Part 1

Listing of TTA Input Data

```
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  NASA LM  AD CR
1FORMT  2      1 8X,2A8
        NASA LM  AD CR
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  375000.0  350000.0  325000.0  300000.0  150000.0
 3.2       3.2       3.2       3.2       3.2       3.2
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  SANDIA   GLFC4
1FORMT  2      1 8X,2A8
        SANDIA   GLFC4
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  325000.   300000.   270000.   200000.0  150000.0
  7.39      7.39      5.70      4.23      4.23      4.23
1WRITE  BINARY
1FORMT  10     1 10A8
 RHO   HITE   259   STET  STOP
1WRITE  BINARY
1FORMT   7     1 7E11.0
       0.0     1000.0    2000.0    3000.0    3300.0    4000.0    5000.0
    6000.0     6600.0    7000.0    8000.0    9000.0    9800.0   10000.0
   11000.0    12000.0   13000.0   14000.0   15000.0   16000.0   16400.0
   17000.0    18000.0   19000.0   20000.0   21000.0   22000.0   23000.0
   24000.0    25000.0   26000.0   27000.0   28000.0   29000.0   29500.0
   30000.0    31000.0   32000.0   33000.0   34000.0   35000.0   36000.0
   37000.0    38000.0   39000.0   40000.0   41000.0   42000.0   42600.0
   43000.0    44000.0   45000.0   46000.0   47000.0   48000.0   49000.0
   49200.0    50000.0   51000.0   52000.0   53000.0   54000.0   55000.0
   55800.0    56000.0   57000.0   58000.0   59000.0   60000.0   61000.0
   62000.0    62400.0   63000.0   64000.0   65000.0   66000.0   67000.0
   68000.0    68800.0   69000.0   70000.0   71000.0   72000.0   73000.0
   74000.0    75000.0   75400.0   76000.0   77000.0   78000.0   79000.0
   80000.0    81000.0   82000.0   83000.0   84000.0   85000.0   86000.0
   87000.0    88000.0   88600.0   89000.0   90000.0   91000.0   92000.0
   93000.0    94000.0   95000.0   95200.0   96000.0   97000.0   98000.0
   99000.0   100000.0  101000.0  101800.0  105000.0  110000.0  115000.0
  120000.0   125000.0  130000.0  135000.0  140000.0  145000.0  150000.0
  155000.0   160000.0  165000.0  170000.0  175000.0  180000.0  185000.0
  190000.0   195000.0  200000.0  210000.0  220000.0  230000.0  240000.0
```

250000.0	260000.0	270000.0	280000.0	290000.0	300000.0	310000.0
320000.0	330000.0	340000.0	350000.0	360000.0	370000.0	380000.0
390000.0	400000.0	410000.0	420000.0	430000.0	440000.0	450000.0
460000.0	470000.0	480000.0	490000.0	500000.0	520000.0	540000.0
560000.0	580000.0	600000.0	620000.0	640000.0	660000.0	680000.0
700000.0	720000.0	740000.0	760000.0	780000.0	800000.0	820000.0
840000.0	860000.0	880000.0	900000.0	920000.0	940000.0	960000.0
980000.0	1000000.0	1020000.0	1040000.0	1060000.0	1080000.0	1100000.0
1120000.0	1140000.0	1160000.0	1180000.0	1200000.0	1220000.0	1240000.0
1260000.0	1280000.0	1300000.0	1320000.0	1340000.0	1360000.0	1380000.0
1400000.0	1420000.0	1440000.0	1460000.0	1480000.0	1500000.0	1520000.0
1540000.0	1560000.0	1580000.0	1600000.0	1620000.0	1640000.0	1660000.0
1680000.0	1700000.0	1720000.0	1740000.0	1760000.0	1780000.0	1800000.0
1820000.0	1840000.0	1860000.0	1880000.0	1900000.0	1920000.0	1940000.0
1960000.0	1980000.0	2000000.0	2020000.0	2040000.0	2060000.0	2080000.0
2100000.0	2120000.0	2140000.0	2160000.0	2180000.0	2200000.0	2220000.0
2240000.0	2260000.0	2280000.0	2300000.0	2320000.0	2320001.0	2320002.0
7.6474E-02	7.4262E-02	7.2098E-02	6.9984E-02	6.9359E-02	6.7917E-02	6.5898E-02
6.3925E-02	6.2763E-02	6.1998E-02	6.0116E-02	5.8278E-02	5.6839E-02	5.6483E-02
5.4731E-02	5.3022E-02	5.1353E-02	4.9725E-02	4.8137E-02	4.6589E-02	4.5980E-02
4.5079E-02	4.3606E-02	4.2171E-02	4.0773E-02	3.9410E-02	3.8083E-02	3.6790E-02
3.5531E-02	3.4306E-02	3.3113E-02	3.1952E-02	3.0823E-02	2.9725E-02	2.9187E-02
2.8657E-02	2.7619E-02	2.6610E-02	2.5629E-02	2.4676E-02	2.3751E-02	2.2853E-02
2.1814E-02	2.0794E-02	1.9822E-02	1.8895E-02	1.8012E-02	1.7170E-02	1.6684E-02
1.6367E-02	1.5602E-02	1.4873E-02	1.4178E-02	1.3516E-02	1.2884E-02	1.2282E-02
1.2165E-02	1.1709E-02	1.1162E-02	1.0641E-02	1.0144E-02	9.6701E-03	9.2186E-03
8.8727E-03	8.7882E-03	8.3780E-03	7.9870E-03	7.6142E-03	7.2589E-03	6.9202E-03
6.5973E-03	6.4724E-03	6.2895E-03	5.9961E-03	5.7164E-03	5.4485E-03	5.1874E-03
4.9391E-03	4.7494E-03	4.7031E-03	4.4787E-03	4.2653E-03	4.0624E-03	3.8694E-03
3.6858E-03	3.5112E-03	3.4438E-03	3.3451E-03	3.1871E-03	3.0368E-03	2.8937E-03
2.7576E-03	2.6281E-03	2.5049E-03	2.3876E-03	2.2759E-03	2.1696E-03	2.0685E-03
1.9721E-03	1.8804E-03	1.8275E-03	1.7931E-03	1.7100E-03	1.6308E-03	1.5554E-03
1.4836E-03	1.4152E-03	1.3500E-03	1.3373E-03	1.2879E-03	1.2288E-03	1.1725E-03
1.1188E-03	1.0676E-03	1.0189E-03	9.8152E-04	8.4570E-04	6.6470E-04	5.2412E-04
4.1506E-04	3.3006E-04	2.6353E-04	2.1122E-04	1.6994E-04	1.3722E-04	1.1119E-04
9.0400E-05	7.4713E-05	6.1822E-05	5.1159E-05	4.2605E-05	3.5578E-05	2.9651E-05
2.4663E-05	2.0472E-05	1.6957E-05	1.1748E-05	8.0356E-06	5.3888E-06	3.5353E-06
2.2630E-06	1.4090E-06	8.1720E-07	4.6610E-07	2.6600E-07	1.4880E-07	8.3140E-08
4.7740E-08	2.7960E-08	1.6540E-08	1.0120E-08	6.3850E-09	3.9710E-09	2.5790E-09
1.7430E-09	1.1640E-09	7.9900E-10	5.7510E-10	4.2940E-10	3.3010E-10	2.6000E-10
2.0880E-10	1.7060E-10	1.4150E-10	1.1880E-10	1.0200E-10	7.7200E-11	6.0900E-11
4.9060E-11	4.0400E-11	3.3500E-11	2.7960E-11	2.3630E-11	2.0080E-11	1.7130E-11
1.4670E-11	1.2600E-11	1.0860E-11	9.3980E-12	8.1790E-12	7.1350E-12	6.2380E-12
5.4660E-12	4.8000E-12	4.2240E-12	3.7240E-12	3.2900E-12	2.9120E-12	2.5830E-12
2.2940E-12	2.0460E-12	1.8270E-12	1.6340E-12	1.4640E-12	1.3130E-12	1.1790E-12
1.0600E-12	9.5480E-13	8.6070E-13	7.7690E-13	7.0200E-13	6.3510E-13	5.7520E-13
5.2150E-13	4.7340E-13	4.3010E-13	3.9150E-13	3.5720E-13	3.2610E-13	2.9790E-13
2.7240E-13	2.4930E-13	2.2830E-13	2.0920E-13	1.9190E-13	1.7610E-13	1.6180E-13
1.4870E-13	1.3680E-13	1.2590E-13	1.1600E-13	1.0690E-13	9.8610E-14	9.1200E-14
8.4400E-14	7.8140E-14	7.2370E-14	6.7070E-14	6.2180E-14	5.7670E-14	5.3510E-14
4.9670E-14	4.6130E-14	4.2860E-14	3.9830E-14	3.7040E-14	3.4460E-14	3.2070E-14
2.9850E-14	2.7830E-14	2.5960E-14	2.4230E-14	2.2620E-14	2.1120E-14	1.9730E-14
1.8430E-14	1.7230E-14	1.6110E-14	1.5060E-14	1.4090E-14	1.3180E-14	1.2340E-14
1.1550E-14	1.0810E-14	1.0130E-14	9.4910E-15	8.8950E-15	0.0000E-00	0.0000E-00

```
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10000
1SCTLR  21766 SPAHR9
1FORMT  2      1 8X,2A8
        21766 SPAHR9
1WRITE  BINARY
1FORMT  10     1 10A8
  CLEAR AND SET POINT MASS.
1WRITE  BINARY . REPEAT
 SET IDENT TO ( 21766 SPAHR9 GLFC MULTIPLE ORBITS ).
 SET TTH.  SET QC TO 0.
 LOAD METRO ( ICAO  1962  ATMOSPHERE  KLETT  ).
 LOAD DATA A (  NASA LM  AD CR  ).
 SET INITIAL LAT TO 12.07881, LONG TO 0.0, HITE TO 533724.7.
 SET INITIAL VI TO 35947.7, GAMMAI TO -5.97850, TAUI TO -90.0.
 SET INITIAL TIME TO 0.0, POTIM TO 0.0, POPRATE TO 100.0.
 SET WT TO 32963.6.
 SET AREA TO 129.4.
 SET HEADING DATA TO ( 2       WT       CD    AREA   VICRCL   NOSE  ).
 SET COLUMN HEADINGS TO    ( 2          HITE   LAT    LONG      Q      VT  MACH
   GAMMA     TAU    AT    DQC     QC        RHO        TIME     CD ).
 SET MAXTM TO 0.1.
 START  TRJCTRY.
 WHEN TIME IS BETWEEN 1.01 AND 1.03, SET MAXTM TO 8.0.
 WHEN EVER HITE IS GREATER THAN 600000.0, SET POPRATE TO 1000.0.
 WHEN EVER HITE IS BETWEEN 600000.0 AND 400000.0, SET POPRATE TO 100.0.
 WHEN EVER HITE IS LESS THAN 400000.0, SET POPRATE TO 5.0.
 WHEN HITE IS LESS THAN 300100.0, PRINT.
 LOAD DATA A (  SANDIA  GLFC4  ).
 SET WT TO 40..
 SET AREA TO 0.3491.
 WHEN EVER HITE IS LESS THAN 2320000.0 AND SENTA IS EQUAL TO 1,
 SET SENTA TO 0.
 WHEN EVER HITE IS GREATER THAN 2320000.0 AND SENTA IS EQUAL TO 0,
 SET SENTA TO 1 AND PRINT.
 HOLD CONDITNS.
 SET SENTB TO INITIAL GAMMAI.
 SET SENTC TO INITIAL LAT.
 MULTIPLY SENTB BY -1.0.
 MULTIPLY SENTC BY -1.0.
 SET INITIAL GAMMAI TO SENTB.
 SET INITIAL LAT TO SENTC.
 START  TRJCTRY.
 WHEN CLOCK IS GREATER THAN 5385.0,
 SET COLUMN HEADINGS TO  ( 2          TIME          HITE          LAT
        LONG          GAMMAI          TAUI          VI     ).
 PRINT.
 END.
 STOP
1WRTLR
```

```
END
9PROGRM TTA,8600,     ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9TIME            90
9CHARGE  8666,9513,0049237
9TAPE   CONTROL,10000
9TAPE   PARAM,10222
9TAPE   METRO,10073
        21766 SPAHR9
 END
```

Part 2

Reentry Environment Output

TTA7622 3H-54 2' 66 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=NASA LM AD CR DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
32963.6	3.2000	129.40	25630.7	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
533724.69972	12.08	.00000	.0013	35980	16.9	-5.97307	-92.451	.098	1.505	.0000	6.602751-11	.000000000	3.200
395229.22754	7.726	-.18801	.0292	36098	28.8	-3.82126	-92.452	.063	7.031	145.3	1.4402277-9	45.0000000	3.200
383578.23781	7.239	-.20890	.0462	36108	30.6	-3.58051	-92.452	.059	8.846	185.0	2.2798593-9	50.0000000	3.200
372681.83691	6.751	-.22979	.0729	36117	32.2	-3.33948	-92.452	.055	11.11	234.7	3.5976883-9	55.0000000	3.200
362541.55175	6.263	-.25068	.1171	36126	33.8	-3.09821	-92.452	.050	14.07	297.4	5.7722153-9	60.0000000	3.200
353158.88086	5.775	-.27157	.1814	36134	35.0	-2.85671	-92.452	.046	17.52	376.1	8.9404739-9	65.0000000	3.200
344535.20705	5.286	-.29246	.2766	36141	35.9	-2.61500	-92.452	.040	21.62	473.7	1.3628397-8	70.0000000	3.200
336671.80177	4.797	-.31335	.4130	36147	36.8	-2.37311	-92.452	.035	26.42	593.5	2.0340802-8	75.0000000	3.200
329569.61300	4.307	-.33424	.5852	36152	37.6	-2.13105	-92.452	.028	31.44	738.1	2.8810910-8	80.0000000	3.200
323230.25341	3.818	-.35513	.8400	36156	38.1	-1.88885	-92.452	.021	37.66	910.3	4.1350559-8	85.0000000	3.200
317654.00001	3.327	-.37602	1.139	36159	38.6	-1.64654	-92.452	.013	43.83	1114.	5.6044840-8	90.0000000	3.200
312841.76174	2.837	-.39690	1.485	36160	39.1	-1.40415	-92.452	.005	50.04	1349.	7.3080164-8	95.0000000	3.200
308794.06203	2.347	-.41779	1.850	36160	39.5	-1.16172	-92.452	-.004	55.84	1614.	9.1058189-8	100.000000	3.200
305511.22754	1.856	-.43867	2.288	36159	39.9	-.919278	-92.452	-.013	62.08	1908.	1.1261328-7	105.000000	3.200
302993.37598	1.365	-.45955	2.624	36156	40.1	-.676857	-92.452	-.022	66.45	2230.	1.2914549-7	110.000000	3.200
301240.40920	.8746	-.48043	2.857	36152	40.3	-.434492	-92.452	-.029	69.32	2570.	1.4065547-7	115.000000	3.200
300252.01564	.3839	-.50130	2.988	36147	40.4	-.192211	-92.452	-.034	70.86	2921.	1.4714527-7	120.000000	3.200
300027.72217	-.1068	-.52217	3.017	36141	40.4	.049961	-92.452	-.039	71.18	3277.	1.4861798-7	125.000000	3.200
300027.72217	-.1068	-.52217	3.017	36141	40.4	.049961	-92.452	-.151	71.18	3277.	1.4861798-7	125.000000	5.702
300566.60206	-.5972	-.54303	2.941	36117	40.3	.291823	-92.452	-.152	70.18	3630.	1.4507969-7	130.000000	5.738
301866.28759	-1.087	-.56388	2.764	36092	40.2	.533182	-92.452	-.150	67.95	3976.	1.3654596-7	135.000000	5.826
303924.11231	-1.577	-.58471	2.487	36069	39.9	.774038	-92.452	-.143	64.37	4307.	1.2303428-7	140.000000	5.965
306737.61377	-2.066	-.60553	2.111	36047	39.6	1.01441	-92.452	-.131	59.24	4617.	1.0456083-7	145.000000	6.155
310304.50292	-2.555	-.62634	1.655	36027	39.2	1.25434	-92.452	-.114	52.41	4897.	8.2062060-8	150.000000	6.397
314622.79151	-3.044	-.64715	1.346	36010	38.8	1.49386	-92.452	-.104	47.22	5145.	6.6775318-8	155.000000	6.689
319690.70910	-3.532	-.66794	.9832	35994	38.2	1.73301	-92.452	-.089	40.34	5365.	4.8834904-8	160.000000	7.031
325506.67921	-4.020	-.68873	.7413	35980	37.8	1.97183	-92.452	-.081	35.01	5552.	3.6847789-8	165.000000	7.390
332069.31006	-4.507	-.70952	.5146	35968	37.2	2.21035	-92.452	-.070	29.17	5713.	2.5596848-8	170.000000	7.390
339377.34083	-4.994	-.73030	.3466	35957	36.3	2.44859	-92.452	-.063	23.93	5845.	1.7251077-8	175.000000	7.390
347429.58741	-5.480	-.75108	.2364	35948	35.4	2.68657	-92.452	-.060	19.76	5954.	1.1770205-8	180.000000	7.390
356224.83154	-5.966	-.77186	.1565	35938	34.5	2.92430	-92.452	-.059	16.08	6044.	7.7950254-9	185.000000	7.390
365761.77834	-6.452	-.79264	.1002	35928	33.1	3.16178	-92.452	-.059	12.87	6116.	4.9941067-9	190.000000	7.390
376039.06056	-6.937	-.81341	.0628	35919	31.5	3.39900	-92.451	-.061	10.19	6173.	3.1303628-9	195.000000	7.390
387055.21338	-7.422	-.83419	.0399	35909	30.0	3.63596	-92.451	-.063	8.122	6219.	1.9891842-9	200.000000	7.390
398808.657-9	-7.906	-.85497	.0247	35898	28.0	3.87264	-92.451	-.066	6.394	6255.	1.2329782-9	205.000000	7.390
411297.74562	-8.390	-.87574	.0154	35887	25.7	4.10902	-92.451	-.069	5.052	6283.	7.699435-10	210.000000	7.390
2369593.6455	-35.15	-2.1119	3.7-5	34307	13.7	17.1562	-92.414	-.237	.0000	6467.	.0000000000	507.656250	7.390

TTA7622 3B-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24594.2	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2369593.6435	35.15	-2.1119	3.7-5	34307	13.7	-17.1562	-92.414	.237	.0000	6467.	.0000000000	507.656250	7.390
399568.67822	7.936	-3.3676	.0238	35896	27.8	-3.88754	-92.451	.063	6.278	6678.	1.1889735-9	810.000000	7.390
387769.25927	7.452	-3.3884	.0387	35906	29.9	-3.65091	-92.451	.058	7.997	6714.	1.9294899-9	815.000000	7.390
376707.13869	6.968	-3.4091	.0609	35915	31.4	-3.41402	-92.451	.053	10.03	6759.	3.0373663-9	820.000000	7.390
366383.97412	6.483	-3.4299	.0971	35923	33.0	-3.17689	-92.452	.047	12.67	6815.	4.8439086-9	825.000000	7.390
356801.22705	5.997	-3.4507	.1521	35930	34.4	-2.93955	-92.452	.039	15.85	6886.	7.5797417-9	830.000000	7.390
347960.29247	5.511	-3.4715	.2294	35936	35.3	-2.70202	-92.452	.031	19.46	6974.	1.1429492-8	835.000000	7.390
339862.44630	5.025	-3.4922	.3352	35940	36.2	-2.46433	-92.452	.020	23.51	7082.	1.6697086-8	840.000000	7.390
332508.81300	4.538	-3.5130	.5038	35942	37.1	-2.22654	-92.452	.005	28.81	7212.	2.5094936-8	845.000000	7.390
325900.34668	4.051	-3.5338	.7241	35941	37.7	-1.98868	-92.452	-.013	34.53	7370.	3.6069114-8	850.000000	7.390
320037.73486	3.564	-3.5545	.9567	35938	38.1	-1.75083	-92.452	-.029	39.66	7556.	4.7665360-8	855.000000	7.055
314921.30763	3.077	-3.5753	1.319	35931	38.6	-1.51304	-92.452	-.052	46.52	7771.	6.5718571-8	860.000000	6.709
310551.00049	2.590	-3.5961	1.628	35922	39.1	-1.27540	-92.452	-.070	51.65	8017.	8.1189458-8	865.000000	6.413
306926.37158	2.103	-3.6168	2.070	35909	39.4	-1.03796	-92.452	-.094	58.18	8291.	1.0332144-7	870.000000	6.168
304046.48682	1.615	-3.6375	2.447	35892	39.7	-.800803	-92.452	-.114	63.18	8595.	1.2223077-7	875.000000	5.974
301909.96243	1.128	-3.6582	2.725	35872	39.9	-.564009	-92.452	-.129	66.58	8920.	1.3625906-7	880.000000	5.829
300515.01319	.6416	-3.6790	2.905	35851	40.0	-.327629	-92.452	-.140	68.64	9258.	1.4541842-7	885.000000	5.735
299859.41553	.1551	-3.6996	3.001	35827	40.1	-.091705	-92.452	-.148	69.67	9605.	1.5044765-7	890.000000	5.693
299940.80273	-.3311	-3.7203	2.978	35803	40.0	.143734	-92.452	-.150	69.31	9953.	1.4949379-7	895.000000	5.697
300756.65283	-.8170	-3.7410	2.861	35779	39.9	.378674	-92.452	-.150	67.84	10296	1.4383182-7	900.000000	5.751
302304.39064	-1.302	-3.7616	2.656	35755	39.7	.613112	-92.452	-.146	65.27	10629	1.3366937-7	905.000000	5.856
304581.49465	-1.788	-3.7823	2.356	35732	39.5	.847056	-92.452	-.138	61.40	10947	1.1871791-7	910.000000	6.010
307585.58106	-2.272	-3.8029	1.962	35711	39.2	1.08053	-92.452	-.125	55.97	11241	9.8993075-8	915.000000	6.213
311314.49903	-2.757	-3.8235	1.554	35692	38.8	1.31357	-92.452	-.110	49.77	11505	7.8486673-8	920.000000	6.465
315766.37257	-3.241	-3.8441	1.241	35675	38.3	1.54622	-92.452	-.099	44.44	11740	6.2727041-8	925.000000	6.766
320939.53760	-3.724	-3.8647	.9067	35661	37.8	1.77852	-92.452	-.086	37.97	11947	4.5881595-8	930.000000	7.116
326832.52150	-4.207	-3.8853	.6759	35647	37.3	2.01050	-92.451	-.077	32.77	12123	3.4225273-8	935.000000	7.390
333444.01125	-4.690	-3.9059	.4742	35636	36.7	2.24219	-92.451	-.068	27.45	12274	2.4026939-8	940.000000	7.390
340772.81251	-5.172	-3.9265	.3164	35625	35.8	2.47361	-92.451	-.062	22.42	12398	1.6043854-8	945.000000	7.390
348817.78908	-5.654	-3.9471	.2145	35615	34.9	2.70479	-92.451	-.059	18.46	12500	1.0878979-8	950.000000	7.390
357577.76515	-6.136	-3.9677	.1436	35606	34.0	2.93572	-92.451	-.058	15.11	12584	7.2897047-9	955.000000	7.390
367051.49366	-6.617	-3.9883	.0922	35597	32.6	3.16640	-92.451	-.059	12.11	12652	4.6827694-9	960.000000	7.390
377237.64943	-7.098	-4.0089	.0583	35587	31.0	3.39684	-92.451	-.061	9.629	12706	2.9635192-9	965.000000	7.390
388134.82032	-7.578	-4.0295	.0374	35577	29.6	3.62702	-92.451	-.063	7.707	12749	1.8989290-9	970.000000	7.390
399741.49269	-8.058	-4.0500	.0232	35567	27.5	3.85692	-92.450	-.066	6.073	12783	1.1789676-9	975.000000	7.390
412056.06007	-8.537	-4.0706	.0148	35556	25.4	4.08655	-92.450	-.069	4.853	12810	7.529648-10	980.000000	7.390
2392705.0237	-35.72	-5.3264	3.7-5	33943	13.6	17.0708	-92.396	-.235	.0000	12991	.0000000000	1285.46875	7.390

TTA7622 33-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24581.9	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2392705.9926	13.72	-5.3264	3.7-5	33943	13.6	-17.0708	-92.396	.235	.0000	12991	.0000000000	1285.46875	7.390
441454.46975	9.583	-6.5371	.0063	35529	21.7	-4.58786	-92.450	.076	3.163	13129	3.199042-10	1580.00000	7.390
390257.93547	7.668	-6.6194	.0340	35573	29.3	-3.67029	-92.451	.059	7.351	13226	1.7280654-9	1600.00000	7.390
379227.73437	7.188	-6.6400	.0529	35582	30.7	-3.44021	-92.451	.054	9.166	13268	2.6864994-9	1605.00000	7.390
368908.43653	6.707	-6.6606	.0834	35591	32.3	-3.20989	-92.451	.048	11.51	13319	4.2345034-9	1610.00000	7.390
359301.45168	6.226	-6.6812	.1309	35598	33.9	-2.97936	-92.451	.041	14.41	13384	6.6459078-9	1615.00000	7.390
350408.14895	5.745	-6.7018	.1964	35604	34.7	-2.74863	-92.451	.033	17.65	13464	9.9675564-9	1620.00000	7.390
342229.78126	5.263	-6.7223	.2977	35609	35.6	-2.51775	-92.451	.023	21.73	13562	1.5108480-8	1625.00000	7.390
334767.47607	4.781	-6.7429	.4437	35611	36.5	-2.28676	-92.451	.010	26.51	13682	2.2515542-8	1630.00000	7.390
328022.20070	4.299	-6.7635	.6281	35612	37.2	-2.05569	-92.451	-.006	31.53	13827	3.1872087-8	1635.00000	7.390
321994.69287	3.816	-6.7841	.8630	35609	37.6	-1.82460	-92.452	-.023	36.94	13998	4.3794498-8	1640.00000	7.187
316685.38477	3.334	-6.8046	1.172	35604	38.1	-1.59356	-92.452	-.043	43.01	14198	5.9473738-8	1645.00000	6.828
312094.35500	2.851	-6.8252	1.491	35596	38.6	-1.36264	-92.452	-.062	48.48	14427	7.5725983-8	1650.00000	6.518
308221.28956	2.368	-6.8458	1.866	35584	39.0	-1.13190	-92.452	-.083	54.17	14683	9.4819013-8	1655.00000	6.256
305065.45118	1.885	-6.8663	2.272	35569	39.3	-.901410	-92.452	-.105	59.70	14968	1.1554025-7	1660.00000	6.042
302625.68214	1.403	-6.8868	2.584	35551	39.5	-.671253	-92.452	-.121	63.60	15277	1.3155977-7	1665.00000	5.877
300900.37451	.9205	-6.9074	2.803	35530	39.6	-.441486	-92.452	-.134	66.15	15602	1.4288814-7	1670.00000	5.761
299887.53760	.4383	-6.9279	2.941	35508	39.7	-.212155	-92.452	-.143	67.66	15937	1.5011806-7	1675.00000	5.694
299584.94286	-.0436	-6.9484	3.007	35484	39.7	.016706	-92.452	-.149	68.31	16277	1.5366447-7	1680.00000	5.680
299990.17043	-.5251	-6.9688	2.910	35460	39.6	.245073	-92.452	-.149	67.11	16616	1.4891520-7	1685.00000	5.700
301100.72070	-1.006	-6.9893	2.763	35436	39.5	.472939	-92.452	-.147	65.30	16948	1.4157267-7	1690.00000	5.774
302914.09228	-1.487	-7.0098	2.527	35413	39.3	.700309	-92.452	-.142	62.37	17267	1.2966607-7	1695.00000	5.897
305427.87109	-1.968	-7.0302	2.203	35391	39.0	.927197	-92.452	-.132	58.16	17569	1.1316060-7	1700.00000	6.067
308639.80468	-2.448	-7.0506	1.790	35371	38.7	1.15363	-92.452	-.118	52.38	17846	9.2071042-8	1705.00000	6.284
312547.91066	-2.927	-7.0711	1.440	35353	38.3	1.37965	-92.452	-.105	46.94	18094	7.4120396-8	1710.00000	6.548
317150.43165	-3.407	-7.0915	1.122	35337	37.8	1.60530	-92.451	-.094	41.41	18315	5.7827472-8	1715.00000	6.859
322445.81152	-3.886	-7.1119	.8319	35323	37.3	1.83061	-92.451	-.083	35.64	18508	4.2902185-8	1720.00000	7.217
328432.67091	-4.364	-7.1323	.6018	35310	36.9	2.05562	-92.451	-.073	30.30	18673	3.1060177-8	1725.00000	7.390
335109.78956	-4.842	-7.1527	.4284	35299	36.1	2.28034	-92.451	-.066	25.56	18812	2.2124620-8	1730.00000	7.390
342476.04053	-5.320	-7.1731	.2893	35289	35.3	2.50482	-92.451	-.061	21.01	18928	1.4950382-8	1735.00000	7.390
350530.31935	-5.797	-7.1935	.1919	35279	34.4	2.72905	-92.451	-.058	17.11	19023	9.9219257-9	1740.00000	7.390
359271.49560	-6.274	-7.2139	.1287	35270	33.5	2.95305	-92.451	-.058	14.01	19101	6.6570964-9	1745.00000	7.390
368698.36621	-6.751	-7.2343	.0828	35260	32.0	3.17681	-92.450	-.058	11.24	19164	4.2852144-9	1750.00000	7.390
378809.65185	-7.227	-7.2547	.0530	35251	30.5	3.40033	-92.450	-.060	8.995	19214	2.7446965-9	1755.00000	7.390
389603.98925	-7.703	-7.2751	.0343	35241	29.1	3.62359	-92.450	-.063	7.235	19255	1.7761065-9	1760.00000	7.390
401079.91945	-8.178	-7.2954	.0217	35231	27.0	3.84660	-92.450	-.066	5.757	19287	1.1245829-9	1765.00000	7.390
2349217.5707	-35.73	-8.5636	3.6-5	33626	13.5	16.7219	-92.381	-.232	.0000	19489	.0000000000	2076.71875	7.390

TTA7622 3H-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24604.8	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2349217.5719	35.73	-8.5636	3.6-5	33626	13.5	-16.7219	-92.381	.232	.0000	19489	.0000000000	2076.71875	7.390
463911.25879	10.40	-9.7362	.0037	35175	19.6	-4.88810	-92.448	.081	2.389	19604	1.938590-10	2365.00000	7.390
397421.24269	8.029	-9.8381	.0253	35232	27.7	-3.77707	-92.450	.061	6.220	19701	1.3133100-9	2390.00000	7.390
386158.19631	7.554	-9.8585	.0398	35242	29.5	-3.55402	-92.450	.057	7.799	19736	2.0641748-9	2395.00000	7.390
375577.30029	7.078	-9.8789	.0617	35251	31.0	-3.33072	-92.450	.052	9.702	19780	3.1946398-9	2400.00000	7.390
365680.05764	6.602	-9.8993	.0969	35259	32.5	-3.10721	-92.450	.046	12.15	19834	5.0138341-9	2405.00000	7.390
356467.78417	6.126	-9.9197	.1489	35265	33.8	-2.88350	-92.451	.039	15.06	19902	7.7042826-9	2410.00000	7.390
347941.75002	5.649	-9.9401	.2212	35271	34.7	-2.65961	-92.451	.030	18.36	19985	1.1441397-8	2415.00000	7.390
340103.10890	5.171	-9.9605	.3186	35275	35.5	-2.43559	-92.451	.020	22.02	20086	1.6473804-8	2420.00000	7.390
332952.88379	4.694	-9.9809	.4755	35277	36.3	-2.21146	-92.451	.006	26.89	20208	2.4587807-8	2425.00000	7.390
326491.95019	4.216	-10.001	.6749	35277	37.0	-1.98728	-92.451	-.010	32.02	20355	3.4898923-8	2430.00000	7.390
320720.95168	3.738	-10.022	.8956	35274	37.4	-1.76310	-92.451	-.026	36.87	20527	4.6313958-8	2435.00000	7.101
315640.21192	3.260	-10.042	1.221	35269	37.9	-1.53898	-92.452	-.046	43.02	20727	6.3173650-8	2440.00000	6.757
311249.71242	2.781	-10.062	1.521	35260	38.3	-1.31499	-92.452	-.064	47.97	20955	7.8716018-8	2445.00000	6.460
307549.07717	2.303	-10.083	1.916	35248	38.7	-1.09120	-92.452	-.085	53.78	21209	9.9232759-8	2450.00000	6.210
304537.50732	1.825	-10.103	2.296	35232	38.9	-.867672	-92.452	-.106	58.80	21490	1.1900673-7	2455.00000	6.007
302213.81154	1.347	-10.123	2.587	35214	39.1	-.644485	-92.452	-.121	62.35	21794	1.3426411-7	2460.00000	5.850
300576.35108	.8690	-10.144	2.791	35194	39.3	-.421693	-92.452	-.133	64.67	22112	1.4501568-7	2465.00000	5.739
299623.16309	.3914	-10.164	2.945	35171	39.3	-.199339	-92.452	-.143	66.34	22440	1.5321653-7	2470.00000	5.682
299352.04348	-.0859	-10.184	3.003	35148	39.3	.022541	-92.452	-.149	66.88	22773	1.5639405-7	2475.00000	5.668
299760.61085	-.5629	-10.205	2.907	35124	39.3	.243926	-92.452	-.148	65.71	23105	1.5160564-7	2480.00000	5.688
300846.40529	-1.039	-10.225	2.743	35100	39.2	.464808	-92.452	-.146	63.74	23429	1.4324250-7	2485.00000	5.757
302606.98389	-1.516	-10.245	2.518	35077	39.0	.685197	-92.452	-.141	60.99	23741	1.3168254-7	2490.00000	5.876
305039.99072	-1.992	-10.265	2.210	35055	38.7	.905107	-92.452	-.132	57.07	24037	1.1570742-7	2495.00000	6.041
308143.22267	-2.467	-10.286	1.818	35035	38.4	1.12456	-92.451	-.118	51.72	24310	9.5331600-8	2500.00000	6.250
311914.71728	-2.942	-10.306	1.455	35017	38.0	1.34361	-92.451	-.105	46.23	24555	7.6361901-8	2505.00000	6.505
316352.75832	-3.417	-10.326	1.155	35001	37.5	1.56228	-92.451	-.095	41.15	24773	6.0651236-8	2510.00000	6.805
321455.81347	-3.891	-10.346	.8534	34987	37.0	1.78061	-92.451	-.083	35.36	24965	4.4860401-8	2515.00000	7.150
327222.53273	-4.365	-10.367	.6359	34974	36.6	1.99864	-92.451	-.075	30.51	25129	3.3453830-8	2520.00000	7.390
333651.71242	-4.839	-10.387	.4519	34963	35.9	2.21640	-92.451	-.066	25.72	25269	2.3789744-8	2525.00000	7.390
340742.25143	-5.312	-10.407	.3050	34952	35.1	2.43390	-92.451	-.061	21.13	25386	1.6063475-8	2530.00000	7.390
348493.10840	-5.785	-10.427	.2104	34943	34.3	2.65117	-92.450	-.058	17.55	25483	1.1087424-8	2535.00000	7.390
356903.20361	-6.258	-10.447	.1430	34934	33.4	2.86821	-92.450	-.057	14.47	25562	7.5416535-9	2540.00000	7.390
365971.39845	-6.730	-10.468	.0937	34924	32.2	3.08501	-92.450	-.058	11.71	25628	4.9435044-9	2545.00000	7.390
375696.49270	-7.202	-10.488	.0602	34915	30.6	3.30159	-92.449	-.059	9.389	25680	3.1780482-9	2550.00000	7.390
386077.20899	-7.673	-10.508	.0392	34905	29.2	3.51793	-92.449	-.061	7.579	25723	2.0709453-9	2555.00000	7.390
397112.18947	-8.143	-10.528	.0252	34895	27.5	3.73402	-92.449	-.064	6.076	25757	1.3312042-9	2560.00000	7.390
408799.98487	-8.614	-10.548	.0159	34885	25.4	3.94984	-92.448	-.067	4.834	25784	8.428006-10	2565.00000	7.390
2391766.6377	-36.52	-11.834	3.5-5	33237	13.3	16.6884	-92.358	-.230	.0000	25967	.0000000000	2884.53125	7.390

TTA7622 3B-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24582.2	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2391766.6385	3[illegible].52	-11.834	3.5-5	33237	13.3	-16.6884	-92.358	.230	.0000	25967	.0000000000	2884.53125	7.390
522395.66051	[illegible].27	-12.962	.0014	34784	16.6	-5.62561	-92.445	.093	1.443	26047	7.524753-11	3165.00000	7.390
394993.83058	8.055	-13.144	.0275	34895	27.8	-3.69366	-92.449	.060	6.349	26183	1.4538572-9	3210.00000	7.390
384081.46923	7.585	-13.164	.0424	34905	29.5	-3.47756	-92.449	.055	7.876	26219	2.2377892-9	3215.00000	7.390
373823.77393	7.113	-13.184	.0651	34913	30.9	-3.26124	-92.449	.050	9.764	26263	3.4387307-9	3220.00000	7.390
364222.05762	6.642	-13.204	.1017	34921	32.4	-3.04471	-92.450	.044	12.20	26317	5.3657953-9	3225.00000	7.390
355277.61085	6.170	-13.225	.1545	34928	33.6	-2.82798	-92.450	.037	15.03	26385	8.1488124-9	3230.00000	7.390
346991.62939	5.697	-13.245	.2285	34933	34.4	-2.61110	-92.450	.029	18.27	26468	1.2051374-8	3235.00000	7.390
339365.19824	5.224	-13.265	.3275	34937	35.2	-2.39409	-92.451	.019	21.87	26568	1.7264944-8	3240.00000	7.390
332399.27393	4.751	-13.285	.4784	34939	36.1	-2.17698	-92.451	.006	26.42	26689	2.5220029-8	3245.00000	7.390
326094.66052	4.278	-13.305	.6770	34939	36.6	-1.95983	-92.451	-.011	31.41	26833	3.5684750-8	3250.00000	7.390
320451.96290	3.804	-13.326	.8885	34936	37.0	-1.74269	-92.451	-.026	35.97	27002	4.6846017-8	3255.00000	7.083
315471.45117	3.331	-13.346	1.209	34930	37.5	-1.52561	-92.451	-.046	41.93	27196	6.3771063-8	3260.00000	6.746
311153.86551	2.857	-13.366	1.495	34921	37.9	-1.30867	-92.451	-.062	46.63	27418	7.9058084-8	3265.00000	6.454
307496.49120	2.384	-13.386	1.886	34910	38.3	-1.09192	-92.452	-.084	52.27	27665	9.9578039-8	3270.00000	6.207
304500.86967	1.910	-13.406	2.255	34895	38.6	-.875437	-92.452	-.104	57.10	27938	1.1924716-7	3275.00000	6.004
302165.12404	1.437	-13.426	2.544	34877	38.8	-.659289	-92.452	-.119	60.56	28233	1.3458380-7	3280.00000	5.846
300487.60498	.9632	-13.447	2.749	34857	38.9	-.443532	-92.452	-.130	62.86	28542	1.4559839-7	3285.00000	5.733
299466.46533	.4902	-13.467	2.924	34835	39.0	-.228209	-92.452	-.141	64.74	28861	1.5505303-7	3290.00000	5.674
299099.54493	.0175	-13.487	3.001	34812	39.0	-.013355	-92.452	-.148	65.49	29187	1.5935333-7	3295.00000	5.656
299384.53761	-.4550	-13.507	2.934	34788	38.9	.201002	-92.452	-.149	64.66	29513	1.5601322-7	3300.00000	5.670
300319.02345	-.9270	-13.527	2.755	34764	38.8	.414856	-92.452	-.145	62.57	29832	1.4670529-7	3305.00000	5.722
301900.60890	-1.399	-13.547	2.557	34741	38.6	.628217	-92.452	-.141	60.20	30139	1.3632060-7	3310.00000	5.828
304126.97803	-1.870	-13.567	2.280	34719	38.4	.841097	-92.452	-.133	56.78	30432	1.2170226-7	3315.00000	5.979
306995.93896	-2.341	-13.587	1.925	34698	38.1	1.05352	-92.451	-.121	52.11	30705	1.0286466-7	3320.00000	6.173
310505.51368	-2.812	-13.607	1.520	34680	37.7	1.26552	-92.451	-.106	46.28	30951	8.1350482-8	3325.00000	6.410
314653.96537	-3.282	-13.627	1.245	34664	37.3	1.47715	-92.451	-.098	41.84	31171	6.6664892-8	3330.00000	6.691
319439.81838	-3.752	-13.647	.9277	34649	36.8	1.68843	-92.451	-.085	36.10	31366	4.9723043-8	3335.00000	7.014
324861.65332	-4.221	-13.667	.7107	34636	36.4	1.89940	-92.451	-.078	31.59	31535	3.8123650-8	3340.00000	7.381
330918.27051	-4.691	-13.687	.5014	34624	35.9	2.11009	-92.451	-.068	26.52	31681	2.6911335-8	3345.00000	7.390
337608.58888	-5.159	-13.707	.3588	34614	35.1	2.32053	-92.450	-.062	22.43	31803	1.9270992-8	3350.00000	7.390
344931.59523	-5.628	-13.727	.2489	34604	34.3	2.53073	-92.450	-.058	18.68	31905	1.3373916-8	3355.00000	7.390
352886.26659	-6.096	-13.747	.1682	34595	33.5	2.74071	-92.450	-.057	15.36	31990	9.0419794-9	3360.00000	7.390
361471.54396	-6.563	-13.767	.1121	34586	32.6	2.95047	-92.449	-.057	12.54	32060	6.0297693-9	3365.00000	7.390
370686.32326	-7.031	-13.787	.0720	34576	31.1	3.16001	-92.449	-.057	10.05	32116	3.8754638-9	3370.00000	7.390
380529.42970	-7.498	-13.807	.0471	34567	29.7	3.36932	-92.449	-.059	8.128	32161	2.5347397-9	3375.00000	7.390
390999.60841	-7.964	-13.827	.0313	34557	28.3	3.57839	-92.448	-.062	6.626	32198	1.6851227-9	3380.00000	7.390
402095.52540	-8.430	-13.847	.0202	34547	26.3	3.78722	-92.448	-.064	5.323	32228	1.0875133-9	3385.00000	7.390
2371393.2718	-36.78	-15.150	3.4-5	32892	13.2	16.4075	-92.338	-.227	.0000	32423	.0000000000	3712.34375	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24592.9	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2371393.2718	36.78	-15.150	3.4-5	32892	13.2	-16.4075	-92.338	.227	.0000	32423	.0000000000	3712.34375	7.390
563857.65821	13.49	-16.234	8.7-4	34402	15.6	-6.05197	-92.441	.099	1.110	32488	4.738963-11	3985.00000	7.390
390327.81252	7.935	-16.474	.0320	34556	28.4	-3.56549	-92.448	.057	6.701	32651	1.7240197-9	4045.00000	7.390
379896.86036	7.469	-16.494	.0482	34565	29.7	-3.35645	-92.449	.053	8.219	32688	2.5933570-9	4050.00000	7.390
370093.19581	7.002	-16.514	.0735	34573	31.2	-3.14719	-92.449	.048	10.15	32734	3.9580271-9	4055.00000	7.390
360918.04152	6.535	-16.534	.1146	34580	32.7	-2.93774	-92.449	.042	12.67	32791	6.1633848-9	4060.00000	7.390
352372.50838	6.067	-16.554	.1717	34587	33.5	-2.72812	-92.450	.035	15.51	32861	9.2338382-9	4065.00000	7.390
344457.94287	5.599	-16.574	.2543	34591	34.3	-2.51835	-92.450	.026	18.87	32947	1.3678001-8	4070.00000	7.390
337175.10156	5.131	-16.594	.3676	34595	35.1	-2.30847	-92.450	.015	22.68	33051	1.9766034-8	4075.00000	7.390
330524.93361	4.662	-16.614	.5089	34596	35.9	-2.09852	-92.451	.002	26.67	33174	2.7360526-8	4080.00000	7.390
324508.14015	4.194	-16.634	.7221	34595	36.4	-1.88854	-92.451	-.015	31.76	33319	3.8822899-8	4085.00000	7.357
319125.20117	3.725	-16.654	.9453	34592	36.8	-1.67858	-92.451	-.029	36.31	33490	5.0836788-8	4090.00000	6.993
314376.31545	3.256	-16.674	1.258	34586	37.3	-1.46871	-92.451	-.049	41.85	33685	6.7647843-8	4095.00000	6.672
310261.33449	2.787	-16.693	1.527	34577	37.7	-1.25899	-92.451	-.064	46.09	33905	8.2214876-8	4100.00000	6.394
306779.80859	2.318	-16.713	1.936	34565	38.0	-1.04947	-92.451	-.086	51.83	34149	1.0428378-7	4105.00000	6.158
303930.90724	1.849	-16.733	2.281	34549	38.2	-.840234	-92.452	-.105	56.20	34420	1.2298966-7	4110.00000	5.966
301713.44484	1.380	-16.753	2.549	34531	38.4	-.631341	-92.452	-.119	59.33	34709	1.3754952-7	4115.00000	5.816
300125.81494	.9113	-16.773	2.739	34511	38.6	-.422843	-92.452	-.129	61.41	35012	1.4797390-7	4120.00000	5.709
299166.14454	.4430	-16.793	2.931	34489	38.6	-.214781	-92.452	-.141	63.45	35324	1.5857279-7	4125.00000	5.659
298832.33009	-.0251	-16.813	3.000	34466	38.6	-.007193	-92.452	-.148	64.09	35643	1.6248509-7	4130.00000	5.643
299122.09082	-.4928	-16.833	2.933	34442	38.5	.199896	-92.452	-.148	63.28	35962	1.5908910-7	4135.00000	5.657
300033.04039	-.9602	-16.853	2.735	34419	38.5	.406480	-92.452	-.143	61.02	36274	1.4858302-7	4140.00000	5.702
301562.86133	-1.427	-16.873	2.547	34396	38.3	.612573	-92.452	-.139	58.81	36573	1.3853825-7	4145.00000	5.806
303709.27540	-1.894	-16.893	2.285	34374	38.1	.818188	-92.451	-.132	55.63	36860	1.2444490-7	4150.00000	5.951
306470.15332	-2.360	-16.912	1.950	34354	37.8	1.02335	-92.451	-.122	51.34	37128	1.0631697-7	4155.00000	6.137
309843.53955	-2.826	-16.932	1.542	34335	37.4	1.22808	-92.451	-.106	45.61	37371	8.4167319-8	4160.00000	6.365
313827.75391	-3.292	-16.952	1.274	34319	37.0	1.43244	-92.451	-.098	41.42	37588	6.9589751-8	4165.00000	6.635
318421.26271	-3.757	-16.972	.9752	34304	36.6	1.63646	-92.451	-.087	36.23	37782	5.3328659-8	4170.00000	6.945
323622.77491	-4.222	-16.992	.7414	34291	36.1	1.84017	-92.450	-.078	31.57	37951	4.0574151-8	4175.00000	7.297
329431.03712	-4.686	-17.012	.5311	34279	35.7	2.04359	-92.450	-.069	26.71	38097	2.9085409-8	4180.00000	7.390
335845.01515	-5.151	-17.031	.3884	34268	35.0	2.24677	-92.450	-.063	22.84	38221	2.1284993-8	4185.00000	7.390
342863.72267	-5.614	-17.051	.2681	34259	34.2	2.44971	-92.449	-.058	18.98	38325	1.4701490-8	4190.00000	7.390
350486.16749	-6.078	-17.071	.1812	34249	33.4	2.65243	-92.449	-.056	15.60	38411	9.9384090-9	4195.00000	7.390
358711.42335	-6.541	-17.091	.1251	34240	32.6	2.85494	-92.449	-.056	12.96	38483	6.8662834-9	4200.00000	7.390
367538.39306	-7.004	-17.111	.0831	34231	31.3	3.05723	-92.448	-.056	10.57	38541	4.5652319-9	4205.00000	7.390
376965.99023	-7.466	-17.130	.0546	34222	29.9	3.25931	-92.448	-.058	8.567	38589	3.0013342-9	4210.00000	7.390
386993.05421	-7.928	-17.150	.0363	34213	28.6	3.46117	-92.447	-.060	6.983	38628	1.9943807-9	4215.00000	7.390
397618.34326	-8.389	-17.170	.0237	34203	26.8	3.66279	-92.447	-.063	5.641	38659	1.3018979-9	4220.00000	7.390
408840.55127	-8.850	-17.190	.0153	34192	24.9	3.86417	-92.446	-.065	4.534	38684	8.413199-10	4225.00000	7.390
2329120.5381	-36.93	-18.477	3.4-5	32560	13.0	16.0352	-92.316	-.223	.0000	38864	.0000000000	4552.34375	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24615.2	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2329120.5390	36.93	-18.477	3.4-5	32560	13.0	-16.0352	-92.316	.223	.0000	38864	.0000000000	4552.34375	7.390
570110.29784	13.85	-19.549	8.0-4	34047	15.4	-6.04782	-92.438	.099	1.043	38926	4.468224-11	4825.00000	7.390
386344.43067	7.899	-19.806	.0373	34211	28.6	-3.44876	-92.447	.055	7.076	39102	2.0486056-9	4890.00000	7.390
376354.82032	7.437	-19.826	.0562	34220	29.9	-3.24694	-92.448	.051	8.685	39141	3.0864090-9	4895.00000	7.390
366964.88820	6.975	-19.845	.0856	34227	31.4	-3.04493	-92.448	.045	10.72	39190	4.7036760-9	4900.00000	7.390
358175.76514	6.512	-19.865	.1287	34234	32.7	-2.84274	-92.449	.039	13.14	39249	7.0663517-9	4905.00000	7.390
349988.55323	6.049	-19.885	.1845	34240	33.4	-2.64039	-92.449	.032	15.73	39321	1.0127349-8	4910.00000	7.390
342404.26123	5.586	-19.905	.2733	34245	34.2	-2.43791	-92.450	.023	19.14	39408	1.4996464-8	4915.00000	7.390
335423.81005	5.122	-19.924	.3967	34247	35.0	-2.23533	-92.450	.012	23.05	39513	2.1766009-8	4920.00000	7.390
329047.98732	4.659	-19.944	.5440	34248	35.7	-2.03269	-92.450	-.001	26.98	39639	2.9843081-8	4925.00000	7.390
323277.40723	4.195	-19.964	.7520	34247	36.1	-1.83005	-92.450	-.017	31.71	39785	4.1257289-8	4930.00000	7.274
318112.46144	3.730	-19.984	.9917	34243	36.5	-1.62744	-92.451	-.033	36.39	39955	5.4421887-8	4935.00000	6.924
313553.26564	3.266	-20.004	1.285	34236	37.0	-1.42493	-92.451	-.050	41.40	40150	7.0561440-8	4940.00000	6.616
309599.61036	2.802	-20.023	1.561	34227	37.3	-1.22258	-92.451	-.066	45.59	40367	8.5768958-8	4945.00000	6.349
306250.98437	2.337	-20.043	1.960	34215	37.6	-1.02045	-92.451	-.088	51.03	40608	1.0775604-7	4950.00000	6.123
303506.53224	1.873	-20.063	2.286	34199	37.9	-.818600	-92.451	-.105	55.04	40874	1.2577611-7	4955.00000	5.937
301365.04201	1.409	-20.083	2.539	34181	38.1	-.617104	-92.452	-.118	57.93	41157	1.3983713-7	4960.00000	5.792
299824.91943	.9454	-20.102	2.736	34161	38.2	-.416006	-92.452	-.129	60.05	41452	1.5085194-7	4965.00000	5.691
298884.32568	.4818	-20.122	2.932	34140	38.2	-.215347	-92.452	-.141	62.08	41758	1.6187570-7	4970.00000	5.645
298541.19045	.0184	-20.142	3.001	34117	38.2	-.015164	-92.452	-.147	62.71	42070	1.6589725-7	4975.00000	5.629
298793.27036	-.4446	-20.161	2.943	34093	38.2	.184518	-92.452	-.148	62.01	42383	1.6294280-7	4980.00000	5.641
299638.23780	-.9072	-20.181	2.761	34069	38.1	.383693	-92.452	-.143	59.97	42688	1.5303985-7	4985.00000	5.682
301073.78371	-1.370	-20.201	2.553	34047	38.0	.582373	-92.452	-.138	57.60	42982	1.4174954-7	4990.00000	5.773
303097.69435	-1.831	-20.220	2.311	34025	37.7	.780575	-92.451	-.132	54.73	43263	1.2846054-7	4995.00000	5.909
305707.87258	-2.293	-20.240	2.000	34004	37.5	.978321	-92.451	-.123	50.86	43528	1.1132211-7	5000.00000	6.086
308902.38331	-2.754	-20.260	1.622	33985	37.1	1.17564	-92.451	-.109	45.75	43770	9.0346951-8	5005.00000	6.302
312679.53515	-3.215	-20.279	1.321	33969	36.8	1.37258	-92.451	-.099	41.26	43987	7.3654446-8	5010.00000	6.557
317037.82326	-3.676	-20.299	1.043	33954	36.3	1.56916	-92.451	-.089	36.64	44182	5.8226106-8	5015.00000	6.852
321975.91065	-4.136	-20.319	.7847	33940	35.9	1.76544	-92.450	-.079	31.77	44353	4.3831649-8	5020.00000	7.186
327492.61427	-4.596	-20.338	.5889	33928	35.5	1.96143	-92.450	-.071	27.51	44501	3.2919609-8	5025.00000	7.390
333586.87549	-5.055	-20.358	.4266	33917	34.9	2.15717	-92.450	-.064	23.41	44628	2.3863788-8	5030.00000	7.390
340257.73682	-5.514	-20.377	.2926	33907	34.1	2.35267	-92.449	-.058	19.38	44735	1.6374533-8	5035.00000	7.390
347504.26420	-5.973	-20.397	.2093	33898	33.3	2.54796	-92.449	-.056	16.40	44824	1.1722250-8	5040.00000	7.390
355325.56545	-6.432	-20.417	.1451	33889	32.6	2.74304	-92.448	-.055	13.65	44899	8.1308938-9	5045.00000	7.390
363720.66114	-6.890	-20.436	.0979	33880	31.5	2.93792	-92.448	-.055	11.21	44961	5.4868324-9	5050.00000	7.390
372688.49465	-7.347	-20.456	.0641	33871	30.2	3.13259	-92.447	-.056	9.076	45012	3.5967615-9	5055.00000	7.390
382228.01074	-7.805	-20.475	.0426	33862	28.8	3.32704	-92.447	-.058	7.402	45053	2.3927383-9	5060.00000	7.390
392338.06886	-8.262	-20.495	.0286	33852	27.5	3.52128	-92.446	-.061	6.066	45086	1.6076258-9	5065.00000	7.390
403017.46366	-8.718	-20.514	.0189	33842	25.6	3.71529	-92.445	-.063	4.911	45114	1.0538626-9	5070.00000	7.390
2358511.0010	-37.69	-21.841	3.3-5	32162	12.9	15.9108	-92.288	-.220	.0000	45303	.0000000000	5411.40625	7.390

TTA7622 3H-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21700 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24599.5	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2358511.6810	37.69	-21.841	3.3-5	32162	12.9	-15.9108	-92.288	.220	.0000	45303	.0000000000	5411.40625	7.390
387845.24609	8.062	-23.196	.0343	33855	28.2	-3.43651	-92.446	.055	6.634	45534	1.9231374-9	5760.00000	7.390
377984.70459	7.605	-23.215	.0510	33863	29.4	-3.24223	-92.447	.051	8.090	45571	2.8595291-9	5765.00000	7.390
368695.33840	7.147	-23.235	.0764	33871	30.8	-3.04775	-92.447	.046	9.904	45616	4.2859453-9	5770.00000	7.390
359978.22365	6.690	-23.255	.1140	33878	32.2	-2.85310	-92.448	.040	12.10	45671	6.3931335-9	5775.00000	7.390
351834.42043	6.232	-23.274	.1683	33884	32.9	-2.65829	-92.449	.034	14.69	45738	9.4348440-9	5780.00000	7.390
344264.90773	5.773	-23.294	.2463	33889	33.7	-2.46336	-92.449	.025	17.77	45819	1.3801929-8	5785.00000	7.390
337270.57764	5.314	-23.313	.3509	33892	34.4	-2.26832	-92.449	.015	21.20	45916	1.9657000-8	5790.00000	7.390
330852.20167	4.855	-23.333	.4818	33894	35.2	-2.07322	-92.450	.004	24.84	46031	2.6986786-8	5795.00000	7.390
325010.40870	4.396	-23.353	.6753	33893	35.6	-1.87809	-92.450	-.012	29.39	46166	3.7829412-8	5800.00000	7.390
319745.63427	3.937	-23.372	.8682	33890	36.0	-1.68299	-92.450	-.025	33.30	46323	4.8640455-8	5805.00000	7.035
315058.06642	3.477	-23.392	1.164	33885	36.4	-1.48797	-92.451	-.043	38.53	46502	6.5234445-8	5810.00000	6.718
310947.59327	3.018	-23.411	1.423	33877	36.8	-1.29308	-92.451	-.058	42.57	46705	7.9785520-8	5815.00000	6.440
307413.84963	2.558	-23.431	1.784	33866	37.2	-1.09840	-92.451	-.078	47.63	46930	1.0012066-7	5820.00000	6.201
304456.11427	2.099	-23.450	2.129	33852	37.4	-.903967	-92.451	-.096	51.96	47180	1.1954115-7	5825.00000	6.001
302073.35596	1.640	-23.470	2.405	33835	37.6	-.709863	-92.451	-.111	55.16	47448	1.3518634-7	5830.00000	5.840
300264.16847	1.180	-23.489	2.614	33816	37.8	-.516135	-92.452	-.122	57.43	47730	1.4706547-7	5835.00000	5.718
299026.86379	.7215	-23.509	2.844	33796	37.8	-.322825	-92.452	-.135	59.82	48023	1.6020516-7	5840.00000	5.652
298359.53516	.2629	-23.528	2.978	33773	37.8	-.129974	-92.452	-.144	61.13	48326	1.6802625-7	5845.00000	5.620
298260.06593	-.1955	-23.548	2.995	33750	37.8	.062383	-92.452	-.148	61.21	48632	1.6919203-7	5850.00000	5.615
298726.18897	-.6535	-23.567	2.894	33726	37.8	.254231	-92.452	-.147	60.08	48936	1.6372907-7	5855.00000	5.638
299755.61867	-1.111	-23.587	2.677	33703	37.7	.445574	-92.452	-.140	57.70	49231	1.5166415-7	5860.00000	5.688
301346.13037	-1.569	-23.606	2.467	33681	37.5	.636427	-92.451	-.135	55.32	49513	1.3996131-7	5865.00000	5.791
303495.60207	-2.026	-23.626	2.216	33659	37.3	.826812	-92.451	-.129	52.36	49783	1.2584788-7	5870.00000	5.936
306202.03321	-2.482	-23.645	1.901	33639	37.0	1.01675	-92.451	-.119	48.44	50035	1.0807745-7	5875.00000	6.119
309463.60304	-2.938	-23.665	1.522	33621	36.7	1.20627	-92.451	-.105	43.32	50265	8.6661983-8	5880.00000	6.340
313278.72315	-3.394	-23.684	1.255	33605	36.3	1.39543	-92.450	-.096	39.31	50471	7.1533320-8	5885.00000	6.598
317645.97754	-3.850	-23.703	.9832	33591	35.9	1.58425	-92.450	-.086	34.77	50657	5.6073240-8	5890.00000	6.893
322564.10157	-4.305	-23.723	.7476	33578	35.5	1.77276	-92.450	-.077	30.30	50819	4.2668207-8	5895.00000	7.225
328031.97266	-4.760	-23.742	.5577	33566	35.1	1.96101	-92.449	-.069	26.16	50960	3.1852758-8	5900.00000	7.390
334048.59376	-5.215	-23.762	.4083	33555	34.4	2.14900	-92.449	-.062	22.38	51082	2.3336506-8	5905.00000	7.390
340613.05224	-5.669	-23.781	.2824	33546	33.7	2.33678	-92.448	-.057	18.61	51184	1.6146420-8	5910.00000	7.390
347724.48244	-6.123	-23.800	.2024	33537	33.0	2.52434	-92.448	-.055	15.75	51270	1.1580882-8	5915.00000	7.390
355381.99366	-6.576	-23.820	.1417	33528	32.2	2.71170	-92.447	-.055	13.18	51342	8.1098254-9	5920.00000	7.390
363584.65967	-7.030	-23.839	.0964	33519	31.2	2.89887	-92.447	-.055	10.87	51402	5.5196632-9	5925.00000	7.390
372331.51562	-7.482	-23.859	.0636	33510	29.9	3.08583	-92.446	-.056	8.835	51451	3.6464530-9	5930.00000	7.390
381621.54941	-7.935	-23.878	.0426	33501	28.6	3.27259	-92.445	-.057	7.231	51491	2.4434388-9	5935.00000	7.390
391453.67076	-8.387	-23.897	.0289	33491	27.3	3.45914	-92.445	-.060	5.957	51524	1.6588321-9	5940.00000	7.390
401826.77345	-8.838	-23.917	.0191	33482	25.6	3.64548	-92.444	-.062	4.844	51551	1.0973228-9	5945.00000	7.390
2343794.5736	-38.17	-25.256	3.2-5	31793	12.7	15.6102	-92.258	-.217	.0000	51741	.0000000000	6294.21875	7.390

TTA7622 38-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24606.3	1.000

HITE	LAT	LONG	D	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2343794.5728	38.17	-25.256	3.2-5	31793	12.7	-15.6102	-92.258	.217	.0000	51741	.0000000000	6294.21875	7.390
398527.51174	8.697	-26.602	.0219	33483	26.1	-3.58742	-92.444	.058	5.168	51940	1.2492571-9	6645.00000	7.390
388323.31250	8.246	-26.622	.0328	33493	27.8	-3.40105	-92.445	.055	6.346	51969	1.8831711-9	6650.00000	7.390
378660.49268	7.794	-26.641	.0482	33501	29.0	-3.21449	-92.446	.051	7.691	52004	2.7654594-9	6655.00000	7.390
369540.23048	7.341	-26.660	.0712	33509	30.3	-3.02774	-92.446	.046	9.344	52046	4.0819884-9	6660.00000	7.390
360963.54492	6.888	-26.680	.1074	33516	31.7	-2.84081	-92.447	.041	11.47	52098	6.1524003-9	6665.00000	7.390
352931.44191	6.435	-26.699	.1575	33522	32.5	-2.65374	-92.448	.034	13.89	52161	9.0251065-9	6670.00000	7.390
345444.86133	5.982	-26.719	.2279	33527	33.2	-2.46654	-92.448	.027	16.70	52238	1.3044399-8	6675.00000	7.390
338504.65089	5.528	-26.738	.3188	33530	33.9	-2.27924	-92.449	.018	19.75	52329	1.8247689-8	6680.00000	7.390
332111.55227	5.074	-26.757	.4464	33532	34.6	-2.09187	-92.449	.006	23.36	52436	2.5548607-8	6685.00000	7.390
326266.19140	4.619	-26.777	.6176	33532	35.1	-1.90447	-92.450	-.008	27.47	52563	3.5345473-8	6690.00000	7.390
320969.01710	4.165	-26.796	.8006	33530	35.5	-1.71709	-92.450	-.021	31.26	52710	4.5823284-8	6695.00000	7.118
316220.25245	3.710	-26.815	1.068	33525	35.9	-1.52977	-92.450	-.038	36.07	52878	6.1120306-8	6700.00000	6.796
312019.85498	3.256	-26.835	1.327	33518	36.3	-1.34258	-92.451	-.053	40.18	53069	7.5989713-8	6705.00000	6.513
308367.53369	2.801	-26.854	1.638	33508	36.7	-1.15557	-92.451	-.070	44.60	53281	9.3858774-8	6710.00000	6.266
305262.67824	2.347	-26.873	1.992	33496	36.9	-.968800	-92.451	-.089	49.14	53515	1.1424525-7	6715.00000	6.056
302704.38769	1.892	-26.893	2.283	33480	37.2	-.782330	-92.451	-.104	52.54	53770	1.3104299-7	6720.00000	5.883
300691.41602	1.438	-26.912	2.510	33462	37.3	-.596218	-92.451	-.116	55.02	54039	1.4426016-7	6725.00000	5.747
299222.21534	.9838	-26.931	2.745	33443	37.4	-.410507	-92.452	-.129	57.46	54320	1.5791564-7	6730.00000	5.662
298295.01613	.5299	-26.951	2.930	33421	37.4	-.225240	-92.452	-.140	59.28	54612	1.6878241-7	6735.00000	5.616
297907.82614	.0763	-26.970	3.004	33398	37.4	-.040456	-92.452	-.146	59.93	54911	1.7332025-7	6740.00000	5.597
298058.48194	-.3769	-26.989	2.970	33374	37.4	.143822	-92.452	-.148	59.50	55210	1.7155459-7	6745.00000	5.605
298744.73437	-.8299	-27.009	2.826	33351	37.3	.327588	-92.452	-.145	57.96	55504	1.6351171-7	6750.00000	5.638
299964.35108	-1.282	-27.028	2.576	33328	37.3	.510851	-92.451	-.137	55.25	55787	1.4921781-7	6755.00000	5.698
301715.20655	-1.735	-27.047	2.371	33306	37.1	.693633	-92.451	-.132	52.95	56058	1.3753795-7	6760.00000	5.816
303995.27979	-2.187	-27.066	2.110	33286	36.8	.875958	-92.451	-.125	49.89	56315	1.2256699-7	6765.00000	5.970
306802.67579	-2.638	-27.085	1.791	33266	36.5	1.05785	-92.451	-.114	45.91	56555	1.0413363-7	6770.00000	6.160
310135.68263	-3.089	-27.105	1.420	33249	36.2	1.23934	-92.451	-.100	40.85	56772	8.2659684-8	6775.00000	6.385
313992.83008	-3.540	-27.124	1.184	33234	35.8	1.42047	-92.450	-.093	37.28	56967	6.9005382-8	6780.00000	6.646
318372.78371	-3.991	-27.143	.9175	33220	35.4	1.60129	-92.450	-.082	32.79	57143	5.3500346-8	6785.00000	6.942
323274.35986	-4.441	-27.162	.7071	33207	35.0	1.78181	-92.449	-.075	28.78	57296	4.1263316-8	6790.00000	7.273
328696.49658	-4.891	-27.181	.5230	33196	34.6	1.96207	-92.449	-.067	24.74	57430	3.0538330-8	6795.00000	7.390
334638.26027	-5.340	-27.201	.3879	33185	34.0	2.14209	-92.448	-.061	21.30	57545	2.2663107-8	6800.00000	7.390
341098.78857	-5.790	-27.220	.2708	33176	33.3	2.32189	-92.448	-.056	17.80	57643	1.5834578-8	6805.00000	7.390
348077.25489	-6.238	-27.239	.1941	33167	32.6	2.50150	-92.447	-.054	15.07	57725	1.1354402-8	6810.00000	7.390
355572.81298	-6.687	-27.258	.1374	33158	31.9	2.68091	-92.447	-.054	12.67	57794	8.0385543-9	6815.00000	7.390
363584.58935	-7.135	-27.277	.0943	33150	30.9	2.86013	-92.446	-.054	10.50	57852	5.5196801-9	6820.00000	7.390
372111.66945	-7.583	-27.296	.0628	33141	29.6	3.03916	-92.445	-.055	8.567	57899	3.6770556-9	6825.00000	7.390
381153.09961	-8.031	-27.316	.0424	33132	28.4	3.21799	-92.444	-.056	7.038	57938	2.4826009-9	6830.00000	7.390
390707.86914	-8.478	-27.335	.0290	33122	27.2	3.39662	-92.443	-.059	5.827	57970	1.7020144-9	6835.00000	7.390
400774.91261	-8.924	-27.354	.0194	33113	25.5	3.57504	-92.443	-.061	4.759	57997	1.1357157-9	6840.00000	7.390
2323143.5142	-38.61	-28.706	3.1-5	31421	12.6	15.2717	-92.227	-.212	.0000	58188	.0000000000	7197.03125	7.390

TTA7622 3H-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL2170o SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0,0000=LAT 0,0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7,3900	.34910	24618.1	1,000

HITE	LAT	LONG	J	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2323143.5142	38.61	-28.706	3.1-5	31421	12.6	-15.2717	-92.227	.212	.0000	58188	.0000000000	7197.03125	7.390
431826.52245	10.18	-30.003	.0070	33083	21.2	-4.07576	-92.440	.067	2.862	58327	4.112626-10	7540.00000	7.390
388878.62500	8.394	-30.080	.0313	33122	27.4	-3.36333	-92.444	.054	6.052	58411	1.8367470-9	7560.00000	7.390
379420.03615	7.947	-30.099	.0454	33131	28.6	-3.18471	-92.444	.050	7.283	58445	2.6597310-9	7565.00000	7.390
370475.08399	7.499	-30.118	.0665	33139	29.8	-3.00591	-92.445	.046	8.826	58485	3.9048683-9	7570.00000	7.390
362044.72949	7.052	-30.137	.1005	33146	31.1	-2.82695	-92.446	.041	10.84	58534	5.8914023-9	7575.00000	7.390
354129.93116	6.603	-30.157	.1465	33152	32.0	-2.64784	-92.447	.035	13.08	58594	8.5774707-9	7580.00000	7.390
346731.57421	6.155	-30.176	.2087	33157	32.7	-2.46860	-92.447	.028	15.61	58665	1.2218329-8	7585.00000	7.390
339850.46876	5.706	-30.195	.2855	33161	33.4	-2.28927	-92.448	.020	18.25	58750	1.6710765-8	7590.00000	7.390
333487.32910	5.257	-30.214	.4098	33163	34.1	-2.10986	-92.449	.009	21.86	58850	2.3977470-8	7595.00000	7.390
327642.76661	4.808	-30.233	.5575	33164	34.7	-1.93042	-92.449	-.004	25.49	58968	3.2622608-8	7600.00000	7.390
322317.25440	4.358	-30.252	.7375	33162	35.0	-1.75099	-92.449	-.017	29.30	59105	4.3156471-8	7605.00000	7.209
317511.03908	3.909	-30.272	.9662	33158	35.4	-1.57162	-92.450	-.032	33.52	59262	5.6550922-8	7610.00000	6.884
313224.15187	3.459	-30.291	1.225	33152	35.8	-1.39235	-92.450	-.047	37.71	59440	7.1726502-8	7615.00000	6.594
309456.35889	3.010	-30.310	1.480	33143	36.2	-1.21325	-92.451	-.061	41.42	59638	8.6709548-8	7620.00000	6.339
306207.16747	2.560	-30.329	1.843	33132	36.5	-1.03436	-92.451	-.081	46.17	59857	1.0804374-7	7625.00000	6.120
303475.80616	2.111	-30.348	2.147	33117	36.7	-.855749	-92.451	-.097	49.78	60097	1.2597786-7	7630.00000	5.935
301261.20167	1.661	-30.367	2.393	33101	36.9	-.677475	-92.451	-.109	52.48	60353	1.4051895-7	7635.00000	5.785
299561.94970	1.212	-30.386	2.618	33082	37.0	-.499584	-92.451	-.121	54.83	60621	1.5393395-7	7640.00000	5.679
298376.42578	.7631	-30.405	2.851	33062	37.0	-.322118	-92.452	-.134	57.13	60901	1.6782829-7	7645.00000	5.620
297702.78368	.3144	-30.425	2.981	33039	37.0	-.145120	-92.452	-.143	58.33	61190	1.7572338-7	7650.00000	5.587
297538.98439	-.1340	-30.444	3.009	33016	37.0	.031380	-92.452	-.147	58.52	61483	1.7764310-7	7655.00000	5.579
297882.84277	-.5621	-30.463	2.937	32992	37.0	.207365	-92.452	-.147	57.72	61774	1.7361308-7	7660.00000	5.596
298732.15334	-1.030	-30.482	2.764	32969	36.9	.382836	-92.451	-.142	55.92	62058	1.6365916-7	7665.00000	5.638
300084.75392	-1.477	-30.501	2.501	32947	36.8	.557808	-92.451	-.134	53.11	62331	1.4824351-7	7670.00000	5.706
301938.60255	-1.924	-30.520	2.292	32925	36.6	.732307	-92.451	-.129	50.79	62591	1.3607114-7	7675.00000	5.831
304291.76514	-2.371	-30.539	2.030	32905	36.4	.906355	-92.451	-.121	47.74	62838	1.2062027-7	7680.00000	5.990
307142.44482	-2.817	-30.558	1.713	32887	36.1	1.07998	-92.450	-.111	43.81	63067	1.0190271-7	7685.00000	6.183
310489.02150	-3.263	-30.577	1.367	32870	35.8	1.25321	-92.450	-.098	39.10	63274	8.1408864-8	7690.00000	6.409
314330.10060	-3.709	-30.596	1.138	32855	35.4	1.42610	-92.450	-.090	35.65	63461	6.7811444-8	7695.00000	6.669
318664.41943	-4.154	-30.615	.8794	32841	35.0	1.59868	-92.449	-.080	31.32	63628	5.2467955-8	7700.00000	6.962
323490.85598	-4.600	-30.634	.6839	32829	34.6	1.77097	-92.449	-.073	27.61	63776	4.0835087-8	7705.00000	7.288
328808.40529	-5.044	-30.653	.5074	32817	34.2	1.94301	-92.448	-.065	23.77	63904	3.0316974-8	7710.00000	7.390
334616.17873	-5.489	-30.672	.3795	32807	33.6	2.11482	-92.448	-.060	20.56	64015	2.2688324-8	7715.00000	7.390
340913.35791	-5.933	-30.691	.2667	32798	32.9	2.28641	-92.447	-.056	17.23	64109	1.5953624-8	7720.00000	7.390
347699.15966	-6.377	-30.709	.1938	32789	32.2	2.45782	-92.446	-.054	14.69	64189	1.1597139-8	7725.00000	7.390
354972.76466	-6.820	-30.728	.1380	32781	31.6	2.62903	-92.445	-.053	12.39	64256	8.2626649-9	7730.00000	7.390
362733.40723	-7.263	-30.747	.0956	32772	30.7	2.80006	-92.445	-.053	10.31	64313	5.7251555-9	7735.00000	7.390
370980.17823	-7.706	-30.766	.0640	32763	29.4	2.97091	-92.444	-.054	8.438	64360	3.8345592-9	7740.00000	7.390
379712.20019	-8.149	-30.785	.0437	32755	28.2	3.14157	-92.443	-.055	6.972	64398	2.6190617-9	7745.00000	7.390
388928.53760	-8.591	-30.804	.0305	32746	27.1	3.31204	-92.442	-.057	5.831	64430	1.8325743-9	7750.00000	7.390
398628.19336	-9.032	-30.823	.0207	32736	25.5	3.48231	-92.441	-.059	4.802	64456	1.2434276-9	7755.00000	7.390
408810.12304	-9.473	-30.842	.0140	32726	23.8	3.65238	-92.440	-.062	3.952	64478	8.424305-10	7760.00000	7.390
2331047.4507	-39.43	-32.203	3.1-5	31014	12.4	15.0114	-92.186	-.209	.0000	64651	.0000000000	8124.84375	7.390

TTA7622 3H-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24613.7	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2331047.4507	39.43	-32.203	3.1-5	31014	12.4	-15.0114	-92.186	.209	.0000	64651	.0000000000	8124.84375	7.390
479135.25783	12.08	-33.452	.0024	32660	17.3	-4.65754	-92.432	.077	1.632	64749	1.440164-10	8460.00000	7.390
388337.88281	8.563	-33.604	.0314	32744	27.2	-3.30159	-92.442	.053	5.908	64875	1.8819530-9	8500.00000	7.390
379151.75539	8.121	-33.623	.0450	32752	28.3	-3.13116	-92.443	.049	7.074	64907	2.6970757-9	8505.00000	7.390
370450.09474	7.679	-33.642	.0652	32760	29.5	-2.96056	-92.444	.045	8.516	64946	3.9083468-9	8510.00000	7.390
362233.79638	7.236	-33.660	.0976	32767	30.7	-2.78981	-92.445	.040	10.42	64993	5.8457616-9	8515.00000	7.390
354503.75880	6.793	-33.679	.1409	32773	31.6	-2.61891	-92.445	.035	12.51	65051	8.4378461-9	8520.00000	7.390
347260.81445	6.349	-33.698	.1983	32778	32.3	-2.44789	-92.446	.028	14.85	65119	1.1878557-8	8525.00000	7.390
340505.72462	5.906	-33.717	.2708	32782	32.9	-2.27678	-92.447	.021	17.34	65199	1.6215325-8	8530.00000	7.390
334239.16212	5.462	-33.736	.3862	32785	33.6	-2.10559	-92.448	.010	20.70	65294	2.3118877-8	8535.00000	7.390
328461.71437	5.018	-33.755	.5179	32786	34.2	-1.93438	-92.448	-.001	23.97	65406	3.1002729-8	8540.00000	7.390
323173.83156	4.574	-33.774	.6926	32784	34.6	-1.76316	-92.449	-.014	27.70	65535	4.1462161-8	8545.00000	7.267
318375.77736	4.129	-33.793	.8933	32781	34.9	-1.59200	-92.449	-.027	31.45	65683	5.3489748-8	8550.00000	6.942
314067.60451	3.685	-33.812	1.148	32776	35.3	-1.42093	-92.450	-.043	35.62	65850	6.8740680-8	8555.00000	6.651
310249.12794	3.240	-33.831	1.373	32768	35.7	-1.25002	-92.450	-.056	38.92	66037	8.2258087-8	8560.00000	6.393
306919.93262	2.796	-33.850	1.724	32757	36.0	-1.07931	-92.451	-.075	43.57	66242	1.0336372-7	8565.00000	6.168
304079.33154	2.351	-33.869	2.033	32744	36.2	-.908853	-92.451	-.091	47.27	66470	1.2201511-7	8570.00000	5.976
301726.38234	1.907	-33.888	2.288	32728	36.4	-.738720	-92.451	-.104	50.09	66714	1.3746457-7	8575.00000	5.817
299859.80226	1.463	-33.907	2.502	32711	36.6	-.568952	-92.451	-.115	52.31	66970	1.5044312-7	8580.00000	5.693
298478.09180	1.019	-33.925	2.768	32691	36.6	-.399594	-92.451	-.129	54.94	67238	1.6663676-7	8585.00000	5.625
297579.53615	.5754	-33.944	2.939	32669	36.6	-.230688	-92.451	-.139	56.53	67517	1.7716784-7	8590.00000	5.581
297162.21828	.1320	-33.963	3.015	32647	36.6	-.062273	-92.452	-.145	57.17	67802	1.8205880-7	8595.00000	5.561
297224.04296	-.3111	-33.982	2.999	32623	36.6	.105629	-92.452	-.147	56.93	68087	1.8133422-7	8600.00000	5.564
297762.85009	-.7538	-34.001	2.890	32599	36.5	.273011	-92.451	-.146	55.81	68370	1.7501940-7	8605.00000	5.590
298776.47900	-1.196	-34.020	2.690	32576	36.5	.439880	-92.451	-.140	53.76	68644	1.6313967-7	8610.00000	5.640
300262.84424	-1.638	-34.038	2.422	32554	36.4	.606255	-92.451	-.131	50.95	68906	1.4707416-7	8615.00000	5.718
302219.99855	-2.080	-34.057	2.208	32534	36.2	.772164	-92.451	-.126	48.58	69155	1.3422349-7	8620.00000	5.850
304646.10157	-2.521	-34.076	1.943	32514	35.9	.937632	-92.451	-.118	45.53	69390	1.1829370-7	8625.00000	6.014
307539.45119	-2.962	-34.095	1.630	32496	35.6	1.10269	-92.450	-.107	41.65	69608	9.9295964-8	8630.00000	6.210
310898.52590	-3.403	-34.114	1.311	32480	35.3	1.26736	-92.450	-.095	37.32	69806	7.9959218-8	8635.00000	6.437
314722.00780	-3.844	-34.132	1.088	32465	34.9	1.43170	-92.449	-.088	33.98	69984	6.6424092-8	8640.00000	6.695
319008.70508	-4.284	-34.151	.8387	32452	34.5	1.59574	-92.449	-.078	29.82	70144	5.1249184-8	8645.00000	6.985
323757.55958	-4.723	-34.170	.6592	32440	34.2	1.75950	-92.448	-.072	26.42	70284	4.0307547-8	8650.00000	7.306
328967.62306	-5.163	-34.188	.4903	32429	33.8	1.92302	-92.448	-.064	22.78	70407	3.0002042-8	8655.00000	7.390
334638.05567	-5.602	-34.207	.3702	32419	33.2	2.08631	-92.447	-.059	19.79	70513	2.2663340-8	8660.00000	7.390
340768.08058	-6.041	-34.226	.2619	32410	32.5	2.24940	-92.446	-.055	16.64	70604	1.6046892-8	8665.00000	7.390
347356.95851	-6.480	-34.245	.1928	32401	31.9	2.41230	-92.445	-.053	14.28	70681	1.1816833-8	8670.00000	7.390
354403.93848	-6.918	-34.263	.1382	32393	31.2	2.57502	-92.444	-.052	12.09	70747	8.4751290-9	8675.00000	7.390
361908.24414	-7.356	-34.282	.0966	32384	30.4	2.73756	-92.443	-.052	10.10	70803	5.9243499-9	8680.00000	7.390
369869.08057	-7.793	-34.301	.0652	32376	29.2	2.89993	-92.442	-.053	8.303	70848	4.0026040-9	8685.00000	7.390
378285.61622	-8.231	-34.320	.0459	32367	28.1	3.06212	-92.441	-.054	6.965	70886	2.8176422-9	8690.00000	7.390
387156.97804	-8.667	-34.338	.0322	32358	27.0	3.22413	-92.440	-.056	5.839	70918	1.9806766-9	8695.00000	7.390
396482.24221	-9.104	-34.357	.0222	32349	25.6	3.38595	-92.439	-.058	4.851	70945	1.3676782-9	8700.00000	7.390
406260.44434	-9.540	-34.376	.0152	32340	23.9	3.54757	-92.438	-.060	4.011	70967	9.354938-10	8705.00000	7.390
2337998.0362	-40.28	-35.768	3.0-5	30597	12.3	14.7207	-92.140	-.205	.0000	71144	.0000000000	9083.90625	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21700 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24609.9	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2337998.0362	40.28	-35.768	3.0-5	30597	12.3	-14.7207	-92.140	.205	.0000	71144	.0000000000	9083.90625	7.390
551847.91944	14.55	-36.944	8.7-4	32201	14.8	-5.39977	-92.419	.089	.9600	71209	5.388603-11	9405.00000	7.390
392347.41506	8.913	-37.187	.0261	32352	26.3	-3.31536	-92.440	.054	5.258	71353	1.6070847-9	9470.00000	7.390
383220.56154	8.477	-37.206	.0376	32360	27.5	-3.15351	-92.441	.050	6.304	71382	2.3097611-9	9475.00000	7.390
374548.10010	8.040	-37.224	.0543	32368	28.6	-2.99148	-92.442	.046	7.579	71417	3.3379045-9	9480.00000	7.390
366330.89356	7.602	-37.243	.0791	32375	29.7	-2.82930	-92.443	.042	9.143	71459	4.8567223-9	9485.00000	7.390
358569.79445	7.165	-37.262	.1128	32381	30.9	-2.66698	-92.444	.037	10.91	71509	6.9191818-9	9490.00000	7.390
351265.61427	6.727	-37.281	.1573	32387	31.5	-2.50453	-92.445	.032	12.89	71568	9.6472931-9	9495.00000	7.390
344419.09618	6.288	-37.299	.2234	32392	32.2	-2.34198	-92.446	.025	15.36	71639	1.3702940-8	9500.00000	7.390
338030.91701	5.850	-37.318	.3064	32395	32.8	-2.17935	-92.446	.017	17.98	71722	1.8788693-8	9505.00000	7.390
332101.67969	5.411	-37.337	.4169	32397	33.5	-2.01667	-92.447	.007	20.97	71819	2.5559882-8	9510.00000	7.390
326631.87306	4.972	-37.355	.5647	32397	33.9	-1.85397	-92.448	-.005	24.39	71932	3.4622155-8	9515.00000	7.390
321621.85449	4.533	-37.374	.7263	32395	34.3	-1.69129	-92.448	-.017	27.65	72062	4.4531972-8	9520.00000	7.162
317071.79933	4.094	-37.393	.9474	32392	34.6	-1.52868	-92.449	-.031	31.56	72210	5.8105830-8	9525.00000	6.854
312981.67727	3.655	-37.412	1.183	32385	35.0	-1.36618	-92.450	-.045	35.24	72377	7.2584863-8	9530.00000	6.578
309351.25099	3.216	-37.430	1.424	32377	35.3	-1.20384	-92.450	-.058	38.63	72562	8.7399686-8	9535.00000	6.332
306180.03173	2.776	-37.449	1.762	32366	35.6	-1.04173	-92.450	-.077	42.93	72766	1.0822191-7	9540.00000	6.118
303467.31006	2.337	-37.468	2.050	32353	35.8	-.879878	-92.451	-.091	46.26	72989	1.2603364-7	9545.00000	5.934
301212.09670	1.898	-37.486	2.289	32337	36.0	-.718358	-92.451	-.103	48.82	73227	1.4084137-7	9550.00000	5.782
299413.11574	1.460	-37.505	2.527	32320	36.2	-.557209	-92.451	-.116	51.23	73477	1.5567828-7	9555.00000	5.671
298068.88769	1.021	-37.524	2.779	32300	36.2	-.396475	-92.451	-.129	53.65	73739	1.7143264-7	9560.00000	5.605
297177.71874	.5825	-37.542	2.945	32278	36.2	-.236201	-92.451	-.139	55.14	74012	1.8187714-7	9565.00000	5.562
296737.72072	.1444	-37.561	3.024	32255	36.2	-.076422	-92.451	-.145	55.79	74289	1.8703391-7	9570.00000	5.540
296746.84230	-.2933	-37.580	3.018	32232	36.2	.082840	-92.451	-.147	55.65	74568	1.8692701-7	9575.00000	5.541
297202.96192	-.7308	-37.598	2.927	32208	36.1	.241578	-92.451	-.146	54.72	74845	1.8158129-7	9580.00000	5.563
298103.95900	-1.168	-37.617	2.753	32185	36.1	.399796	-92.451	-.141	52.99	75114	1.7102160-7	9585.00000	5.607
299447.76708	-1.605	-37.635	2.496	32163	36.0	.557511	-92.451	-.133	50.38	75373	1.5527217-7	9590.00000	5.673
301232.45119	-2.041	-37.654	2.259	32142	35.8	.714751	-92.451	-.126	47.87	75619	1.4070773-7	9595.00000	5.783
303456.19434	-2.477	-37.672	2.022	32122	35.6	.871544	-92.450	-.119	45.24	75851	1.2610663-7	9600.00000	5.934
306117.30617	-2.913	-37.691	1.740	32104	35.3	1.02791	-92.450	-.110	41.92	76070	1.0863377-7	9605.00000	6.114
309214.24561	-3.348	-37.709	1.413	32087	35.0	1.18390	-92.450	-.098	37.74	76269	8.8299263-8	9610.00000	6.323
312745.67529	-3.784	-37.728	1.174	32072	34.7	1.33953	-92.449	-.090	34.37	76449	7.3420309-8	9615.00000	6.562
316710.39600	-4.218	-37.747	.9485	32058	34.3	1.49485	-92.448	-.082	30.88	76612	5.9385198-8	9620.00000	6.830
321107.33549	-4.653	-37.765	.7269	32046	33.9	1.64989	-92.448	-.073	27.02	76757	4.5549694-8	9625.00000	7.127
325935.53420	-5.087	-37.784	.5741	32034	33.6	1.80467	-92.447	-.067	24.00	76884	3.5999513-8	9630.00000	7.390
331194.14746	-5.521	-37.802	.4239	32024	33.2	1.95922	-92.446	-.060	20.62	76996	2.6596284-8	9635.00000	7.390
336882.40431	-5.955	-37.821	.3202	32015	32.6	2.11357	-92.445	-.056	17.92	77092	2.0100294-8	9640.00000	7.390
342999.59035	-6.388	-37.839	.2325	32006	31.9	2.26772	-92.444	-.053	15.27	77175	1.4614263-8	9645.00000	7.390
349545.00244	-6.821	-37.858	.1657	31996	31.3	2.42170	-92.444	-.051	12.89	77245	1.0412108-8	9650.00000	7.390
356517.93698	-7.254	-37.876	.1222	31989	30.7	2.57550	-92.442	-.051	11.07	77305	7.6855498-9	9655.00000	7.390
363917.66846	-7.686	-37.894	.0865	31981	29.7	2.72914	-92.441	-.051	9.308	77356	5.4392748-9	9660.00000	7.390
371743.43361	-8.118	-37.913	.0592	31973	28.6	2.88260	-92.440	-.052	7.705	77398	3.7283140-9	9665.00000	7.390
379994.45217	-8.550	-37.931	.0410	31964	27.5	3.03590	-92.439	-.053	6.407	77434	2.5797723-9	9670.00000	7.390
388669.89992	-8.982	-37.950	.0294	31955	26.5	3.18902	-92.438	-.055	5.431	77463	1.8541964-9	9675.00000	7.390
397768.91354	-9.413	-37.968	.0205	31946	25.0	3.34196	-92.436	-.057	4.535	77488	1.2931798-9	9680.00000	7.390
407290.59278	-9.843	-37.987	.0142	31937	23.5	3.49472	-92.435	-.059	3.778	77509	8.978934-10	9685.00000	7.390
2357867.6657	-41.42	-39.412	2.9-5	30155	12.1	14.4367	-92.080	-.200	.0000	77682	.0000000000	10079.5312	7.390

TTA7622 3H-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24599.1	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2357867.6657	41.42	-39.412	2.9-5	30155	12.1	-14.4387	-92.080	.200	.0000	77682	.0000000000	10079.5312	7.390
396018.00098	9.332	-40.859	.0221	31947	25.3	-3.31353	-92.437	.054	4.708	77881	1.3945577-9	10480.0000	7.390
386998.10547	8.901	-40.878	.0316	31955	26.7	-3.16059	-92.438	.051	5.631	77907	1.9939584-9	10485.0000	7.390
378402.01612	8.469	-40.896	.0445	31963	27.7	-3.00749	-92.439	.047	6.675	77937	2.8014394-9	10490.0000	7.390
370230.53906	8.038	-40.914	.0626	31970	28.8	-2.85424	-92.440	.044	7.916	77974	3.9389090-9	10495.0000	7.390
362484.49611	7.606	-40.933	.0919	31977	30.0	-2.70085	-92.442	.039	9.595	78017	5.7852426-9	10500.0000	7.390
355164.65918	7.173	-40.951	.1302	31983	30.8	-2.54733	-92.443	.034	11.42	78070	8.1909998-9	10505.0000	7.390
348271.75343	6.740	-40.970	.1786	31988	31.4	-2.39370	-92.444	.029	13.37	78132	1.1229534-8	10510.0000	7.390
341806.44387	6.308	-40.988	.2446	31992	32.0	-2.23998	-92.445	.022	15.64	78204	1.5380263-8	10515.0000	7.390
335769.32520	5.874	-41.007	.3400	31995	32.7	-2.08620	-92.446	.013	18.44	78289	2.1371431-8	10520.0000	7.390
330160.90869	5.441	-41.025	.4419	31996	33.3	-1.93238	-92.446	.004	21.01	78388	2.7776242-8	10525.0000	7.390
324981.61328	5.007	-41.044	.6028	31996	33.6	-1.77856	-92.447	-.009	24.53	78501	3.7886369-8	10530.0000	7.389
320231.70118	4.574	-41.062	.7521	31994	33.9	-1.62477	-92.448	-.019	27.39	78631	4.7281695-8	10535.0000	7.068
315911.26272	4.140	-41.081	.9894	31990	34.3	-1.47107	-92.449	-.034	31.39	78778	6.2214059-8	10540.0000	6.776
312020.24611	3.706	-41.099	1.209	31983	34.7	-1.31749	-92.449	-.047	34.66	78943	7.5988329-8	10545.0000	6.513
308558.31835	3.272	-41.118	1.471	31975	35.0	-1.16409	-92.450	-.061	38.22	79125	9.2606082-8	10550.0000	6.279
305524.96877	2.839	-41.136	1.787	31963	35.2	-1.01092	-92.450	-.078	42.08	79326	1.1252306-7	10555.0000	6.073
302919.45801	2.405	-41.155	2.056	31950	35.5	-.858025	-92.450	-.091	45.10	79544	1.2963084-7	10560.0000	5.897
300740.77052	1.972	-41.173	2.281	31934	35.6	-.705465	-92.451	-.103	47.44	79776	1.4393610-7	10565.0000	5.750
298987.65284	1.538	-41.192	2.543	31917	35.7	-.553280	-92.451	-.116	50.03	80019	1.6066471-7	10570.0000	5.650
297658.65090	1.105	-41.210	2.787	31897	35.8	-.401515	-92.451	-.129	52.29	80275	1.7624061-7	10575.0000	5.585
296752.10791	.6721	-41.228	2.951	31875	35.8	-.250215	-92.451	-.138	53.72	80541	1.8686530-7	10580.0000	5.541
296266.16748	.2395	-41.247	3.036	31853	35.8	-.099413	-92.451	-.145	54.41	80811	1.9256052-7	10585.0000	5.517
296198.82520	-.1928	-41.265	3.044	31829	35.7	.050867	-92.451	-.147	54.39	81084	1.9334977-7	10590.0000	5.514
296548.00781	-.6248	-41.284	2.975	31805	35.7	.200618	-92.451	-.147	53.69	81354	1.8925735-7	10595.0000	5.531
297311.62355	-1.056	-41.302	2.830	31782	35.6	.349841	-92.451	-.143	52.29	81619	1.8030777-7	10600.0000	5.568
298487.62988	-1.488	-41.320	2.610	31759	35.6	.498549	-92.451	-.137	50.14	81876	1.6652498-7	10605.0000	5.626
300074.08154	-1.919	-41.339	2.322	31738	35.5	.646769	-92.451	-.126	47.23	82119	1.4831358-7	10610.0000	5.705
302069.18067	-2.349	-41.357	2.114	31718	35.3	.794532	-92.450	-.121	45.01	82350	1.3521376-7	10615.0000	5.840
304471.24171	-2.780	-41.375	1.865	31699	35.0	.941866	-92.450	-.114	42.23	82568	1.1944183-7	10620.0000	6.002
307278.71044	-3.210	-41.393	1.576	31682	34.8	1.08880	-92.449	-.103	38.78	82771	1.0100799-7	10625.0000	6.192
310490.18556	-3.639	-41.412	1.269	31666	34.5	1.23536	-92.449	-.092	34.77	82955	8.1404743-8	10630.0000	6.409
314104.46632	-4.069	-41.430	1.068	31652	34.1	1.38160	-92.448	-.085	31.88	83121	6.8610189-8	10635.0000	6.653
318120.45557	-4.498	-41.448	.8462	31639	33.7	1.52754	-92.448	-.077	28.36	83272	5.4393587-8	10640.0000	6.925
322537.17139	-4.927	-41.467	.6641	31627	33.4	1.67321	-92.447	-.070	25.11	83406	4.2721475-8	10645.0000	7.224
327353.73976	-5.355	-41.485	.5156	31616	33.1	1.81865	-92.446	-.064	22.12	83523	3.3194303-8	10650.0000	7.390
332569.37941	-5.784	-41.503	.3885	31606	32.6	1.96386	-92.445	-.058	19.19	83627	2.5025769-8	10655.0000	7.390
338183.38185	-6.211	-41.521	.2888	31597	32.0	2.10888	-92.444	-.054	16.55	83716	1.8614578-8	10660.0000	7.390
344195.08741	-6.639	-41.540	.2147	31589	31.4	2.25372	-92.443	-.052	14.26	83793	1.3846754-8	10665.0000	7.390
350603.83399	-7.067	-41.558	.1534	31581	30.8	2.39839	-92.442	-.050	12.05	83859	9.8944680-9	10670.0000	7.390
357408.96192	-7.494	-41.576	.1139	31573	30.2	2.54290	-92.441	-.050	10.39	83914	7.3527527-9	10675.0000	7.390
364609.79052	-7.920	-41.594	.0816	31565	29.3	2.68724	-92.439	-.050	8.794	83962	5.2721966-9	10680.0000	7.390
372205.61230	-8.347	-41.613	.0567	31556	28.2	2.83142	-92.438	-.051	7.329	84003	3.6639788-9	10685.0000	7.390
380195.70070	-8.773	-41.631	.0396	31548	27.1	2.97544	-92.437	-.052	6.128	84036	2.5626394-9	10690.0000	7.390
388579.29004	-9.199	-41.649	.0288	31540	26.1	3.11930	-92.435	-.054	5.222	84064	1.8617714-9	10695.0000	7.390
397355.57959	-9.624	-41.667	.0203	31531	24.8	3.26298	-92.434	-.056	4.391	84088	1.3171119-9	10700.0000	7.390
406523.73584	-10.05	-41.685	.0143	31521	23.3	3.40649	-92.432	-.058	3.681	84109	9.258836-10	10705.0000	7.390
2344347.4638	-42.35	-43.135	2.8-5	29725	11.9	14.0113	-92.019	-.195	.0000	84283	.0000000000	11113.5938	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24606.1	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2344347.4638	42.35	-43.135	2.8-5	29725	11.9	-14.0113	-92.019	.195	.0000	84283	.0000000000	11113.5938	7.390
441026.95363	11.51	-44.522	.0050	31487	19.3	-3.89842	-92.426	.064	2.172	84408	3.229011-10	11505.0000	7.390
392381.95263	9.385	-44.613	.0248	31534	25.6	-3.18235	-92.435	.051	4.847	84490	1.6050849-9	11530.0000	7.390
383826.44482	8.960	-44.631	.0349	31542	26.7	-3.03862	-92.436	.048	5.752	84517	2.2591092-9	11535.0000	7.390
375664.11329	8.534	-44.649	.0492	31550	27.7	-2.89473	-92.438	.045	6.828	84548	3.1825554-9	11540.0000	7.390
367895.77247	8.107	-44.668	.0693	31557	28.8	-2.75071	-92.439	.041	8.101	84585	4.4789605-9	11545.0000	7.390
360522.12549	7.681	-44.686	.0969	31563	29.9	-2.60655	-92.440	.037	9.577	84629	6.2589589-9	11550.0000	7.390
353543.86866	7.254	-44.704	.1362	31569	30.5	-2.46228	-92.441	.032	11.35	84682	8.7963651-9	11555.0000	7.390
346961.66016	6.827	-44.722	.1870	31573	31.1	-2.31791	-92.443	.027	13.30	84743	1.2070614-8	11560.0000	7.390
340776.09228	6.399	-44.740	.2486	31577	31.7	-2.17346	-92.444	.020	15.33	84815	1.6041749-8	11565.0000	7.390
334987.70263	5.972	-44.759	.3451	31580	32.3	-2.02896	-92.445	.012	18.06	84898	2.2264044-8	11570.0000	7.390
329596.94435	5.544	-44.777	.4457	31581	32.9	-1.88443	-92.446	.003	20.52	84994	2.8757244-8	11575.0000	7.390
324604.18311	5.116	-44.795	.5988	31581	33.2	-1.73990	-92.446	-.009	23.77	85105	3.8632926-8	11580.0000	7.363
320009.63820	4.688	-44.813	.7395	31578	33.5	-1.59542	-92.447	-.019	26.41	85230	4.7720936-8	11585.0000	7.053
315813.38233	4.260	-44.832	.9692	31574	33.9	-1.45102	-92.448	-.033	30.21	85372	6.2560627-8	11590.0000	6.769
312015.29738	3.832	-44.850	1.177	31568	34.2	-1.30674	-92.449	-.045	33.27	85531	7.6005847-8	11595.0000	6.512
308615.10548	3.404	-44.868	1.428	31560	34.5	-1.16264	-92.449	-.059	36.61	85705	9.2233217-8	11600.0000	6.282
305612.29833	2.976	-44.886	1.732	31549	34.8	-1.01877	-92.450	-.075	40.28	85897	1.1194965-7	11605.0000	6.079
303006.16993	2.548	-44.905	1.995	31536	35.0	-.875170	-92.450	-.088	43.19	86106	1.2906149-7	11610.0000	5.903
300795.77100	2.120	-44.923	2.217	31521	35.2	-.731897	-92.451	-.099	45.47	86328	1.4357497-7	11615.0000	5.754
298979.90918	1.692	-44.941	2.479	31504	35.3	-.588992	-92.451	-.112	48.03	86562	1.6075546-7	11620.0000	5.650
297557.21730	1.264	-44.959	2.733	31485	35.3	-.446499	-92.451	-.126	50.36	86808	1.7742941-7	11625.0000	5.580
296526.12941	.8370	-44.977	2.916	31464	35.3	-.304464	-92.451	-.136	51.93	87064	1.8951376-7	11630.0000	5.530
295884.87258	.4099	-44.995	3.027	31441	35.3	-.162924	-92.451	-.143	52.83	87326	1.9702929-7	11635.0000	5.498
295631.52734	-.0168	-45.014	3.068	31418	35.3	-.021904	-92.451	-.147	53.10	87591	1.9999850-7	11640.0000	5.486
295764.08691	-.4432	-45.032	3.040	31394	35.3	.118583	-92.451	-.148	52.77	87856	1.9844490-7	11645.0000	5.492
296280.49902	-.8693	-45.050	2.942	31371	35.2	.258534	-92.451	-.146	51.84	88118	1.9239255-7	11650.0000	5.518
297178.72949	-1.295	-45.068	2.777	31348	35.2	.397955	-92.451	-.141	50.28	88373	1.8186529-7	11655.0000	5.562
298456.80471	-1.721	-45.086	2.545	31325	35.1	.536864	-92.451	-.134	48.07	88619	1.6688625-7	11660.0000	5.624
300112.86865	-2.146	-45.104	2.255	31305	35.0	.675290	-92.450	-.124	45.18	88853	1.4805890-7	11665.0000	5.708
302145.21192	-2.570	-45.122	2.049	31285	34.8	.813266	-92.450	-.118	43.02	89073	1.3471454-7	11670.0000	5.845
304552.23438	-2.995	-45.140	1.807	31267	34.5	.950821	-92.449	-.111	40.35	89282	1.1891003-7	11675.0000	6.008
307332.46437	-3.419	-45.158	1.528	31250	34.3	1.08798	-92.449	-.101	37.07	89476	1.0065504-7	11680.0000	6.196
310484.57958	-3.843	-45.176	1.234	31234	34.0	1.22478	-92.448	-.090	33.30	89652	8.1424588-8	11685.0000	6.409
314007.43898	-4.266	-45.194	1.044	31220	33.7	1.36126	-92.447	-.083	30.61	89811	6.8953666-8	11690.0000	6.647
317900.00342	-4.690	-45.212	.8351	31208	33.3	1.49745	-92.447	-.075	27.35	89956	5.5173988-8	11695.0000	6.910
322161.33692	-5.113	-45.230	.6574	31196	33.0	1.63338	-92.446	-.069	24.26	90085	4.3464876-8	11700.0000	7.198
326790.60939	-5.535	-45.248	.5185	31185	32.7	1.76907	-92.445	-.063	21.53	90199	3.4308175-8	11705.0000	7.390
331787.07471	-5.958	-45.266	.3915	31176	32.2	1.90455	-92.444	-.057	18.71	90300	2.5919161-8	11710.0000	7.390
337150.86348	-6.380	-45.284	.2988	31167	31.7	2.03984	-92.443	-.053	16.34	90387	1.9794628-8	11715.0000	7.390
342878.95070	-6.802	-45.302	.2217	31158	31.1	2.17495	-92.441	-.051	14.07	90463	1.4691714-8	11720.0000	7.390
348973.12207	-7.223	-45.320	.1625	31150	30.5	2.30989	-92.440	-.049	12.05	90529	1.0779256-8	11725.0000	7.390
355431.96389	-7.645	-45.338	.1220	31142	29.9	2.44468	-92.439	-.049	10.43	90585	8.0911615-9	11730.0000	7.390
362254.64914	-8.066	-45.356	.0880	31134	29.2	2.57932	-92.437	-.049	8.863	90633	5.8406794-9	11735.0000	7.390
369441.13575	-8.486	-45.374	.0619	31127	28.2	2.71380	-92.436	-.049	7.429	90674	4.1059098-9	11740.0000	7.390
376990.15918	-8.907	-45.392	.0451	31118	27.2	2.84812	-92.434	-.050	6.346	90708	2.9979698-9	11745.0000	7.390
384901.22949	-9.327	-45.410	.0326	31110	26.2	2.98229	-92.432	-.052	5.397	90737	2.1692572-9	11750.0000	7.390
393173.62158	-9.747	-45.428	.0234	31102	25.1	3.11630	-92.431	-.053	4.575	90762	1.5592473-9	11755.0000	7.390
401806.58205	-10.17	-45.446	.0165	31093	23.7	3.25015	-92.429	-.055	3.838	90783	1.0980598-9	11760.0000	7.390
2363588.9135	-43.84	-46.947	2.7-5	29246	11.7	13.6374	-91.931	-.189	.0000	90966	.0000000000	12192.0313	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24595.6	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2363586.9147	43.84	-46.947	2.7-5	29246	11.7	-13.6374	-91.931	.189	.0000	90966	.0000000000	12192.0313	7.390
543944.70018	15.50	-48.219	8.7-4	30951	14.4	-4.94806	-92.398	.081	.8830	91033	5.856474-11	12560.0000	7.390
391598.37696	9.668	-48.469	.0248	31101	25.4	-3.09140	-92.431	.050	4.706	91175	1.6504540-9	12630.0000	7.390
383393.55812	9.248	-48.487	.0345	31109	26.4	-2.95741	-92.433	.047	5.551	91201	2.2952985-9	12635.0000	7.390
375550.24804	8.628	-48.505	.0481	31117	27.3	-2.82328	-92.434	.044	6.553	91231	3.1984055-9	12640.0000	7.390
368069.12062	8.408	-48.523	.0668	31124	28.4	-2.68901	-92.436	.041	7.720	91267	4.4371143-9	12645.0000	7.390
360950.85009	7.987	-48.541	.0927	31130	29.4	-2.55462	-92.438	.037	9.093	91309	6.1554648-9	12650.0000	7.390
354196.08349	7.566	-48.559	.1289	31135	30.0	-2.42012	-92.439	.032	10.72	91358	8.5527628-9	12655.0000	7.390
347805.41944	7.145	-48.577	.1737	31140	30.6	-2.28553	-92.440	.027	12.45	91416	1.1528921-8	12660.0000	7.390
341779.40918	6.723	-48.595	.2321	31144	31.2	-2.15086	-92.442	.021	14.38	91483	1.5397619-8	12665.0000	7.390
336118.54736	6.302	-48.613	.3162	31147	31.8	-2.01613	-92.443	.013	16.78	91561	2.0972619-8	12670.0000	7.390
330823.26123	5.680	-48.631	.4074	31149	32.3	-1.88138	-92.444	.005	19.04	91650	2.7019836-8	12675.0000	7.390
325893.89552	5.458	-48.649	.5440	31149	32.7	-1.74662	-92.445	-.006	22.00	91753	3.6081875-8	12680.0000	7.390
321330.67873	5.036	-48.667	.6801	31147	33.0	-1.61191	-92.446	-.015	24.59	91869	4.5107918-8	12685.0000	7.142
317133.70705	4.613	-48.685	.6725	31143	33.3	-1.47726	-92.447	-.027	27.83	92000	5.7886677-8	12690.0000	6.858
313302.89892	4.191	-48.703	1.077	31136	33.6	-1.34273	-92.448	-.039	30.90	92147	7.1447738-8	12695.0000	6.599
309838.03223	3.769	-48.721	1.268	31131	33.9	-1.20836	-92.448	-.050	33.51	92308	8.4203480-8	12700.0000	6.365
306738.68654	3.347	-48.739	1.574	31122	34.2	-1.07419	-92.449	-.067	37.29	92485	1.0455378-7	12705.0000	6.156
304004.26758	2.924	-48.757	1.843	31110	34.4	-.940264	-92.449	-.080	40.31	92679	1.2250798-7	12710.0000	5.971
301633.97951	2.502	-48.775	2.075	31096	34.6	-.806645	-92.450	-.092	42.73	92887	1.3807129-7	12715.0000	5.810
299626.77246	2.080	-48.793	2.299	31080	34.8	-.673371	-92.450	-.103	44.93	93106	1.5317423-7	12720.0000	5.682
297981.41945	1.658	-48.811	2.586	31063	34.8	-.540484	-92.451	-.117	47.58	93337	1.7245776-7	12725.0000	5.601
296696.51758	1.237	-48.829	2.808	31043	34.8	-.408030	-92.451	-.129	49.51	93580	1.8751681-7	12730.0000	5.538
295770.47022	.8156	-48.847	2.967	31021	34.9	-.276054	-92.451	-.138	50.81	93831	1.9837009-7	12735.0000	5.493
295201.48731	.3945	-48.865	3.062	30999	34.9	-.144586	-92.451	-.144	51.53	94087	2.0503857-7	12740.0000	5.465
294987.66895	-.0263	-48.882	3.095	30975	34.8	-.013648	-92.451	-.147	51.72	94346	2.0754452-7	12745.0000	5.454
295127.03564	-.4467	-48.900	3.066	30952	34.8	.116748	-92.451	-.148	51.40	94604	2.0591114-7	12750.0000	5.461
295617.57764	-.8668	-48.918	2.975	30928	34.8	.246601	-92.451	-.147	50.55	94859	2.0016199-7	12755.0000	5.485
296457.29836	-1.287	-48.936	2.825	30905	34.7	.375916	-92.451	-.143	49.18	95108	1.9032046-7	12760.0000	5.526
297644.25879	-1.706	-48.954	2.615	30882	34.6	.504710	-92.451	-.136	47.25	95350	1.7640929-7	12765.0000	5.585
299176.61720	-2.125	-48.972	2.345	30861	34.5	.633009	-92.450	-.126	44.69	95580	1.5845005-7	12770.0000	5.660
301052.67482	-2.544	-48.990	2.097	30841	34.4	.760845	-92.450	-.118	42.21	95797	1.4188814-7	12775.0000	5.771
303270.86281	-2.962	-49.007	1.880	30823	34.2	.888252	-92.449	-.112	39.91	96002	1.2732351-7	12780.0000	5.921
305829.71876	-3.380	-49.025	1.630	30805	33.9	1.01526	-92.448	-.104	37.13	96195	1.1052207-7	12785.0000	6.094
308727.91699	-3.798	-49.043	1.348	30789	33.7	1.14189	-92.448	-.093	33.73	96372	9.1492497-8	12790.0000	6.290
311964.28908	-4.216	-49.061	1.121	30775	33.4	1.26819	-92.447	-.085	30.74	96533	7.6186417-8	12795.0000	6.509
315537.80031	-4.633	-49.078	.9344	30762	33.0	1.39419	-92.446	-.078	28.05	96680	6.3536187-8	12800.0000	6.750
319447.51026	-5.050	-49.096	.7303	30750	32.7	1.51992	-92.445	-.070	24.78	96812	4.9695814-8	12805.0000	7.015
323692.59130	-5.467	-49.114	.5938	30739	32.4	1.64540	-92.444	-.065	22.34	96930	4.0436054-8	12810.0000	7.302
328272.28517	-5.883	-49.132	.4604	30729	32.1	1.77066	-92.443	-.059	19.66	97035	3.1377420-8	12815.0000	7.390
333185.92043	-6.300	-49.149	.3567	30720	31.6	1.89572	-92.442	-.055	17.30	97127	2.4321679-8	12820.0000	7.390
338432.86038	-6.715	-49.167	.2687	30711	31.1	2.02060	-92.440	-.051	15.01	97208	1.8329651-8	12825.0000	7.390
344012.59521	-7.131	-49.185	.2046	30703	30.5	2.14532	-92.439	-.049	13.10	97278	1.3963914-8	12830.0000	7.390
349924.49366	-7.547	-49.203	.1489	30695	30.0	2.26988	-92.438	-.048	11.17	97339	1.0168475-8	12835.0000	7.390
356168.01318	-7.962	-49.220	.1144	30688	29.4	2.39429	-92.436	-.047	9.792	97391	7.8162471-9	12840.0000	7.390
362742.57375	-8.377	-49.238	.0837	30680	28.7	2.51855	-92.434	-.047	8.376	97436	5.7229427-9	12845.0000	7.390
369647.58156	-8.791	-49.256	.0593	30672	27.7	2.64267	-92.433	-.048	7.050	97475	4.0560738-9	12850.0000	7.390
376882.43310	-9.206	-49.273	.0440	30664	26.8	2.76664	-92.431	-.049	6.074	97508	3.0129653-9	12855.0000	7.390
384446.49416	-9.620	-49.291	.0322	30656	25.9	2.89046	-92.429	-.050	5.198	97536	2.2072731-9	12860.0000	7.390
392339.10449	-10.03	-49.309	.0235	30648	24.9	3.01414	-92.427	-.052	4.435	97560	1.6075658-9	12865.0000	7.390

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TTA7622 SH-64  21766 SPAHR9 GLFC MULTIPLE ORBITS                                  ATMOS= ICAO  1962  ATMOSPHERE  KLETT
CONTROL21766 SPAHR9      DATA-A=SANDIA    GLFC4    DATA-B=                  DATA-C=                    DATA-D=
OBSERVER      0.0000=LAT      0.0000=LONG     0.0000=ORNT          0=ELEV            0=X .          0=Y.          0=Z
      WT       CD     AREA    VICRCL    NOSE
  40.0000  7.3900  .34910  25711.0  1.000
          HITE     LAT     LONG       Q      VT   MACH     GAMMA      TAU     AT     DQC      QC          RHO          TIME      CD
  400559.56495 -10.45 -49.326  .0167  30640  23.6  3.13766 -92.425 -.053  3.739  97580  1.1435751-9  12870.0000  7.390
  2360185.4511 -45.31 -50.867  2.6-5  28767  11.5  13.1343 -91.831 -.182  .0000  97766  .0000000000  13323.9062  7.390
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TTA7622 3H-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24597.1	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2360185.4511	45.31	-50.867	2.6-5	28767	11.5	-13.1343	-91.831	.182	.0000	97766	.0000000000	13323.9062	7.390
414093.36571	11.09	-52.379	.0103	30625	21.6	-3.33036	-92.421	.055	2.939	97926	7.073495-10	13770.0000	7.390
388880.84475	9.853	-52.432	.0268	30650	25.4	-2.96018	-92.428	.048	4.740	97983	1.8365614-9	13785.0000	7.390
381132.04541	9.439	-52.450	.0363	30657	26.2	-2.83649	-92.430	.045	5.514	98008	2.4843610-9	13790.0000	7.390
373712.11865	9.025	-52.468	.0505	30664	27.2	-2.71268	-92.432	.042	6.502	98038	3.4542731-9	13795.0000	7.390
366621.66003	8.610	-52.485	.0700	30671	28.1	-2.58874	-92.433	.039	7.655	98074	4.7865298-9	13800.0000	7.390
359861.29039	8.196	-52.503	.0942	30677	29.1	-2.46469	-92.435	.035	8.879	98115	6.4368058-9	13805.0000	7.390
353431.58448	7.781	-52.521	.1293	30682	29.7	-2.34054	-92.437	.031	10.40	98163	8.8383032-9	13810.0000	7.390
347333.06738	7.366	-52.538	.1732	30687	30.2	-2.21630	-92.438	.026	12.04	98219	1.1832171-8	13815.0000	7.390
341566.23083	6.950	-52.556	.2274	30691	30.7	-2.09199	-92.440	.020	13.79	98284	1.5534476-8	13820.0000	7.390
336131.53712	6.535	-52.574	.3068	30693	31.3	-1.96764	-92.441	.013	16.02	98358	2.0957785-8	13825.0000	7.390
331029.34426	6.119	-52.592	.3922	30695	31.8	-1.84326	-92.442	.006	18.11	98443	2.6784489-8	13830.0000	7.390
326259.96632	5.703	-52.609	.5177	30695	32.2	-1.71888	-92.443	-.005	20.80	98540	3.5357787-8	13835.0000	7.390
321823.60498	5.287	-52.627	.6461	30694	32.5	-1.59454	-92.445	-.014	23.22	98650	4.4132909-8	13840.0000	7.175
317720.34522	4.871	-52.645	.8169	30690	32.8	-1.47027	-92.446	-.025	26.10	98773	5.5809978-8	13845.0000	6.898
313950.11476	4.455	-52.662	1.012	30686	33.1	-1.34610	-92.446	-.036	29.03	98911	6.9156594-8	13850.0000	6.643
310512.70998	4.039	-52.680	1.190	30679	33.4	-1.22209	-92.447	-.046	31.45	99063	8.1325007-8	13855.0000	6.411
307407.75392	3.623	-52.698	1.464	30671	33.6	-1.09826	-92.448	-.061	34.86	99228	1.0016069-7	13860.0000	6.201
304634.71484	3.206	-52.716	1.729	30660	33.9	-.974677	-92.449	-.074	37.85	99410	1.1836846-7	13865.0000	6.013
302192.88673	2.790	-52.733	1.962	30647	34.1	-.851376	-92.449	-.086	40.27	99606	1.3440151-7	13870.0000	5.848
300081.31545	2.375	-52.751	2.162	30632	34.2	-.728404	-92.450	-.095	42.23	99812	1.4826608-7	13875.0000	5.705
298298.89404	1.959	-52.769	2.458	30616	34.3	-.605800	-92.450	-.110	44.97	1.0+5	1.6873696-7	13880.0000	5.617
296844.34228	1.543	-52.786	2.703	30597	34.3	-.483611	-92.451	-.123	47.09	1.0+5	1.8578431-7	13885.0000	5.545
295716.21437	1.128	-52.804	2.891	30576	34.4	-.361883	-92.451	-.132	48.63	1.0+5	1.9900597-7	13890.0000	5.490
294912.84131	.7131	-52.822	3.024	30554	34.4	-.240652	-92.451	-.140	49.65	1.0+5	2.0842150-7	13895.0000	5.451
294432.43850	.2984	-52.839	3.101	30532	34.4	-.119945	-92.451	-.145	50.19	1.0+5	2.1405182-7	13900.0000	5.427
294273.11915	-.1160	-52.857	3.123	30508	34.3	2.206-4	-92.451	-.148	50.29	1.0+5	2.1591904-7	13905.0000	5.419
294432.93897	-.5301	-52.874	3.091	30484	34.3	.119836	-92.451	-.148	49.95	1.0+5	2.1404596-7	13910.0000	5.427
294909.92677	-.9439	-52.892	3.006	30460	34.3	.238899	-92.451	-.147	49.17	1.0+5	2.0845566-7	13915.0000	5.451
295702.13527	-1.357	-52.910	2.867	30437	34.2	.357417	-92.451	-.143	47.95	1.0+5	1.9917097-7	13920.0000	5.489
296807.65917	-1.770	-52.927	2.677	30414	34.1	.475404	-92.450	-.137	46.26	1.0+5	1.8621423-7	13925.0000	5.544
298224.68751	-2.183	-52.945	2.435	30393	34.0	.592884	-92.450	-.129	44.06	1.0+5	1.6960666-7	13930.0000	5.613
299951.53076	-2.596	-52.962	2.141	30373	34.0	.709890	-92.449	-.118	41.26	1.0+5	1.4936806-7	13935.0000	5.698
301986.65431	-3.008	-52.980	1.944	30354	33.8	.826457	-92.449	-.113	39.27	1.0+5	1.3575563-7	13940.0000	5.834
304328.62404	-3.420	-52.997	1.722	30337	33.5	.942616	-92.448	-.106	36.92	1.0+5	1.2037825-7	13945.0000	5.993
306976.11524	-3.831	-53.015	1.471	30320	33.3	1.05839	-92.447	-.097	34.10	1.0+5	1.0299483-7	13950.0000	6.172
309927.93606	-4.242	-53.032	1.193	30306	33.0	1.17382	-92.446	-.086	30.68	1.0+5	8.3613172-8	13955.0000	6.371
313183.06006	-4.653	-53.050	1.025	30292	32.7	1.28894	-92.445	-.081	28.41	1.0+5	7.1871967-8	13960.0000	6.591
316740.54640	-5.064	-53.067	.8446	30280	32.4	1.40377	-92.444	-.074	25.78	1.0+5	5.9278466-8	13965.0000	6.832
320599.53955	-5.474	-53.085	.6628	30268	32.1	1.51835	-92.443	-.066	22.82	1.0+5	4.6554111-8	13970.0000	7.093
324759.28761	-5.885	-53.102	.5453	30258	31.8	1.63270	-92.442	-.062	20.69	1.0+5	3.8326129-8	13975.0000	7.374
329219.10693	-6.295	-53.120	.4195	30248	31.5	1.74684	-92.440	-.056	18.14	1.0+5	2.9504606-8	13980.0000	7.390
333978.38330	-6.704	-53.137	.3328	30240	31.0	1.86079	-92.439	-.053	16.15	1.0+5	2.3416686-8	13985.0000	7.390
339036.55616	-7.114	-53.155	.2505	30231	30.5	1.97457	-92.437	-.049	14.01	1.0+5	1.7640253-8	13990.0000	7.390
344393.09913	-7.523	-53.172	.1948	30224	30.0	2.08819	-92.436	-.047	12.35	1.0+5	1.3719630-8	13995.0000	7.390
350047.46828	-7.932	-53.190	.1433	30216	29.5	2.20167	-92.434	-.046	10.60	1.0+5	1.0102263-8	14000.0000	7.390
355999.20948	-8.341	-53.207	.1118	30209	29.0	2.31500	-92.432	-.046	9.356	1.0+5	7.8792953-9	14005.0000	7.390
362247.73243	-8.749	-53.224	.0828	30201	28.3	2.42819	-92.430	-.046	8.054	1.0+5	5.8423974-9	14010.0000	7.390
368792.51955	-9.157	-53.242	.0604	30194	27.4	2.54125	-92.428	-.046	6.877	1.0+5	4.2624858-9	14015.0000	7.390
375633.02539	-9.565	-53.259	.0451	30186	26.5	2.65417	-92.426	-.047	5.945	1.0+5	3.1868829-9	14020.0000	7.390

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TTA7622 3H-04  21766 SPAHR9 GLFC MULTIPLE ORBITS                                  ATMOS= ICAO  1962  ATMOSPHERE  KLETT
CONTROL21766 SPAHR9      DATA-A=SANDIA    GLFC4    DATA-B=                  DATA-C=                    DATA-D=
OBSERVER      0.0000=LAT      0.0000=LONG     0.0000=ORNT          0=ELEV            0=X .          0=Y,          0=Z
       WT       CD     AREA    VICRCL    NOSE
  40.0000  7.3900  .34910  25721.9  1.000
          HITc     LAT     LONG       J      VT  MACH    GAMMA      TAU     AT     DQC      QC          RHO         TIME      CD
  382768.67824 -9.973 -53.277  .0332  30178  25.7  2.76695 -92.424 -.048  5.101  1.0+5  2.3475385-9  14025.0000  7.390
  390198.89209 -10.38 -53.294  .0245  30171  24.8  2.87959 -92.422 -.049  4.380  1.0+5  1.7314841-9  14030.0000  7.390
  397923.05373 -10.79 -53.311  .0182  30162  23.6  2.99208 -92.419 -.051  3.771  1.0+5  1.2842552-9  14035.0000  7.390
  405940.53419 -11.19 -53.329  .0134  30154  22.4  3.10443 -92.417 -.052  3.237  1.0+5  9.471705-10  14040.0000  7.390
  2362128.1725 -47.25 -54.902  2.5-5  28253  11.3  12.5677 -91.695 -.175  .0000  1.0+5  .0000000000  14517.3438  7.390
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TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24595.7	1.000

HITE	LAT	LONG	D	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2362128.1725	47.25	-54.902	2.5-5	28253	11.3	-12.5677	-91.695	.175	.0000	1.0+5	.0000000000	14517.3438	7.390
512579.95507	15.62	-56.286	.0012	30044	14.6	-4.32240	-92.384	.071	.9744	1.0+5	8.640086-11	14940.0000	7.390
389722.53014	10.35	-56.511	.0250	30169	24.9	-2.87283	-92.422	.046	4.422	1.0+5	1.7661960-9	15005.0000	7.390
382310.42775	9.948	-56.529	.0338	30176	25.7	-2.76024	-92.424	.044	5.141	1.0+5	2.3858482-9	15010.0000	7.390
375192.94093	9.540	-56.546	.0460	30183	26.6	-2.64752	-92.426	.041	6.000	1.0+5	3.2481426-9	15015.0000	7.390
368370.61037	9.132	-56.563	.0618	30190	27.5	-2.53469	-92.428	.038	6.956	1.1+5	4.3643347-9	15020.0000	7.390
361843.99219	8.724	-56.581	.0842	30196	28.4	-2.42174	-92.430	.035	8.116	1.1+5	5.9398603-9	15025.0000	7.390
355613.60986	8.316	-56.598	.1137	30201	29.0	-2.30871	-92.432	.031	9.433	1.1+5	8.0233167-9	15030.0000	7.390
349679.95167	7.907	-56.616	.1464	30206	29.5	-2.19558	-92.434	.027	10.70	1.1+5	1.0325471-8	15035.0000	7.390
344043.47461	7.498	-56.633	.1978	30210	30.0	-2.08239	-92.436	.022	12.44	1.1+5	1.3944089-8	15040.0000	7.390
338704.58838	7.089	-56.650	.2556	30213	30.5	-1.96914	-92.438	.016	14.14	1.1+5	1.8019360-8	15045.0000	7.390
333663.65870	6.680	-56.668	.3373	30215	31.1	-1.85586	-92.439	.009	16.24	1.1+5	2.3776102-8	15050.0000	7.390
328920.98242	6.271	-56.685	.4270	30216	31.5	-1.74258	-92.440	.002	18.26	1.1+5	3.0094297-8	15055.0000	7.390
324476.79006	5.861	-56.703	.5517	30216	31.8	-1.62931	-92.442	-.008	20.75	1.1+5	3.8884909-8	15060.0000	7.355
320331.20069	5.452	-56.720	.6680	30214	32.0	-1.51609	-92.443	-.016	22.82	1.1+5	4.7084885-8	15065.0000	7.074
316484.22119	5.042	-56.738	.8536	30210	32.4	-1.40296	-92.444	-.027	25.79	1.1+5	6.0185857-8	15070.0000	6.814
312935.72412	4.632	-56.755	1.031	30205	32.7	-1.28994	-92.445	-.038	28.33	1.1+5	7.2747537-8	15075.0000	6.574
309685.47021	4.223	-56.773	1.208	30198	32.9	-1.17709	-92.446	-.047	30.63	1.1+5	8.5205203-8	15080.0000	6.355
306733.04444	3.813	-56.790	1.481	30190	33.2	-1.06444	-92.447	-.062	33.89	1.1+5	1.0459083-7	15085.0000	6.155
304077.89992	3.404	-56.807	1.727	30179	33.4	-.952026	-92.448	-.074	36.56	1.1+5	1.2202451-7	15090.0000	5.976
301719.32521	2.994	-56.825	1.945	30166	33.6	-.839908	-92.449	-.085	38.75	1.1+5	1.3751091-7	15095.0000	5.816
299656.38185	2.585	-56.842	2.159	30151	33.7	-.728120	-92.449	-.095	40.79	1.1+5	1.5282720-7	15100.0000	5.683
297887.99755	2.176	-56.860	2.449	30135	33.8	-.616704	-92.450	-.109	43.38	1.1+5	1.7355267-7	15105.0000	5.597
296412.94042	1.767	-56.877	2.690	30117	33.8	-.505705	-92.450	-.121	45.40	1.1+5	1.9084034-7	15110.0000	5.524
295229.80371	1.358	-56.894	2.882	30096	33.8	-.395170	-92.451	-.131	46.92	1.1+5	2.0470670-7	15115.0000	5.466
294336.99170	.9492	-56.912	3.024	30075	33.8	-.285134	-92.451	-.138	47.99	1.1+5	2.1517046-7	15120.0000	5.423
293732.77979	.5410	-56.929	3.119	30052	33.8	-.175625	-92.451	-.144	48.65	1.1+5	2.2225182-7	15125.0000	5.393
293415.35060	.1331	-56.946	3.167	30028	33.8	-.066661	-92.451	-.147	48.94	1.1+5	2.2597209-7	15130.0000	5.377
293382.81252	-.2745	-56.964	3.167	30004	33.8	.041744	-92.451	-.149	48.86	1.1+5	2.2635344-7	15135.0000	5.376
293633.25098	-.6818	-56.981	3.121	29980	33.8	.149586	-92.451	-.149	48.42	1.1+5	2.2341830-7	15140.0000	5.388
294164.73585	-1.089	-56.998	3.029	29957	33.7	.256866	-92.451	-.147	47.62	1.1+5	2.1718930-7	15145.0000	5.414
294975.36330	-1.495	-57.016	2.892	29933	33.7	.363591	-92.450	-.144	46.45	1.1+5	2.0768874-7	15150.0000	5.454
296063.27979	-1.902	-57.033	2.710	29910	33.6	.469777	-92.450	-.138	44.90	1.1+5	1.9493836-7	15155.0000	5.507
297426.71828	-2.308	-57.050	2.484	29889	33.5	.575448	-92.449	-.130	42.93	1.1+5	1.7895886-7	15160.0000	5.574
299064.02295	-2.713	-57.067	2.215	29868	33.4	.680633	-92.449	-.121	40.48	1.1+5	1.5976965-7	15165.0000	5.654
300973.60164	-3.118	-57.085	1.972	29850	33.3	.785369	-92.448	-.112	38.15	1.1+5	1.4240681-7	15170.0000	5.766
303154.30273	-3.523	-57.102	1.772	29832	33.1	.889689	-92.447	-.106	36.12	1.1+5	1.2808885-7	15175.0000	5.913
305604.59377	-3.928	-57.119	1.547	29816	32.9	.993621	-92.446	-.099	33.72	1.1+5	1.1200024-7	15180.0000	6.079
308323.37550	-4.333	-57.136	1.299	29800	32.6	1.09719	-92.445	-.089	30.87	1.1+5	9.4148717-8	15185.0000	6.263
311309.60254	-4.737	-57.154	1.082	29787	32.3	1.20044	-92.444	-.081	28.16	1.1+5	7.8504007-8	15190.0000	6.465
314562.35304	-5.141	-57.171	.9229	29774	32.1	1.30340	-92.443	-.076	25.98	1.1+5	6.6989270-8	15195.0000	6.684
318080.77931	-5.544	-57.188	.7507	29762	31.7	1.40610	-92.442	-.069	23.42	1.1+5	5.4534041-8	15200.0000	6.922
321864.12354	-5.948	-57.205	.6060	29752	31.5	1.50855	-92.440	-.063	21.03	1.1+5	4.4052764-8	15205.0000	7.178
325911.70558	-6.351	-57.222	.4955	29742	31.2	1.61079	-92.439	-.059	19.01	1.1+5	3.6046646-8	15210.0000	7.390
330222.90968	-6.754	-57.239	.3806	29733	30.9	1.71283	-92.437	-.053	16.66	1.1+5	2.7705437-8	15215.0000	7.390
334797.18898	-7.156	-57.257	.3087	29725	30.4	1.81470	-92.435	-.050	15.00	1.1+5	2.2481610-8	15220.0000	7.390
339634.03466	-7.559	-57.274	.2327	29717	29.9	1.91640	-92.434	-.047	13.02	1.1+5	1.6957932-8	15225.0000	7.390
344732.96924	-7.961	-57.291	.1852	29709	29.5	2.01796	-92.432	-.046	11.61	1.1+5	1.3501434-8	15230.0000	7.390
350093.51366	-8.363	-57.308	.1383	29702	29.0	2.11937	-92.430	-.044	10.03	1.1+5	1.0085073-8	15235.0000	7.390
355715.19972	-8.765	-57.325	.1094	29695	28.5	2.22065	-92.428	-.044	8.923	1.1+5	7.9853729-9	15240.0000	7.390

TTA7622 3H-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25734.8	1.000

HITE	LAT	LONG	D	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
361597.55810	-9.166	-57.342	.0822	29688	27.9	2.32180	-92.425	-.044	7.732	1.1+5	5.9993495-9	15245.0000	7.390
367740.10158	-9.568	-57.359	.0618	29680	27.1	2.42282	-92.423	-.044	6.707	1.1+5	4.5165395-9	15250.0000	7.390
374142.34571	-9.969	-57.376	.0464	29673	26.2	2.52372	-92.421	-.045	5.812	1.1+5	3.3943855-9	15255.0000	7.390
380803.78371	-10.37	-57.394	.0344	29666	25.4	2.62448	-92.418	-.046	4.999	1.1+5	2.5118037-9	15260.0000	7.390
387723.89845	-10.77	-57.411	.0264	29658	24.7	2.72511	-92.416	-.047	4.384	1.1+5	1.9332821-9	15265.0000	7.390
394902.15235	-11.17	-57.428	.0199	29651	23.7	2.82561	-92.413	-.048	3.808	1.1+5	1.4591654-9	15270.0000	7.390
402337.99317	-11.57	-57.445	.0147	29643	22.6	2.92597	-92.410	-.049	3.273	1.1+5	1.0786632-9	15275.0000	7.390
604138.53760	-19.49	-57.784	4.4-4	29433	13.0	4.89869	-92.332	-.080	.5627	1.1+5	3.235363-11	15375.0000	7.390
2344680.7559	-49.48	-59.068	2.4-5	27718	11.1	11.8418	-91.520	-.165	.0000	1.1+5	.0000000000	15785.1563	7.390

TTA7622 38-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24604.5	1.000

HITE	LAT	LONG	D	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2344680.7559	49.48	-59.068	2.4-5	27718	11.1	-11.8418	-91.520	.165	.0000	1.1+5	.0000000000	15785.1563	7.390
435172.29054	13.19	-60.622	.0052	29607	18.6	-3.33241	-92.398	.055	1.935	1.1+5	3.780392-10	16275.0000	7.390
395347.11916	11.20	-60.707	.0196	29648	23.6	-2.83220	-92.413	.046	3.773	1.1+5	1.4334018-9	16300.0000	7.390
388152.31007	10.80	-60.724	.0259	29656	24.6	-2.73176	-92.415	.044	4.342	1.1+5	1.8974669-9	16305.0000	7.390
381215.58888	10.39	-60.741	.0339	29663	25.4	-2.63119	-92.418	.042	4.963	1.1+5	2.4773768-9	16310.0000	7.390
374537.51076	9.994	-60.758	.0457	29669	26.2	-2.53051	-92.421	.039	5.763	1.1+5	3.3393785-9	16315.0000	7.390
368118.55126	9.593	-60.776	.0606	29675	27.0	-2.42973	-92.423	.037	6.635	1.1+5	4.4251817-9	16320.0000	7.390
361959.19680	9.192	-60.793	.0810	29681	27.9	-2.32884	-92.425	.034	7.670	1.1+5	5.9120499-9	16325.0000	7.390
356059.90578	8.791	-60.810	.1076	29686	28.5	-2.22787	-92.428	.030	8.843	1.1+5	7.8566252-9	16330.0000	7.390
350421.11182	8.389	-60.827	.1365	29691	29.0	-2.12681	-92.430	.027	9.959	1.1+5	9.9627147-9	16335.0000	7.390
345043.21584	7.987	-60.844	.1823	29695	29.4	-2.02569	-92.432	.022	11.51	1.1+5	1.3302255-8	16340.0000	7.390
339926.50107	7.585	-60.861	.2279	29698	29.9	-1.92452	-92.434	.017	12.86	1.1+5	1.6623844-8	16345.0000	7.390
335071.53223	7.183	-60.878	.3039	29700	30.4	-1.82332	-92.435	.011	14.85	1.1+5	2.2168310-8	16350.0000	7.390
330478.33692	6.781	-60.895	.3758	29702	30.9	-1.72210	-92.437	.005	16.51	1.1+5	2.7413739-8	16355.0000	7.390
326147.21485	6.378	-60.913	.4878	29702	31.1	-1.62090	-92.439	-.004	18.81	1.1+5	3.5580809-8	16360.0000	7.390
322078.29103	5.976	-60.930	.5981	29700	31.4	-1.51974	-92.440	-.012	20.82	1.1+5	4.3629140-8	16365.0000	7.192
318271.59912	5.573	-60.947	.7382	29698	31.7	-1.41865	-92.442	-.021	23.12	1.1+5	5.3858539-8	16370.0000	6.935
314727.05127	5.170	-60.964	.9099	29694	32.0	-1.31767	-92.443	-.031	25.65	1.1+5	6.6406239-8	16375.0000	6.696
311444.45849	4.768	-60.981	1.069	29688	32.2	-1.21682	-92.444	-.040	27.78	1.1+5	7.8026617-8	16380.0000	6.474
308423.50341	4.365	-60.998	1.280	29681	32.5	-1.11615	-92.445	-.051	30.38	1.1+5	9.3491277-8	16385.0000	6.269
305663.73048	3.962	-61.015	1.527	29671	32.7	-1.01569	-92.446	-.064	33.15	1.1+5	1.1161195-7	16390.0000	6.083
303164.56299	3.560	-61.032	1.750	29660	32.9	-.915495	-92.447	-.075	35.46	1.1+5	1.2802148-7	16395.0000	5.914
300925.23779	3.157	-61.050	1.950	29647	33.1	-.815599	-92.448	-.084	37.38	1.1+5	1.4272489-7	16400.0000	5.763
298944.83447	2.755	-61.067	2.199	29633	33.2	-.716041	-92.449	-.096	39.66	1.1+5	1.6116654-7	16405.0000	5.648
297222.29542	2.353	-61.084	2.472	29616	33.2	-.616864	-92.449	-.110	41.99	1.1+5	1.8135470-7	16410.0000	5.564
295756.41846	1.951	-61.101	2.703	29598	33.3	-.518116	-92.450	-.121	43.84	1.1+5	1.9853478-7	16415.0000	5.492
294545.81934	1.549	-61.118	2.892	29578	33.3	-.419838	-92.450	-.130	45.28	1.1+5	2.1272300-7	16420.0000	5.433
293588.94971	1.148	-61.135	3.040	29556	33.3	-.322065	-92.451	-.137	46.34	1.1+5	2.2393751-7	16425.0000	5.386
292884.14894	.7464	-61.152	3.147	29534	33.3	-.224825	-92.451	-.143	47.08	1.2+5	2.3219777-7	16430.0000	5.351
292429.65724	.3455	-61.169	3.215	29510	33.3	-.128137	-92.451	-.147	47.49	1.2+5	2.3752442-7	16435.0000	5.329
292223.64845	-.0551	-61.186	3.242	29486	33.3	-.032017	-92.451	-.150	47.61	1.2+5	2.3993884-7	16440.0000	5.319
292264.25196	-.4553	-61.203	3.230	29462	33.2	.063527	-92.451	-.151	47.44	1.2+5	2.3946297-7	16445.0000	5.321
292549.57765	-.8553	-61.220	3.180	29438	33.2	.158492	-92.451	-.151	46.99	1.2+5	2.3611895-7	16450.0000	5.335
293077.73732	-1.255	-61.237	3.091	29414	33.2	.252880	-92.450	-.149	46.25	1.2+5	2.2992892-7	16455.0000	5.361
293846.80768	-1.654	-61.254	2.965	29390	33.1	.346701	-92.450	-.146	45.22	1.2+5	2.2091471-7	16460.0000	5.398
294855.15234	-2.053	-61.271	2.802	29367	33.0	.439967	-92.449	-.141	43.89	1.2+5	2.0909761-7	16465.0000	5.448
296100.84765	-2.452	-61.288	2.603	29345	33.0	.532700	-92.449	-.134	42.23	1.2+5	1.9449807-7	16470.0000	5.509
297582.30128	-2.850	-61.305	2.367	29324	32.9	.624926	-92.448	-.126	40.22	1.2+5	1.7713543-7	16475.0000	5.582
299297.98629	-3.248	-61.322	2.096	29304	32.8	.716678	-92.447	-.116	37.79	1.2+5	1.5702758-7	16480.0000	5.666
301246.51806	-3.645	-61.339	1.874	29286	32.6	.807995	-92.446	-.108	35.70	1.2+5	1.4061536-7	16485.0000	5.784
303426.60986	-4.043	-61.356	1.682	29269	32.4	.898909	-92.445	-.102	33.78	1.2+5	1.2630088-7	16490.0000	5.932
305837.07863	-4.440	-61.373	1.469	29254	32.2	.989447	-92.444	-.095	31.54	1.2+5	1.1047374-7	16495.0000	6.095
308476.83400	-4.837	-61.389	1.237	29239	32.0	1.07964	-92.443	-.086	28.92	1.2+5	9.3141108-8	16500.0000	6.273
311344.92091	-5.233	-61.406	1.040	29226	31.7	1.16951	-92.441	-.078	26.50	1.2+5	7.8378980-8	16505.0000	6.467
314440.46439	-5.629	-61.423	.8942	29214	31.5	1.25911	-92.440	-.073	24.55	1.2+5	6.7420685-8	16510.0000	6.676
317762.73780	-6.025	-61.440	.7376	29202	31.2	1.34844	-92.438	-.067	22.29	1.2+5	5.5659908-8	16515.0000	6.901
321310.97657	-6.421	-61.457	.5979	29192	30.9	1.43755	-92.437	-.061	20.05	1.2+5	4.5146888-8	16520.0000	7.141
325084.56593	-6.817	-61.474	.4987	29182	30.7	1.52644	-92.435	-.058	18.31	1.2+5	3.7682729-8	16525.0000	7.390
329082.92775	-7.212	-61.491	.3938	29173	30.4	1.61514	-92.433	-.052	16.26	1.2+5	2.9773969-8	16530.0000	7.390
333305.54640	-7.607	-61.507	.3197	29165	30.0	1.70366	-92.431	-.049	14.65	1.2+5	2.4185066-8	16535.0000	7.390

TTA7622 3R-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21700 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25749.3	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
337751.94629	-8.002	-61.524	.2524	29158	29.6	1.79202	-92.429	-.046	13.01	1.2+5	1.9107277-8	16540.0000	7.390
342421.66749	-8.397	-61.541	.1979	29150	29.1	1.88024	-92.427	-.044	11.52	1.2+5	1.4985277-8	16545.0000	7.390
347314.34035	-8.792	-61.558	.1563	29143	28.7	1.96833	-92.424	-.043	10.24	1.2+5	1.1844194-8	16550.0000	7.390
352429.48046	-9.186	-61.575	.1215	29136	28.3	2.05628	-92.422	-.042	9.026	1.2+5	9.2125890-9	16555.0000	7.390
357766.69482	-9.580	-61.591	.0952	29129	27.8	2.14412	-92.419	-.042	7.987	1.2+5	7.2191395-9	16560.0000	7.390
363325.55909	-9.974	-61.608	.0736	29123	27.2	2.23182	-92.417	-.042	7.021	1.2+5	5.5822100-9	16565.0000	7.390
369105.65235	-10.37	-61.625	.0552	29116	26.4	2.31941	-92.414	-.042	6.079	1.2+5	4.1868955-9	16570.0000	7.390
375106.54004	-10.76	-61.642	.0429	29109	25.6	2.40688	-92.411	-.043	5.362	1.2+5	3.2601696-9	16575.0000	7.390
381327.76028	-11.15	-61.658	.0325	29102	24.9	2.49423	-92.408	-.043	4.664	1.2+5	2.4679976-9	16580.0000	7.390
387768.92042	-11.55	-61.675	.0254	29095	24.2	2.58146	-92.405	-.044	4.123	1.2+5	1.9295183-9	16585.0000	7.390
394429.49366	-11.94	-61.692	.0195	29087	23.3	2.66856	-92.402	-.045	3.618	1.2+5	1.4865323-9	16590.0000	7.390
401309.01709	-12.33	-61.708	.0147	29080	22.3	2.75554	-92.398	-.047	3.134	1.2+5	1.1162209-9	16595.0000	7.390
584017.33546	-20.11	-62.040	5.1-4	28886	13.0	4.46387	-92.308	-.073	.5816	1.2+5	3.901402-11	16695.0000	7.390
2332836.8862	-52.71	-63.384	2.3-5	27125	10.9	10.9706	-91.249	-.153	.0000	1.2+5	.0000000000	17148.9063	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24610.1	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2332836.8671	52.71	-63.384	2.3-5	27125	10.9	-10.9706	-91.249	.153	.0000	1.2+5	.0000000000	17148.9063	7.390
412479.17432	12.94	-65.033	.0098	29067	20.7	-2.89146	-92.393	.047	2.556	1.2+5	7.434913-10	17695.0000	7.390
391470.83595	11.77	-65.084	.0219	29089	23.7	-2.63085	-92.403	.042	3.820	1.2+5	1.6578386-9	17710.0000	7.390
384905.65138	11.38	-65.100	.0285	29095	24.5	-2.54375	-92.406	.040	4.371	1.2+5	2.1688875-9	17715.0000	7.390
378560.09913	10.98	-65.117	.0366	29102	25.2	-2.45654	-92.409	.038	4.949	1.2+5	2.7794342-9	17720.0000	7.390
372434.58986	10.59	-65.134	.0478	29108	26.0	-2.36922	-92.412	.036	5.658	1.2+5	3.6321051-9	17725.0000	7.390
366529.55177	10.20	-65.151	.0633	29114	26.7	-2.28181	-92.415	.034	6.512	1.2+5	4.8087662-9	17730.0000	7.390
360845.40039	9.802	-65.167	.0815	29119	27.5	-2.19431	-92.418	.031	7.384	1.2+5	6.1809203-9	17735.0000	7.390
355382.52393	9.408	-65.184	.1069	29124	28.0	-2.10673	-92.420	.028	8.459	1.2+5	8.1096273-9	17740.0000	7.390
350141.29200	9.014	-65.201	.1327	29128	28.4	-2.01908	-92.423	.025	9.425	1.2+5	1.0067227-8	17745.0000	7.390
345122.03809	8.620	-65.218	.1748	29132	28.9	-1.93138	-92.425	.021	10.81	1.2+5	1.3251652-8	17750.0000	7.390
340325.07179	8.226	-65.234	.2154	29135	29.3	-1.84362	-92.428	.017	12.00	1.2+5	1.6331304-8	17755.0000	7.390
335750.66749	7.831	-65.251	.2822	29137	29.7	-1.75584	-92.430	.011	13.74	1.2+5	2.1392738-8	17760.0000	7.390
331399.05366	7.436	-65.268	.3478	29139	30.2	-1.66805	-92.432	.005	15.25	1.2+5	2.6362278-8	17765.0000	7.390
327270.41211	7.041	-65.285	.4402	29139	30.5	-1.58027	-92.434	-.002	17.15	1.2+5	3.3359125-8	17770.0000	7.390
323364.85059	6.647	-65.302	.5421	29138	30.7	-1.49252	-92.436	-.010	19.02	1.2+5	4.1084326-8	17775.0000	7.279
319682.40087	6.252	-65.318	.6446	29136	30.9	-1.40484	-92.437	-.016	20.74	1.2+5	4.8864301-8	17780.0000	7.031
316222.99316	5.857	-65.335	.8060	29133	31.2	-1.31726	-92.439	-.026	23.17	1.2+5	6.1110604-8	17785.0000	6.797
312986.47267	5.462	-65.352	.9569	29128	31.5	-1.22979	-92.441	-.034	25.23	1.2+5	7.2567887-8	17790.0000	6.578
309972.58838	5.067	-65.369	1.098	29122	31.7	-1.14248	-92.442	-.042	27.01	1.2+5	8.3319985-8	17795.0000	6.374
307180.95705	4.672	-65.386	1.339	29114	32.0	-1.05536	-92.443	-.055	29.81	1.2+5	1.0164984-7	17800.0000	6.185
304611.10011	4.277	-65.402	1.560	29105	32.2	-.968463	-92.445	-.066	32.15	1.2+5	1.1852352-7	17805.0000	6.012
302262.41646	3.882	-65.419	1.762	29093	32.3	-.881843	-92.446	-.075	34.13	1.2+5	1.3394496-7	17810.0000	5.853
300134.12257	3.487	-65.436	1.944	29080	32.5	-.795531	-92.447	-.084	35.81	1.2+5	1.4791935-7	17815.0000	5.709
298225.31343	3.092	-65.453	2.227	29066	32.6	-.709563	-92.448	-.097	38.28	1.2+5	1.6959930-7	17820.0000	5.613
296534.97118	2.698	-65.469	2.484	29049	32.6	-.623983	-92.448	-.109	40.37	1.2+5	1.8941014-7	17825.0000	5.530
295061.93214	2.303	-65.486	2.707	29031	32.6	-.538841	-92.449	-.120	42.08	1.2+5	2.0667416-7	17830.0000	5.458
293804.84425	1.909	-65.503	2.896	29011	32.7	-.454176	-92.450	-.129	43.46	1.2+5	2.2140723-7	17835.0000	5.396
292762.22602	1.516	-65.520	3.051	28990	32.7	-.370020	-92.450	-.136	44.53	1.2+5	2.3362669-7	17840.0000	5.345
291932.49219	1.122	-65.536	3.173	28967	32.7	-.286402	-92.450	-.142	45.34	1.2+5	2.4335119-7	17845.0000	5.305
291313.94680	.7289	-65.553	3.263	28944	32.7	-.203344	-92.451	-.147	45.89	1.2+5	2.5060054-7	17850.0000	5.274
290904.84182	.3360	-65.570	3.320	28920	32.7	-.120862	-92.451	-.150	46.21	1.2+5	2.5539525-7	17855.0000	5.254
290703.36720	-.0566	-65.587	3.345	28896	32.7	-.038970	-92.451	-.152	46.30	1.2+5	2.5775654-7	17860.0000	5.244
290707.68263	-.4489	-65.603	3.338	28871	32.6	.042326	-92.451	-.153	46.17	1.2+5	2.5770596-7	17865.0000	5.245
290915.92872	-.8408	-65.620	3.301	28846	32.6	.123023	-92.450	-.153	45.82	1.2+5	2.5526532-7	17870.0000	5.255
291326.25344	-1.232	-65.637	3.233	28822	32.6	.203121	-92.450	-.152	45.27	1.2+5	2.5045631-7	17875.0000	5.275
291936.81202	-1.624	-65.653	3.135	28797	32.5	.282627	-92.450	-.150	44.50	1.2+5	2.4330056-7	17880.0000	5.305
292745.80031	-2.015	-65.670	3.008	28774	32.4	.361551	-92.449	-.146	43.52	1.2+5	2.3381922-7	17885.0000	5.345
293751.46093	-2.405	-65.686	2.852	28750	32.4	.439909	-92.448	-.142	42.30	1.2+5	2.2203288-7	17890.0000	5.394
294952.10107	-2.795	-65.703	2.667	28728	32.3	.517719	-92.447	-.136	40.84	1.2+5	2.0796138-7	17895.0000	5.453
296346.12111	-3.185	-65.720	2.454	28707	32.2	.595008	-92.447	-.128	39.12	1.3+5	1.9162346-7	17900.0000	5.521
297932.01369	-3.575	-65.736	2.213	28687	32.1	.671805	-92.446	-.119	37.09	1.3+5	1.7303680-7	17905.0000	5.599
299708.40332	-3.964	-65.753	1.944	28668	32.1	.748147	-92.444	-.109	34.73	1.3+5	1.5221751-7	17910.0000	5.686
301674.04835	-4.353	-65.769	1.758	28651	31.9	.824072	-92.443	-.103	32.98	1.3+5	1.3780820-7	17915.0000	5.813
303827.78859	-4.742	-65.786	1.575	28635	31.7	.899610	-92.442	-.097	31.20	1.3+5	1.2366674-7	17920.0000	5.959
306168.55080	-5.130	-65.802	1.379	28620	31.5	.974786	-92.440	-.090	29.15	1.3+5	1.0829730-7	17925.0000	6.117
308695.34669	-5.518	-65.819	1.165	28606	31.3	1.04963	-92.439	-.081	26.79	1.3+5	9.1706354-8	17930.0000	6.288
311407.31541	-5.906	-65.835	.9931	28594	31.0	1.12417	-92.437	-.075	24.70	1.3+5	7.8158100-8	17935.0000	6.471
314303.67872	-6.294	-65.852	.8621	28582	30.8	1.19844	-92.435	-.070	23.00	1.3+5	6.7904977-8	17940.0000	6.667
317383.71192	-6.682	-65.868	.7231	28571	30.5	1.27245	-92.433	-.065	21.05	1.3+5	5.7001660-8	17945.0000	6.875

TTA7622 3H-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.0957	.34910	25759.6	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
320646.75415	-7.069	-65.885	.5890	28561	30.3	1.34624	-92.431	-.059	18.99	1.3+5	4.6460700-8	17950.0000	7.096
324092.25439	-7.456	-65.901	.5023	28552	30.1	1.41983	-92.429	-.056	17.53	1.3+5	3.9645521-8	17955.0000	7.329
327719.64845	-7.843	-65.918	.4111	28543	29.8	1.49322	-92.427	-.051	15.85	1.3+5	3.2470535-8	17960.0000	7.390
331528.45557	-8.230	-65.934	.3317	28535	29.5	1.56644	-92.424	-.047	14.24	1.3+5	2.6214504-8	17965.0000	7.390
335518.24365	-8.616	-65.950	.2739	28528	29.1	1.63951	-92.422	-.043	12.93	1.3+5	2.1658166-8	17970.0000	7.390
339688.50353	-9.002	-65.967	.2136	28521	28.7	1.71244	-92.419	-.042	11.42	1.3+5	1.6895615-8	17975.0000	7.390
344039.15674	-9.388	-65.983	.1762	28514	28.3	1.78523	-92.416	-.041	10.37	1.3+5	1.3946861-8	17980.0000	7.390
348569.52491	-9.774	-66.000	.1394	28507	28.0	1.85790	-92.413	-.040	9.221	1.3+5	1.1038365-8	17985.0000	7.390
353279.34473	-10.16	-66.016	.1123	28501	27.6	1.93045	-92.410	-.039	8.275	1.3+5	8.8951647-9	17990.0000	7.390
358168.25390	-10.55	-66.032	.0892	28495	27.2	2.00288	-92.407	-.039	7.374	1.3+5	7.0691572-9	17995.0000	7.390
363235.89162	-10.93	-66.049	.0707	28488	26.6	2.07520	-92.404	-.039	6.563	1.3+5	5.6038558-9	18000.0000	7.390
368481.89259	-11.32	-66.065	.0547	28482	25.9	2.14742	-92.400	-.039	5.773	1.3+5	4.3374711-9	18005.0000	7.390
373905.89260	-11.70	-66.081	.0432	28476	25.2	2.21952	-92.397	-.040	5.130	1.3+5	3.4272998-9	18010.0000	7.390
379507.51263	-12.09	-66.098	.0333	28469	24.5	2.29151	-92.393	-.040	4.507	1.3+5	2.6475538-9	18015.0000	7.390
385286.38478	-12.47	-66.114	.0269	28462	23.9	2.36339	-92.389	-.041	4.048	1.3+5	2.1370582-9	18020.0000	7.390
391242.10888	-12.85	-66.130	.0210	28456	23.3	2.43517	-92.386	-.042	3.579	1.3+5	1.6710819-9	18025.0000	7.390
397374.26957	-13.24	-66.147	.0166	28449	22.4	2.50683	-92.382	-.042	3.175	1.3+5	1.3160286-9	18030.0000	7.390
403682.51758	-13.62	-66.163	.0129	28442	21.4	2.57837	-92.377	-.043	2.807	1.3+5	1.0295881-9	18035.0000	7.390
566100.05028	-21.24	-66.486	5.8-4	28265	12.8	3.98125	-92.270	-.065	.5917	1.3+5	4.641868-11	18135.0000	7.390
2346559.8115	-57.96	-67.883	2.2-5	26428	10.6	9.87941	-90.757	-.138	.0000	1.3+5	.0000000000	18657.6562	7.390

TTA7622 38-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
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OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X , 0=Y, 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24601.8	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2346559.8100	57.96	-67.883	2.2-5	26428	10.6	-9.87941	-90.757	.138	.0000	1.3+5	.0000000000	18657.6562	7.390
661712.21973	24.64	-69.136	2.4-4	28162	12.1	-4.59598	-92.204	.074	.3850	1.3+5	1.982745-11	19135.0000	7.390
468796.99805	17.09	-69.456	.0022	28370	15.6	-3.22127	-92.335	.053	1.155	1.3+5	1.751955-10	19235.0000	7.390
397752.13820	13.26	-69.618	.0163	28447	22.3	-2.51168	-92.381	.040	3.148	1.3+5	1.2941512-9	19285.0000	7.390
391606.32081	12.88	-69.634	.0208	28453	23.2	-2.44008	-92.385	.039	3.555	1.3+5	1.6498782-9	19290.0000	7.390
385640.89062	12.49	-69.651	.0265	28459	23.9	-2.36837	-92.389	.037	4.019	1.3+5	2.1074215-9	19295.0000	7.390
379850.25488	12.11	-69.667	.0327	28465	24.5	-2.29657	-92.393	.036	4.465	1.3+5	2.5998445-9	19300.0000	7.390
374236.76074	11.73	-69.683	.0426	28471	25.2	-2.22467	-92.397	.034	5.093	1.3+5	3.3812429-9	19305.0000	7.390
368800.76758	11.34	-69.700	.0537	28477	25.8	-2.15268	-92.400	.032	5.718	1.3+5	4.2604947-9	19310.0000	7.390
363542.62501	10.96	-69.716	.0697	28482	26.5	-2.08061	-92.404	.030	6.515	1.3+5	5.5298103-9	19315.0000	7.390
358462.66115	10.57	-69.732	.0878	28486	27.2	-2.00847	-92.407	.028	7.310	1.3+5	6.9591961-9	19320.0000	7.390
353561.18751	10.18	-69.749	.1109	28491	27.5	-1.93626	-92.410	.025	8.216	1.3+5	8.7898965-9	19325.0000	7.390
348836.49756	9.799	-69.765	.1371	28495	27.9	-1.86399	-92.413	.022	9.136	1.3+5	1.0865685-8	19330.0000	7.390
344294.85644	9.414	-69.782	.1740	28498	28.3	-1.79168	-92.416	.019	10.29	1.3+5	1.3782702-8	19335.0000	7.390
339930.50488	9.028	-69.798	.2095	28501	28.7	-1.71932	-92.419	.015	11.30	1.3+5	1.6619363-8	19340.0000	7.390
335745.65284	8.642	-69.814	.2702	28503	29.1	-1.64695	-92.421	.010	12.82	1.3+5	2.1398464-8	19345.0000	7.390
331740.47607	8.256	-69.831	.3279	28504	29.5	-1.57457	-92.424	.005	14.12	1.3+5	2.5972376-8	19350.0000	7.390
327915.11231	7.869	-69.847	.4051	28504	29.8	-1.50220	-92.426	-.001	15.69	1.3+5	3.2083908-8	19355.0000	7.390
324269.63330	7.483	-69.864	.4961	28504	30.0	-1.42987	-92.429	-.008	17.36	1.3+5	3.9294665-8	19360.0000	7.341
320804.05615	7.097	-69.880	.5826	28502	30.2	-1.35760	-92.431	-.014	18.80	1.3+5	4.6149577-8	19365.0000	7.106
317518.30957	6.710	-69.896	.7135	28499	30.4	-1.28541	-92.433	-.021	20.80	1.3+5	5.6525184-8	19370.0000	6.884
314412.25000	6.324	-69.913	.8520	28495	30.7	-1.21334	-92.435	-.029	22.72	1.3+5	6.7520635-8	19375.0000	6.674
311485.66896	5.938	-69.929	.9824	28490	30.9	-1.14140	-92.437	-.037	24.38	1.3+5	7.7880732-8	19380.0000	6.476
308738.23634	5.551	-69.946	1.153	28484	31.1	-1.06964	-92.439	-.045	26.39	1.3+5	9.1424740-8	19385.0000	6.291
306169.54981	5.165	-69.962	1.365	28475	31.3	-.998076	-92.440	-.056	28.69	1.3+5	1.0829074-7	19390.0000	6.117
303779.10693	4.778	-69.979	1.561	28466	31.5	-.926756	-92.442	-.066	30.66	1.3+5	1.2398638-7	19395.0000	5.955
301566.27736	4.392	-69.995	1.743	28454	31.7	-.855715	-92.443	-.074	32.36	1.3+5	1.3851582-7	19400.0000	5.806
299530.29687	4.006	-70.011	1.940	28442	31.8	-.784986	-92.444	-.083	34.10	1.3+5	1.5430492-7	19405.0000	5.677
297670.30224	3.620	-70.028	2.212	28427	31.9	-.714605	-92.445	-.096	36.37	1.3+5	1.7610406-7	19410.0000	5.586
295985.31935	3.234	-70.044	2.457	28411	31.9	-.644617	-92.447	-.107	38.28	1.3+5	1.9585206-7	19415.0000	5.503
294474.24318	2.849	-70.061	2.676	28393	31.9	-.575069	-92.447	-.117	39.89	1.3+5	2.1356187-7	19420.0000	5.429
293135.79687	2.463	-70.077	2.868	28374	32.0	-.505997	-92.448	-.126	41.23	1.3+5	2.2924846-7	19425.0000	5.364
291968.59084	2.078	-70.093	3.035	28353	32.0	-.437436	-92.449	-.133	42.34	1.3+5	2.4292812-7	19430.0000	5.306
290971.12646	1.693	-70.110	3.176	28331	32.0	-.369414	-92.449	-.140	43.24	1.3+5	2.5461840-7	19435.0000	5.258
290141.82032	1.309	-70.126	3.292	28308	32.0	-.301955	-92.450	-.145	43.94	1.3+5	2.6433787-7	19440.0000	5.217
289479.01123	.9244	-70.142	3.437	28284	32.0	-.235081	-92.450	-.152	44.81	1.3+5	2.7642499-7	19445.0000	5.184
288980.97021	.5404	-70.159	3.554	28259	32.0	-.168815	-92.450	-.157	45.49	1.3+5	2.8639079-7	19450.0000	5.160
288645.90186	.1567	-70.175	3.631	28234	31.9	-.103180	-92.450	-.161	45.88	1.3+5	2.9309550-7	19455.0000	5.144
288471.94628	-.2266	-70.191	3.667	28207	31.9	-.038190	-92.450	-.164	46.02	1.3+5	2.9657635-7	19460.0000	5.135
288457.20508	-.6095	-70.208	3.664	28181	31.9	.026145	-92.450	-.165	45.91	1.3+5	2.9687133-7	19465.0000	5.134
288599.76955	-.9921	-70.224	3.622	28155	31.8	.089822	-92.450	-.164	45.55	1.3+5	2.9401861-7	19470.0000	5.141
288897.73244	-1.374	-70.240	3.542	28128	31.8	.152845	-92.449	-.162	44.96	1.3+5	2.8805637-7	19475.0000	5.156
289349.21094	-1.756	-70.256	3.424	28103	31.8	.215223	-92.449	-.158	44.12	1.3+5	2.7902229-7	19480.0000	5.178
289952.37062	-2.138	-70.273	3.271	28077	31.8	.276971	-92.448	-.153	43.04	1.3+5	2.6695306-7	19485.0000	5.208
290705.43556	-2.519	-70.289	3.152	28053	31.7	.338109	-92.447	-.150	42.17	1.3+5	2.5773230-7	19490.0000	5.245
291606.66310	-2.900	-70.305	3.018	28029	31.6	.398653	-92.446	-.146	41.19	1.3+5	2.4716967-7	19495.0000	5.289
292654.45703	-3.280	-70.321	2.863	28006	31.6	.458619	-92.445	-.141	40.05	1.3+5	2.3488976-7	19500.0000	5.340
293847.15089	-3.660	-70.337	2.688	27984	31.5	.518029	-92.444	-.135	38.75	1.3+5	2.2091139-7	19505.0000	5.399
295183.24072	-4.040	-70.353	2.494	27963	31.4	.576906	-92.443	-.128	37.27	1.3+5	2.0525242-7	19510.0000	5.464
296661.29345	-4.420	-70.370	2.280	27943	31.4	.635279	-92.441	-.121	35.58	1.3+5	1.8792964-7	19515.0000	5.536

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OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	2.6157	.34910	25773.6	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
298279.97804	-4.799	-70.386	2.047	27924	31.3	.693180	-92.440	-.112	33.67	1.3+5	1.6895866-7	19520.0000	5.616
300038.07961	-5.178	-70.402	1.798	27907	31.2	.750646	-92.438	-.102	31.52	1.3+5	1.4854997-7	19525.0000	5.703
301934.50392	-5.556	-70.418	1.645	27891	31.0	.807713	-92.436	-.097	30.12	1.3+5	1.3609805-7	19530.0000	5.831
303968.21681	-5.935	-70.434	1.482	27875	30.8	.864409	-92.434	-.092	28.56	1.3+5	1.2274469-7	19535.0000	5.968
306138.25036	-6.313	-70.450	1.309	27861	30.7	.920755	-92.432	-.085	26.81	1.3+5	1.0849621-7	19540.0000	6.115
308443.73535	-6.691	-70.466	1.125	27848	30.5	.976779	-92.430	-.078	24.83	1.3+5	9.3358434-8	19545.0000	6.271
310883.87305	-7.068	-70.482	.9634	27836	30.3	1.03251	-92.428	-.071	22.96	1.4+5	8.0011089-8	19550.0000	6.436
313457.95802	-7.446	-70.498	.8530	27825	30.0	1.08797	-92.425	-.067	21.59	1.4+5	7.0898829-8	19555.0000	6.610
316165.33349	-7.823	-70.514	.7372	27814	29.8	1.14319	-92.422	-.063	20.06	1.4+5	6.1314719-8	19560.0000	6.793
319005.38966	-8.200	-70.530	.6159	27804	29.6	1.19818	-92.420	-.057	18.33	1.4+5	5.1260921-8	19565.0000	6.985
321977.58252	-8.577	-70.546	.5262	27795	29.4	1.25297	-92.417	-.054	16.93	1.4+5	4.3828342-8	19570.0000	7.186
325081.41457	-8.954	-70.562	.4522	27787	29.2	1.30757	-92.414	-.051	15.69	1.4+5	3.7688962-8	19575.0000	7.390
328316.41843	-9.330	-70.578	.3752	27779	29.0	1.36199	-92.411	-.047	14.29	1.4+5	3.1290124-8	19580.0000	7.390
331682.17970	-9.706	-70.594	.3121	27772	28.7	1.41625	-92.407	-.044	13.03	1.4+5	2.6038951-8	19585.0000	7.390
335178.32326	-10.08	-70.610	.2641	27765	28.4	1.47037	-92.404	-.041	11.98	1.4+5	2.2046355-8	19590.0000	7.390
338804.49365	-10.46	-70.626	.2144	27758	28.1	1.52436	-92.400	-.039	10.79	1.4+5	1.7905268-8	19595.0000	7.390
342560.35840	-10.83	-70.642	.1783	27752	27.7	1.57822	-92.397	-.038	9.839	1.4+5	1.4896250-8	19600.0000	7.390
346445.60058	-11.21	-70.658	.1484	27746	27.4	1.63196	-92.393	-.037	8.974	1.4+5	1.2401924-8	19605.0000	7.390
350459.91261	-11.59	-70.673	.1190	27740	27.0	1.68560	-92.389	-.035	8.034	1.4+5	9.9482226-9	19610.0000	7.390
354602.99366	-11.96	-70.689	.1004	27734	26.7	1.73912	-92.385	-.035	7.380	1.4+5	8.4007819-9	19615.0000	7.390
358874.54343	-12.34	-70.705	.0813	27729	26.4	1.79255	-92.381	-.035	6.640	1.4+5	6.8053573-9	19620.0000	7.390
363274.27346	-12.71	-70.721	.0668	27723	25.9	1.84588	-92.376	-.035	6.019	1.4+5	5.5945904-9	19625.0000	7.390
367801.86576	-13.09	-70.737	.0537	27717	25.3	1.89910	-92.372	-.035	5.397	1.4+5	4.5016248-9	19630.0000	7.390
372457.08692	-13.46	-70.753	.0433	27712	24.7	1.95224	-92.367	-.035	4.845	1.4+5	3.6289735-9	19635.0000	7.390
377239.58105	-13.83	-70.769	.0353	27706	24.1	2.00527	-92.363	-.035	4.377	1.4+5	2.9632503-9	19640.0000	7.390
382149.06887	-14.21	-70.784	.0286	27700	23.6	2.05820	-92.358	-.036	3.937	1.4+5	2.3993378-9	19645.0000	7.390
387185.24464	-14.58	-70.800	.0236	27694	23.1	2.11104	-92.353	-.036	3.574	1.4+5	1.9783135-9	19650.0000	7.390
392347.79542	-14.96	-70.816	.0191	27688	22.5	2.16378	-92.348	-.037	3.220	1.4+5	1.6070626-9	19655.0000	7.390
397636.41211	-15.33	-70.832	.0155	27682	21.7	2.21643	-92.342	-.037	2.896	1.4+5	1.3008517-9	19660.0000	7.390
403050.77150	-15.70	-70.847	.0125	27676	21.0	2.26897	-92.337	-.038	2.605	1.4+5	1.0526468-9	19665.0000	7.390
537196.05275	-23.12	-71.158	7.4-4	27526	12.9	3.29599	-92.201	-.054	.6336	1.4+5	6.318522-11	19765.0000	7.390
2347064.9091	-67.54	-72.406	2.1-5	25598	10.3	8.16800	-89.542	-.114	.0000	1.4+5	.0000000000	20414.2187	7.390

TTA7622 3H-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24599.9	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DQC	QC	RHO	TIME	CD
2347064.9073	67.54	-72.406	2.1-5	25598	10.3	-8.16800	-89.542	.114	.0000	1.4+5	.0000000000	20414.2187	7.390
1200366.5475	44.48	-72.815	2.3-5	26800	10.7	-5.98256	-91.446	.092	.0544	1.4+5	7.007739-13	20765.0000	7.390
534694.20215	23.01	-73.659	7.7-4	27528	12.9	-3.28073	-92.203	.053	.6439	1.4+5	6.522423-11	21065.0000	7.390
401288.54347	15.59	-73.970	.0133	27676	21.2	-2.25327	-92.339	.036	2.683	1.4+5	1.1169682-9	21165.0000	7.390
390661.30470	14.84	-74.001	.0203	27688	22.7	-2.14812	-92.349	.034	3.316	1.4+5	1.7047105-9	21175.0000	7.390
385536.63232	14.47	-74.017	.0252	27693	23.3	-2.09542	-92.354	.033	3.695	1.4+5	2.1161375-9	21180.0000	7.390
380538.37110	14.09	-74.033	.0302	27698	23.8	-2.04263	-92.359	.032	4.045	1.4+5	2.5339922-9	21185.0000	7.390
375666.76223	13.72	-74.049	.0380	27703	24.3	-1.98975	-92.364	.030	4.534	1.4+5	3.1821839-9	21190.0000	7.390
370922.14357	13.34	-74.064	.0458	27708	24.9	-1.93681	-92.369	.029	4.983	1.4+5	3.8426376-9	21195.0000	7.390
366304.72558	12.97	-74.080	.0580	27713	25.5	-1.88378	-92.373	.027	5.607	1.4+5	4.8630392-9	21200.0000	7.390
361814.78761	12.59	-74.096	.0710	27717	26.1	-1.83069	-92.378	.026	6.201	1.4+5	5.9469103-9	21205.0000	7.390
357452.57226	12.22	-74.112	.0876	27721	26.5	-1.77754	-92.382	.024	6.888	1.4+5	7.3364643-9	21210.0000	7.390
353218.31397	11.84	-74.128	.1065	27725	26.8	-1.72434	-92.386	.022	7.595	1.4+5	8.9179597-9	21215.0000	7.390
349112.22363	11.47	-74.144	.1277	27729	27.1	-1.67108	-92.390	.019	8.316	1.4+5	1.0689952-8	21220.0000	7.390
345134.50149	11.09	-74.160	.1583	27732	27.5	-1.61779	-92.394	.016	9.257	1.4+5	1.3243650-8	21225.0000	7.390
341285.32520	10.72	-74.175	.1878	27734	27.8	-1.56446	-92.398	.014	10.08	1.4+5	1.5714821-8	21230.0000	7.390
337564.84620	10.34	-74.191	.2310	27736	28.1	-1.51112	-92.402	.010	11.18	1.4+5	1.9320946-8	21235.0000	7.390
333973.19287	9.967	-74.207	.2800	27737	28.5	-1.45776	-92.405	.006	12.31	1.4+5	2.3422614-8	21240.0000	7.390
330510.46484	9.591	-74.223	.3273	27738	28.8	-1.40442	-92.408	.002	13.30	1.4+5	2.7377049-8	21245.0000	7.390
327176.71777	9.216	-74.239	.4011	27738	29.0	-1.35110	-92.412	-.004	14.72	1.4+5	3.3544452-8	21250.0000	7.390
323971.96026	8.840	-74.255	.4769	27737	29.2	-1.29783	-92.415	-.009	16.05	1.4+5	3.9883447-8	21255.0000	7.321
320896.18066	8.464	-74.271	.5495	27735	29.4	-1.24462	-92.418	-.014	17.22	1.4+5	4.5967355-8	21260.0000	7.113
317949.25392	8.088	-74.287	.6574	27733	29.6	-1.19149	-92.421	-.020	18.83	1.4+5	5.4999641-8	21265.0000	6.913
315131.02931	7.712	-74.303	.7764	27729	29.8	-1.13848	-92.423	-.027	20.45	1.4+5	6.4976156-8	21270.0000	6.723
312441.29835	7.336	-74.319	.8899	27724	30.0	-1.08559	-92.426	-.033	21.88	1.4+5	7.4497804-8	21275.0000	6.541
309879.76465	6.960	-74.335	1.002	27719	30.2	-1.03287	-92.428	-.039	23.21	1.4+5	8.3929465-8	21280.0000	6.368
307446.06250	6.584	-74.351	1.192	27712	30.4	-.980325	-92.431	-.048	25.30	1.4+5	9.9909154-8	21285.0000	6.203
305139.76319	6.208	-74.367	1.372	27703	30.6	-.927999	-92.433	-.057	27.12	1.4+5	1.1505231-7	21290.0000	6.047
302960.35742	5.832	-74.383	1.542	27694	30.7	-.875924	-92.435	-.065	28.72	1.4+5	1.2936229-7	21295.0000	5.900
300907.20314	5.456	-74.399	1.701	27683	30.9	-.824133	-92.437	-.072	30.13	1.4+5	1.4284330-7	21300.0000	5.761
298979.57618	5.081	-74.415	1.913	27670	31.0	-.772655	-92.439	-.082	31.92	1.4+5	1.6075937-7	21305.0000	5.650
297176.66694	4.705	-74.431	2.162	27656	31.0	-.721526	-92.440	-.093	33.89	1.4+5	1.8188944-7	21310.0000	5.562
295497.58107	4.330	-74.446	2.393	27641	31.1	-.670790	-92.442	-.103	35.61	1.4+5	2.0156835-7	21315.0000	5.479
293941.27588	3.955	-74.462	2.607	27623	31.1	-.620491	-92.443	-.113	37.11	1.4+5	2.1980825-7	21320.0000	5.403
292506.59083	3.580	-74.478	2.802	27605	31.1	-.570664	-92.444	-.121	38.41	1.4+5	2.3662276-7	21325.0000	5.333
291192.25149	3.205	-74.494	2.980	27585	31.2	-.521342	-92.446	-.128	39.55	1.4+5	2.5202681-7	21330.0000	5.268
289996.89355	2.830	-74.510	3.141	27563	31.2	-.472557	-92.447	-.135	40.53	1.4+5	2.6606216-7	21335.0000	5.210
288919.06494	2.456	-74.526	3.390	27541	31.2	-.424337	-92.447	-.146	42.03	1.4+5	2.8762951-7	21340.0000	5.157
287957.22560	2.082	-74.542	3.611	27517	31.1	-.376719	-92.448	-.155	43.29	1.4+5	3.0687592-7	21345.0000	5.110
287109.74709	1.709	-74.558	3.803	27491	31.1	-.329742	-92.449	-.163	44.34	1.4+5	3.2383396-7	21350.0000	5.068
286374.87353	1.335	-74.574	3.968	27464	31.1	-.283439	-92.449	-.170	45.20	1.4+5	3.3853878-7	21355.0000	5.032
285750.77003	.9626	-74.590	4.106	27437	31.0	-.237838	-92.450	-.175	45.87	1.4+5	3.5102709-7	21360.0000	5.002
285235.53124	.5901	-74.605	4.218	27408	31.0	-.192961	-92.450	-.180	46.39	1.4+5	3.6133702-7	21365.0000	4.977
284827.16946	.2180	-74.621	4.304	27379	31.0	-.148827	-92.450	-.184	46.75	1.4+5	3.6950794-7	21370.0000	4.957
284523.73098	-.1538	-74.637	4.366	27349	30.9	-.105453	-92.450	-.186	46.97	1.4+5	3.7558014-7	21375.0000	4.942
284323.11574	-.5251	-74.653	4.403	27319	30.9	-.062847	-92.449	-.188	47.06	1.4+5	3.7959445-7	21380.0000	4.932
284223.27197	-.8960	-74.669	4.415	27289	30.9	-.021020	-92.449	-.189	47.01	1.4+5	3.8159233-7	21385.0000	4.927
284222.12062	-1.267	-74.684	4.406	27258	30.8	.020026	-92.449	-.190	46.85	1.4+5	3.8161537-7	21390.0000	4.927
284317.58057	-1.637	-74.700	4.374	27227	30.8	.060288	-92.448	-.189	46.57	1.4+5	3.7970521-7	21395.0000	4.932
284507.58155	-2.006	-74.716	4.321	27197	30.8	.099770	-92.447	-.188	46.17	1.4+5	3.7590329-7	21400.0000	4.941

TTA7622 3H-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	4.9547	.34910	25781.9	1.000

HITE	LAT	LONG	D	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
284790.06298	-2.376	-74.731	4.247	27167	30.7	.138477	-92.446	-.186	45.67	1.4+5	3.7025084-7	21405.0000	4.955
285163.00048	-2.744	-74.747	4.152	27137	30.7	.176418	-92.445	-.183	45.05	1.4+5	3.6278836-7	21410.0000	4.973
285624.40039	-3.113	-74.763	4.038	27108	30.7	.213603	-92.444	-.179	44.32	1.4+5	3.5355575-7	21415.0000	4.996
286172.31055	-3.481	-74.778	3.904	27080	30.6	.250049	-92.443	-.175	43.49	1.4+5	3.4259207-7	21420.0000	5.022
286804.83790	-3.849	-74.794	3.752	27052	30.6	.285772	-92.441	-.170	42.54	1.4+5	3.2993519-7	21425.0000	5.053
287520.14503	-4.216	-74.810	3.582	27025	30.6	.320795	-92.440	-.164	41.48	1.4+5	3.1562190-7	21430.0000	5.088
288316.46876	-4.583	-74.825	3.395	26999	30.5	.355142	-92.438	-.158	40.30	1.4+5	2.9968746-7	21435.0000	5.128
289192.12258	-4.949	-74.841	3.191	26974	30.5	.388839	-92.436	-.150	38.99	1.4+5	2.8216563-7	21440.0000	5.170
290145.50489	-5.315	-74.856	2.983	26950	30.5	.421919	-92.434	-.143	37.64	1.4+5	2.6429468-7	21445.0000	5.217
291175.10351	-5.681	-74.872	2.842	26928	30.4	.454411	-92.432	-.138	36.67	1.4+5	2.5222779-7	21450.0000	5.268
292279.46876	-6.047	-74.887	2.692	26906	30.4	.486338	-92.429	-.133	35.63	1.4+5	2.3928463-7	21455.0000	5.322
293457.21047	-6.412	-74.903	2.533	26885	30.3	.517720	-92.427	-.127	34.51	1.5+5	2.2548149-7	21460.0000	5.379
294706.99903	-6.777	-74.918	2.365	26865	30.2	.548582	-92.424	-.121	33.29	1.5+5	2.1083397-7	21465.0000	5.441
296027.58251	-7.141	-74.934	2.188	26846	30.2	.578949	-92.421	-.115	31.98	1.5+5	1.9535673-7	21470.0000	5.505
297417.78809	-7.506	-74.949	2.003	26828	30.1	.608850	-92.419	-.107	30.56	1.5+5	1.7906352-7	21475.0000	5.573
298876.52199	-7.870	-74.964	1.809	26811	30.0	.638315	-92.415	-.100	29.01	1.5+5	1.6196716-7	21480.0000	5.645
300402.70710	-8.233	-74.980	1.631	26796	29.9	.667376	-92.412	-.092	27.51	1.5+5	1.4615530-7	21485.0000	5.727
301995.65624	-8.597	-74.995	1.512	26781	29.8	.696063	-92.409	-.088	26.46	1.5+5	1.3569652-7	21490.0000	5.835
303654.25342	-8.960	-75.010	1.390	26767	29.6	.724397	-92.405	-.084	25.34	1.5+5	1.2480617-7	21495.0000	5.947
305377.74658	-9.323	-75.026	1.262	26754	29.5	.752395	-92.402	-.079	24.13	1.5+5	1.1348972-7	21500.0000	6.064
307165.36086	-9.686	-75.041	1.131	26742	29.4	.780078	-92.398	-.074	22.82	1.5+5	1.0175224-7	21505.0000	6.184
309016.38526	-10.05	-75.056	.9949	26730	29.2	.807469	-92.394	-.068	21.39	1.5+5	8.9598414-8	21510.0000	6.310
310930.17334	-10.41	-75.072	.8859	26720	29.0	.834592	-92.390	-.063	20.17	1.5+5	7.9847186-8	21515.0000	6.439
312906.12404	-10.77	-75.087	.8077	26710	28.9	.861466	-92.386	-.060	19.24	1.5+5	7.2852321-8	21520.0000	6.572
314943.67530	-11.14	-75.102	.7272	26700	28.7	.888107	-92.381	-.057	18.25	1.5+5	6.5639389-8	21525.0000	6.710
317042.28906	-11.50	-75.117	.6445	26691	28.5	.914528	-92.377	-.053	17.17	1.5+5	5.8210297-8	21530.0000	6.852
319201.47658	-11.86	-75.133	.5595	26683	28.4	.940745	-92.372	-.049	15.99	1.5+5	5.0566773-8	21535.0000	6.998
321420.79103	-12.22	-75.148	.4969	26675	28.2	.966774	-92.367	-.047	15.06	1.5+5	4.4929675-8	21540.0000	7.148
323699.81592	-12.58	-75.163	.4467	26667	28.1	.992628	-92.362	-.045	14.27	1.5+5	4.0421764-8	21545.0000	7.302
326038.15430	-12.94	-75.178	.3954	26660	28.0	1.01832	-92.357	-.042	13.42	1.5+5	3.5796531-8	21550.0000	7.390
328435.43653	-13.31	-75.193	.3429	26654	27.8	1.04385	-92.351	-.039	12.50	1.5+5	3.1054707-8	21555.0000	7.390
330891.32863	-13.67	-75.209	.2973	26648	27.6	1.06925	-92.346	-.036	11.63	1.5+5	2.6942103-8	21560.0000	7.390
333405.52539	-14.03	-75.224	.2655	26642	27.4	1.09451	-92.340	-.035	10.99	1.5+5	2.4070890-8	21565.0000	7.390
335977.73732	-14.39	-75.239	.2330	26636	27.2	1.11965	-92.335	-.033	10.29	1.5+5	2.1133424-8	21570.0000	7.390
338607.69093	-14.75	-75.254	.1998	26631	26.9	1.14468	-92.329	-.031	9.529	1.5+5	1.8130017-8	21575.0000	7.390
341295.12892	-15.11	-75.269	.1731	26626	26.7	1.16960	-92.323	-.030	8.867	1.5+5	1.5708527-8	21580.0000	7.390
344039.80956	-15.47	-75.284	.1536	26621	26.5	1.19441	-92.316	-.029	8.352	1.5+5	1.3946442-8	21585.0000	7.390
346841.49952	-15.83	-75.299	.1337	26616	26.2	1.21914	-92.310	-.028	7.792	1.5+5	1.2147757-8	21590.0000	7.390
349699.97461	-16.19	-75.314	.1135	26611	26.0	1.24376	-92.304	-.027	7.177	1.5+5	1.0312616-8	21595.0000	7.390
352615.01709	-16.55	-75.329	.1006	26607	25.8	1.26831	-92.297	-.027	6.756	1.5+5	9.1432911-9	21600.0000	7.390
355586.41602	-16.91	-75.344	.0884	26602	25.6	1.29276	-92.290	-.027	6.330	1.5+5	8.0334736-9	21605.0000	7.390
358613.96437	-17.27	-75.359	.0759	26598	25.3	1.31713	-92.283	-.026	5.866	1.5+5	6.9026843-9	21610.0000	7.390
361697.46096	-17.63	-75.374	.0657	26594	25.0	1.34142	-92.276	-.026	5.456	1.5+5	5.9752329-9	21615.0000	7.390
364836.70410	-17.99	-75.389	.0573	26589	24.6	1.36564	-92.269	-.026	5.097	1.5+5	5.2174196-9	21620.0000	7.390
368031.49708	-18.35	-75.403	.0488	26585	24.2	1.38977	-92.261	-.026	4.704	1.5+5	4.4461966-9	21625.0000	7.390
371281.64453	-18.71	-75.418	.0416	26581	23.8	1.41383	-92.254	-.025	4.344	1.5+5	3.7925951-9	21630.0000	7.390
374586.95314	-19.07	-75.433	.0366	26577	23.5	1.43781	-92.246	-.026	4.071	1.5+5	3.3324961-9	21635.0000	7.390
377947.23096	-19.43	-75.448	.0314	26572	23.1	1.46171	-92.238	-.026	3.773	1.5+5	2.8647455-9	21640.0000	7.390
381362.28077	-19.78	-75.463	.0270	26568	22.7	1.48554	-92.230	-.026	3.499	1.5+5	2.4651133-9	21645.0000	7.390
384831.90772	-20.14	-75.477	.0239	26564	22.4	1.50929	-92.222	-.026	3.286	1.5+5	2.1750525-9	21650.0000	7.390

TTA7622 38-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X , 0=Y, 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25716.8	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
388355.91945	-20.50	-75.492	.0205	26559	22.0	1.53297	-92.213	-.026	3.055	1.5+5	1.8804451-9	21655.0000	7.390
391934.11768	-20.86	-75.507	.0179	26555	21.6	1.55658	-92.205	-.026	2.844	1.5+5	1.6310146-9	21660.0000	7.390
395566.30910	-21.22	-75.522	.0156	26551	21.1	1.58010	-92.196	-.026	2.654	1.5+5	1.4207109-9	21665.0000	7.390
399252.26321	-21.58	-75.536	.0132	26546	20.6	1.60356	-92.187	-.027	2.446	1.5+5	1.2072928-9	21670.0000	7.390
402991.85254	-21.93	-75.551	.0115	26542	20.1	1.62693	-92.178	-.027	2.286	1.5+5	1.0547974-9	21675.0000	7.390
488712.23244	-29.06	-75.836	.0013	26441	13.6	2.07733	-91.966	-.033	.7722	1.5+5	1.217232-10	21775.0000	7.390
593978.28858	-36.12	-76.103	3.8-4	26319	11.7	2.49090	-91.688	-.040	.4147	1.5+5	3.557749-11	21875.0000	7.390
2204780.8903	-78.49	94.814	1.9-5	24518	9.82	3.93852	86.431	-.057	.0071	1.5+5	1.297920-14	22875.0000	7.390
2321719.0708	-74.27	95.705	1.9-5	24393	9.77	3.85796	87.878	-.055	.0000	1.5+5	.0000000000	22945.3125	7.390

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24612.4	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
2321719.0697	74.27	95.705	1.9-5	24393	9.77	-3.85796	87.878	.055	.0000	1.5+5	.0000000000	22945.3125	7.390
770923.47363	45.91	-92.161	9.3-5	26114	10.9	-2.99975	-91.172	.047	.2032	1.5+5	8.732214-12	23875.0000	7.390
529107.56398	31.94	-92.642	7.6-4	26393	12.5	-2.25050	-91.861	.036	.5832	1.5+5	6.977734-11	24075.0000	7.390
435193.19582	24.84	-92.921	.0041	26502	16.7	-1.81459	-92.100	.029	1.365	1.5+5	3.778316-10	24175.0000	7.390
395863.87062	21.26	-93.066	.0154	26547	21.1	-1.58411	-92.195	.025	2.637	1.5+5	1.4034819-9	24225.0000	7.390
392222.73731	20.90	-93.081	.0177	26551	21.6	-1.56067	-92.204	.024	2.829	1.5+5	1.6143035-9	24230.0000	7.390
388635.43359	20.55	-93.095	.0204	26555	22.0	-1.53716	-92.212	.023	3.034	1.5+5	1.8570778-9	24235.0000	7.390
385102.15040	20.19	-93.110	.0235	26559	22.3	-1.51359	-92.221	.023	3.268	1.5+5	2.1524602-9	24240.0000	7.390
381623.04038	19.83	-93.125	.0269	26563	22.7	-1.48995	-92.229	.022	3.482	1.5+5	2.4433133-9	24245.0000	7.390
378198.29347	19.47	-93.140	.0310	26567	23.0	-1.46625	-92.237	.022	3.748	1.5+5	2.8297976-9	24250.0000	7.390
374828.06007	19.11	-93.154	.0362	26570	23.4	-1.44249	-92.245	.021	4.047	1.5+5	3.2989340-9	24255.0000	7.390
371512.50490	18.75	-93.169	.0413	26574	23.8	-1.41868	-92.253	.020	4.322	1.5+5	3.7604593-9	24260.0000	7.390
368251.78712	18.39	-93.184	.0482	26577	24.2	-1.39481	-92.260	.019	4.672	1.5+5	4.3930186-9	24265.0000	7.390
365046.05761	18.03	-93.199	.0567	26580	24.6	-1.37090	-92.268	.018	5.067	1.5+5	5.1668817-9	24270.0000	7.390
361895.46095	17.67	-93.214	.0651	26584	25.0	-1.34693	-92.275	.018	5.428	1.5+5	5.9274357-9	24275.0000	7.390
358800.13331	17.32	-93.229	.0751	26586	25.3	-1.32292	-92.282	.017	5.829	1.5+5	6.8331502-9	24280.0000	7.390
355760.20411	16.96	-93.244	.0876	26589	25.5	-1.29887	-92.289	.015	6.295	1.5+5	7.9685638-9	24285.0000	7.390
352775.79491	16.60	-93.259	.0998	26592	25.8	-1.27479	-92.296	.014	6.721	1.5+5	9.0832406-9	24290.0000	7.390
349847.01708	16.24	-93.273	.1123	26594	26.0	-1.25067	-92.303	.013	7.129	1.5+5	1.0218215-8	24295.0000	7.390
346973.97021	15.88	-93.288	.1326	26596	26.2	-1.22653	-92.309	.011	7.746	1.5+5	1.2062711-8	24300.0000	7.390
344156.74416	15.52	-93.303	.1525	26598	26.4	-1.20236	-92.316	.010	8.307	1.5+5	1.3871370-8	24305.0000	7.390
341395.41798	15.16	-93.318	.1720	26599	26.7	-1.17819	-92.322	.008	8.821	1.5+5	1.5644142-8	24310.0000	7.390
338690.04785	14.80	-93.334	.1983	26601	26.9	-1.15400	-92.328	.006	9.471	1.5+5	1.8035965-8	24315.0000	7.390
336040.68506	14.44	-93.349	.2316	26602	27.1	-1.12982	-92.334	.003	10.23	1.5+5	2.1061538-8	24320.0000	7.390
333447.35793	14.08	-93.364	.2642	26602	27.4	-1.10564	-92.340	9.-4	10.93	1.5+5	2.4023117-8	24325.0000	7.390
330910.06983	13.72	-93.379	.2961	26602	27.6	-1.08149	-92.345	-.002	11.57	1.5+5	2.6920700-8	24330.0000	7.390
328428.80469	13.36	-93.394	.3417	26602	27.8	-1.05737	-92.351	-.005	12.42	1.5+5	3.1067824-8	24335.0000	7.390
326003.51061	12.99	-93.409	.3944	26601	27.9	-1.03329	-92.356	-.009	13.34	1.5+5	3.5865044-8	24340.0000	7.390
323634.14063	12.63	-93.424	.4459	26599	28.0	-1.00927	-92.361	-.012	14.18	1.5+5	4.0551670-8	24345.0000	7.298
321320.56201	12.27	-93.439	.4961	26597	28.2	-.985323	-92.366	-.015	14.96	1.5+5	4.5127928-8	24350.0000	7.141
319062.63623	11.91	-93.454	.5612	26595	28.3	-.961462	-92.371	-.019	15.90	1.5+5	5.1058268-8	24355.0000	6.989
316860.18311	11.55	-93.470	.6467	26591	28.5	-.937701	-92.376	-.023	17.06	1.5+5	5.8854952-8	24360.0000	6.840
314712.99758	11.19	-93.485	.7300	26587	28.6	-.914060	-92.381	-.028	18.12	1.5+5	6.6455989-8	24365.0000	6.695
312620.82519	10.83	-93.500	.8111	26583	28.8	-.890555	-92.385	-.032	19.09	1.5+5	7.3862279-8	24370.0000	6.553
310583.35398	10.47	-93.515	.8900	26577	28.9	-.867206	-92.389	-.036	19.98	1.5+5	8.1074920-8	24375.0000	6.415
308600.24609	10.11	-93.530	1.013	26571	29.1	-.844028	-92.393	-.042	21.30	1.5+5	9.2330784-8	24380.0000	6.281
306671.10939	9.750	-93.546	1.151	26564	29.2	-.821045	-92.397	-.048	22.70	1.5+5	1.0499750-7	24385.0000	6.151
304795.51418	9.390	-93.561	1.286	26556	29.3	-.798285	-92.401	-.055	23.96	1.5+5	1.1731265-7	24390.0000	6.024
302972.95021	9.030	-93.576	1.416	26547	29.5	-.775774	-92.405	-.060	25.13	1.5+5	1.2927961-7	24395.0000	5.901
301202.84180	8.670	-93.591	1.542	26536	29.6	-.753535	-92.408	-.066	26.20	1.5+5	1.4090214-7	24400.0000	5.781
299484.55031	8.310	-93.606	1.693	26526	29.7	-.731591	-92.412	-.072	27.42	1.5+5	1.5484107-7	24405.0000	5.675
297817.38965	7.950	-93.622	1.905	26513	29.7	-.709970	-92.415	-.081	29.05	1.5+5	1.7438019-7	24410.0000	5.593
296200.60889	7.590	-93.637	2.110	26500	29.8	-.688709	-92.418	-.090	30.54	1.5+5	1.9332886-7	24415.0000	5.514
294633.37647	7.230	-93.652	2.308	26484	29.8	-.667846	-92.421	-.099	31.90	1.5+5	2.1169683-7	24420.0000	5.437
293114.74951	6.871	-93.667	2.499	26468	29.8	-.647417	-92.424	-.106	33.14	1.5+5	2.2949514-7	24425.0000	5.363
291643.70361	6.512	-93.683	2.683	26450	29.9	-.627454	-92.426	-.114	34.29	1.5+5	2.4673579-7	24430.0000	5.291
290219.12941	6.153	-93.698	2.860	26432	29.9	-.607988	-92.429	-.120	35.34	1.5+5	2.6343180-7	24435.0000	5.221
288839.84716	5.794	-93.713	3.135	26411	29.9	-.589051	-92.431	-.131	36.94	1.5+5	2.8921466-7	24440.0000	5.153
287504.60009	5.435	-93.728	3.419	26389	29.9	-.570686	-92.433	-.142	38.50	1.5+5	3.1593295-7	24445.0000	5.088
286212.04834	5.077	-93.743	3.692	26366	29.8	-.552940	-92.435	-.153	39.93	1.5+5	3.4179691-7	24450.0000	5.024

TTA7622 38-64 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21766 SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	4.9631	.34910	25781.7	1.000

HITE	LAT	LONG	Q	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
284960.71192	4.719	-93.759	3.955	26340	29.8	-.535860	-92.437	-.162	41.24	1.5+5	3.6683615-7	24455.0000	4.963
283749.01806	4.361	-93.774	4.208	26314	29.8	-.519485	-92.439	-.172	42.44	1.5+5	3.9108215-7	24460.0000	4.904
282575.28613	4.004	-93.789	4.451	26285	29.7	-.503857	-92.441	-.180	43.55	1.5+5	4.1456852-7	24465.0000	4.846
281437.74059	3.647	-93.804	4.685	26256	29.7	-.489010	-92.442	-.188	44.56	1.5+5	4.3733069-7	24470.0000	4.790
280334.54690	3.291	-93.819	4.910	26225	29.7	-.474980	-92.443	-.195	45.50	1.5+5	4.5940572-7	24475.0000	4.736
279263.75783	2.935	-93.834	5.245	26193	29.6	-.461802	-92.444	-.207	46.90	1.5+5	4.9194946-7	24480.0000	4.684
278223.37110	2.579	-93.849	5.620	26159	29.6	-.449523	-92.445	-.220	48.41	1.5+5	5.2847744-7	24485.0000	4.633
277211.26467	2.224	-93.864	5.981	26122	29.6	-.438199	-92.446	-.232	49.78	1.5+5	5.6401180-7	24490.0000	4.583
276225.20124	1.869	-93.880	6.330	26084	29.5	-.427886	-92.447	-.243	51.05	1.5+5	5.9863108-7	24495.0000	4.535
275262.93555	1.515	-93.895	6.666	26044	29.5	-.418634	-92.447	-.254	52.21	1.5+5	6.3241833-7	24500.0000	4.488
274321.84474	1.161	-93.910	6.992	26002	29.4	-.410490	-92.448	-.264	53.29	1.5+5	6.6546003-7	24505.0000	4.442
273399.41699	.8079	-93.925	7.308	25959	29.4	-.403501	-92.448	-.274	54.28	1.5+5	6.9784647-7	24510.0000	4.397
272492.96684	.4554	-93.940	7.615	25914	29.3	-.397709	-92.448	-.283	55.20	1.6+5	7.2967123-7	24515.0000	4.352
271599.80419	.1034	-93.954	7.914	25868	29.3	-.393155	-92.448	-.291	56.05	1.6+5	7.6103087-7	24520.0000	4.308
270717.03711	-.2479	-93.969	8.206	25821	29.2	-.389879	-92.447	-.299	56.85	1.6+5	7.9202483-7	24525.0000	4.265
269841.78175	-.5986	-93.984	8.532	25772	29.2	-.387918	-92.447	-.308	57.73	1.6+5	8.2656336-7	24530.0000	4.230
268971.07178	-.9486	-93.999	9.028	25721	29.1	-.387321	-92.446	-.327	59.13	1.6+5	8.7809197-7	24535.0000	4.230
268101.83399	-1.298	-94.014	9.517	25667	29.0	-.388163	-92.445	-.345	60.43	1.6+5	9.2953346-7	24540.0000	4.230
267230.87404	-1.646	-94.029	10.00	25610	28.9	-.390528	-92.444	-.362	61.64	1.6+5	9.8107688-7	24545.0000	4.230
266354.80127	-1.994	-94.044	10.48	25550	28.8	-.394500	-92.443	-.380	62.78	1.6+5	1.0329229-6	24550.0000	4.230
265470.08156	-2.341	-94.058	10.96	25488	28.7	-.400159	-92.442	-.398	63.86	1.6+5	1.0852806-6	24555.0000	4.230
264573.02540	-2.687	-94.073	11.43	25422	28.6	-.407587	-92.440	-.415	64.87	1.6+5	1.1383684-6	24560.0000	4.230
263659.79592	-3.033	-94.088	11.91	25354	28.5	-.416868	-92.439	-.432	65.83	1.6+5	1.1924133-6	24565.0000	4.230
262726.40869	-3.377	-94.102	12.39	25283	28.4	-.428085	-92.437	-.450	66.74	1.6+5	1.2476511-6	24570.0000	4.230
261768.73876	-3.720	-94.117	12.88	25209	28.3	-.441321	-92.435	-.468	67.61	1.6+5	1.3043260-6	24575.0000	4.230
260782.52345	-4.062	-94.131	13.38	25133	28.2	-.456664	-92.433	-.486	68.44	1.6+5	1.3626903-6	24580.0000	4.230
259763.30037	-4.404	-94.146	13.94	25053	28.1	-.474204	-92.430	-.506	69.38	1.6+5	1.4292090-6	24585.0000	4.230
258706.71778	-4.744	-94.160	14.72	24969	27.9	-.494042	-92.428	-.535	70.78	1.6+5	1.5194463-6	24590.0000	4.230
257607.90822	-5.083	-94.174	15.52	24881	27.7	-.516310	-92.425	-.564	72.12	1.6+5	1.6132846-6	24595.0000	4.230
256462.05959	-5.421	-94.189	16.34	24787	27.5	-.541152	-92.422	-.594	73.40	1.6+5	1.7111401-6	24600.0000	4.230
255264.05323	-5.757	-94.203	17.18	24689	27.3	-.568715	-92.419	-.624	74.62	1.6+5	1.8134499-6	24605.0000	4.230
254008.56495	-6.092	-94.217	18.04	24586	27.1	-.599150	-92.416	-.656	75.78	1.6+5	1.9206686-6	24610.0000	4.230
252690.05811	-6.426	-94.231	18.93	24478	26.8	-.632616	-92.412	-.688	76.89	1.6+5	2.0332690-6	24615.0000	4.230
251302.78614	-6.758	-94.245	19.85	24365	26.6	-.669277	-92.409	-.721	77.94	1.6+5	2.1517421-6	24620.0000	4.230
249840.79445	-7.089	-94.259	20.86	24246	26.4	-.709305	-92.405	-.758	79.05	1.6+5	2.2832557-6	24625.0000	4.230
248297.95947	-7.418	-94.273	22.42	24120	26.1	-.752904	-92.401	-.814	81.02	1.6+5	2.4795506-6	24630.0000	4.230
246667.95946	-7.745	-94.286	24.02	23984	25.8	-.800337	-92.397	-.873	82.85	1.6+5	2.6869355-6	24635.0000	4.230
244944.24462	-8.071	-94.300	25.67	23839	25.5	-.851914	-92.392	-.933	84.52	1.6+5	2.9062438-6	24640.0000	4.230
243119.82374	-8.394	-94.314	27.36	23684	25.2	-.907947	-92.387	-.994	86.03	1.6+5	3.1383648-6	24645.0000	4.230
241187.41112	-8.715	-94.327	29.09	23519	24.9	-.968764	-92.383	-1.06	87.38	1.6+5	3.3842257-6	24650.0000	4.230
239139.43310	-9.034	-94.340	31.29	23342	24.6	-1.03472	-92.377	-1.14	89.15	1.7+5	3.6948061-6	24655.0000	4.230
236968.12157	-9.350	-94.354	34.13	23151	24.2	-1.10625	-92.372	-1.24	91.47	1.7+5	4.0972587-6	24660.0000	4.230
234665.53710	-9.664	-94.367	37.01	22943	23.9	-1.18388	-92.367	-1.35	93.40	1.7+5	4.5240427-6	24665.0000	4.230
232223.37695	-9.975	-94.380	39.92	22718	23.5	-1.26822	-92.361	-1.45	94.95	1.7+5	4.9766971-6	24670.0000	4.230
229632.83202	-10.28	-94.392	43.07	22476	23.1	-1.35988	-92.355	-1.57	96.35	1.7+5	5.4859820-6	24675.0000	4.230
226884.96877	-10.59	-94.405	47.63	22211	22.6	-1.45957	-92.348	-1.73	98.77	1.7+5	6.2132812-6	24680.0000	4.230
223971.00049	-10.89	-94.417	52.15	21919	22.1	-1.56819	-92.342	-1.90	100.4	1.7+5	6.9845556-6	24685.0000	4.230
220881.90770	-11.18	-94.430	56.57	21600	21.6	-1.68676	-92.335	-2.06	101.3	1.7+5	7.8021767-6	24690.0000	4.230
217608.37745	-11.48	-94.442	62.63	21252	21.1	-1.81638	-92.328	-2.28	102.9	1.7+5	8.9234660-6	24695.0000	4.230
214141.64747	-11.76	-94.453	69.09	20866	20.6	-1.95839	-92.320	-2.52	103.9	1.7+5	1.0210455-5	24700.0000	4.230

TTA7622 38-04 21766 SPAHR9 GLFC MULTIPLE ORBITS ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL2176o SPAHR9 DATA-A=SANDIA GLFC4 DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	4.2300	.34910	25826.6	1.000

HITE	LAT	LONG	J	VT	MACH	GAMMA	TAU	AT	DOC	QC	RHO	TIME	CD
210473.35985	-12.04	-94.465	75.16	20443	20.0	-2.11436	-92.313	-2.74	103.7	1.7+5	1.1572270-5	24705.0000	4.230
206595.41749	-12.32	-94.476	83.87	19978	19.3	-2.28605	-92.305	-3.06	104.2	1.7+5	1.3521447-5	24710.0000	4.230
202501.33448	-12.59	-94.487	92.14	19462	18.7	-2.47559	-92.296	-3.36	103.2	1.7+5	1.5654055-5	24715.0000	4.230
198186.14161	-12.85	-94.498	101.2	18895	18.0	-2.68552	-92.288	-3.69	101.5	1.7+5	1.8232142-5	24720.0000	4.230
193646.46094	-13.10	-94.508	112.1	18271	17.3	-2.91873	-92.279	-4.09	99.32	1.7+5	2.1606536-5	24725.0000	4.230
188882.77001	-13.35	-94.518	123.8	17579	16.6	-3.17880	-92.269	-4.51	96.03	1.7+5	2.5777549-5	24730.0000	4.230
183899.81152	-13.58	-94.528	136.0	16817	15.8	-3.47017	-92.259	-4.96	91.49	1.7+5	3.0955163-5	24735.0000	4.230
178706.79881	-13.80	-94.537	148.4	15982	14.9	-3.79807	-92.249	-5.41	85.62	1.7+5	3.7395465-5	24740.0000	4.230
173318.31689	-14.02	-94.545	160.6	15075	14.0	-4.16880	-92.238	-5.86	78.52	1.7+5	4.5482023-5	24745.0000	4.230
167755.54039	-14.21	-94.553	172.8	14097	13.0	-4.59003	-92.226	-6.30	70.47	1.7+5	5.5945522-5	24750.0000	4.230
162047.67432	-14.40	-94.560	183.8	13051	12.1	-5.07125	-92.214	-6.70	61.56	1.7+5	6.9433686-5	24755.0000	4.230
156231.99610	-14.57	-94.567	192.0	11949	11.0	-5.62430	-92.201	-6.99	52.02	1.7+5	8.6534735-5	24760.0000	4.230
150352.96778	-14.72	-94.573	198.9	10802	10.1	-6.26387	-92.187	-7.24	42.60	1.8+5	1.0972236-4	24765.0000	4.230
144465.22801	-14.86	-94.579	202.5	9623.	9.05	-7.00935	-92.173	-7.35	33.51	1.8+5	1.4071955-4	24770.0000	4.230
138628.43310	-14.98	-94.583	200.8	8442.	8.01	-7.88576	-92.158	-7.28	25.17	1.8+5	1.8126366-4	24775.0000	4.230
132898.97606	-15.09	-94.587	192.9	7295.	6.99	-8.92456	-92.142	-6.97	18.02	1.8+5	2.3320091-4	24780.0000	4.230
127323.69042	-15.18	-94.591	179.7	6217.	6.01	-10.1648	-92.125	-6.46	12.32	1.8+5	2.9914098-4	24785.0000	4.230
121937.18506	-15.26	-94.594	162.5	5231.	5.11	-11.6544	-92.108	-5.80	8.084	1.8+5	3.8212785-4	24790.0000	4.230
116760.08449	-15.32	-94.596	143.4	4358.	4.29	-13.4514	-92.088	-5.06	5.126	1.8+5	4.8572904-4	24795.0000	4.230
111798.54540	-15.38	-94.598	124.0	3605.	3.58	-15.6232	-92.068	-4.31	3.170	1.8+5	6.1413210-4	24800.0000	4.230
107047.09863	-15.42	-94.600	105.8	2971.	2.98	-18.2447	-92.045	-3.60	1.930	1.8+5	7.7159503-4	24805.0000	4.230
102491.33838	-15.45	-94.601	88.65	2448.	2.47	-21.3900	-92.031	-2.91	1.165	1.8+5	9.5217701-4	24810.0000	4.230
98109.179685	-15.48	-94.602	74.53	2028.	2.05	-25.1263	-92.003	-2.33	.7121	1.8+5	.0011666371	24815.0000	4.230
93875.920697	-15.50	-94.603	63.35	1692.	1.71	-29.4839	-91.972	-1.85	.4450	1.8+5	.0014236870	24820.0000	4.230
89776.247073	-15.52	-94.604	54.70	1427.	1.45	-34.4523	-91.936	-1.46	.2865	1.8+5	.0017285939	24825.0000	4.230
85801.895995	-15.54	-94.604	48.19	1219.	1.24	-39.9555	-91.894	-1.14	.1914	1.8+5	.0020885283	24830.0000	4.230
81952.052246	-15.55	-94.604	43.46	1055.	1.08	-45.8443	-91.844	-.891	.1334	1.8+5	.0025108072	24835.0000	4.230
78232.955565	-15.56	-94.605	40.16	927.6	.950	-51.9046	-91.785	-.700	.0972	1.8+5	.0030034641	24840.0000	4.230
74656.419435	-15.56	-94.605	37.91	826.5	.849	-57.8901	-91.716	-.557	.0736	1.8+5	.0035711892	24845.0000	4.230
71236.789549	-15.57	-94.605	36.39	745.2	.767	-63.5661	-91.631	-.453	.0577	1.8+5	.0042172554	24850.0000	4.230
67987.561525	-15.57	-94.605	35.33	678.2	.700	-68.7435	-91.527	-.377	.0464	1.8+5	.0049421885	24855.0000	4.230
64918.348143	-15.58	-94.605	34.48	621.7	.642	-73.3000	-91.398	-.320	.0380	1.8+5	.0057392380	24860.0000	4.230
62031.705566	-15.58	-94.605	33.69	573.6	.593	-77.1789	-91.231	-.273	.0316	1.8+5	.0065873999	24865.0000	4.230
59322.486814	-15.58	-94.605	33.00	532.1	.550	-80.3783	-91.013	-.237	.0266	1.8+5	.0074996204	24870.0000	4.230
56781.325684	-15.58	-94.605	32.37	496.0	.512	-82.9407	-90.723	-.207	.0227	1.8+5	.0084677002	24875.0000	4.230
54395.814452	-15.58	-94.605	31.79	464.2	.480	-84.9358	-90.325	-.182	.0195	1.8+5	.0094913898	24880.0000	4.230
52152.252441	-15.58	-94.605	31.25	436.3	.451	-86.4471	-89.769	-.160	.0169	1.8+5	.0105653305	24885.0000	4.230
50036.583008	-15.58	-94.605	30.78	411.6	.425	-87.5619	-88.971	-.141	.0148	1.8+5	.0116889891	24890.0000	4.230
48035.489747	-15.58	-94.605	30.35	389.7	.403	-88.3625	-87.801	-.125	.0131	1.8+5	.0128626352	24895.0000	4.230
46136.980957	-15.58	-94.605	30.01	370.2	.382	-88.9227	-86.047	-.111	.0116	1.8+5	.0140873186	24900.0000	4.230
44330.020119	-15.58	-94.605	29.70	352.7	.364	-89.3033	-83.367	-.100	.0104	1.8+5	.0153609779	24905.0000	4.230
42607.100587	-15.58	-94.605	29.43	337.0	.348	-89.5566	-79.230	-.090	.0094	1.8+5	.0166783728	24910.0000	4.230
40958.501954	-15.58	-94.605	29.21	322.7	.333	-89.7190	-72.841	-.081	.0085	1.8+5	.0180486428	24915.0000	4.230
39378.049317	-15.58	-94.605	29.02	309.7	.320	-89.8184	-63.306	-.074	.0078	1.8+5	.0194715483	24920.0000	4.230
37859.848144	-15.58	-94.605	28.85	297.8	.308	-89.8754	-50.412	-.068	.0071	1.8+5	.0209369549	24925.0000	4.230
36398.790040	-15.58	-94.605	28.69	286.8	.296	-89.9050	-35.987	-.062	.0066	1.8+5	.0224386571	24930.0000	4.230
34989.348633	-15.58	-94.605	28.39	277.3	.285	-89.9192	-23.277	-.050	.0061	1.8+5	.0237608525	24935.0000	4.230
33623.536134	-15.58	-94.605	28.20	269.2	.275	-89.9260	-14.136	-.044	.0057	1.8+5	.0250347701	24940.0000	4.230
32295.466310	-15.58	-94.605	28.10	262.1	.266	-89.9298	-8.3510	-.039	.0053	1.8+5	.0263201476	24945.0000	4.230
31001.722656	-15.58	-94.605	28.01	255.5	.258	-89.9323	-4.9222	-.036	.0051	1.8+5	.0276172618	24950.0000	4.230

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TTA7622 3H-64  21766 SPAHR9 GLFC MULTIPLE ORBITS                                    ATMOS= ICAO  1962  ATMOSPHERE  KLETT
CONTROL21766 SPAHR9      DATA-A=SANDIA    GLFC4    DATA-B=                  DATA-C=                  DATA-D=
OBSERVER      0.0000=LAT      0.0000=LONG     0.0000=ORNT          0=ELEV            0=X .            0=Y.            0=Z
       WT       CD     AREA    VICRCL    NOSE
  40.0000  4.2300  .34910  25937.5  1.000
          HITE     LAT     LONG       J      VT  MACH     GAMMA      TAU     AT     DOC      QC          RHO          TIME      CD
  29739.851076 -15.58 -94.605  27.95  249.3  .250 -89.9344 -2.9710 -.034  .0048  1.8+5  .0289327579  24955.0000  4.230
  28507.800295 -15.58 -94.605  27.90  243.5  .243 -89.9362 -1.8936 -.032  .0046  1.8+5  .0302654353  24960.0000  4.230
  27303.839355 -15.58 -94.605  27.85  238.1  .237 -89.9378 -1.3146 -.030  .0043  1.8+5  .0316089654  24965.0000  4.230
  26126.361815 -15.58 -94.605  27.80  232.9  .230 -89.9393 -1.0153 -.028  .0041  1.8+5  .0329662939  24970.0000  4.230
  24973.927246 -15.58 -94.605  27.76  228.1  .224 -89.9407 -.86908 -.026  .0039  1.8+5  .0343379391  24975.0000  4.230
  23845.218750 -15.58 -94.605  27.72  223.5  .219 -89.9420 -.80549 -.025  .0038  1.8+5  .0357258696  24980.0000  4.230
  22739.031739 -15.58 -94.605  27.69  219.1  .214 -89.9433 -.78535 -.023  .0036  1.8+5  .0371274320  24985.0000  4.230
  21654.259276 -15.58 -94.605  27.66  214.9  .209 -89.9445 -.78781 -.022  .0035  1.8+5  .0385417979  24990.0000  4.230
  20589.880860 -15.58 -94.605  27.63  210.9  .204 -89.9456 -.80197 -.021  .0033  1.8+5  .0399689924  24995.0000  4.230
  19544.953614 -15.58 -94.605  27.60  207.1  .199 -89.9466 -.82166 -.020  .0032  1.8+5  .0414091548  25000.0000  4.230
  18518.606445 -15.58 -94.605  27.58  203.5  .195 -89.9476 -.84460 -.019  .0031  1.8+5  .0428617998  25005.0000  4.230
  17509.999513 -15.58 -94.605  27.55  200.0  .191 -89.9486 -.86830 -.018  .0030  1.8+5  .0443277707  25010.0000  4.230
  16518.405274 -15.58 -94.605  27.53  196.7  .187 -89.9495 -.89280 -.017  .0029  1.8+5  .0458021947  25015.0000  4.230
  15543.104492 -15.58 -94.605  27.51  193.5  .183 -89.9504 -.91790 -.016  .0028  1.8+5  .0472962742  25020.0000  4.230
  14583.451661 -15.58 -94.605  27.49  190.4  .180 -89.9512 -.94285 -.015  .0027  1.8+5  .0487984788  25025.0000  4.230
  13638.827149 -15.58 -94.605  27.48  187.5  .176 -89.9520 -.96772 -.015  .0026  1.8+5  .0503129894  25030.0000  4.230
  12708.657226 -15.58 -94.605  27.46  184.6  .173 -89.9528 -.99308 -.014  .0025  1.8+5  .0518392511  25035.0000  4.230
  11792.385744 -15.58 -94.605  27.44  181.9  .170 -89.9535 -1.0175 -.013  .0024  1.8+5  .0533768128  25040.0000  4.230
  10889.492186 -15.58 -94.605  27.43  179.3  .167 -89.9542 -1.0416 -.013  .0023  1.8+5  .0549246097  25045.0000  4.230
  9999.5195312 -15.58 -94.605  27.42  176.7  .164 -89.9549 -1.0673 -.012  .0023  1.8+5  .0564838552  25050.0000  4.230
  9122.0029297 -15.58 -94.605  27.41  174.3  .161 -89.9555 -1.0922 -.012  .0022  1.8+5  .0580585472  25055.0000  4.230
  8256.5068360 -15.58 -94.605  27.40  171.9  .159 -89.9562 -1.1165 -.011  .0021  1.8+5  .0596445404  25060.0000  4.230
  7402.6660158 -15.58 -94.605  27.38  169.6  .156 -89.9568 -1.1422 -.011  .0021  1.8+5  .0612401826  25065.0000  4.230
  6560.0532226 -15.58 -94.605  27.37  167.4  .153 -89.9574 -1.1673 -.010  .0020  1.8+5  .0628403636  25070.0000  4.230
  5728.2976514 -15.58 -94.605  27.37  165.3  .151 -89.9579 -1.1915 -.010  .0020  1.8+5  .0644610683  25075.0000  4.230
  4907.1088869 -15.58 -94.605  27.36  163.2  .149 -89.9585 -1.2173 -.009  .0019  1.8+5  .0660855472  25080.0000  4.230
  4096.1206055 -15.58 -94.605  27.35  161.2  .146 -89.9590 -1.2418 -.009  .0019  1.8+5  .0677229325  25085.0000  4.230
  3295.0107424 -15.58 -94.605  27.34  159.3  .144 -89.9595 -1.2663 -.009  .0018  1.8+5  .0693693943  25090.0000  4.230
  2503.5117188 -15.58 -94.605  27.33  157.4  .142 -89.9600 -1.2920 -.008  .0018  1.8+5  .0710335762  25095.0000  4.230
  1721.3256837 -15.58 -94.605  27.33  155.5  .140 -89.9605 -1.3168 -.008  .0017  1.8+5  .0727010512  25100.0000  4.230
  948.19580076 -15.58 -94.605  27.32  153.7  .138 -89.9610 -1.3412 -.008  .0017  1.8+5  .0743765909  25105.0000  4.230
  183.86474609 -15.58 -94.605  27.31  152.0  .136 -89.9614 -1.3669 -.007  .0016  1.8+5  .0760672912  25110.0000  4.230
 -572.78062110 -15.58 -94.605  27.08  151.0  .135 -89.9619 -1.3906  .001  .0016  1.8+5  .0764740000  25115.0000  4.230
 -1327.1083985 -15.58 -94.605  27.03  150.8  .135 -89.9621 -1.4072  .003  .0016  1.8+5  .0764740000  25120.0000  4.230
HITE LESS THAN MIN.
CLOCK= 1171.50
 -1704.1889647 -15.58 -94.605  27.04  150.8  .135 -89.9621 -1.4136  .003  .0016  1.8+5  .0764740000  25122.5000  4.230
END OF RUN.
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Part 3

Listing of Punched Card CMA Input

REVOLUTION 1

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	25858.626	0.0000	.0000024	.000001	GLFC TRANS.
45.0000	26028.516	0.0000	.0000509	.000027	GLFC TRANS.
50.0000	26042.939	0.0000	.0000809	.000043	GLFC TRANS.
55.0000	26055.923	0.0000	.0001277	.000068	GLFC TRANS.
60.0000	26068.911	0.0000	.0002044	.000108	GLFC TRANS.
65.0000	26080.458	0.0000	.0003162	.000168	GLFC TRANS.
70.0000	26090.564	0.0000	.0004784	.000254	GLFC TRANS.
75.0000	26099.227	0.0000	.0007120	.000378	GLFC TRANS.
80.0000	26106.448	0.0000	.0010343	.000549	GLFC TRANS.
85.0000	26112.225	0.0000	.0014521	.000770	GLFC TRANS.
90.0000	26116.559	0.0000	.0019614	.001043	GLFC TRANS.
95.0000	26118.003	0.0000	.0022415	.001363	GLFC TRANS.
100.0000	26118.003	0.0000	.0025120	.001711	GLFC TRANS.
105.0000	26116.559	0.0000	.0027638	.002071	GLFC TRANS.
110.0000	26112.225	0.0000	.0029736	.002398	GLFC TRANS.
115.0000	26106.448	0.0000	.0031289	.002655	GLFC TRANS.
120.0000	26099.227	0.0000	.0032197	.002811	GLFC TRANS.
125.0000	26090.564	0.0000	.0032401	.002847	GLFC TRANS.
130.0000	26055.923	0.0000	.0031873	.002756	GLFC TRANS.
135.0000	26019.864	0.0000	.0030665	.002551	GLFC TRANS.
140.0000	25986.712	0.0000	.0028861	.002261	GLFC TRANS.
145.0000	25955.021	0.0000	.0026574	.001917	GLFC TRANS.
150.0000	25926.228	0.0000	.0023948	.001557	GLFC TRANS.
155.0000	25901.766	0.0000	.0021233	.001224	GLFC TRANS.
160.0000	25878.753	0.0000	.0017481	.000923	GLFC TRANS.
165.0000	25858.626	0.0000	.0012794	.000675	GLFC TRANS.
170.0000	25841.380	0.0000	.0009021	.000476	GLFC TRANS.
175.0000	25825.577	0.0000	.0006145	.000324	GLFC TRANS.
180.0000	25812.650	0.0000	.0004128	.000218	GLFC TRANS.
185.0000	25798.291	0.0000	.0002730	.000144	GLFC TRANS.
190.0000	25783.936	0.0000	.0001745	.000092	GLFC TRANS.
195.0000	25771.020	0.0000	.0001099	.000058	GLFC TRANS.
200.0000	25756.672	0.0000	.0000702	.000037	GLFC TRANS.
205.0000	25740.895	0.0000	.0000438	.000023	GLFC TRANS.
210.0000	25725.122	0.0000	.0000275	.000014	GLFC TRANS.

REVOLUTION 2

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	25738.026	0.0000	.0000425	.000022	GLFC TRANS.
10.0000	25765.280	0.0000	.0001068	.000056	GLFC TRANS.
20.0000	25786.807	0.0000	.0002658	.000140	GLFC TRANS.
30.0000	25801.163	0.0000	.0005988	.000316	GLFC TRANS.
40.0000	25802.598	0.0000	.0012514	.000660	GLFC TRANS.
50.0000	25788.242	0.0000	.0021005	.001199	GLFC TRANS.
60.0000	25756.672	0.0000	.0026312	.001881	GLFC TRANS.
70.0000	25703.621	0.0000	.0030412	.002514	GLFC TRANS.
80.0000	25639.173	0.0000	.0032235	.002826	GLFC TRANS.
85.0000	25604.834	0.0000	.0032134	.002809	GLFC TRANS.
90.0000	25570.518	0.0000	.0031356	.002675	GLFC TRANS.
100.0000	25503.382	0.0000	.0028011	.002135	GLFC TRANS.
110.0000	25446.315	0.0000	.0023038	.001445	GLFC TRANS.

120.0000	25402.132	0.0000	.0016190	.000847	GLFC TRANS.
130.0000	25366.528	0.0000	.0008316	.000435	GLFC TRANS.
140.0000	25336.640	0.0000	.0003820	.000200	GLFC TRANS.
150.0000	25311.036	0.0000	.0001626	.000085	GLFC TRANS.
160.0000	25282.603	0.0000	.0000667	.000035	GLFC TRANS.
170.0000	25252.764	0.0000	.0000266	.000014	GLFC TRANS.

REVOLUTION 5

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	24322.574	0.0000	.0000497	.000025	GLFC TRANS.
10.0000	24347.673	0.0000	.0001175	.000060	GLFC TRANS.
20.0000	24368.599	0.0000	.0002772	.000142	GLFC TRANS.
30.0000	24381.159	0.0000	.0005974	.000306	GLFC TRANS.
40.0000	24383.951	0.0000	.0012039	.000617	GLFC TRANS.
50.0000	24371.390	0.0000	.0020026	.001099	GLFC TRANS.
60.0000	24343.489	0.0000	.0025053	.001720	GLFC TRANS.
70.0000	24297.488	0.0000	.0029226	.002342	GLFC TRANS.
80.0000	24239.003	0.0000	.0031569	.002733	GLFC TRANS.
85.0000	24207.006	0.0000	.0031883	.002788	GLFC TRANS.
90.0000	24173.640	0.0000	.0031595	.002739	GLFC TRANS.
100.0000	24108.365	0.0000	.0029320	.002359	GLFC TRANS.
110.0000	24048.723	0.0000	.0025272	.001754	GLFC TRANS.
120.0000	24001.616	0.0000	.0020306	.001132	GLFC TRANS.
130.0000	23962.857	0.0000	.0012748	.000648	GLFC TRANS.
140.0000	23932.425	0.0000	.0006491	.000330	GLFC TRANS.
150.0000	23906.159	0.0000	.0003065	.000156	GLFC TRANS.
160.0000	23879.907	0.0000	.0001333	.000068	GLFC TRANS.
170.0000	23853.669	0.0000	.0000579	.000029	GLFC TRANS.
175.0000	23839.866	0.0000	.0000372	.000019	GLFC TRANS.

REVOLUTION 10

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	21862.151	0.0000	.0000135	.000007	GLFC TRANS.
20.0000	21913.726	0.0000	.0000603	.000029	GLFC TRANS.
30.0000	21936.227	0.0000	.0001289	.000063	GLFC TRANS.
40.0000	21953.441	0.0000	.0002774	.000135	GLFC TRANS.
50.0000	21965.362	0.0000	.0005528	.000269	GLFC TRANS.
60.0000	21969.337	0.0000	.0010519	.000512	GLFC TRANS.
70.0000	21961.388	0.0000	.0017824	.000884	GLFC TRANS.
80.0000	21941.523	0.0000	.0022291	.001383	GLFC TRANS.
90.0000	21907.111	0.0000	.0026503	.001956	GLFC TRANS.
100.0000	21860.830	0.0000	.0029667	.002451	GLFC TRANS.
110.0000	21804.037	0.0000	.0031266	.002724	GLFC TRANS.
115.0000	21773.690	0.0000	.0031390	.002746	GLFC TRANS.
120.0000	21742.046	0.0000	.0031052	.002688	GLFC TRANS.
130.0000	21682.776	0.0000	.0029082	.002359	GLFC TRANS.
140.0000	21627.530	0.0000	.0025693	.001842	GLFC TRANS.
150.0000	21581.545	0.0000	.0021441	.001283	GLFC TRANS.
160.0000	21543.481	0.0000	.0016884	.000814	GLFC TRANS.
170.0000	21512.005	0.0000	.0009780	.000471	GLFC TRANS.
180.0000	21487.102	0.0000	.0005187	.000250	GLFC TRANS.
190.0000	21464.834	0.0000	.0002638	.000127	GLFC TRANS.
200.0000	21441.267	0.0000	.0001247	.000060	GLFC TRANS.
210.0000	21419.022	0.0000	.0000595	.000029	GLFC TRANS.
220.0000	21392.867	0.0000	.0000273	.000013	GLFC TRANS.

REVOLUTION 15

TIME	H_R	QDOTR	QDOTC/H_R	P_{TA}	I. D.
0.0000	19321.099	0.0000	.0000508	.000023	GLFC TRANS.
10.0000	19340.984	0.0000	.0000972	.000044	GLFC TRANS.
20.0000	19357.148	0.0000	.0001900	.000087	GLFC TRANS.
30.0000	19369.586	0.0000	.0003510	.000160	GLFC TRANS.
40.0000	19378.296	0.0000	.0006316	.000289	GLFC TRANS.
50.0000	19380.784	0.0000	.0010849	.000496	GLFC TRANS.
60.0000	19373.319	0.0000	.0016759	.000797	GLFC TRANS.
70.0000	19358.392	0.0000	.0020513	.001194	GLFC TRANS.
80.0000	19332.283	0.0000	.0024290	.001674	GLFC TRANS.
90.0000	19295.016	0.0000	.0027560	.002155	GLFC TRANS.
100.0000	19249.103	0.0000	.0029967	.002549	GLFC TRANS.
110.0000	19194.575	0.0000	.0031246	.002773	GLFC TRANS.
120.0000	19136.414	0.0000	.0031259	.002776	GLFC TRANS.
130.0000	19078.342	0.0000	.0030022	.002562	GLFC TRANS.
140.0000	19024.056	0.0000	.0027696	.002181	GLFC TRANS.
150.0000	18977.235	0.0000	.0024551	.001715	GLFC TRANS.
160.0000	18935.392	0.0000	.0020919	.001245	GLFC TRANS.
170.0000	18902.196	0.0000	.0017271	.000849	GLFC TRANS.
180.0000	18873.941	0.0000	.0012044	.000543	GLFC TRANS.
190.0000	18850.616	0.0000	.0007266	.000328	GLFC TRANS.
200.0000	18829.759	0.0000	.0004170	.000188	GLFC TRANS.
210.0000	18811.365	0.0000	.0002338	.000105	GLFC TRANS.
220.0000	18791.754	0.0000	.0001239	.000056	GLFC TRANS.
230.0000	18772.154	0.0000	.0000664	.000030	GLFC TRANS.
240.0000	18752.564	0.0000	.0000349	.000016	GLFC TRANS.

REVOLUTION 20

TIME	H_R	QDOTR	QDOTC/H_R	P_{TA}	I. D.
0.0000	16164.269	0.0000	.0000363	.000015	GLFC TRANS.
5.0000	16171.089	0.0000	.0000465	.000019	GLFC TRANS.
25.0000	16198.381	0.0000	.0001197	.000050	GLFC TRANS.
45.0000	16218.865	0.0000	.0003053	.000128	GLFC TRANS.
65.0000	16270.132	0.0000	.0007283	.000305	GLFC TRANS.
85.0000	16223.419	0.0000	.0014973	.000653	GLFC TRANS.
105.0000	16196.105	0.0000	.0020600	.001236	GLFC TRANS.
125.0000	16141.548	0.0000	.0026326	.002020	GLFC TRANS.
145.0000	16057.620	0.0000	.0030975	.002799	GLFC TRANS.
165.0000	15951.323	0.0000	.0033620	.003300	GLFC TRANS.
175.0000	15892.672	0.0000	.0034031	.003383	GLFC TRANS.
185.0000	15834.129	0.0000	.0033837	.003347	GLFC TRANS.
205.0000	15719.609	0.0000	.0031742	.002948	GLFC TRANS.
225.0000	15618.908	0.0000	.0027768	.002259	GLFC TRANS.
245.0000	15538.579	0.0000	.0022753	.001518	GLFC TRANS.
265.0000	15477.356	0.0000	.0017517	.000900	GLFC TRANS.
285.0000	15431.796	0.0000	.0011937	.000487	GLFC TRANS.
305.0000	15398.502	0.0000	.0005915	.000241	GLFC TRANS.
325.0000	15370.785	0.0000	.0002748	.000112	GLFC TRANS.
345.0000	15345.307	0.0000	.0001222	.000050	GLFC TRANS.
365.0000	15319.850	0.0000	.0000539	.000022	GLFC TRANS.
380.0000	15299.942	0.0000	.0000287	.000012	GLFC TRANS.

REVOLUTION 21

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	15299.942	0.0000	.0000307	.000012	GLFC TRANS.
15.0000	15318.743	0.0000	.0000575	.000023	GLFC TRANS.
35.0000	15340.878	0.0000	.0001312	.000053	GLFC TRANS.
55.0000	15358.597	0.0000	.0002931	.000119	GLFC TRANS.
75.0000	15367.460	0.0000	.0006295	.000256	GLFC TRANS.
95.0000	15365.244	0.0000	.0012621	.000514	GLFC TRANS.
115.0000	15347.521	0.0000	.0017928	.000944	GLFC TRANS.
135.0000	15307.682	0.0000	.0023243	.001587	GLFC TRANS.
155.0000	15241.398	0.0000	.0028386	.002359	GLFC TRANS.
175.0000	15151.043	0.0000	.0032696	.003146	GLFC TRANS.
195.0000	15036.833	0.0000	.0035579	.003729	GLFC TRANS.
215.0000	14907.771	0.0000	.0036849	.004005	GLFC TRANS.
235.0000	14774.920	0.0000	.0036471	.003929	GLFC TRANS.
255.0000	14648.071	0.0000	.0034635	.003548	GLFC TRANS.
275.0000	14533.621	0.0000	.0031680	.002972	GLFC TRANS.
295.0000	14437.873	0.0000	.0027905	.002308	GLFC TRANS.
315.0000	14358.503	0.0000	.0023765	.001675	GLFC TRANS.
335.0000	14297.515	0.0000	.0019622	.001143	GLFC TRANS.
355.0000	14250.526	0.0000	.0015794	.000741	GLFC TRANS.
375.0000	14213.204	0.0000	.0011803	.000462	GLFC TRANS.
395.0000	14184.446	0.0000	.0007110	.000278	GLFC TRANS.
415.0000	14161.035	0.0000	.0004132	.000161	GLFC TRANS.
435.0000	14140.832	0.0000	.0002387	.000093	GLFC TRANS.
455.0000	14121.705	0.0000	.0001349	.000053	GLFC TRANS.
475.0000	14103.653	0.0000	.0000749	.000029	GLFC TRANS.
495.0000	14085.613	0.0000	.0000428	.000017	GLFC TRANS.
510.0000	14071.825	0.0000	.0000276	.000011	GLFC TRANS.

REVOLUTION 22

TIME	H R	QDOTR	QDOTC/H R	P T A	I. D.
0.0000	14029.443	0.0000	.0000099	.000004	GLFC TRANS.
55.0000	14081.369	0.0000	.0000423	.000016	GLFC TRANS.
75.0000	14098.346	0.0000	.0000741	.000029	GLFC TRANS.
125.0000	14129.142	0.0000	.0003123	.000122	GLFC TRANS.
175.0000	14130.204	0.0000	.0011831	.000462	GLFC TRANS.
225.0000	14065.463	0.0000	.0021949	.001434	GLFC TRANS.
275.0000	13885.823	0.0000	.0033550	.003356	GLFC TRANS.
325.0000	13548.727	0.0000	.0044975	.006053	GLFC TRANS.
375.0000	13039.620	0.0000	.0056324	.009548	GLFC TRANS.
425.0000	12272.444	0.0000	.0070328	.015021	GLFC TRANS.
475.0000	11048.946	0.0000	.0093919	.027215	GLFC TRANS.
525.0000	8696.841	0.0000	.0141609	.064132	GLFC TRANS.
535.0000	7972.365	0.0000	.0155118	.077961	GLFC TRANS.
545.0000	7131.435	0.0000	.0169913	.095119	GLFC TRANS.
555.0000	6172.647	0.0000	.0186044	.116535	GLFC TRANS.
565.0000	5102.058	0.0000	.0200456	.139210	GLFC TRANS.
575.0000	3969.507	0.0000	.0212483	.162417	GLFC TRANS.
585.0000	2851.979	0.0000	.0218640	.180710	GLFC TRANS.
595.0000	1849.712	0.0000	.0217468	.190774	GLFC TRANS.
605.0000	1063.001	0.0000	.0203212	.181014	GLFC TRANS.
615.0000	546.579	0.0000	.0177444	.152500	GLFC TRANS.
625.0000	259.593	0.0000	.0146591	.116376	GLFC TRANS.
645.0000	57.185	0.0000	.0093812	.059803	GLFC TRANS.
665.0000	17.165	0.0000	.0068206	.037865	GLFC TRANS.
685.0000	7.728	0.0000	.0059591	.032580	GLFC TRANS.

705.0000	4.301	0.0000	.0054703	.029977	GLFC TRANS.
725.0000	2.735	0.0000	.0051372	.028296	GLFC TRANS.
825.0000	.856	0.0000	.0045164	.026033	GLFC TRANS.
935.0000	.461	C.0000	.0042916	.025787	GLFC TRANS.

APPENDIX M

Trajectory and Reentry Environment Output From the TTA Trajectory Computer Code for a -5.125 Degree Reentry Angle Prompt Reentry

Part 1. Listing of TTA Input Data (403)

Part 2. Trajectory and Reentry Environment Tabulated Data (405)

```
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  NASA LM AD CR
1FORMT  2      1 8X,2A8
        NASA LM AD CR
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  375000.0  350000.0  325000.0  300000.0  150000.0
   3.2       3.2       3.2       3.2       3.2       3.2
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  SANDIA GLFC
1FORMT  2      1 8X,2A8
        SANDIA GLFC
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  325000.   300000.   270000.   200000.0  150000.0
   7.39      7.39      5.70      4.23      4.23      4.23
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10000
1SCTLR  21239 SPAHR5
1FORMT  2      1 8X,2A8
        21239 SPAHR5
1WRITE  BINARY
1FORMT  10     1 10A8
  CLEAR AND SET POINT MASS.
1WRITE  BINARY  REPEAT
 SET IDENT TO ( 21239 SPAHR5 NASA LM AD CR, SANDIA GLFC -5.125 DEG. ).
 SET TTH.  SET QC TO 0.
 LOAD METRO ( ICAO  1962  ATMOSPHERE  KLETT  ).
 LOAD DATA A (  NASA LM AD CR  ).
 SET INITIAL LAT TO 0.00, LONG TO 0.0, HITE TO 400000.0.
 SET INITIAL VI TO 36050.0, GAMMAI TO -5.12500, TAUI TO -90.0.
 SET INITIAL TIME TO 0.0, POTIM TO 0.0, POPRATE TO 30.0.
 SET WT TO 32963.6.
 SET AREA TO 129.4.
 SET HEADING DATA TO ( 2       WT      CD    AREA   VICRCL   NOSE  ).
 SET COLUMN HEADINGS TO    ( 2  TIME    HITE    LAT    LONG  RANGE     VT  MACH
   GAMMA     TAU    AT    DQC     QC   DQR     QR       CD          Q ).
  SET MAXTM TO 0.1.
```

```
 START  TRJCTRY.
 WHEN TIME IS BETWEEN 1.01 AND 1.03, SET MAXTM TO 8.0.
 WHEN HITE IS BETWEEN 300000.1 AND 300000.0, SET POPRATE TO 10.0.
 WHEN HITE IS BETWEEN 273000.1 AND 273000.0, PRINT.
 LOAD DATA A (  SANDIA GLFC  ).
 SET WT TO 40..
 SET AREA TO 0.3491.
 WHEN CLOCK IS GREATER THAN 885.0, END.
 STOP
1WRTLR
 END
9PROGRM TTA,8600,     ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9TIME             15
9CHARGE  8666,9513,0049237
9TAPE   CONTROL,10000
9TAPE   PARAM,10222
9TAPE   METRO,10073
        21239 SPAHR5
 END
```

TTA7622 38-64 21239 SPAHR5 NASA LM AD CR, SANDIA GLFC -5.125 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21239 SPAHR5 DATA-A=NASA LM AD CR DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X . 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
32963.6	3.2000	129.40	25712.0	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
.000	400000	.0000	.00000	.0000	36084	27.9	-5.12023	-92.480	.086	6.314	.0000	2.-6	.0000	3.20000	.0235524
30.0	316904	-2.925	-.12534	174.5	36151	38.7	-3.67450	-92.457	.047	44.83	590.7	.003	.0124	3.20000	1.192175
40.0	295255	-3.905	-.16711	233.0	36160	40.7	-3.19057	-92.450	.002	83.58	1216.	.023	.1147	3.20000	4.153611
50.0	276656	-4.886	-.20886	291.5	36146	40.9	-2.70648	-92.442	-.103	140.8	2326.	.150	.8379	3.20000	11.84723
52.2	273000	-5.100	-.21798	304.3	36137	40.9	-2.60081	-92.441	-.137	155.4	2649.	.213	1.235	3.20000	14.44678
60.0	261137	-5.866	-.25050	349.9	35955	40.4	-2.22563	-92.435	-.957	209.8	4081.	.618	4.386	4.23000	26.95493
70.0	248715	-6.838	-.29175	407.9	35523	38.5	-1.75762	-92.427	-1.73	271.4	6507.	1.53	14.99	4.23000	47.58365
80.0	239294	-7.796	-.33235	465.1	34833	36.7	-1.31267	-92.420	-2.53	313.4	9457.	2.28	35.01	4.23000	69.12987
90.0	232661	-8.732	-.37200	520.9	33899	35.1	-.902027	-92.412	-3.21	332.2	12714	2.24	58.49	4.23000	87.42626
100.	228491	-9.640	-.41044	575.1	32806	33.5	-.535342	-92.403	-3.56	325.7	16012	1.60	77.75	4.23000	96.80746
110.	226388	-10.52	-.44755	627.5	31638	32.2	-.218753	-92.395	-3.64	304.2	19174	.926	90.29	4.23000	98.69760
120.	225934	-11.36	-.48328	678.0	30492	31.0	.045103	-92.386	-3.45	273.3	22066	.467	97.05	4.23000	93.41207
130.	226741	-12.18	-.51771	726.7	29434	30.0	.257372	-92.376	-3.11	240.5	24635	.261	100.5	4.23000	84.16595
140.	228471	-12.97	-.55094	773.8	28497	29.1	.421649	-92.365	-2.71	209.1	26881	.152	102.5	4.23000	73.11358
150.	230847	-13.73	-.58312	819.4	27692	28.5	.542940	-92.354	-2.31	181.6	28829	.089	103.7	4.23000	62.34866
160.	233647	-14.48	-.61439	863.8	27002	28.0	.626496	-92.342	-1.98	159.2	30531	.054	104.4	4.23000	53.39904
170.	236693	-15.20	-.64486	907.2	26415	27.6	.676993	-92.330	-1.67	139.4	32022	.033	104.8	4.23000	44.98002
180.	239842	-15.92	-.67465	949.7	25923	27.4	.699016	-92.316	-1.39	121.9	33327	.020	105.1	4.23000	37.22780
190.	242970	-16.61	-.70385	991.5	25510	27.2	.696835	-92.302	-1.19	109.0	34479	.013	105.2	4.23000	31.92029
200.	246013	-17.30	-.73253	1033.	25156	27.0	.673712	-92.287	-1.02	97.77	35512	.009	105.3	4.23000	27.24311
210.	248866	-17.98	-.76075	1073.	24854	26.9	.632432	-92.271	-.863	87.76	36439	.006	105.4	4.23000	23.10816
220.	251475	-18.66	-.78856	1113.	24596	26.9	.575514	-92.254	-.750	80.03	37274	.004	105.5	4.23000	20.09085
230.	253785	-19.32	-.81599	1153.	24367	26.8	.504877	-92.237	-.668	74.05	38044	.003	105.5	4.23000	17.89934
240.	255749	-19.98	-.84307	1193.	24163	26.8	.421891	-92.218	-.600	68.94	38758	.002	105.5	4.23000	16.07906
250.	257325	-20.63	-.86982	1232.	23979	26.7	.327714	-92.199	-.545	64.70	39426	.002	105.5	4.23000	14.63245
260.	258474	-21.28	-.89624	1270.	23811	26.6	.223272	-92.179	-.503	61.36	40055	.002	105.6	4.23000	13.56222
270.	259164	-21.93	-.92236	1309.	23653	26.5	.109253	-92.158	-.476	58.93	40656	.001	105.6	4.23000	12.87144
280.	259361	-22.57	-.94816	1347.	23502	26.3	-.013909	-92.136	-.462	57.43	41237	.001	105.6	4.23000	12.56337
290.	259034	-23.21	-.97365	1385.	23353	26.1	-.146039	-92.114	-.463	56.82	41808	.001	105.6	4.23000	12.64088
300.	258155	-23.84	-.99882	1423.	23202	25.9	-.287234	-92.090	-.478	57.05	42376	.001	105.6	4.23000	13.10581
310.	256693	-24.47	-1.0237	1461.	23044	25.6	-.437871	-92.066	-.507	58.01	42951	.001	105.6	4.23000	13.95793
320.	254618	-25.09	-1.0482	1498.	22874	25.2	-.598616	-92.040	-.549	59.56	43539	.001	105.6	4.23000	15.19389
330.	251898	-25.71	-1.0723	1535.	22688	24.8	-.770429	-92.014	-.606	61.54	44144	.001	105.6	4.23000	16.80596
340.	248500	-26.32	-1.0960	1572.	22480	24.3	-.954589	-91.986	-.694	64.60	44772	.002	105.7	4.23000	19.27133
350.	244391	-26.93	-1.1193	1608.	22236	23.8	-1.15305	-91.958	-.823	68.72	45439	.002	105.7	4.23000	22.87261
360.	239534	-27.53	-1.1421	1644.	21947	23.1	-1.36865	-91.929	-.976	72.72	46146	.003	105.7	4.23000	27.11129
370.	233889	-28.12	-1.1643	1679.	21594	22.4	-1.60509	-91.898	-1.22	78.42	46902	.003	105.7	4.23000	33.82806
380.	227418	-28.70	-1.1859	1714.	21157	21.6	-1.86778	-91.866	-1.53	83.82	47711	.004	105.8	4.23000	42.24009
390.	220081	-29.27	-1.2067	1748.	20603	20.6	-2.16412	-91.833	-1.91	88.53	48575	.005	105.8	4.23000	52.86842
400.	211844	-29.82	-1.2267	1781.	19898	19.5	-2.50450	-91.799	-2.47	93.15	49487	.005	105.9	4.23000	68.07374
410.	202684	-30.35	-1.2456	1812.	18994	18.2	-2.90381	-91.763	-3.17	95.35	50433	.006	105.9	4.23000	87.23308
420.	192603	-30.85	-1.2633	1842.	17841	16.9	-3.38307	-91.725	-4.05	94.03	51382	.005	106.0	4.23000	111.2044
430.	181656	-31.32	-1.2794	1870.	16372	15.3	-3.97328	-91.686	-5.10	87.64	52295	.003	106.0	4.23000	140.0208
440.	169972	-31.74	-1.2937	1895.	14561	13.5	-4.72075	-91.644	-6.15	74.71	53112	.002	106.0	4.23000	168.7517
450.	157789	-32.11	-1.3059	1917.	12416	11.5	-5.69429	-91.599	-7.12	57.05	53775	5.-4	106.1	4.23000	195.5973
460.	145476	-32.41	-1.3158	1936.	10024	9.41	-7.00292	-91.552	-7.65	37.32	54247	9.-5	106.1	4.23000	210.4241
470.	133508	-32.65	-1.3232	1950.	7585.	7.26	-8.82619	-91.501	-7.33	20.10	54530	7.-6	106.1	4.23000	202.7836
480.	122305	-32.82	-1.3285	1960.	5409.	5.28	-11.4508	-91.446	-6.11	8.912	54669	2.-7	106.1	4.23000	170.8991
490.	112054	-32.94	-1.3321	1967.	3702.	3.68	-15.3044	-91.386	-4.51	3.428	54727	5.-9	106.1	4.23000	129.2783
500.	102717	-33.02	-1.3343	1972.	2499.	2.52	-20.9561	-91.321	-3.02	1.237	54748		106.1	4.23000	91.44879

```
TTA7622 3R-64  21239 SPAHR5 NASA LM AD CR, SANDIA GLFC -5.125 DEG.                ATMOS= ICAO  1962  ATMOSPHERE  KLETT
CONTROL21239 SPAHR5      DATA-A=SANDIA GLFC      DATA-B=                  DATA-C=                    DATA-D=
OBSERVER      0,0000=LAT      0,0000=LONG     0,0000=ORNT            0=ELEV            0=X .            0=Y,            0=Z
       WT       CD     AREA    VICRCL    NOSE
  40,0000  4,2300  ,34910  25893,3  1,000
  TIME     HITE     LAT     LONG  RANGE      VT  MACH     GAMMA      TAU     AT     DQC      QC    DQR      QR        CD         Q
  510.  94107. -33,07 -1,3357  1975.  1718.  1,74 -28,9499 -91,250 -1,90  .4645  54756          106,1  4,23000  64,60116
  520.  86045. -33,11 -1,3365  1977.  1232.  1,26 -39,3686 -91,157 -1,17  .1972  54759          106,1  4,23000  48,70333
  530.  78479. -33,13 -1,3370  1978.  935.3  ,958 -51,3400 -91,038 -,713  .0992  54761          106,1  4,23000  40,35498
  540.  71472. -33,14 -1,3372  1979.  750.3  ,772 -63,0953 -90,881 -,459  .0587  54761          106,1  4,23000  36,47314
  550.  65132. -33,15 -1,3373  1980.  625.5  ,646 -72,9549 -90,656 -,323  .0386  54762          106,1  4,23000  34,54636
  560.  59510. -33,15 -1,3374  1980.  535.1  ,553 -80,1516 -90,303 -,240  .0270  54762          106,1  4,23000  33,07928
  570.  54559. -33,15 -1,3374  1980.  466.6  ,482 -84,8018 -89,693 -,184  .0197  54763          106,1  4,23000  31,86555
  580.  50179. -33,15 -1,3374  1980.  413.5  ,427 -87,4910 -88,522 -,143  .0150  54763          106,1  4,23000  30,84651
  590.  46263. -33,15 -1,3374  1980.  371.7  ,384 -88,8891 -86,029 -,113  .0117  54763          106,1  4,23000  30,06567
  600.  42720. -33,15 -1,3373  1980.  338.2  ,349 -89,5436 -80,240 -,091  .0095  54763          106,1  4,23000  29,48334
  610.  39480. -33,15 -1,3373  1980.  310.7  ,321 -89,8171 -66,447 -,076  .0079  54763          106,1  4,23000  29,06681
  620.  36492. -33,15 -1,3373  1980.  287.7  ,297 -89,9111 -40,391 -,063  .0066  54763          106,1  4,23000  28,73343
  630.  33709. -33,15 -1,3373  1980.  269.9  ,276 -89,9346 -16,398 -,045  .0057  54763          106,1  4,23000  28,24655
  640.  31081. -33,15 -1,3373  1980.  256.0  ,259 -89,9410 -5,5637 -,037  .0051  54763          106,1  4,23000  28,05266
  650.  28582. -33,15 -1,3373  1980.  244.0  ,244 -89,9444 -1,9566 -,033  .0046  54763          106,1  4,23000  27,93521
  660.  26196. -33,15 -1,3373  1980.  233.4  ,231 -89,9472 -,91185 -,029  .0041  54763          106,1  4,23000  27,83604
  670.  23911. -33,15 -1,3373  1980.  223.9  ,219 -89,9496 -,66346 -,026  .0038  54763          106,1  4,23000  27,75628
  680.  21716. -33,15 -1,3373  1980.  215.2  ,209 -89,9517 -,64602 -,023  .0035  54763          106,1  4,23000  27,69100
  690.  19603. -33,15 -1,3373  1980.  207.4  ,200 -89,9536 -,68699 -,021  .0032  54763          106,1  4,23000  27,63678
  700.  17565. -33,15 -1,3373  1980.  200.3  ,191 -89,9553 -,75066 -,019  .0030  54763          106,1  4,23000  27,58686
  710.  15595. -33,15 -1,3373  1980.  193.8  ,184 -89,9568 -,81316 -,017  .0028  54763          106,1  4,23000  27,54772
  720.  13688. -33,15 -1,3372  1980.  187.7  ,177 -89,9583 -,88163 -,016  .0026  54763          106,1  4,23000  27,50997
  730.  11839. -33,15 -1,3372  1980.  182.2  ,170 -89,9596 -,94665 -,014  .0024  54764          106,1  4,23000  27,48040
  740.  10044. -33,15 -1,3372  1980.  177.0  ,164 -89,9608 -1.0147 -,013  .0023  54764          106,1  4,23000  27,45253
  750.  8298,4 -33,15 -1,3372  1980.  172.1  ,159 -89,9619 -1.0813 -,012  .0021  54764          106,1  4,23000  27,43091
  760.  6599,8 -33,15 -1,3372  1980.  167.6  ,154 -89,9630 -1.1507 -,011  .0020  54764          106,1  4,23000  27,40679
  770.  4944,9 -33,15 -1,3372  1980.  163.4  ,149 -89,9639 -1.2164 -,010  .0019  54764          106,1  4,23000  27,39218
  780.  3330,9 -33,15 -1,3372  1980.  159.4  ,144 -89,9648 -1.2876 -,010  .0018  54764          106,1  4,23000  27,37319
  790.  1755,4 -33,15 -1,3372  1980.  155.7  ,140 -89,9657 -1.3575 -,009  .0017  54764          106,1  4,23000  27,35819
  800.  216,29 -33,15 -1,3372  1980.  152.2  ,136 -89,9665 -1.4268 -,008  .0016  54764          106,1  4,23000  27,34640
  810. -1296,1 -33,15 -1,3372  1980.  150.9  ,135 -89,9670 -1.4867  ,002  .0016  54764          106,1  4,23000  27,06745
HITE LESS THAN MIN,
CLOCK=  185,20
  812. -1673,3 -33,15 -1,3372  1980.  150.9  ,135 -89,9671 -1.4977  ,002  .0016  54764          106,1  4,23000  27,06425
END OF RUN,
```

APPENDIX N

Trajectory and Reentry Environment Output From the TTA Trajectory Computer Code for a -5.0625 Degree Reentry Angle Two Revolution Reentry

Part 1. Listing of TTA Input Data (409)

Part 2. Trajectory and Reentry Environment Tabulated Data (411)

```
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  NASA LM AD CR
1FORMT  2      1 8X,2A8
        NASA LM AD CR
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  375000.0  350000.0  325000.0  300000.0  150000.0
   3.2       3.2       3.2       3.2       3.2       3.2
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10222
1SCTLR  SANDIA GLFC
1FORMT  2      1 8X,2A8
        SANDIA GLFC
1WRITE  BINARY
1FORMT  10     1 10A8
 CD   HITE  6  STET STOP
1WRITE  BINARY
1FORMT   6     1 6F10.0
 400000.0  325000.   300000.   270000.   200000.0  150000.0
   7.39      7.39      5.70      4.23      4.23      4.23
1WRITE  BINARY
1WRTLR
 END
9PROGRM CARTAP,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9CHARGE  8666,9513,0049237
9TAPE   OUTPUT,10000
1SCTLR  21240 SPAHR6
1FORMT  2      1 8X,2A8
        21240 SPAHR6
1WRITE  BINARY
1FORMT  10     1 10A8
  CLEAR AND SET POINT MASS.
1WRITE  BINARY  REPEAT
 SET IDENT TO ( 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ).
 SET TTH.  SET QC TO 0.
 LOAD METRO ( ICAO  1962  ATMOSPHERE  KLETT  ).
 LOAD DATA A (  NASA LM AD CR  ).
 SET INITIAL LAT TO 0.00, LONG TO 0.0, HITE TO 400000.0.
 SET INITIAL VI TO 36050.0, GAMMAI TO -5.06250, TAUI TO -90.0.
 SET INITIAL TIME TO 0.0, POTIM TO 0.0, POPRATE TO 30.0.
 SET WT TO 32963.6.
 SET AREA TO 129.4.
 SET HEADING DATA TO ( 2       WT      CD    AREA   VICRCL   NOSE  ).
 SET COLUMN HEADINGS TO    ( 2  TIME    HITE    LAT    LONG  RANGE     VT   MACH
   GAMMA     TAU    AT    DQC     QC   DQR     QR       CD          Q ).
  SET MAXTM TO 0.1.
```

```
 START  TRJCTRY.
 WHEN TIME IS BETWEEN 1.01 AND 1.03, SET MAXTM TO 8.0.
 WHEN HITE IS BETWEEN 300000.1 AND 300000.0, SET POPRATE TO 10.0.
 WHEN HITE IS BETWEEN 273000.1 AND 273000.0, PRINT.
 LOAD DATA A (  SANDIA GLFC  ).
 SET WT TO 40..
 SET AREA TO 0.3491.
 WHEN CLOCK IS GREATER THAN 885.0, END.
 STOP
1WRTLR
 END
9PROGRM TTA,8600,      ,03, H. R. SPAHR    BOX 053  UNCLASSIFIED
9TIME            15
9CHARGE  8666,9513,0049237
9TAPE   CONTROL,10000
9TAPE   PARAM,10222
9TAPE   METRO,10073
        21240 SPAHR6
 END
```

TTA7622 39-64 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETI

CONTROL21240 SPAHR6 DATA-A=NASA LM AD CR DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
32953.6	3.2000	129.40	25712.0	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
.000	400000	.0000	.00000	.0000	36084	27.9	-5.05778	-92.480	.085	6.314	.0000	2.-6	.0000	3.20000	.0235524
30.0	318084	-2.926	-.12534	174.5	36150	38.6	-3.61199	-92.457	.047	43.21	578.9	.002	.0111	3.20000	1.107333
40.0	296828	-3.905	-.16711	233.0	36159	40.6	-3.12806	-92.450	.006	79.73	1181.	.020	.0994	3.20000	3.778799
50.0	278623	-4.886	-.20886	291.5	36148	40.9	-2.64391	-92.443	-.086	132.3	2231.	.120	.6906	3.20000	10.44629
53.5	273000	-5.228	-.22340	311.9	36135	40.9	-2.47542	-92.440	-.139	155.4	2732.	.213	1.271	3.20000	14.44533
60.0	263491	-5.866	-.25053	350.0	35993	40.5	-2.16216	-92.435	-.857	199.3	3889.	.515	3.597	4.23000	24.20788
70.0	251452	-6.840	-.29186	408.1	35610	38.9	-1.59163	-92.428	-1.53	256.8	6185.	1.26	12.32	4.23000	42.15351
80.0	242418	-7.801	-.33260	465.4	35000	37.2	-1.24146	-92.420	-2.25	298.5	8984.	1.99	29.13	4.23000	61.44332
90.0	236199	-8.743	-.37251	521.6	34181	35.7	-.821410	-92.412	-2.83	317.4	12076	2.04	49.71	4.23000	76.98178
100.	232503	-9.661	-.41136	576.4	33217	34.3	-.439743	-92.404	-3.11	312.6	15245	1.53	67.87	4.23000	84.44628
110.	230972	-10.55	-.44904	629.5	32211	33.2	-.101391	-92.396	-3.10	291.7	18276	.926	80.05	4.23000	83.98705
120.	231238	-11.42	-.48555	681.1	31243	32.2	.192680	-92.387	-2.89	263.8	21057	.502	87.02	4.23000	78.26603
130.	232962	-12.25	-.52096	731.1	30362	31.4	.444357	-92.378	-2.57	233.5	23544	.256	90.68	4.23000	69.33654
140.	235854	-13.07	-.55539	779.5	29598	30.9	.657503	-92.368	-2.17	203.2	25727	.144	92.60	4.23000	58.59180
150.	239681	-13.87	-.58897	827.4	28967	30.6	.837318	-92.357	-1.74	173.6	27611	.080	93.70	4.23000	46.87057
160.	244204	-14.65	-.62185	874.0	28461	30.4	.989650	-92.346	-1.41	149.9	29226	.046	94.31	4.23000	37.67483
170.	249469	-15.42	-.65416	919.9	28062	30.5	1.11971	-92.334	-1.07	126.6	30608	.025	94.66	4.23000	28.52153
180.	255199	-16.17	-.68601	965.2	27758	30.7	1.23240	-92.322	-.824	108.1	31780	.014	94.85	4.23000	21.78187
190.	261384	-16.93	-.71750	1010.	27530	30.9	1.33181	-92.309	-.599	90.01	32768	.007	94.95	4.23000	15.63128
200.	267977	-17.67	-.74869	1055.	27366	30.9	1.42142	-92.295	-.426	74.25	33591	.004	95.00	4.23000	10.90364
210.	274946	-18.41	-.77966	1099.	27249	30.8	1.50404	-92.281	-.314	60.75	34261	.002	95.03	4.47236	7.425650
220.	282269	-19.15	-.81043	1143.	27162	30.7	1.58162	-92.266	-.229	48.65	34805	8.-4	95.04	4.83118	4.823454
230.	289930	-19.89	-.84104	1187.	27098	30.7	1.65550	-92.250	-.166	38.52	35243	3.-4	95.05	5.20655	3.051483
240.	297917	-20.62	-.87150	1231.	27051	30.3	1.72672	-92.234	-.124	30.85	35590	2.-4	95.05	5.59794	1.969727
250.	306224	-21.35	-.90183	1275.	27016	29.7	1.79600	-92.218	-.095	24.27	35863	7.-5	95.05	6.12071	1.224245
260.	314843	-22.09	-.93203	1318.	26989	29.0	1.86386	-92.200	-.074	18.93	36076	3.-5	95.05	6.70341	.7470347
270.	323772	-22.82	-.96210	1362.	26967	28.4	1.93067	-92.182	-.061	14.76	36243	1.-5	95.05	7.30701	.4552037
280.	333007	-23.55	-.99205	1406.	26949	27.8	1.99664	-92.164	-.050	11.50	36373	5.-6	95.05	7.39000	.2768102
290.	342544	-24.27	-1.0219	1449.	26933	26.9	2.06195	-92.145	-.044	8.959	36475	2.-6	95.05	7.39000	.1680481
300.	352381	-25.00	-1.0516	1493.	26919	26.1	2.12670	-92.125	-.041	7.043	36555	8.-7	95.05	7.39000	.1039522
310.	362516	-25.73	-1.0811	1536.	26906	25.2	2.19096	-92.105	-.040	5.568	36618	3.-7	95.05	7.39000	.0650067
320.	372947	-26.45	-1.1105	1579.	26893	23.9	2.25476	-92.084	-.039	4.368	36667	1.-7	95.05	7.39000	.0400203
330.	383671	-27.18	-1.1398	1623.	26880	22.8	2.31811	-92.063	-.039	3.487	36706	6.-8	95.05	7.39000	.0255123
340.	394685	-27.90	-1.1689	1666.	26867	21.5	2.38102	-92.040	-.040	2.804	36737	3.-8	95.05	7.39000	.0165090
350.	405988	-28.63	-1.1979	1709.	26853	19.9	2.44350	-92.018	-.040	2.246	36762	1.-8	95.05	7.39000	.0105957
360.	417576	-29.35	-1.2267	1753.	26840	18.5	2.50553	-91.994	-.041	1.831	36783	6.-9	95.05	7.39000	.0070469
370.	429448	-30.07	-1.2553	1796.	26826	17.4	2.56711	-91.970	-.042	1.526	36799	3.-9	95.05	7.39000	.0048922
380.	441600	-30.79	-1.2838	1839.	26812	16.4	2.62824	-91.946	-.043	1.302	36814	2.-9	95.05	7.39000	.0035634
390.	454031	-31.51	-1.3120	1882.	26797	15.5	2.68891	-91.920	-.044	1.127	36826	1.-9	95.05	7.39000	.0026716
400.	466738	-32.23	-1.3401	1925.	26783	14.8	2.74911	-91.894	-.045	.9849	36836		95.05	7.39000	.0020418
410.	479717	-32.95	-1.3680	1968.	26768	14.1	2.80883	-91.868	-.045	.8675	36845		95.05	7.39000	.0015848
420.	492967	-33.67	-1.3956	2011.	26753	13.6	2.86806	-91.841	-.046	.7752	36854		95.05	7.39000	.0012659
430.	506484	-34.39	-1.4231	2054.	26737	13.2	2.92681	-91.813	-.047	.7038	36861		95.05	7.39000	.0010439
440.	520266	-35.10	-1.4503	2097.	26721	12.8	2.98505	-91.784	-.048	.6366	36868		95.05	7.39000	8.5445-4
450.	534310	-35.82	-1.4773	2140.	26705	12.6	3.04279	-91.755	-.049	.5868	36874		95.05	7.39000	7.2649-4
460.	548612	-36.53	-1.5040	2183.	26689	12.3	3.10001	-91.725	-.050	.5410	36879		95.05	7.39000	6.1774-4
470.	563171	-37.24	-1.5305	2225.	26672	12.1	3.15670	-91.694	-.051	.4997	36885		95.05	7.39000	5.2720-4
480.	577983	-37.95	-1.5567	2268.	26655	12.0	3.21287	-91.663	-.052	.4644	36889		95.05	7.39000	4.5571-4
490.	593045	-38.66	-1.5826	2310.	26638	11.9	3.26850	-91.631	-.052	.4327	36894		95.05	7.39000	3.9586-4
500.	608355	-39.37	-1.6083	2353.	26620	11.7	3.32359	-91.598	-.053	.4030	36898		95.05	7.39000	3.4343-4

TTA7622 3H-64 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV. 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25570.6	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
510.	623909	-40.08	-1.6336	2395.	26602	11.6	3.37813	-91.565	-.054	.3754	36902		95.05	7.39000	2.9819-4
520.	639703	-40.79	-1.6586	2438.	26584	11.6	3.43211	-91.531	-.055	.3506	36906		95.05	7.39000	2.6023-4
530.	655736	-41.49	-1.6833	2480.	26566	11.5	3.48553	-91.496	-.056	.3284	36909		95.05	7.39000	2.2854-4
540.	672003	-42.20	-1.7076	2522.	26548	11.4	3.53838	-91.460	-.056	.3088	36912		95.05	7.39000	2.0215-4
550.	688502	-42.90	-1.7315	2565.	26529	11.3	3.59065	-91.424	-.057	.2892	36915		95.05	7.39000	1.7745-4
560.	705230	-43.60	-1.7551	2607.	26510	11.2	3.64235	-91.386	-.058	.2696	36918		95.05	7.39000	1.5430-4
570.	722183	-44.31	-1.7783	2649.	26490	11.2	3.69345	-91.348	-.059	.2524	36921		95.05	7.39000	1.3534-4
580.	739358	-45.01	-1.8011	2691.	26471	11.1	3.74397	-91.310	-.059	.2365	36923		95.05	7.39000	1.1887-4
590.	756751	-45.70	-1.8234	2733.	26451	11.0	3.79389	-91.270	-.060	.2220	36925		95.05	7.39000	1.0479-4
600.	774361	-46.40	-1.8452	2775.	26431	11.0	3.84321	-91.229	-.061	.2086	36928		95.05	7.39000	9.2542-5
610.	792182	-47.10	-1.8666	2816.	26411	10.9	3.89193	-91.188	-.062	.1960	36930		95.05	7.39000	8.1778-5
620.	810213	-47.79	-1.8875	2858.	26390	10.9	3.94003	-91.146	-.062	.1842	36931		95.05	7.39000	7.2277-5
630.	828449	-48.49	-1.9078	2900.	26370	10.8	3.98752	-91.102	-.063	.1731	36933		95.05	7.39000	6.3896-5
640.	846888	-49.18	-1.9276	2942.	26349	10.8	4.03439	-91.058	-.064	.1628	36935		95.05	7.39000	5.6510-5
650.	865525	-49.87	-1.9468	2983.	26328	10.8	4.08063	-91.013	-.064	.1530	36936		95.05	7.39000	4.9999-5
660.	884358	-50.56	-1.9654	3025.	26306	10.7	4.12625	-90.967	-.065	.1439	36938		95.05	7.39000	4.4258-5
670.	903384	-51.25	-1.9834	3066.	26285	10.7	4.17123	-90.920	-.065	.1354	36939		95.05	7.39000	3.9207-5
680.	922598	-51.94	-2.0007	3107.	26263	10.6	4.21559	-90.872	-.066	.1274	36941		95.05	7.39000	3.4751-5
690.	941997	-52.63	-2.0172	3148.	26241	10.6	4.25930	-90.823	-.067	.1200	36942		95.05	7.39000	3.0820-5
700.	961579	-53.31	-2.0330	3190.	26219	10.6	4.30237	-90.772	-.067	.1130	36943		95.05	7.39000	2.7352-5
710.	981339	-53.99	-2.0480	3231.	26197	10.5	4.34479	-90.721	-.068	.1065	36944		95.05	7.39000	2.4299-5
720.	1.00+6	-54.68	-2.0622	3272.	26175	10.5	4.38657	-90.668	-.068	.1008	36945		95.05	7.39000	2.1784-5
730.	1.02+6	-55.36	-2.0754	3313.	26152	10.5	4.42770	-90.614	-.069	.1006	36946		95.05	7.39000	2.1746-5
740.	1.04+6	-56.04	-2.0878	3354.	26129	10.5	4.46817	-90.559	-.069	.1005	36947		95.05	7.39000	2.1708-5
750.	1.06+6	-56.72	-2.0991	3394.	26106	10.5	4.50799	-90.503	-.070	.1004	36948		95.05	7.39000	2.1670-5
760.	1.08+6	-57.39	-2.1094	3435.	26083	10.5	4.54715	-90.445	-.070	.1002	36949		95.05	7.39000	2.1632-5
770.	1.10+6	-58.07	-2.1185	3476.	26060	10.4	4.58565	-90.385	-.071	.1001	36950		95.05	7.39000	2.1594-5
780.	1.12+6	-58.74	-2.1265	3516.	26037	10.4	4.62349	-90.324	-.071	.1000	36951		95.05	7.39000	2.1555-5
790.	1.15+6	-59.42	-2.1332	3557.	26013	10.4	4.66066	-90.262	-.072	.0998	36952		95.05	7.39000	2.1516-5
800.	1.17+6	-60.09	-2.1385	3597.	25990	10.4	4.69717	-90.198	-.072	.0997	36953		95.05	7.39000	2.1477-5
810.	1.19+6	-60.76	-2.1424	3638.	25966	10.4	4.73301	-90.132	-.073	.0996	36954		95.05	7.39000	2.1437-5
820.	1.21+6	-61.43	-2.1448	3678.	25942	10.4	4.76818	-90.064	-.073	.0994	36955		95.05	7.39000	2.1398-5
830.	1.23+6	-62.10	-2.1455	3718.	25918	10.4	4.80268	-89.995	-.074	.0993	36956		95.05	7.39000	2.1358-5
840.	1.25+6	-62.76	-2.1445	3758.	25894	10.4	4.83651	-89.923	-.074	.0992	36957		95.05	7.39000	2.1318-5
850.	1.27+6	-63.43	-2.1416	3798.	25869	10.4	4.86966	-89.849	-.074	.0990	36958		95.05	7.39000	2.1278-5
860.	1.30+6	-64.09	-2.1366	3838.	25845	10.4	4.90214	-89.773	-.075	.0989	36959		95.05	7.39000	2.1238-5
870.	1.32+6	-64.75	-2.1295	3878.	25820	10.3	4.93395	-89.694	-.075	.0988	36960		95.05	7.39000	2.1198-5
880.	1.34+6	-65.42	-2.1200	3918.	25796	10.3	4.96507	-89.613	-.075	.0986	36961		95.05	7.39000	2.1157-5
890.	1.36+6	-66.08	-2.1080	3958.	25771	10.3	4.99553	-89.528	-.076	.0985	36962		95.05	7.39000	2.1117-5
900.	1.39+6	-66.73	-2.0932	3997.	25746	10.3	5.02530	-89.441	-.076	.0983	36963		95.05	7.39000	2.1076-5
910.	1.41+6	-67.39	-2.0755	4037.	25721	10.3	5.05440	-89.351	-.076	.0982	36964		95.05	7.39000	2.1035-5
920.	1.43+6	-68.05	-2.0545	4076.	25696	10.3	5.08282	-89.257	-.077	.0980	36965		95.05	7.39000	2.0994-5
930.	1.45+6	-68.70	-2.0300	4115.	25671	10.3	5.11057	-89.159	-.077	.0979	36966		95.05	7.39000	2.0953-5
940.	1.48+6	-69.35	-2.0016	4155.	25646	10.3	5.13763	-89.057	-.077	.0978	36967		95.05	7.39000	2.0912-5
950.	1.50+6	-70.00	-1.9691	4194.	25620	10.3	5.16402	-88.951	-.078	.0976	36968		95.05	7.39000	2.0871-5
960.	1.52+6	-70.65	-1.9319	4233.	25595	10.3	5.18973	-88.840	-.078	.0975	36969		95.05	7.39000	2.0829-5
970.	1.55+6	-71.30	-1.8896.	4272.	25569	10.2	5.21476	-88.723	-.078	.0973	36970		95.05	7.39000	2.0788-5
980.	1.57+6	-71.95	-1.8417	4311.	25544	10.2	5.23912	-88.601	-.078	.0972	36971		95.05	7.39000	2.0747-5
990.	1.59+6	-72.59	-1.7876	4350.	25518	10.2	5.26279	-88.472	-.079	.0970	36972		95.05	7.39000	2.0705-5
1000	1.62+6	-73.24	-1.7265	4389.	25493	10.2	5.28580	-88.336	-.079	.0969	36973		95.05	7.39000	2.0663-5

TTA7622 3R-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
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OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24980.6	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
1010	1.64+6	-73.88	-1.6578	4428.	25467	10.2	5.30812	-88.192	-.079	.0967	36974		95.05	7.39000	2.0622-5
1020	1.66+6	-74.52	-1.5803	4466.	25441	10.2	5.32978	-88.040	-.079	.0966	36975		95.05	7.39000	2.0580-5
1030	1.69+6	-75.16	-1.4931	4505.	25415	10.2	5.35075	-87.877	-.079	.0964	36976		95.05	7.39000	2.0538-5
1040	1.71+6	-75.80	-1.3949	4543.	25390	10.2	5.37106	-87.703	-.080	.0963	36977		95.05	7.39000	2.0497-5
1050	1.73+6	-76.44	-1.2841	4582.	25364	10.2	5.39069	-87.516	-.080	.0961	36978		95.05	7.39000	2.0455-5
1060	1.76+6	-77.07	-1.1589	4620.	25338	10.2	5.40965	-87.319	-.080	.0960	36979		95.05	7.39000	2.0413-5
1070	1.78+6	-77.71	-1.0172	4658.	25312	10.1	5.42795	-87.096	-.080	.0958	36980		95.05	7.39000	2.0371-5
1080	1.81+6	-78.34	-.85629	4696.	25286	10.1	5.44557	-86.859	-.080	.0957	36981		95.05	7.39000	2.0330-5
1090	1.83+6	-78.97	-.67300	4734.	25260	10.1	5.46252	-86.599	-.080	.0955	36982		95.05	7.39000	2.0288-5
1100	1.85+6	-79.60	-.46332	4772.	25234	10.1	5.47881	-86.312	-.080	.0954	36983		95.05	7.39000	2.0246-5
1110	1.88+6	-80.23	-.22227	4810.	25208	10.1	5.49444	-85.994	-.080	.0952	36983		95.05	7.39000	2.0204-5
1120	1.90+6	-80.85	.05649	4848.	25182	10.1	5.50940	-85.638	-.080	.0951	36984		95.05	7.39000	2.0162-5
1130	1.93+6	-81.48	.38109	4886.	25156	10.1	5.52370	-85.236	-.080	.0949	36985		95.05	7.39000	2.0121-5
1140	1.95+6	-82.10	.76221	4923.	25130	10.1	5.53734	-84.777	-.081	.0948	36986		95.05	7.39000	2.0079-5
1150	1.98+6	-82.72	1.2141	4961.	25104	10.1	5.55032	-84.247	-.081	.0946	36987		95.05	7.39000	2.0037-5
1160	2.00+6	-83.34	1.7561	4998.	25077	10.0	5.56265	-83.627	-.081	.0945	36988		95.05	7.39000	1.9996-5
1170	2.02+6	-83.96	2.4156	5036.	25051	10.0	5.57432	-82.890	-.081	.0943	36989		95.05	7.39000	1.9954-5
1180	2.05+6	-84.57	3.2317	5073.	25025	10.0	5.58534	-81.995	-.081	.0942	36990		95.05	7.39000	1.9913-5
1190	2.07+6	-85.19	4.2634	5110.	24999	10.0	5.59571	-80.885	-.081	.0940	36991		95.05	7.39000	1.9871-5
1200	2.10+6	-85.79	5.6027	5147.	24973	10.0	5.60543	-79.467	-.081	.0939	36992		95.05	7.39000	1.9830-5
1210	2.12+6	-86.40	7.4021	5184.	24947	9.99	5.61450	-77.589	-.081	.0937	36993		95.05	7.39000	1.9788-5
1220	2.15+6	-86.99	9.9311	5221.	24921	9.98	5.62293	-74.981	-.081	.0936	36994		95.05	7.39000	1.9747-5
1230	2.17+6	-87.58	13.711	5258.	24895	9.97	5.63072	-71.122	-.081	.0934	36995		95.05	7.39000	1.9706-5
1240	2.20+6	-88.15	19.872	5295.	24869	9.96	5.63786	-64.882	-.081	.0933	36996		95.05	7.39000	1.9665-5
1250	2.22+6	-88.68	31.197	5332.	24843	9.95	5.64437	-53.479	-.081	.0931	36997		95.05	7.39000	1.9624-5
1260	2.24+6	-89.09	54.752	5368.	24817	9.94	5.65024	-29.845	-.080	.0930	36998		95.05	7.39000	1.9583-5
1270	2.27+6	-89.20	95.793	5405.	24791	9.93	5.65548	11.276	-.080	.0928	36999		95.05	7.39000	1.9542-5
1280	2.29+6	-88.90	128.61	5441.	24766	9.92	5.66009	44.173	-.080	.0927	36999		95.05	7.39000	1.9501-5
1290	2.32+6	-88.42	144.55	5478.	24740	9.91	5.66407	60.188	-.080	.0925	37000		95.05	7.39000	1.9461-5
1300	2.34+6	-87.87	152.66	5514.	24714	9.90	5.66743	68.380	-.080	.0924	37001		95.05	7.39000	1.9420-5
1310	2.37+6	-87.30	157.38	5550.	24688	9.89	5.67016	73.179	-.080	.0922	37002		95.05	7.39000	1.9380-5
1320	2.39+6	-86.72	160.42	5586.	24663	9.88	5.67227	76.298	-.080	.0921	37003		95.05	7.39000	1.9339-5
1330	2.41+6	-86.14	162.52	5622.	24637	9.87	5.67376	78.483	-.080	.0919	37004		95.05	7.39000	1.9299-5
1340	2.44+6	-85.55	164.06	5658.	24611	9.86	5.67463	80.100	-.080	.0918	37005		95.05	7.39000	1.9259-5
1350	2.46+6	-84.96	165.22	5694.	24586	9.85	5.67487	81.345	-.080	.0916	37006		95.05	7.39000	1.9219-5
1360	2.49+6	-84.37	166.13	5730.	24560	9.84	5.67447	82.336	-.079	.0915	37007		95.05	7.39000	1.9180-5
1370	2.51+6	-83.77	166.86	5766.	24535	9.83	5.67350	83.149	-.079	.0913	37008		95.05	7.39000	1.9140-5
1380	2.54+6	-83.18	167.46	5802.	24510	9.82	5.67195	83.819	-.079	.0912	37009		95.05	7.39000	1.9100-5
1390	2.56+6	-82.59	167.95	5837.	24484	9.81	5.66981	84.392	-.079	.0910	37010		95.05	7.39000	1.9061-5
1400	2.58+6	-82.00	168.36	5873.	24459	9.80	5.66706	84.885	-.079	.0909	37010		95.05	7.39000	1.9022-5
1410	2.61+6	-81.41	168.71	5908.	24434	9.79	5.66371	85.315	-.079	.0907	37011		95.05	7.39000	1.8983-5
1420	2.63+6	-80.83	169.01	5943.	24409	9.78	5.65977	85.695	-.078	.0906	37012		95.05	7.39000	1.8944-5
1430	2.66+6	-80.24	169.27	5979.	24384	9.77	5.65525	86.033	-.078	.0904	37013		95.05	7.39000	1.8905-5
1440	2.68+6	-79.65	169.49	6014.	24359	9.76	5.65013	86.337	-.078	.0903	37014		95.05	7.39000	1.8866-5
1450	2.70+6	-79.07	169.69	6049.	24334	9.75	5.64444	86.613	-.078	.0901	37015		95.05	7.39000	1.8828-5
1460	2.73+6	-78.48	169.86	6084.	24309	9.74	5.63816	86.864	-.078	.0900	37016		95.05	7.39000	1.8790-5
1470	2.75+6	-77.90	170.01	6119.	24285	9.73	5.63131	87.095	-.077	.0898	37017		95.05	7.39000	1.8751-5
1480	2.78+6	-77.32	170.14	6154.	24260	9.72	5.62388	87.308	-.077	.0897	37018		95.05	7.39000	1.8714-5
1490	2.80+6	-76.74	170.26	6188.	24236	9.71	5.61588	87.505	-.077	.0895	37019		95.05	7.39000	1.8676-5
1500	2.82+6	-76.16	170.36	6223.	24211	9.70	5.60732	87.689	-.077	.0894	37019		95.05	7.39000	1.8638-5

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WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24339.1	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
1510	2.85+6	-75.58	170.45	6258.	24187	9.69	5.59819	87.862	-.076	.0893	37020		95.05	7.39000	1.8601-5
1520	2.87+6	-75.00	170.54	6292.	24163	9.68	5.58850	88.024	-.076	.0891	37021		95.05	7.39000	1.8564-5
1530	2.89+6	-74.43	170.61	6327.	24139	9.67	5.57826	88.176	-.076	.0890	37022		95.05	7.39000	1.8526-5
1540	2.92+6	-73.85	170.67	6361.	24115	9.66	5.56745	88.321	-.076	.0888	37023		95.05	7.39000	1.8490-5
1550	2.94+6	-73.27	170.73	6396.	24091	9.65	5.55610	88.458	-.075	.0887	37024		95.05	7.39000	1.8453-5
1560	2.96+6	-72.70	170.78	6430.	24067	9.64	5.54420	88.589	-.075	.0885	37025		95.05	7.39000	1.8416-5
1570	2.99+6	-72.13	170.83	6464.	24043	9.63	5.53176	88.713	-.075	.0884	37026		95.05	7.39000	1.8380-5
1580	3.01+6	-71.56	170.86	6498.	24019	9.62	5.51877	88.832	-.074	.0883	37027		95.05	7.39000	1.8344-5
1590	3.03+6	-70.99	170.90	6532.	23996	9.61	5.50525	88.947	-.074	.0881	37027		95.05	7.39000	1.8308-5
1600	3.06+6	-70.42	170.93	6566.	23973	9.60	5.49120	89.057	-.074	.0880	37028		95.05	7.39000	1.8273-5
1610	3.08+6	-69.85	170.96	6600.	23949	9.60	5.47661	89.162	-.074	.0878	37029		95.05	7.39000	1.8237-5
1620	3.10+6	-69.28	170.98	6634.	23926	9.59	5.46150	89.264	-.073	.0877	37030		95.05	7.39000	1.8202-5
1630	3.13+6	-68.72	171.00	6667.	23903	9.58	5.44586	89.363	-.073	.0876	37031		95.05	7.39000	1.8167-5
1640	3.15+6	-68.15	171.01	6701.	23880	9.57	5.42970	89.458	-.073	.0874	37032		95.05	7.39000	1.8132-5
1650	3.17+6	-67.59	171.03	6734.	23857	9.56	5.41303	89.551	-.072	.0873	37033		95.05	7.39000	1.8097-5
1660	3.19+6	-67.02	171.04	6768.	23835	9.55	5.39584	89.640	-.072	.0872	37034		95.05	7.39000	1.8063-5
1670	3.22+6	-66.46	171.04	6801.	23812	9.54	5.37814	89.727	-.071	.0870	37034		95.05	7.39000	1.8029-5
1680	3.24+6	-65.90	171.05	6835.	23790	9.53	5.35994	89.812	-.071	.0869	37035		95.05	7.39000	1.7995-5
1690	3.26+6	-65.34	171.05	6868.	23767	9.52	5.34123	89.895	-.071	.0868	37036		95.05	7.39000	1.7961-5
1700	3.28+6	-64.78	171.05	6901.	23745	9.51	5.32203	89.975	-.070	.0866	37037		95.05	7.39000	1.7927-5
1710	3.30+6	-64.22	171.05	6934.	23723	9.50	5.30233	90.054	-.070	.0865	37038		95.05	7.39000	1.7894-5
1720	3.33+6	-63.66	171.05	6967.	23701	9.50	5.28213	90.130	-.070	.0864	37039		95.05	7.39000	1.7861-5
1730	3.35+6	-63.11	171.05	7000.	23679	9.49	5.26145	90.205	-.069	.0862	37040		95.05	7.39000	1.7828-5
1740	3.37+6	-62.55	171.04	7033.	23658	9.48	5.24029	90.278	-.069	.0861	37041		95.05	7.39000	1.7795-5
1750	3.39+6	-62.00	171.04	7066.	23636	9.47	5.21864	90.350	-.069	.0860	37041		95.05	7.39000	1.7763-5
1760	3.41+6	-61.44	171.03	7099.	23615	9.46	5.19652	90.420	-.068	.0859	37042		95.05	7.39000	1.7731-5
1770	3.43+6	-60.89	171.02	7131.	23593	9.45	5.17392	90.489	-.068	.0857	37043		95.05	7.39000	1.7699-5
1780	3.45+6	-60.34	171.01	7164.	23572	9.44	5.15085	90.557	-.067	.0856	37044		95.05	7.39000	1.7667-5
1790	3.48+6	-59.79	171.00	7197.	23551	9.44	5.12732	90.623	-.067	.0855	37045		95.05	7.39000	1.7636-5
1800	3.50+6	-59.24	170.99	7229.	23530	9.43	5.10332	90.688	-.067	.0854	37046		95.05	7.39000	1.7605-5
1810	3.52+6	-58.69	170.97	7261.	23510	9.42	5.07886	90.752	-.066	.0852	37047		95.05	7.39000	1.7573-5
1820	3.54+6	-58.14	170.96	7294.	23489	9.41	5.05395	90.815	-.066	.0851	37047		95.05	7.39000	1.7543-5
1830	3.56+6	-57.59	170.94	7326.	23468	9.40	5.02859	90.877	-.065	.0850	37048		95.05	7.39000	1.7512-5
1840	3.58+6	-57.05	170.93	7358.	23448	9.39	5.00277	90.938	-.065	.0849	37049		95.05	7.39000	1.7482-5
1850	3.60+6	-56.50	170.91	7390.	23428	9.39	4.97652	90.998	-.064	.0848	37050		95.05	7.39000	1.7452-5
1860	3.62+6	-55.96	170.89	7422.	23408	9.38	4.94982	91.057	-.064	.0846	37051		95.05	7.39000	1.7422-5
1870	3.64+6	-55.41	170.87	7454.	23388	9.37	4.92269	91.115	-.064	.0845	37052		95.05	7.39000	1.7393-5
1880	3.66+6	-54.87	170.85	7486.	23368	9.36	4.89512	91.172	-.063	.0844	37052		95.05	7.39000	1.7363-5
1890	3.68+6	-54.33	170.84	7518.	23349	9.35	4.86712	91.228	-.063	.0843	37053		95.05	7.39000	1.7334-5
1900	3.70+6	-53.79	170.82	7550.	23329	9.35	4.83870	91.283	-.062	.0842	37054		95.05	7.39000	1.7305-5
1910	3.72+6	-53.25	170.79	7581.	23310	9.34	4.80986	91.338	-.062	.0841	37055		95.05	7.39000	1.7277-5
1920	3.74+6	-52.71	170.77	7613.	23291	9.33	4.78060	91.392	-.061	.0839	37056		95.05	7.39000	1.7248-5
1930	3.76+6	-52.17	170.75	7645.	23272	9.32	4.75092	91.445	-.061	.0838	37057		95.05	7.39000	1.7220-5
1940	3.78+6	-51.63	170.73	7676.	23253	9.32	4.72083	91.498	-.060	.0837	37057		95.05	7.39000	1.7193-5
1950	3.80+6	-51.09	170.71	7707.	23235	9.31	4.69034	91.549	-.060	.0836	37058		95.05	7.39000	1.7165-5
1960	3.82+6	-50.56	170.68	7739.	23216	9.30	4.65944	91.600	-.059	.0835	37059		95.05	7.39000	1.7138-5
1970	3.83+6	-50.02	170.66	7770.	23198	9.29	4.62815	91.651	-.059	.0834	37060		95.05	7.39000	1.7111-5
1980	3.85+6	-49.49	170.63	7801.	23180	9.29	4.59646	91.700	-.058	.0833	37061		95.05	7.39000	1.7084-5
1990	3.87+6	-48.95	170.61	7832.	23162	9.28	4.56437	91.749	-.058	.0832	37062		95.05	7.39000	1.7057-5
2000	3.89+6	-48.42	170.59	7863.	23144	9.27	4.53190	91.798	-.057	.0831	37062		95.05	7.39000	1.7031-5

TTA7622 38-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETI

CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	23817.6	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
2010	3.91+6	-47.89	170.56	7894.	23126	9.27	4.49905	91.846	-.057	.0830	37063		95.05	7.39000	1.7005-5
2020	3.93+6	-47.36	170.53	7925.	23109	9.26	4.46581	91.893	-.056	.0829	37064		95.05	7.39000	1.6979-5
2030	3.94+6	-46.82	170.51	7956.	23091	9.25	4.43220	91.939	-.056	.0828	37065		95.05	7.39000	1.6954-5
2040	3.96+6	-46.29	170.48	7987.	23074	9.24	4.39821	91.985	-.055	.0827	37066		95.05	7.39000	1.6928-5
2050	3.98+6	-45.76	170.46	8018.	23057	9.24	4.36386	92.031	-.055	.0826	37067		95.05	7.39000	1.6903-5
2060	4.00+6	-45.24	170.43	8048.	23040	9.23	4.32914	92.075	-.054	.0825	37067		95.05	7.39000	1.6879-5
2070	4.01+6	-44.71	170.40	8079.	23023	9.22	4.29406	92.120	-.054	.0824	37068		95.05	7.39000	1.6854-5
2080	4.03+6	-44.18	170.37	8109.	23007	9.22	4.25862	92.163	-.053	.0823	37069		95.05	7.39000	1.6830-5
2090	4.05+6	-43.65	170.35	8140.	22990	9.21	4.22283	92.206	-.053	.0822	37070		95.05	7.39000	1.6806-5
2100	4.07+6	-43.13	170.32	8170.	22974	9.20	4.18669	92.249	-.052	.0821	37071		95.05	7.39000	1.6782-5
2110	4.08+6	-42.60	170.29	8200.	22958	9.20	4.15020	92.291	-.052	.0820	37072		95.05	7.39000	1.6759-5
2120	4.10+6	-42.08	170.26	8230.	22942	9.19	4.11337	92.332	-.051	.0819	37072		95.05	7.39000	1.6735-5
2130	4.12+6	-41.55	170.23	8260.	22926	9.19	4.07620	92.373	-.051	.0818	37073		95.05	7.39000	1.6712-5
2140	4.13+6	-41.03	170.20	8290.	22911	9.18	4.03870	92.414	-.050	.0817	37074		95.05	7.39000	1.6690-5
2150	4.15+6	-40.51	170.17	8320.	22895	9.17	4.00087	92.454	-.050	.0816	37075		95.05	7.39000	1.6667-5
2160	4.16+6	-39.98	170.14	8350.	22880	9.17	3.96271	92.493	-.049	.0815	37076		95.05	7.39000	1.6645-5
2170	4.18+6	-39.46	170.11	8380.	22865	9.16	3.92422	92.532	-.049	.0814	37076		95.05	7.39000	1.6623-5
2180	4.19+6	-38.94	170.08	8410.	22850	9.15	3.88542	92.570	-.048	.0813	37077		95.05	7.39000	1.6602-5
2190	4.21+6	-38.42	170.05	8439.	22835	9.15	3.84630	92.608	-.048	.0812	37078		95.05	7.39000	1.6580-5
2200	4.23+6	-37.90	170.02	8469.	22821	9.14	3.80687	92.645	-.047	.0812	37079		95.05	7.39000	1.6559-5
2210	4.24+6	-37.38	169.99	8498.	22807	9.14	3.76714	92.682	-.047	.0811	37080		95.05	7.39000	1.6538-5
2220	4.26+6	-36.86	169.96	8528.	22792	9.13	3.72710	92.718	-.046	.0810	37081		95.05	7.39000	1.6518-5
2230	4.27+6	-36.35	169.93	8557.	22778	9.13	3.68676	92.754	-.046	.0809	37081		95.05	7.39000	1.6497-5
2240	4.28+6	-35.83	169.90	8586.	22764	9.12	3.64612	92.790	-.045	.0808	37082		95.05	7.39000	1.6477-5
2250	4.30+6	-35.31	169.87	8615.	22751	9.11	3.60519	92.824	-.044	.0807	37083		95.05	7.39000	1.6457-5
2260	4.31+6	-34.80	169.84	8644.	22737	9.11	3.56397	92.859	-.044	.0807	37084		95.05	7.39000	1.6438-5
2270	4.33+6	-34.28	169.81	8673.	22724	9.10	3.52247	92.893	-.043	.0806	37085		95.05	7.39000	1.6419-5
2280	4.34+6	-33.76	169.78	8702.	22711	9.10	3.48069	92.926	-.043	.0805	37085		95.05	7.39000	1.6400-5
2290	4.35+6	-33.25	169.75	8731.	22698	9.09	3.43863	92.959	-.042	.0804	37086		95.05	7.39000	1.6381-5
2300	4.37+6	-32.74	169.71	8760.	22685	9.09	3.39629	92.991	-.042	.0804	37087		95.05	7.39000	1.6362-5
2310	4.38+6	-32.22	169.68	8788.	22672	9.08	3.35369	93.023	-.041	.0803	37088		95.05	7.39000	1.6344-5
2320	4.39+6	-31.71	169.65	8817.	22660	9.08	3.31082	93.054	-.041	.0802	37089		95.05	7.39000	1.6326-5
2330	4.41+6	-31.20	169.62	8845.	22648	9.07	3.26769	93.085	-.040	.0801	37089		95.05	7.39000	1.6308-5
2340	4.42+6	-30.68	169.59	8874.	22635	9.07	3.22430	93.116	-.039	.0801	37090		95.05	7.39000	1.6291-5
2350	4.43+6	-30.17	169.55	8902.	22624	9.06	3.18066	93.146	-.039	.0800	37091		95.05	7.39000	1.6274-5
2360	4.45+6	-29.66	169.52	8930.	22612	9.06	3.13677	93.175	-.038	.0799	37092		95.05	7.39000	1.6257-5
2370	4.46+6	-29.15	169.49	8958.	22600	9.05	3.09263	93.204	-.038	.0799	37093		95.05	7.39000	1.6240-5
2380	4.47+6	-28.64	169.46	8986.	22589	9.05	3.04825	93.233	-.037	.0798	37093		95.05	7.39000	1.6224-5
2390	4.48+6	-28.13	169.42	9013.	22578	9.05	3.00363	93.261	-.037	.0797	37094		95.05	7.39000	1.6208-5
2400	4.49+6	-27.62	169.39	9041.	22567	9.04	2.95878	93.288	-.036	.0797	37095		95.05	7.39000	1.6192-5
2410	4.51+6	-27.11	169.36	9068.	22556	9.04	2.91369	93.315	-.035	.0796	37096		95.05	7.39000	1.6176-5
2420	4.52+6	-26.60	169.32	9096.	22545	9.03	2.86838	93.342	-.035	.0795	37097		95.05	7.39000	1.6161-5
2430	4.53+6	-26.10	169.29	9123.	22534	9.03	2.82285	93.368	-.034	.0795	37097		95.05	7.39000	1.6146-5
2440	4.54+6	-25.59	169.26	9150.	22524	9.02	2.77709	93.394	-.034	.0794	37098		95.05	7.39000	1.6131-5
2450	4.55+6	-25.08	169.22	9177.	22514	9.02	2.73112	93.419	-.033	.0793	37099		95.05	7.39000	1.6117-5
2460	4.56+6	-24.58	169.19	9204.	22504	9.02	2.68494	93.443	-.032	.0793	37100		95.05	7.39000	1.6102-5
2470	4.57+6	-24.07	169.16	9231.	22494	9.01	2.63855	93.467	-.032	.0792	37101		95.05	7.39000	1.6088-5
2480	4.58+6	-23.56	169.12	9257.	22485	9.01	2.59196	93.491	-.031	.0792	37101		95.05	7.39000	1.6075-5
2490	4.59+6	-23.06	169.09	9283.	22475	9.00	2.54516	93.514	-.031	.0791	37102		95.05	7.39000	1.6061-5
2500	4.60+6	-22.55	169.06	9310.	22466	9.00	2.49817	93.537	-.030	.0791	37103		95.05	7.39000	1.6048-5

TTA7622 38-64 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	23490.3	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DOC	QC	DQR	QR	CD	Q
2510	4.61+6	-22.05	169.02	9336.	22457	9.00	2.45099	93.559	-.030	.0790	37104		95.05	7.39000	1.6035-5
2520	4.62+6	-21.54	168.99	9361.	22448	8.99	2.40362	93.581	-.029	.0790	37105		95.05	7.39000	1.6022-5
2530	4.63+6	-21.04	168.96	9387.	22439	8.99	2.35606	93.602	-.028	.0789	37105		95.05	7.39000	1.6010-5
2540	4.64+6	-20.54	168.92	9412.	22431	8.99	2.30832	93.623	-.028	.0789	37106		95.05	7.39000	1.5998-5
2550	4.65+6	-20.03	168.89	9438.	22422	8.98	2.26041	93.643	-.027	.0788	37107		95.05	7.39000	1.5986-5
2560	4.66+6	-19.53	168.85	9463.	22414	8.98	2.21232	93.663	-.027	.0788	37108		95.05	7.39000	1.5974-5
2570	4.66+6	-19.03	168.82	9487.	22406	8.98	2.16406	93.683	-.026	.0787	37108		95.05	7.39000	1.5963-5
2580	4.67+6	-18.52	168.79	9512.	22398	8.97	2.11564	93.701	-.025	.0787	37109		95.05	7.39000	1.5952-5
2590	4.68+6	-18.02	168.75	9536.	22391	8.97	2.06706	93.720	-.025	.0786	37110		95.05	7.39000	1.5941-5
2600	4.69+6	-17.52	168.72	9560.	22383	8.97	2.01831	93.738	-.024	.0786	37111		95.05	7.39000	1.5930-5
2610	4.70+6	-17.02	168.68	9584.	22376	8.96	1.96941	93.755	-.024	.0785	37112		95.05	7.39000	1.5920-5
2620	4.70+6	-16.52	168.65	9607.	22369	8.96	1.92037	93.772	-.023	.0785	37112		95.05	7.39000	1.5910-5
2630	4.71+6	-16.02	168.61	9630.	22362	8.96	1.87117	93.788	-.022	.0784	37113		95.05	7.39000	1.5900-5
2640	4.72+6	-15.52	168.58	9653.	22356	8.96	1.82183	93.804	-.022	.0784	37114		95.05	7.39000	1.5891-5
2650	4.73+6	-15.01	168.55	9675.	22349	8.95	1.77236	93.820	-.021	.0784	37115		95.05	7.39000	1.5881-5
2660	4.73+6	-14.51	168.51	9698.	22343	8.95	1.72275	93.835	-.021	.0783	37116		95.05	7.39000	1.5872-5
2670	4.74+6	-14.01	168.48	9719.	22337	8.95	1.67300	93.849	-.020	.0783	37116		95.05	7.39000	1.5864-5
2680	4.75+6	-13.51	168.44	9740.	22331	8.95	1.62313	93.863	-.019	.0783	37117		95.05	7.39000	1.5855-5
2690	4.75+6	-13.02	168.41	9761.	22325	8.94	1.57314	93.877	-.019	.0782	37118		95.05	7.39000	1.5847-5
2700	4.76+6	-12.52	168.37	9782.	22319	8.94	1.52303	93.890	-.018	.0782	37119		95.05	7.39000	1.5839-5
2710	4.76+6	-12.02	168.34	9802.	22314	8.94	1.47280	93.902	-.018	.0782	37119		95.05	7.39000	1.5831-5
2720	4.77+6	-11.52	168.30	9821.	22309	8.94	1.42245	93.914	-.017	.0781	37120		95.05	7.39000	1.5824-5
2730	4.78+6	-11.02	168.27	9840.	22304	8.94	1.37200	93.926	-.016	.0781	37121		95.05	7.39000	1.5817-5
2740	4.78+6	-10.52	168.24	9858.	22299	8.93	1.32145	93.937	-.016	.0781	37122		95.05	7.39000	1.5810-5
2750	4.79+6	-10.02	168.20	9876.	22294	8.93	1.27079	93.947	-.015	.0780	37123		95.05	7.39000	1.5803-5
2760	4.79+6	-9.525	168.17	9893.	22289	8.93	1.22004	93.957	-.014	.0780	37123		95.05	7.39000	1.5797-5
2770	4.80+6	-9.027	168.13	9909.	22285	8.93	1.16920	93.967	-.014	.0780	37124		95.05	7.39000	1.5791-5
2780	4.80+6	-8.530	168.10	9925.	22281	8.93	1.11826	93.976	-.013	.0780	37125		95.05	7.39000	1.5785-5
2790	4.80+6	-8.032	168.06	9940.	22277	8.93	1.06724	93.985	-.013	.0779	37126		95.05	7.39000	1.5779-5
2800	4.81+6	-7.535	168.03	9954.	22273	8.92	1.01614	93.993	-.012	.0779	37126		95.05	7.39000	1.5774-5
2810	4.81+6	-7.037	167.99	9968.	22270	8.92	.964959	94.000	-.011	.0779	37127		95.05	7.39000	1.5769-5
2820	4.82+6	-6.540	167.96	9980.	22266	8.92	.913705	94.007	-.011	.0779	37128		95.05	7.39000	1.5764-5
2830	4.82+6	-6.043	167.92	9992.	22263	8.92	.862381	94.014	-.010	.0779	37129		95.05	7.39000	1.5760-5
2840	4.82+6	-5.546	167.89	10002	22260	8.92	.810991	94.020	-.010	.0778	37130		95.05	7.39000	1.5755-5
2850	4.83+6	-5.050	167.85	10012	22257	8.92	.759539	94.026	-.009	.0778	37130		95.05	7.39000	1.5751-5
2860	4.83+6	-4.553	167.82	10021	22255	8.92	.708028	94.031	-.008	.0778	37131		95.05	7.39000	1.5748-5
2870	4.83+6	-4.057	167.78	10029	22252	8.92	.656461	94.036	-.008	.0778	37132		95.05	7.39000	1.5744-5
2880	4.83+6	-3.560	167.75	10035	22250	8.91	.604844	94.040	-.007	.0778	37133		95.05	7.39000	1.5741-5
2890	4.84+6	-3.064	167.71	10041	22248	8.91	.553180	94.043	-.006	.0778	37133		95.05	7.39000	1.5738-5
2900	4.84+6	-2.568	167.68	10045	22246	8.91	.501472	94.047	-.006	.0778	37134		95.05	7.39000	1.5735-5
2910	4.84+6	-2.072	167.64	10048	22244	8.91	.449725	94.049	-.005	.0778	37135		95.05	7.39000	1.5733-5
2920	4.84+6	-1.575	167.61	10051	22243	8.91	.397942	94.051	-.005	.0777	37136		95.05	7.39000	1.5731-5
2930	4.84+6	-1.079	167.57	10052	22241	8.91	.346127	94.053	-.004	.0777	37137		95.05	7.39000	1.5729-5
2940	4.84+6	-.5834	167.54	10051	22240	8.91	.294284	94.054	-.003	.0777	37137		95.05	7.39000	1.5727-5
2950	4.84+6	-.0874	167.50	10050	22239	8.91	.242417	94.055	-.003	.0777	37138		95.05	7.39000	1.5726-5
2960	4.85+6	.4085	167.47	10048	22238	8.91	.190529	94.055	-.002	.0777	37139		95.05	7.39000	1.5724-5
2970	4.85+6	.9044	167.43	10044	22238	8.91	.138625	94.055	-.002	.0777	37140		95.05	7.39000	1.5724-5
2980	4.85+6	1.400	167.40	10039	22237	8.91	.086708	94.054	-9.-4	.0777	37140		95.05	7.39000	1.5723-5
2990	4.85+6	1.896	167.36	10034	22237	8.91	.034782	94.053	-3.-4	.0777	37141		95.05	7.39000	1.5723-5
3000	4.85+6	2.392	167.33	10027	22237	8.91	-.017149	94.051	3.-4	.0777	37142		95.05	7.39000	1.5723-5

TTA7622 38-64 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	23383.1	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DDC	DC	DQR	QR	CD	Q
3010	4.85+6	2.888	167.29	10019	22237	8.91	-.059081	94.049	9.-4	.0777	37143		95.05	7.39000	1.5723-5
3020	4.85+6	3.384	167.26	10010	22237	8.91	-.121011	94.046	.002	.0777	37144		95.05	7.39000	1.5723-5
3030	4.85+6	3.880	167.22	10000	22238	8.91	-.172935	94.042	.002	.0777	37144		95.05	7.39000	1.5724-5
3040	4.84+6	4.375	167.19	9989.	22239	8.91	-.224848	94.039	.003	.0777	37145		95.05	7.39000	1.5725-5
3050	4.84+6	4.871	167.15	9977.	22240	8.91	-.276747	94.034	.003	.0777	37146		95.05	7.39000	1.5726-5
3060	4.84+6	5.367	167.12	9964.	22241	8.91	-.328629	94.030	.004	.0777	37147		95.05	7.39000	1.5728-5
3070	4.84+6	5.863	167.08	9951.	22242	8.91	-.380488	94.024	.005	.0777	37147		95.05	7.39000	1.5729-5
3080	4.84+6	6.359	167.05	9937.	22243	8.91	-.432322	94.019	.005	.0777	37148		95.05	7.39000	1.5731-5
3090	4.84+6	6.855	167.01	9922.	22245	8.91	-.484127	94.012	.006	.0778	37149		95.05	7.39000	1.5734-5
3100	4.84+6	7.352	166.98	9906.	22247	8.91	-.535898	94.006	.006	.0778	37150		95.05	7.39000	1.5736-5
3110	4.83+6	7.848	166.94	9889.	22249	8.91	-.587632	93.998	.007	.0778	37151		95.05	7.39000	1.5739-5
3120	4.83+6	8.344	166.91	9872.	22251	8.91	-.639326	93.991	.008	.0778	37151		95.05	7.39000	1.5742-5
3130	4.83+6	8.841	166.87	9855.	22253	8.92	-.690974	93.982	.008	.0778	37152		95.05	7.39000	1.5745-5
3140	4.83+6	9.337	166.84	9836.	22256	8.92	-.742574	93.974	.009	.0778	37153		95.05	7.39000	1.5749-5
3150	4.82+6	9.834	166.81	9818.	22258	8.92	-.794122	93.964	.010	.0778	37154		95.05	7.39000	1.5753-5
3160	4.82+6	10.33	166.77	9798.	22261	8.92	-.845613	93.955	.010	.0778	37154		95.05	7.39000	1.5757-5
3170	4.82+6	10.83	166.74	9779.	22264	8.92	-.897044	93.945	.011	.0779	37155		95.05	7.39000	1.5761-5
3180	4.81+6	11.32	166.70	9758.	22268	8.92	-.948411	93.934	.011	.0779	37156		95.05	7.39000	1.5766-5
3190	4.81+6	11.82	166.67	9738.	22271	8.92	-.999710	93.923	.012	.0779	37157		95.05	7.39000	1.5771-5
3200	4.81+6	12.32	166.63	9716.	22275	8.92	-1.05094	93.911	.013	.0779	37158		95.05	7.39000	1.5776-5
3210	4.80+6	12.82	166.60	9695.	22279	8.93	-1.10209	93.899	.013	.0780	37158		95.05	7.39000	1.5781-5
3220	4.80+6	13.31	166.56	9673.	22283	8.93	-1.15316	93.886	.014	.0780	37159		95.05	7.39000	1.5787-5
3230	4.79+6	13.81	166.53	9651.	22287	8.93	-1.20415	93.873	.014	.0780	37160		95.05	7.39000	1.5793-5
3240	4.79+6	14.31	166.49	9628.	22291	8.93	-1.25505	93.859	.015	.0780	37161		95.05	7.39000	1.5799-5
3250	4.78+6	14.81	166.46	9606.	22296	8.93	-1.30586	93.845	.016	.0781	37161		95.05	7.39000	1.5806-5
3260	4.78+6	15.31	166.42	9583.	22301	8.93	-1.35658	93.831	.016	.0781	37162		95.05	7.39000	1.5813-5
3270	4.77+6	15.80	166.39	9559.	22306	8.94	-1.40720	93.816	.017	.0781	37163		95.05	7.39000	1.5820-5
3280	4.77+6	16.30	166.36	9536.	22311	8.94	-1.45771	93.800	.017	.0781	37164		95.05	7.39000	1.5827-5
3290	4.76+6	16.80	166.32	9512.	22316	8.94	-1.50812	93.784	.018	.0782	37165		95.05	7.39000	1.5834-5
3300	4.75+6	17.30	166.29	9487.	22322	8.94	-1.55842	93.767	.019	.0782	37165		95.05	7.39000	1.5842-5
3310	4.75+6	17.80	166.25	9463.	22327	8.95	-1.60860	93.750	.019	.0782	37166		95.05	7.39000	1.5850-5
3320	4.74+6	18.30	166.22	9439.	22333	8.95	-1.65866	93.733	.020	.0783	37167		95.05	7.39000	1.5859-5
3330	4.74+6	18.80	166.18	9414.	22339	8.95	-1.70861	93.715	.021	.0783	37168		95.05	7.39000	1.5867-5
3340	4.73+6	19.30	166.15	9389.	22345	8.95	-1.75842	93.696	.021	.0783	37168		95.05	7.39000	1.5876-5
3350	4.72+6	19.80	166.12	9364.	22352	8.96	-1.80811	93.677	.022	.0784	37169		95.05	7.39000	1.5885-5
3360	4.71+6	20.30	166.08	9338.	22358	8.96	-1.85767	93.658	.022	.0784	37170		95.05	7.39000	1.5895-5
3370	4.71+6	20.80	166.05	9313.	22365	8.96	-1.90708	93.638	.023	.0785	37171		95.05	7.39000	1.5904-5
3380	4.70+6	21.30	166.01	9287.	22372	8.96	-1.95636	93.617	.024	.0785	37172		95.05	7.39000	1.5914-5
3390	4.69+6	21.80	165.98	9261.	22379	8.97	-2.00549	93.596	.024	.0785	37172		95.05	7.39000	1.5924-5
3400	4.68+6	22.30	165.95	9235.	22387	8.97	-2.05447	93.575	.025	.0786	37173		95.05	7.39000	1.5935-5
3410	4.68+6	22.81	165.91	9209.	22394	8.97	-2.10329	93.553	.025	.0786	37174		95.05	7.39000	1.5946-5
3420	4.67+6	23.31	165.88	9183.	22402	8.98	-2.15196	93.531	.026	.0787	37175		95.05	7.39000	1.5957-5
3430	4.66+6	23.81	165.85	9157.	22410	8.98	-2.20047	93.508	.027	.0787	37176		95.05	7.39000	1.5968-5
3440	4.65+6	24.31	165.81	9130.	22418	8.98	-2.24881	93.485	.027	.0788	37176		95.05	7.39000	1.5979-5
3450	4.64+6	24.82	165.78	9104.	22426	8.98	-2.29699	93.461	.028	.0788	37177		95.05	7.39000	1.5991-5
3460	4.63+6	25.32	165.75	9077.	22435	8.99	-2.34499	93.436	.028	.0789	37178		95.05	7.39000	1.6003-5
3470	4.62+6	25.82	165.71	9050.	22443	8.99	-2.39282	93.412	.029	.0789	37179		95.05	7.39000	1.6016-5
3480	4.61+6	26.33	165.68	9023.	22452	9.00	-2.44046	93.386	.029	.0790	37180		95.05	7.39000	1.6028-5
3490	4.60+6	26.83	165.65	8996.	22461	9.00	-2.48792	93.361	.030	.0790	37180		95.05	7.39000	1.6041-5
3500	4.59+6	27.34	165.61	8969.	22470	9.00	-2.53520	93.334	.031	.0791	37181		95.05	7.39000	1.6054-5

TTA7622 3R-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	23502.1	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DOC	QC	DQR	QR	CD	Q
3510	4.58+6	27.84	165.58	8942.	22480	9.01	-2.58228	93.308	.031	.0791	37182		95.05	7.39000	1.6067-5
3520	4.57+6	28.35	165.55	8914.	22489	9.01	-2.62916	93.281	.032	.0792	37183		95.05	7.39000	1.6081-5
3530	4.56+6	28.85	165.51	8887.	22499	9.01	-2.67585	93.253	.032	.0792	37183		95.05	7.39000	1.6095-5
3540	4.55+6	29.36	165.48	8859.	22509	9.02	-2.72233	93.225	.033	.0793	37184		95.05	7.39000	1.6109-5
3550	4.54+6	29.87	165.45	8832.	22519	9.02	-2.76860	93.196	.034	.0794	37185		95.05	7.39000	1.6124-5
3560	4.53+6	30.37	165.42	8804.	22529	9.03	-2.81466	93.167	.034	.0794	37186		95.05	7.39000	1.6138-5
3570	4.52+6	30.88	165.38	8776.	22540	9.03	-2.86050	93.137	.035	.0795	37187		95.05	7.39000	1.6153-5
3580	4.51+6	31.39	165.35	8748.	22550	9.03	-2.90613	93.107	.035	.0795	37187		95.05	7.39000	1.6169-5
3590	4.50+6	31.90	165.32	8720.	22561	9.04	-2.95153	93.077	.036	.0796	37188		95.05	7.39000	1.6184-5
3600	4.49+6	32.41	165.29	8692.	22572	9.04	-2.99670	93.046	.037	.0797	37189		95.05	7.39000	1.6200-5
3610	4.47+6	32.92	165.26	8664.	22583	9.05	-3.04165	93.014	.037	.0797	37190		95.05	7.39000	1.6216-5
3620	4.46+6	33.43	165.22	8636.	22595	9.05	-3.08635	92.982	.038	.0798	37191		95.05	7.39000	1.6232-5
3630	4.45+6	33.94	165.19	8608.	22606	9.06	-3.13082	92.949	.038	.0799	37191		95.05	7.39000	1.6249-5
3640	4.44+6	34.45	165.16	8580.	22618	9.06	-3.17504	92.916	.039	.0799	37192		95.05	7.39000	1.6266-5
3650	4.42+6	34.96	165.13	8551.	22630	9.07	-3.21902	92.883	.039	.0800	37193		95.05	7.39000	1.6283-5
3660	4.41+6	35.47	165.10	8523.	22642	9.07	-3.26275	92.849	.040	.0801	37194		95.05	7.39000	1.6300-5
3670	4.40+6	35.98	165.07	8494.	22654	9.08	-3.30622	92.814	.041	.0802	37195		95.05	7.39000	1.6318-5
3680	4.39+6	36.50	165.04	8466.	22666	9.08	-3.34943	92.779	.041	.0802	37195		95.05	7.39000	1.6336-5
3690	4.37+6	37.01	165.01	8437.	22679	9.09	-3.39238	92.744	.042	.0803	37196		95.05	7.39000	1.6354-5
3700	4.36+6	37.52	164.98	8408.	22692	9.09	-3.43506	92.708	.042	.0804	37197		95.05	7.39000	1.6372-5
3710	4.34+6	38.04	164.95	8379.	22705	9.10	-3.47747	92.671	.043	.0805	37198		95.05	7.39000	1.6391-5
3720	4.33+6	38.55	164.91	8351.	22718	9.10	-3.51960	92.634	.043	.0805	37199		95.05	7.39000	1.6410-5
3730	4.32+6	39.07	164.88	8322.	22731	9.11	-3.56146	92.597	.044	.0806	37199		95.05	7.39000	1.6429-5
3740	4.30+6	39.58	164.85	8293.	22745	9.11	-3.60303	92.559	.044	.0807	37200		95.05	7.39000	1.6449-5
3750	4.29+6	40.10	164.82	8264.	22758	9.12	-3.64432	92.520	.045	.0808	37201		95.05	7.39000	1.6469-5
3760	4.27+6	40.62	164.80	8235.	22772	9.12	-3.68531	92.481	.046	.0809	37202		95.05	7.39000	1.6489-5
3770	4.26+6	41.13	164.77	8206.	22786	9.13	-3.72602	92.442	.046	.0809	37203		95.05	7.39000	1.6509-5
3780	4.24+6	41.65	164.74	8176.	22801	9.13	-3.76642	92.402	.047	.0810	37203		95.05	7.39000	1.6529-5
3790	4.23+6	42.17	164.71	8147.	22815	9.14	-3.80652	92.361	.047	.0811	37204		95.05	7.39000	1.6550-5
3800	4.21+6	42.69	164.68	8118.	22829	9.15	-3.84631	92.320	.048	.0812	37205		95.05	7.39000	1.6571-5
3810	4.20+6	43.21	164.65	8088.	22844	9.15	-3.88580	92.278	.048	.0813	37206		95.05	7.39000	1.6593-5
3820	4.18+6	43.73	164.62	8059.	22859	9.16	-3.92496	92.236	.049	.0814	37207		95.05	7.39000	1.6614-5
3830	4.17+6	44.25	164.59	8029.	22874	9.16	-3.96381	92.193	.049	.0815	37208		95.05	7.39000	1.6636-5
3840	4.15+6	44.77	164.57	8000.	22889	9.17	-4.00234	92.150	.050	.0816	37208		95.05	7.39000	1.6659-5
3850	4.13+6	45.30	164.54	7970.	22905	9.18	-4.04054	92.106	.050	.0816	37209		95.05	7.39000	1.6681-5
3860	4.12+6	45.82	164.51	7941.	22920	9.18	-4.07842	92.062	.051	.0817	37210		95.05	7.39000	1.6704-5
3870	4.10+6	46.34	164.49	7911.	22936	9.19	-4.11595	92.017	.051	.0818	37211		95.05	7.39000	1.6727-5
3880	4.09+6	46.87	164.46	7881.	22952	9.20	-4.15315	91.971	.052	.0819	37212		95.05	7.39000	1.6750-5
3890	4.07+6	47.39	164.43	7851.	22968	9.20	-4.19001	91.925	.052	.0820	37212		95.05	7.39000	1.6773-5
3900	4.05+6	47.92	164.41	7821.	22984	9.21	-4.22652	91.878	.053	.0821	37213		95.05	7.39000	1.6797-5
3910	4.04+6	48.44	164.38	7791.	23001	9.22	-4.26268	91.831	.053	.0822	37214		95.05	7.39000	1.6821-5
3920	4.02+6	48.97	164.36	7761.	23017	9.22	-4.29849	91.783	.054	.0823	37215		95.05	7.39000	1.6845-5
3930	4.00+6	49.50	164.33	7731.	23034	9.23	-4.33394	91.734	.055	.0824	37216		95.05	7.39000	1.6870-5
3940	3.98+6	50.03	164.31	7701.	23051	9.24	-4.36902	91.685	.055	.0825	37217		95.05	7.39000	1.6895-5
3950	3.97+6	50.56	164.28	7671.	23068	9.24	-4.40375	91.635	.056	.0826	37217		95.05	7.39000	1.6920-5
3960	3.95+6	51.09	164.26	7641.	23085	9.25	-4.43810	91.584	.056	.0827	37218		95.05	7.39000	1.6945-5
3970	3.93+6	51.62	164.24	7611.	23103	9.26	-4.47208	91.533	.057	.0828	37219		95.05	7.39000	1.6971-5
3980	3.91+6	52.15	164.21	7580.	23120	9.26	-4.50568	91.481	.057	.0829	37220		95.05	7.39000	1.6996-5
3990	3.89+6	52.68	164.19	7550.	23138	9.27	-4.53890	91.428	.057	.0830	37221		95.05	7.39000	1.7023-5
4000	3.88+6	53.21	164.17	7520.	23156	9.28	-4.57173	91.375	.058	.0831	37222		95.05	7.39000	1.7049-5

TTA7622 3B-64 21240 SPAHR6 NASA LM AD CR, SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT

CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=

OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	23841.6	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DOC	QC	DQR	QR	CD	Q
4010	3.86+6	53.75	164.15	7489.	23174	9.28	-4.60417	91.321	.058	.0832	37222		95.05	7.39000	1.7076-5
4020	3.84+6	54.28	164.13	7459.	23192	9.29	-4.63622	91.266	.059	.0834	37223		95.05	7.39000	1.7102-5
4030	3.82+6	54.82	164.11	7428.	23211	9.30	-4.56788	91.210	.059	.0835	37224		95.05	7.39000	1.7130-5
4040	3.80+6	55.35	164.09	7397.	23229	9.31	-4.69913	91.153	.060	.0836	37225		95.05	7.39000	1.7157-5
4050	3.78+6	55.89	164.07	7367.	23248	9.31	-4.72998	91.096	.060	.0837	37226		95.05	7.39000	1.7185-5
4060	3.76+6	56.43	164.05	7336.	23267	9.32	-4.76042	91.038	.061	.0838	37227		95.05	7.39000	1.7212-5
4070	3.74+6	56.96	164.04	7305.	23286	9.33	-4.79044	90.978	.061	.0839	37227		95.05	7.39000	1.7241-5
4080	3.72+6	57.50	164.02	7274.	23305	9.34	-4.82005	90.918	.062	.0840	37228		95.05	7.39000	1.7269-5
4090	3.70+6	58.04	164.00	7243.	23324	9.34	-4.84924	90.857	.062	.0841	37229		95.05	7.39000	1.7298-5
4100	3.68+6	58.58	163.99	7212.	23344	9.35	-4.87800	90.795	.063	.0843	37230		95.05	7.39000	1.7327-5
4110	3.66+6	59.13	163.98	7181.	23363	9.36	-4.90634	90.731	.063	.0844	37231		95.05	7.39000	1.7356-5
4120	3.64+6	59.67	163.96	7150.	23383	9.37	-4.93424	90.667	.064	.0845	37232		95.05	7.39000	1.7385-5
4130	3.62+6	60.21	163.95	7119.	23403	9.38	-4.96171	90.601	.064	.0846	37232		95.05	7.39000	1.7415-5
4140	3.60+6	60.76	163.94	7088.	23423	9.38	-4.98874	90.535	.064	.0847	37233		95.05	7.39000	1.7445-5
4150	3.58+6	61.30	163.93	7057.	23443	9.39	-5.01532	90.467	.065	.0848	37234		95.05	7.39000	1.7475-5
4160	3.56+6	61.85	163.92	7025.	23464	9.40	-5.04146	90.397	.065	.0850	37235		95.05	7.39000	1.7505-5
4170	3.54+6	62.39	163.91	6994.	23484	9.41	-5.06714	90.326	.066	.0851	37236		95.05	7.39000	1.7536-5
4180	3.52+6	62.94	163.91	6963.	23505	9.42	-5.09237	90.254	.066	.0852	37237		95.05	7.39000	1.7567-5
4190	3.50+6	63.49	163.90	6931.	23526	9.43	-5.11714	90.180	.067	.0853	37238		95.05	7.39000	1.7598-5
4200	3.48+6	64.04	163.90	6900.	23547	9.43	-5.14145	90.105	.067	.0855	37238		95.05	7.39000	1.7629-5
4210	3.46+6	64.59	163.90	6868.	23568	9.44	-5.16528	90.027	.067	.0856	37239		95.05	7.39000	1.7661-5
4220	3.44+6	65.14	163.90	6837.	23589	9.45	-5.18865	89.948	.068	.0857	37240		95.05	7.39000	1.7693-5
4230	3.41+6	65.69	163.90	6805.	23610	9.46	-5.21155	89.867	.068	.0858	37241		95.05	7.39000	1.7725-5
4240	3.39+6	66.25	163.90	6773.	23632	9.47	-5.23396	89.784	.069	.0860	37242		95.05	7.39000	1.7757-5
4250	3.37+6	66.80	163.91	6741.	23654	9.48	-5.25590	89.699	.069	.0861	37243		95.05	7.39000	1.7789-5
4260	3.35+6	67.36	163.92	6710.	23675	9.49	-5.27735	89.611	.069	.0862	37244		95.05	7.39000	1.7822-5
4270	3.33+6	67.91	163.93	6678.	23697	9.49	-5.29831	89.520	.070	.0864	37244		95.05	7.39000	1.7855-5
4280	3.31+6	68.47	163.94	6646.	23719	9.50	-5.31877	89.427	.070	.0865	37245		95.05	7.39000	1.7888-5
4290	3.28+6	69.03	163.96	6614.	23741	9.51	-5.33874	89.331	.071	.0866	37246		95.05	7.39000	1.7922-5
4300	3.26+6	69.58	163.98	6582.	23764	9.52	-5.35821	89.231	.071	.0867	37247		95.05	7.39000	1.7956-5
4310	3.24+6	70.14	164.00	6549.	23786	9.53	-5.37717	89.128	.071	.0869	37248		95.05	7.39000	1.7990-5
4320	3.22+6	70.71	164.03	6517.	23809	9.54	-5.39563	89.021	.072	.0870	37249		95.05	7.39000	1.8024-5
4330	3.20+6	71.27	164.06	6485.	23831	9.55	-5.41357	88.910	.072	.0871	37250		95.05	7.39000	1.8058-5
4340	3.17+6	71.83	164.10	6453.	23854	9.56	-5.43100	88.795	.072	.0873	37250		95.05	7.39000	1.8093-5
4350	3.15+6	72.39	164.14	6420.	23877	9.57	-5.44791	88.674	.073	.0874	37251		95.05	7.39000	1.8127-5
4360	3.13+6	72.96	164.18	6388.	23900	9.58	-5.46430	88.548	.073	.0876	37252		95.05	7.39000	1.8162-5
4370	3.10+6	73.52	164.24	6356.	23923	9.58	-5.48016	88.416	.073	.0877	37253		95.05	7.39000	1.8198-5
4380	3.08+6	74.09	164.30	6323.	23947	9.59	-5.49549	88.277	.074	.0878	37254		95.05	7.39000	1.8233-5
4390	3.06+6	74.66	164.36	6291.	23970	9.60	-5.51029	88.131	.074	.0880	37255		95.05	7.39000	1.8269-5
4400	3.04+6	75.23	164.44	6258.	23994	9.61	-5.52455	87.977	.074	.0881	37256		95.05	7.39000	1.8305-5
4410	3.01+6	75.80	164.52	6225.	24017	9.62	-5.53827	87.813	.075	.0882	37257		95.05	7.39000	1.8341-5
4420	2.99+6	76.37	164.61	6192.	24041	9.63	-5.55144	87.638	.075	.0884	37257		95.05	7.39000	1.8377-5
4430	2.97+6	76.94	164.72	6160.	24065	9.64	-5.56407	87.451	.075	.0885	37258		95.05	7.39000	1.8413-5
4440	2.94+6	77.51	164.84	6127.	24089	9.65	-5.57615	87.251	.075	.0887	37259		95.05	7.39000	1.8450-5
4450	2.92+6	78.09	164.98	6094.	24113	9.66	-5.58767	87.039	.076	.0888	37260		95.05	7.39000	1.8487-5
4460	2.90+6	78.66	165.13	6061.	24137	9.67	-5.59863	86.802	.076	.0890	37261		95.05	7.39000	1.8524-5
4470	2.87+6	79.24	165.30	6028.	24161	9.68	-5.60903	86.547	.076	.0891	37262		95.05	7.39000	1.8561-5
4480	2.85+6	79.82	165.50	5995.	24185	9.69	-5.61887	86.267	.076	.0892	37263		95.05	7.39000	1.8598-5
4490	2.82+6	80.39	165.73	5962.	24210	9.70	-5.62814	85.958	.077	.0894	37264		95.05	7.39000	1.8636-5
4500	2.80+6	80.97	165.99	5929.	24234	9.71	-5.63684	85.615	.077	.0895	37265		95.05	7.39000	1.8674-5

TTA7622 3R-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	24374.8	1.000

TIME	WITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	D
4510	2.78+6	81.55	166.30	5895.	24259	9.72	-5.64496	85.229	.077	.0897	37266		95.05	7.39000	1.8712-5
4520	2.75+6	82.13	166.66	5862.	24284	9.73	-5.65251	84.791	.077	.0898	37266		95.05	7.39000	1.8750-5
4530	2.73+6	82.71	167.08	5829.	24308	9.74	-5.65948	84.290	.078	.0900	37267		95.05	7.39000	1.8788-5
4540	2.71+6	83.29	167.58	5795.	24333	9.75	-5.66588	83.708	.078	.0901	37268		95.05	7.39000	1.8827-5
4550	2.68+6	83.88	168.19	5762.	24358	9.76	-5.67171	83.021	.078	.0903	37269		95.05	7.39000	1.8865-5
4560	2.66+6	84.46	168.93	5728.	24383	9.77	-5.67697	82.197	.078	.0904	37270		95.05	7.39000	1.8904-5
4570	2.63+6	85.04	169.86	5695.	24408	9.78	-5.68151	81.188	.079	.0906	37271		95.05	7.39000	1.8943-5
4580	2.61+6	85.62	171.05	5661.	24434	9.79	-5.68551	79.919	.079	.0907	37272		95.05	7.39000	1.8982-5
4590	2.58+6	86.20	172.62	5627.	24459	9.80	-5.68892	78.271	.079	.0909	37273		95.05	7.39000	1.9022-5
4600	2.56+6	86.78	174.77	5594.	24484	9.81	-5.69172	76.040	.079	.0910	37274		95.05	7.39000	1.9061-5
4610	2.54+6	87.35	177.87	5560.	24510	9.82	-5.69392	72.852	.079	.0912	37275		95.05	7.39000	1.9101-5
4620	2.51+6	87.91	-177.30	5526.	24535	9.83	-5.69551	67.943	.079	.0913	37275		95.05	7.39000	1.9140-5
4630	2.49+6	88.45	-168.99	5492.	24561	9.84	-5.69648	59.560	.080	.0915	37276		95.05	7.39000	1.9180-5
4640	2.46+6	88.92	-152.72	5458.	24586	9.85	-5.69684	43.207	.080	.0916	37277		95.05	7.39000	1.9220-5
4650	2.44+6	89.20	-119.70	5424.	24612	9.86	-5.69658	10.113	.080	.0918	37278		95.05	7.39000	1.9260-5
4660	2.41+6	89.09	-79.404	5390.	24638	9.87	-5.69570	-30.268	.080	.0919	37279		95.05	7.39000	1.9301-5
4670	2.39+6	88.68	-56.299	5356.	24663	9.88	-5.69419	-53.452	.080	.0921	37280		95.05	7.39000	1.9341-5
4680	2.36+6	88.16	-45.079	5322.	24689	9.89	-5.69206	-64.751	.080	.0922	37281		95.05	7.39000	1.9381-5
4690	2.34+6	87.60	-38.933	5287.	24715	9.90	-5.68930	-70.977	.080	.0924	37282		95.05	7.39000	1.9422-5
4700	2.32+6	87.02	-35.146	5253.	24741	9.91	-5.68591	-74.842	.080	.0925	37283		95.05	7.39000	1.9463-5
4710	2.29+6	86.43	-32.606	5219.	24767	9.92	-5.68188	-77.461	.080	.0927	37284		95.05	7.39000	1.9504-5
4720	2.27+6	85.84	-30.795	5184.	24793	9.93	-5.67721	-79.351	.081	.0928	37285		95.05	7.39000	1.9545-5
4730	2.24+6	85.24	-29.446	5150.	24819	9.94	-5.67190	-80.779	.081	.0930	37286		95.05	7.39000	1.9586-5
4740	2.22+6	84.64	-28.405	5115.	24845	9.95	-5.66595	-81.898	.081	.0931	37287		95.05	7.39000	1.9627-5
4750	2.19+6	84.03	-27.581	5081.	24871	9.96	-5.65936	-82.800	.081	.0933	37287		95.05	7.39000	1.9668-5
4760	2.17+6	83.42	-26.915	5046.	24897	9.97	-5.65212	-83.544	.081	.0934	37288		95.05	7.39000	1.9709-5
4770	2.14+6	82.81	-26.367	5012.	24923	9.99	-5.64423	-84.170	.081	.0936	37289		95.05	7.39000	1.9751-5
4780	2.12+6	82.20	-25.910	4977.	24949	10.0	-5.63568	-84.705	.081	.0937	37290		95.05	7.39000	1.9792-5
4790	2.10+6	81.59	-25.525	4942.	24976	10.0	-5.62648	-85.168	.081	.0939	37291		95.05	7.39000	1.9834-5
4800	2.07+6	80.97	-25.196	4907.	25002	10.0	-5.61663	-85.575	.081	.0940	37292		95.05	7.39000	1.9875-5
4810	2.05+6	80.35	-24.914	4872.	25028	10.0	-5.60612	-85.934	.081	.0942	37293		95.05	7.39000	1.9917-5
4820	2.02+6	79.74	-24.669	4838.	25054	10.0	-5.59494	-86.256	.081	.0943	37294		95.05	7.39000	1.9959-5
4830	2.00+6	79.12	-24.457	4803.	25080	10.0	-5.58311	-86.546	.081	.0945	37295		95.05	7.39000	2.0000-5
4840	1.97+6	78.49	-24.271	4768.	25107	10.1	-5.57061	-86.808	.081	.0946	37296		95.05	7.39000	2.0042-5
4850	1.95+6	77.87	-24.108	4733.	25133	10.1	-5.55744	-87.048	.081	.0948	37297		95.05	7.39000	2.0084-5
4860	1.92+6	77.25	-23.964	4698.	25159	10.1	-5.54360	-87.269	.081	.0950	37298		95.05	7.39000	2.0126-5
4870	1.90+6	76.62	-23.837	4662.	25185	10.1	-5.52910	-87.472	.081	.0951	37299		95.05	7.39000	2.0168-5
4880	1.88+6	75.99	-23.724	4627.	25211	10.1	-5.51392	-87.661	.080	.0953	37300		95.05	7.39000	2.0210-5
4890	1.85+6	75.36	-23.624	4592.	25237	10.1	-5.49807	-87.837	.080	.0954	37301		95.05	7.39000	2.0252-5
4900	1.83+6	74.73	-23.535	4557.	25264	10.1	-5.48155	-88.001	.080	.0956	37302		95.05	7.39000	2.0294-5
4910	1.80+6	74.10	-23.456	4522.	25290	10.1	-5.46435	-88.155	.080	.0957	37303		95.05	7.39000	2.0336-5
4920	1.78+6	73.47	-23.386	4486.	25316	10.1	-5.44647	-88.301	.080	.0959	37304		95.05	7.39000	2.0378-5
4930	1.76+6	72.83	-23.324	4451.	25342	10.2	-5.42791	-88.438	.080	.0960	37304		95.05	7.39000	2.0420-5
4940	1.73+6	72.20	-23.269	4415.	25368	10.2	-5.40868	-88.568	.080	.0962	37305		95.05	7.39000	2.0462-5
4950	1.71+6	71.56	-23.220	4380.	25394	10.2	-5.38876	-88.692	.080	.0963	37306		95.05	7.39000	2.0504-5
4960	1.68+6	70.92	-23.176	4345.	25420	10.2	-5.36816	-88.809	.079	.0965	37307		95.05	7.39000	2.0545-5
4970	1.66+6	70.28	-23.138	4309.	25446	10.2	-5.34688	-88.922	.079	.0966	37308		95.05	7.39000	2.0587-5
4980	1.64+6	69.64	-23.105	4274.	25472	10.2	-5.32491	-89.029	.079	.0968	37309		95.05	7.39000	2.0629-5
4990	1.61+6	68.99	-23.075	4238.	25497	10.2	-5.30226	-89.132	.079	.0969	37310		95.05	7.39000	2.0671-5
5000	1.59+6	68.35	-23.050	4202.	25523	10.2	-5.27893	-89.230	.079	.0971	37311		95.05	7.39000	2.0713-5

TTA7622 38-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
CONTROL21240 SPAHR6 DATA-A=SANDIA GLFC DATA-B= DATA-C= DATA-D=
OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y. 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25022.8	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DQC	QC	DQR	QR	CD	Q
5010	1.57+6	67.70	-23.028	4167.	25549	10.2	-5.25491	-89.325	.078	.0972	37312		95.05	7.39000	2.0754-5
5020	1.54+6	67.05	-23.010	4131.	25574	10.2	-5.23020	-89.416	.078	.0973	37313		95.05	7.39000	2.0796-5
5030	1.52+6	66.40	-22.994	4096.	25600	10.3	-5.20480	-89.504	.078	.0975	37314		95.05	7.39000	2.0838-5
5040	1.50+6	65.75	-22.982	4060.	25625	10.3	-5.17872	-89.589	.078	.0976	37315		95.05	7.39000	2.0879-5
5050	1.47+6	65.10	-22.972	4024.	25651	10.3	-5.15196	-89.671	.077	.0978	37316		95.05	7.39000	2.0920-5
5060	1.45+6	64.45	-22.964	3988.	25676	10.3	-5.12450	-89.751	.077	.0979	37317		95.05	7.39000	2.0962-5
5070	1.43+6	63.79	-22.958	3953.	25701	10.3	-5.09636	-89.827	.077	.0981	37318		95.05	7.39000	2.1003-5
5080	1.40+6	63.14	-22.955	3917.	25726	10.3	-5.06753	-89.902	.077	.0982	37319		95.05	7.39000	2.1044-5
5090	1.38+6	62.48	-22.953	3881.	25751	10.3	-5.03802	-89.974	.076	.0984	37320		95.05	7.39000	2.1085-5
5100	1.36+6	61.82	-22.954	3845.	25776	10.3	-5.00782	-90.045	.076	.0985	37321		95.05	7.39000	2.1126-5
5110	1.34+6	61.16	-22.955	3810.	25801	10.3	-4.97693	-90.113	.076	.0986	37322		95.05	7.39000	2.1167-5
5120	1.31+6	60.50	-22.959	3774.	25826	10.3	-4.94536	-90.179	.075	.0988	37323		95.05	7.39000	2.1207-5
5130	1.29+6	59.84	-22.964	3738.	25851	10.4	-4.91311	-90.244	.075	.0989	37324		95.05	7.39000	2.1248-5
5140	1.27+6	59.17	-22.970	3702.	25875	10.4	-4.88017	-90.307	.074	.0991	37325		95.05	7.39000	2.1288-5
5150	1.25+6	58.51	-22.978	3666.	25899	10.4	-4.84655	-90.368	.074	.0992	37326		95.05	7.39000	2.1328-5
5160	1.23+6	57.84	-22.986	3631.	25924	10.4	-4.81225	-90.428	.074	.0993	37327		95.05	7.39000	2.1368-5
5170	1.20+6	57.17	-22.996	3595.	25948	10.4	-4.77727	-90.486	.073	.0995	37328		95.05	7.39000	2.1408-5
5180	1.18+6	56.50	-23.007	3559.	25972	10.4	-4.74161	-90.543	.073	.0996	37329		95.05	7.39000	2.1447-5
5190	1.16+6	55.83	-23.019	3523.	25996	10.4	-4.70528	-90.599	.072	.0997	37330		95.05	7.39000	2.1487-5
5200	1.14+6	55.16	-23.032	3488.	26019	10.4	-4.66827	-90.653	.072	.0999	37331		95.05	7.39000	2.1526-5
5210	1.12+6	54.48	-23.046	3452.	26043	10.4	-4.63059	-90.706	.071	.1000	37332		95.05	7.39000	2.1565-5
5220	1.10+6	53.81	-23.061	3416.	26066	10.4	-4.59223	-90.758	.071	.1001	37333		95.05	7.39000	2.1604-5
5230	1.08+6	53.13	-23.076	3381.	26090	10.5	-4.55321	-90.809	.070	.1003	37334		95.05	7.39000	2.1642-5
5240	1.06+6	52.45	-23.093	3345.	26113	10.5	-4.51352	-90.858	.070	.1004	37335		95.05	7.39000	2.1681-5
5250	1.04+6	51.77	-23.110	3309.	26136	10.5	-4.47317	-90.907	.069	.1005	37336		95.05	7.39000	2.1719-5
5260	1.02+6	51.09	-23.127	3274.	26158	10.5	-4.43215	-90.954	.069	.1006	37337		95.05	7.39000	2.1757-5
5270	995880	50.41	-23.146	3238.	26181	10.5	-4.39048	-91.001	.068	.1020	37338		95.05	7.39000	2.2341-5
5280	975925	49.73	-23.165	3203.	26204	10.5	-4.34815	-91.046	.068	.1082	37339		95.05	7.39000	2.5115-5
5290	956146	49.04	-23.184	3167.	26226	10.6	-4.30517	-91.091	.067	.1149	37340		95.05	7.39000	2.8288-5
5300	936549	48.36	-23.204	3132.	26248	10.6	-4.26154	-91.134	.067	.1220	37341		95.05	7.39000	3.1887-5
5310	917137	47.67	-23.225	3097.	26270	10.6	-4.21727	-91.177	.066	.1296	37343		95.05	7.39000	3.5961-5
5320	897913	46.98	-23.246	3061.	26291	10.7	-4.17235	-91.218	.065	.1378	37344		95.05	7.39000	4.0574-5
5330	878880	46.29	-23.268	3026.	26313	10.7	-4.12679	-91.259	.065	.1464	37345		95.05	7.39000	4.5797-5
5340	860042	45.60	-23.290	2991.	26334	10.8	-4.08060	-91.299	.064	.1557	37347		95.05	7.39000	5.1728-5
5350	841402	44.91	-23.312	2956.	26355	10.8	-4.03378	-91.338	.064	.1656	37348		95.05	7.39000	5.8509-5
5360	822964	44.22	-23.335	2921.	26376	10.9	-3.98633	-91.377	.063	.1762	37350		95.05	7.39000	6.6216-5
5370	804731	43.52	-23.359	2886.	26397	10.9	-3.93826	-91.414	.062	.1876	37352		95.05	7.39000	7.4974-5
5380	786706	42.83	-23.383	2852.	26417	11.0	-3.88957	-91.451	.062	.1997	37354		95.05	7.39000	8.4918-5
5390	768893	42.13	-23.407	2817.	26437	11.0	-3.84027	-91.487	.061	.2126	37356		95.05	7.39000	9.6209-5
5400	751295	41.43	-23.431	2783.	26457	11.1	-3.79036	-91.522	.060	.2266	37358		95.05	7.39000	1.0917-4
5410	733916	40.73	-23.456	2748.	26477	11.1	-3.73985	-91.557	.059	.2416	37361		95.05	7.39000	1.2408-4
5420	716758	40.03	-23.481	2714.	26497	11.2	-3.68875	-91.590	.059	.2578	37363		95.05	7.39000	1.4113-4
5430	699825	39.33	-23.507	2680.	26516	11.3	-3.63705	-91.623	.058	.2750	37366		95.05	7.39000	1.6055-4
5440	683120	38.62	-23.533	2646.	26535	11.3	-3.58477	-91.655	.057	.2957	37369		95.05	7.39000	1.8550-4
5450	666647	37.92	-23.559	2612.	26554	11.4	-3.53190	-91.687	.056	.3149	37372		95.05	7.39000	2.1018-4
5460	650407	37.21	-23.585	2579.	26572	11.5	-3.47847	-91.718	.056	.3359	37375		95.05	7.39000	2.3902-4
5470	634406	36.51	-23.612	2545.	26590	11.6	-3.42447	-91.748	.055	.3590	37378		95.05	7.39000	2.7298-4
5480	618645	35.80	-23.639	2512.	26608	11.7	-3.36990	-91.777	.054	.3838	37382		95.05	7.39000	3.1177-4
5490	603129	35.09	-23.666	2479.	26626	11.8	-3.31478	-91.806	.053	.4123	37386		95.05	7.39000	3.5954-4
5500	587859	34.38	-23.693	2446.	26644	11.9	-3.25912	-91.834	.052	.4435	37390		95.05	7.39000	4.1578-4

TTA7622 38-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
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WT	CD	AREA	VICRCL	NOSE
40.0000	7.3900	.34910	25602.8	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DOC	QC	DQR	QR	CD	Q
5510	572839	33.67	-23.721	2414.	26661	12.0	-3.20291	-91.862	.051	.4769	37395		95.05	7.39000	4.8052-4
5520	558072	32.96	-23.748	2381.	26678	12.2	-3.14618	-91.888	.051	.5127	37400		95.05	7.39000	5.5525-4
5530	543561	32.24	-23.776	2349.	26694	12.4	-3.08891	-91.914	.050	.5554	37405		95.05	7.39000	6.5115-4
5540	529309	31.53	-23.804	2317.	26711	12.6	-3.03113	-91.940	.049	.6049	37411		95.05	7.39000	7.7201-4
5550	515319	30.82	-23.833	2286.	26727	12.9	-2.97284	-91.965	.048	.6611	37417		95.05	7.39000	9.2160-4
5560	501592	30.10	-23.861	2255.	26742	13.3	-2.91405	-91.989	.047	.7262	37424		95.05	7.39000	.0011117
5570	488134	29.38	-23.890	2224.	26758	13.8	-2.85477	-92.012	.046	.8061	37432		95.05	7.39000	.0013490
5580	474945	28.66	-23.919	2193.	26773	14.4	-2.79500	-92.035	.045	.9091	37440		95.05	7.39000	.0017406
5590	462030	27.94	-23.948	2163.	26788	15.1	-2.73476	-92.058	.044	1.032	37450		95.05	7.39000	.0022431
5600	449390	27.22	-23.977	2133.	26802	15.8	-2.67405	-92.079	.043	1.184	37461	1.-9	95.05	7.39000	.0029504
5610	437028	26.50	-24.006	2103.	26816	16.7	-2.61288	-92.100	.042	1.382	37474	2.-9	95.05	7.39000	.0040197
5620	424946	25.78	-24.036	2074.	26830	17.8	-2.55127	-92.121	.041	1.636	37489	4.-9	95.05	7.39000	.0056280
5630	413148	25.06	-24.066	2046.	26844	19.0	-2.48922	-92.141	.040	1.970	37507	8.-9	95.05	7.39000	.0081591
5640	401636	24.34	-24.095	2017.	26857	20.5	-2.42675	-92.160	.039	2.427	37529	2.-8	95.05	7.39000	.0123783
5650	390412	23.61	-24.125	1990.	26869	22.1	-2.36387	-92.179	.037	3.030	37556	4.-8	95.05	7.39000	.0192885
5660	379478	22.89	-24.155	1962.	26881	23.2	-2.30060	-92.197	.036	3.766	37590	8.-8	95.05	7.39000	.0297780
5670	368837	22.16	-24.185	1936.	26893	24.4	-2.23696	-92.214	.033	4.771	37633	2.-7	95.05	7.39000	.0477892
5680	358491	21.43	-24.215	1909.	26904	25.6	-2.17298	-92.231	.030	6.102	37687	5.-7	95.05	7.39000	.0781714
5690	348441	20.71	-24.246	1884.	26913	26.4	-2.10871	-92.247	.026	7.722	37756	1.-6	95.05	7.39000	.1251758
5700	338691	19.98	-24.276	1859.	26921	27.2	-2.04419	-92.263	.020	9.836	37843	3.-6	95.05	7.39000	.2031181
5710	329242	19.25	-24.307	1834.	26926	28.1	-1.97955	-92.278	.011	12.57	37955	6.-6	95.05	7.39000	.3319226
5720	320096	18.52	-24.337	1810.	26928	28.6	-1.91491	-92.292	-.002	15.96	38099	1.-5	95.05	7.05846	.5358453
5730	311252	17.79	-24.368	1787.	26925	29.2	-1.85051	-92.306	-.020	20.51	38281	4.-5	95.05	6.46064	.8867388
5740	302712	17.06	-24.399	1765.	26915	29.9	-1.78663	-92.319	-.046	26.42	38516	9.-5	95.05	5.88333	1.474680
5750	294474	16.33	-24.429	1743.	26895	30.3	-1.72372	-92.332	-.085	33.63	38814	2.-4	95.05	5.42924	2.400576
5760	286537	15.60	-24.460	1722.	26860	30.4	-1.66239	-92.344	-.138	41.94	39188	5.-4	95.06	5.04029	3.759375
5770	278893	14.87	-24.491	1702.	26806	30.3	-1.60353	-92.356	-.203	51.11	39652	9.-4	95.06	4.66577	5.638608
5780	271536	14.15	-24.522	1683.	26726	30.2	-1.54829	-92.367	-.293	62.22	40221	.002	95.08	4.30526	8.472396
5790	264451	13.42	-24.552	1665.	26610	30.0	-1.49827	-92.377	-.441	75.15	40906	.004	95.10	4.23000	12.60649
5800	257618	12.70	-24.583	1647.	26441	29.4	-1.45584	-92.387	-.623	87.34	41716	.006	95.15	4.23000	17.51908
5810	251008	11.99	-24.613	1631.	26207	28.6	-1.42420	-92.396	-.834	98.62	42649	.009	95.23	4.23000	23.23433
5820	244579	11.28	-24.643	1616.	25895	27.7	-1.40721	-92.405	-1.11	110.6	43696	.014	95.34	4.23000	30.76985
5830	238272	10.58	-24.673	1601.	25491	26.8	-1.40971	-92.413	-1.41	120.2	44849	.018	95.50	4.23000	38.93850
5840	232013	9.891	-24.703	1588.	24978	25.8	-1.43749	-92.421	-1.77	128.5	46096	.023	95.71	4.23000	48.63217
5850	225710	9.219	-24.731	1576.	24345	24.7	-1.49758	-92.428	-2.19	135.1	47414	.026	95.96	4.23000	60.89093
5860	219253	8.566	-24.759	1566.	23570	23.5	-1.59850	-92.434	-2.62	137.7	48781	.027	96.22	4.23000	71.77000
5870	212520	7.936	-24.786	1556.	22640	22.2	-1.75046	-92.440	-3.15	138.2	50166	.026	96.49	4.23000	86.12454
5880	205380	7.334	-24.812	1548.	21539	20.8	-1.96622	-92.445	-3.73	135.1	51533	.023	96.74	4.23000	102.0470
5890	197702	6.764	-24.836	1540.	20245	19.3	-2.26173	-92.449	-4.33	127.3	52847	.017	96.93	4.23000	118.3003
5900	189371	6.232	-24.859	1534.	18738	17.7	-2.65764	-92.452	-5.05	116.3	54068	.011	97.07	4.23000	137.9945
5910	180311	5.745	-24.880	1529.	16996	15.9	-3.18260	-92.454	-5.78	100.8	55157	.006	97.16	4.23000	158.0546
5920	170510	5.308	-24.898	1525.	15027	13.9	-3.87615	-92.455	-6.45	81.71	56072	.002	97.20	4.23000	176.4590
5930	160042	4.927	-24.915	1522.	12857	11.9	-4.79484	-92.454	-6.99	60.85	56786	7.-4	97.21	4.23000	191.6492
5940	149104	4.609	-24.928	1519.	10552	9.85	-6.02411	-92.452	-7.30	40.66	57292	1.-4	97.22	4.23000	200.4771
5950	138025	4.354	-24.939	1517.	8220.	7.81	-7.70211	-92.447	-7.09	23.46	57609	1.-5	97.22	4.23000	195.5899
5960	127193	4.161	-24.947	1516.	6072.	5.87	-10.0510	-92.440	-6.19	11.47	57779	7.-7	97.22	4.23000	172.3658
5970	116909	4.023	-24.953	1515.	4290.	4.23	-13.4090	-92.428	-4.87	4.860	57857	2.-8	97.22	4.23000	137.9978
5980	107314	3.929	-24.957	1514.	2951.	2.96	-18.2562	-92.411	-3.50	1.878	57888		97.22	4.23000	103.1246
5990	98392.	3.866	-24.960	1514.	2029.	2.05	-25.1542	-92.384	-2.30	.7087	57900		97.22	4.23000	73.65137
6000	90031.	3.825	-24.961	1514.	1434.	1.46	-34.4476	-92.343	-1.45	.2889	57905		97.22	4.23000	54.54149

TTA7622 3R-64 21240 SPAHR6 NASA LM AD CR. SANDIA GLFC -5.0625 DEG. ATMOS= ICAO 1962 ATMOSPHERE KLETT
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OBSERVER 0.0000=LAT 0.0000=LONG 0.0000=ORNT 0=ELEV 0=X 0=Y 0=Z

WT	CD	AREA	VICRCL	NOSE
40.0000	4.2300	.34910	25906.3	1.000

TIME	HITE	LAT	LONG	RANGE	VT	MACH	GAMMA	TAU	AT	DOC	QC	DQR	QR	CD	Q
6010	82168.	3.799	-24.963	1514.	1062.	1.08	-45.7847	-92.265	-.897	.1354	57907		97.22	4.23000	43.56191
6020	74836.	3.783	-24.963	1514.	831.4	.853	-57.7807	-92.153	-.563	.0747	57908		97.22	4.23000	38.02690
6030	68138.	3.774	-24.963	1514.	681.5	.703	-68.6186	-91.988	-.382	.0470	57908		97.22	4.23000	35.41109
6040	62160.	3.769	-24.964	1513.	575.8	.595	-77.0727	-91.712	-.276	.0319	57909		97.22	4.23000	33.73683
6050	56893.	3.766	-24.964	1513.	497.5	.514	-82.8667	-91.220	-.208	.0228	57909		97.22	4.23000	32.39575
6060	52251.	3.765	-24.964	1513.	437.4	.452	-86.4028	-90.272	-.161	.0170	57909		97.22	4.23000	31.27119
6070	48125.	3.765	-24.964	1513.	390.6	.403	-88.3393	-88.288	-.125	.0131	57909		97.22	4.23000	30.37237
6080	44412.	3.765	-24.964	1513.	353.4	.365	-89.2940	-83.786	-.100	.0105	57909		97.22	4.23000	29.70325
6090	41034.	3.764	-24.964	1513.	323.3	.334	-89.7152	-73.022	-.081	.0086	57909		97.22	4.23000	29.20741
6100	37930.	3.764	-24.964	1513.	298.2	.308	-89.8733	-50.045	-.068	.0072	57909		97.22	4.23000	28.84412
6110	35055.	3.764	-24.964	1513.	277.6	.285	-89.9170	-22.512	-.050	.0061	57910		97.22	4.23000	28.38557
6120	32358.	3.764	-24.964	1513.	262.4	.266	-89.9274	-7.5789	-.039	.0054	57910		97.22	4.23000	28.09142
6130	29800.	3.764	-24.964	1513.	249.6	.251	-89.9320	-2.1885	-.034	.0048	57910		97.22	4.23000	27.94367
6140	27361.	3.764	-24.964	1513.	238.3	.237	-89.9355	-.48425	-.030	.0043	57910		97.22	4.23000	27.83877
6150	25030.	3.764	-24.964	1513.	228.3	.225	-89.9385	.02152	-.026	.0039	57910		97.22	4.23000	27.74997
6160	22793.	3.764	-24.964	1513.	219.2	.214	-89.9412	.16781	-.023	.0036	57910		97.22	4.23000	27.67740
6170	20642.	3.764	-24.964	1513.	211.1	.204	-89.9436	.21656	-.021	.0033	57910		97.22	4.23000	27.61826
6180	18569.	3.764	-24.964	1513.	203.6	.195	-89.9457	.23892	-.019	.0031	57910		97.22	4.23000	27.56687
6190	16568.	3.764	-24.964	1513.	196.8	.187	-89.9476	.25428	-.017	.0029	57910		97.22	4.23000	27.52119
6200	14631.	3.764	-24.964	1513.	190.5	.180	-89.9494	.26786	-.015	.0027	57910		97.22	4.23000	27.48866
6210	12755.	3.764	-24.964	1513.	184.7	.173	-89.9510	.28177	-.014	.0025	57910		97.22	4.23000	27.45152
6220	10935.	3.764	-24.964	1513.	179.4	.167	-89.9525	.29520	-.013	.0023	57910		97.22	4.23000	27.42540
6230	9166.8	3.764	-24.964	1513.	174.4	.161	-89.9539	.30892	-.012	.0022	57910		97.22	4.23000	27.39846
6240	7446.6	3.764	-24.964	1513.	169.7	.156	-89.9552	.32230	-.011	.0021	57910		97.22	4.23000	27.37498
6250	5771.4	3.764	-24.964	1513.	165.4	.151	-89.9564	.33586	-.010	.0020	57910		97.22	4.23000	27.35793
6260	4138.5	3.764	-24.964	1513.	161.3	.147	-89.9575	.34918	-.009	.0019	57910		97.22	4.23000	27.33934
6270	2545.2	3.764	-24.964	1513.	157.4	.142	-89.9586	.36244	-.008	.0018	57910		97.22	4.23000	27.32276
6280	989.22	3.764	-24.964	1513.	153.8	.138	-89.9596	.37596	-.008	.0017	57910		97.22	4.23000	27.30987
6290	-532.40	3.764	-24.964	1513.	150.9	.135	-89.9605	.38882	-.001	.0016	57910		97.22	4.23000	27.08439

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6297	-1663.6	3.764	-24.964	1513.	150.8	.135	-89.9607	.39478	.003	.0016	57910		97.22	4.23000	27.02158

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