



NOAA P-3 N43RF

T.S. Rita Flight 1



Flight ID: 050919I

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	2 (Edgetech)
Altitude (for vertical wind)	Radar Altimeter 159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage 1281
Time Source	Micro 99
Constants File	CO3051.CON

Notes:

There were no time data/gaps during this flight.

The difference in values between the dynamic attack pressure from the radome and the fuselage is greater than 20 mb. No corrections were made to the data.

Data from radar altimeter 232 was substituted into radar altimeter 159 from 145101Z-153310Z, 155801Z-160030Z, 160915Z-160950Z, 161401Z-161445Z, 161915Z-161950Z, and 224501Z-224800Z.

There were numerous times during the flight where the dewpoint temperature exceeded ambient temperature resulting in RH>100%. This was likely due to rain, a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. Edits to dewpoint sensor number two were made between 221311Z-221500Z and 221931Z-222005Z to bring the relative humidity values below 120%.

The King Liquid Water sensor was not operating during this flight.

The aircraft INE positions were renavigated with respect to GPS.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.
It is recommended that these values be used for vertical wind analysis.

	Takeoff	Landing
Aircraft Static Pressure	1010.8 mb	1011.2 mb
Corrected Tower Pressure	1013.2 mb	1015.6 mb

Flight Director: Martin Mayeaux (813) 828-3310 ext. 3086

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

FLT ID: 050919I	From: TFSX	To: KMLF
Flt No: 05 - 060	In: 2253 Z	On: 2248 Z
ETD: 1500 Z	Out: 1446	Off: 1454
ETE: 9 + 00 8:30	Blk Time: 8 + 07 (8.1) Hrs	Flt Time: 7 + 51 (7.9) Hrs
Sponsoring Org: NHC	Program: Reconnaissance	Purpose: RITA

AOC Flight Crew

Aircraft Commander: Teberst	Data System: Lynch
Co-Pilot: Silah / Nelson	AVAPS: Tong
Navigator: Siegel /	System Engineer:
Flight Eng: Floyd / Kippel	AA:
Flight Director: Mayeaux Damiano	AA:
Avionics: Carpenter	Crew Chief: mHchell

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Mcadden, J	Obs	AOL
Black, M	PI	HRD
Chang, P	Obs	Nesdis
Esteban, D	Obs	Nesdis
Chu, T	Obs	UMass
Caceres, R	Obs	Nesdis
Caceres, R Contreras, R	Obs	Nesdis UMass

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

Storm Name: Rita RA159 went bad over Hispaniola. use 232

Mission ID: No9a3 0618A Rita

Storm mission 105 miles - no center fix requirement 105 Alpha storm
 Total 5105000 ft. time 1415Z - in 1730Z Ray L Rd 5000 ft NW quad
 8000 ft -

188 23.1 76.0 27508 (See reverse for additional remarks) No Research. Jet-182 takeoff

24019 2219
 77013 7430

Begin Rain 1927Z

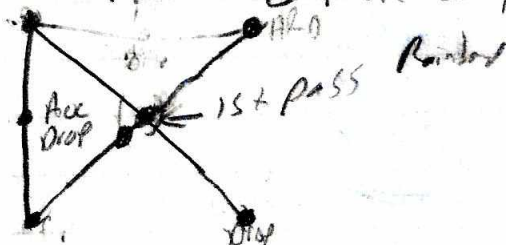
1 Alpha-Pattern - 1105 Research
 2151 7440 310 TNN - 4300 NPT
 310 TNN - 4300 NPT 16.1 fair

U.S. DEPT OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

FLT ID: 050919 I	TIME OFF: 1454 Z	TIME ON: 2245 Z		
	A/C - Takeoff	WX Station - Takeoff	A/C - Land	WX Station - Land
Pressure	1010.8	2992	1011.2	2999
ATIS - Takeoff	NA			
ATIS - Land	2055Z 05006KT P6SM 33/21 A2999			

Data Source	Number	Data Disposition / Date / Quality
Flight Level Tapes		
Radar Tapes		
Cloud Physics Tapes / Cds		
Video Tapes		
Dropsondes	16	Good: 16 Bad: 0 Total: 16
AXB T		15 HRO 1 AOL
AXCP		
AXCTD		
SONOBUOY		

REMARKS: **Plan: Drop at endpoints and center on first PASS! Rainex Drops/HRO**



2157 7709

NRL

2 22.6 77.1

2 22.8 76.9

3 22.4 75.7

2419 7430

No Pt. Downwind along Band, Drops 5-7 min interval

34 41 58

MISSION PREFLIGHT LOG

NAVIGATOR

AIRCRAFT COMMANDER

FLIGHT DIRECTOR

SCHEDULED / ACTUAL TAKEOFF Z DATE OF TAKEOFF

DESTINATION
KNAF

MISSION
RITA

NAVIGATOR
SIEGEL

AIRCRAFT COMMANDER
TEBEEST

FLIGHT DIRECTOR
DAN/MAY

SCHEDULED / ACTUAL TAKEOFF Z
1500, 1455

DATE OF TAKEOFF
19 SEP 05

WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
TISX	17 42.1 104 47.9	1	298		285													
TUNNA	17 38.9 105 53.2	2	307		299													
BQNV	18 29.9 107 06.5	3	304		292													
KNAK	18 50.0 108 00.0	4	303		291													
PIXAR	19 08.5 108 50.4	5	302		291													
KOBEET	19 21.5 109 43.4	6	302		291													
BEMEL	19 52.4 109 52.8	7	303		291													
RETHK	20 11.7 111 41.5	8	301		292													
ALBEE	20 25.1 112 17.1	9	302		292													
ZIN	20 57.6 113 40.1	10			293													
IP	21 51.2 114 40.1	11																
EYE	23 00.0 116 00.0	12																
ZONA	25 01.5 117 26.8	1																
RAJAY	25 18.1 118 11.2	2																
WONG	25 25.4 118 45.2	3																
VKEZ	25 45.1 120 09.3	4																
DHAF	25 18.0 120 20.9	5																
LSBV	26 49.7 121 23.5	6																
MCE	27 51.0 122 29.6	7																
PB1	28 11.0 123 11.0	8																

INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME		1355	1355
ALIGN STATUS (0-5)		0	0
END NAV TIME		2245	2245
START NAV TIME		1430	1430
DELTA T		745	745

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT		+1.4	-1.7
DELTA LON		-1.3	+1.1
RGS		3	3
RADIAL ERROR		2	2

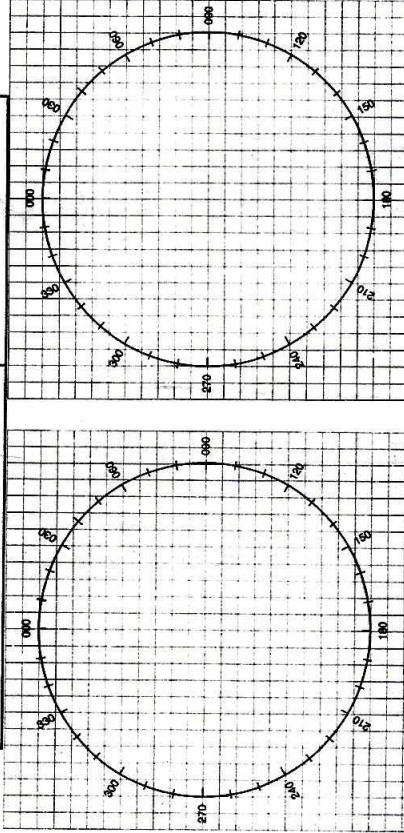
REMARKS	
CAF KNAF RM	
005710000	
16 +10 128.65	
4614 SQ	

FIX TYPES

(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]

CLEARANCES		
FREQ	ALT	HDG
		OTHER
		118.15 716K
		124.3 Sub Domain
		124.5 Port a Pwr
		123.77 MIA S
		127.22 MIA N
		204 180/140 30460
		UCM 050/150



POSITION REPORT

1. POSITION

2. TIME

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:

UHF/VOICE VHF/VOICE MF/VOICE HF/CW MF/CW

243.0 121.5 2182 KHZ 8384 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY

THIS IS NOAA, NOAA, NOAA

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 18 SOULS ON BOARD

NATURE OF EMERGENCY

ASSISTANCE DESIRED

PILOT INTENTIONS

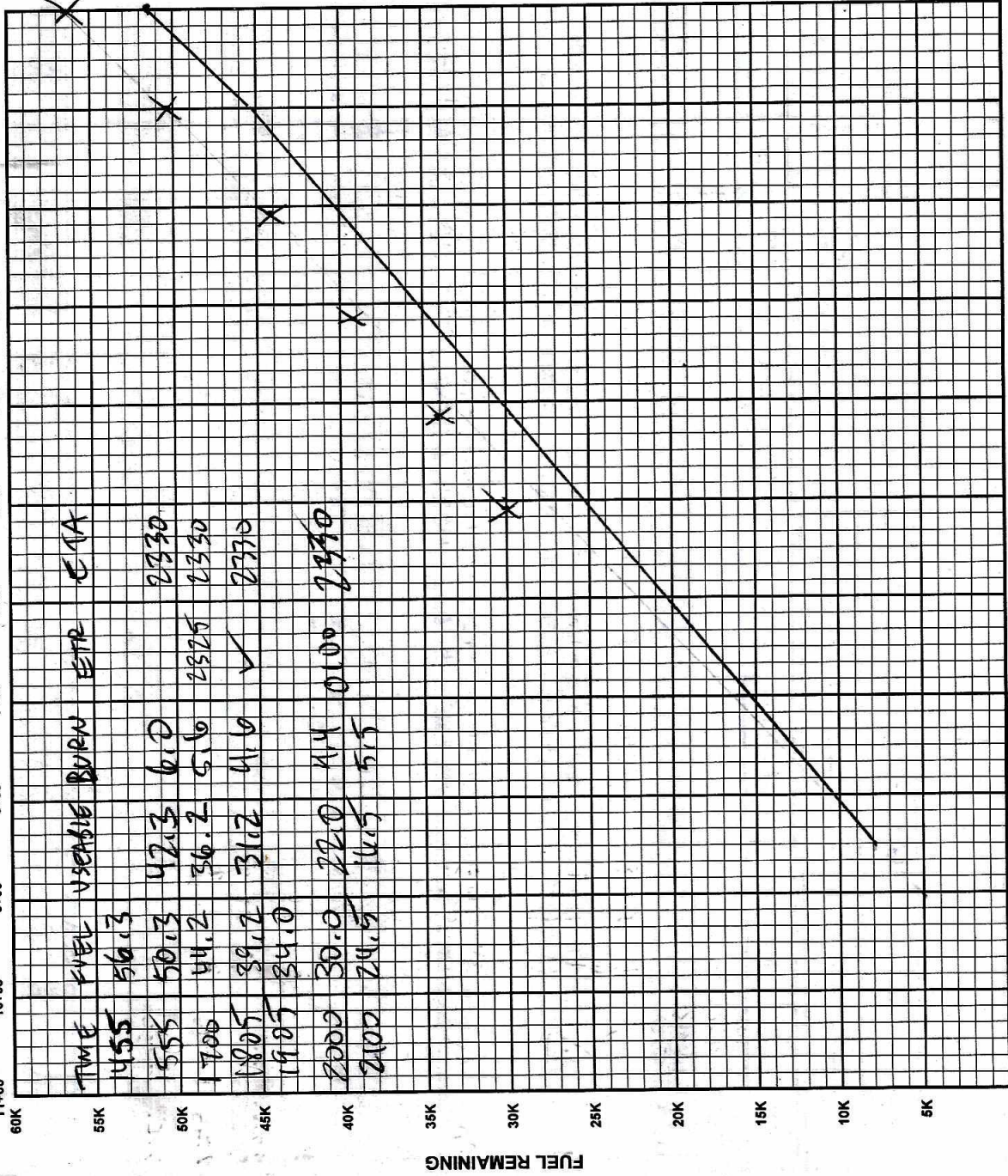
WE HAVE ENDURANCE REMAINING

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1440	START																			
1446	TAXI																			
1450	START	17 39.8	17 39.8	0	17 39.8	-1.1	13W	281	1L	280	210	043	8	100	243					TEAL 51
1500	START	64 48.3	64 48.3	0	64 48.3	0	11W	293	0	293	297	117	13	100	243					176/17
1600	START	21 13.1	21 12.2	+1.9	21 12.2	+1.2	9W	313	2R	315	283	190	16	080	265					
1700	START	73 56.0	73 56.4	-1.4	73 56.4	-1.4	8W	327	12L	315	236	044	50	080	239					
1800	START	24 07.0	24 06.3	+0.7	24 06.3	+0.7	8W	057	13L	044	246	140	60	080	241					
1905	START	23 25.9	23 24.7	+1.2	23 24.7	+1.2	8W	057	13L	044	246	140	60	080	241					
2000	START	24 28.8	24 27.0	+1.8	24 27.0	+1.8	8W	057	13L	044	246	140	60	080	241					
2100	START	23 37.1	23 35.3	+1.8	23 35.3	+1.8	8W	057	13L	044	246	140	60	080	241					
2200	START	26 05.9	26 04.3	+1.6	26 04.3	+1.6	8W	057	13L	044	246	140	60	080	241					
2215	START	27 50.9	27 49.5	+1.4	27 49.5	+1.4	8W	057	13L	044	246	140	60	080	241					
2235	START	82 31.4	82 32.7	-1.3	82 32.7	-1.3	8W	057	13L	044	246	140	60	080	241					

24.2 80.9

RANGE CONTROL GRAPH

TIME REMAINING



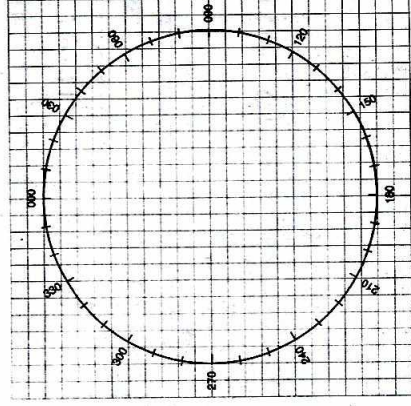
ENROUTE FUEL	
ENROUTE TIME	8:30
ENROUTE FUEL (6K SK/4 SK/RULE)	48.5
RESERVE AT DESTINATION	8.0
REQUIRED RAMP	56.5
ACTUAL RAMP FUEL	56.3

TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

POINT OF SAFE RETURN	
ETP DISTANCE (TO DEPARTURE)	
ENROUTE TIME (TO DEPARTURE)	
BURN RATE (LBS/HR)	4500
FUEL REQUIRED	5500
RESERVE AT DEPARTURE	
PSR FUEL	

CEX - TRUE BEARING METHOD		CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
MTH (SEXTANT)			
CE			
-VAR			
DEV			

CEX - ERB METHOD		CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ZN			
=MTH			
MCH (READING)			
CE			
-VAR			
=DEV			



WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

PRESS ALT		200	250	300	350
10,000	1.0	1.0	.99	.99	.99
20,000	.99	.99	.98	.97	.97
30,000	.97	.96	.95	.94	.94
40,000	.96	.94	.92	.90	.90

TRUE AIRSPEED CROSS-CHECK					
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT
1525	216	160		+10	280
					273

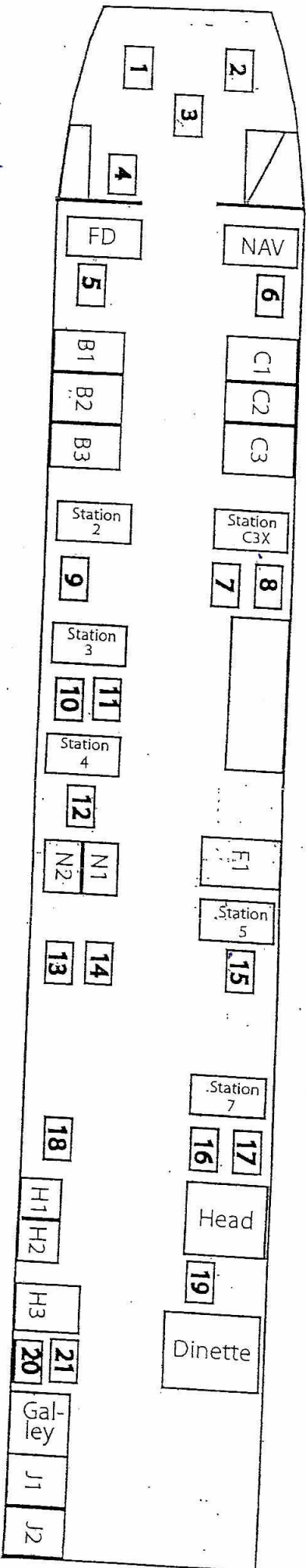
N43RF AVAPS DROP LOG

Launcher S/N:

[illegible]

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 0509194



1. Nelson
PILOT

2. Tebeest
COPILLOT

3. Floyd
FLIGHT ENGINEER

4. McEldin
STATION 1

5. Mayeraux
FLIGHT DIRECTOR

6. Siegel
NAVIGATOR

7. Daniand
STATION C3X

8. Chang
STATION C3X

9. Sibb
STATION 2

10. Black
STATION 3

11. Caracas
STATION 3

12. Lynch
STATION 4

13. Klippe
PROJECT SEAT

14. Carperter
PROJECT SEAT

15. Torg
STATION 5

16. Esteban
STATION 7

17. Chu
STATION 7

18. Mitchell
STATION 8

19. _____
DINETTE

20. _____
GALLEY

21. _____
GALLEY