-01
4	1.2373520E-01	-9.7649293E-01	8.5231091E-01	1.0000000E 00	-1.1236973E-01	-8.1306535E-01
5	-9.9616177E-01	6.2889588E-02	1.4203022E-01	-1.1236973E-01	9.9999998E-01	4.8675433E-02
6	-2.9077919E-02	7.3428440E-01	-8.9983957E-01	-8.1306535E-01	4.8675433E-02	1.0000000E 00

[redacted]

[redacted]

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-1.2251728E-01	-1.5083344E-01	9.7588326E-02	-9.9989635E-01	1.9599815E-02
2	-1.2251728E-01	9.9999998E-01	-1.6011285E-01	-9.3939904E-01	1.1567312E-01	-3.2675332E-01
3	-1.5083344E-01	-1.6011285E-01	1.0000000E 00	2.5053649E-01	1.4458210E-01	5.6290904E-01
4	9.7588326E-02	-9.3939904E-01	2.5053649E-01	1.0000000E 00	-8.9526109E-02	2.8617850E-01
5	-9.9989635E-01	1.1567312E-01	1.4458210E-01	-8.9526109E-02	1.0000000E 00	-2.5245143E-02
6	1.9599815E-02	-3.2675332E-01	5.6290904E-01	2.8617850E-01	-2.5245143E-02	9.9999998E-01

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TIME (HOURS)
1.0169493E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

-2.7841696E-02	-3.2590116E-02	8.7654580E-01	5.6593275E-05	2.3855971E-05	-3.5318987E-03

SAMPLE MEAN OF ESTIMATED DEVIATIONS

0.	0.	0.	0.	0.	0.

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

2.7841696E-02	3.2590116E-02	-8.7654580E-01	-5.6593275E-05	-2.3855971E-05	3.5318987E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	5.1830128E-01	2.2305913E-01	-4.1874580E 00	-1.5555441E-04	-4.4209176E-04	-4.6168388E-03
2	2.2305913E-01	6.3736054E 00	5.5435442E 01	-4.1379134E-03	-2.0066645E-04	-5.2290555E-02
3	-4.1874580E 00	5.5435442E 01	1.1583984E 04	-4.4924180E-02	4.0359203E-03	-2.2784216E 00
4	-1.5555441E-04	-4.1379134E-03	-4.4924180E-02	2.9544725E-06	1.4152500E-07	3.0317322E-05
5	-4.4209176E-04	-2.0066645E-04	4.0359203E-03	1.4152500E-07	3.7717251E-07	3.8638097E-06
6	-4.6168388E-03	-5.2290555E-02	-2.2784216E 00	3.0317322E-05	3.8638097E-06	2.4365454E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	1.2272591E-01	-5.4041865E-02	-1.2570461E-01	-9.9988778E-01	-1.2991709E-01
2	1.2272591E-01	1.0000000E 00	2.0401681E-01	-9.5356178E-01	-1.2942321E-01	-4.1960766E-01
3	-5.4041865E-02	2.0401681E-01	9.9999998E-01	-2.4283495E-01	6.1058142E-02	-4.2886228E-01
4	-1.2570461E-01	-9.5356178E-01	-2.4283495E-01	1.0000000E 00	1.3406740E-01	3.5732516E-01
5	-9.9988778E-01	-1.2942321E-01	6.1058142E-02	1.3406740E-01	9.9999998E-01	1.2745546E-01
6	-1.2991709E-01	-4.1960766E-01	-4.2886228E-01	3.5732516E-01	1.2745546E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	5.1830128E-01	2.2305913E-01	-4.1874580E 00	-1.5555441E-04	-4.4209176E-04	-4.6168388E-03
2	2.2305913E-01	6.3736054E 00	5.5435442E 01	-4.1379134E-03	-2.0066645E-04	-5.2290555E-02
3	-4.1874580E 00	5.5435442E 01	1.1583984E 04	-4.4924180E-02	4.0359203E-03	-2.2784216E 00
4	-1.5555441E-04	-4.1379134E-03	-4.4924180E-02	2.9544725E-06	1.4152500E-07	3.0317322E-05
5	-4.4209176E-04	-2.0066645E-04	4.0359203E-03	1.4152500E-07	3.7717251E-07	3.8638097E-06
6	-4.6168388E-03	-5.2290555E-02	-2.2784216E 00	3.0317322E-05	3.8638097E-06	2.4365454E-03

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	1.2272591E-01	-5.4041865E-02	-1.2570461E-01	-9.9988778E-01	-1.2991709E-01
2	1.2272591E-01	1.0000000E 00	2.0401681E-01	-9.5356178E-01	-1.2942321E-01	-4.1960766E-01
3	-5.4041865E-02	2.0401681E-01	9.9999998E-01	-2.4283495E-01	6.1058142E-02	-4.2886228E-01
4	-1.2570461E-01	-9.5356178E-01	-2.4283495E-01	1.0000000E 00	1.3406740E-01	3.5732516E-01
5	-9.9988778E-01	-1.2942321E-01	6.1058142E-02	1.3406740E-01	9.9999998E-01	1.2745546E-01
6	-1.2991709E-01	-4.1960766E-01	-4.2886228E-01	3.5732516E-01	1.2745546E-01	9.9999998E-01

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TIME (HOURS)
1.0668491E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

2.7119840E-02	-1.7300800E-01	-7.5407542E-01	1.1830394E-04	-2.3111231E-05	3.5524871E-03

SAMPLE MEAN OF ESTIMATED DEVIATIONS

7.9611379E-03	5.3359500E-02	-9.1157246E-01	-1.8933668E-05	-6.7380252E-06	-1.3694118E-04

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.9158694E-02	2.2636752E-01	-1.5749687E-01	-1.3723761E-04	1.6373208E-05	-3.6894362E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	5.1530946E-01	-7.5579430E-02	-6.4062593E 00	1.0483954E-04	-4.4073126E-04	-4.5703761E-03
2	-7.5579430E-02	7.3036292E 00	-1.9124708E 01	-5.0316137E-03	4.9735079E-05	-1.8720354E-02
3	-6.4062593E 00	-1.9124708E 01	1.1419400E 04	1.8451612E-02	5.0199818E-03	-2.4828111E 00
4	1.0483954E-04	-5.0316137E-03	1.8451612E-02	3.8014205E-06	-7.6907864E-08	1.6941416E-06
5	-4.4073126E-04	4.9735079E-05	5.0199818E-03	-7.6907864E-08	3.7703188E-07	3.9984543E-06
6	-4.5703761E-03	-1.8720354E-02	-2.4828111E 00	1.6941416E-06	3.9984543E-06	2.5568775E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-3.8958318E-02	-8.3511983E-02	7.4906260E-02	-9.9988663E-01	-1.2591078E-01
2	-3.8958318E-02	9.9999998E-01	-6.6222233E-02	-9.5491557E-01	2.9971219E-02	-1.3699027E-01
3	-8.3511983E-02	-6.6222233E-02	9.9999998E-01	8.8560429E-02	7.6505287E-02	-4.5948048E-01
4	7.4906260E-02	-9.5491557E-01	8.8560429E-02	9.9999998E-01	-6.4240476E-02	1.7183902E-02
5	-9.9988663E-01	2.9971219E-02	7.6505287E-02	-6.4240476E-02	1.0000000E 00	1.2877991E-01
6	-1.2591078E-01	-1.3699027E-01	-4.5948048E-01	1.7183902E-02	1.2877991E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	4.2200894E-01	-1.7102452E-01	-5.2319554E 00	1.6408538E-04	-3.6048949E-04	-4.0659816E-03
2	-1.7102452E-01	4.3652098E 00	-3.6287203E 01	-2.8046871E-03	1.4075885E-04	-1.2539988E-02
3	-5.2319554E 00	-3.6287203E 01	1.0532525E 04	3.2990507E-02	4.1109869E-03	-2.3570256E 00
4	1.6408538E-04	-2.8046871E-03	3.2990507E-02	2.0036615E-06	-1.3565827E-07	-9.7191298E-07
5	-3.6048949E-04	1.4075885E-04	4.1109869E-03	-1.3565827E-07	3.0798328E-07	3.5608164E-06
6	-4.0659816E-03	-1.2539988E-02	-2.3570256E 00	-9.7191298E-07	3.5608164E-06	2.4724405E-03

[redacted]

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-1.2600709E-01	-7.8476014E-02	1.7844192E-01	-9.9992679E-01	-1.2587563E-01
2	-1.2600709E-01	9.9999998E-01	-1.6923285E-01	-9.4835224E-01	1.2139745E-01	-1.2070677E-01
3	-7.8476014E-02	-1.6923285E-01	9.9999998E-01	2.2709656E-01	7.2179899E-02	-4.6188633E-01
4	1.7844192E-01	-9.4835224E-01	2.2709656E-01	1.0000000E 00	-1.7269133E-01	-1.3808684E-02
5	-9.9992679E-01	1.2139745E-01	7.2179899E-02	-1.7269133E-01	9.9999998E-01	1.2903962E-01
6	-1.2587563E-01	-1.2070677E-01	-4.6188633E-01	-1.3808684E-02	1.2903962E-01	9.9999998E-01

[redacted]

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TIME (HOURS)
1.0671789E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.2859217E 01	1.4394778E 01	-1.6633036E 01	1.8524659E-01	4.2090120E-02	-2.5263001E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-5.8073494E-01	1.2334138E 01	-5.8692695E-01	-6.9333538E-03	1.0716203E-02	-3.9977564E-04

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.3439952E 01	-2.0606393E 00	1.6046110E 01	-1.9217994E-01	-3.1373915E-02	2.5223024E-01

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	3.8426867E 04	-1.7617780E 04	9.2965282E 02	5.3712917E 02	2.3307483E 01	-9.7039028E 00
2	-1.7617780E 04	3.4980286E 05	2.6792493E 04	-1.8260325E 02	5.1662533E-01	1.2369656E 02
3	9.2965282E 02	2.6792493E 04	4.1819606E 04	1.8761238E 01	-2.4748693E 01	4.5719839E 02
4	5.3712917E 02	-1.8260325E 02	1.8761238E 01	7.5215622E 00	3.1816304E-01	-1.1407875E-01
5	2.3307483E 01	5.1662533E-01	-2.4748693E 01	3.1816304E-01	6.6823596E-01	-4.3652244E-01
6	-9.7039028E 00	1.2369656E 02	4.5719839E 02	-1.1407875E-01	-4.3652244E-01	6.4334646E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-1.5195745E-01	2.3190672E-02	9.9909600E-01	1.4544975E-01	-1.9516705E-02
2	-1.5195745E-01	1.0000000E 00	2.2151926E-01	-1.1257522E-01	1.0685605E-03	8.2456231E-02
3	2.3190672E-02	2.2151926E-01	1.0000000E 00	3.3451646E-02	-1.4804624E-01	8.8143899E-01
4	9.9909600E-01	-1.1257522E-01	3.3451646E-02	1.0000000E 00	1.4191581E-01	-1.6399412E-02
5	1.4544975E-01	1.0685605E-03	-1.4804624E-01	1.4191581E-01	1.0000000E 00	-2.1053252E-01
6	-1.9516705E-02	8.2456231E-02	8.8143899E-01	-1.6399412E-02	-2.1053252E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	3.7381215E 04	1.6165813E 03	3.1480154E 03	5.2553332E 02	2.2430162E 01	1.1330757E-02
2	1.6165813E 03	2.9826411E 03	-1.6676269E 03	2.2660545E 01	4.0800005E 01	-3.1690285E 01
3	3.1480154E 03	-1.6676269E 03	3.8834285E 04	4.3762509E 01	-2.2934036E 01	4.4640247E 02
4	5.2553332E 02	2.2660545E 01	4.3762509E 01	7.3890442E 00	3.1450069E-01	-1.1699830E-02
5	2.2430162E 01	4.0800005E 01	-2.2934036E 01	3.1450069E-01	5.5902187E-01	-4.4612194E-01
6	1.1330757E-02	-3.1690285E 01	4.4640247E 02	-1.1699830E-02	-4.4612194E-01	6.4108844E 00

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CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	1.5309829E-01	8.2623289E-02	9.9995261E-01	1.5516412E-01	2.3145856E-05
2	1.5309829E-01	1.0000000E 00	-1.5494970E-01	1.5264259E-01	9.9918364E-01	-2.2917470E-01
3	8.2623289E-02	-1.5494970E-01	1.0000000E 00	8.1695931E-02	-1.5565334E-01	8.9466399E-01
4	9.9995261E-01	1.5264259E-01	8.1695931E-02	1.0000000E 00	1.5474373E-01	-1.6999120E-03
5	1.5516412E-01	9.9918364E-01	-1.5565334E-01	1.5474373E-01	1.0000000E 00	-2.3565693E-01
6	2.3145856E-05	-2.2917470E-01	8.9466399E-01	-1.6999120E-03	-2.3565693E-01	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.5434752E 02

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.4991343E 04

SAMPLE MEAN OF THE FUEL EXPENDED IN THIS MANEUVER
1.1681970E-01

SAMPLE VARIANCE OF THE FUEL EXPENDED IN THIS MANEUVER
3.4448759E 02

TIME (HOURS)
1.2902590E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.0240124E 04	-1.8771330E 04	-5.1130419E 03	1.5547837E-01	-2.1789484E-01	-5.0366569E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

1.0265509E 04	-1.8773802E 04	-5.1309150E 03	1.5584233E-01	-2.1793210E-01	-5.0308990E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

2.5384220E 01	-2.4733538E 00	-1.7873153E 01	3.6396029E-04	-3.7255505E-05	5.7579926E-05

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.5390998E 10	-2.7453672E 10	-1.6350490E 09	3.7588311E 05	-3.2400699E 05	-1.6254984E 04
2	-2.7453672E 10	5.2784038E 10	1.2043320E 09	-4.1841831E 05	6.1184204E 05	1.2300680E 04
3	-1.6350490E 09	1.2043320E 09	2.6377586E 09	-2.3915548E 04	1.4501452E 04	2.5910296E 04
4	3.7588311E 05	-4.1841831E 05	-2.3915548E 04	5.5707445E 00	-4.9323781E 00	-2.3792246E-01
5	-3.2400699E 05	6.1184204E 05	1.4501452E 04	-4.9323781E 00	7.0951261E 00	1.4787680E-01
6	-1.6254984E 04	1.2300680E 04	2.5910296E 04	-2.3792246E-01	1.4787680E-01	2.5453955E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-7.4991016E-01	-1.9978982E-01	9.9943901E-01	-7.6336885E-01	-2.0219435E-01
2	-7.4991016E-01	9.9999998E-01	1.0206513E-01	-7.7161871E-01	9.9978806E-01	1.0612071E-01
3	-1.9978982E-01	1.0206513E-01	1.0000000E 00	-1.9729051E-01	1.0600196E-01	9.9994750E-01
4	9.9943901E-01	-7.7161871E-01	-1.9729051E-01	1.0000000E 00	-7.8454828E-01	-1.9980262E-01
5	-7.6336885E-01	9.9978806E-01	1.0600196E-01	-7.8454828E-01	1.0000000E 00	1.1003791E-01
6	-2.0219435E-01	1.0612071E-01	9.9994750E-01	-1.9980262E-01	1.1003791E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.4361225E 05	-1.6517042E 04	-5.1667275E 04	2.0552379E 00	-2.5797552E-01	-1.6985400E-01
2	-1.6517042E 04	2.0501322E 03	2.0504915E 02	-2.3652689E-01	3.1343393E-02	-3.7916474E-02
3	-5.1667275E 04	2.0504915E 02	1.1866009E 06	-7.3083133E-01	3.5191842E-02	1.0445381E 01
4	2.0552379E 00	-2.3652689E-01	-7.3083133E-01	2.9413297E-05	-3.6929482E-06	-2.3617148E-06
5	-2.5797552E-01	3.1343393E-02	3.5191842E-02	-3.6929482E-06	4.8297334E-07	-2.4701926E-07
6	-1.6985400E-01	-3.7916474E-02	1.0445381E 01	-2.3617148E-06	-2.4701926E-07	1.0788848E-04

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6259938E-01	-1.2516055E-01	9.9998730E-01	-9.7953771E-01	-4.3151163E-02
2	-9.6259938E-01	9.9999998E-01	4.1573318E-03	-9.6320279E-01	9.9607832E-01	-8.0621241E-02
3	-1.2516055E-01	4.1573318E-03	1.0000000E 00	-1.2370663E-01	4.6486632E-02	9.2317579E-01
4	9.9998730E-01	-9.6320279E-01	-1.2370663E-01	1.0000000E 00	-9.7980527E-01	-4.1924517E-02
5	-9.7953771E-01	9.9607832E-01	4.6486632E-02	-9.7980527E-01	1.0000000E 00	-3.4220134E-02
6	-4.3151163E-02	-8.0621241E-02	9.2317579E-01	-4.1924517E-02	-3.4220134E-02	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

3.8265593E 04 -4.4756942E 05 5.2873510E 02 3.8807754E 02 1.0674883E 01 -3.9965127E 00

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

3.8179893E 04 -4.4709247E 05 5.2847882E 02 3.8765830E 02 1.0701754E 01 -3.9970155E 00

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

-8.5698535E 01 4.7693509E 02 -2.5631133E-01 -4.1923697E-01 2.6870103E-02 -5.0302079E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.7457740E 11	-3.4926074E 12	-4.4282773E 08	3.0379335E 09	1.8612343E 07	8.9419988E 04
2	-3.4926074E 12	3.5522522E 13	-1.0851748E 09	-3.0858167E 10	-4.5932465E 08	3.7534651E 07
3	-4.4282773E 08	-1.0851748E 09	2.9755498E 07	8.7344862E 05	4.8194035E 05	-2.0464521E 05
4	3.0379335E 09	-3.0858167E 10	8.7344862E 05	2.6806770E 07	3.9566617E 05	-3.2129857E 04
5	1.8612343E 07	-4.5932465E 08	4.8194035E 05	3.9566617E 05	2.8544219E 04	-3.7038216E 03
6	8.9419988E 04	3.7534651E 07	-2.0464521E 05	-3.2129857E 04	-3.7038216E 03	1.4329620E 03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.5747421E-01	-1.3264180E-01	9.5870552E-01	1.7999945E-01	3.8596372E-03
2	-9.5747421E-01	1.0000000E 00	-3.3378299E-02	-9.9999074E-01	-4.5615114E-01	1.6636545E-01
3	-1.3264180E-01	-3.3378299E-02	1.0000000E 00	3.0926553E-02	5.2293848E-01	-9.9106159E-01
4	9.5870552E-01	-9.9999074E-01	3.0926553E-02	1.0000000E 00	4.5232188E-01	-1.6393406E-01
5	1.7999945E-01	-4.5615114E-01	5.2293848E-01	4.5232188E-01	9.9999998E-01	-5.7912676E-01
6	3.8596372E-03	1.6636545E-01	-9.9106159E-01	-1.6393406E-01	-5.7912676E-01	1.0000000E 00

[redacted]

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	1.5515189E 06	-8.5195727E 06	1.2435616E 04	7.4910564E 03	-4.9761530E 02	-7.8578530E 01
2	-8.5195727E 06	4.6817939E 07	-7.8306048E 04	-4.1165062E 04	2.7289802E 03	5.0119088E 02
3	1.2435616E 04	-7.8306048E 04	8.7344109E 03	6.8638590E 01	-3.0107912E 00	-5.9070200E 01
4	7.4910564E 03	-4.1165062E 04	6.8638590E 01	3.6194742E 01	-2.3996077E 00	-4.3916706E-01
5	-4.9761530E 02	2.7289802E 03	-3.0107912E 00	-2.3996077E 00	1.5993662E-01	1.8405640E-02
6	-7.8578530E 01	5.0119088E 02	-5.9070200E 01	-4.3916706E-01	1.8405640E-02	4.0154884E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.9961585E-01	1.0682476E-01	9.9963577E-01	-9.9894420E-01	-9.9553417E-02
2	-9.9961585E-01	1.0000000E 00	-1.2245382E-01	-9.9999973E-01	9.9728727E-01	1.1559201E-01
3	1.0682476E-01	-1.2245382E-01	1.0000000E 00	1.2207558E-01	-8.0554510E-02	-9.9743004E-01
4	9.9963577E-01	-9.9999973E-01	1.2207558E-01	1.0000000E 00	-9.9734068E-01	-1.1519611E-01
5	-9.9894420E-01	9.9728727E-01	-8.0554510E-02	-9.9734068E-01	1.0000000E 00	7.2628617E-02
6	-9.9553417E-02	1.1559201E-01	-9.9743004E-01	-1.1519611E-01	7.2628617E-02	1.0000000E 00

[redacted]

TIME (HOURS)
1.2902590E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.0240124E 04	-1.8771330E 04	-5.1130419E 03	-1.5645848E-06	7.6744691E-02	-4.8455248E-03

SAMPLE MEAN OF ESTIMATED DEVIATIONS

1.0265509E 04	-1.8773802E 04	-5.1309150E 03	1.4038201E-03	7.4318082E-02	-4.8267995E-03

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

2.5384220E 01	-2.4733538E 00	-1.7873153E 01	1.4053855E-03	-2.4266106E-03	1.8725741E-05

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.5390998E 10	-2.7453672E 10	-1.6350490E 09	-2.0666088E 04	9.6135702E 04	-3.1947294E 03
2	-2.7453672E 10	5.2784038E 10	1.2043320E 09	-3.9396535E 03	-2.0931417E 05	-6.1248628E 01
3	-1.6350490E 09	1.2043320E 09	2.6377586E 09	1.4371908E 03	-3.9117484E 03	2.8452156E 03
4	-2.0666088E 04	-3.9396535E 03	1.4371908E 03	4.7190627E-02	4.1559160E-02	6.0738075E-03
5	9.6135702E 04	-2.0931417E 05	-3.9117484E 03	4.1559160E-02	8.4515054E-01	3.6396153E-03
6	-3.1947294E 03	-6.1248628E 01	2.8452156E 03	6.0738075E-03	3.6396153E-03	3.7027014E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-7.4991016E-01	-1.9978982E-01	-5.9702224E-01	6.5626277E-01	-3.2948438E-01
2	-7.4991016E-01	9.9999998E-01	1.0206513E-01	-7.8936675E-02	-9.9101512E-01	-4.3811256E-03
3	-1.9978982E-01	1.0206513E-01	1.0000000E 00	1.2881577E-01	-8.2848823E-02	9.1041270E-01
4	-5.9702224E-01	-7.8936675E-02	1.2881577E-01	9.9999998E-01	2.0809988E-01	4.5948761E-01
5	6.5626277E-01	-9.9101512E-01	-8.2848823E-02	2.0809988E-01	1.0000000E 00	6.5062252E-02
6	-3.2948438E-01	-4.3811256E-03	9.1041270E-01	4.5948761E-01	6.5062252E-02	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.4361225E 05	-1.6517042E 04	-5.1667275E 04	1.4940332E 00	6.1059407E-02	-4.2274598E-02
2	-1.6517042E 04	2.0501322E 03	2.0504915E 02	-1.8067449E-01	-4.8645874E-02	-5.2698900E-02
3	-5.1667275E 04	2.0504915E 02	1.1866009E 06	6.0618978E-01	2.3211772E 00	9.9866412E 00
4	1.4940332E 00	-1.8067449E-01	6.0618978E-01	3.4305983E-04	-1.5357117E-04	1.3549489E-05
5	6.1059407E-02	-4.8645874E-02	2.3211772E 00	-1.5357117E-04	5.0293952E-04	-2.3014744E-06
6	-4.2274598E-02	-5.2698900E-02	9.9866412E 00	1.3549489E-05	-2.3014744E-06	1.9589828E-04

[redacted]

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6259938E-01	-1.2516055E-01	2.1285290E-01	7.1845397E-03	-7.9701857E-03
2	-9.6259938E-01	9.9999998E-01	4.1573318E-03	-2.1543733E-01	-4.7906802E-02	-8.3156327E-02
3	-1.2516055E-01	4.1573318E-03	1.0000000E 00	3.0044940E-02	9.5016291E-02	6.5501583E-01
4	2.1285290E-01	-2.1543733E-01	3.0044940E-02	9.9999998E-01	-3.6971483E-01	5.2266409E-02
5	7.1845397E-03	-4.7906802E-02	9.5016291E-02	-3.6971483E-01	9.9999998E-01	-7.3321773E-03
6	-7.9701857E-03	-8.3156327E-02	6.5501583E-01	5.2266409E-02	-7.3321773E-03	9.9999998E-01

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

-2.6750982E 02 3.4149144E 03 -4.3506872E-01 -2.6946782E 00 -6.4018282E-02 -6.0669745E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

-5.9456502E-01 3.2421979E 00 2.5152123E-02 2.5833983E-01 3.8141516E-02 -6.1434610E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

2.6691523E 02 -3.4116722E 03 4.6022112E-01 2.9530179E 00 1.0215980E-01 -7.6486439E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.0246035E 07	-2.4323844E 08	-2.9377205E 04	2.1184068E 05	-2.3029212E 03	-6.2532669E 02
2	-2.4323844E 08	2.1029736E 09	2.1573784E 05	-1.8266591E 06	4.7195620E 03	5.4385639E 03
3	-2.9377205E 04	2.1573784E 05	1.7644414E 04	-2.0788527E 02	1.5582255E 00	-1.1513629E 02
4	2.1184068E 05	-1.8266591E 06	-2.0788527E 02	1.5987314E 03	-2.8960104E 00	-1.2538822E 01
5	-2.3029212E 03	4.7195620E 03	1.5582255E 00	-2.8960104E 00	1.7078456E 00	-1.0530137E 00
6	-6.2532669E 02	5.4385639E 03	-1.1513629E 02	-1.2538822E 01	-1.0530137E 00	3.2774058E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.6445299E-01	-4.0213570E-02	9.6335727E-01	-3.2042069E-01	-1.9861298E-02
2	-9.6445299E-01	1.0000000E 00	3.5416514E-02	-9.9621451E-01	7.8751800E-02	2.0715824E-02
3	-4.0213570E-02	3.5416514E-02	1.0000000E 00	-3.9141039E-02	8.9764038E-03	-1.5140614E-01
4	9.6335727E-01	-9.9621451E-01	-3.9141039E-02	1.0000000E 00	-5.5422750E-02	-5.4777709E-02
5	-3.2042069E-01	7.8751800E-02	8.9764038E-03	-5.5422750E-02	1.0000000E 00	-1.4074878E-01
6	-1.9861298E-02	2.0715824E-02	-1.5140614E-01	-5.4777709E-02	-1.4074878E-01	1.0000000E 00

[redacted]

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	3.0222710E 07	-2.4305919E 08	-2.9076074E 04	2.1192223E 05	-2.2469972E 03	-5.6704956E 01
2	-2.4305919E 08	2.1015658E 09	2.1340248E 05	-1.8298061E 06	3.9154979E 03	7.6303244E 02
3	-2.9076074E 04	2.1340248E 05	1.7640456E 04	-1.8639413E 02	4.1477801E 00	-1.0899423E 02
4	2.1192223E 05	-1.8298061E 06	-1.8639413E 02	1.5932295E 03	-3.6587657E 00	-6.6011671E-01
5	-2.2469972E 03	3.9154979E 03	4.1477801E 00	-3.6587657E 00	1.5318586E 00	-2.5481980E-02
6	-5.6704956E 01	7.6303244E 02	-1.0899423E 02	-6.6011671E-01	-2.5481980E-02	6.8288961E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.6443695E-01	-3.9821183E-02	9.6576318E-01	-3.3023757E-01	-1.2481853E-02
2	-9.6443695E-01	1.0000000E 00	3.5048792E-02	-9.9998710E-01	6.9009067E-02	2.0141706E-02
3	-3.9821183E-02	3.5048792E-02	1.0000000E 00	-3.5159134E-02	2.5231988E-02	-9.9305514E-01
4	9.6576318E-01	-9.9998710E-01	-3.5159134E-02	1.0000000E 00	-7.4060404E-02	-2.0012728E-02
5	-3.3023757E-01	6.9009067E-02	2.5231988E-02	-7.4060404E-02	1.0000000E 00	-2.4914293E-02
6	-1.2481853E-02	2.0141706E-02	-9.9305514E-01	-2.0012728E-02	-2.4914293E-02	9.9999998E-01

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
3.7604859E 00

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
5.0860624E 00

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	6.2024933E 00	-6.3348809E 00	-2.0036796E-01
2	-6.3348809E 00	1.2779531E 01	1.9088700E-01
3	-2.0036796E-01	1.9088700E-01	2.0237408E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	1.0000000E 00	-7.1153759E-01	-1.7884124E-01
2	-7.1153759E-01	9.9999998E-01	1.1869747E-01
3	-1.7884124E-01	1.1869747E-01	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.6284608E 02

[redacted]

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.4969420E 04

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
0.

[redacted]

TIME (HOURS)
2.0441993E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.7675844E 02	-5.0388477E 03	4.1439726E 03	-1.7824972E-02	8.0549153E-02	-3.6601994E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

1.7709633E 02	-5.0362475E 03	4.1406441E 03	-1.7819397E-02	8.0557246E-02	-3.6532440E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

3.3788444E-01	2.6004654E 00	-3.3290232E 00	5.5756518E-06	8.0898682E-06	6.9554858E-05

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	1.7182361E 08	-6.9919943E 08	1.1933571E 08	-5.1940657E 02	9.7638179E 03	-1.0588207E 03
2	-6.9919943E 08	5.7635994E 09	-1.2034956E 09	2.4669086E 03	-8.3649789E 04	1.0700539E 04
3	1.1933571E 08	-1.2034956E 09	1.4926774E 09	6.0662212E 02	1.7563689E 04	-1.3028102E 04
4	-5.1940657E 02	2.4669086E 03	6.0662212E 02	4.8947154E-02	-3.7137849E-02	-5.1549221E-03
5	9.7638179E 03	-8.3649789E 04	1.7563689E 04	-3.7137849E-02	1.2194845E 00	-1.5622823E-01
6	-1.0588207E 03	1.0700539E 04	-1.3028102E 04	-5.1549221E-03	-1.5622823E-01	1.1409705E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-7.0260745E-01	2.3563837E-01	-1.7910277E-01	6.7451265E-01	-2.3913746E-01
2	-7.0260745E-01	9.9999996E-01	-4.1031237E-01	1.4687316E-01	-9.9776852E-01	4.1727787E-01
3	2.3563837E-01	-4.1031237E-01	9.9999998E-01	7.0969465E-02	4.1166563E-01	-9.9830843E-01
4	-1.7910277E-01	1.4687316E-01	7.0969465E-02	9.9999998E-01	-1.5200745E-01	-6.8980282E-02
5	6.7451265E-01	-9.9776852E-01	4.1166563E-01	-1.5200745E-01	1.0000000E 00	-4.1883016E-01
6	-2.3913746E-01	4.1727787E-01	-9.9830843E-01	-6.8980282E-02	-4.1883016E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.2404086E 02	4.8906319E 02	1.3349994E 03	4.5092210E-04	-3.6420769E-03	9.8680022E-03
2	4.8906319E 02	1.0410881E 04	-5.8147895E 03	-1.1781574E-02	-4.6324779E-02	-3.3114421E-02
3	1.3349994E 03	-5.8147895E 03	1.1312223E 05	2.2874426E-02	4.8999509E-03	3.2449870E-01
4	4.5092210E-04	-1.1781574E-02	2.2874426E-02	2.9011018E-08	6.3996853E-08	2.1723471E-07
5	-3.6420769E-03	-4.6324779E-02	4.8999509E-03	6.3996853E-08	3.5153483E-07	2.5893315E-07
6	9.8680022E-03	-3.3114421E-02	3.2449870E-01	2.1723471E-07	2.5893315E-07	4.0611918E-06

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	4.3036688E-01	3.5638934E-01	2.3770464E-01	-5.5154702E-01	4.3966319E-01
2	4.3036688E-01	1.0000000E 00	-1.6944012E-01	-6.7791944E-01	-7.6574722E-01	-1.6104479E-01
3	3.5638934E-01	-1.6944012E-01	1.0000000E 00	3.9929580E-01	2.4571607E-02	4.7875379E-01
4	2.3770464E-01	-6.7791944E-01	3.9929580E-01	1.0000000E 00	6.3371348E-01	6.3287944E-01
5	-5.5154702E-01	-7.6574722E-01	2.4571607E-02	6.3371348E-01	1.0000000E 00	2.1670889E-01
6	4.3966319E-01	-1.6104479E-01	4.7875379E-01	6.3287944E-01	2.1670889E-01	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

-2.6751072E 02 3.4149245E 03 -4.3510533E-01 -2.6946833E 00 -6.4017964E-02 -6.0669789E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

-2.6547543E 02 3.4073814E 03 -1.6073355E-01 -2.6879177E 00 -6.5016295E-02 -6.0694076E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

2.0352738E 00 -7.5433125E 00 2.7437197E-01 6.7657120E-03 -9.9832605E-04 -2.4220788E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.0246027E 07	-2.4323839E 08	-2.9377166E 04	2.1184060E 05	-2.3029252E 03	-6.2529268E 02
2	-2.4323839E 08	2.1029735E 09	2.1573670E 05	-1.8266585E 06	4.7196178E 03	5.4382769E 03
3	-2.9377166E 04	2.1573670E 05	1.7644449E 04	-2.0788634E 02	1.5580201E 00	-1.1513537E 02
4	2.1184060E 05	-1.8266585E 06	-2.0788634E 02	1.5987307E 03	-2.8960322E 00	-1.2538636E 01
5	-2.3029252E 03	4.7196178E 03	1.5580201E 00	-2.8960322E 00	1.7078472E 00	-1.0530242E 00
6	-6.2529268E 02	5.4382769E 03	-1.1513537E 02	-1.2538636E 01	-1.0530242E 00	3.2774106E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-9.6445292E-01	-4.0213481E-02	9.6335726E-01	-3.2042114E-01	-1.9860206E-02
2	-9.6445292E-01	9.9999998E-01	3.5416290E-02	-9.9621439E-01	7.8752694E-02	2.0714716E-02
3	-4.0213481E-02	3.5416290E-02	1.0000000E 00	-3.9141211E-02	8.9752071E-03	-1.5140467E-01
4	9.6335726E-01	-9.9621439E-01	-3.9141211E-02	9.9999998E-01	-5.5423151E-02	-5.4776869E-02
5	-3.2042114E-01	7.8752694E-02	8.9752071E-03	-5.5423151E-02	1.0000000E 00	-1.4075001E-01
6	-1.9860206E-02	2.0714716E-02	-1.5140467E-01	-5.4776869E-02	-1.4075001E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	2.0373302E 03	-6.9582431E 03	-1.1059642E 02	6.2016131E 00	-1.0636638E 00	5.7553366E-01
2	-6.9582431E 03	2.5154651E 04	-2.5485640E 02	-2.2352553E 01	3.5006213E 00	6.3252035E-01
3	-1.1059642E 02	-2.5485640E 02	8.4762062E 02	2.1152931E-01	1.1980307E-01	-3.5920503E 00
4	6.2016131E 00	-2.2352553E 01	2.1152931E-01	1.9867364E-02	-3.1261184E-03	-4.9236057E-04
5	-1.0636638E 00	3.5006213E 00	1.1980307E-01	-3.1261184E-03	5.6792358E-04	-5.5466371E-04
6	5.7553366E-01	6.3252035E-01	-3.5920503E 00	-4.9236057E-04	-5.5466371E-04	1.5640098E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.7198540E-01	-8.4160745E-02	9.7477373E-01	-9.8884612E-01	1.0195776E-01
2	-9.7198540E-01	1.0000000E 00	-5.5193207E-02	-9.9987996E-01	9.2617068E-01	3.1889346E-02
3	-8.4160745E-02	-5.5193207E-02	1.0000000E 00	5.1546556E-02	1.7267212E-01	-9.8655640E-01
4	9.7477373E-01	-9.9987996E-01	5.1546556E-02	9.9999998E-01	-9.3065847E-01	-2.7931445E-02
5	-9.8884612E-01	9.2617068E-01	1.7267212E-01	-9.3065847E-01	1.0000000E 00	-1.8610801E-01
6	1.0195776E-01	3.1889346E-02	-9.8655640E-01	-2.7931445E-02	-1.8610801E-01	1.0000000E 00

[redacted]

TIME (HOURS)
2.0441993E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

1.7675844E 02	-5.0388477E 03	4.1439726E 03	7.5961751E-03	7.7378449E-02	-3.6032954E-02

SAMPLE MEAN OF ESTIMATED DEVIATIONS

1.7709633E 02	-5.0362475E 03	4.1406441E 03	8.1463883E-03	7.7382805E-02	-3.5940604E-02

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

3.3788444E-01	2.6004654E 00	-3.3290232E 00	5.5021393E-04	4.3528731E-06	9.2349744E-05

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	1.7182361E 08	-6.9919943E 08	1.1933571E 08	-2.9743245E 03	9.8721238E 03	-1.0570763E 03
2	-6.9919943E 08	5.7635994E 09	-1.2034956E 09	2.8752058E 03	-8.3688273E 04	1.0647122E 04
3	1.1933571E 08	-1.2034956E 09	1.4926774E 09	1.8305886E 02	1.7587593E 04	-1.3064071E 04
4	-2.9743245E 03	2.8752058E 03	1.8305886E 02	8.5688788E-02	-3.3064168E-02	-1.4971266E-03
5	9.8721238E 03	-8.3688273E 04	1.7587593E 04	-3.3064168E-02	1.2172925E 00	-1.5562356E-01
6	-1.0570763E 03	1.0647122E 04	-1.3064071E 04	-1.4971266E-03	-1.5562356E-01	1.1448212E-01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-7.0260745E-01	2.3563837E-01	-7.7514854E-01	6.8260852E-01	-2.3833953E-01
2	-7.0260745E-01	9.9999996E-01	-4.1031237E-01	1.2937788E-01	-9.9912593E-01	4.1449231E-01
3	2.3563837E-01	-4.1031237E-01	9.9999998E-01	1.6186232E-02	4.1259688E-01	-9.9937092E-01
4	-7.7514854E-01	1.2937788E-01	1.6186232E-02	1.0000000E 00	-1.0237599E-01	-1.5115680E-02
5	6.8260852E-01	-9.9912593E-01	4.1259688E-01	-1.0237599E-01	1.0000000E 00	-4.1687807E-01
6	-2.3833953E-01	4.1449231E-01	-9.9937092E-01	-1.5115680E-02	-4.1687807E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.2404086E 02	4.8906319E 02	1.3349994E 03	4.9353375E-03	-3.7766444E-03	1.0433812E-02
2	4.8906319E 02	1.0410881E 04	-5.8147895E 03	-1.5528712E-02	-4.5884525E-02	-3.7810341E-02
3	1.3349994E 03	-5.8147895E 03	1.1312223E 05	3.2487534E-02	-1.1999672E-02	3.7724812E-01
4	4.9353375E-03	-1.5528712E-02	3.2487534E-02	1.2641179E-05	-3.6099187E-07	1.1879881E-06
5	-3.7766444E-03	-4.5884525E-02	-1.1999672E-02	-3.6099187E-07	9.8417600E-07	3.7483869E-07
6	1.0433812E-02	-3.7810341E-02	3.7724812E-01	1.1879881E-06	3.7483869E-07	5.2351247E-06

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	4.3036688E-01	3.5638934E-01	1.2463519E-01	-3.4181201E-01	4.0944642E-01
2	4.3036688E-01	1.0000000E 00	-1.6944012E-01	-4.2805333E-02	-4.5330039E-01	-1.6195834E-01
3	3.5638934E-01	-1.6944012E-01	1.0000000E 00	2.7167456E-02	-3.5963255E-02	4.9021836E-01
4	1.2463519E-01	-4.2805333E-02	2.7167456E-02	9.9999998E-01	-1.0234514E-01	1.4603427E-01
5	-3.4181201E-01	-4.5330039E-01	-3.5963255E-02	-1.0234514E-01	1.0000000E 00	1.6513704E-01
6	4.0944642E-01	-1.6195834E-01	4.9021836E-01	1.4603427E-01	1.6513704E-01	9.9999996E-01

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

2.8209441E 01	3.0308667E 02	2.5032176E 00	-2.5029080E-02	-2.3476127E-02	-6.1536081E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

3.8760634E 01	2.2331022E 02	2.9142571E 00	4.4199803E-02	-2.4895107E-02	-6.1597[illegible]E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

1.0551197E 01	-7.9776452E 01	4.1103974E-01	6.9228896E-02	-1.4189802E-03	-6.1889778E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.0418620E 06	-1.6438116E 07	3.8856767E 02	1.4394841E 04	-1.0044553E 03	1.6530982E 02
2	-1.6438116E 07	1.0999445E 08	-4.4615398E 04	-9.4847316E 04	3.5230287E 03	-1.9239845E 03
3	3.8856767E 02	-4.4615398E 04	6.5136967E 03	3.5345534E 01	3.7088362E 00	-5.1277640E 01
4	1.4394841E 04	-9.4847316E 04	3.5345534E 01	9.3827754E 01	-1.5304061E 00	-6.2426650E 00
5	-1.0044553E 03	3.5230287E 03	3.7088362E 00	-1.5304061E 00	7.4519894E-01	-1.0392629E 00
6	1.6530982E 02	-1.9239845E 03	-5.1277640E 01	-6.2426650E 00	-1.0392629E 00	3.2508496E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-8.9866304E-01	2.7604707E-03	8.5206246E-01	-6.6715190E-01	1.6623806E-02
2	-8.9866304E-01	1.0000000E 00	-5.2709102E-02	-9.3362825E-01	3.8912997E-01	-3.2174940E-02
3	2.7604707E-03	-5.2709102E-02	1.0000000E 00	4.5212145E-02	5.3233837E-02	-1.1143351E-01
4	8.5206246E-01	-9.3362825E-01	4.5212145E-02	1.0000000E 00	-1.8302268E-01	-1.1303317E-01
5	-6.6715190E-01	3.8912997E-01	5.3233837E-02	-1.8302268E-01	1.0000000E 00	-2.1114990E-01
6	1.6623806E-02	-3.2174940E-02	-1.1143351E-01	-1.1303317E-01	-2.1114990E-01	1.0000000E 00

[redacted]

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	5.5180346E 03	-3.3308795E 04	-2.5532218E 01	2.9103711E 01	-1.5246492E 00	4.0756062E-01
2	-3.3308795E 04	2.4767351E 05	-1.0981292E 03	-2.1484631E 02	4.8839020E 00	2.8996329E 00
3	-2.5532218E 01	-1.0981292E 03	9.4368470E 02	9.3832347E-01	1.2698612E-01	-3.9028762E 00
4	2.9103711E 01	-2.1484631E 02	9.3832347E-01	1.8641925E-01	-4.4110889E-03	-2.4283639E-03
5	-1.5246492E 00	4.8839020E 00	1.2698612E-01	-4.4110889E-03	8.2164549E-04	-6.2406207E-04
6	4.0756062E-01	2.8996329E 00	-3.9028762E 00	-2.4283639E-03	-6.2406207E-04	1.6617402E-02

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-9.0100441E-01	-1.1188783E-02	9.0742506E-01	-7.1603699E-01	4.2561647E-02
2	-9.0100441E-01	1.0000000E 00	-7.1829064E-02	-9.9986817E-01	3.4236149E-01	4.5198255E-02
3	-1.1188783E-02	-7.1829064E-02	1.0000000E 00	7.0744672E-02	1.4421171E-01	-9.8557515E-01
4	9.0742506E-01	-9.9986817E-01	7.0744672E-02	9.9999998E-01	-3.5641682E-01	-4.3630162E-02
5	-7.1603699E-01	3.4236149E-01	1.4421171E-01	-3.5641682E-01	9.9999998E-01	-1.6889002E-01
6	4.2561647E-02	4.5198255E-02	-9.8557515E-01	-4.3630162E-02	-1.6889002E-01	9.9999998E-01

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
2.2179649E-01

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
7.2332083E-02

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	1.1830708E-01	-5.1606404E-03	5.0878701E-04
2	-5.1606404E-03	2.6017128E-03	-2.7161185E-05
3	5.0878701E-04	-2.7161185E-05	2.0304569E-04

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	1.0000000E 00	-2.9414980E-01	1.0380870E-01
2	-2.9414980E-01	1.0000000E 00	-3.7369917E-02
3	1.0380870E-01	-3.7369917E-02	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.6334736E 02

[redacted]

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.4970476E 04

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
4.8258706E 01

SAMPLE MEAN OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
3.9822252E 00

SAMPLE VARIANCE OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
5.2799190E 00

[redacted]

TIME (HOURS)
2.1541993E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

-2.6920151E 02	-6.4045274E 02	1.2930884E 03	6.7254206E-02	1.8190460E-01	-2.0910655E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-2.6747662E 02	-6.4370192E 02	1.2901251E 03	6.7642149E-02	1.8207734E-01	-2.0866011E-01

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

1.7248808E 00	-3.2491873E 00	-2.9633189E 00	3.8794470E-04	1.7273392E-04	4.4643725E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.2822559E 07	1.2721954E 07	-9.5449865E 06	3.1987652E 02	-5.2443660E 03	1.5696228E 03
2	1.2721954E 07	1.7066859E 08	-6.1169167E 07	-1.8596779E 04	-3.6913080E 04	9.9687455E 03
3	-9.5449865E 06	-6.1169167E 07	1.4397140E 08	6.4822745E 03	1.3898456E 04	-2.3354104E 04
4	3.1987652E 02	-1.8596779E 04	6.4822745E 03	2.1882005E 00	3.8444290E 00	-1.0556456E 00
5	-5.2443660E 03	-3.6913080E 04	1.3898456E 04	3.8444290E 00	8.3060266E 00	-2.2674637E 00
6	1.5696228E 03	9.9687455E 03	-2.3354104E 04	-1.0556456E 00	-2.2674637E 00	3.7898341E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	2.0384255E-01	-1.6651564E-01	4.5264385E-02	-3.8090280E-01	1.6877302E-01
2	2.0384255E-01	9.9999998E-01	-3.9022729E-01	-9.6231527E-01	-9.8040794E-01	3.9197070E-01
3	-1.6651564E-01	-3.9022729E-01	1.0000000E 00	3.6521259E-01	4.0191275E-01	-9.9980429E-01
4	4.5264385E-02	-9.6231527E-01	3.6521259E-01	1.0000000E 00	9.0176138E-01	-3.6657638E-01
5	-3.8090280E-01	-9.8040794E-01	4.0191275E-01	9.0176138E-01	1.0000000E 00	-4.0414163E-01
6	1.6877302E-01	3.9197070E-01	-9.9980429E-01	-3.6657638E-01	-4.0414163E-01	9.9999998E-01

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	3.4155030E 02	8.1134365E 01	3.4634875E 02	3.5202287E-02	-2.3747754E-02	-3.1694812E-02
2	8.1134365E 01	8.7506052E 02	1.7391397E 02	-3.9793642E-02	-7.3480583E-02	-2.2525731E-02
3	3.4634875E 02	1.7391397E 02	5.9603959E 03	3.7782685E-02	-1.7117539E-02	-5.1524285E-01
4	3.5202287E-02	-3.9793642E-02	3.7782685E-02	6.8162575E-06	2.1762436E-06	-2.5735859E-06
5	-2.3747754E-02	-7.3480583E-02	-1.7117539E-02	2.1762436E-06	8.4254143E-06	3.1333985E-06
6	-3.1694812E-02	-2.2525731E-02	-5.1524285E-01	-2.5735859E-06	3.1333985E-06	5.3561425E-05

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	1.4840839E-01	2.4274413E-01	7.2957602E-01	-4.4268984E-01	-2.3433372E-01
2	1.4840839E-01	9.9999998E-01	7.6151392E-02	-5.1525431E-01	-8.5577167E-01	-1.0404801E-01
3	2.4274413E-01	7.6151392E-02	9.9999998E-01	1.8744862E-01	-7.6385007E-02	-9.1190239E-01
4	7.2957602E-01	-5.1525431E-01	1.8744862E-01	9.9999998E-01	2.8716987E-01	-1.3469132E-01
5	-4.4268984E-01	-8.5577167E-01	-7.6385007E-02	2.8716987E-01	9.9999998E-01	1.4750065E-01
6	-2.3433372E-01	-1.0404801E-01	-9.1190239E-01	-1.3469132E-01	1.4750065E-01	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR BEFORE VELOCITY CORRECTION

2.8209464E 01	3.0308686E 02	2.5032327E 00	-2.5029391E-02	-2.3476150E-02	-6.1536081E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR BEFORE VELOCITY CORRECTION

2.7456463E 01	2.9992896E 02	2.4272211E 00	-2.2486481E-02	-2.2549803E-02	-6.1390169E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS BEFORE VELOCITY CORRECTION

-7.5300017E-01	-3.1579136E 00	-7.6011415E-02	2.5429162E-03	9.2634523E-04	1.45[illegible]186E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS BEFORE VELOCITY CORRECTION

	1	2	3	4	5	6
1	3.0418607E 06	-1.6438109E 07	3.8857037E 02	1.4394835E 04	-1.0044549E 03	1.6530914E 02
2	-1.6438109E 07	1.0999441E 08	-4.4615366E 04	-9.4847273E 04	3.5230291E 03	-1.9239941E 03
3	3.8857037E 02	-4.4615366E 04	6.5136977E 03	3.5345887E 01	3.7088828E 00	-5.1278242E 01
4	1.4394835E 04	-9.4847273E 04	3.5345887E 01	9.3827691E 01	-1.5304084E 00	-6.2426522E 00
5	-1.0044549E 03	3.5230291E 03	3.7088828E 00	-1.5304084E 00	7.4519843E-01	-1.0392617E 00
6	1.6530914E 02	-1.9239941E 03	-5.1278242E 01	-6.2426522E 00	-1.0392617E 00	3.2508496E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.9866302E-01	2.7604902E-03	8.5206262E-01	-6.6715202E-01	1.6623741E-02
2	-8.9866302E-01	1.0000000E 00	-5.2709069E-02	-9.3362830E-01	3.8913021E-01	-3.2175105E-02
3	2.7604902E-03	-5.2709069E-02	1.0000000E 00	4.5212609E-02	5.3234519E-02	-1.1143481E-01
4	8.5206262E-01	-9.3362830E-01	4.5212609E-02	9.9999998E-01	-1.8302307E-01	-1.1303298E-01
5	-6.6715202E-01	3.8913021E-01	5.3234519E-02	-1.8302307E-01	9.9999998E-01	-2.1114971E-01
6	1.6623741E-02	-3.2175105E-02	-1.1143481E-01	-1.1303298E-01	-2.1114971E-01	1.0000000E 00

[redacted]

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS BEFORE CORRECTION

	1	2	3	4	5	6
1	5.0199721E 02	-9.3343890E 02	5.9973274E 01	8.9589379E-01	-3.3186418E-01	-2.2170490E-01
2	-9.3343890E 02	2.6626874E 03	-1.6351499E 02	-2.4439975E 00	5.3106806E-01	6.0885823E-01
3	5.9973274E 01	-1.6351499E 02	1.9247965E 02	1.5876859E-01	-3.3729655E-02	-5.8371389E-01
4	8.9589379E-01	-2.4439975E 00	1.5876859E-01	2.2567538E-03	-5.1951393E-04	-5.7824566E-04
5	-3.3186418E-01	5.3106806E-01	-3.3729655E-02	-5.1951393E-04	2.2743864E-04	1.2590050E-04
6	-2.2170490E-01	6.0885823E-01	-5.8371389E-01	-5.7824566E-04	1.2590050E-04	2.0493549E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999998E-01	-8.0737472E-01	1.9293663E-01	8.4171250E-01	-9.8214949E-01	-2.1858283E-01
2	-8.0737472E-01	1.0000000E 00	-2.2840472E-01	-9.9700782E-01	6.8242976E-01	2.6064386E-01
3	1.9293663E-01	-2.2840472E-01	1.0000000E 00	2.4089627E-01	-1.6120829E-01	-9.2939219E-01
4	8.4171250E-01	-9.9700782E-01	2.4089627E-01	1.0000000E 00	-7.2514186E-01	-2.6888198E-01
5	-9.8214949E-01	6.8242976E-01	-1.6120829E-01	-7.2514186E-01	1.0000000E 00	1.8441097E-01
6	-2.1858283E-01	2.6064386E-01	-9.2939219E-01	-2.6888198E-01	1.8441097E-01	1.0000000E 00

[redacted]

TIME (HOURS)

2.1541993E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

-2.6920151E 02	-6.4045274E 02	1.2930884E 03	1.3666435E-01	1.5515801E-01	-2.0991375E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-2.6747662E 02	-6.4370192E 02	1.2901251E 03	1.3739224E-01	1.5505354E-01	-2.0932995E-01

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

1.7248808E 00	-3.2491873E 00	-2.9633189E 00	7.2788892E-04	-1.0448202E-04	5.8381232E-04

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.2822559E 07	1.2721954E 07	-9.5449865E 06	-9.4529339E 03	-4.1330437E 03	1.5053959E 03
2	1.2721954E 07	1.7066859E 08	-6.1169167E 07	-1.5287215E 04	-3.7489607E 04	9.9807456E 03
3	-9.5449865E 06	-6.1169167E 07	1.4397140E 08	7.3914377E 03	1.3729926E 04	-2.3390513E 04
4	-9.4529339E 03	-1.5287215E 04	7.3914377E 03	4.5323868E 00	3.8662021E 00	-1.1862185E 00
5	-4.1330437E 03	-3.7489607E 04	1.3729926E 04	3.8662021E 00	8.3171757E 00	-2.2371245E 00
6	1.5053959E 03	9.9807456E 03	-2.3390513E 04	-1.1862185E 00	-2.2371245E 00	3.8004900E 00

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	9.9999996E-01	2.0384255E-01	-1.6651564E-01	-9.2943914E-01	-2.9998524E-01	1.6163997E-01
2	2.0384255E-01	9.9999998E-01	-3.9022729E-01	-5.4965234E-01	-9.9505285E-01	3.9189199E-01
3	-1.6651564E-01	-3.9022729E-01	1.0000000E 00	2.8935255E-01	3.9677302E-01	-9.9995816E-01
4	-9.2943914E-01	-5.4965234E-01	2.8935255E-01	9.9999998E-01	6.2969918E-01	-2.8581263E-01
5	-2.9998524E-01	-9.9505285E-01	3.9677302E-01	6.2969918E-01	1.0000000E 00	-3.9790776E-01
6	1.6163997E-01	3.9189199E-01	-9.9995816E-01	-2.8581263E-01	-3.9790776E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	3.4155030E 02	8.1134365E 01	3.4634875E 02	4.2623374E-02	-2.2709418E-02	-2.5025567E-02
2	8.1134365E 01	8.7506052E 02	1.7391397E 02	-2.9987121E-02	-6.9695898E-02	-1.1285757E-02
3	3.4634875E 02	1.7391397E 02	5.9603959E 03	7.9868877E-02	-2.3128272E-02	-5.3431152E-01
4	4.2623374E-02	-2.9987121E-02	7.9868877E-02	2.8894035E-04	-2.5753760E-05	2.7367013E-07
5	-2.2709418E-02	-6.9695898E-02	-2.3128272E-02	-2.5753760E-05	3.1594433E-05	1.5641995E-06
6	-2.5025567E-02	-1.1285757E-02	-5.3431152E-01	2.7367013E-07	1.5641995E-06	8.1312511E-05

[redacted]

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	1.4840839E-01	2.4274413E-01	1.3568017E-01	-2.1861169E-01	-1.5016817E-01
2	1.4840839E-01	9.9999998E-01	7.6151392E-02	-5.9636427E-02	-4.1916294E-01	-4.2309020E-02
3	2.4274413E-01	7.6151392E-02	9.9999998E-01	6.0860556E-02	-5.3296702E-02	-7.6749984E-01
4	1.3568017E-01	-5.9636427E-02	6.0860556E-02	9.9999998E-01	-2.6954498E-01	1.7854373E-03
5	-2.1861169E-01	-4.1916294E-01	-5.3296702E-02	-2.6954498E-01	1.0000000E 00	3.0860871E-02
6	-1.5016817E-01	-4.2309020E-02	-7.6749984E-01	1.7854373E-03	3.0860871E-02	1.0000000E 00

SAMPLE MEAN OF ACTUAL MISS VECTOR AFTER VELOCITY CORRECTION

-1.1475092E 00 2.0846330E 01 -1.9132634E-01 1.2735074E-01 -1.8340168E-02 -6.1454252E-01

SAMPLE MEAN OF ESTIMATED MISS VECTOR AFTER VELOCITY CORRECTION

-2.6477444E 00 1.6721945E 01 1.4902691E-02 1.2986858E-01 -1.6993828E-02 -6.1328267E-01

SAMPLE MEAN OF UNCERTAINTY IN ACTUAL MISS AFTER VELOCITY CORRECTION

-1.5002354E 00 -4.1243854E 00 2.0622903E-01 2.5178586E-03 1.3463403E-03 1.2598567E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL MISS AFTER VELOCITY CORRECTION

	1	2	3	4	5	6
1	2.8051500E 03	-1.0326285E 04	-2.6345503E 02	1.3167299E 01	-6.8138663E 00	-1.4327284E 01
2	-1.0326285E 04	8.0244799E 04	4.3914838E 01	-8.8832818E 01	1.8981058E 01	8.4001691E 01
3	-2.6345503E 02	4.3914838E 01	8.8438390E 02	5.5162904E 00	-4.5557657E-02	-6.0343095E 00
4	1.3167299E 01	-8.8832818E 01	5.5162904E 00	1.3456824E 01	2.9943172E 00	-7.6282554E 00
5	-6.8138663E 00	1.8981058E 01	-4.5557657E-02	2.9943172E 00	1.5431479E 00	-8.0437769E-01
6	-1.4327284E 01	8.4001691E 01	-6.0343095E 00	-7.6282554E 00	-8.0437769E-01	3.2460075E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-6.8826807E-01	-1.6726614E-01	6.7771541E-02	-1.0356471E-01	-4.7480038E-02
2	-6.8826807E-01	9.9999996E-01	5.2129363E-03	-8.5485744E-02	5.3939659E-02	5.2048093E-02
3	-1.6726614E-01	5.2129363E-03	1.0000000E 00	5.0565628E-02	-1.2332105E-03	-3.5614955E-02
4	6.7771541E-02	-8.5485744E-02	5.0565628E-02	1.0000000E 00	6.5708680E-01	-3.6498849E-01
5	-1.0356471E-01	5.3939659E-02	-1.2332105E-03	6.5708680E-01	1.0000000E 00	-1.1365315E-01
6	-4.7480038E-02	5.2048093E-02	-3.5614955E-02	-3.6498849E-01	-1.1365315E-01	1.0000000E 00

[redacted]

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN MISS AFTER CORRECTION

	1	2	3	4	5	6
1	1.0814832E 03	-2.3580385E 03	9.2897069E 01	2.2752874E 00	-7.5748019E-01	-2.5644912E-01
2	-2.3580385E 03	9.8418857E 03	-2.9187897E 02	-8.1471025E 00	1.7459262E 00	8.0407925E-01
3	9.2897069E 01	-2.9187897E 02	2.8756979E 02	2.6282544E-01	-5.8512095E-02	-6.2925565E-01
4	2.2752874E 00	-8.1471025E 00	2.6282544E-01	6.9939157E-03	-1.6385959E-03	-7.2720605E-04
5	-7.5748019E-01	1.7459262E 00	-5.8512095E-02	-1.6385959E-03	5.4776191E-04	1.5545363E-04
6	-2.5644912E-01	8.0407925E-01	-6.2925565E-01	-7.2720605E-04	1.5545363E-04	2.0677791E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-7.2277288E-01	1.6657910E-01	8.2730600E-01	-9.8415948E-01	-1.7149018E-01
2	-7.2277288E-01	9.9999998E-01	-1.7349702E-01	-9.8198266E-01	7.5195316E-01	1.7824100E-01
3	1.6657910E-01	-1.7349702E-01	1.0000000E 00	1.8532567E-01	-1.4742737E-01	-8.1602491E-01
4	8.2730600E-01	-9.8198266E-01	1.8532567E-01	9.9999998E-01	-8.3717405E-01	-1.9122524E-01
5	-9.8415948E-01	7.5195316E-01	-1.4742737E-01	-8.3717405E-01	1.0000000E 00	1.4606726E-01
6	-1.7149018E-01	1.7824100E-01	-8.1602491E-01	-1.9122524E-01	1.4606726E-01	1.0000000E 00

SAMPLE MEAN OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
1.3165906E 00

SAMPLE VARIANCE OF THE MAGNITUDE OF THE ACTUAL VELOCITY CORRECTION
3.0526818E 00

SAMPLE COVARIANCE MATRIX OF THE ACTUAL VELOCITY CORRECTION

	1	2	3
1	4.6863618E 00	-5.2374149E-01	2.9590374E-02
2	-5.2374149E-01	1.0141093E-01	-4.1609083E-03
3	2.9590374E-02	-4.1609083E-03	1.4255625E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3
1	9.9999998E-01	-7.5972549E-01	3.6202571E-01
2	-7.5972549E-01	1.0000000E 00	-3.4606099E-01
3	3.6202571E-01	-3.4606099E-01	1.0000000E 00

SAMPLE MEAN OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.6632287E 02

[redacted]

[redacted]

SAMPLE VARIANCE OF THE TOTAL WEIGHT IN EXCESS OF NOMINAL USED TO PRESENT
1.4944871E 04

PERCENTAGE OF TIMES IN WHICH A VELOCITY CORRECTION WAS NOT MADE
4.5771143E 01

SAMPLE MEAN OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
5.2988252E 00

SAMPLE VARIANCE OF THE TOTAL -DELTA V- USED THUS FAR IN THIS PHASE
7.5089111E 00

[redacted]

TIME (HOURS)
2.1641993E 02

SAMPLE MEAN OF ACTUAL DEVIATIONS

-1.1475092E 00	2.0846330E 01	-1.9132634E-01	1.2735074E-01	-1.8340168E-02	-6.1454252E-01

SAMPLE MEAN OF ESTIMATED DEVIATIONS

-2.6477444E 00	1.6721945E 01	1.4902691E-02	1.2986858E-01	-1.6993828E-02	-6.1328267E-01

SAMPLE MEAN OF THE UNCERTAINTY IN ESTIMATED DEVIATIONS

-1.5002354E 00	-4.1243854E 00	2.0622903E-01	2.5178586E-03	1.3463403E-03	1.2598567E-03

SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS

	1	2	3	4	5	6
1	2.8051500E 03	-1.0326285E 04	-2.6345503E 02	1.3167299E 01	-6.8138663E 00	-1.4327284E 01
2	-1.0326285E 04	8.0244799E 04	4.3914838E 01	-8.8832818E 01	1.8981058E 01	8.4001691E 01
3	-2.6345503E 02	4.3914838E 01	8.8438390E 02	5.5162904E 00	-4.5557657E-02	-6.0343095E 00
4	1.3167299E 01	-8.8832818E 01	5.5162904E 00	1.3456824E 01	2.9943172E 00	-7.6282554E 00
5	-6.8138663E 00	1.8981058E 01	-4.5557657E-02	2.9943172E 00	1.5431479E 00	-8.0437769E-01
6	-1.4327284E 01	8.4001691E 01	-6.0343095E 00	-7.6282554E 00	-8.0437769E-01	3.2460075E 01

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-6.8826807E-01	-1.6726614E-01	6.7771541E-02	-1.0356471E-01	-4.7480038E-02
2	-6.8826807E-01	9.9999996E-01	5.2129363E-03	-8.5485744E-02	5.3939659E-02	5.2048093E-02
3	-1.6726614E-01	5.2129363E-03	1.0000000E 00	5.0565628E-02	-1.2332105E-03	-3.5614955E-02
4	6.7771541E-02	-8.5485744E-02	5.0565628E-02	1.0000000E 00	6.5708680E-01	-3.6498849E-01
5	-1.0356471E-01	5.3939659E-02	-1.2332105E-03	6.5708680E-01	1.0000000E 00	-1.1365315E-01
6	-4.7480038E-02	5.2048093E-02	-3.5614955E-02	-3.6498849E-01	-1.1365315E-01	1.0000000E 00

SAMPLE COVARIANCE MATRIX OF UNCERTAINTY IN ESTIMATED DEVIATIONS

	1	2	3	4	5	6
1	1.0814832E 03	-2.3580385E 03	9.2897069E 01	2.2752874E 00	-7.5748019E-01	-2.5644912E-01
2	-2.3580385E 03	9.8418857E 03	-2.9187897E 02	-8.1471025E 00	1.7459262E 00	8.0407925E-01
3	9.2897069E 01	-2.9187897E 02	2.8756979E 02	2.6282544E-01	-5.8512095E-02	-6.2925565E-01
4	2.2752874E 00	-8.1471025E 00	2.6282544E-01	6.9939157E-03	-1.6385959E-03	-7.2720605E-04
5	-7.5748019E-01	1.7459262E 00	-5.8512095E-02	-1.6385959E-03	5.4776191E-04	1.5545363E-04
6	-2.5644912E-01	8.0407925E-01	-6.2925565E-01	-7.2720605E-04	1.5545363E-04	2.0677791E-03

CORRESPONDING CORRELATION MATRIX

	1	2	3	4	5	6
1	1.0000000E 00	-7.2277288E-01	1.6657910E-01	8.2730600E-01	-9.8415948E-01	-1.7149018E-01
2	-7.2277288E-01	9.9999998E-01	-1.7349702E-01	-9.8198266E-01	7.5195316E-01	1.7824100E-01
3	1.6657910E-01	-1.7349702E-01	1.0000000E 00	1.8532567E-01	-1.4742737E-01	-8.1602491E-01
4	8.2730600E-01	-9.8198266E-01	1.8532567E-01	9.9999998E-01	-8.3717405E-01	-1.9122524E-01
5	-9.8415948E-01	7.5195316E-01	-1.4742737E-01	-8.3717405E-01	1.0000000E 00	1.4606726E-01
6	-1.7149018E-01	1.7824100E-01	-8.1602491E-01	-1.9122524E-01	1.4606726E-01	1.0000000E 00

[redacted]

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER TRANSLUNAR INJECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.2950713E 07	4.6816101E 07	-1.9708419E 07	5.6026263E 04	-2.5200133E 04	-3.8928141E 04
2	4.6816101E 07	5.3114210E 09	-2.0407619E 09	-4.2995595E 06	5.3577102E 05	-4.3489007E 06
3	-1.9708419E 07	-2.0407619E 09	9.5757525E 08	1.6736463E 06	-1.8129739E 05	2.1156806E 06
4	5.6026263E 04	-4.2995595E 06	1.6736463E 06	4.1209408E 03	-5.8557287E 02	3.5908944E 03
5	-2.5200133E 04	5.3577102E 05	-1.8129739E 05	-5.8557287E 02	1.0520163E 02	-3.5488902E 02
6	-3.8928141E 04	-4.3489007E 06	2.1156806E 06	3.5908944E 03	-3.5488902E 02	4.9055987E 03

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW),WEIGHT ABOVE NOMINAL BEFORE
HOHMANN INJ. AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR INJ. AS ROW

	1	2	3	4	5	6
1	-1.5081822E 06	3.5054984E 07	-1.6468341E 07	-3.6258808E 04	5.5549217E 03	-3.4313275E 04
2	5.9237235E 07	-1.6563432E 09	6.6186886E 08	1.6803416E 06	-2.7655379E 05	1.4168545E 06
3	-5.8908993E 05	1.4339825E 07	-4.8891946E 06	-1.6428028E 04	2.7707027E 03	-1.1330173E 04
4	-4.7938688E 04	1.3514885E 06	-5.3791006E 05	-1.3703759E 03	2.2597128E 02	-1.1517550E 03
5	-4.9961333E 01	7.6553718E 03	-1.0548013E 03	-7.0373223E 00	1.4813120E 00	-3.1386712E 00
6	-2.6359833E 02	-1.2299861E 04	2.2194789E 03	1.3759854E 01	-2.3762487E 00	2.5214165E 00
7	-7.0951349E 04	-5.3640447E 05	2.2073126E 05	2.0588380E 02	2.2943423E 00	3.3971377E 02

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-2.3997558E-01	7.0944021E-03	-8.0975963E-02	-2.2639963E 01	-1.8713571E 02	3.5347845E 01
2	-2.8350524E 00	1.2411139E-01	-8.4260468E-01	-7.7136163E 02	-6.9916651E 03	7.9858462E 02
3	1.1551152E-01	-6.9781993E-03	4.2725721E-02	9.5530480E 00	1.3890238E 02	-2.2958272E 01
4	2.6731988E-03	-1.1645649E-04	7.8465453E-04	6.7318482E-01	6.0957029E 00	-7.0700176E-01
5	2.6165212E-04	-8.3632376E-06	8.6859967E-05	3.6449253E-02	3.1136790E-01	-4.7593836E-02
6	-2.4339068E-04	1.6620000E-05	-3.7152694E-05	-3.7911878E-03	-1.8827098E-01	1.8494602E-02
7	-9.9545954E-03	5.2520677E-04	2.4378321E-04	-7.9690732E-01	-7.8075532E 00	3.6923108E-01

VARIANCES OF THE Y (OUTPUT) VARIABLES

1.0630016E 07	1.8763631E 10	7.7674549E 06	1.2933044E 04	9.9534289E 00	9.6972070E 00	1.4339408E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

4.8225201E-02	4.4644545E-02	1.4412936E-02	4.3425042E-02	1.8626051E-02	2.2596110E-02	2.9417497E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER FIRST TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	1.8284907E 10	-1.3557931E 10	5.7151476E 09	-3.9318495E 05	-1.3459743E 05	3.9565710E 04
2	-1.3557931E 10	1.3793760E 11	-8.9271228E 09	-8.5739055E 04	8.5044219E 05	-5.6138800E 04
3	5.7151476E 09	-8.9271228E 09	1.0526987E 10	-1.0845842E 05	-7.0149484E 04	6.7414867E 04
4	-3.9318495E 05	-8.5739055E 04	-1.0845842E 05	9.5725870E 00	6.7788092E-01	-7.6786973E-01
5	-1.3459743E 05	8.5044219E 05	-7.0149484E 04	6.7788092E-01	5.4017730E 00	-4.5234669E-01
6	3.9565710E 04	-5.6138800E 04	6.7414867E 04	-7.6786973E-01	-4.5234669E-01	4.3515707E-01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW),WEIGHT ABOVE NOMINAL BEFORE
HOHMANN INJ. AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC1 AS ROW

	1	2	3	4	5	6
1	1.5518128E 07	1.2401889E 08	-2.6081684E 07	-7.3154933E 02	6.8486277E 02	-1.4608662E 02
2	-1.8448685E 09	-4.5120687E 09	1.2375554E 09	5.7927720E 04	-2.1134585E 04	7.4902726E 03
3	1.9054649E 07	6.1946031E 07	-1.3685699E 07	-6.3027568E 02	3.1810529E 02	-7.8688033E 01
4	1.5341603E 06	3.6483088E 06	-1.0070574E 06	-4.7893147E 01	1.6967505E 01	-6.1095462E 00
5	2.7460167E 04	-4.4351963E 03	-6.3850712E 03	-6.5914141E-01	-1.0698527E-01	-4.9103810E-02
6	-4.2762914E 04	-2.4412535E 04	-7.0636860E 03	1.0971834E 00	-2.9930270E-02	-6.0696900E-02
7	-1.5478502E 06	4.2182178E 06	-2.5650418E 05	2.5914815E 01	2.8247238E 01	-1.5729405E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	3.2453474E-02	-2.1428884E-03	-3.1946616E-02	1.1653407E 03	1.0953274E 03	4.5812067E 03
2	4.4241669E 00	1.9365604E-01	-2.0273072E-01	1.8816511E 05	5.4629173E 04	6.0164949E 04
3	6.4682060E-02	-1.0989651E-02	-8.9394809E-03	2.2612672E 03	3.0940014E 03	1.1116654E 03
4	-3.8511160E-03	-1.6822812E-04	2.1180017E-04	-1.6343743E 02	-4.7802643E 01	-5.6489907E 01
5	-1.2356797E-04	-2.6469745E-06	3.1796491E-05	-5.0837280E 00	-2.0724803E 00	-5.2701035E 00
6	2.4767995E-05	1.9505539E-05	1.7281073E-05	1.4729393E 00	-2.6461380E 00	-2.7038321E 00
7	6.7896017E-03	1.5842051E-03	-4.9710681E-04	3.0459826E 02	-1.1294282E 02	8.0526842E 01

VARIANCES OF THE Y (OUTPUT) VARIABLES

1.0630016E 07 1.8763631E 10 7.7674549E 06 1.2933044E 04 9.9534289E 00 9.6972070E 00 1.4330408E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

2.8172264E-02 4.8464938E-02 1.8744043E-02 4.8426180E-02 2.4807847E-02 2.0830791E-02 6.1185905E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER SECOND TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	3.1285412E 08	-9.7067388E 07	-1.6569791E 07	-7.4739274E 03	2.3820739E 03	1.2361056E 03
2	-9.7067388E 07	1.3464505E 08	5.5949762E 06	2.3921139E 03	-3.0018091E 03	-4.2400562E 02
3	-1.6569791E 07	5.5949762E 06	5.3899825E 07	4.9233209E 02	-2.1564010E 02	-1.3963832E 03
4	-7.4739274E 03	2.3921139E 03	4.9233209E 02	1.7959619E-01	-5.7712390E-02	-3.1776485E-02
5	2.3820739E 03	-3.0018091E 03	-2.1564010E 02	-5.7712390E-02	7.2830582E-02	1.2182567E-02
6	1.2361056E 03	-4.2400562E 02	-1.3963832E 03	-3.1776485E-02	1.2182567E-02	3.9375408E-02

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW),WEIGHT ABOVE NOMINAL BEFORE
HOHMANN INJ. AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC2 AS ROW

	1	2	3	4	5	6
1	2.2018094E 06	-1.1400286E 06	2.1766911E 06	-5.5392748E 01	2.7097268E 01	-5.4088849E 01
2	1.4980941E 08	-2.9574651E 07	-1.8511823E 07	-3.1998252E 03	7.9315026E 02	8.9591645E 02
3	2.8854902E 06	3.8273417E 05	7.7788805E 05	-7.9506339E 01	-8.9279194E 00	-1.1730196E 01
4	-1.3298532E 05	2.7960514E 04	1.3088781E 04	2.8587707E 00	-7.4598316E-01	-7.0465872E-01
5	-5.0827368E 03	1.6337474E 03	-1.4510879E 03	1.1537250E-01	-4.0544538E-02	2.6826778E-02
6	1.7367124E 03	-2.0194820E 03	-1.6464357E 03	-3.0790091E-02	3.5227261E-02	5.0927093E-02
7	3.6225626E 05	-2.7547320E 05	-5.9539875E 03	-8.7785339E 00	6.9590870E 00	1.7550236E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-2.2067840E-01	5.0865381E-02	-9.3305626E-03	-9.9329969E 03	2.2811686E 03	-2.9509564E 03
2	1.4990994E 01	-2.4498330E 00	-3.4253438E 00	6.0180774E 05	-1.0044252E 05	-7.8967821E 04
3	-4.8712476E-01	9.6257502E-02	1.7519230E-01	-2.0644768E 04	3.1665819E 03	4.6034186E 03
4	-1.2415797E-02	1.9926161E-03	2.8753865E-03	-4.9685567E 02	8.1188090E 01	6.9210565E 01
5	-1.4853013E-04	1.2910596E-05	8.8580647E-05	-5.0574166E 00	3.4606972E-01	4.4360049E 00
6	5.9768592E-04	-1.6939857E-04	-1.0581483E-04	2.5049542E 01	-6.3663185E 00	-8.6133254E-01
7	-1.1443905E-02	3.4295950E-03	1.8100260E-02	-4.3557258E 02	2.0810950E 02	6.6675343E 02

VARIANCES OF THE Y (OUTPUT) VARIABLES

1.0630016E 07 1.8763631E 10 7.7674549E 06 1.2933044E 04 9.9534289E 00 9.6972070E 00 1.4339408E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.9515841E-02 1.6284695E-02 4.2053307E-02 1.6603767E-02 1.6977005E-02 5.3099036E-02 8.6750524E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER THIRD TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.3628186E 06	1.3990496E 05	1.3908634E 06	-8.3907284E 02	-1.1372977E 02	-3.0925379E 02
2	1.3990496E 05	5.3392012E 06	5.7524242E 05	-2.2009447E 02	-1.3151633E 03	-1.4555768E 02
3	1.3908634E 06	5.7524242E 05	8.3227180E 06	-4.7860348E 02	-1.7764031E 02	-1.8780116E 03
4	-8.3907284E 02	-2.2009447E 02	-4.7860348E 02	3.0802949E-01	8.3019987E-02	1.0436722E-01
5	-1.1372977E 02	-1.3151633E 03	-1.7764031E 02	8.3019987E-02	3.2719252E-01	4.3773940E-02
6	-3.0925379E 02	-1.4555768E 02	-1.8780116E 03	1.0436722E-01	4.3773940E-02	4.4506438E-01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW),WEIGHT ABOVE NOMINAL BEFORE
HOHMANN INJ. AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC3 AS ROW

	1	2	3	4	5	6
1	2.4087893E 04	3.3501646E 04	-6.8920613E 04	-8.4191678E 00	-5.8968099E 00	6.7749279E 01
2	-7.0090234E 06	3.0377734E 07	-3.0370694E 06	6.7284893E 02	-7.8571815E 03	1.1493606E 03
3	2.7116142E 05	-7.6989812E 04	-3.8015389E 04	-1.0020518E 02	1.2370111E 01	8.4163896E 01
4	5.8903463E 03	-2.6187978E 04	2.6656640E 03	-5.4588914E-01	6.7628267E 00	-1.0526100E 00
5	1.4268036E 02	-6.8852161E 02	1.3196866E 02	-1.1526802E-02	1.7550923E-01	-8.4099870E-02
6	-3.5778702E 02	6.1049934E 02	-6.2512771E 02	9.1122847E-02	-1.4699551E-01	1.3004028E-01
7	2.0041200E 04	4.2026884E 04	-1.5190676E 04	-8.4210320E 00	-1.1094562E 01	3.2292069E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	5.2631320E-01	1.1573590E 00	5.6142167E-01	1.0122027E 03	4.5192995E 03	2.5835907E 03
2	-3.2057359E 01	-2.8124759E 02	7.9070799E 00	3.2485555E 04	-1.1735382E 06	2.9495519E 04
3	1.8056832E-01	1.3915315E 00	7.5426377E-01	-3.9274887E 02	5.7374387E 03	3.4802565E 03
4	2.6159796E-02	2.3585055E-01	-7.3376610E-03	-2.9378594E 01	9.8498974E 02	-2.8004207E 01
5	2.2233796E-04	5.2273560E-03	-6.5113727E-04	-1.6956250E 00	2.2082828E 01	-2.8467510E 00
6	-9.5639433E-04	-3.3066323E-03	-1.6064296E-04	-1.0129295E 00	-1.3831629E 01	-5.3372425E-01
7	2.6286632E-02	-3.9090462E-02	-3.7297075E-03	6.3968915E 01	-2.0038082E 02	1.7060755E 00

VARIANCES OF THE Y (OUTPUT) VARIABLES

1.0630016E 07	1.8763631E 10	7.7674549E 06	1.2933044E 04	9.9534289E 00	9.6972070E 00	1.4339408E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.4357713E-02	4.9748948E-02	4.0742281E-02	5.1411678E-02	4.8359362E-02	3.0461411E-02	4.3975272E-02

[redacted]

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER HYPERBOLIC DEBOOST INTO LUNAR PARKING ORBIT (UVW, 201 RUNS)

	1	2	3	4	5	6
1	7.2630923E 05	-6.4159735E 04	-1.6782268E 05	3.2880982E 03	1.2604903E 02	-6.7652921E 02
2	-6.4159735E 04	4.5125188E 06	1.8068659E 06	-4.1516508E 03	1.5762812E 03	-8.3126055E 02
3	-1.6782268E 05	1.8068659E 06	1.5180117E 06	-2.7649922E 03	-8.5157769E 02	2.4168537E 03
4	3.2880982E 03	-4.1516508E 03	-2.7649922E 03	2.2221321E 01	-7.2134576E-01	-3.6502803E 00
5	1.2604903E 02	1.5762812E 03	-8.5157769E 02	-7.2134576E-01	8.6640505E 00	-5.4895601E 00
6	-6.7652921E 02	-8.3126055E 02	2.4168537E 03	-3.6502803E 00	-5.4895601E 00	1.4260518E 01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW),WEIGHT ABOVE NOMINAL BEFORE
HOHMANN INJ. AS COL. AND ACTUAL DEV.(UVW) AFTER HYP. DEBOOST AS ROW

	1	2	3	4	5	6
1	-1.6578133E 06	1.2535064E 06	2.0751386E 05	-1.1752636E 04	5.6404335E 03	-1.0534858E 03
2	-3.4625118E 07	-6.3336700E 07	4.6859221E 07	-1.0569487E 05	-3.9050851E 05	2.7226621E 05
3	4.4385832E 05	1.9631442E 06	-9.3878676E 05	1.0852784E 03	3.9609130E 03	-1.0145231E 04
4	3.1245208E 04	5.1714735E 04	-3.9590879E 04	1.0249878E 02	3.2175759E 02	-2.2752167E 02
5	2.1633317E 03	4.5034414E 02	-1.1723291E 03	1.2131226E 01	3.9521020E 00	-5.1675693E 00
6	-5.7827450E 02	5.1067036E 02	2.6230278E 03	-4.2481717E 00	-4.3827948E 00	1.1509573E 01
7	-3.3770666E 04	6.1380664E 04	2.4016731E 04	-1.0167687E 02	2.8732641E 01	1.6559183E 01

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	1.2957346E 00	-7.0991991E-01	-7.2160065E-07	-8.3078752E 02	6.9215388E 02	1.9874502E-04
2	-3.6750913E 01	4.0855965E-01	7.1505625E-06	-6.9213930E 02	-4.4669566E 04	-2.0692621E-03
3	-5.0630757E-07	-2.4440498E-07	7.0428238E-01	9.9775784E-05	-6.1107117E-05	-8.3078088E 02
4	3.0797544E-02	2.5269368E-04	-3.7195085E-09	1.2957222E 00	3.6750934E 01	3.3187943E-06
5	-2.5269261E-04	6.0663681E-04	-6.7126573E-11	7.0992016E-01	4.0856424E-01	-1.8696587E-08
6	-2.4006463E-10	6.9234965E-11	6.0663710E-04	5.6142285E-08	-2.5789645E-08	7.0428155E-01
7	-1.6102194E-01	3.3046840E-02	4.6629332E-03	2.6662012E 01	4.3173602E 00	3.1449259E 00

VARIANCES OF THE Y (OUTPUT) VARIABLES

1.0630016E 07	1.8763631E 10	7.7674549E 06	1.2933044E 04	9.9534289E 00	9.6972070E 00	1.4339408E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

9.9999988E-01	9.9999987E-01	1.0000001E 00	1.0000000E 00	9.9999981E-01	9.9999989E-01	3.5172024E-01

[redacted]

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR CSM AFTER TRANSLUNAR INJECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.2950713E 07	4.6816101E 07	-1.9708419E 07	5.6026263E 04	-2.5200133E 04	-3.8928141E 04
2	4.6816101E 07	5.3114210E 09	-2.0407619E 09	-4.2995595E 06	5.3577102E 05	-4.3489007E 06
3	-1.9708419E 07	-2.0407619E 09	9.5757525E 08	1.6736463E 06	-1.8129739E 05	2.1156806E 06
4	5.6026263E 04	-4.2995595E 06	1.6736463E 06	4.1209408E 03	-5.8557287E 02	3.5908944E 03
5	-2.5200133E 04	5.3577102E 05	-1.8129739E 05	-5.8557287E 02	1.0520163E 02	-3.5488902E 02
6	-3.8928141E 04	-4.3489007E 06	2.1156806E 06	3.5908944E 03	-3.5488902E 02	4.9055987E 03

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR INJECTION AS ROW

	1	2	3	4	5	6
1	-1.1128963E 04	2.3872900E 04	1.9107168E 04	-1.0704462E 02	3.6760963E 01	1.1449945E 02
2	5.0932666E 04	4.6520048E 04	-1.9609148E 05	2.9762637E 02	-1.3982204E 02	-5.3047813E 02
3	7.1608342E 03	-1.6928259E 05	3.2423298E 04	1.1346168E 02	-2.4007111E 01	3.0396085E 01
4	1.1300473E 02	-1.1409438E 04	4.9513057E 03	1.6439145E 00	-2.1873904E-01	1.5672545E 01
5	-2.4154916E 02	-9.1646705E 03	5.3733783E 03	5.8745775E 00	-4.1605686E-01	1.2970209E 01
6	-1.6825387E 03	-1.0714959E 04	-1.1007849E 03	5.1405475E 00	7.2074758E-01	-2.8306110E 00
7	-7.3492333E 04	-6.1028402E 05	2.5330643E 05	2.8172430E 02	-5.6662661E 00	4.0228553E 02

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	1.4314797E-03	-1.8811152E-04	-3.4686561E-04	4.2888964E-03	1.4881461E 00	1.2203983E-01
2	-1.7694404E-02	1.0324252E-03	-4.2676371E-03	-2.0454383E 00	-2.1240261E 01	2.4678745E 00
3	4.2487807E-03	-4.1196140E-04	8.0969571E-04	2.3013314E-01	3.5984666E 00	-5.8263449E-01
4	-1.6296642E-04	-1.5774495E-05	-1.1878833E-04	-8.3820934E-02	-3.8760301E-01	7.2464368E-02
5	-9.2049493E-05	3.5412578E-06	-2.0422913E-05	-2.1114778E-02	-1.2945998E-01	1.9951255E-02
6	2.1289034E-04	-2.0708739E-05	1.6713523E-05	7.1369359E-02	4.3738219E-01	-4.5054973E-02
7	-1.0172208E-02	5.8869886E-04	4.0994269E-04	-6.6252333E-01	-7.4944500E 00	2.8916318E-01

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03 8.0244799E 04 8.8438390E 02 1.3456824E 01 1.5431479E 00 3.2460075E 01 1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.4674689E-02 1.2899102E-02 5.4759494E-02 4.8755586E-02 4.4476774E-02 2.0177152E-02 3.1066437E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER FIRST TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	1.8284907E 10	-1.3557931E 10	5.7151476E 09	-3.9318495E 05	-1.3459743E 05	3.9565710E 04
2	-1.3557931E 10	1.3793760E 11	-8.9271228E 09	-8.5739055E 04	8.5044219E 05	-5.6138800E 04
3	5.7151476E 09	-8.9271228E 09	1.0526987E 10	-1.0845842E 05	-7.0149484E 04	6.7414867E 04
4	-3.9318495E 05	-8.5739055E 04	-1.0845842E 05	9.5725870E 00	6.7788092E-01	-7.6786973E-01
5	-1.3459743E 05	8.5044219E 05	-7.0149484E 04	6.7788092E-01	5.4017730E 00	-4.5234669E-01
6	3.9565710E 04	-5.6138800E 04	6.7414867E 04	-7.6786973E-01	-4.5234669E-01	4.3515707E-01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC1 AS ROW

	1	2	3	4	5	6
1	5.8139896E 05	7.9119583E 05	4.0490499E 05	-1.5821166E 01	3.0615728E 00	2.3083355E 00
2	-2.3847162E 06	-2.8534063E 06	-9.2277569E 05	6.3871187E 01	-9.3130143E 00	-4.2270871E 00
3	-2.7625114E 05	3.7088307E 05	-1.3544993E 05	5.4032416E 00	2.9622460E 00	-7.6588635E-01
4	-5.0054096E 03	9.5741658E 04	3.4712992E 04	-1.6021639E-01	5.7790519E-01	2.3814329E-01
5	-1.4454580E 03	1.6584716E 04	1.7404107E 04	-1.4998112E-02	9.9904121E-02	1.1839185E-01
6	-7.6884056E 03	5.4674837E 04	-4.4831654E 03	-1.5414736E-02	3.2491313E-01	-5.0178038E-02
7	-1.6190140E 06	4.0248243E 06	-2.3173047E 05	2.8197393E 01	2.7378322E 01	-1.5136335E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	2.1703841E-03	-1.0007500E-04	8.7010429E-04	8.1497071E 01	6.0317723E 01	-1.3323196E 02
2	-5.4764269E-03	-7.6275048E-04	-4.9247699E-03	-2.1934187E 02	1.0511482E 01	7.7664653E 02
3	-4.1199323E-04	3.0555021E-05	-3.1056257E-04	-1.4820250E 01	-1.2643063E 01	4.8459961E 01
4	1.6016455E-05	-5.1318815E-06	-3.6918563E-05	6.1284007E-01	1.3096229E 00	6.5911551E 00
5	-1.1382425E-05	-4.9502432E-07	-1.7057679E-05	-4.1512798E-01	-1.0138722E-01	3.0477960E 00
6	-2.7981839E-04	1.8230680E-05	5.2725893E-05	-1.0804627E 01	-8.4391286E 00	-8.3279896E 00
7	7.0783590E-03	1.5350044E-03	-3.2363957E-04	3.1512067E 02	-9.9471986E 01	5.3758131E 01

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03	8.0244799E 04	8.8438390E 02	1.3456824E 01	1.5431479E 00	3.2460075E 01	1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

4.3753200E-02	2.9785941E-02	1.4210586E-02	2.7884195E-02	4.4260197E-02	2.3234290E-02	5.8481312E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER SECOND TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	3.1285412E 08	-9.7067388E 07	-1.6569791E 07	-7.4739274E 03	2.3820739E 03	1.2361056E 03
2	-9.7067388E 07	1.3464505E 08	5.5949762E 06	2.3921139E 03	-3.0018091E 03	-4.2400562E 02
3	-1.6569791E 07	5.5949762E 06	5.3899825E 07	4.9233209E 02	-2.1564010E 02	-1.3963832E 03
4	-7.4739274E 03	2.3921139E 03	4.9233209E 02	1.7959619E-01	-5.7712390E-02	-3.1776485E-02
5	2.3820739E 03	-3.0018091E 03	-2.1564010E 02	-5.7712390E-02	7.2830582E-02	1.2182567E-02
6	1.2361056E 03	-4.2400562E 02	-1.3963832E 03	-3.1776485E-02	1.2182567E-02	3.9375408E-02

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC2 AS ROW

	1	2	3	4	5	6
1	8.6486187E 04	4.4306702E 02	-4.8570725E 04	-2.2645411E 00	-4.4931144E-01	1.3731287E 00
2	-2.7538320E 05	9.7895288E 04	2.9029209E 05	7.5057053E 00	-8.3053757E-01	-6.9628823E 00
3	-1.5252004E 04	-5.4912722E 03	1.7746705E 04	4.5858181E-01	1.6863928E-01	-5.2013499E-01
4	-3.1310492E 02	-6.4526287E 02	2.4441154E 03	5.5857400E-03	1.2909596E-02	-5.7336675E-02
5	-9.4125772E 02	-2.5376547E 02	1.0864953E 03	2.1090995E-02	-3.3785608E-03	-2.3008256E-02
6	-1.1184970E 04	3.0969870E 02	-2.7297719E 03	2.6869905E-01	3.8730532E-02	5.2100908E-02
7	3.7140734E 05	-2.6730019E 05	-1.6881335E 04	-8.9466978E 00	6.8841721E 00	2.0897403E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-4.2576431E-04	-1.8593810E-03	-2.4744142E-03	-4.1551157E 01	-9.8672007E 01	-6.2538332E 01
2	-8.0275631E-03	9.1671767E-03	3.2441330E-02	-1.8950868E 02	3.9960765E 02	1.0477344E 03
3	2.4417227E-03	-2.1982682E-04	-1.2029613E-03	1.0041713E 02	-1.6743896E 00	-5.3334373E 01
4	-2.9006274E-04	5.7282920E-05	2.3748839E-04	-1.1462691E 01	2.5319444E 00	6.6556255E 00
5	-1.3802582E-04	-4.4028076E-06	2.0379615E-04	-4.9556757E 00	-2.0678482E-01	6.9932522E 00
6	-1.3303821E-04	1.8218273E-04	2.6827659E-04	-1.9181807E 00	9.5816002E 00	1.2462970E 01
7	-9.8875471E-03	3.5697558E-03	1.8322378E-02	-3.6934815E 02	2.1152376E 02	6.8806801E 02

VARIANCES OF THE Y (OUTPUT) VARIABLES
2.8051500E 03 8.0244799E 04 8.8438390E 02 1.3456824E 01 1.5431479E 00 3.2460075E 01 1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR
4.8158942E-02 4.3312284E-02 1.8233641E-02 1.6465512E-02 5.6854339E-02 4.0576970E-02 8.4305315E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER THIRD TRANSLUNAR MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.3628186E 06	1.3990496E 05	1.3908634E 06	-8.3907284E 02	-1.1372977E 02	-3.0925379E 0
2	1.3990496E 05	5.3392012E 06	5.7524242E 05	-2.2009447E 02	-1.3151633E 03	-1.4555768E 0
3	1.3908634E 06	5.7524242E 05	8.3227180E 06	-4.7860348E 02	-1.7764031E 02	-1.8780116E 0
4	-8.3907284E 02	-2.2009447E 02	-4.7860348E 02	3.0802949E-01	8.3019987E-02	1.0436722E-0
5	-1.1372977E 02	-1.3151633E 03	-1.7764031E 02	8.3019987E-02	3.2719252E-01	4.3773940E-0
6	-3.0925379E 02	-1.4555768E 02	-1.8780116E 03	1.0436722E-01	4.3773940E-02	4.4506438E-0

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSLUNAR MC3 AS ROW

	1	2	3	4	5	6
1	-9.7020962E 03	2.0765904E 03	-1.5741713E 04	3.3443272E 00	-1.4549495E-01	3.8698998E 0
2	7.8690984E 04	5.3602749E 03	5.0782453E 04	-2.9633709E 01	-4.3120366E 00	-1.2805518E 01
3	-7.1838199E 02	8.9358912E 02	1.5232982E 03	4.8235852E-01	-1.7973018E-01	-4.0021527E-01
4	4.4403858E 02	-1.4665008E 02	-1.5096514E 02	-1.8450507E-01	7.8352941E-03	7.5218685E-02
5	3.0854450E 02	-1.6248884E 02	-3.6114459E 02	-1.1213759E-01	2.5509663E-02	9.2275953E-02
6	6.9066129E 02	-8.1425575E 02	1.7164064E 03	-2.0712846E-01	1.8817685E-01	-3.5330014E-01
7	2.0848243E 04	4.5706356E 04	-1.1362319E 04	-8.7673506E 00	-1.2018894E 01	2.0116511E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-5.7944598E-04	2.4170677E-02	2.1262879E-03	-1.4345761E 00	9.5876557E 01	1.6076218E 01
2	-1.2419486E-01	-2.6083755E-02	-2.5966776E-02	-4.3806815E 02	-4.7284258E 01	-1.2597292E 02
3	2.2423327E-02	-1.5735256E-02	1.3903855E-03	7.1555882E 01	-7.4196957E 01	5.9201789E 00
4	-1.4243010E-03	-4.7175745E-03	3.2767892E-04	-2.8026325E 00	-1.8747975E 01	1.5202959E 00
5	-8.5657935E-05	-1.4008566E-03	3.3275149E-05	-1.8752881E-01	-5.5734480E 00	4.2212028E-01
6	3.4166967E-04	4.4768094E-03	4.5456374E-04	-1.4247211E 00	1.9125798E 01	1.2788149E 00
7	2.6605771E-02	-3.8023090E-02	-6.9738558E-03	6.4401730E 01	-1.9851654E 02	-1.4432763E 01

VARIANCES OF THE Y (OUTPUT) VARIABLES
2.8051500E 03 8.0244799E 04 8.8438390E 02 1.3456824E 01 1.5431479E 00 3.2460075E 01 1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR
2.3460095E-02 4.4578722E-02 1.9708947E-02 3.6745562E-02 6.9332362E-02 2.5053904E-02 4.6056129E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER HYPERBOLIC DEBOOST INTO LUNAR PARKING ORBIT (UVW, 201 RUNS)

	1	2	3	4	5	6
1	7.2630923E 05	-6.4159735E 04	-1.6782268E 05	3.2880982E 03	1.2604903E 02	-6.7652921E 02
2	-6.4159735E 04	4.5125188E 06	1.8068659E 06	-4.1516508E 03	1.5762812E 03	-8.3126055E 02
3	-1.6782268E 05	1.8068659E 06	1.5180117E 06	-2.7649922E 03	-8.5157769E 02	2.4168537E 03
4	3.2880982E 03	-4.1516508E 03	-2.7649922E 03	2.2221321E 01	-7.2134576E-01	-3.6502803E 00
5	1.2604903E 02	1.5762812E 03	-8.5157769E 02	-7.2134576E-01	8.6640505E 00	-5.4895601E 00
6	-6.7652921E 02	-8.3126055E 02	2.4168537E 03	-3.6502803E 00	-5.4895601E 00	1.4260518E 01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER HYPERBOLIC DEBOOST AS ROW

	1	2	3	4	5	6
1	1.6932942E 03	-5.0229510E 03	2.0926618E 03	1.2156388E 01	-4.0409755E 00	8.8687446E 00
2	1.6681359E 04	2.3011339E 04	-1.2098849E 04	5.9913638E 01	-1.1462473E 01	-5.5898648E 01
3	-3.9352165E 03	5.1527426E 03	2.7678493E 03	-2.1505406E 01	-6.8581998E 00	-1.3081253E 00
4	-5.3890248E 01	-4.1638629E 02	-2.5214446E 02	-5.7490344E-02	-2.1058440E-01	-7.3212917E-01
5	-7.1309841E 01	-1.4594424E 02	-7.0501920E 01	-3.5922187E-01	-9.1202148E-02	-2.3453414E-01
6	-2.4285198E 02	-5.2022526E 02	-2.7385241E 02	-1.3296667E 00	2.1667156E-01	-2.6076746E-02
7	-3.3828800E 04	5.9438121E 04	2.2844178E 04	-1.0069787E 02	2.4717623E 01	1.9679467E 01

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-1.8403921E-03	-6.0049768E-03	1.3168289E-02	1.1673235E 00	1.2387031E 00	-1.2715435E 00
2	3.7519393E-02	3.3384761E-02	-6.6906543E-02	-4.3762993E 00	-1.1283201E 01	5.6817399E 00
3	-5.0833940E-03	1.3331281E-03	-1.1764374E-04	-1.7440520E-01	-1.5389237E 00	-8.7229137E-01
4	1.4249648E-04	-2.0038430E-04	1.1708478E-04	-6.7337368E-02	-5.7083459E-02	-1.1531403E-01
5	9.3017445E-05	-1.0465632E-04	6.4333630E-05	-5.0566559E-02	-2.2914032E-02	-5.0801578E-02
6	5.1191810E-04	-1.7041039E-04	-3.1289898E-04	-2.0291439E-01	1.2618352E-02	1.8470662E-02
7	-1.5929773E-01	3.4881209E-02	-7.7270961E-04	2.6239557E 01	3.4996386E 00	4.0507653E 00

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03	8.0244799E 04	8.8438390E 02	1.3456824E 01	1.5431479E 00	3.2460075E 01	1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.8719508E-02	2.1847228E-02	4.7483755E-02	1.0890588E-02	2.3506762E-02	9.9223584E-03	3.3245014E-01

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER TRANSEARTH INJECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	3.8426867E 04	-1.7617780E 04	9.2965282E 02	5.3712917E 02	2.3307483E 01	-9.7039028E 00
2	-1.7617780E 04	3.4980286E 05	2.6792493E 04	-1.8260325E 02	5.1662533E-01	1.2369656E 02
3	9.2965282E 02	2.6792493E 04	4.1819606E 04	1.8761238E 01	-2.4748693E 01	4.5719839E 02
4	5.3712917E 02	-1.8260325E 02	1.8761238E 01	7.5215622E 00	3.1816304E-01	-1.1407875E-01
5	2.3307483E 01	5.1662533E-01	-2.4748693E 01	3.1816304E-01	6.6823596E-01	-4.3652244E-01
6	-9.7039028E 00	1.2369656E 02	4.5719839E 02	-1.1407875E-01	-4.3652244E-01	6.4334646E 00

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSEARTH INJECTION AS ROW

	1	2	3	4	5	6
1	-1.1186350E 01	-1.3212203E 03	-7.3828662E 02	-6.3900069E-01	3.4805568E 00	-5.1452386E 00
2	-2.8950859E 03	1.7808881E 03	1.4562669E 03	-3.9158527E 01	-6.2761499E 00	3.1762738E 01
3	4.4265818E 02	-1.7999038E 03	7.8094614E 02	6.0341969E 00	9.2193223E-01	3.0327778E 00
4	4.4584570E 02	3.9854521E 01	-4.3464383E 01	6.2416605E 00	2.2782456E 00	-1.2514592E 00
5	7.4691043E 01	5.8888501E 01	5.7620375E 00	1.0545250E 00	2.2557296E-01	-1.0490859E-01
6	-1.3629386E 02	2.4169585E 02	9.3128742E 02	-1.8591859E 00	-2.1569296E 00	1.3794563E 01
7	5.1177513E 02	7.7119547E 03	-2.7864369E 03	8.0069885E 00	-1.0413234E 01	-1.9675257E 01

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	1.4364307E 00	1.6862357E-02	-2.9657438E-02	-1.0231434E 02	3.7489275E 00	1.5904123E 00
2	-1.1813556E 01	-1.4755438E-01	-1.6258950E-01	8.3506929E 02	1.0264364E 01	1.7013710E 01
3	-9.0756327E-01	-2.0959265E-02	7.0635287E-02	6.4776691E 01	2.0648912E 00	-4.2255412E 00
4	6.5453073E-02	1.3308491E-03	2.7053878E-04	-3.9398948E 00	3.0070896E 00	-6.4387553E-03
5	4.4800757E-02	7.9380621E-04	7.5158625E-04	-3.0517889E 00	2.1815895E-01	-5.6718380E-02
6	6.2357202E-03	1.9809360E-04	-3.8644525E-03	-5.6621689E-01	-1.8225921E 00	2.2907096E 00
7	6.1266792E 00	1.1605503E-01	-1.7475242E-01	-4.3201159E 02	-2.5591757E 01	6.9734781E 00

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03	8.0244799E 04	8.8438390E 02	1.3456824E 01	1.5431479E 00	3.2460075E 01	1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.9176378E-02	1.8413932E-02	8.0407339E-02	8.5392375E-01	1.5181721E-01	9.9144412E-01	7.9465812E-02

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR CSM AFTER FIRST TRANSEARTH MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.5390998E 10	-2.7453672E 10	-1.6350490E 09	-2.0666088E 04	9.6135702E 04	-3.1947294E 0
2	-2.7453672E 10	5.2784038E 10	1.2043320E 09	-3.9396535E 03	-2.0931417E 05	-6.1248628E 0
3	-1.6350490E 09	1.2043320E 09	2.6377586E 09	1.4371908E 03	-3.9117484E 03	2.8452156E 0
4	-2.0666088E 04	-3.9396535E 03	1.4371908E 03	4.7190627E-02	4.1559160E-02	6.0738075E-0
5	9.6135702E 04	-2.0931417E 05	-3.9117484E 03	4.1559160E-02	8.4515054E-01	3.6396153E-0
6	-3.1947294E 03	-6.1248628E 01	2.8452156E 03	6.0738075E-03	3.6396153E-03	3.7027014E-0

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSEARTH MC1 AS ROW

	1	2	3	4	5	6
1	6.2961937E 05	-3.5882746E 05	-9.1857148E 04	-8.1389077E-01	9.5142610E-01	-1.3632682E-01
2	-1.7021041E 06	3.4873000E 06	6.6004902E 05	-7.4063146E-01	-1.4086732E 01	5.5043480E-01
3	2.5299412E 05	-4.8017800E 05	4.4955647E 04	7.8959707E-02	1.9279444E 00	-1.1589360E-01
4	5.0318950E 05	-7.2807659E 05	-2.5182582E 04	-1.9944940E-01	2.7312713E 00	-3.3699747E-02
5	5.5875663E 04	-1.0434986E 05	-2.3096690E 03	6.0034056E-04	4.0670180E-01	-1.4533588E-03
6	-4.2007080E 05	3.9818599E 05	2.7979991E 05	3.5104749E-01	-1.3639280E 00	3.2304070E-01
7	-1.7925044E 06	5.1726688E 05	-3.5648389E 05	3.3115194E 00	-5.3507370E-01	-1.8928124E-01

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	6.4614393E-04	8.4857342E-04	-1.5007353E-04	2.0575995E 02	1.2616463E 02	1.8849922E 02
2	-1.2716249E-03	-1.6986543E-03	1.3400091E-04	-4.7797039E 02	-2.6845835E 02	-3.1644601E 01
3	5.6098380E-04	8.5564868E-04	1.1126423E-03	2.8505643E 02	1.4581851E 02	-9.9902827E 02
4	-4.0098668E-05	-1.4844492E-04	2.6531914E-06	-8.2989782E 00	-2.8523012E 01	-6.5428428E 00
5	-5.6023020E-05	-9.5578458E-05	9.2294532E-07	-1.7694971E 01	-1.5915851E 01	-6.3489819E 00
6	-1.5235450E-05	-6.1540172E-06	5.9022061E-05	-5.6546771E 00	-1.0213916E 00	3.8923814E 01
7	-5.6115776E-04	-2.3943182E-03	4.7612943E-04	1.6859905E 02	-5.3289063E 02	-6.9317.57E 02

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03	8.0244799E 04	8.8438390E 02	1.3456824E 01	1.5431479E 00	3.2460075E 01	1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

1.5325904E-02	5.5761618E-03	2.2671215E-01	8.7741793E-01	2.3766404E-01	9.9956805E-01	3.8298699E-02

[redacted]

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR CSM AFTER SECOND TRANSEARTH MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	1.7182361E 08	-6.9919943E 08	1.1933571E 08	-2.9743245E 03	9.8721238E 03	-1.0570763E 03
2	-6.9919943E 08	5.7635994E 09	-1.2034956E 09	2.8752058E 03	-8.3688273E 04	1.0647122E 04
3	1.1933571E 08	-1.2034956E 09	1.4926774E 09	1.8305886E 02	1.7587593E 04	-1.3064071E 04
4	-2.9743245E 03	2.8752058E 03	1.8305886E 02	8.5688788E-02	-3.3064168E-02	-1.4971266E-03
5	9.8721238E 03	-8.3688273E 04	1.7587593E 04	-3.3064168E-02	1.2172925E 00	-1.5562356E-01
6	-1.0570763E 03	1.0647122E 04	-1.3064071E 04	-1.4971266E-03	-1.5562356E-01	1.1448212E-01

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSEARTH MC2 AS ROW

	1	2	3	4	5	6
1	-8.6987994E 03	-2.4791197E 05	1.0026654E 05	7.9778995E-01	3.5985459E 00	-9.0622053E-01
2	-1.1393679E 05	1.0008937E 06	-5.6598439E 05	1.0939162E 00	-1.4222187E 01	4.9387675E 00
3	7.9965674E 02	-1.4981197E 05	2.3936561E 04	4.5364431E-01	2.1525038E 00	-6.9616403E-02
4	3.6446942E 04	-2.5713263E 05	5.2533073E 04	-1.9658585E-01	3.7190581E 00	-4.6320190E-01
5	7.3370439E 03	-3.1539069E 04	5.6499561E 03	-4.4229926E-02	4.5634750E-01	-4.8909642E-02
6	-1.7247130E 04	1.7514105E 05	-2.2001642E 05	-2.9556752E-02	-2.5591516E 00	1.9235608E 00
7	8.3469341E 04	5.8132443E 05	1.4233141E 05	-4.1604384E 00	-9.3392425E 00	-1.1577233E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	-2.0261912E-03	-1.7259283E-03	-1.4586394E-03	-4.2001362E 01	-1.0114529E 02	-1.7060418E 02
2	5.4699593E-03	4.2630110E-03	-2.2630352E-03	1.5503944E 02	2.4506201E 02	-2.2591125E 02
3	-7.7418594E-04	-5.9122608E-04	8.8593975E-03	-1.4945737E 01	-3.1161287E 01	1.0156595E 03
4	6.0030786E-04	-4.4426824E-07	9.5682971E-07	1.8029933E 01	-1.3641926E 00	2.8758895E-02
5	5.1555575E-04	1.2436239E-04	1.2272043E-06	1.5193858E 01	5.1527103E 00	1.1035004E-01
6	1.2327953E-05	3.0803701E-06	-2.7263167E-04	3.6243669E-01	1.3015490E-01	-1.4300012E 01
7	2.2468640E-03	-4.4300877E-03	3.4766693E-03	4.8880540E 01	-3.3227444E 02	3.6833682E 02

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03 8.0244799E 04 8.8438390E 02 1.3456824E 01 1.5431479E 00 3.2460075E 01 1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

2.0095828E-02 6.1436108E-03 1.7577864E-01 9.9672060E-01 9.9881681E-01 9.9997995E-01 3.8840128E-02

[redacted]

SIGMA XX = SAMPLE COVARIANCE MATRIX OF ACTUAL DEVIATIONS IN STATE FOR
CSM AFTER THIRD TRANSEARTH MIDCOURSE CORRECTION (UVW, 201 RUNS)

	1	2	3	4	5	6
1	2.2822559E 07	1.2721954E 07	-9.5449865E 06	-9.4529339E 03	-4.1330437E 03	1.5053959E 03
2	1.2721954E 07	1.7066859E 08	-6.1169167E 07	-1.5287215E 04	-3.7489607E 04	9.9807456E 03
3	-9.5449865E 06	-6.1169167E 07	1.4397140E 08	7.3914377E 03	1.3729926E 04	-2.3390513E 04
4	-9.4529339E 03	-1.5287215E 04	7.3914377E 03	4.5323868E 00	3.8662021E 00	-1.1862185E 00
5	-4.1330437E 03	-3.7489607E 04	1.3729926E 04	3.8662021E 00	8.3171757E 00	-2.2371245E 00
6	1.5053959E 03	9.9807456E 03	-2.3390513E 04	-1.1862185E 00	-2.2371245E 00	3.8004900E 00

SIGMA YX = SAMPLE CROSS COV. MATRIX OF ACTUAL DEV.(UVW), WEIGHT ABOVE NOMINAL AT
ENTRY AS COL. AND ACTUAL DEV.(UVW) AFTER TRANSEARTH MC3 AS ROW

	1	2	3	4	5	6
1	-2.8760855E 04	-3.0828768E 04	3.0288575E 04	1.4724088E 01	8.5219951E 00	-4.9928200E 00
2	8.0390576E 04	1.4781060E 05	-1.7609529E 05	-5.6315648E 01	-3.4454489E 01	2.8442494E 01
3	-7.8421380E 03	-2.4468145E 04	1.1422610E 04	4.5027132E 00	5.6696059E 00	-1.4301628E 00
4	-1.3215309E 02	-4.6911987E 04	1.6191052E 04	2.9353518E 00	1.0097632E 01	-2.6498046E 00
5	4.4241479E 03	-8.1091285E 03	1.7661664E 03	-1.1867519E 00	1.4735949E 00	-3.0005949E-01
6	4.6392110E 03	2.8893919E 04	-6.8360456E 04	-3.5411372E 00	-6.4933776E 00	1.1105690E 01
7	3.5078210E 04	6.2429833E 04	4.6782050E 04	-1.7290231E 01	-1.5614810E 01	-7.5865545E 00

A = SENSITIVITY MATRIX = SIGMA YX MULTIPLIED ON RIGHT BY SIGMA XX INVERSE

	1	2	3	4	5	6
1	6.9255375E-01	9.5477418E-01	-5.6735128E-04	1.1639871E 03	4.1071736E 03	-5.5738309E 00
2	-2.1314720E 00	-9.2404146E-01	-5.9990032E-04	-5.1609944E 03	-2.8286989E 03	-1.1826600E 00
3	1.4626240E-03	7.8589426E-04	3.4137751E-01	-9.4439456E 00	1.1077098E 01	2.1015974E 03
4	2.0821088E-03	1.1035878E-03	1.1882894E-06	4.2264418E 00	5.2555262E 00	9.2540036E-04
5	-3.0069134E-04	-7.0113317E-04	6.1939063E-07	-9.6389959E-01	-2.6845437E 00	4.2934804E-03
6	2.3641167E-06	1.7728228E-06	-7.0662871E-04	-1.3801491E-03	1.3085316E-02	-1.4262563E 00
7	-6.7974908E-02	-1.0319399E-01	4.0726924E-02	-1.1193214E 02	-4.4955625E 02	2.4702774E 02

VARIANCES OF THE Y (OUTPUT) VARIABLES

2.8051500E 03	8.0244799E 04	8.8438390E 02	1.3456824E 01	1.5431479E 00	3.2460075E 01	1.4944871E 04

SQUARED MULTIPLE CORRELATION COEFFICIENTS OF THE Y VARIABLES TO THE X VECTOR

9.9732367E-01	9.9999607E-01	9.9885442E-01	9.9818377E-01	9.9989123E-01	9.9925704E-01	1.0666985E-02