U.S. Dept of Commerce / NOAA / Aircraft Operations Center — AOC Form

Flt ID:	From:	To:
0109 15H	KMCF	KMCF
Flt No: 01 – 40	**Blk In:** 0126	**ATA:** 0118
ETD: 1800Z	**Blk Out:** 1745Z	**ATD:** 1758Z
ETE: 8+15	**Blk Time:** 7.7	**Flt Time:** 7.3
Sponsor Org: HRD	**Program:** CAMEx IV	**Purpose:** T.S. GABRIEL

AOC Personnel

AC:	TAGGART, B ✓	**Sys Eng:**	DELGADO, J ✓
CP:	TENNESEN, D ✓	**Data Sys:**	LYNCH, T ✓
Nav:	NEWMAN, C ✓	**Radar:**	
FE:	BAST, G ✓	**GPS/BT:**	McMillan, S ✓
FD:	SHEPHERD, T ✓	**Cld Phys:**	
Avionics:			

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
MARKS, F ✓	PI	HRD
BLACK, M ✓	Co PI	HRD
Dodge, P ✓	RADAR	HRD
BARNES, G ✓	CLOUD UP	HRD
EASTIN, M ✓	obs	Colo. State
GAMACHE, J ✓	RADAR	HRD
Hudson, J ✓	CCN	DRI

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

IP 2900 7912

2478
1758
720
2486.
1745
41

760·4771
Rock's CELL

2944
7452

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center AOC/F3

Flt ID: 010915H	Time Off: 1758Z	Time On: 0118Z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1010.1	29.85	1012.3	29.90

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes	2	
Video Tapes	4	
AXBT	14	
AXCP	1	
AXCTD		
Dropsondes	34	1 bad fall OK - verified with N42 drop log

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

760-4771
ROCK CELL

CAMEX 2001
T. S. Gabrielle

Flight #1 010915H

Sensor or system	Number or Name
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2012.CON

Notes:

Takeoff: 1758Z
Land: 0118Z

The radar altimeter (APN-159) was replaced by the APN-232 due to spiking during take off and landing (175501-180530 take off; 011100-012100 landing). No offset was applied.

A spike was removed and patched in dew point #1 data (200300-200330).

The radome differential slip and attack angle probes appeared to be frozen during the time intervals 195430 - 195730, 195830 - 200220, 200330 - 200520, 202040 - 202240, 202310 - 202705, 215740 - 220050, 220300 - 220615, 220650 - 220920, 223710 - 224320, 002915 - 003150.

For the period 175900 - 195000, dew pointer #2 did not warm to temperature greater than -2C.

During times when aircraft was flying through heavy precipitation, the dew point temperature exceeded the ambient temperature resulting in relative humidities greater than 100%. No adjustments were made.

	Takeoff	Landing
Aircraft static pressure	1010.1 mb	1012.3 mb
Corrected tower pressure	1010.8 mb	1012.5 mb

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.

Flight Director: Tom Shepherd, (813) 828-3310 ext. 3053

1755-0121 010915H

DW # 1
TT # 1
INE # 2
AZI # 2

Spike DW1 200300 - 200330 ✓

Pitch 1/2 > OK

Roll 1/2 > OK

Hdg 1 & 2 OK

RA159/232 > OK

Sub RA159 with RA232
Takeoff 175501 - 180530 ✓
Landing 011100 - 012100 ✓

PDAR/PDSR > Appear to be frozen
195430 - 195730, 195850 - 200220, 200330 - 200520

PDAR and/or PDSR
202040 - 202240, 202310 - 202705, 215740 - 220050
220300 - 220615, 220650 - 220920, 223710 - 224320
002915 - 003150

PDAR/PDAF OK
PDSR/PDSF OK

RENAV (OVER)

1)	184500	0.3	0.0	2923.0	7936.3 ✓
	193000	0.2	0.3	2958.9	7650.7 ✓
	201500	0.7	0.2	3218	7858.6 ✓
	210000	1.0	0.0	28356	7854.4 ✓
5)	214500	2.2	0.3	3031.4	788.1 ✓
	223000	2.3	-0.4	3043.9	8025.4 ✓
	231500	x4.5	-0.2	✓ 3044.6	7639.4 ✓
	000000	4.8	-1.2	318.1	7736.3 ✓
	004500	6.3	-1.4	2859.8	8037.0 ✓
10)	012100	6.7	-2.6	2751.6	8230.5 ✓

Flight ID: 010915H

U.S. Dept. of Commerce/NOAA/Aircraft Operations Center — Form 41-50

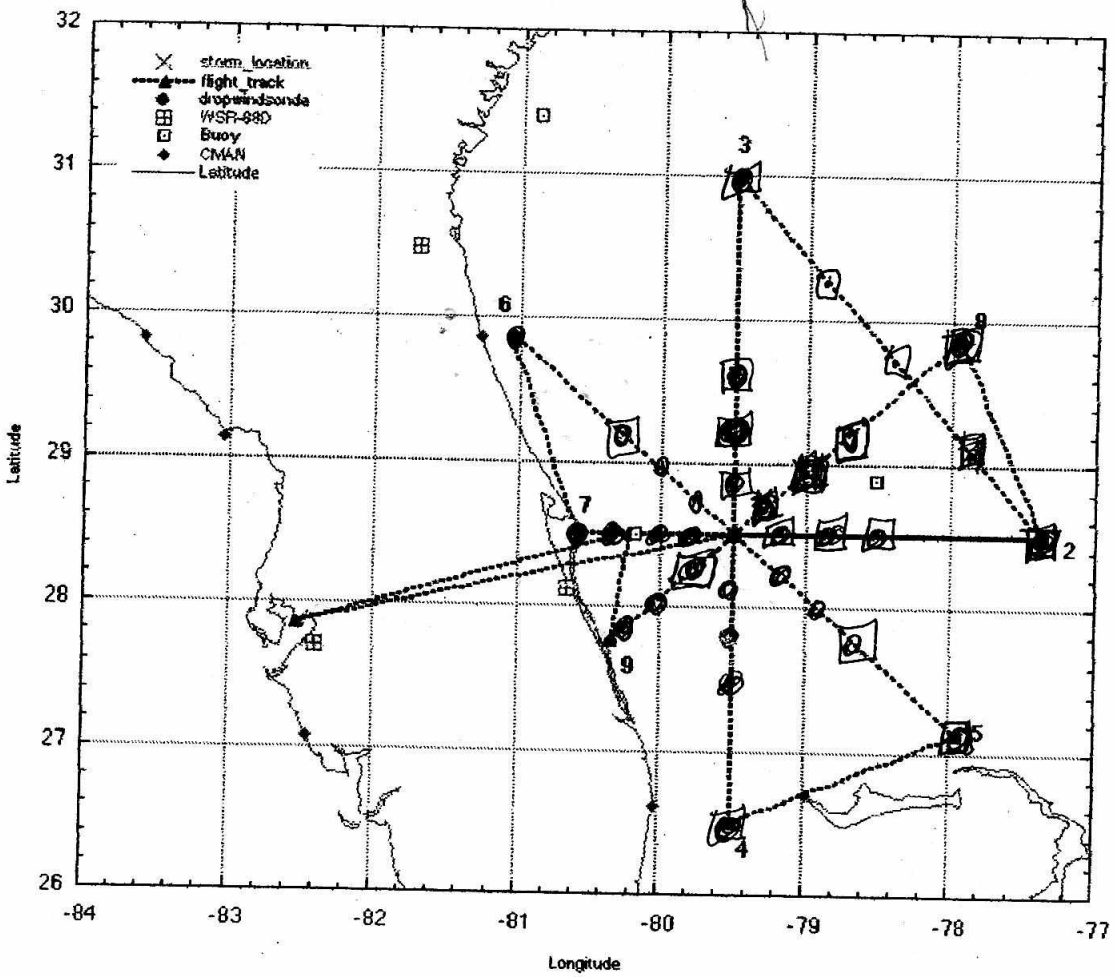
Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T_a	T_d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
182230	2813	8059	57	54	318	19.7	-1.1	-5.2	4603	4772	1003.1	568.5	72.6	OVR LAND
1853	2950	7912												
185905	2950	7912												DROP SONDE 1 21 3
190814	2950	7844	089	091	258	250	1.6	-2.4	4625	4785	995.5	567.9	76.5	BT1 D2 16
191325	2950	7815												BT2 D3
191840	2950	7746												BT3 D4 24
192750	2952	7653												BT4 D5 13
193410	3013	7706	316	310	209	31.13	1.6	-2.7	4575	4749	998.8	571.6	67.1	BKN BLO
193810	3026	7721												BT5
194730	3059	7756												BT6
195728	3137	7828												BT7
200450	3204	7850	322	326	027	14.3	-.9	-7.2	4587	4775	1005.8	570.6	67.9	in cld.
200826	3217	7900												BT8 D6 13
201235	3132	7852												BT9 D7 26 3
202711	3108	7846												10 8
203300	3043	7855												BT11 D9
203608	3029	7855												BT12 D10
204026	300	7854												D11
204140	3005	7854	180	184	273	13.9	0.7	-1.4	4575	4736	997.5	571.7	86.5	NEAR CNTR
204546	2945	7854	180	185	262	23.0	0.3	-5.3	4575	4743	1000.9	571.8	83.1	D12
205053	2920	7854												D13 W64
205248	2910	7854												
205959	2836	7854												D14 BT13
212310	2926	7647												D15 235 BT14
213300	2956	7722												D16 BT15
213842	3012	7745												D17
214249	3027	7759												D18
214800	3038	7822												D19
215229	3051	7842												D20
215810	3108	7905												D21
220334	3123	7926												D22 BT16
221336	3151	8007												D23
221940	3125	8021	199	199	024	21.1	0.4	-5.4	4436	4622	1005.0	582.2	92.7	CLD BLO ABV
222700	3045	8037												D24
224004	3046	7933												D25
224719	3030	7902												D26
225854	3040	7811		EYE 6										D27

Flight ID: 0109154

U.S. Dept. of Commerce/NOAA/Aircraft Operations Center — Form 412-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T_a	T_d	Press. Alt.	Geo. Alt.	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
231710	3045	7627	091	097	222	31.3	1.8	1.1	4429	4601	1000.5	582.6	77.4	BKN BLO
234857	3148	7707												BT17 D28
235449	3128	7725												D28
000046	3104	7737												D29 BT1
000600	3050	7746												D30
001128	3033	7810												D31
001621	3018	7831												D32
001755	3014	7837	232	235	045	23.0	1.2	3.1	4464	4610	998.7	579.2	73.2	
002138	3003	7854												D33
003100	2936	7933												D34
003730	2922	8000	237	241	293	17.4	-1.8	-6.6	4893	5123	1005.8	547.9	88.5	HDG → KMCK

JAX 307.25 267.5
126.35 120.95



● dropsondes
⊡ AXBT

29.6 N
79.2 W
Center

305 553-1264

Attn Pete Black

AUTHORITY: 10 USC 8012 and EO 9397.
PRINCIPAL PURPOSE: To aid in accurate identification of personnel participating in the filed flight.

PRIVACY ACT STATEMENT
ROUTINE USES: To provide data required to process flight plans with appropriate air traffic service authorities. A file is retained by the agency processing the flight plan.
DISCLOSURE: Voluntary; however, failure to provide the SSN could result in denial of flight plan processing.

DATE	AIRCRAFT CALL SIGN	AIRCRAFT DESG AND TD CODE
15 SEP 01	NOAA 42	P 3 / I

BASE OPERATIONS USE

	TYPE FLT PLAN	TRUE AIRSPEED	POINT OF DEPARTURE	PROPOSED DEPARTURE TIME (Z)	ALTITUDE	ROUTE OF FLIGHT	TO	ETE
	I	290	KMCF	18Z	150	MCF ORL HOBEE (R) D 6+00 150 NM RADIUS		
						LAL MCF	KMCF	8+30

REMARKS
WEATHER RECON FLIGHT, 243.0 MONITORED ENROUTE, SATPHONE ONBOARD - OUR NUMBER IS 011-874-76-183-9234
SELCAL IS LMBF, DELAY WILL BE OVERWATER ONLY, MARSA WITH TEAL 51

RANK AND HONOR CODE

FUEL ON BD	ALTN AIRFIELD	ETE TO ALTN	NOTAMS	WEATHER	WT AND BALANCE	AIRCRAFT SERIAL NUMBER, UNIT, AND HOME STATION
11+30	KPIE	0+10	bk	bk	On File	N42RF, NOAA, KMCF

SIGNATURE OF APPROVAL AUTHORITY	CREW/PASSENGER LIST				ACTUAL DEP TIME (Z)	BASE OPERATIONS USE
B. Taggart		ATTACHED		SEE PSGR MANIFEST		

DUTY	NAME AND INITIALS	RANK	SSN	ORGANIZATION AND LOCATION
PILOT IN COMMAND	B. TAGGART	LCDR	837-45-8383	NOAA-AOC, KMCF
	Crew list on file NOAA duty office phone: 8-3310			

N42RF AVAPS DropSonde Log

N42RF Project: Gabriel 1 Flight ID 010915H

Mission: Gabriel 1 Flight #: _____ System Status: Good

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ☑
1	0033380 14	1	185916	0	21	STM		✓
2	00315 5019	2	190820	0	47	STM		✓
3	00315 5017	1	191327	0	39	STM		✓
4	003438008	2	191845	0	24	STM		✓
5	00313 5113	1	192749	-.9	13	STM		✓
6	00324 8075	1	200826	-.9	15	STM		✓
7	00333 8080	1	202139	-.7	24	STM		✓
8	00313 5 351	2	202714	-.8	40	STM		✓
9	00311 5 222	1	203304	-.6	25	STM		✓
10	00315 5016	2	203610	0	26	STM		✓
11	00311 5 212	3	204026	-.4	54	STM		✓
12	00315 5021	1	204540	-.6	18	STM		✓
13	00313 5041	2	205053	.3	64	STM		✓
14	00313 5006	3	205959	-.8	12	STM		✓
15	00333 8066	1	212310	-.7	23	STM		✓
16	00313 5 344	2	213304	-1.3	✓	STM	Ended early FastFall	
17	00313 5112	3	21	-.9	✓	STM		✓
18	00343 8011	4	214249	-.6	✓	STM		✓
19	00311 5248	1	214800	-.6	63	STM		✓
20	00313 5 102	2	215229	-.5	24	STM		✓
21	99392 5 341	3	215810	-.5	18	STM		✓
22	99431 5 055	4	220334	-.6	28	STM		✓
23	99014 034	1	221336	-.6	49	STM		✓
24	99433 5226	2	222720	-.7	34	STM		✓
25	99401 5018	3	224005	-.9	13	STM		✓
26	99043 5491	4	224719	-.5	31	STM	slow wind detect	✓
27	99391 5100	1	225934	-.8	52	STM	.9 m/s	✓
28	99432 5196	1	234857	-.7	24	STM		✓
29	99401 5026	2	235449	-.3	✓	STM	- no fishing line string	✓
30	01121 8036	3	000053	-.7	3?	STM	no fishing string	✓
31	99392 5188	4	001133	-.5	26	STM		✓
32	99084 5101	1	001627	-.5	✓	STM		✓
33	99392 5181	2	002138	-.6	43	STM		✓

Drop #	Sonde Serial Number	Chn #	Time (ZULU)	Press. offset	Winds time	Operator Initials	Comments/ Drop Status /Reason for Failure	GOOD ☑
34	9925157 21	3	003103	-.1	17	STM		✓
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
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60								

06/21/00

AVAPS HINTS

- N43's **RED PHONE** appears to interfere with AVAPS telemetry, don't allow its use while sondes are in the air
- ASDL transmits on 401.8MHz, and will trash AVAPS telemetry +/- 1 MHz from that point
- Rawinsondes transmit at 403.0. Caribbean taxi drivers and bandit radio stations transmit wherever they want.
- The sonde GPS Oscillator needs at least 2 minutes to warm-up and stabilize. If you drop early, the winds data (if any) will be initially not accurate and probably late.
- Below 10,000', open the P3 launch chute cover holes at least 2/3 of the way. From 10,000' to 18,000', open about ½ way, above 18,000' open 1/3 of the way.
- Dropping a backup sonde prior to selecting BEGIN **COLLECTING DATA** is the single most frequent operator error.
- 60 seconds is the cut-off time for Good vs. Late winds. If no satellites are locked on by 60 seconds, or no winds data by 80 seconds, drop the backup.
- Frequency block assignments: **Air Force - Block A** **N42RF - Block B** **N43RF - Block C** **N49RF - Bloc**
- P3 Drops only.... Shorten the ribbon to about 20" - 25"
- When sonde telemetry fails prematurely, wait until the normal drop time has elapsed to terminate data collection.
- If Pre-launch sonde telemetry is dependent upon hand position while holding the sonde in order to **NOT** generate CRC errors, the sonde transmitter is bad and it should not be dropped.

(1851) 29 38 076 22 229-4474 760-4771 Rock

MISSION LOG

PAGE ___ OF ___

CLEARANCES			
FREQ	ALT	HDG	OTHER
5000			MCF VIA
2	1730	2	DVD 180/ JUMP
	5	15z	260 RIFLE
Tenth	34		4000 x 180
ten			+10 128.7 3512

100/10
UNRES
SCT 020
OVC 254

29.93
MCF 160
080 150
210 135.5
330

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	8364 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 ______ 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	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS ~~55.5k~~
~~[illegible]~~									eye1	29.5			eye2	29	50.1		eye	3			~~TAKE [illegible]~~
~~[illegible]~~										79.2				79	12		30 20N	7900W			~~[illegible]~~
1745	That								eye 5		3040		7830		eye	6	30 31	7823			29.85 58.1k 04
1759																					TOFF
1828		2829.4 80 29.4	28 30 80 29.4	0 0	28 28 80 29.4	0 0	0		54	4R	58	276	307	26	15K	268					29 49.9 79 11.7
1932	△	30 07.0 76 59.3	30 06.7 77 00.6	+.3 -1.3	30 07 76 59.2	0 +.1	318	8W	310	5R	315	269	204	30	15K	260	eye3	2032		2032	~~[illegible]~~
2000											BURN		RATE		5100						GAS 45.3
2035		3034.7		78	56.9		Center		fix				eye4			30	30N	7855W			
2051	△	29 16.5 78 53.5	29 15.4 78 55.3	+1.1 -1.8	29 15.9 78 53.3	+.6 +.2	193	6W	187	5L	182	287	268	21	14.5	291					
2123																				214	38.5k
2145		Eye	6				3045		7810		Eye	7									
2258		30 39.7		78	10.7		Center														29.3
0006		30 49.9		77	46.4			Center													
0026	△	29 49.0 79 13.8	29 45.8 79 18.2	+3.2 -4.4	29 43.3 79 15.3	+5.7 -1.5	238	1W	237	1L	233	288	008	29	14.5	267					
0118																					LAND
0126																					CHOCK