

AGAP-S

C-FSJB

December 2008/January 2009

OPERATOR FLIGHT LOG

Flight Number	F21
Date (ZULU)	Jan 3, 2008
Pilot/Co-Pilot	Brian / Rebecca
Operator(s)	Nick
Line Numbers	750 / 700

Start GPS and magnetic base stations at least 30 mins before takeoff. Start recording with aircraft GPS receivers at least 30 mins before takeoff.

Event	GPS Time	Comments
GPS SJB-1	18:30	Start recording. CF Card: 1 Job name: C-FSJB1-F21
		Battery charge: A: 100 % B: 100 % External: 75 %
		Available memory: 544538 KB.
		No Sat tracked: 12 L1: 12 L2: 12
GPS SJB-2	18:32	Start recording. CF Card: 2 Job name: C-FSJB2-F21
		Battery charge: A: 100 % B: 100 % External: 73 %
		Available memory: 545370 KB.
		No Sat tracked: 11 L1: 11 L2: 11

Operator Flight Log | F 21/2

AGIS on	19:06	Start recording. Project name: B9010319.P06.
	19:10	Engines on
	19:17	Taxi PILOT NIPPED TO 400 BEFORE TAXIING
	19:20	Takeoff
Laser on	19:07	Start recording. Project name: F21
Radar on	19:06	Start recording. Filename(s): FLIGHT21.
RADAR Tx ON	19:27	RADAR File 026. Grav battery to 'Charge'
Event	GPS Time	Comments
	19:32	Cabin temp 12.2°C Scanner temp -8.5°C temp temp Outside temp = -26°C.
	19:44	Climb to 1800ft to clear cloud.
	19:52	Climb to 2400' at start of line to clear cloud.
RADAR FILE 062	19:53	WP2/WP3 START OF LINE. 750. Laser file 003
	20:05	Screen heat on.
	20:22	Hires mag (50mT read) noising on both sensors. Is this mag weather?
	20:25	Climb to 3250ft over clouds.
	20:27	Tip tanks off.
Radar file 102	20:28	Disturbance in the beginning internal layers over sharp peak. Also noising from surface return due to height of aircraft causing blanking to end early.
	20:38	
	20:38	Cabin temp = 18.3°C Scanner temp = -4.5°C Outside temp = -26°C.
Radar file 119	20:41	Descend through 2000ft. Reining disappears as the surface return disappears ^{back} into the blanking.
	20:51	Back down to 1000ft.

This layer appears to dip into the others



Event	GPS Time	Comments
Radar file 157	21:08	Large symmetrical mountain
Radar file 180	21:31	Positive Mag anomaly over small pointy mountain.
	21:32	Cabin temp = 21.9°C Scanner temp = -4.8°C. Outside temp = 29°C.
Radar file 185.	21:34	Large negative mag anomaly over mountain peak.
Radar file 210.	21:54	WP 4/5. End of line 750.
Radar file 222	22:02	WP 6/7. Start of line 700.
Radar file 230.	22:08	Large negative mag anomaly -400 nT over mountain rising to 22k from the surface
	22:12	Descend to 700ft to go under cloud.
	22:20	Ascend to 1000ft again.
	22:31	Flying between ground fog + cloud base
	22:32	Cabin temp = +22°C; Scanner temp = -8.8°C Outside Air temp = -28°C.
	23:07	Climb to clear cloud.
	23:15	Maintaining 2000ft AGL.
	23:28	Altitude means that surface pulse is not blanked + some ringing occurs.
	23:31	Cabin temp = 22.2°C; Scanner temp = -12.4°C Outside temp = -26°C.
Radar file 334	23:32	Flying over 3.8km deep basin

F21/4

[illegible]

C-FSJB				AGAP-S				MISSION PROFILE: AGAP_LineDS4			
								FLIGHT 21			
NR	LATITUDE (DM)	LONGITUDE (DM)	LINE	TYPE	X-LINE	DIST (nm)	COMMENT				
1*	84° 29.40' S	77° 21.18' E		AGAP-S		56.8	TRANSIT TO NEXT WAYPT				
2*	84° 16.48' S	86° 44.07' E	L750.1	SOT		2.7					
3	84° 13.82' S	86° 40.99' E	L750.1	SOL	T10090	273.5					
4	79° 42.68' S	83° 46.06' E	L750.1	EOL	T10240	2.7					
5*	79° 40.00' S	83° 45.09' E	L750.1	EOT		13.5	TRANSIT TO NEXT WAYPT				
6*	79° 40.72' S	82° 30.18' E	L700.1	SOT		2.7					
7	79° 43.41' S	82° 30.82' E	L700.1	SOL	T10240	273.5					
8	84° 15.10' S	84° 27.98' E	L700.1	EOL	T10090	2.7					
9*	84° 17.77' S	84° 30.05' E	L700.1	EOT		43.7	TRANSIT TO NEXT WAYPT				
10*	84° 29.40' S	77° 21.18' E		AGAP-S		0.0					
TOTAL DISTANCE (nm):						671.8					
TOTAL DISTANCE (km):						1244.2					

* = waypoint relevant for aircraft navigation.

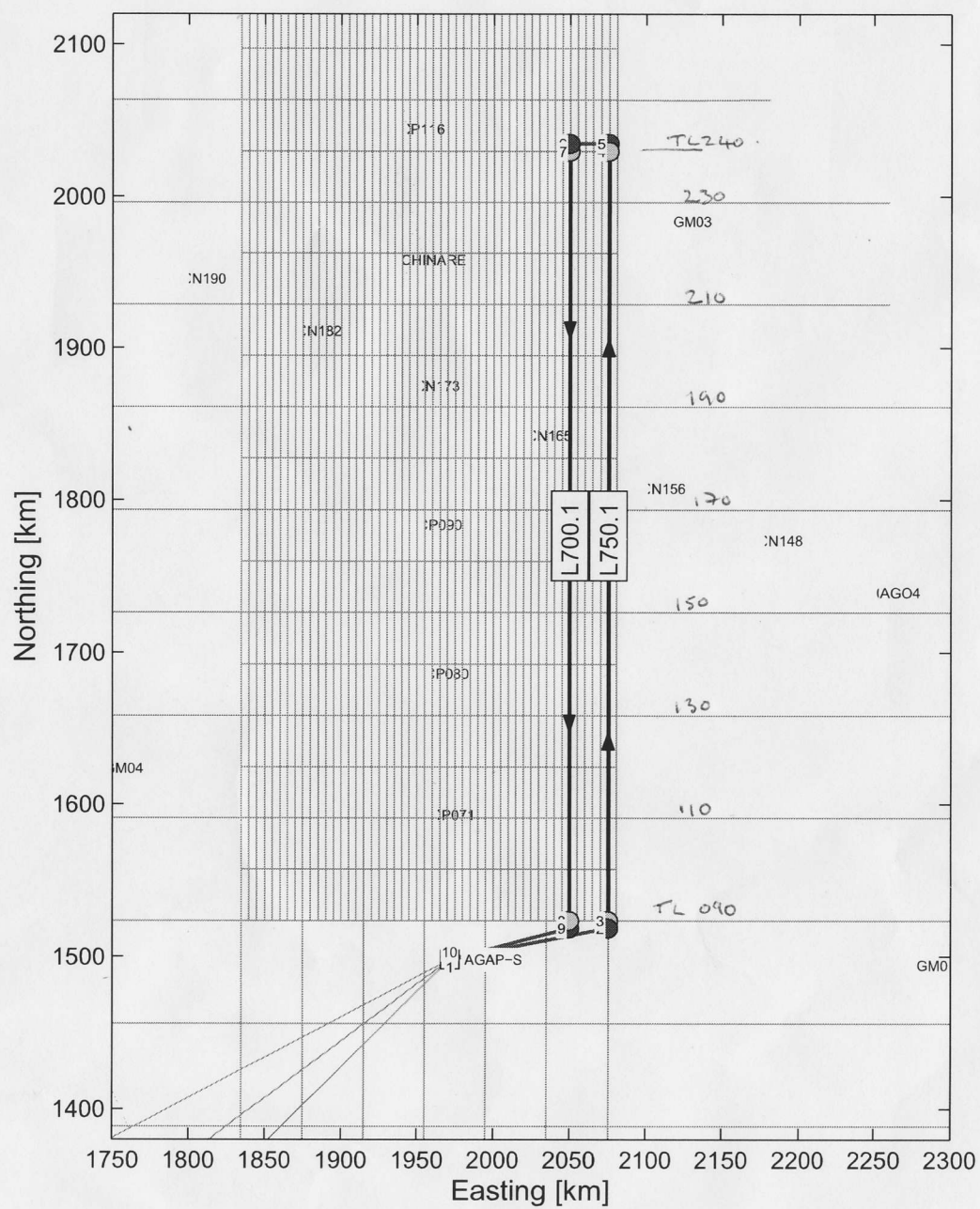
Lead-in distance (km): 5

Flight plan created on 01/02/2009 20:28

FLIGHT 21

TOTAL DISTANCE: 671.8 nm

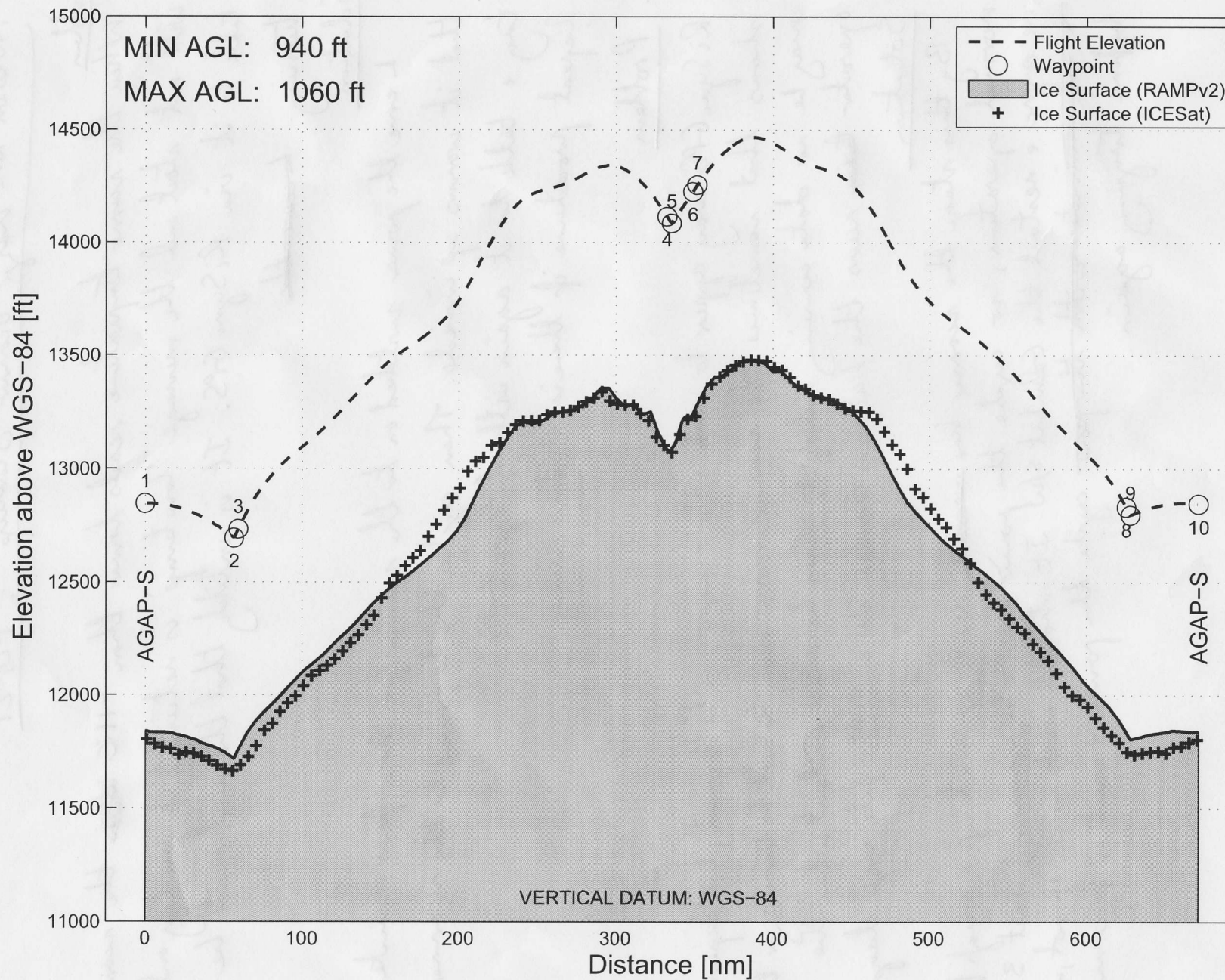
C-FSJB



FLIGHT 21

MAX ALT: 14460 ft

C-FSJB



1/3/09 UTC

Notes on the Laser Scanner Startup - FCT 21

1. Problem

1. When the room temperature reads lower than -11°C ~~it is~~ the scanner will not start and the message 'low temp' is returned if you try and talk to it via RiSync GPS. It is unlikely that the mirror will be turning. ~~Leave the~~

Solution

Leave the power switched on to the scanner for 5 or a few minutes so that it warms up inside. Then cycle the ~~to~~ power to the scanner & try & talk to it again with RiSync GPS. Repeat procedure if there is still no comms.

2. Problem

RiSync GPS may appear to work & the scanner can be signed, but experience shows that sometimes the scanner mirror may ~~be~~ not be turning or there may be no data coming out of it. This becomes evident when the operator ~~tries~~ runs the Labview Gambit S/W and the file size stays at zero.

Solution

By this stage the scanner has ~~usually~~ nearly warmed up enough for normal operation, so cycle the power to the scanner, wait 30s, re sync & restart the Gambit S/W. It should work now. If not, ~~wait~~ ~~a few minutes with the power~~ cycle the power & wait a few minutes before trying again.