
Preliminary Science Flight Report

Operation IceBridge Arctic 2011



Flight: F31
Mission: Magnetic Compensation

Flight Report Summary

Aircraft	P-3B (N426NA)
Flight Number	031
Flight Request	11P006
Date	Wednesday, May 4, 2011 (Z)
Purpose of Flight	Mission Magnetic Compensation
Take off time	11:40 Zulu from Thule Air Base (BGTL)
Landing time	13:46 Zulu at Thule Air Base (BGTL)
Flight Hours	2.1 hours.
Aircraft Status	Airworthy.
Sensor Status	All installed sensors operational.
Significant Issues	None
Accomplishments	<ul style="list-style-type: none">• Pitch, roll and yaw maneuvers at 18,500 ft over Baffin Bay to estimate coefficients for magnetic compensation.• ATM, MCoRDS, accumulation, snow and Ku-band radars, POS/AV, and DMS were switched on on the survey lines but no data was recorded.• Gravimeter and magnetometer were operated throughout the entire flight.• Ramp pass at Thule at 1,000 ft AGL for ATM calibration.
Geographic Keywords	None
ICESat/CryoSat Track	None
Repeat Mission	None

Science Data Report Summary

Instrument	Instrument Operational			Data Volume	Instrument Issues
	Survey Area	Entire Flight	High-alt. Transit		
ATM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
MCoRDS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
Snow Radar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
Ku-band Radar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
Accumulation Radar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
DMS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
POS/AV	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A	N/A
Gravimeter	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	80 MB	None
Magnetometer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	60 MB	None

Mission Report (Michael Studinger, Mission Scientist)

Today's flight was a magnetic compensation flight and other than the gravimeter and magnetometer no data were recorded.

Individual instrument reports from experimenters on board the aircraft:

ATM: Only in operation for ramp pass.

MCoRDS: not operated.

Snow and Ku-band radar: not operated.

Accumulation radar: not operated.

Gravimeter: Worked well. No issues.

Magnetometer: worked well.

DMS: not operated.

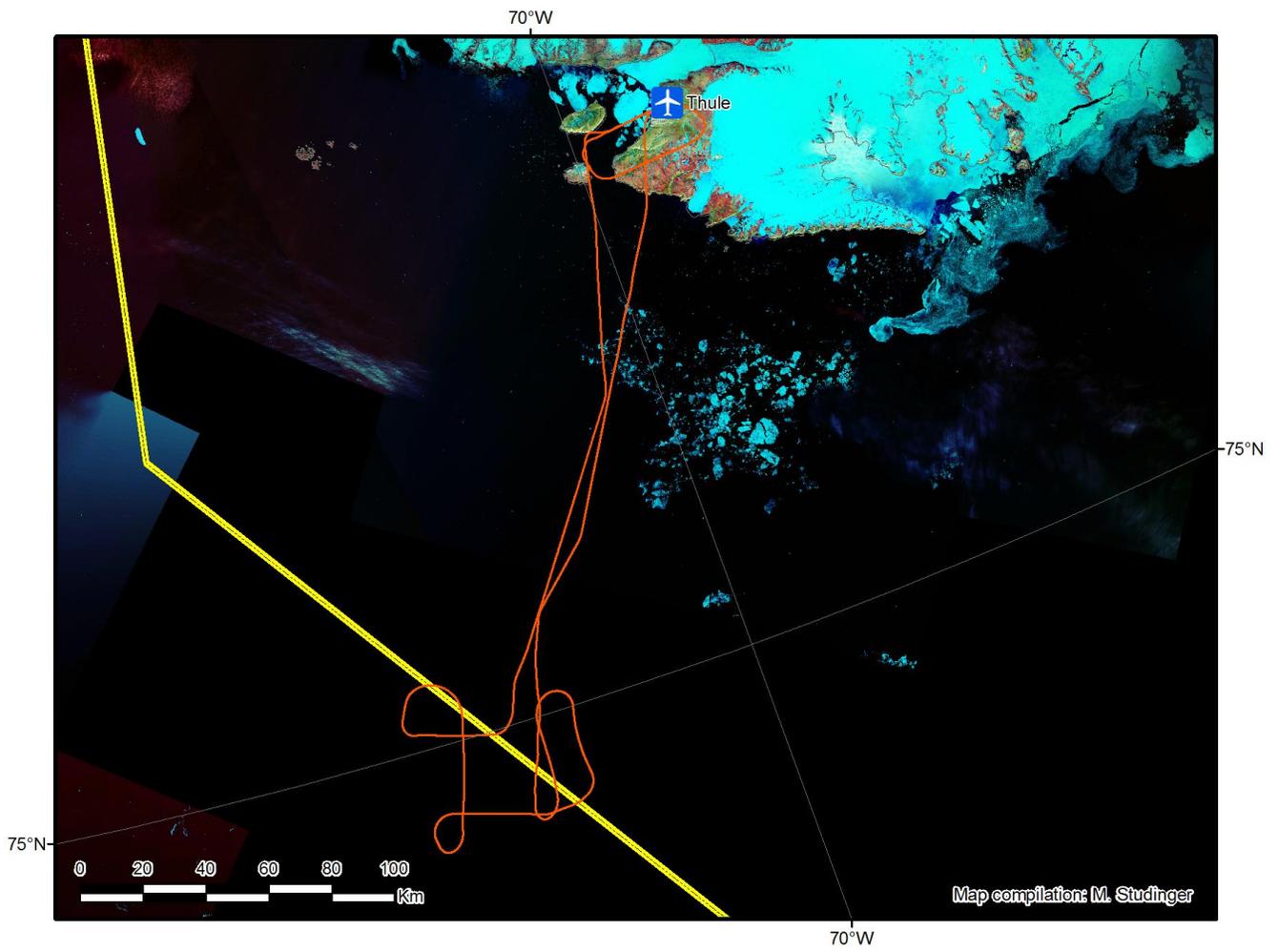


Figure 1: P-3 trajectory of today's flight (red).

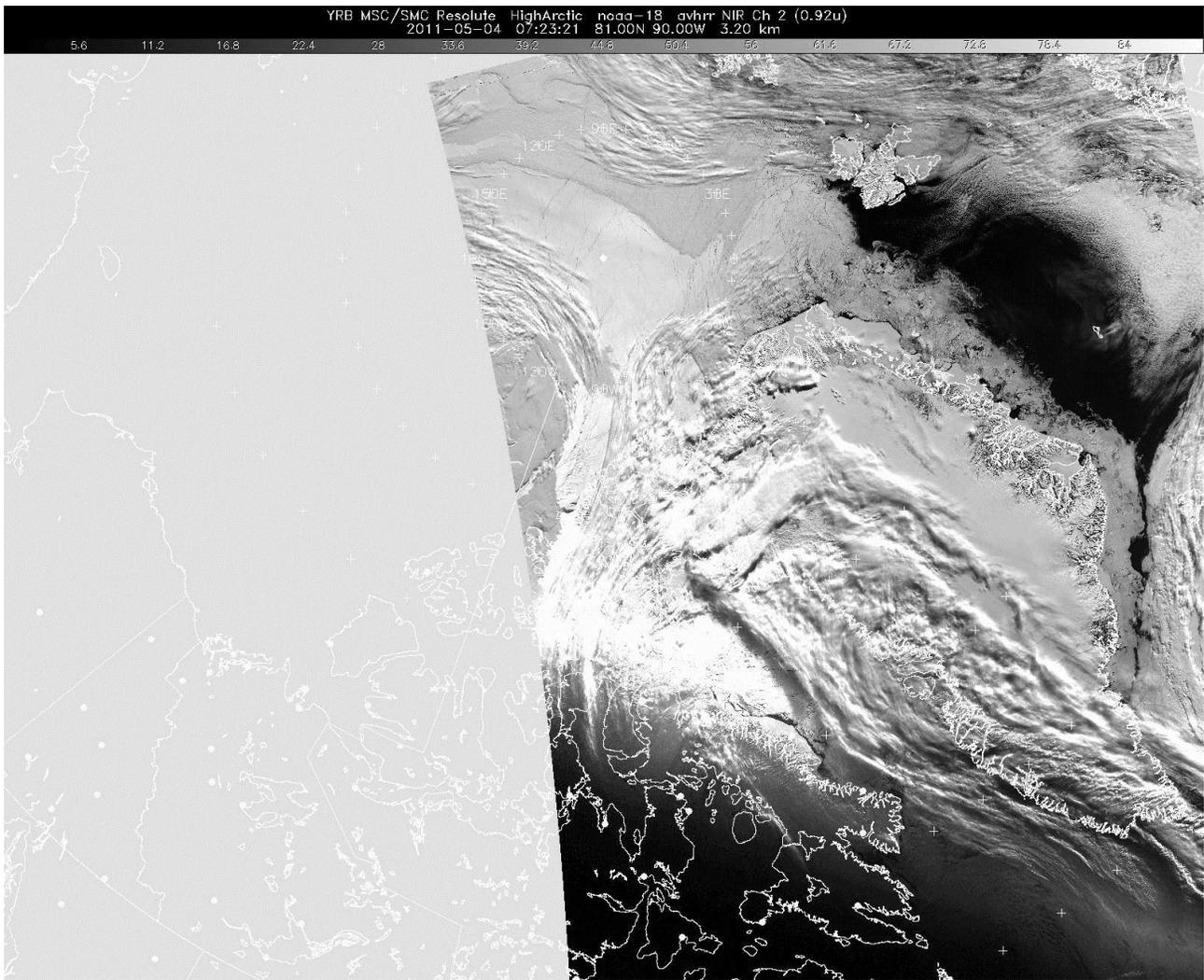


Figure 2: Visible satellite image downloaded shortly before takeoff.