AGAP-S

C-FSJB

December 2008/January 2009

OPERATOR FLIGHT LOG

Flight Number	F32
Date (ZULU)	Jan 7, 2009
Pilot/Co-Pilot	Brian, Rebecca
Operator(s)	Michael
Line Numbers	Recovery Lakes,

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

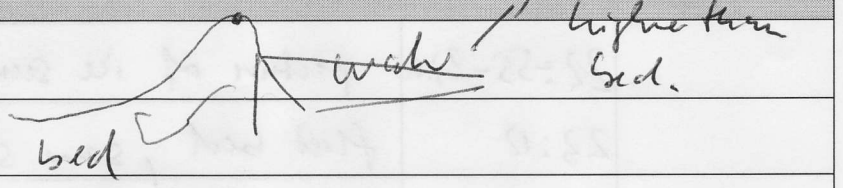
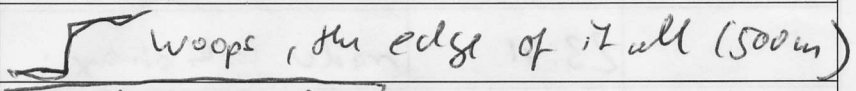
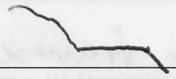
Event	GPS Time	Comments
GPS SJB-1	20:27	Start recording. CF Card: SJB1 Job name: C-FSJB1-F32
		Battery charge: A: 100 % B: 100 % External: 75 %
		Available memory: 975802 KB.
		No Sat tracked: 7 L1: 7 L2: 7
GPS SJB-2	20:29	Start recording. CF Card: SJB2 Job name: C-FSJB2-F32
		Battery charge: A: 100 % B: 100 % External: 73 %
		Available memory: 975882 KB.
		No Sat tracked: L1: L2:

AGIS on	21:08	Start recording. Project name: AGAP_F32
	21:12	Engines on
	21:16	Taxi from parking position
	21:19	Takeoff
Laser on	21:08	Start recording. Project name: AGAP_F32
Radar on	21:09	Start recording. Filename(s):

Event	GPS Time	Comments
	21:25	radar tx on
	21:37	tip tanks on
	21:50	−26°C aircraft outside temp. scan: −12.5°C
2580	21:51	auto pilot on, flux gate channels are more quiet now (less aircraft movements); more spikes on mag 1, occasional steps ⌐¬ in flux gates.
	22:03	lots of spikes on mag 1, probably from auto pilot.
	22:31	tip tanks off
		very weak bed reflection
	22:39	spikes on mag 1 get much stronger
	22:54	shadows and bright spots on ice surface get more pronounced → omega dunes? rugged bed reflection is back

grav battery left on ups, became one of prime data sets on today's mission

Event	GPS Time	Comments
	22:55-23:00	picture of ice surface change, rugged into smoother nearby
	23:12	flat bed, some structures in ice surface
	23:17	auto pilot off => spikes mostly gone, but noisier
		mega dunes => lots of pictures.
	23:31	U-shape mts like we've seen on the 1962 radar + seismic data
	23:36	bed disappears
	23:38	Talk II lose => should have lake shore like if there is one
		looking ahead it seems the mega dunes
		disappear - is this the lake?
	23:41	radar looks strange: ≡↑ sudden end of internal
		layer => no bed or lake
	23:42	layers dip down.. => no mega dunes.
	23:45	weak "lake like" reflector shows up _____
		and some mega dunes are back.
	23:48	looks like bedrock ridge.
		II US-Ku traverse and vehicles
	23:51	can see US-Ku traverse on the right as well
	52-53	flying on traverse tracks; layer moving
		up no bed or lake reflection.
	23:54	15 miles to WP 6
	23:55	looks like water, big zig zag tracks from traverse

Event	GPS Time	Comments
	23:57	
	23:58	still on "lake", flat ice surface no dunes
	:59	Smiles from WP6 — 3 notes
	00:00	over WP6 turn.
	00:02	think we missed second shore line
	00:04	Strong reflector continues } at 3km below
	00:08	" " " } surface
	00:18	extremely flat bed / a lake continues.
	00:20	 Woops, the edge of it all (500m)
	00:20	10 min from WP11 / flat on top as well
	00:25	at WP 11 turn towards AGAP-S
	00:27	flat plateau still continues.., Rebecca in control
	00:28	plateau gets lower, nicely followed by ice flow.
		~~Saw~~ also "quiet zone" around bed extremely clear.
	00:30	
	00:32	transit rolling, lots of drifted snow
	00:34	over the troughs.., no lakes for sure
		now the ~~flat~~ flat, deep bed (or lake)
		is back

Event	GPS Time	Comments

Event	GPS Time	Comments
	00:36	bed disappears.
	00:39	laser fire 15, no crashes so far-
		flying back towards mega dunes
	00:40	at the transition towards mega dunes
		this should be the "take short line".
	00:42	very weak ~~into deep~~ bed reflection back
	01:09	rugged bed topo ~~so~~, clear reflection
	~~01:19~~	~~auto pilot on~~?
	01:25	[illegible] in bedrock
	01:31	no bed reflection
	01:33	& nothing is back
	01:38	auto pilot on
	???	short use of tip tanks on/off
	02:39	radar tx off landing in 4 mins.
	02:40	radar shutdown-4
	02:45	touch down
	02:46	Brian in control
	02:47	at fuel position
	02:48	AGIS off, laser off
	03:12	leaving fuel position for F33

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C-FSJB MISSION PROFILE: AGAP_TrendRS2

AGAP-S

FLIGHT 32

NR	LATITUDE (DM)	LONGITUDE (DM)	LINE	TYPE	X-LINE	DIST (nm)	COMMENT
1*	84° 29.40' S	77° 21.18' E		AGAP-S		2.7	TRANSIT TO NEXT WAYPT
2*	84° 28.25' S	77° 46.34' E	RR04.1	SOT		2.7	
3	84° 29.40' S	77° 21.18' E	RR04.1	SOL	""	344.1	
4	84° 01.56' S	17° 51.52' E	RR04.1	EOL	""	2.7	
5*	84° 00.08' S	17° 30.09' E	RR04.1	EOT		2.6	TRANSIT TO NEXT WAYPT
6*	83° 58.88' S	17° 52.28' E	RR05.1	SOT		2.7	
7	84° 01.56' S	17° 51.52' E	RR05.1	SOL	""	57.9	
8	84° 59.19' S	17° 31.99' E	RR05.1	EOL	""	2.7	
9*	85° 01.86' S	17° 30.90' E	RR05.1	EOT		4.5	TRANSIT TO NEXT WAYPT
10*	84° 58.06' S	17° 04.27' E	RR06.1	SOT		2.7	
11	84° 59.19' S	17° 31.99' E	RR06.1	SOL	""	317.2	
12	84° 29.40' S	77° 21.18' E	RR06.1	EOL	""	2.7	
13*	84° 27.89' S	77° 44.17' E	RR06.1	EOT		2.7	TRANSIT TO NEXT WAYPT
14*	84° 29.40' S	77° 21.18' E		AGAP-S		0.0	

TOTAL DISTANCE (nm): 747.9
TOTAL DISTANCE (km): 1385.0

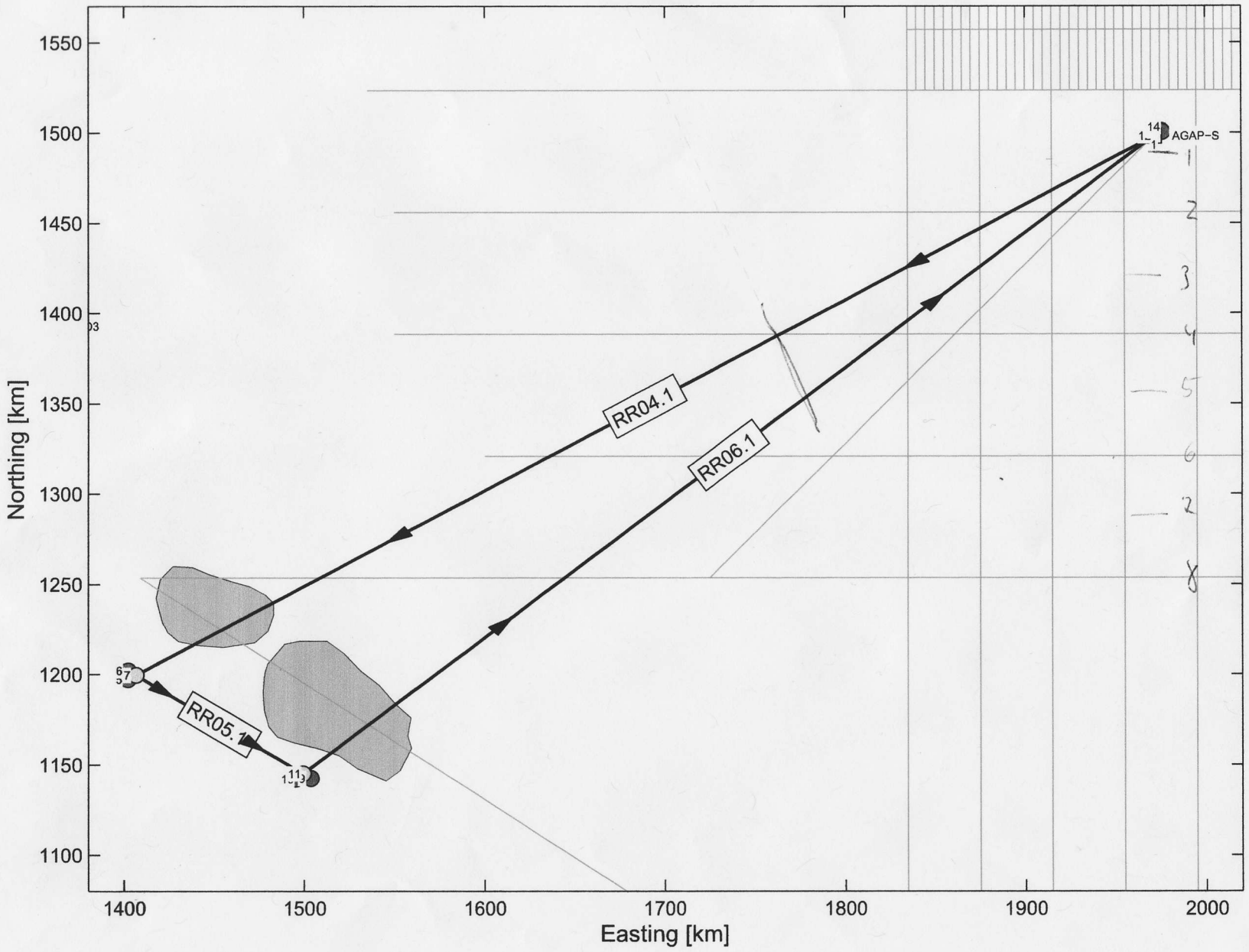
* = waypoint relevant for aircraft navigation. Lead-in distance (km): 5

Flight plan created on 01/07/2009 14:56

FLIGHT 32

TOTAL DISTANCE: 747.9 nm

C-FSJB



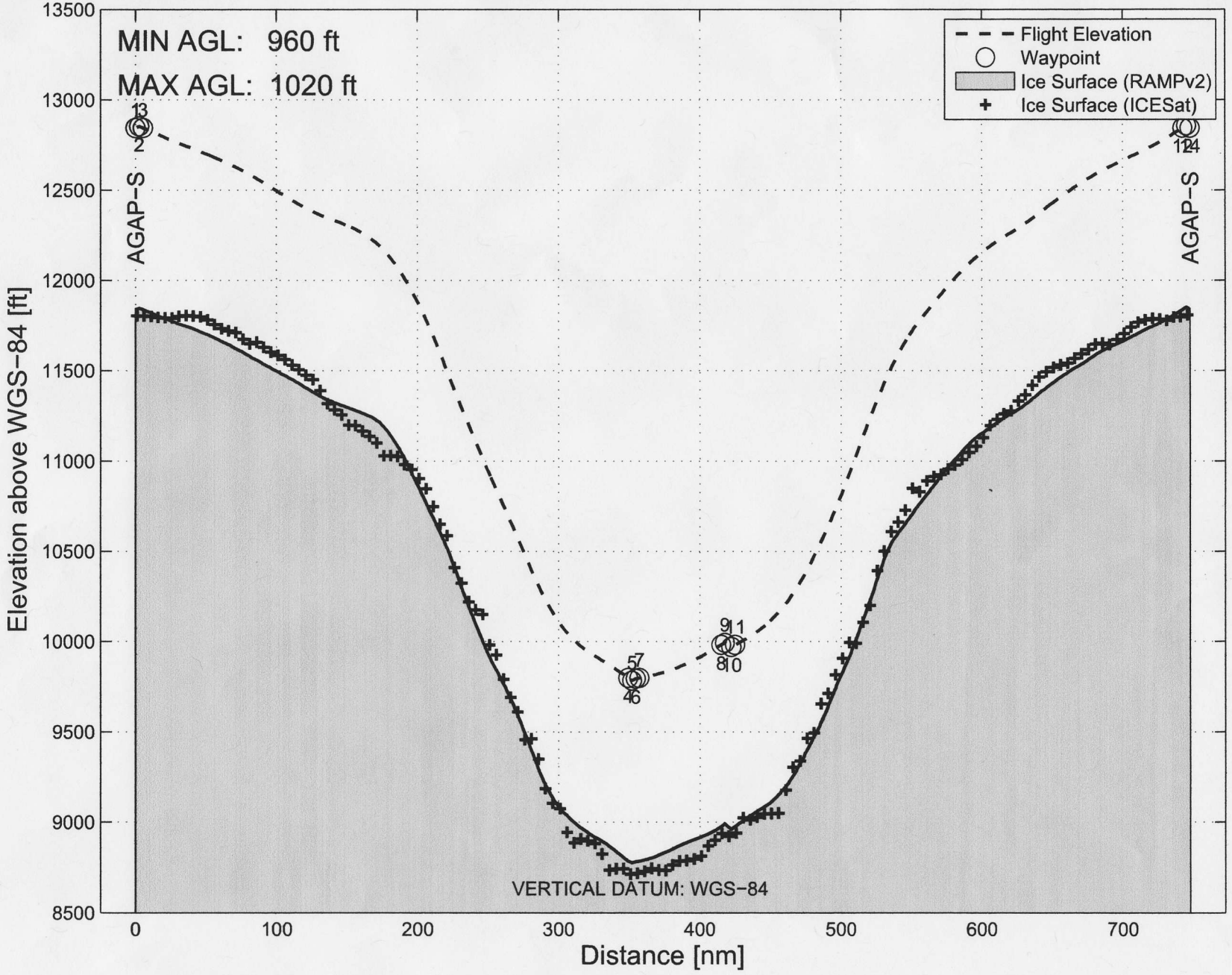
Created with Matlab flight planning tool on 01/07/2009 14:56

MISSION PROFILE: AGAP_TrendRS2

FLIGHT 32

MAX ALT: 12860 ft

C-FSJB



MAX RoC (130 kts): 45 ft/min

Created with Matlab flight planning tool on 01/07/2009 14:57

MISSION PROFILE: AGAP_TrendRS2