

## Procedure to Extract Topographies Along the Sonde to Summit Flight Line

February 16, 2006

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### **Surface Topography:**

Use the 1 km resolution Photoclinometry/Bamber/Ekholm data set (Csatho; NSIDC).

Projects/Greenland\_DEM/kms-bamber\_nsidcdem+pclinsep00\_polarstereo.img

Use imagine to reproject to:

Polarstereographic  
WGS84  
278 W Longitude  
71 N Standard Latitude  
250 m pixel  
Bilinear interpolation

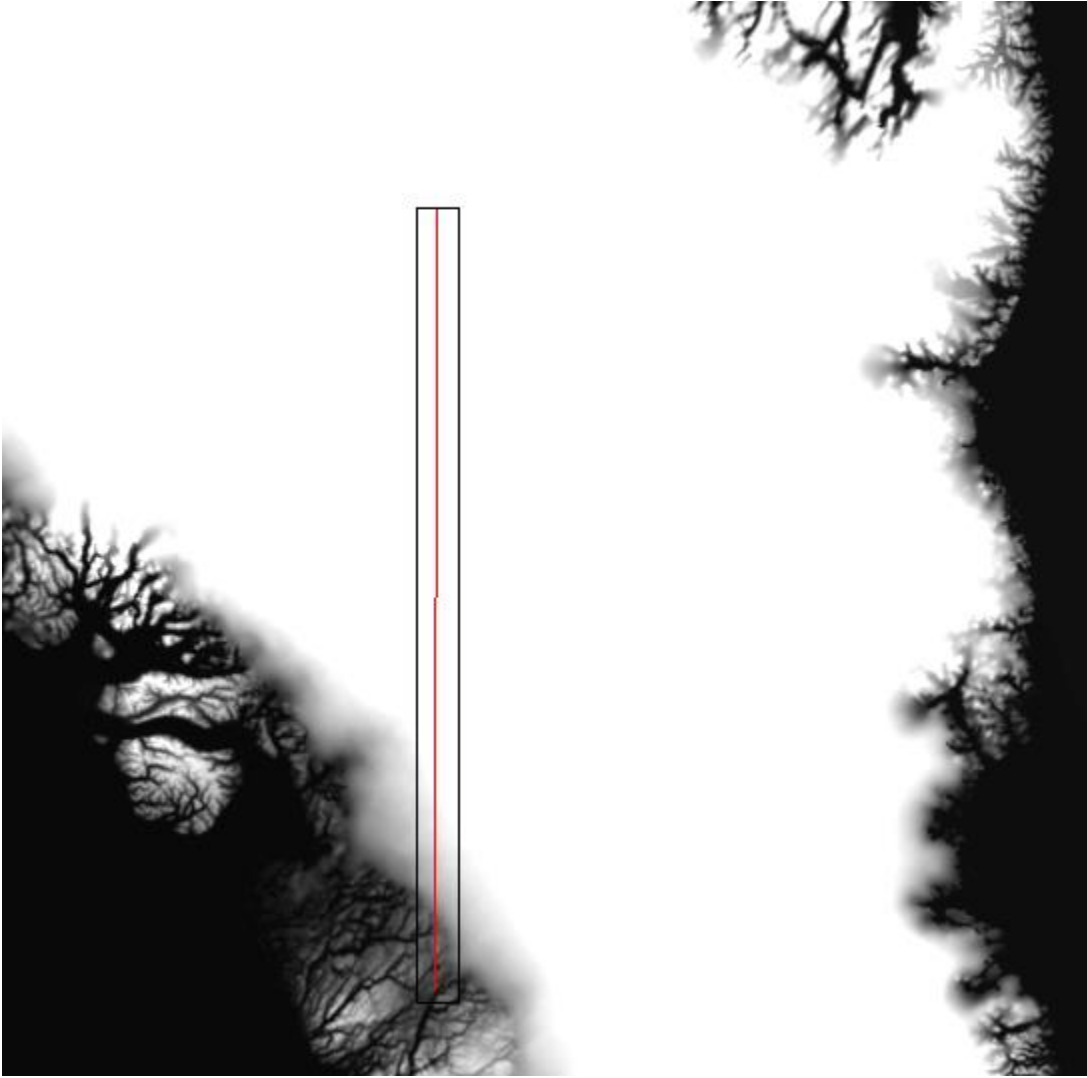
pclind\_37.img

With this layer on top, construct and AOI that includes the gismoflt1 coverage file.

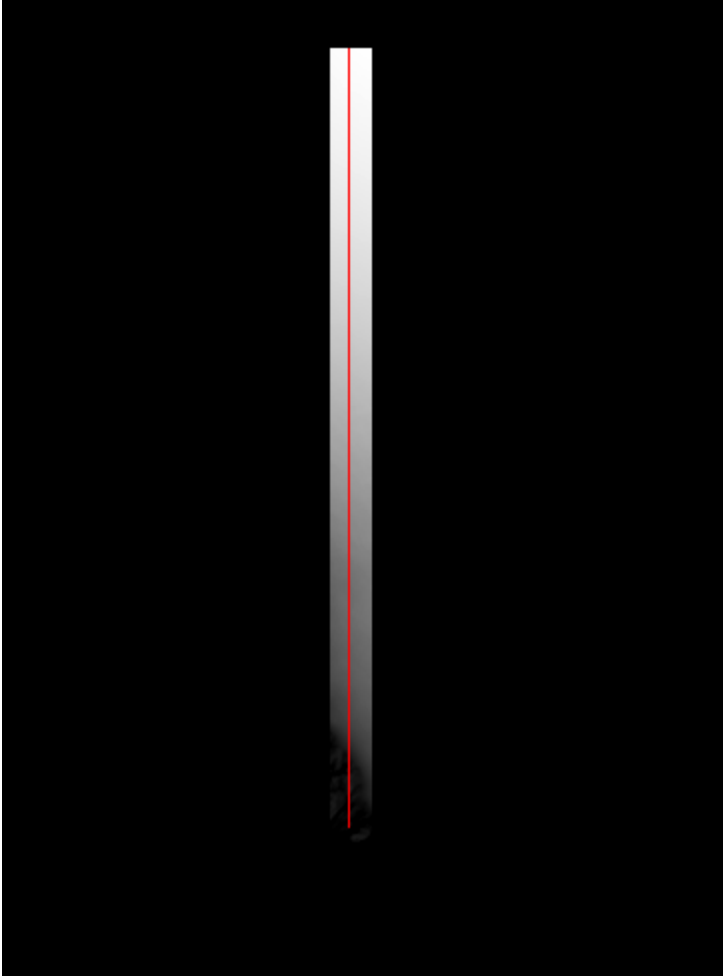
Select inquire box and fit to AOI.

Run imagine subset routine to create

pclind\_37\_36k.img



Subset area from the DEM showing the flight line.



Subsetting data set and flight line (about 36 km wide and 750 km long)

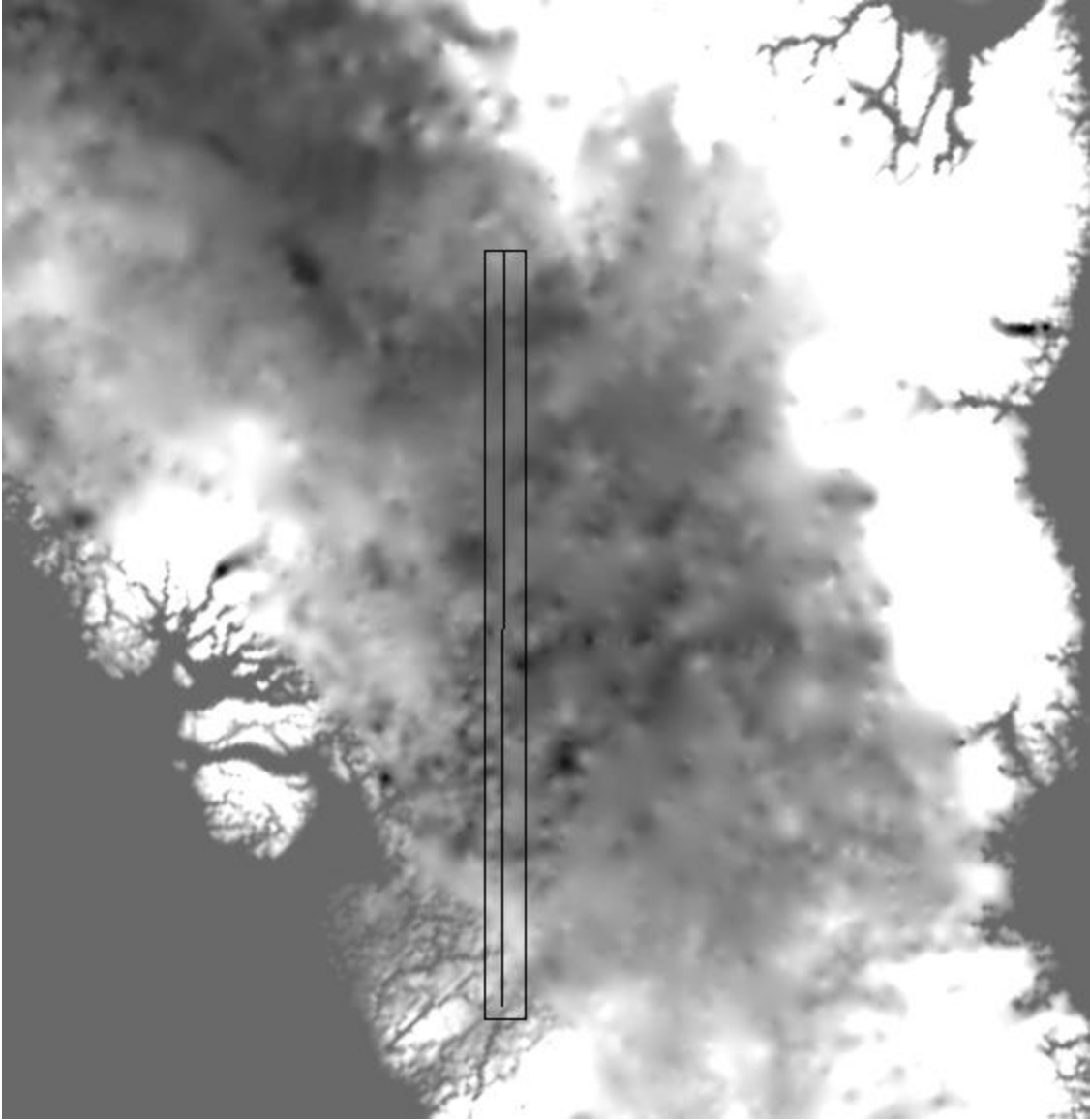
### **Basal Topography**

The procedure was the same. The base data was the Bamber Basal Topography DEM (5 km: bed5kgeo.img) then rotated and resampled to 250 m.

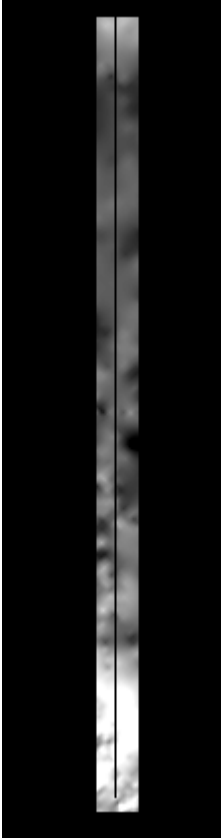
bed\_278.img

The output was

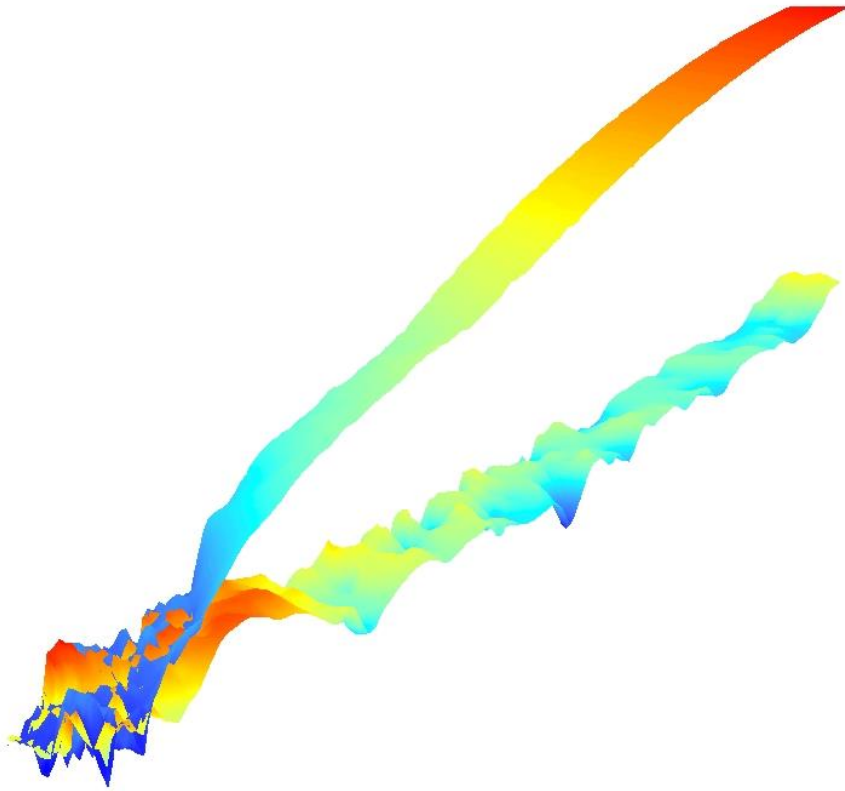
bed\_278\_36k.img



Extraction area for basal topography



Extracted Topography (about 36 km wide and 750 km long)



Extracted Surface and Basal Topographies

### **File Formats and Geocoding**

Generic Binary Files

BIL

32 bit float

File Name: bed\_278\_36k.img

Last Modified: Thu Feb 16 15:07:18 2006

Number of Layers: 1

Layer Information:

Name : :Layer\_1

Width : 169

Height : 3177

Type : Continuous

Block Width : 64

Block Height : 64

Pixel Depth : Float

Compression Type : None

Statistics :

Last Modified : Thu Feb 16 15:07:19 2006  
Maximum Value : 671.661682  
Minimum Value : -426.738159  
Mean : 112.631070  
Median : 49.521147  
Mode : 19.486776  
Standard Deviation : 177.284041

Projection Information :

Projection Zone : 0  
Spheroid Name : WGS 84  
Georeferenced to : Polar Stereographic

Map Information :

Upper Left center X : 1293601.000000  
Upper Left center Y : -1380006.000000  
Lower Right center X: 1335601.000000  
Lower Right center Y: -2174006.000000  
Pixel X size : 250.000000  
Pixel Y size : 250.000000

File Name: pclind\_37\_36k.img  
Last Modified: Thu Feb 16 14:34:36 2006  
Number of Layers: 1

Layer Information:

Name : :Layer\_1  
Width : 169  
Height : 3177  
Type : Continuous  
Block Width : 64  
Block Height : 64  
Pixel Depth : Float  
Compression Type : None

Statistics :

Last Modified : Thu Feb 16 14:34:36 2006  
Maximum Value : 3272.236084  
Minimum Value : 36.414627  
Mean : 2100.923986  
Median : 2248.401951  
Mode : 3221.676374  
Standard Deviation : 889.513037

Projection Information :

Projection Zone : 0  
Spheroid Name : WGS 84  
Georeferenced to : Polar Stereographic

Map Information :

Upper Left center X : 1293601.000000  
Upper Left center Y : -1380006.000000  
Lower Right center X: 1335601.000000  
Lower Right center Y: -2174006.000000  
Pixel X size : 250.000000  
Pixel Y size : 250.000000