

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

FLT ID: 080128H	From: KMCF	To: KMCF
Flt No: 08-005	In: 2202 ^Z	On: 2156 ^Z
ETD: 1930 ^Z	Out: 1934 ^Z (2.5)	Off: 1945 ^Z (2.2)
ETE: 2 ⁺ hrs	Blk Time: 2hrs 28mins Hrs	Flt Time: 2hrs 11mins Hrs
Sponsoring Org:	Program:	Purpose: Test

AOC Flight Crew

Aircraft Commander: Strong	Data System: Peek
Co-Pilot: Sweeney	AVAPS: Smith
Navigator: Bishop Kidder	System Engineer:
Flight Eng: Wader	AA: Rogers
Flight Director: Almeida Damiano	AA:
Avionics:	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Greene, J	AA	AOE

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

Storm Name: Carcah 305-229-4474

Mission ID: WxWxA TRAIN Call Jack after flight

Headset, #10-13.4 NSN 5965-01-446-1530 312 10

Milstrip WHSE

(See reverse for additional remarks)

14.5
15.5

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FLT ID: 080128 H

TIME OFF: 1945 Z

TIME ON: 2156 Z

A/C - Takeoff

WX Station - Takeoff

A/C - Land

WX Station - Land

Pressure

1020.0

1020.2

1019.4

1019.8

ATIS - Takeoff

1955Z 23005KT 10SM CLR 30.14 17/04-

ATIS - Land

2155Z 27002KT 10SM CLR 30.13 18/02

Data Source

Number

Data Disposition / Date / Quality

Flight Level Tapes

2

Radar Tapes

—

Cloud Physics Tapes /
Cds

Video Tapes/DVDs

Dropsondes

3

Good: 1 Bad: 2 problem w/ Avaps

AXBT

AXCP

AXCTD

SONOBUOY

REMARKS:

No Lat + Lon in ASDL

KWBC

27°44.7 83°33.8 NE2 Drop 1 KWBC

Remote Avaps - ask Jeff

27°33.5 84 7.4 NE2 Drop 2

Screen jumps to graphs occasionally

SDM @ NCEP - ? Ready by 0200Z?

27°32.3 84° 21.4 Drop 3



NOAA P-3 N42RF
Test Flight
28 Jan, 2008



Flight ID: 080128H

Sensor or system

Inertial

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Dropsondes Deployed

Variable Name

inel

accil

ttl

tdm2 (Vigilant)

RA (HG9550)

Rosemount Fuselage

Rosemount Fuselage

Micro 99

Total: 3 Good:1 Bad:2 (# not sent:3)

Local Met Data:

Takeoff (1945Z)

Landing (2156Z)

Aircraft Static Pressure

1020.0 mb

1019.4 mb

Tower Pressure

1020.2 mb

1019.8 mb

Notes

An incorrect date of 08/15/2008 was saved to the data tape. Thus the data was processed with this date, but the data is in fact from the flight on 01/28/2008.

Data Gaps: 201330z-201341z, 201752z-201757z, 202229z-202238z,
204710z-204721z

The following variables all have data gaps at 194427z-194453z, 215718z-215721z, & 215738z-215753z:
pal, ias, rh1, ta1, ta2, tas1, thetaE1, wdi1, wdi2, wsi1, and wsi2.

There is a data spike in the variables pdsf and pqsf at 201421z-201429z. This spike affects the following variables at that same time: sa, ur2, urad, utan, uw2, wd, and ws. Which all use pdsf and pqsf in their calculations.

There is no ashtech data available for this flight

Aircraft INE positions were re-navigated with respect to GPS

Radar altitude from the HG9550 radar altimeter is in the RA-232 variable slot. GPS aided INE1 altitude is in the RA-159 variable slot. The RA-232 and RA-159 altimeters are no longer installed on the aircraft.

There is no King Liquid Water Content (KLWC) sensor, Maycomm Water Vapor Sensing System (WVSSII) or TT3 probe installed.

All other instruments appeared to work optimally.

Flight Director:
Phone #:

LTJG Jackie Almeida
(813) 828-3310 ext. 3075

N42RF AXBT DropSonde Log

N42RF Project: Winter Storms Test Flight ID: 080128h

Session: TEST

Flight #: 0

System Status:

[illegible]

(STM

Note: date on data
type is 10/15/2008

N42RF
Variable Checkoff List

Flight: 080128H

T/O 1945Z
Lnd 2156Z

Latitude

N/A latash (deg)
Ashtech GPS Latitude
☒ lati1 (deg)
Inertial 1 Latitude
☒ lati2 (deg)
Inertial 2 Latitude

Longitude

N/A lonash (deg)
Ashtech GPS Long.
☒ loni1 (deg)
Inertial 1 Longitude
☒ loni2 (deg)
Inertial 2 Longitude

Track/Heading

☒ tk (deg)
Track
☒ hdgi1 (deg)
Inertial1 heading
☒ hdgi2 (deg)
Inertial2 heading

Altitude

N/A altash (meters)
Ashtech GPS Altitude
☒ alti1 (meters)
Inertial 1 Altitude (GPS
aided)
☒ alti2 (meters)
HG9550 Radar Altitude
(rounded)
☒ pa1 (meters)
Pressure Altitude
(Not QC'd)
N/A ra159 (meters)
ra159 Radar Altitude

☒ pa (meters)
QC'd pressure altitude
☒ ga (meters)
geopotential altitude
☒ ht (meters)
Height of Standard
Pressure Surface
☒ dv (meters)
D-Value
☒ ra232 (meters)
HG9550 Radar
Altitude

☒ Create Track Map

psw psf*	pqw pqf1* pqf2	ine1 ine2
tt1 tt2 tt3	tdm1 tdm2* tdm3	acci1 acci2
pa1 *ra159 ra232	Notes: ra232 = HG9550	
* denotes default/typical selection		

Roll

☒ rolli1 (deg)
Inertial 1 roll
☒ rolli2 (deg)
Inertial 2 roll

Pitch

☒ ptchi1 (deg)
Inertial 1 pitch
☒ ptchi2 (deg)
Inertial 2 pitch

Accelerometer

☒ acci1 (m/s2)
Inertial 1 Vertical
Acceleration
☒ acci2 (m/s2)
Inertial 2 Vertical
Acceleration

Air Temperature

☒ ta (°C)
Ambient Air Temperature
☒ ta1 (°C)
Ambient Air Temp. #1
(not QC'd)
☒ ta2 (°C)
Ambient Air Temp. #2
(not QC'd)
~~ta3 (°C)~~
~~Ambient Air Temp. #3~~
~~(not QC'd)~~

☒ tn (°K)
Total Ambient Temp.
☒ tt1 (°C)
Rosemount Total
Temp1 FWD
☒ tt2 (°C)
Rosemount Total
Temp2 AFT
~~tt3 (°C)~~
~~Rosemount Total~~
~~Temp3~~

Sea Surface Temperature

~~prt5_down (°C)~~
~~Helitronics KT-19.8511~~
~~Down SST Radiom.~~
~~(under 1,500')~~
~~axbt1 (°C)~~
~~AXBT1 Temperature~~
~~axbt2 (°C)~~
~~AXBT2 Temperature~~
~~axbt3 (°C)~~
~~AXBT3 Temperature~~

WSI 1+2 spike @ 201422 - 201426

215721 - 215723 ; 215732 - 215738

Missing data 215718 - 215721 ; 215738 - 215753

R# spike @ 214622z - 214657z - possibly passed through a cloud
+ AMR, EE, TD, gm.

WD spike 201421 - 201429 in uw2, ur2, ~~sa~~, pdsf, pgsf
WS spike 201421 - 201429 //

UTAN

pdsf @ 201421 - 201429 to lesser deg: ur1, uw1,
pgsf bigger " : sa, ur2, urad
utan, uw2, wd, ws

pdsf @ 201434 - 201442 bigger deg: aa

urad 194432 - 194443 - ncplot - max 1.78 but there are 1.75
|aa, ?ur1?, ?ur2?, wslp1/2| has value nan in it
uw1, uw2 T10 @ 1945

dwing 195404 - 195418 - spike

|roll1, uwing 1,2,3

195922 - 195937 - spike for training
|roll1, uwing 1,2,3

N42RF
Variable Checkoff List

Flight: 080128H

Dewpoint Temperature

☒ td (°C) = td2
Dewpoint Temperature
☒ td1 (°C)
derived dew point #1
(not QC'd)
☒ td2 (°C)
derived dew point #2
(not QC'd)
☒ td3 (°C)
derived dew point #3
(not QC'd)

☒ tdm1 (°C)
General Eastern
Dewpt Measurement
☒ tdm2 (°C)
Edgetech Vigilant
Dewpt Measurement
☒ tdm3 (°C)
Edgetech/Maycomm
Dewpt Measurement

Potential/Virtual Temperature

☒ thetaE1 (°K)
Equivalent Potential
Temp (not QC'd)
☒ pt (°K)
Calc'd Potential
Temperature
☒ et (°K)
Calc'd Equivalent
Potential Temp
☒ tv (°K)
Calc'd Virtual
Temperature

Liquid Water Content

☒ lwcjw (g/m³)
~~Johnson-Williams-~~
~~Liquid H2O content~~
☒ wvssii (x)
~~Maycomm Inst. WVSS-~~
~~II~~
☒ klwc (volts)
~~King Liquid Water~~
~~Content~~

Humidity

☒ rh (%)
Calc'd Relative
Humidity
☒ rh1 (%)
Relative Humidity
(not QC'd)

Mixing Ratio

☒ amr (grams)
Calc'd Mixing Ratio
☒ gm ()
Calc'd Ratio of
Specific Heat

Wind Direction

☒ wd (deg)
Wind Direction
☒ wdi1 (deg)
Inertial 1 Wind
Direction (not QC'd)
☒ wdi2 (deg)
Inertial 2 Wind
Direction (not QC'd)

Wind Speed

☒ ws (m/s)
Wind Speed
☒ ws1 (m/s)
Inertial 1 Wind Speed
(not QC'd)
☒ ws2 (m/s)
Inertial 2 Wind Speed
(not QC'd)

Tangential/Radial/Diff'l Wind

☒ utan (m/s)
Calc'd Tangential
Wind
☒ urad (m/s)
Calc'd Radial Wind
☒ dwing (m/s)
Differential Wind
Velocity

Horizontal Wind Speed

☒ uw1 (m/s)
X-Component
Horizontal Wind
☒ uw2 (m/s)
Y-Component
Horizontal Wind

Vertical Wind Speed

☒ uw3 (m/s)
Calc'd Vertical Wind
☒ dpj_wz (m/s)
David P Jorgensen
Calc'd Vertical Wind

Relative Wind Speed

☒ ur1 (m/s)
X-Component
Relative Wind
☒ ur2 (m/s)
Y-Component
Relative Wind

SP 215003 - 215008 - spike ≈ 2 mb
ra232, ga,

da spikes @ +/-

Sa spike 201927 - 201946, 202751 - 202758, 203032 -
pdst 203040

N42RF
Variable Checkoff List

Flight: 080128H

Sea Level Pressure

☒ sp (mb)
Extrapolated Sea Level
Pressure

Vapor Pressure

☒ ee (mb)
Calc'd Vapor Pressure

Saturation Vapor Pressure

☒ ew (mb)
Calc'd Saturation
Vapor Pressure

Dynamic Pressure

☒ pqf1 (mb)
Rosemount Fuselage
Dynamic Pressure 1
☒ pqf2 (mb)
Rosemount Fuselage
Dynamic Pressure 2
____ pqr (mb)
Rosemount Radome
Dynamic Pressure

☒ pq (mb)
Corrected Dynamic
Pressure
____ pqaf (mb)
Rosemount Fuselage
Dynamic Attack Pressure
____ ptr (mb)
Rosemount Total
Radome Pressure

Dynamic Sideslip Pressure

____ pqsf (mb)
Rosemount Fuselage
Dynamic Sideslip
☒ pqw (mb)
Rosemount Wingtip
Dynamic Pressure

Static Pressure

☒ ps (mb)
Corrected Static
Pressure
☒ psf (mb)
Rosemount Fuselage
Static Pressure
☒ psw (mb)
Rosemount Wingtip
Static Pressure

Differential Attack Pressure

____ pdaf (mb)
Rosemount Fuselage
Diff'l Attack Pressure
____ pdar (mb)
Rosemount Radome
Diff'l Attack Pressure

Differential Sideslip Pressure

____ pdsf (mb)
Rosemount Fuselage
Diff'l Sideslip Press.
____ pdsr (mb)
Rosemount Radome
Diff'l Sideslip Press.

Drift Angle

☒ da (deg)
Calculated Drift Angle
____ dai1 (deg)
Inertial 1 Drift Angle
____ dai2 (deg)
Inertial 2 Drift Angle

Slip Angle

☒ sa (deg)
Calculated Slip Angle
☒ sai (deg)
Calculated Inertial Slip
Angle

Attack Angle

☒ aa (deg)
Attack Angle
☒ aai (deg)
Calculated Inertial
Attack Angle

N42RF
Variable Checkoff List

Flight: 080128H

Ground Speed

☒ gs (m/s)
Calc'd Ground Speed

gsi1 (m/s)
Inertial 1 Ground Speed

gsi2 (m/s)
Inertial 2 Ground Speed

☒ ui1 (m/s)
Calc'd X-Direction
Horiz. Ground Spd

gsui1 (m/s)
Inertial 1 East/West
Ground Speed

gsui2 (m/s)
Inertial 2 East/West
Ground Speed

☒ ui2 (m/s)
Calc'd Y-Direction
Horiz. Ground Spd

gsui2 (m/s)
Inertial 1 North/South
Ground Speed

gsui2 (m/s)
Inertial 2 North/South
Ground Speed

Vertical Ground Speed

☒ ui3 (m/s)
Calc'd Vertical Ground
Speed

☒ dpj_wgs (m/s)
David P Jorgensen
Calc'd Vert Grnd Spd

Vertical Air Speed

☒ ur3 (m/s)
Calc'd Vertical Air
Speed

☒ dpj_was (m/s)
David P Jorgensen
Calc'd Vert Air Spd

Vertical Speed

vsi1 (m/s)
Inertial 1 Vertical
Speed

vsi2 (m/s)
Inertial 2 Vertical
Speed

Horizontal Air Speed

ias (kts)
Indicated Air Speed
(not QC'd)

☒ tasc (m/s)
Calc'd Wingtip True Air
Speed

tas1 (m/s)
True Air Speed
(not QC'd)

☒ tasm (m/s)
Calc'd Fuselage True
Air Speed

Mach Number

☒ ama ()
Calc'd Mach Number

Missing data: 201330 → 201341 ; 202229 → 202238 ; 204710 → 204721
~~220140 → 220151~~ ; 201752 → 201757 ; ~~194427 → 194453~~

No Ash+teph data

Date is wrong. Date displayed is 08/15/2008

TK: spikes? 194433 - 194453.

Calc'd data not missing @ 194426 - 194453

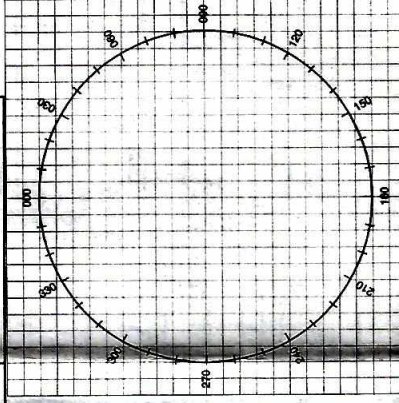
194427-194453: PA1, ias, rh1, ta1, ta2, tas1
215718 - 215721 thetaE1, wdi1, wdi2, wsi1, wsi2
215738 - 215753

-32767.f

Line 182074
153370

[illegible]

POSITION REPORT



- FIRST INTENTIONS

- WE HAVE

ENDURANCE REMAINING

6. NEXT POSITION

[illegible]