2013 Overflight Review

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Overflight Objectives

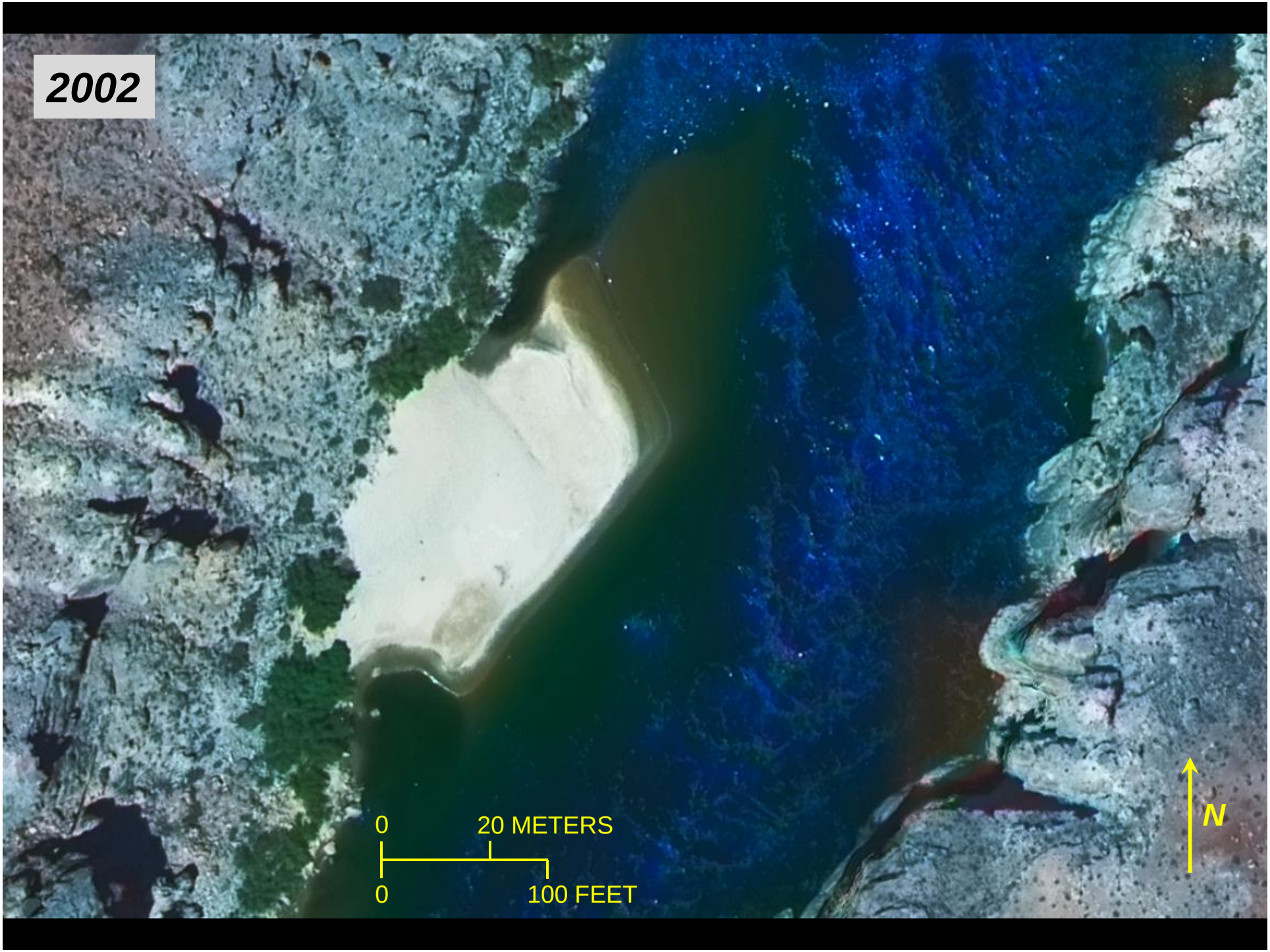
Obtain 4-band (blue, green, red, and near-infrared) and stereo panchromatic imagery for corridor with following specifications:

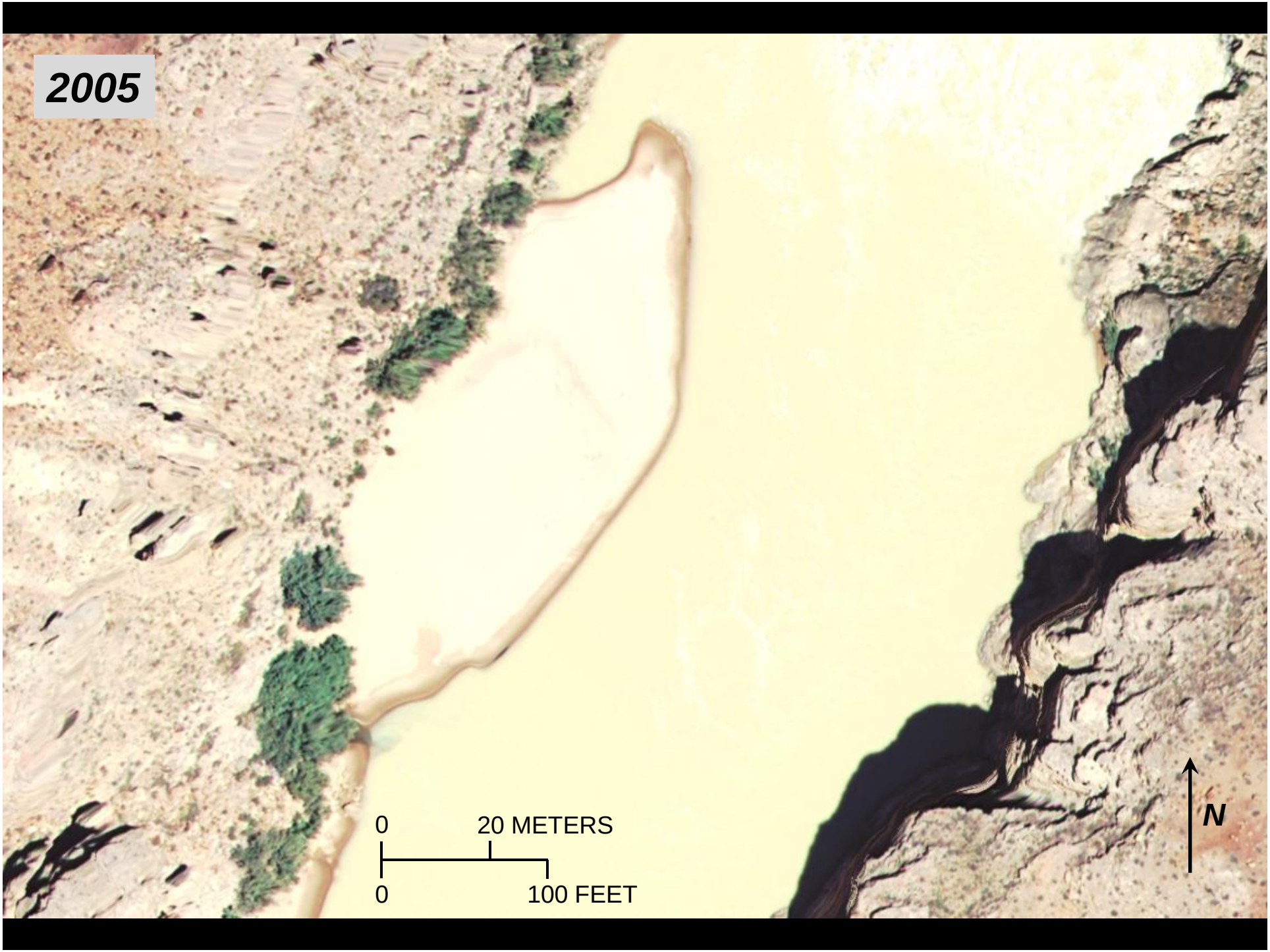
1. 20-cm ground resolution, 30-cm positional accuracy
2. Consistent, linear detector response to surface reflectance
3. 16-bit dynamic range with no detector saturation
4. 4-band data acquired with single lens, but 4 detectors
5. High-sun elevation for minimal topographic shadows
6. No cloud shadows
7. Deliver 20-cm orthorectified, 16-bit 4-band imagery as flight lines
8. Deliver digital surface model (DSM) with 25-cm vertical accuracy as map tiles

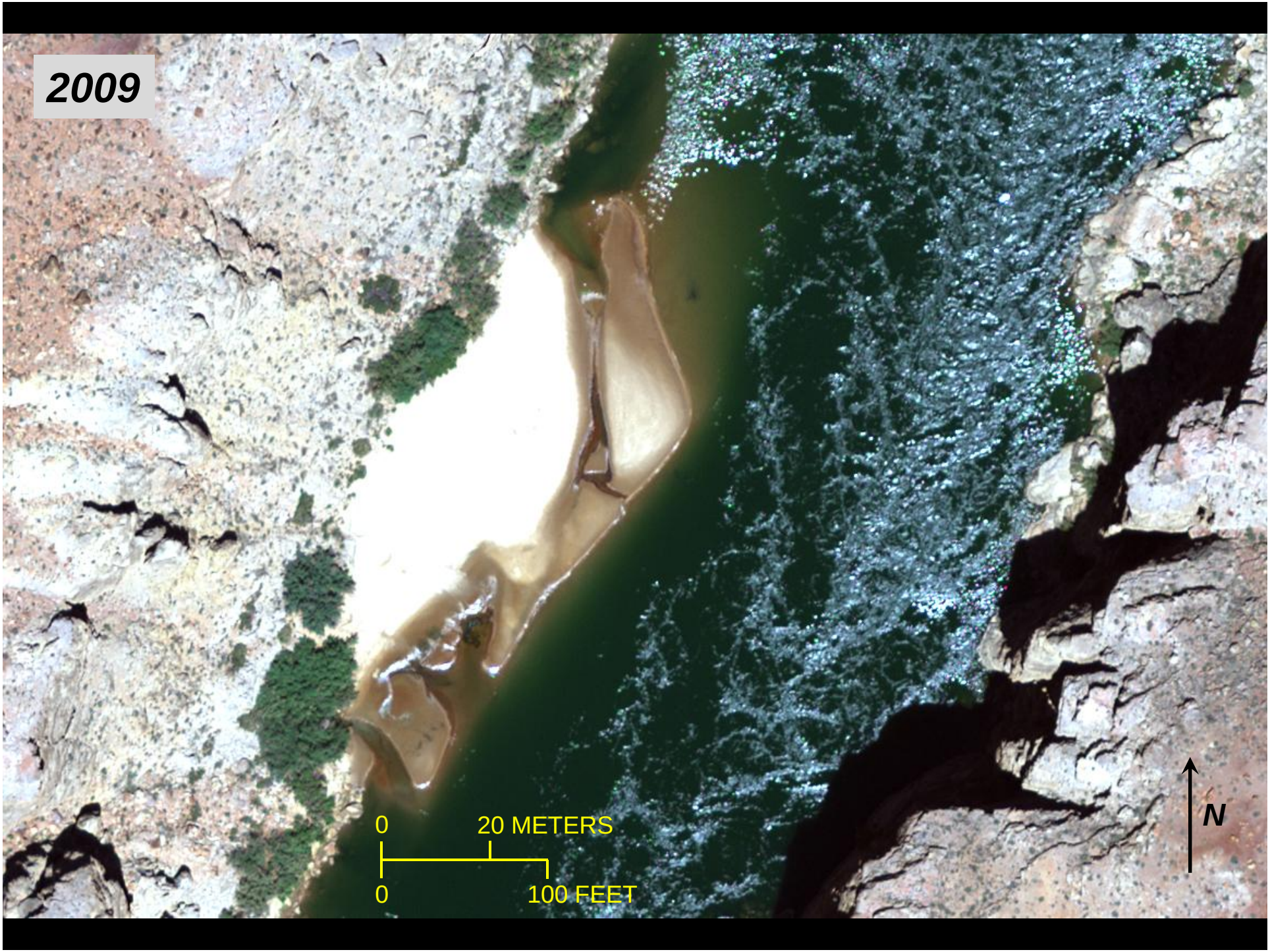
In terms of data collection, all data were collected without cloud shadows, at high Sun elevations, and therefore minimal topographic shadows, within 6 days.

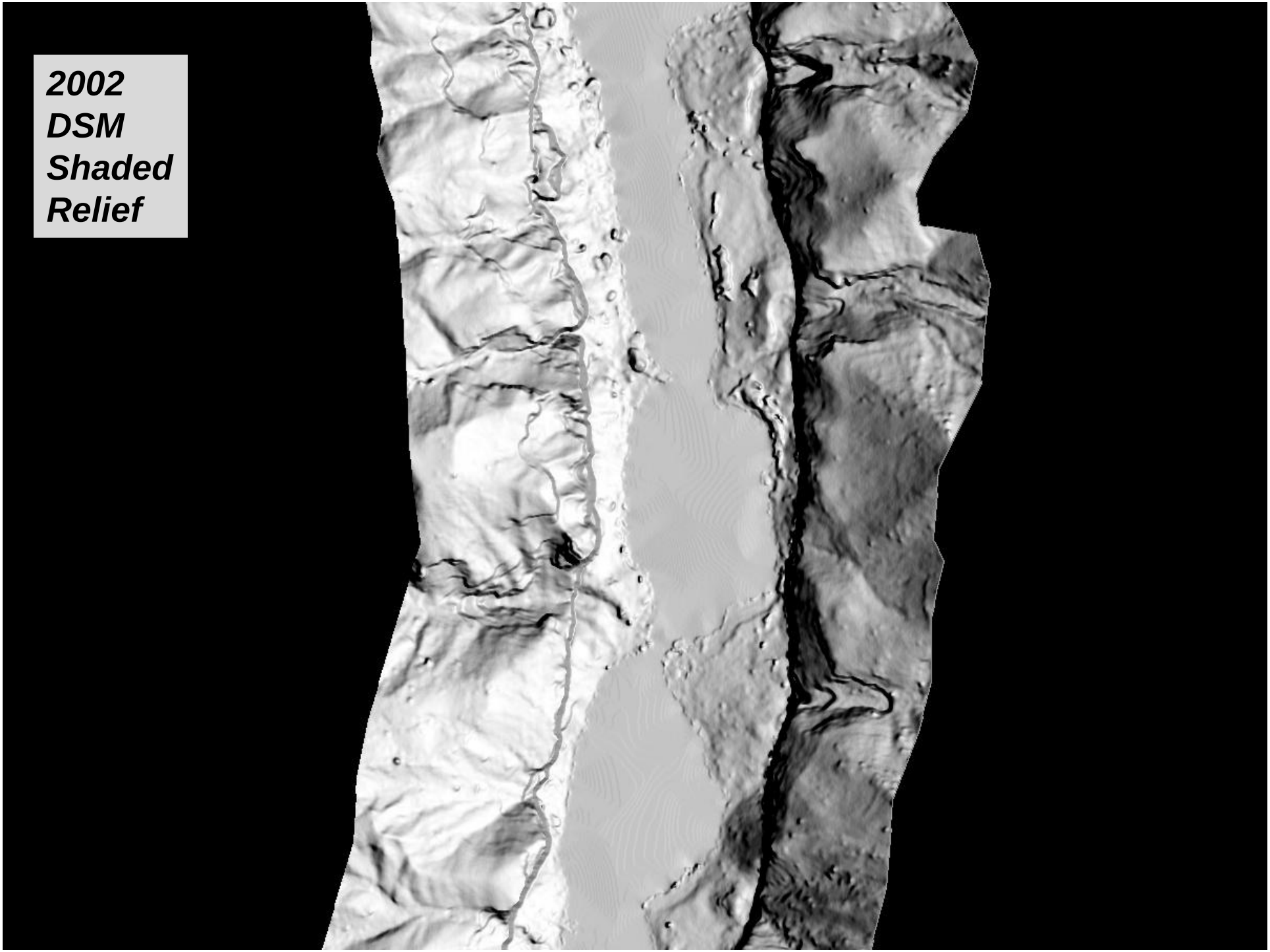
Turbulence caused daily re-collection of a few flight lines.

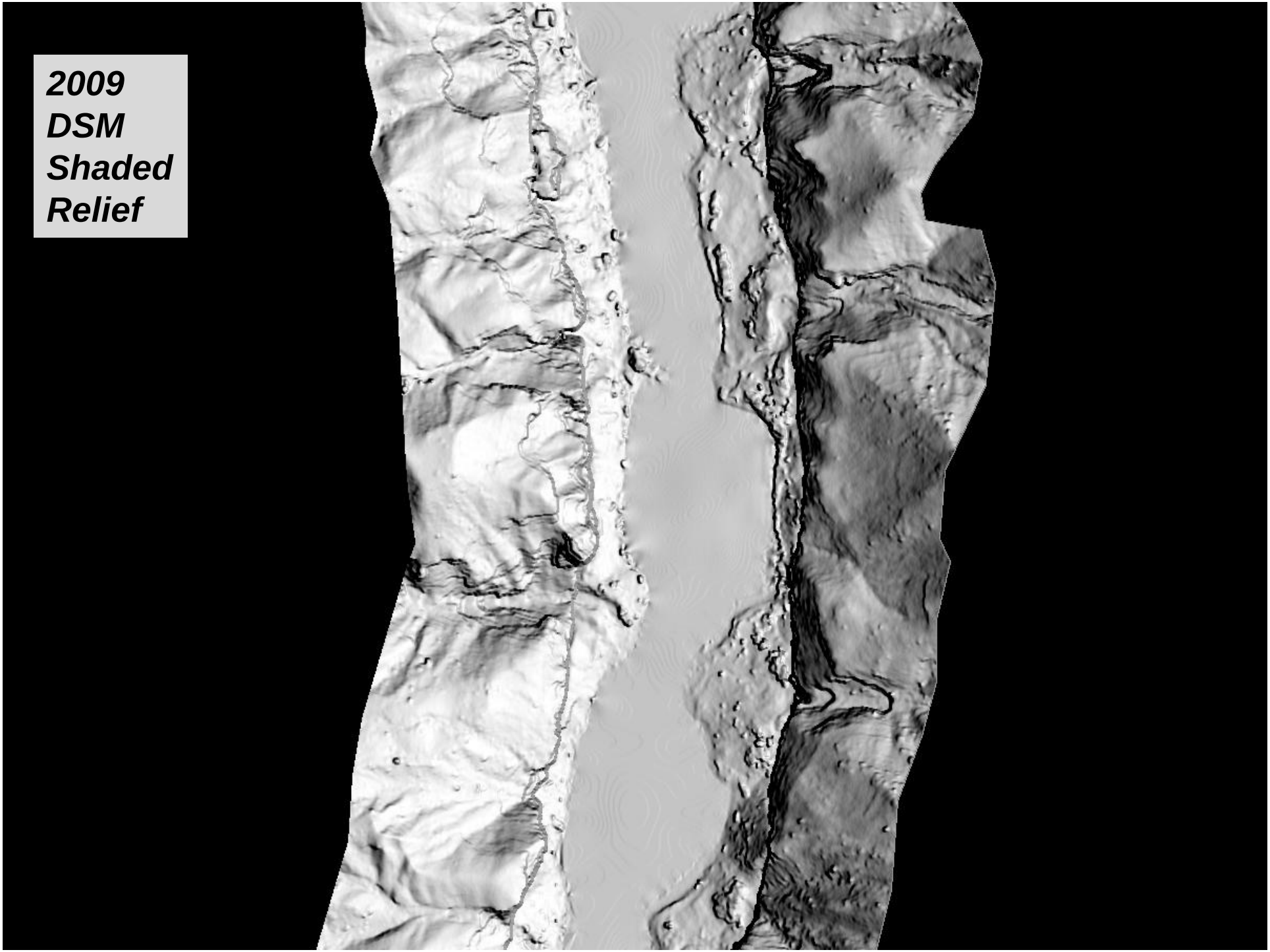
The same sensor used in 2009 was used in 2013, just newer, faster model.

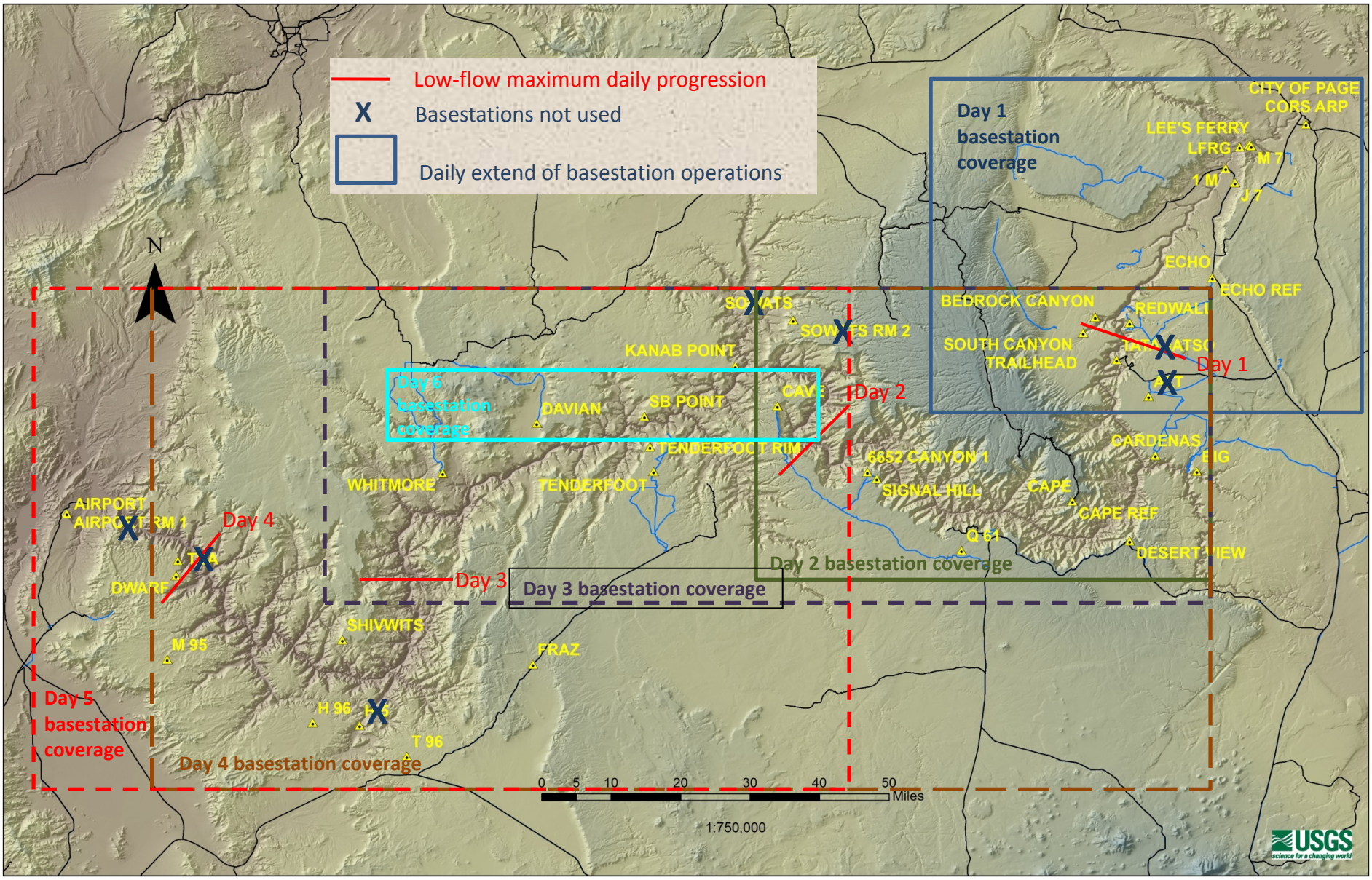

2002
0
20 METERS
0
100 FEET
N


2005
0
20 METERS
0
100 FEET
N

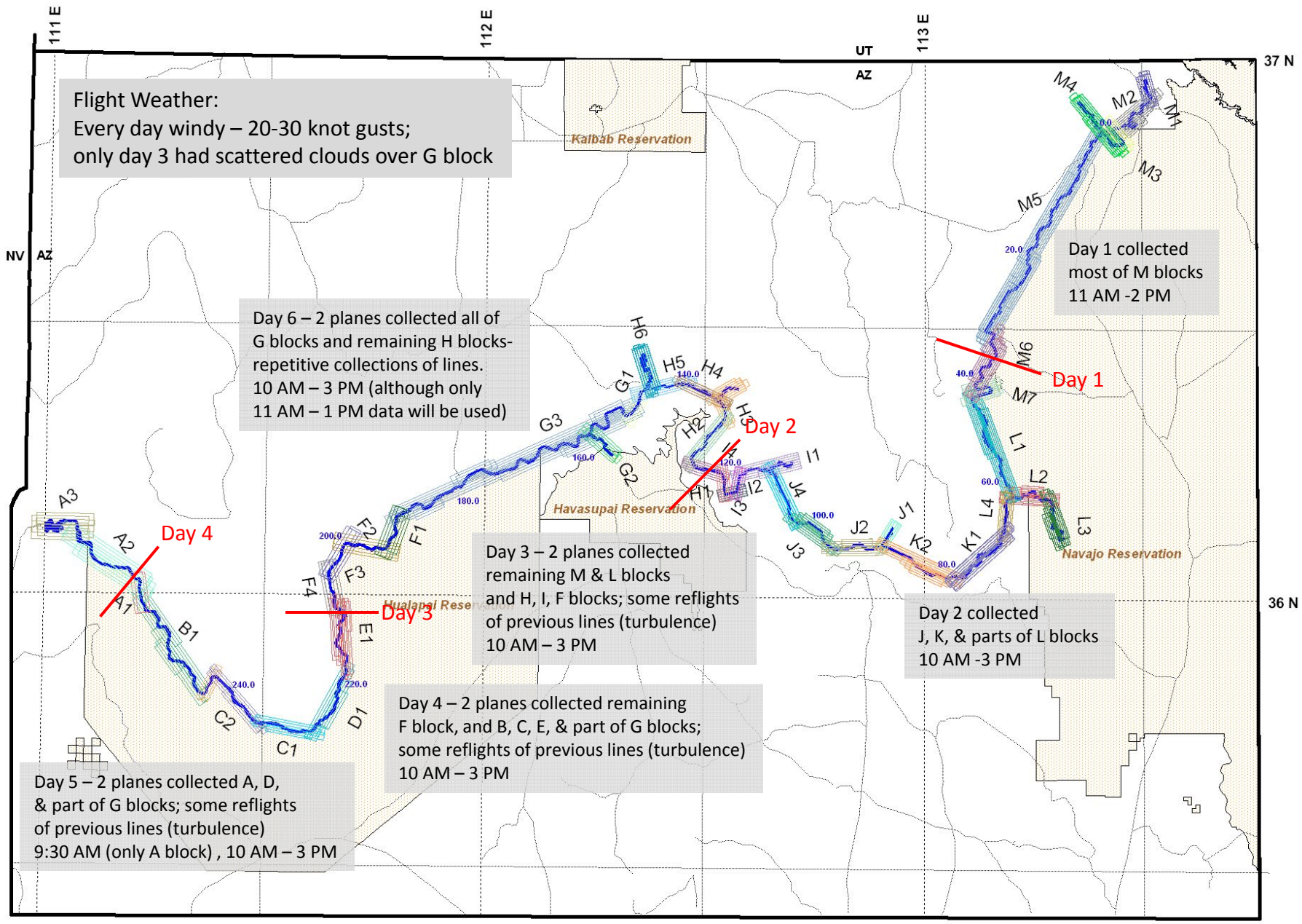

2009
0
20 METERS
0
100 FEET
N


2002
DSM
Shaded
Relief


2009
DSM
Shaded
Relief



GPS Rim Basestation Operations during Overflights



All data collected in 6 days without any delays, except for reflights of certain lines due to turbulence (which produced image smears).

Total Cost of the 2013 Collection and Processing

Overflight 2013	Net Cost	Gross Cost
Fugro EarthData Collection	433,256	482,339
Ground Target Panels	2,393	2,664
Supplies	1,202	1,338
M. Dennis, people, & receivers	24,800	27,610
Non-government base station personnel	9,383	10,445
OVERALL TOTAL	471,033	524,396

Processing of 2002 and 2009 Data