

# U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center

|                                     |                             |                             |
|-------------------------------------|-----------------------------|-----------------------------|
| Flt ID: 2011116I1                   | From: FJDG                  | To: FJDG                    |
| Flt. No: 12-                        | Blk In: 1306 z              | Time On: 1303z              |
| ETD: 04Z                            | Blk Out: 0358 z             | Time Off: 0407z             |
| ETE: 9 + 00                         | Blk Time: 9 + 08<br>Hrs 9.1 | Flt Time: 8 + 56<br>Hrs 8.9 |
| Sponsoring Org: JOINT NATOPS<br>NRL | Program: DYNAMO             | Purpose: Research           |

## AOC Flight Crew

|                                   |                         |
|-----------------------------------|-------------------------|
| Aircraft Commander: NELSON        | Data System: NAEHER     |
| Co-Pilot: KIBBEY / KERNS          | AVAPS: RICHARDS         |
| Navigator: BRAKOB /               | System Eng: PM MCFADDEN |
| Flight Eng: KLIPPEL / HEYSTECK    | A A:                    |
| Flight Director: SEARS / WILLIAMS | A A:                    |
| Avionics: <del>GLADY</del> SMITH  | Crew Chief:             |

## Participating Scientists / Visitors

| Name (Last, First) | Activity on Aircraft | Affiliation   |
|--------------------|----------------------|---------------|
| CHEN, SHUYI        | PI, MJD              | UM            |
| JORGENSEN, DAVE    | PI, RADAR            | NOAA          |
| LEE, CHIA-YING     | SONDES               | UM            |
| KHELIF, DSAMAL     | PI, TURB             | UCF           |
| TRAMPP             | BT's                 | NPS           |
| BROWN, SCOTT       | Imaging              | U of Columbia |
| CIFUANG, PATRICIA  |                      | UC Santa Cruz |
|                    |                      |               |
|                    |                      |               |

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Recco Times

Fix # Fix Time

Storm Name:

Mission ID: NOAA3 WxWXA TRAIN

99 Instruments 44

55 sondes  
26 BT's  
18 CTD's

## U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center

Flight ID: 2011116I1

Time Off:

Time On:

A/C - Takeoff

Wx Station - Takeoff

A/C - Land

Wx Station - Land

Pressure

1011.9

1009.5

1009.3

1008.5

Number

Data Disposition / Date / Quality

Flight Level Tapes

Radar Tapes

Cloud Physics Tapes / CDs

Video Tapes

Dropsondes

Good: Bad:

AXBT

AXCP

AXCTD

## Remarks:

T160355Z 36005 65M - ~~STRA~~ 27/25 @ 982 station 1011.5

LND 1255Z 28/24 2979

10  
72, - 9

516 S 21 BT 10 CTD'S

FDJG -7.3 72.4  
JPOL -6.63, 73.10

60 30 20 CTD'S



## N43RF ERROR SUMMARY

### *DYNAMO Mission#3*

*16 Nov 2011, Large Scale Moisture Variability*



**Flight ID: 20111116I1**

Sensor or system

Inertial Selected (for wind derivation)

Accelerometer

Temperature Probe

Dew Point Probe

Static Pressure

Dynamic Pressure

Altitude (for vertical wind)

Flight Directory

Constants File

Number or Name

INE 1

AccZfilterI-GPS.1

TTM.1

TdM.2X

PSF.1

PQF.1

AltI-GPS.1

acdata/MET/2011/20111116I1

20111116I1/AAMPSCConfig/core/n43.xml

Local Met Data:

Takeoff (0407Z)

Landing (1303Z)

Aircraft Static Pressure

1012.2 mb

1009.3 mb

Tower Pressure (corrected)

1011.2 mb

1008.5 mb

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**Notes:**

There were no data gaps.

PQR.1, dynamic pressure from the radome, drops out on descent from 122328Z – 125618Z.

PQF.1, fuselage dynamic pressure, is the default.

Dew point sensor 2, TdM.2 (EdgeTech) performed best, but exhibited an erroneous spike in a quick descent from 052248Z – 052528Z and was replaced with TdM.3, the TDL using the following:  $TdM.2X = TdM.3 + 8.1$ . From 082108Z – 082122Z TdM.2 spiked as the aircraft went through cloud, the Buck dew pointer, TdM.1, was substituted directly using  $TdM.2X = TdM.1$ . Dew point values intermittently exceeded ambient temperature values during portions of flight where the aircraft was in precipitation, causing RH values greater than 100%.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

**SPECIAL NOTE!!!** The variable names GSZ\_DPJ, ASZ\_DPJ and WSZ\_DPJ in the netCDF file represent vertical ground speeds, vertical air speeds and vertical wind speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

All other AOC instruments worked properly.

There were 55 GPS dropsondes, 26 AXBT's and 18 CTD's deployed from the aircraft internally.

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**Flight Director:**

**Phone #:**

*Ian Sears/ Jess Williams*

*(813) 828-3310 ext. 3039/3140*

55 S  
26 B  
18 CTR

2011116I 0407-13032

- txt file for Chris + Scott

NO time in Var List - using same time + converting  
no same time in Fst file for Hz

IR Fst file only voltage for IRD Irrad V

PSF low  $\uparrow$  than PSW +

PSW closer to SP but still 1.5 mb high

1009.4

PQR drops out on des

122328 - 1256102

TT3 ~ 1° warmer

27.3

Landing

TT3

until land a/c's warmer + spike

28 - st

a/c's 29+30

a/c's 24

Temp V2

Temp patch 05222 - 05252 + 5.1 - steep descent from 10k to 7500 ft

0821082 - 082122 - use (1)

- included 2 spikes c/w TA w/in 10°C

0301

7+2

1240

9 + 40

+ converted km1

- ~~W/L~~ being used for govt

from J.G./B.P

- Radar update Pres to Dave J.

- Class - email Pres

9.4

TA.3 - 15.75° warmer

130240 - AAARCF  
Speed 200

PS - PS - 24

|    |                                                                      |    |      |                                                          |        |
|----|----------------------------------------------------------------------|----|------|----------------------------------------------------------|--------|
| 7  | To Gan                                                               | 60 | AHAP | Dropsone, DRI 7 min                                      | 8      |
| 8  | NW heading near Gan along a line about 7 nm NE of Spol on Gan        | 6  | AHAP | Dropsone, DRI 2 min, quick dropsone within 20 km of Spol | 3      |
| 9  | Turn to position at NW of Gan                                        | 3  | AHAP | Re-position to the other side of Gan                     |        |
| 10 | Heading SE along a line parallel to the previous line but SW of Spol | 6  | AHAP | Dropsone, DRI 2 min, quick dropsone within 20 km of Spol | 3      |
| 11 | ferry home                                                           | 90 | AHAP | dropsone, DRI: 7 min                                     | 13 0 0 |

\* means dropsone and AXBTs are preferably co-located

\*\* Target should be north of CP in latitude, but can be west of the domain

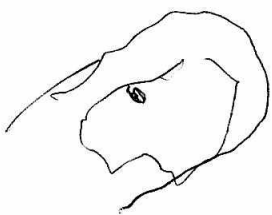
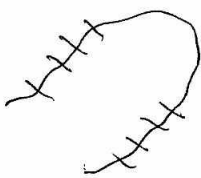
\*\*\* If convective system identified close to DG, do modules either upon v/o or before landing

\*\*\*\* Possible additions if time allows, Flat descent in clear air at 500'/min from AHAP to ALAP, coordinate with a dropsone at AHAP

\*\*\*\*\* In case clear, no RCE or FFM or cloud base lawn mowing

SPol location: (-0.6308375, 73.101681E) ★

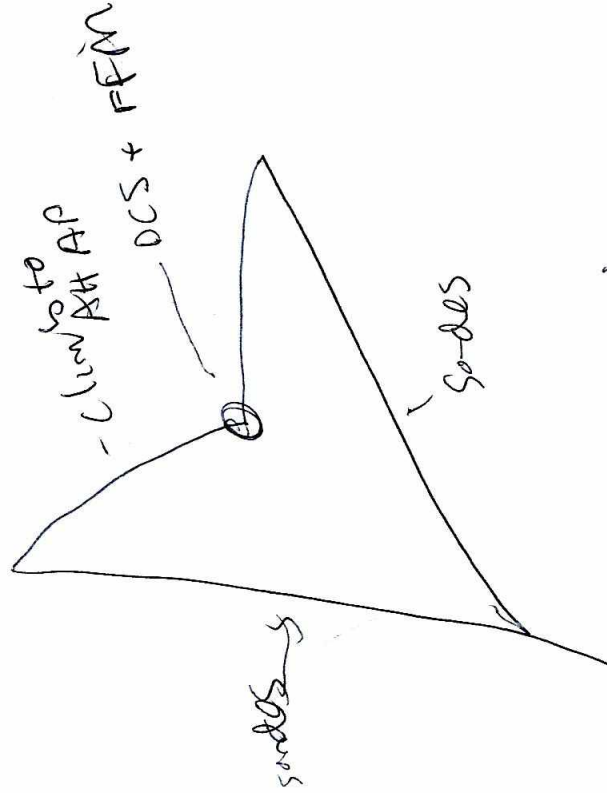
W/In 20km of Radar



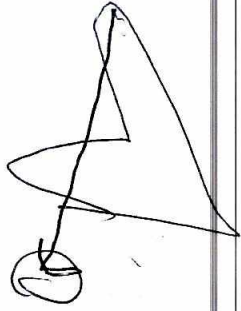
1730

Jorgenson  
 Shui Chen - MTO sci  
 Lee - Sander  
 Trampp - BT  
 Khelif - Turb  
 S, Braw - Imaging

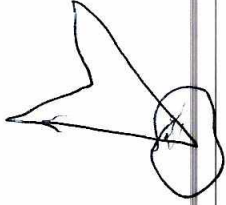
CAN  
 min freq sondes  
 40km



if



target who  
 CONW  
 do target  
 DCS + FFM  
 if



0727-13

0734-C  
0741-B

0838 - B  
0847 - B

0855 - B

0917

0924

0937

0938

0945

1020

1025

1602

13.5

0555

0855 - B  
0855 - B

0854

0959  
1006

1002

1602

13.5

0553

0559

0600 - B  
0600 - B

0602 - B  
0602 - B

1002

13.5

0619

0619

0619

0619

0619

0619

0619

120

0612 - 8500

063145 05012

0608

0625

10

1144

1156

1200

1200

1200

1200

1200

1200

1200

1200

0402, 0429, 10

76

75

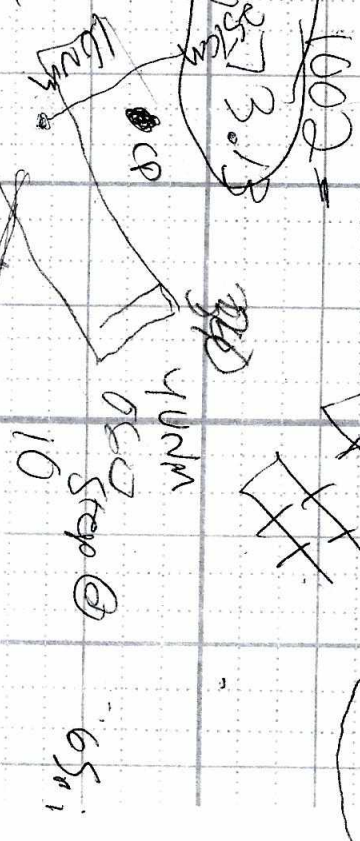
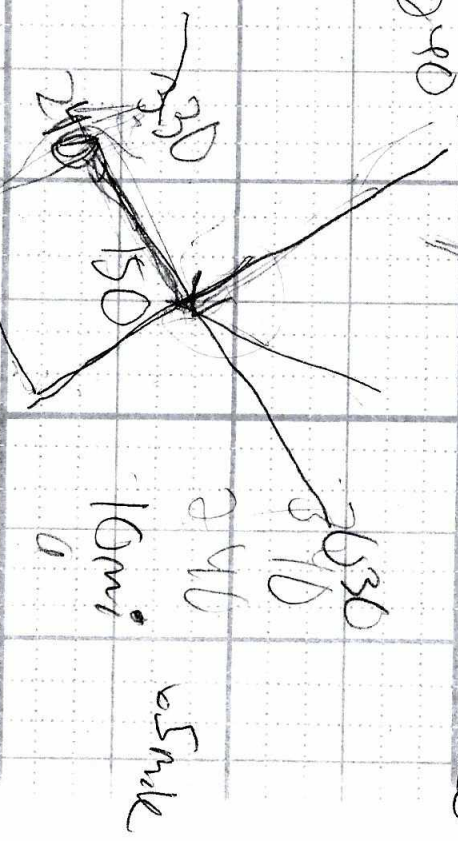
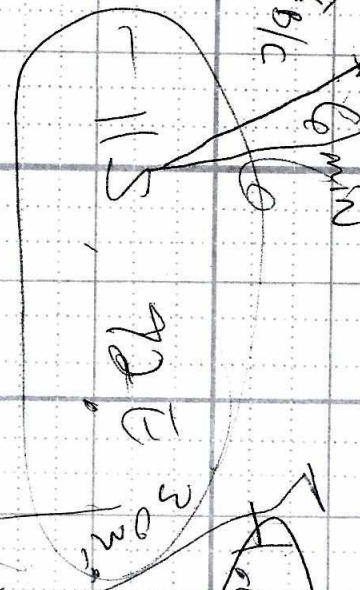
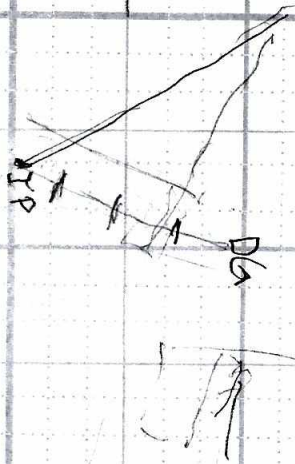
80

Screen BCD

of plan

PSRP-PSWS

04501



9 at about 6 S head to CP (-3.40S, 76.75E) 60 AHAP Dropsonde, DRI 7 min

10 CP to GAN at AHAP 60 AHAP, find location for, flat descend dropsondes, DRI 7 min 10

11 Descent quickly to 2000' for imaging 15 AHAP to 2000' aircraft sounding 1

12 2000' set imaging 10 2000' surface imaging, bt 2

13 NW heading near GAN along a line about 7 nm NE of Spol on GAN 6 AHAP Dropsonde, DRI 2 min, quick dropsonde within 20 km of Spol 3

14 Turn to position at NW of GAN 3 AHAP Re-position to the other side of GAN

15 Heading SE along a line parallel to the previous line but SW of Spol 6 AHAP Dropsonde, DRI 2 min, quick dropsonde within 20 km of Spol 3

16 ferry home 90 AHAP dropsonde, DRI: 7 min 13 0 0

\* means dropsonde and AXBFs are preferably co-located  
 \*\* Target should be north of CP in latitude, but can be west of the domain  
 \*\*\* If convective system identified close to DG, do modules either upon t/o or before landing  
 \*\*\*\* Possible additions if time allows, Flat descent in clear air at 500'/min from AHAP to ALAP, coordinate with a dropsonde at AHAP  
 \*\*\*\*\* In case clear, no RCE or FFM or cloud base lawn mowing  
 Spol location: (-0.630837S, 73.101681E)

1125 start dropsondes

3.5

6.5 4.0

ETA program doesn't like it

1300 75

-00 365 73 32

73 28

8 min

10582

1 1 forgot this BT

5 min

Mission type:

Mission location:

Total flight time (hr)

Large-scale Moisture  
variability

DYNAMO domain

7.9

#

#

#

#

drpsnds

AXBTs  
(int)

AXBTs  
(Ext)

AXCTDs

10

Item Module

Time (min)

Altitude (ft)

Objective

1 T/O, find target to the south

20

0-3000' at IP

Ferry and dropsonde towards CP, DRI: 7 min

#

3

-7 min interval

4 RCE

60

3000' -10000'

dropsonde DRI 3 min\* at 10000' + BT\*

*Handwritten: 3 min interval*

2

2

-BT

5 level leg lawn-mowing through and out of cloud 200' above cloud base for microphysics

30

200' above cloud base

penetrating cloud base 3 Times

microphysics

6 Slant descent at 500'/min to 100' to the rear side of the convection

5

cloud base to 100'

3-5 miles from convective line as starting point

40 min

7 FEM at 200'

60

ALAP

Flux mapping, sst, surface wave, bt+ctd

4

8



10 min

8 ascent at 500'/min to 6000' and quick ascent to 10000'

50

200' to 10000'

flight level sounding, sonde\*+BT\* from 10 S to 6 S cross ITCZ, DRI 7 min

10

5

5

0944

280 = 3.7 nm/h

| Mission type:                    | Mission location:                                                                     | Total flight time (hr) | # drops               | # AXBTs (int)                                      | # AXBTs (Ext) | # AXCTDs  |
|----------------------------------|---------------------------------------------------------------------------------------|------------------------|-----------------------|----------------------------------------------------|---------------|-----------|
| Large-scale Moisture variability | DYNAMO domain                                                                         | 8.3                    | 54                    | 6                                                  | 0             | 2         |
| Item                             | Module                                                                                | Time (min)             | Altitude (ft)         | Objective                                          |               |           |
| 1                                | T/O, dropsonde to Center Point (-3.4°S, 76.75E)                                       | 75                     | AHAP                  | Ferry and dropsonde towards CP, DRI 7 min          | 11            | 0         |
| 2                                | Go to target**                                                                        | 60                     | 20000'                | dropsonde, DRI: 7 min, max, preferably towards Gan | 8             |           |
| 3                                | rapid slant descent and initial position (IP) to 3000'                                | 15                     | 20000' to 3000'       | dropsonde* and BT* at 10000'                       | 1             | 1         |
| 4                                | RCE                                                                                   | 60                     | 3000' - 10000'        | dropsonde DRI 3 min* at 10000' + BT*               | 7             | 3         |
| 5                                | level leg lawn-mowing through and out of cloud 200' above cloud base for microphysics | 30                     | 200' above cloud base | penetrating cloud base ?? Times                    | 2             | 2         |
| 6                                | Slant descent at 500'/min to 100' to the rear side of the convection                  | 5                      | cloud base to 100'    | 3-5 miles from convective line as starting point   |               |           |
| 5                                | FFM at 200'                                                                           | 60                     | ALAP                  | Flux mapping, sst, surface wave                    | 10 if no rain | 6 if rain |
| 6                                | ascent at 500'/min to 6000' and quick ascent to AHAP                                  | 25                     | 200' to AHAP          | flight level sounding                              |               |           |

7 nm = 13 km ~ 2 nm/h  
10.8 nm = 20 km ~ 3 nm/h  
14 nm = 26 km = 4 nm/h  
38 nm ~ 70 km = 10 nm/h

30 +x  
60 Rec  
60 MP  
60 FFM  
60 CP  
60 Gal  
30 GAL  
90 TX  
7.5

10' - 65

20 km = 10,8 nm

|    | To Gan                                                               | 60 | AHAP | Dropsone, DRI 7 min                                      | 8  |   |   |  |
|----|----------------------------------------------------------------------|----|------|----------------------------------------------------------|----|---|---|--|
| 8  | NW heading near Gan along a line about 7 nm NE of Spol on Gan        | 6  | AHAP | Dropsone, DRI 2 min, quick dropsone within 20 km of Spol | 3  |   |   |  |
| 9  | Turn to position at NW of Gan                                        | 3  | AHAP | Re-position to the other side of Gan                     |    |   |   |  |
| 10 | Heading SE along a line parallel to the previous line but SW of Spol | 6  | AHAP | Dropsone, DRI 2 min, quick dropsone within 20 km of Spol | 3  |   |   |  |
| 11 | ferry home                                                           | 90 | AHAP | dropsone, DRI: 7 min                                     | 13 | 0 | 0 |  |

\* means dropsone and AXBTs are preferably co-located

\*\* Target should be north of CP in latitude, but can be west of the domain

\*\*\* If convective system identified close to DG, do modules either upon v/o or before landing

\*\*\*\* Possible additions if time allows, Flat descent in clear air at 500'/min from AHAP to ALAP, coordinate with a dropsone at AHAP

\*\*\*\*\* In case clear, no RCE or FEM or cloud base lawn mowing

SPol location: (-0.6308375, 73.1016811)

6100Z - 0330Z

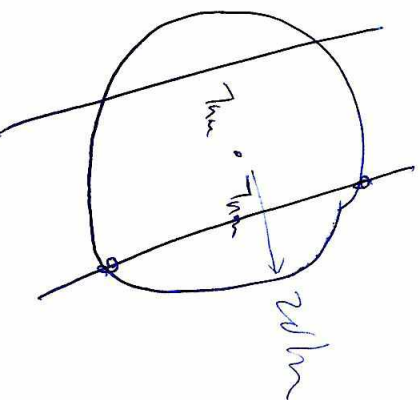
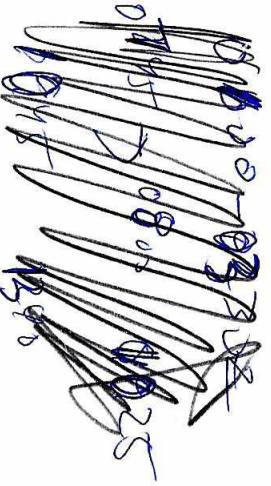
0745Z

0800Z

1025Z

1045Z

1340Z



P-3 Flight Plan  
Nov 16, 2011

011-246-370-3322  
0-246-370-3322

Mission type:

Mission location:

Total flight time (hr)

Large-scale Moisture variability

DYNAMO domain

7.9

| #       | #         | #           | #      |
|---------|-----------|-------------|--------|
| drpsnds | AXBTs (m) | AXBTs (Ext) | AXCTDs |
| 46      | 21        | 0           | 10     |

6b1-246-370-3322

Item Module

Time (min)

Altitude (ft)

Objective

1 T/O, find target to the south 20 0-3000' at IP Ferry and dropsonde towards CP, DRI: 7 min

3

-every 7min

0430 RCE 0436

60 0516

3000'-10000'

dropsonde DRI 3 min\* at 10000' + BT\*

5 level leg lawn-mowing through and out of cloud 200' above cloud base for microphysics

30

200' above cloud base

penetrating cloud base 3 Times

3 min 2

2

FFM

6 Slant descent at 500'/min to 100' to the rear side of the convection

5

cloud base to 100'

3-5 miles from convective line as starting point

87/18 Num legs

7 FFM at 200'

60

ALAP

Flux mapping, sst, surface wave, bt+cid

4

8

0546

8 ascent at 500'/min to 6000' and quick ascent to 10000'

50

200' to 10000'

flight level sounding, sonde\*+BT\*, from 10 S to 6 S cross ITCZ, DRI 7 min

70 5

5

001-246-370-3322

011-246-370-3322

246-370-3322

00-246-370-3322

3319 ATC  
3322 BO

-1 73-06

Int'l DG

011-246-370-3322

Gann 119.1 121.6  
Washed Lane 119.4

|    |                                                                      |    |                                      |                                                            |    |     |
|----|----------------------------------------------------------------------|----|--------------------------------------|------------------------------------------------------------|----|-----|
| 9  | at about 6 S head to CP (-3.4oS, 76.75E)                             | 60 | AHAP                                 | Dropsone, DRI 7 min                                        | 8  |     |
| 10 | CP to GAN at AHAP                                                    | 60 | AHAP, find location for flat descent | dropsondes, DRI 7 min                                      | 10 |     |
| 11 | Descent quickly to 2000' for imaging                                 | 15 | AHAP to 2000'                        | aircraft sounding                                          | 1  | 1   |
| 12 | 2000' sst imaging                                                    | 10 | 2000'                                | surface imaging, bt                                        | 2  |     |
| 13 | NW heading near Gan along a line about 7 nm NE of Spol on Gan        | 6  | AHAP                                 | Dropsonde, DRI 2 min, quick dropsonde within 20 km of Spol | 3  |     |
| 14 | Turn to position at NW of Gan                                        | 3  | AHAP                                 | Re-position to the other side of Gan                       |    |     |
| 15 | Heading SE along a line parallel to the previous line but SW of Spol | 6  | AHAP                                 | Dropsonde, DRI 2 min, quick dropsonde within 20 km of Spol | 3  |     |
| 16 | ferry home                                                           | 90 | AHAP                                 | dropsonde, DRI: 7 min                                      | 13 | 0 0 |

\* means dropsonde and AXBTs are preferably co-located  
 \*\* Target should be north of CP in latitude, but can be west of the domain  
 \*\*\* If convective system identified close to DG, do modules either upon t/o or before landing  
 \*\*\*\* Possible additions if time allows, Flat descent in clear air at 500'/min from AHAP to ALAP, coordinate with a dropsonde at AHAP  
 \*\*\*\*\* In case clear, no RCE or FFM or cloud base lawn mowing  
 SPol location: (-0.630837S, 73.101681E)

.602 73.54

200km

Pack

Mission type: Mission location: Total flight time (hr)

Large-scale Moisture variability DYNAMO domain

# drpsnds # AXBTs (int) # AXBTs (Ext) # AXCTDs

54 6 0 8

8.3

| Item | Module                                                                                | Time (min) | Altitude (ft)         | Objective                                        |
|------|---------------------------------------------------------------------------------------|------------|-----------------------|--------------------------------------------------|
| 1    | T/O, dropsonde to Center Point (-3.4°S, 76.75°E)                                      | 75         | AHAP                  | Ferry and dropsonde towards CP, DRI: 7 min       |
| 2    | Go to target**                                                                        | 60         | 20000'                | dropsonde DRI 7 min max, preferably towards Gan  |
| 3    | rapid slant descent and initial position (IP) to 3000'                                | 15         | 20000' to 3000'       | dropsonde* and BT* at 10000'                     |
| 4    | RCE                                                                                   | 60         | 3000' - 10000'        | dropsonde DRI 3 min* at 10000' + BT*             |
| 5    | level leg lawn-mowing through and out of cloud 200' above cloud base for microphysics | 30         | 200' above cloud base | penetrating cloud base ?? Times                  |
| 6    | Slant descent at 500'/min to 100' the rear side of the convection                     | 5          | cloud base to 100'    | 3-5 miles from convective line as starting point |
| 5    | FFM at 200'                                                                           | 60         | ALAP                  | Flux mapping, sst, surface wave                  |
| 6    | ascend at 500'/min to 6000' and quick ascent to AHAP                                  | 25         | 200' to AHAP          | flight level sounding                            |

FFM Chris 200ft instrument 2-3kt

behind RCE

maintain same altitude

stay 10k ft

500ft/min

2000ft 2k ft

pitch w/in -2°

done w/modes

10 if no rain 6 if rain

DCS precipitating line

1 x 23

03 3k

29.85 RWY13

26/24

8K

0858 : DISSZ CARA VS F2K BRJ50V

0858

MISSION LOG

PAGE 1 OF 2

CLEARANCES

| FREQ | ALT | HDG | OTHER |
|------|-----|-----|-------|
| 1271 | 3K  |     | CATNY |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |
|      |     |     |       |

POSITION REPORT

1. POSITION 1240
2. TIME 1255
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE, IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHFVOICE VHFVOICE MFVOICE HF/CW MF/CW  
243.0 121.5 2182 KHZ 8364 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY  
THIS IS NOAA, NOAA, NOAA 43

POSITION N/S E/W AT Z  
HEADING TRUE/MAG  
AT KTS TRUE/INDICATED  
FLIGHT LEVEL OR ALTITUDE  
WE ARE A P-3 AIRCRAFT WITH SOULS ON BOARD  
NATURE OF EMERGENCY  
ASSISTANCE DESIRED  
PILOT INTENTIONS  
WE HAVE ENDURANCE REMAINING

| TIME | FIX TYPE | POSITION          | INS 1 POSITION    | K ERR         | INS 2 POSITION    | K ERR        | VAR | TH | DR | TRK | S   | WD  | WS    | ALT  | TAS  | NEXT PT | DIST | TIME | ETA | REMARKS         |
|------|----------|-------------------|-------------------|---------------|-------------------|--------------|-----|----|----|-----|-----|-----|-------|------|------|---------|------|------|-----|-----------------|
| 0352 | ENB      |                   |                   |               |                   |              |     |    |    |     |     |     |       |      |      |         |      |      |     |                 |
| 0358 | TAXI     |                   |                   |               |                   |              |     |    |    |     |     |     |       |      |      |         |      |      |     |                 |
| 0407 | ENB      |                   |                   |               |                   |              |     |    |    |     |     |     |       |      |      |         |      |      |     |                 |
| 0412 | XV       | 7-33.0<br>72-26.7 | 7-33.1<br>72-26.8 | -1.1<br>-1.1  | 7-33.0<br>72-26.7 | 0<br>0       |     |    |    | 196 | 33  | 035 | 15    | 3K   | 218  |         |      |      |     | NKW 180/14 33.9 |
| 0507 | D        | 8-49.4<br>70-54.8 | 8-48.5<br>70-54.7 | +1.9<br>+1.1  | 8-49.0<br>70-55.0 | +1.9<br>+1.1 |     |    |    | 103 | 39  | 107 | 13    | 10K  | 252  |         |      |      |     |                 |
| 0606 | D        | 8-01.3<br>71-15.0 | 7-59.3<br>71-14.5 | +1.9<br>+1.5  | 8-02.4<br>71-14.6 | -1.2<br>+1.4 |     |    |    | 15  | 206 | 128 | 11    | 2    | 213  |         |      |      |     |                 |
| 0707 | A        | 9-47.8<br>71-49.8 | 9-46.5<br>71-50.4 | +1.3<br>-2.6  | 9-47.8<br>71-50.7 | +1.3<br>-2.7 |     |    |    | 172 | 255 | 050 | 10    | 10K  | 251  |         |      |      |     |                 |
| 0807 | A        | 8-14.6<br>72-01.0 | 8-02.6<br>72-01.0 | +12.0<br>-2.0 | 8-13.2<br>72-01.4 | +1.4<br>-1.4 |     |    |    | 00  | 239 | 075 | 15    | 10K  | 245  |         |      |      |     |                 |
| 0911 | A        | 9-33.0<br>73-05.3 | 9-33.7<br>73-05.2 | -1.7<br>+3.1  | 9-33.8<br>73-04.9 | -2.3<br>+4.4 |     |    |    | 05  | 263 | 058 | 5     | 17K  | 269  |         |      |      |     |                 |
| 1041 | A        | 1-21.3<br>74-26.5 | 1-15.0<br>74-24.5 | +8.3<br>+2.0  | 1-24.4<br>74-26.3 | -3.1<br>+2.2 |     |    |    | 30  | 230 | 065 | 9     | 2K   | 226  |         |      |      |     |                 |
| 1117 | A        | 1-18.1<br>73-29.7 | 1-11.0<br>73-31.2 | -9.0<br>-1.5  | 1-23.0<br>73-30.6 | -5.0<br>-1.9 |     |    |    | 30  | 271 | 102 | 15    | 180  | 266  |         |      |      |     |                 |
| 1150 | C        | 1-12.2<br>73-29.7 | 1-12.2<br>73-31.2 | -1.5<br>-1.5  | 1-12.2<br>73-31.2 | -1.5<br>-1.5 |     |    |    | HR  | 212 | MAE | 11285 | SELV | SELV |         |      |      |     |                 |
| 1209 | D        | 3-20.5<br>72-43.0 | 3-19.4<br>72-41.1 | +1.1<br>+1.9  | 3-24.9<br>72-42.7 | +4.4<br>+1.3 |     |    |    | 18  | 318 | 005 | 12    | 220  | 306  |         |      |      |     |                 |
| 1301 | LAND     |                   |                   |               |                   |              |     |    |    |     |     |     |       |      |      |         |      |      |     |                 |
| 1306 | LAND     |                   |                   |               |                   |              |     |    |    |     |     |     |       |      |      |         |      |      |     |                 |

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