

NOAA G-IV N49RF ERROR SUMMARY
WINTER STORMS 2011
15 Feb 2011 Modified TRACK73 (21WSW)
NCEP (PWT) RJTY →RJTY

Flight ID: 20110215N1

| <u>Sensor or system</u> | <u>Number or Name</u> |
|-------------------------|----------------------------|
| Accelerometer | AccZI.1 |
| Altitude | AltGPS.3 |
| Attack Angle | AA.2 |
| Dew Point Probe | TD.2 |
| Dynamic Pressure | PQF.2 |
| Geopotential Altitude | AltGPS.3 |
| Inertial Selected | INE2 |
| Static Pressure | PSF.2 |
| Slip Angle | SA.1 |
| Temperature Probe | TTM.3 |
| True Airspeed | TASF.3 |
| Constants File | 49cal102 |
| Flight Directory | acdata/2011/MET/20110215N1 |

| | | |
|----------------------------|-----------------|-----------------|
| Local Met Data | Takeoff (0729z) | Landing (1533z) |
| Aircraft Static Pressure | 1004.9 mb | 1011.2 mb |
| Tower Pressure (corrected) | 1004.3 mb | 1010.9 mb |

Notes:

There were two intervals of data gaps in AltRa.1 from the APN-232 radar altimeter:
07:43:39-07:45:10z (multiple gaps during this interval)
15:09:14z

The ALTPA.1 (NACA Pressure Altitude) ran about 80 meters lower than a tight clustering of Air Data Computer and ADC Baro Corrected sources.

Angle of Attack sources: AaADDU.1 (from the Air Data Computer) was consistently about 0.6 degrees higher than either AA.1 or AA.2, or AaADDU.2. Spike in AA.1 at 7:28:37z during takeoff roll from -35 to +49 degrees. Similar AA.1 spike during landing rollout from -123 to +162 degrees. In creation of higher MET parameters, PDAAlphaF.2 was selected (under Attack Pressure Probe Selection choices) to utilize AA.2.

GDIFF check: Mean of 1330 meters of drift for INE #2 (with respect to the Novatel). The plot of GDIFF for INE#1 was incomplete (missing most of the flight). In creation of higher MET parameters, INE #2 selected.

The Left Dew Point sensor (TD.1) again read far too high through the entire flight. TD.2 did a reasonably good job but is also too high during the cruise portion of flight at or above 41,000 feet (where sondes suggest an RH near 5% and the dew points generated by TD.2 yield an RH around 25%).

Vertical Winds showed a small low bias during the cruise portion of flight (with a UWZ.1 mean of -0.15).

All other flight level instruments worked optimally during the flight.

- 19 drop points assigned by NCEP
- 19 AVAPS II dropsondes deployed
- All 19 were good and all 19 coded surface winds. However, for Drop Pt 9 at 10:31:22z there was an Early Launch Detect requiring the need to manually rebuild a launch line in the D File and Drop Pt 12 at 11:41:02z displayed an abnormally fast fall rate below 400 mb.

Flight Director: Richard Henning (813) 828-3310 ext. 3086

U.S. Dep't. of Commerce / NMAO / NOAA / Aircraft Operations Center

| | | |
|----------------------|-----------------------|------------------------|
| FLT ID: 20110215N1 | From: RJTY | To: RJTY |
| FLT #: 11-32 | Blk In: 1537 Z | Lnd Time(on): 1533 Z |
| ETD: 0730 Z | Blk Out: 0724 Z | T/O Time (off): 0729 Z |
| ETE: 8+00 | Total Blk: 8.2 | Total Flt: 8.1 |
| Sponsoring Org: NCEP | Program: PWT (WSR 11) | Purpose: TRACK 73 |

AOC Flight Crew

| | |
|-----------------------------|---------------------|
| Aircraft Commander: TWINING | Data System: ROLES |
| Co-Pilot: TOTH / | Avaps: GREENE BOSKO |
| Navigator: / | System Engineer: |
| Flight Eng: / | AA: |
| Flt Director: HENNING | AA: |
| Avionics: | Crew Chief: |

Participating Scientists, Visitors, & Add'l Aircrew on back.

of people listed on back:

| | | | | |
|----------|---------------|----------------------|-----------------------|-------------------|
| | A/C - Takeoff | Wx Station - Takeoff | A/C - Land | Wx Station - Land |
| Pressure | PS 1004.9 | 30.13 STA 1004.3 | 30.33 STA (1010.9) | PS 1011.2 |

| | |
|----------------|--|
| ATIS - Takeoff | |
| ATIS - Land | |

| Data Source | Number | Data Disposition / Date / Quality / File Name(s) |
|-------------|--------|--|
|-------------|--------|--|

| | |
|--------------------|--|
| Flight Level Tapes | |
|--------------------|--|

| | |
|-------------|--|
| Radar Tapes | |
|-------------|--|

| | |
|------------|-------------------------------------|
| Dropsondes | Good: 19 Bad: 0 Sent: 19 |
|------------|-------------------------------------|

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|------|--|
| AXBT | |
|------|--|

List other data sources on back in Remarks section.

| Remarks (Storm Name, Mission ID, Recco Times, Fix Times) | Recco Times: | Fix # | Fix Time |
|--|--------------|-------|----------|
|--|--------------|-------|----------|

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| Storm Name: CP 15/12z near 43.9 172.3E | | | |
|--|--|--|--|

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|----------------------------------|--|--|--|
| Mission ID: NOAA9 21WSW TRACK 73 | | | |
|----------------------------------|--|--|--|

Shemya PASY
 ADAR PADK
 Misawa PWSM
 Iwakuni RJOI
 KIRISHIMAYAMA

YOKOTA WX
 3740ss. weather@yokota.af.mil
 PMSV 344.6

25min 3642.6
 145 03.4

(one ELD Fixed +
 one abnormally fast
 fall rate below 400mb)
 Suspect CHUTE

HENNING

Flight Director:

Mission ID: N6A49 2 (WSW) TRK73 Storm/Track:

Pg ____ of ____

[illegible]

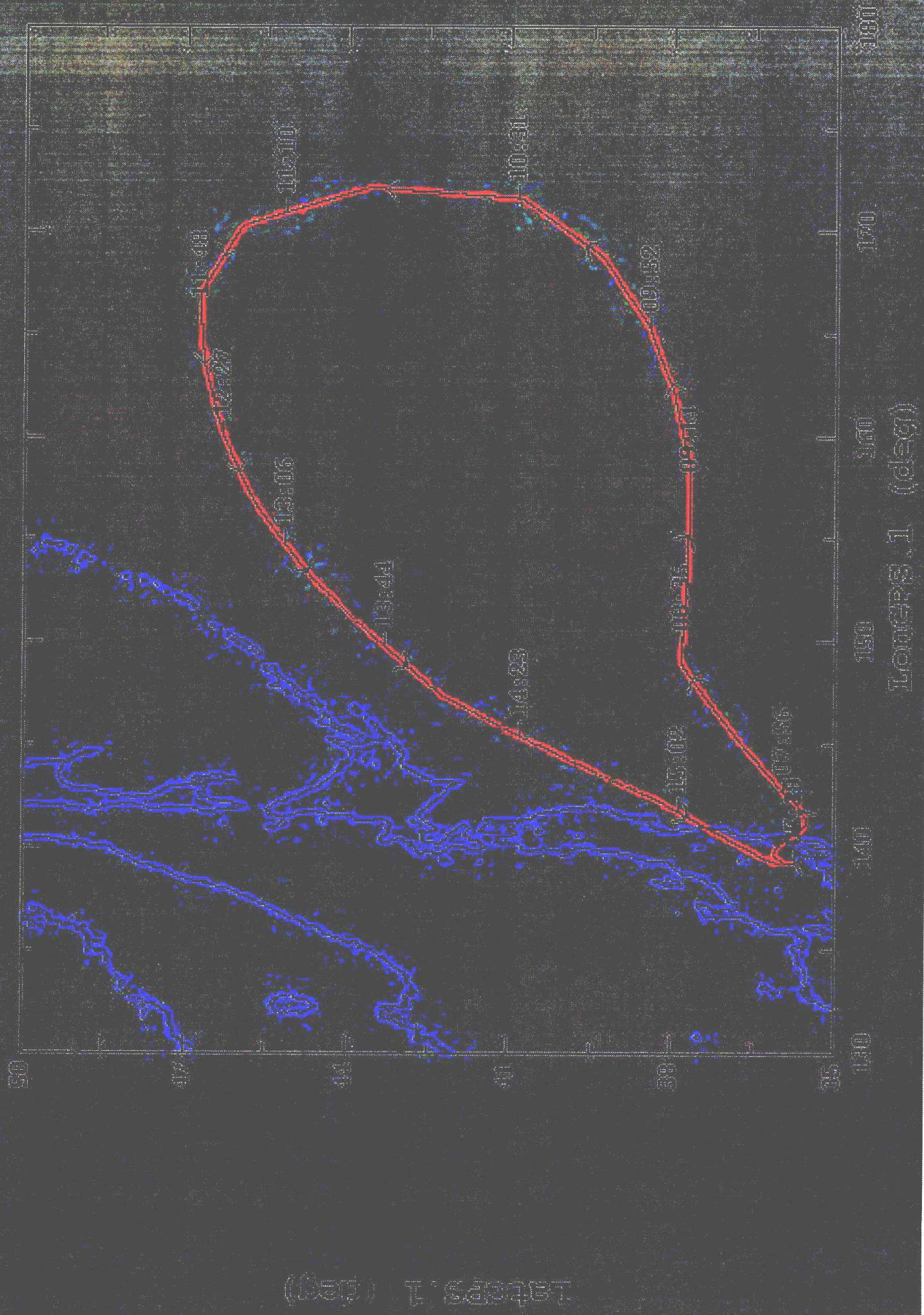
drop points.txt

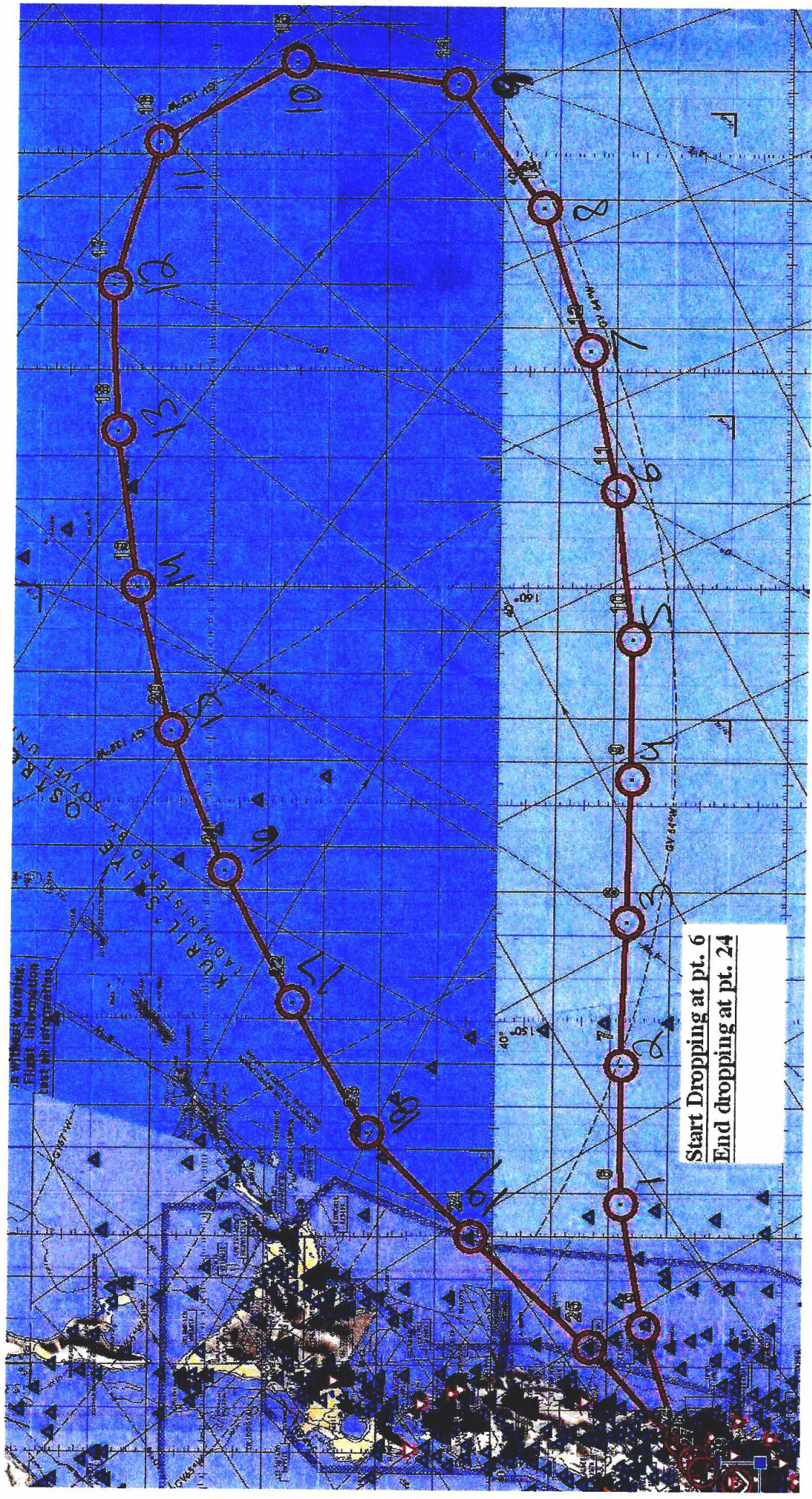
P73 MODIFIED

| | | |
|----|-------|--------|
| 1 | 37 48 | 145 48 |
| 2 | 37 50 | 149 00 |
| 3 | 37 45 | 152 18 |
| 4 | 37 42 | 155 36 |
| 5 | 37 42 | 158 50 |
| 6 | 38 00 | 162 16 |
| 7 | 38 28 | 165 30 |
| 8 | 39 18 | 168 48 |
| 9 | 40 48 | 171 39 |
| 10 | 43 36 | 172 10 |
| 11 | 45 58 | 170 18 |
| 12 | 46 45 | 167 00 |
| 13 | 46 40 | 163 36 |
| 14 | 46 18 | 160 00 |
| 15 | 45 42 | 156 42 |
| 16 | 44 45 | 153 27 |
| 17 | 43 32 | 150 24 |
| 18 | 42 12 | 147 24 |
| 19 | 40 24 | 145 00 |

CP

02/15/2011, 03:39:23-13:40:52





Start Dropping at pt. 6
End dropping at pt. 24