



Canadian Space
Agency

Agence spatiale
canadienne



RADARSAT-1

Polar regions coverage Program

Satellite Operations

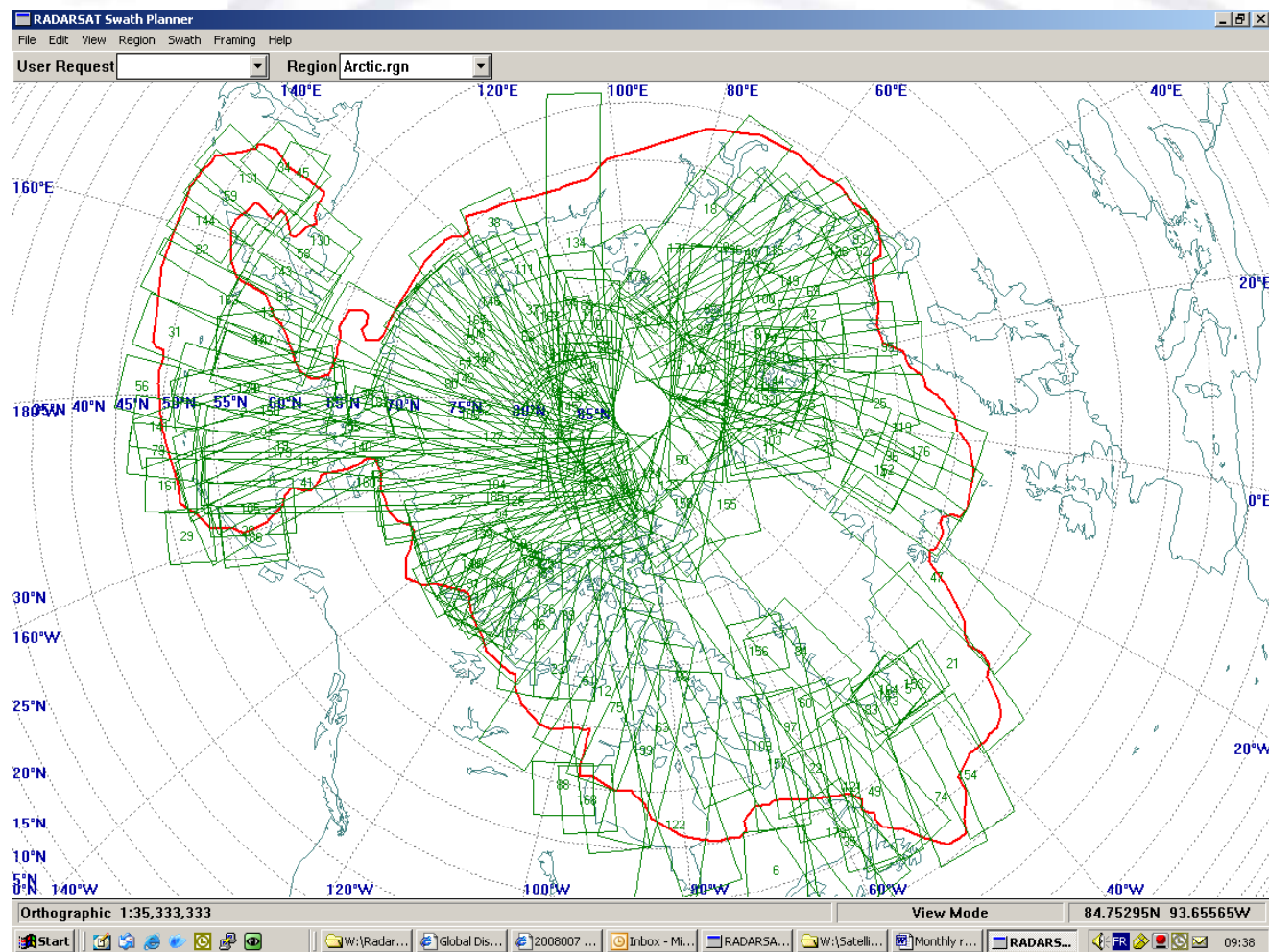
Space Operations

Presentation by

Robert Saint-Jean

Canada

Arctic Coverage (Winter 08)



Beam and mode: ScanSAR Wide A and B
 Orbit: Asc. and Desc. Period: January 16 to 21, 2008
 Target coverage: 31,613,297 km²
 Coverage obtained: 28,546,807 km² (~90.3%)

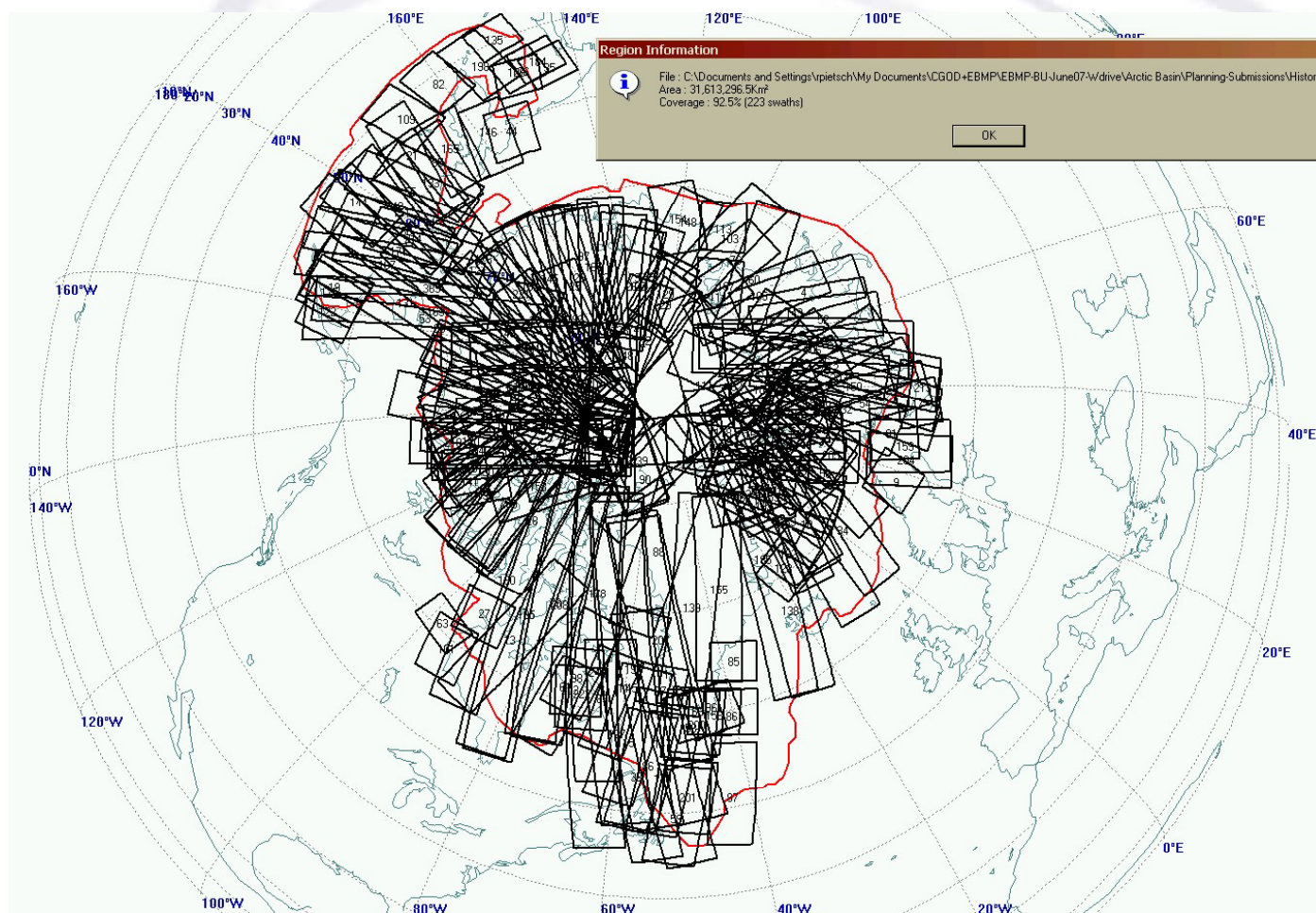
Satellite Operations



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Arctic Coverage (Spring 08)



Beam and mode: ScanSAR Wide A and B

Orbit: Asc. and Desc. Period: April 25 to May 2, 2008

Target coverage: 31,613,297 km²

Coverage obtained: 29,242,300 km² (~92.5%)

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Arctic Coverage (Summer 2008)



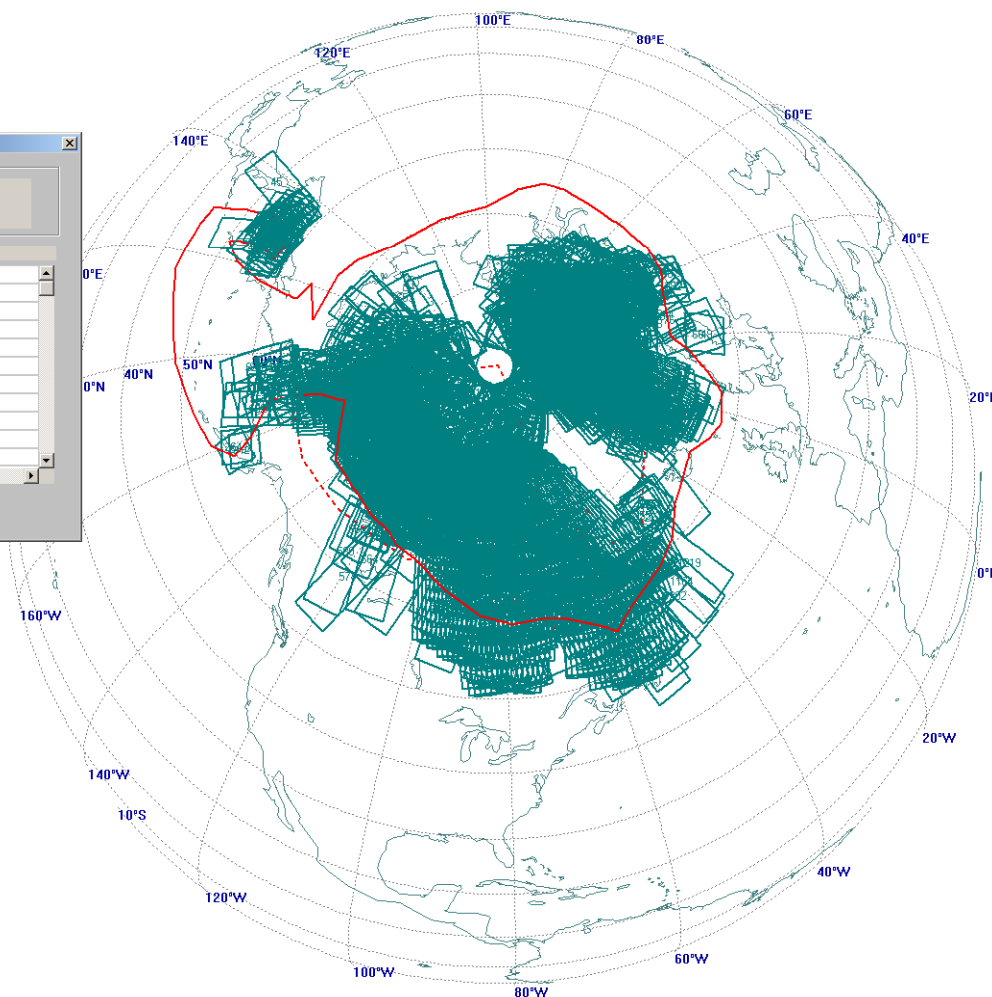
Swath Information

Summary
Total swaths: 1665
Tagged swaths: 1665
Swaths outside current region: 0

Swath Properties

Start Time:	no swath selected
Stop Time:	
Start Abs. Orbit:	
Start Cycle / Orbit:	
Pass:	
Duration (orbs):	
Duration (secs):	
Sensor Mode:	
Beam:	
Beam Length (km):	
Beam Area (km²):	

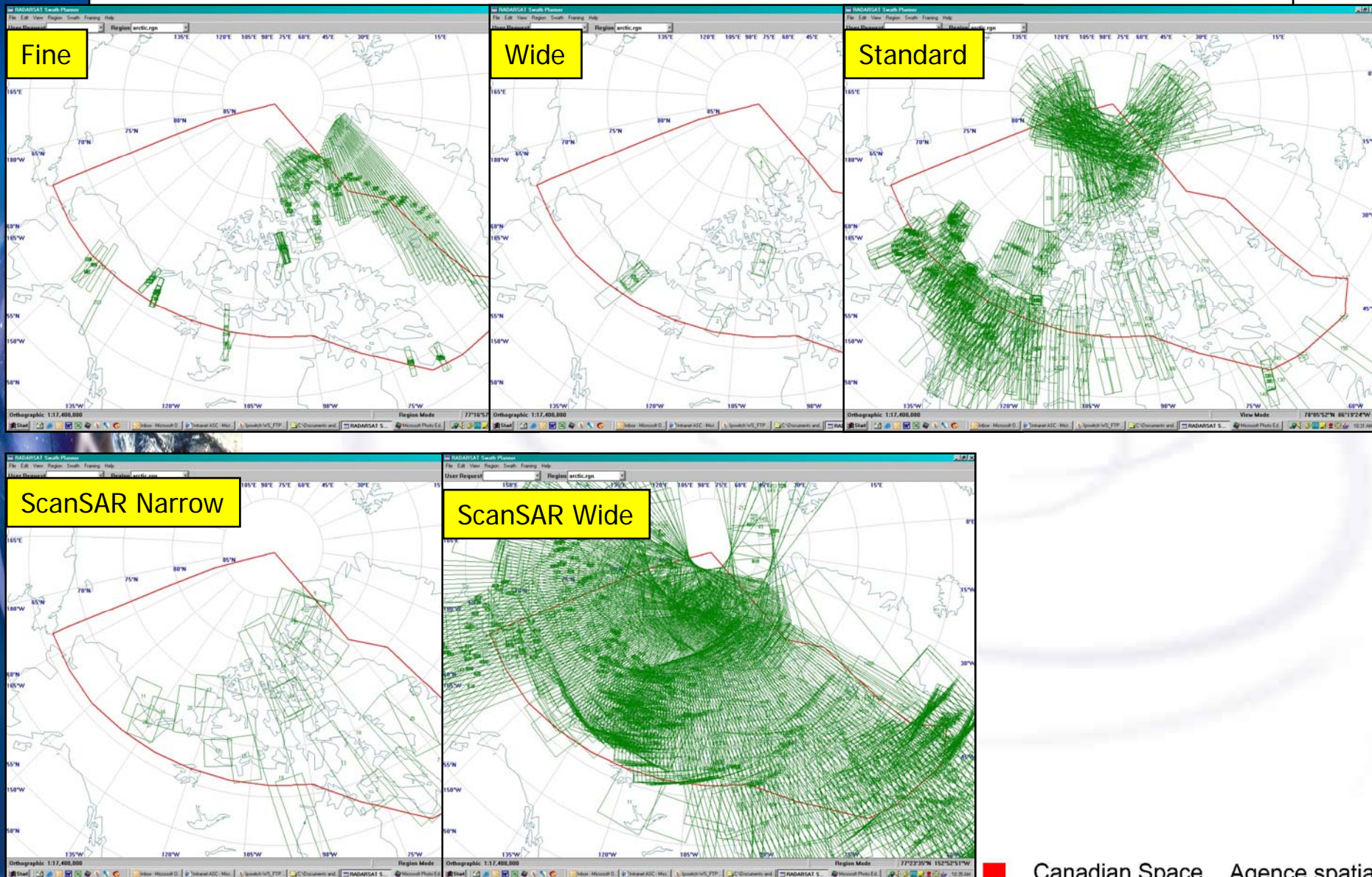
OK



Beam and mode: ScanSAR Wide A and B
Orbit: Asc. and Desc. Period: May 2 to Sept 21, 2008
Target coverage: 31,613,297 km²



Canadian Arctic Coverage (Jan- Jul 2008)



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Canadian Arctic Coverage (Jul- Sept 2008)



Fine

Wide

Standard

ScanSAR Narrow

ScanSAR Wide

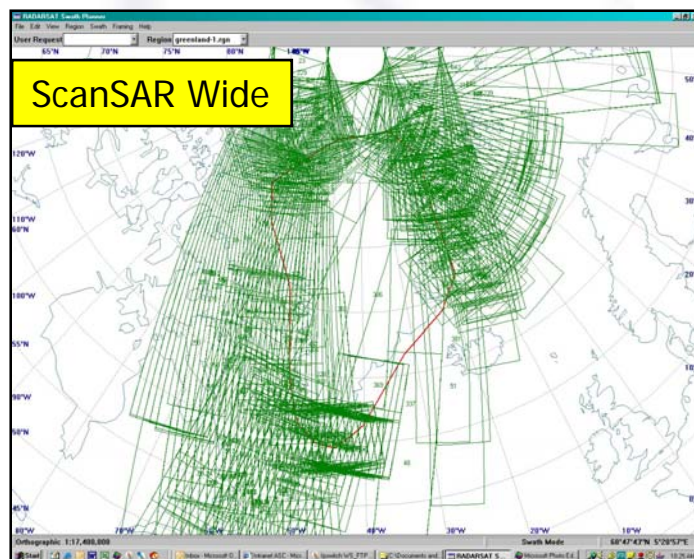
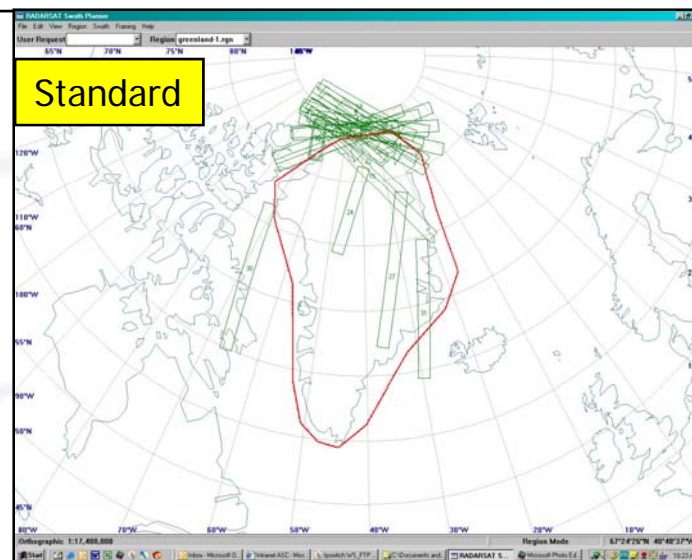
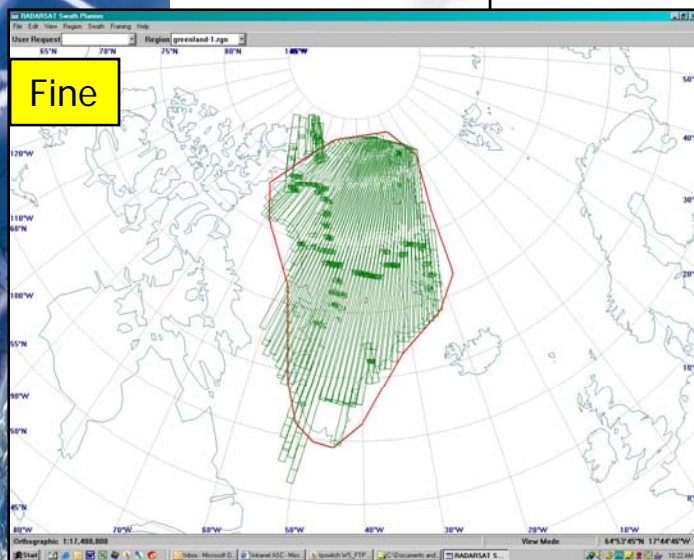
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Greenland Coverage (Jan- Jul 2008)



Satellite Operations

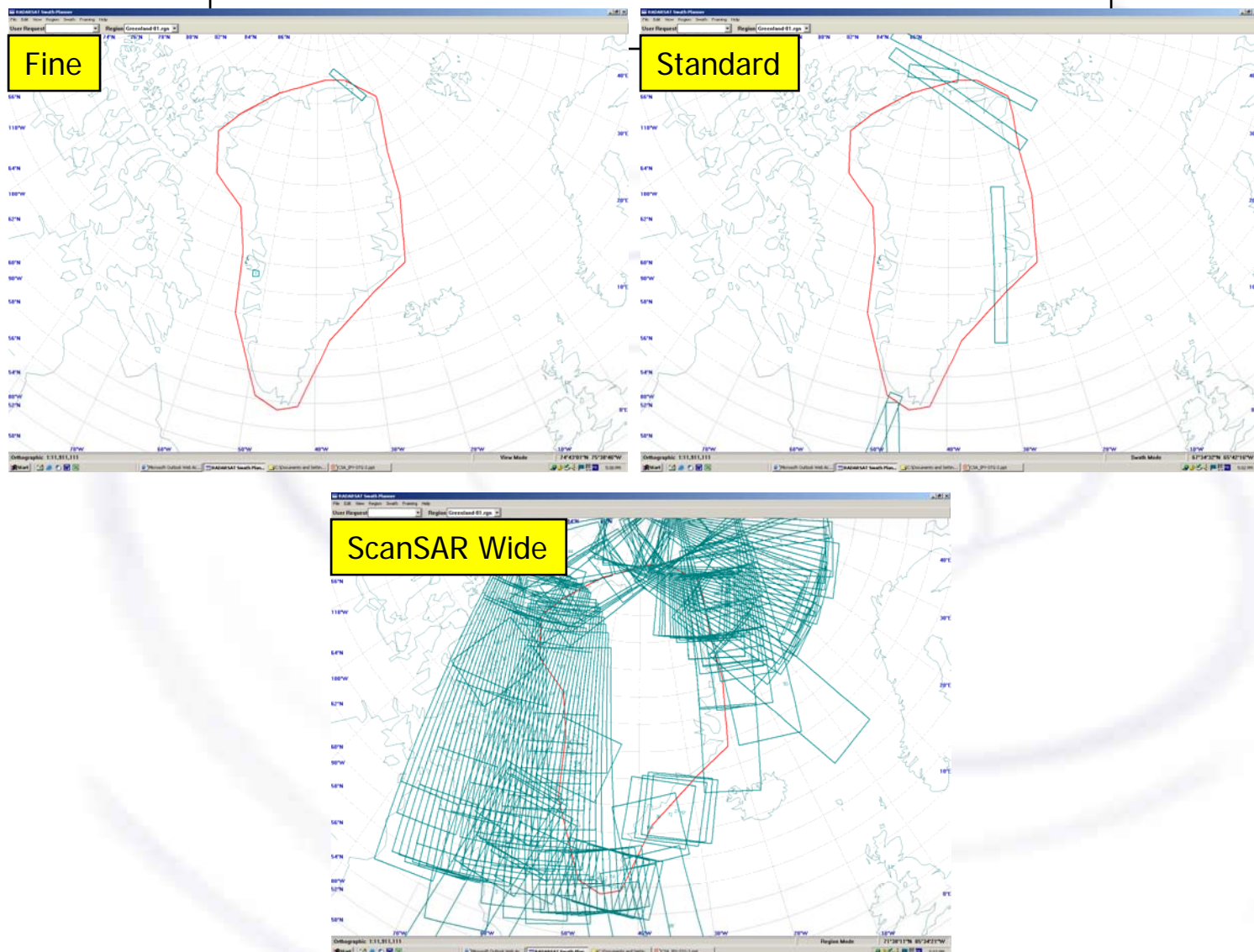


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Greenland Coverage (Jul- Sep 2008)



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RADARSAT IPY-STG Activities

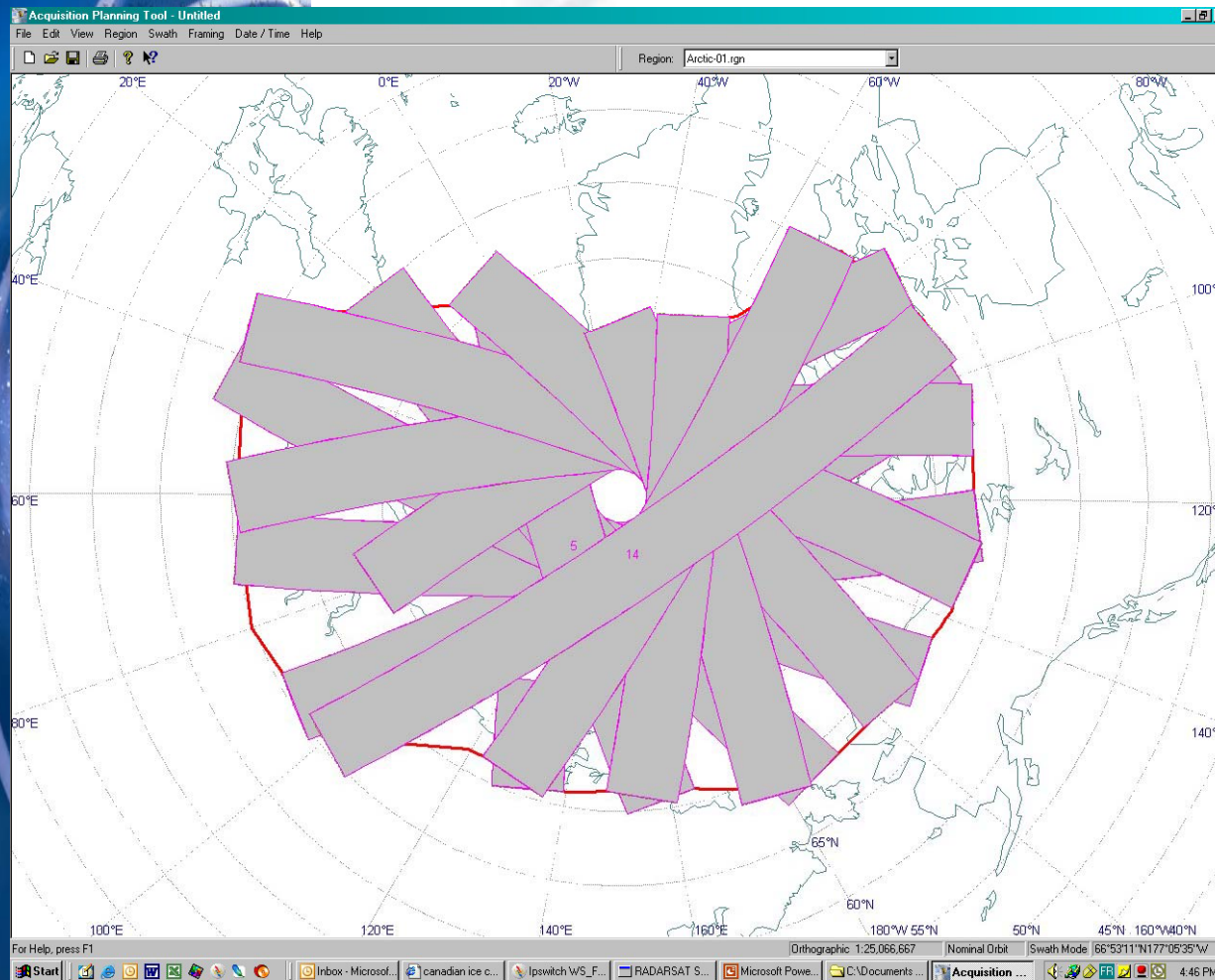


1. Arctic Ocean 3-day snapshot
2. Antarctica Winter Pole-to-Shore
InSAR coverage
 - MDA/GSI is proposing a plan
3. Greenland and Canadian Ice Fields
InSAR coverage
 - 3-4 consecutive cycles during winter
4. Super Sites



RADARSAT IPY-STG Activities

1. Arctic Ocean 3-day snapshot



RADARSAT-2 one day
"ScanSAR Wide A" coverage
of the Arctic ocean. CSA will
implement a similar coverage
8 times per 24-day cycle.



RADARSAT IPY-STG Activities

2. Antarctica Winter Pole-to-Shore InSAR coverage



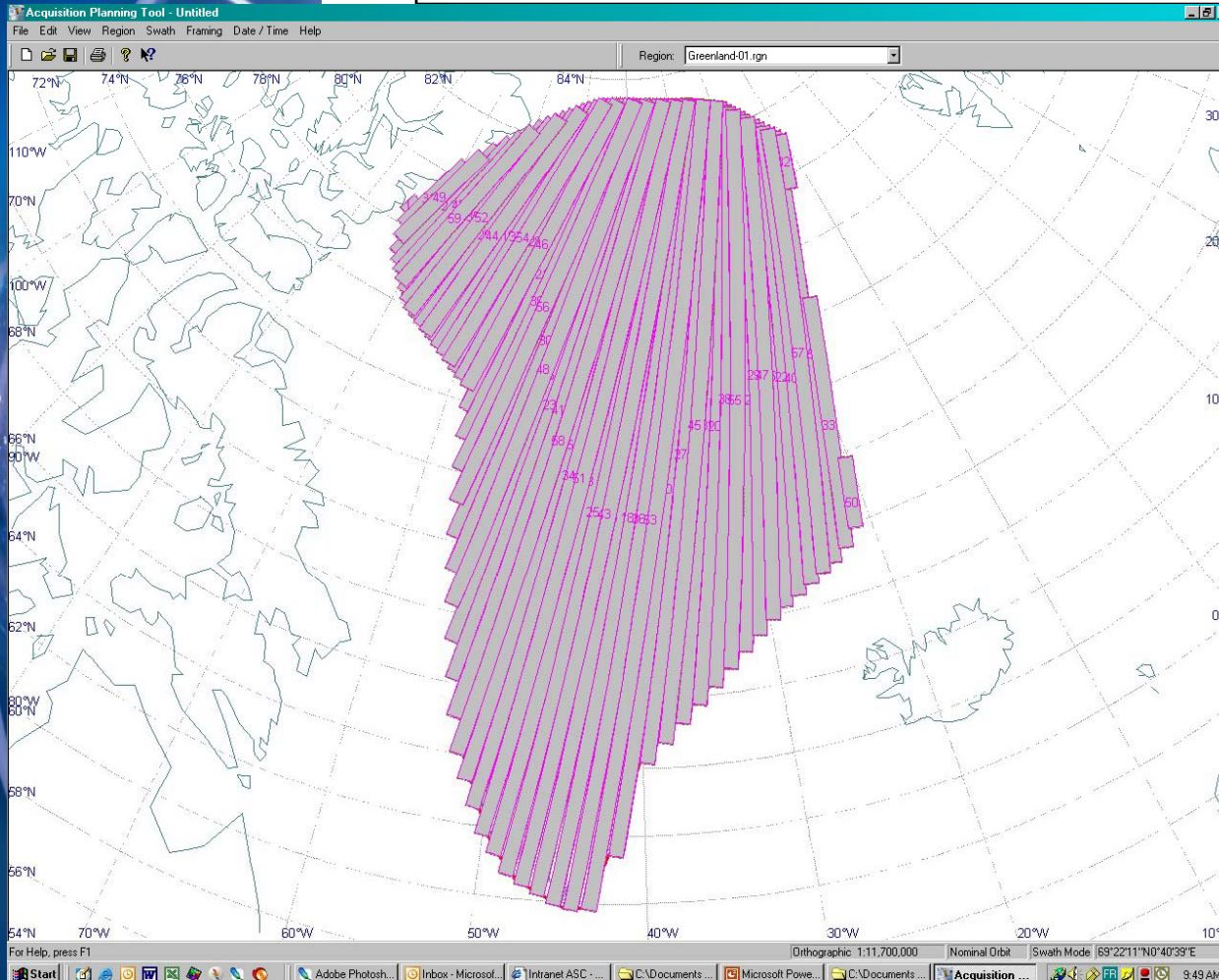
MDA/GSI is preparing a plan for these acquisitions

- Requires the development of a slew plan (left looking)
- Will start in mid-October



RADARSAT IPY-STG Activities

3. Greenland and Canadian Ice Fields InSAR coverage



RADARSAT-2 one cycle "Fine 3" coverage of Greenland. CSA will implement this plan in Background Mission for 3 consecutive cycles.

Period: Jan-Feb 2009.

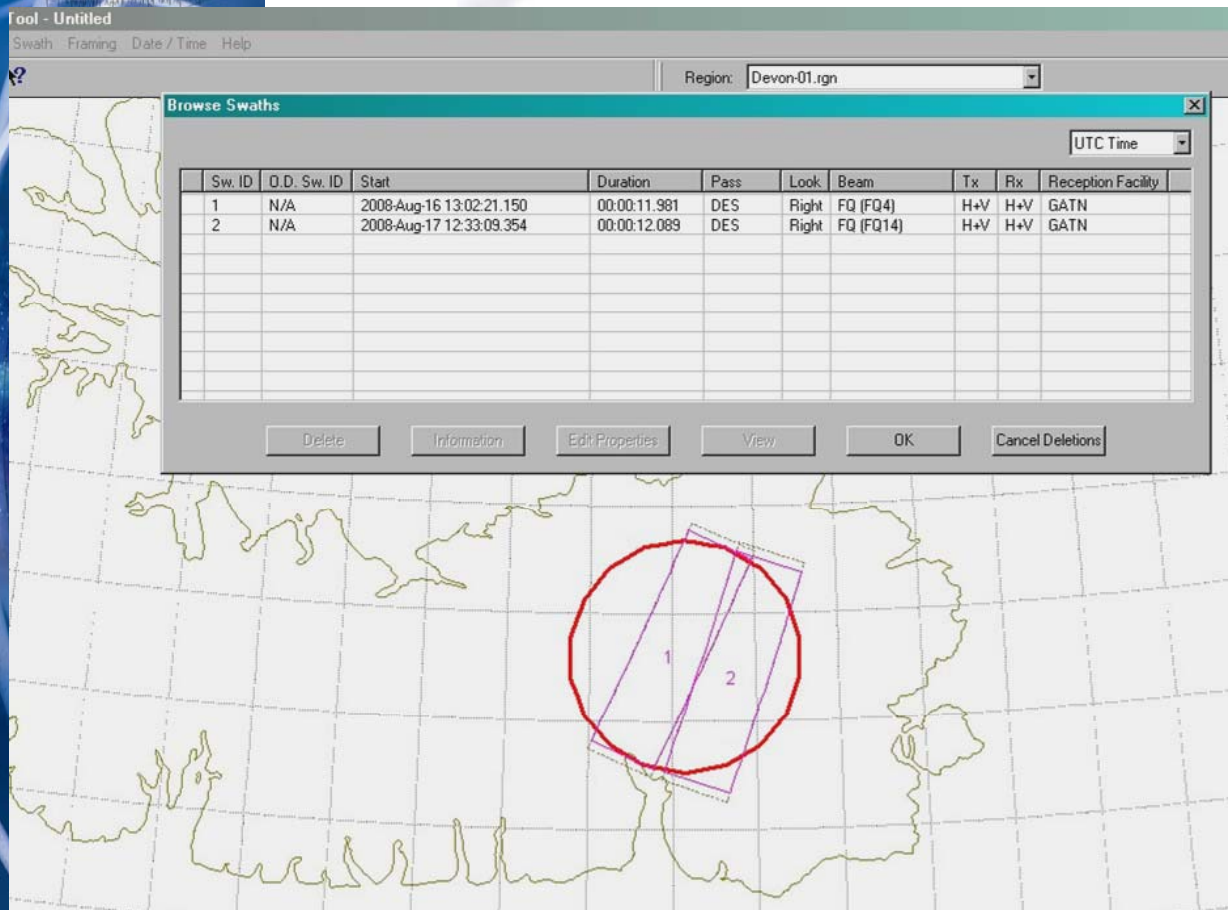
This task carries its load of challenges as images strips are very long (some swaths over 65 frames long!) and may easily loose a conflict.



RADARSAT IPY-STG Activities

4. Super Sites

Devon Island



RADARSAT-2 August 16-17
"Fine Quad-pol" coverage of
the Devon island test site.

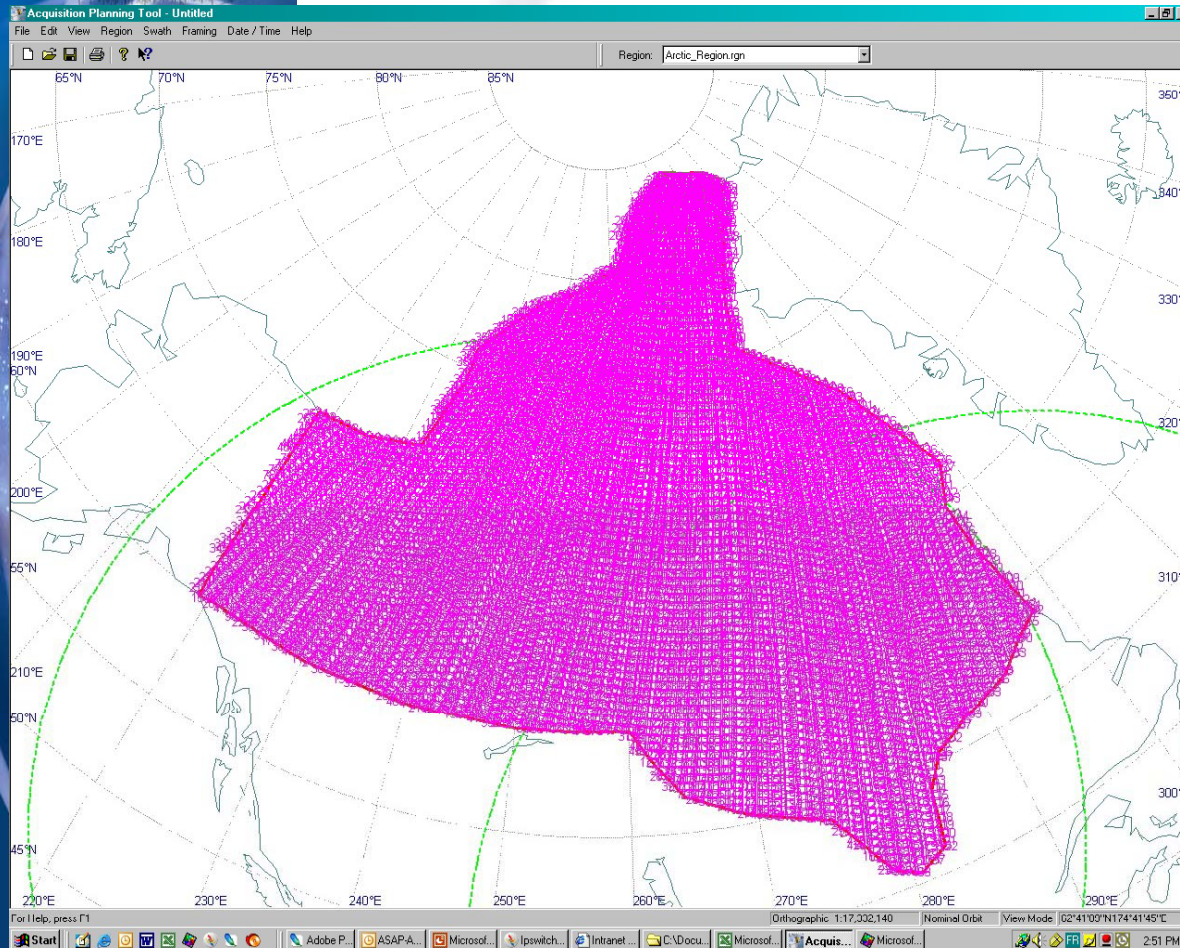


RADARSAT IPY-STG Activities

4. Super Sites



CIM-2 (Canadian Interferometric Mission) and ASAP-2



RADARSAT-1 and 2
Canadian Arctic
October 2008 "Fine 1"
coverage of permafrost
regions.
To be repeated one cycle
later.

