DC-8 Mission Director Log

Mission Name: AFWEX
Flight Number: 010107
Day : 340
Date: Dec 05, 2000

23:58:10 | Flight Crew: Pilot, E. Lewis; Co-pilot, D. Ewers;
| Eng., M. Trout; Nav., K. Hall; MD, M. Kapitzke; AMD,
| C. Miller.

23:58:51 | Pre-flight Cargo Temps: 78/70/80/75/82/91

00:44:13 | Take-off Time: 00:40:20

00:44:32 | 8,000 ft.
|
| Next waypoint: ? NMS: 1
| Pressure alt: 7521 Latitude: +35 38.1
| Radar alt: 6371 Longitude: -097 23.1

00:47:00 | Cargo Temps: 78/74/78/75/78/90

00:48:50 | Today’s objective: coordinated flight with Proteus for
| water vapor measurements over the CART site. Flight
| was extended from 5 to 7 hours at the last minute.

00:49:00 | Descending to 4k ft.

00:49:50 | AeroSAPIENT and DACOM are not participating in this
| flight.

00:52:17 | Cleared to 3k ft.

00:53:36 | Level-off
|
| Next waypoint: ? NMS: 1
| Pressure alt: 2541 Latitude: +36 14.2
| Radar alt: 1210 Longitude: -097 29.8

00:58:33 | Secondary objective is 200 to 290 kias speed runs at
| 8K ft. for CACA experiment.
|

00:59:54 | >>>> Start of run: Spiral Up to Rt. (steep)
|
| Next waypoint: ? NMS: 1
| Pressure alt: 2539 Latitude: +36 37.7
| Radar alt: 1313 Longitude: -097 33.7

01:03:00 | Experimenter go status: all instruments and miss.
| science are go.

01:10:25 | Shifting from 3nm radius to 4nm radius.
|
| Next waypoint: ? NMS: 1
| Pressure alt: 12932 Latitude: +36 35.2
| Radar alt: 11932 Longitude: -097 25.8

01:20:51 | Level at FL250

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         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     23368              Latitude:   +36 34.4
         | Radar alt:        22660              Longitude: -097 24.5
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01:21:11 | Disregard last entry.
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01:21:49 | We have extended the spiral radius to 6.6nm.
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01:22:44 | Level at FL250
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     25004              Latitude:   +36 33.5
         | Radar alt:        24194              Longitude: -097 34.1
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01:24:33 | Continuing spiral.
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01:25:21 | Cargo temps:80/74/80/74/80/92
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01:31:38 | Shifting radius to 7nm.
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     31716              Latitude:   +36 40.6
         | Radar alt:        31147              Longitude: -097 22.8
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01:33:17 | Experiencing 84kt winds from 307.
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01:34:25 | Clear skies over the CART site.
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01:38:10 | Climb rate reducing to gain airspeed.
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     36586              Latitude:   +36 42.6
         | Radar alt:        35918              Longitude: -097 36.7
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01:40:15 | Increasing radius to 10nm.
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     37444              Latitude:   +36 40.1
         | Radar alt:        36882              Longitude: -097 19.9
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01:43:32 | Level off at FL390
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     39026              Latitude:   +36 28.1
         | Radar alt:        38435              Longitude: -097 24.5
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01:44:42 | Beginning laser 20 min. warm-up.\
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01:57:02 | >>>> Start of run: FL390
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     39016              Latitude:   +36 58.3
         | Radar alt:        38259              Longitude: -096 56.4
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02:02:33 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    39037              Latitude:   +36 37.0
         | Radar alt:       38476              Longitude: -097 29.9
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02:07:45 | >>>> End of run: FL390
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    39041              Latitude:   +36 16.2
         | Radar alt:       38300              Longitude: -098 02.3
-------------------------------------------------------------------------
         |
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02:11:21 | Descending to FL350
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    39011              Latitude:   +36 03.1
         | Radar alt:       38432              Longitude: -097 56.1
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-------------------------------------------------------------------------
02:14:05 | >>>> Start of run: FL350
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    34948              Latitude:   +36 15.3
         | Radar alt:       34294              Longitude: -097 39.6
--------------
02:18:02 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    35070              Latitude:   +36 37.0
         | Radar alt:       34456              Longitude: -097 30.0
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02:24:14 | >>>> End of run: FL350
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    35015              Latitude:   +37 10.9
         | Radar alt:       34070              Longitude: -097 15.7
-------------------------------------------------------------------------
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-------------------------------------------------------------------------
02:27:30 | >>>> Start of run: FL310
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    31018              Latitude:   +37 03.2
         | Radar alt:       30185              Longitude: -097 05.4
--------------
02:32:58 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    31049              Latitude:   +36 37.0
         | Radar alt:       30462              Longitude: -097 30.1
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02:37:30 | >>>> End of run: FL310
         |
         | Next waypoint:       ?              NMS:              1
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         | Pressure alt:     31065               Latitude:   +36 14.7
         | Radar alt:        30379               Longitude: -097 50.9
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02:39:50 | >>>> Start of run: FL280
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     28061               Latitude:   +36 18.2
         | Radar alt:        27223               Longitude: -097 54.9
--------------
02:44:33 | CPA
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     28054               Latitude:   +36 37.0
         | Radar alt:        27405               Longitude: -097 29.9
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02:49:50 | >>>> End of run: FL280
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     28054               Latitude:   +36 58.2
         | Radar alt:        27144               Longitude: -097 01.4
-------------------------------------------------------------------------
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02:50:23 | Descending to FL250
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     28052               Latitude:   +37 00.4
         | Radar alt:        27191               Longitude: -096 58.4
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-------------------------------------------------------------------------
02:52:45 | >>>> Start of run: FL250
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     25022               Latitude:   +37 02.5
         | Radar alt:        24090               Longitude: -097 03.5
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02:58:46 | CPA
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     25042               Latitude:   +36 37.0
         | Radar alt:        24369               Longitude: -097 30.0
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03:02:45 | >>>> End of run: FL250
         |
         | Next waypoint:        ?               NMS:               1
         | Pressure alt:     25032               Latitude:   +36 20.5
         | Radar alt:        24286               Longitude: -097 47.1
-------------------------------------------------------------------------
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03:04:39 | Maneuvering to start upwind leg at FL250.
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03:05:22 | All previous legs were crosswind.
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03:12:30 | >>>> Start of run: FL250 #2
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         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25034              Latitude:   +36 24.0
         | Radar alt:       24317              Longitude: -097 10.0
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03:16:18 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25038              Latitude:   +36 37.0
         | Radar alt:       24336              Longitude: -097 29.9
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03:22:30 | >>>> End of run: FL250 #2
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25042              Latitude:   +36 58.3
         | Radar alt:       24124              Longitude: -098 03.4
-------------------------------------------------------------------------
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-------------------------------------------------------------------------
03:27:15 | >>>> Start of run: FL280 #2
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    27958              Latitude:   +37 02.2
         | Radar alt:       27003              Longitude: -098 10.3
--------------
03:33:26 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    27999              Latitude:   +36 36.9
         | Radar alt:       27366              Longitude: -097 30.0
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03:37:15 | >>>> End of run: FL280 #2
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    28004              Latitude:   +36 21.0
         | Radar alt:       27387              Longitude: -097 05.0
-------------------------------------------------------------------------
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         |
-------------------------------------------------------------------------
03:42:20 | >>>> Start of run: FL310 #2
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    30950              Latitude:   +36 17.0
         | Radar alt:       30405              Longitude: -096 51.7
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03:48:19 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    31017              Latitude:   +36 37.0
         | Radar alt:       30443              Longitude: -097 30.1
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03:52:20 | >>>> End of run: FL310 #2
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    31008              Latitude:   +36 50.5
         | Radar alt:       30253              Longitude: -097 56.4
-------------------------------------------------------------------------
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03:59:45 | >>>> Start of run: FL330 (due to ATC)
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     32912              Latitude:   +37 04.0
         | Radar alt:        32020              Longitude: -098 21.7
--------------
04:06:50 | CPA
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     32980              Latitude:   +36 37.0
         | Radar alt:        32287              Longitude: -097 30.0
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04:09:45 | >>>> End of run: FL330 (due to ATC)
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     32977              Latitude:   +36 25.6
         | Radar alt:        32287              Longitude: -097 08.8
-------------------------------------------------------------------------
         |
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04:12:32 | Leveling at FL350 for traffic
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     35000              Latitude:   +36 22.2
         | Radar alt:        34402              Longitude: -096 44.1
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04:14:29 | Continuing to FL410
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04:16:44 | Level at FL390
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     39098              Latitude:   +36 06.3
         | Radar alt:        38741              Longitude: -096 06.9
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04:17:03 | Continuing to FL410
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-------------------------------------------------------------------------
04:27:45 | >>>> Start of run: FL410 (upwind)
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     41094              Latitude:   +36 16.4
         | Radar alt:        40534              Longitude: -096 55.0
--------------
04:33:21 | CPA
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     41063              Latitude:   +36 37.0
         | Radar alt:        40542              Longitude: -097 29.9
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04:37:45 | >>>> End of run: FL410 (upwind)
         |
         | Next waypoint:        ?              NMS:               1
         | Pressure alt:     41084              Latitude:   +36 53.2
         | Radar alt:        40331              Longitude: -097 57.9
-------------------------------------------------------------------------
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04:39:22 | The steps up from FL250 to FL410 and now the steps
         | back down to FL250 were and will be upwind/down wind.
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04:44:31 | >>>> Start of run: FL350
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    35036              Latitude:   +37 02.7
         | Radar alt:       34171              Longitude: -098 13.0
--------------
04:50:29 | CPA
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    35041              Latitude:   +36 37.0
         | Radar alt:       34397              Longitude: -097 30.0
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04:54:30 | >>>> End of run: FL350
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    35052              Latitude:   +36 19.3
         | Radar alt:       34495              Longitude: -097 01.0
-------------------------------------------------------------------------
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         |
-------------------------------------------------------------------------
05:02:00 | >>>> Start of run: FL310 #3
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    31018              Latitude:   +36 12.8
         | Radar alt:       30365              Longitude: -096 54.0
--------------
05:07:51 | CPA
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    31066              Latitude:   +36 36.9
         | Radar alt:       30453              Longitude: -097 29.9
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05:12:00 | >>>> End of run: FL310 #3
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    31070              Latitude:   +36 54.0
         | Radar alt:       30298              Longitude: -097 55.6
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
05:17:15 | >>>> Start of run: FL280 #3
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    27982              Latitude:   +37 00.4
         | Radar alt:       27099              Longitude: -098 05.0
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05:22:36 | CPA
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    28014              Latitude:   +36 37.0
         | Radar alt:       27383              Longitude: -097 30.0
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05:27:15 | >>>> End of run: FL280 #3
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    28022              Latitude:   +36 16.2
         | Radar alt:       27452              Longitude: -096 59.8
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
05:34:15 | >>>> Start of run: FL250 #3
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25074              Latitude:   +36 13.0
         | Radar alt:       24315              Longitude: -097 01.4
--------------
05:39:49 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25052              Latitude:   +36 37.0
         | Radar alt:       24361              Longitude: -097 29.9
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05:44:15 | >>>> End of run: FL250 #3
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25062              Latitude:   +36 55.9
         | Radar alt:       24169              Longitude: -097 52.7
-------------------------------------------------------------------------
         |
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05:45:22 | Maneuvering to start crosswind legs for final ascent.
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         |
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05:51:30 | >>>> Start of run: FL250 #4 (crosswind)
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    24994              Latitude:   +36 49.0
         | Radar alt:       24297              Longitude: -097 16.1
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05:55:02 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25034              Latitude:   +36 37.0
         | Radar alt:       24370              Longitude: -097 30.0
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05:58:08 | Cargo Temps: 55/52/55/54/56/70
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06:01:30 | >>>> End of run: FL250 #4 (crosswind)
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    25040              Latitude:   +36 14.9
         | Radar alt:       24178              Longitude: -097 56.2
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
06:04:10 | >>>> Start of run: FL280 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    28032              Latitude:   +36 19.8
         | Radar alt:       27198              Longitude: -097 57.3
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06:09:12 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    27988              Latitude:   +36 37.0
         | Radar alt:       27334              Longitude: -097 30.0
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06:14:10 | >>>> End of run: FL280 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    27982              Latitude:   +36 53.7
         | Radar alt:       27152              Longitude: -097 03.2
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
06:21:10 | >>>> Start of run: FL310 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    31010              Latitude:   +36 53.4
         | Radar alt:       30259              Longitude: -097 12.2
--------------
06:25:22 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    30978              Latitude:   +36 37.0
         | Radar alt:       30435              Longitude: -097 30.0
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06:31:10 | >>>> End of run: FL310 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    30987              Latitude:   +36 14.7
         | Radar alt:       30242              Longitude: -097 54.0
-------------------------------------------------------------------------
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         |
-------------------------------------------------------------------------
06:34:45 | >>>> Start of run: FL350 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    34954              Latitude:   +36 23.1
         | Radar alt:       34224              Longitude: -097 51.6
--------------
06:38:17 | CPA
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    35017              Latitude:   +36 37.0
         | Radar alt:       34371              Longitude: -097 30.0
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06:44:45 | >>>> End of run: FL350 #4
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:    35005              Latitude:   +37 02.5
         | Radar alt:       33979              Longitude: -096 49.6
-------------------------------------------------------------------------
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-------------------------------------------------------------------------
06:52:30 | >>>> Start of run: FL410 #4
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         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    41000              Latitude:   +37 01.0
         | Radar alt:       40131              Longitude: -096 60.0
--------------
06:58:10 | CPA
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    40976              Latitude:   +36 37.0
         | Radar alt:       40497              Longitude: -097 30.0
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07:02:30 | >>>> End of run: FL410 #4
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    40998              Latitude:   +36 18.3
         | Radar alt:       40318              Longitude: -097 52.9
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
07:08:47 | >>>> Start of run: Spiral Down to Rt.
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    40876              Latitude:   +36 43.9
         | Radar alt:       40169              Longitude: -097 35.7
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07:12:42 | Spiral radius 8nm
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07:24:42 | Level-off at FL250\
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:    24978              Latitude:   +36 35.9
         | Radar alt:       24250              Longitude: -097 38.2
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07:27:00 | Continuing descent.
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07:35:04 | Radius tightened to 7nm.
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07:49:53 | Level at 3,000 ft.
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:     2830              Latitude:   +36 41.5
         | Radar alt:        1601              Longitude: -097 28.2
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07:52:56 | Level at 8,000 ft.
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:     7482              Latitude:   +36 48.8
         | Radar alt:        6256              Longitude: -097 23.5
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07:59:28 | Pt. 4 and turn to South for CACA runs.
         |
         | Next waypoint:       ?              NMS:               1
         | Pressure alt:     7490              Latitude:   +37 15.7
         | Radar alt:        6068              Longitude: -097 30.3
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08:00:40 | >>>> Start of run: CACA 290KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7466              Latitude:   +37 12.1
         | Radar alt:        6075              Longitude: -097 24.8
--------------
08:10:40 | >>>> End of run: CACA 290KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7456              Latitude:   +36 16.8
         | Radar alt:        6184              Longitude: -097 20.2
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
08:11:30 | >>>> Start of run: CACA 250KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7450              Latitude:   +36 12.5
         | Radar alt:        6178              Longitude: -097 19.9
--------------
08:14:42 | Descent debrief: COAST, was a great flight going good.
         | LASE,, outstanding flight. SHIS, very, very good lots
         | of good data. First ever vertical temperature profile.
         | DLH, great flight for AFWEX. DADS, good flight.
         | Mission Science, great flight.
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08:15:07 | Total post flight time required 1hr.
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08:21:30 | >>>> End of run: CACA 250KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7513              Latitude:   +35 23.9
         | Radar alt:        6187              Longitude: -097 15.9
-------------------------------------------------------------------------
         |
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         |
-------------------------------------------------------------------------
08:22:40 | >>>> Start of run: CACA 200KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7531              Latitude:   +35 18.7
         | Radar alt:        6248              Longitude: -097 15.5
--------------
08:34:03 | >>>> End of run: CACA 200KIAS
         |
         | Next waypoint:       ?              NMS:              1
         | Pressure alt:     7528              Latitude:   +34 34.4
         | Radar alt:        6499              Longitude: -097 11.9
-------------------------------------------------------------------------
         |
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08:36:05 | This was a very successful flight. Tomorrow is a down
         | day.
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Touchdown time was 340 08:50:21 UTC.

DADS data systems on-line before takeoff and off-line after landing.
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