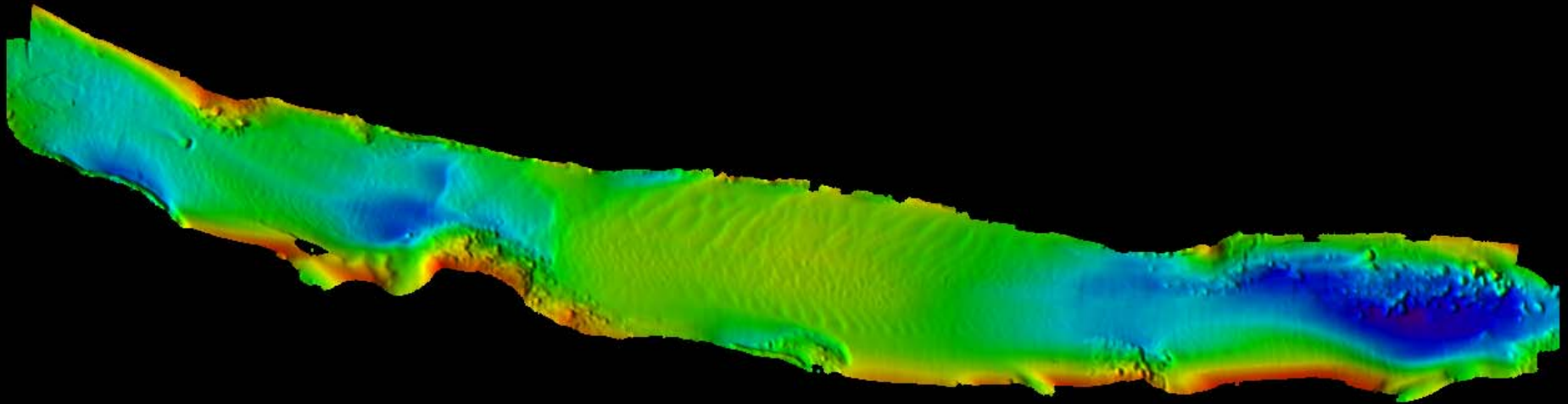


*A FISTful of sand: A reach-based approach
to fine-grained sediment monitoring*



Matt Kaplinski

Northern Arizona University



Fine-grained Integrated Sediment Team:

Utah State University

Jack Schmidt, Sarah Goeking

Northern Arizona University

Rod Parnell, Joe Hazel, Mark Manone, Matt Kaplinski, Bob Tusso,
Nams

U.S. Geological Survey

Research - Dave Topping

Coastal and Marine Geology - Dave Rubin, Roberto Anima, Hank Chezar,,



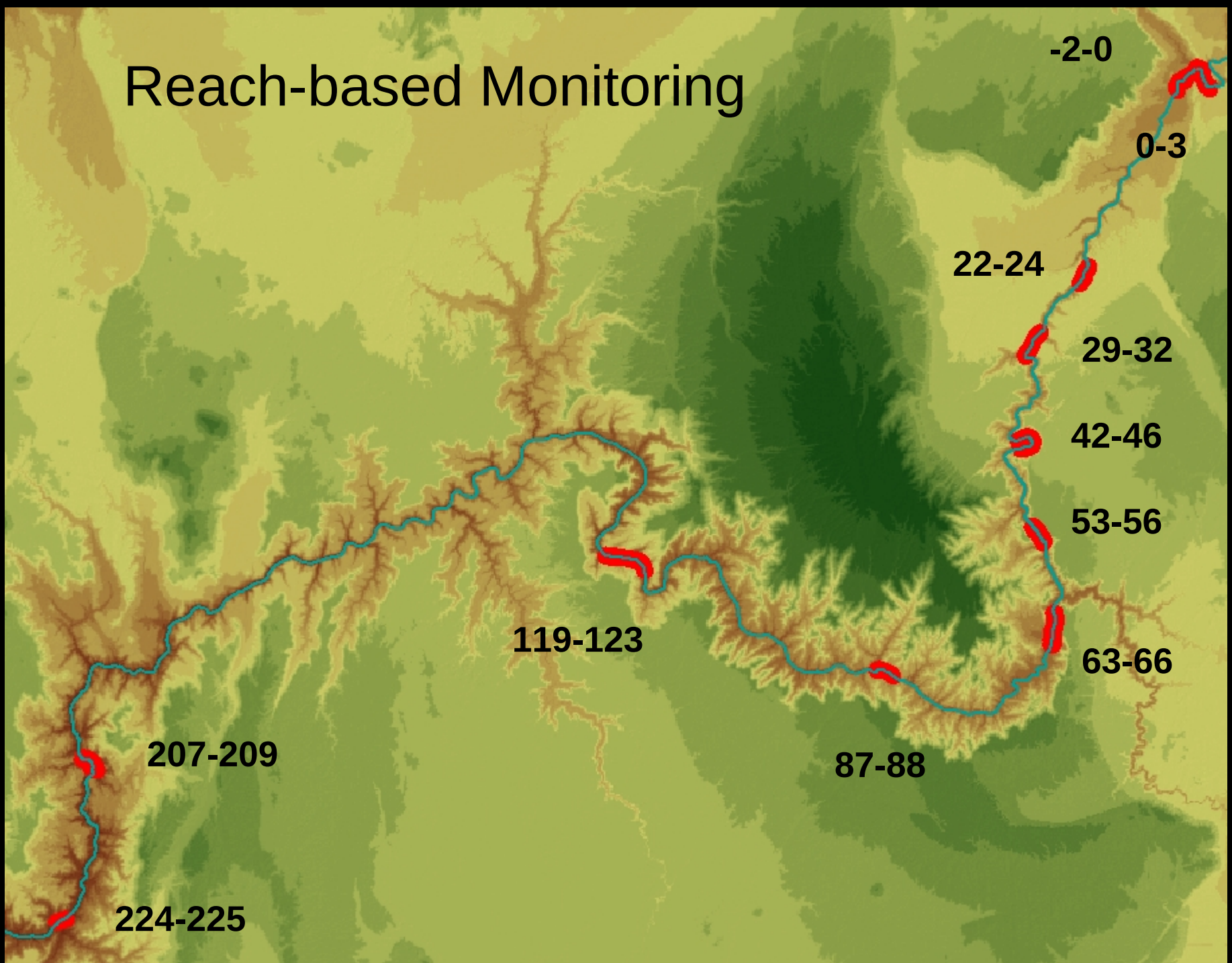
Fine-grained Integrated Sediment Team:

U.S. Geological Survey
SWBSC-GCMRC

Ted Melis, Keith Kohl, Mark Gonzales, Kristin Brown, Elizabeth Fuller,
Steve Meitz, Mike Breedlove, Tim Andrews, Fritz, Parke, everybody else.

All the boatmen from Humphrey Summit

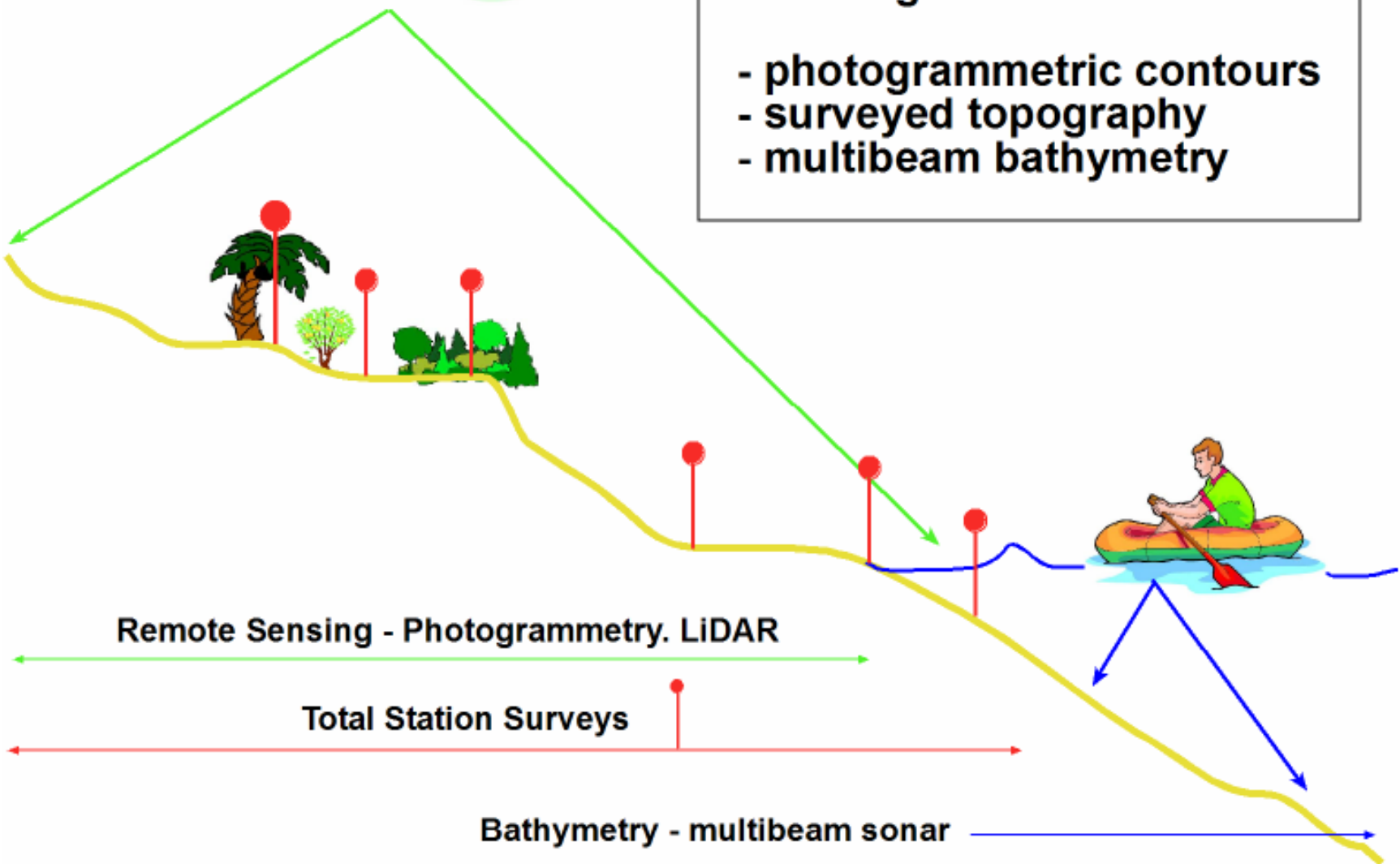
Reach-based Monitoring

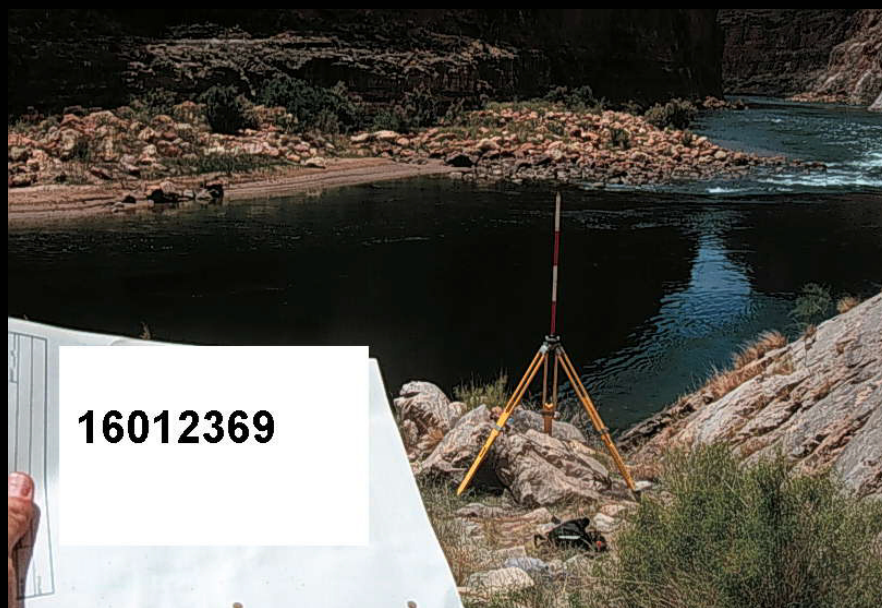
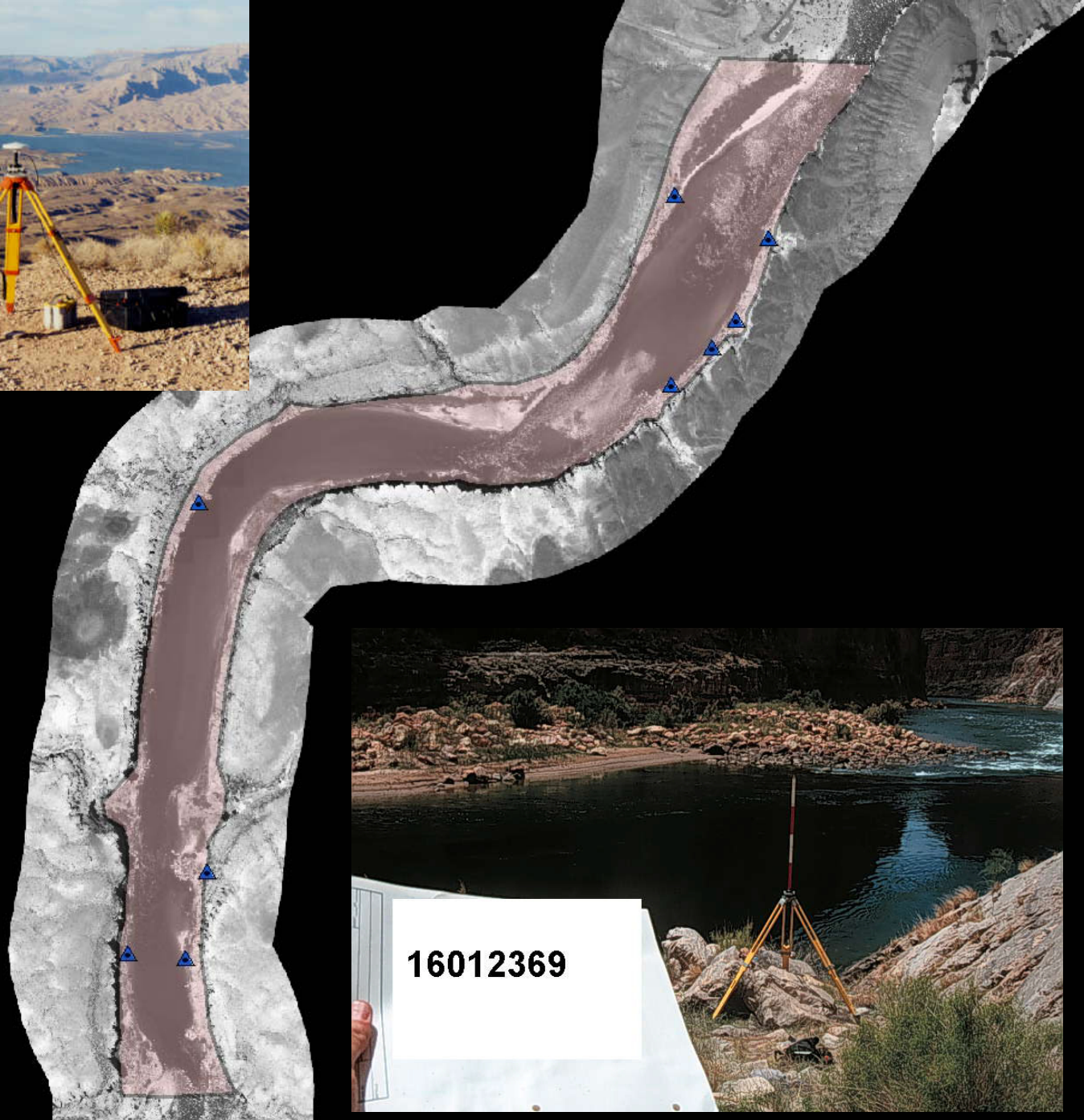




Integrated data sets:

- photogrammetric contours
- surveyed topography
- multibeam bathymetry











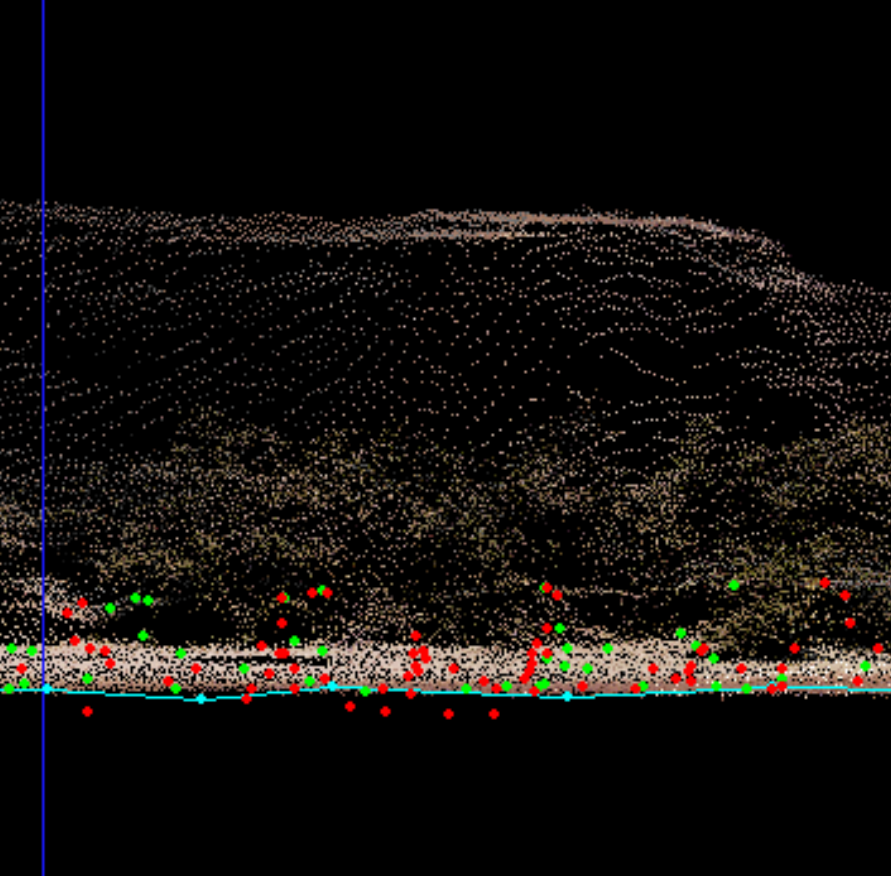


Reach # / Name	#of topo pts used to check	Ave. Diff	Abs. Ave. Diff.	Abs. Ave. Diff. of 90% with best agreement
2- Paria	258	.068 m	.170 m	.111 m



Reach# / Name	Camp Name	Contour Vol.	Surveyed Vol.	% Difference
2-Paria	NAU Site 3L	1255.50 m ³	1298.21 m ³	3.3
2-Paria	Paria Beach	3272.80 m ³	3353.88 m ³	2.4



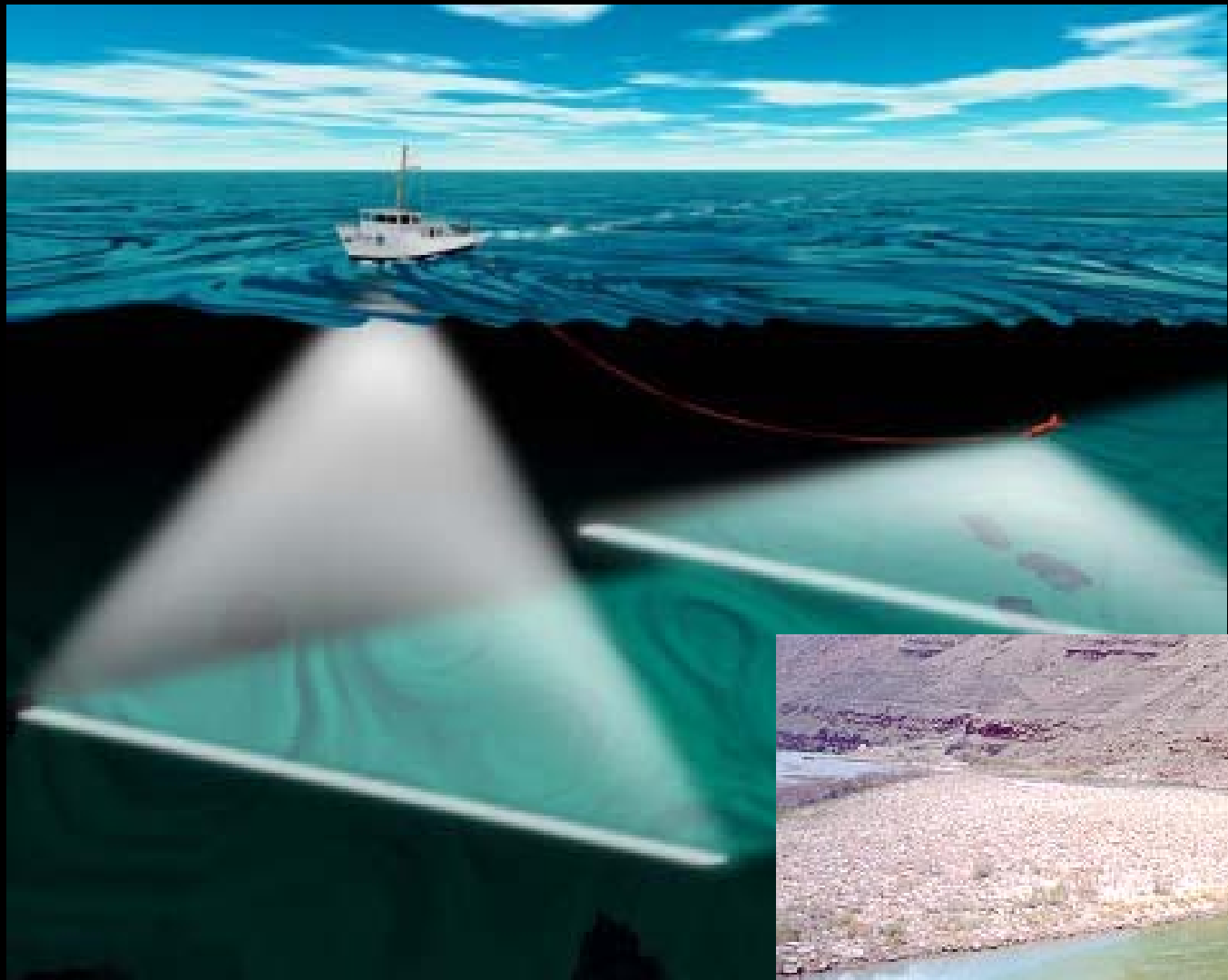


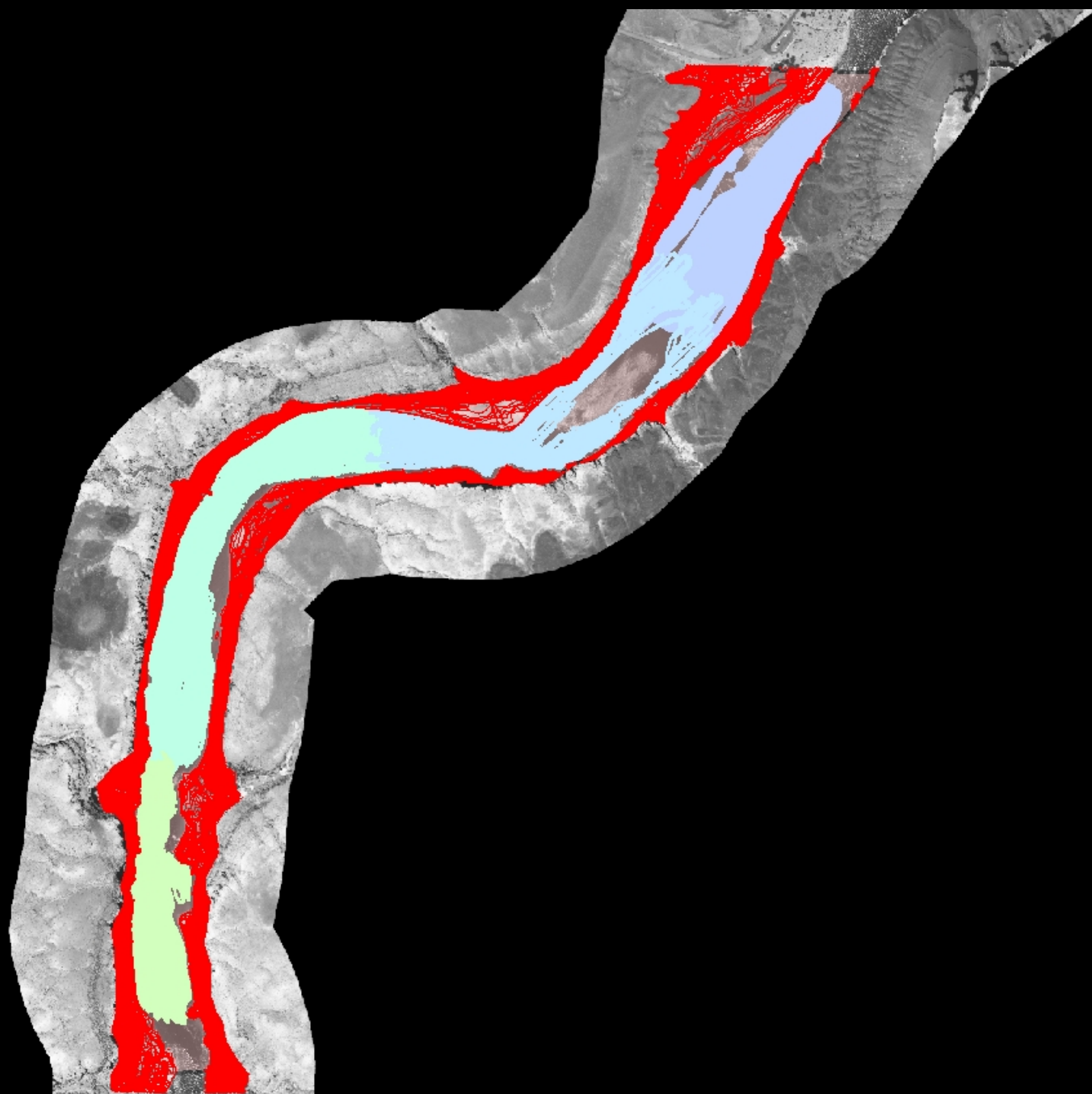
Pan Previous Delete Point Profile View	Structure None	Rotation ☒ Data View ☐ Structure -180 -25 +180	Group Attributes Point Date: 26-May-2003 UTC Name: NAMDOR03 Layer NAMDOR03 Smart Layer	Coordinate Modes North: 610268.62 m East: 218572.74 m Highest ☐ 890.07 m Wire ☐ -60000000 Ground ☒ -60000000	
	Structure Size ☒ Width ☐ Height	Mouse Pick ☒ 1 Click ☐ 2 Click (Bisect) ☐ 4 Click (Intersect)	Pick Location ☒ At Mouse Click ☐ Snap to Laser Point ☐ Snap to Point		
	1 Pixel 5 Pixels 25 Pixels				

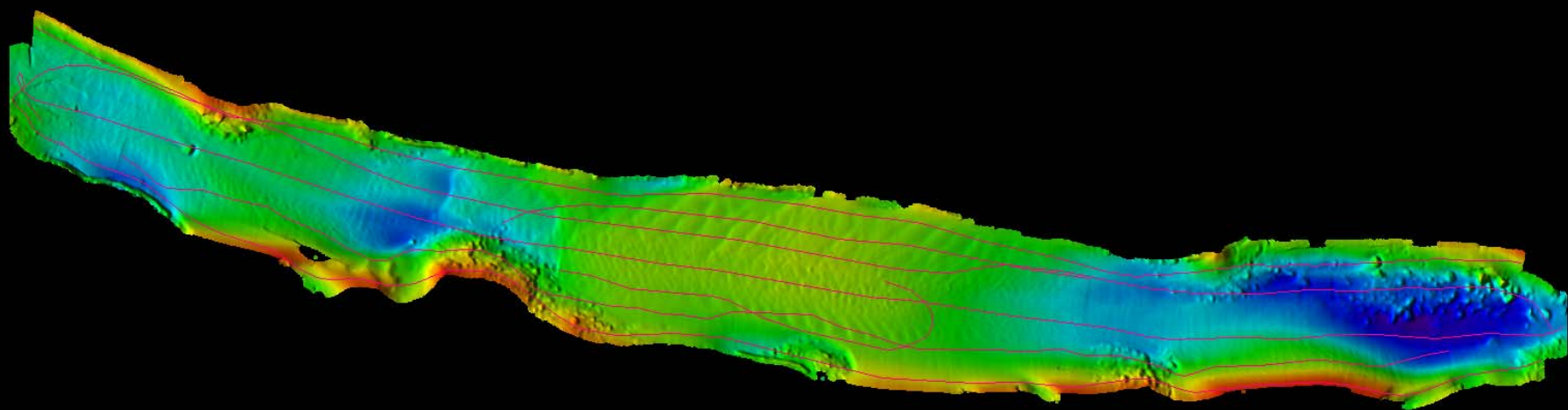
Dist(3D): 5.73 m

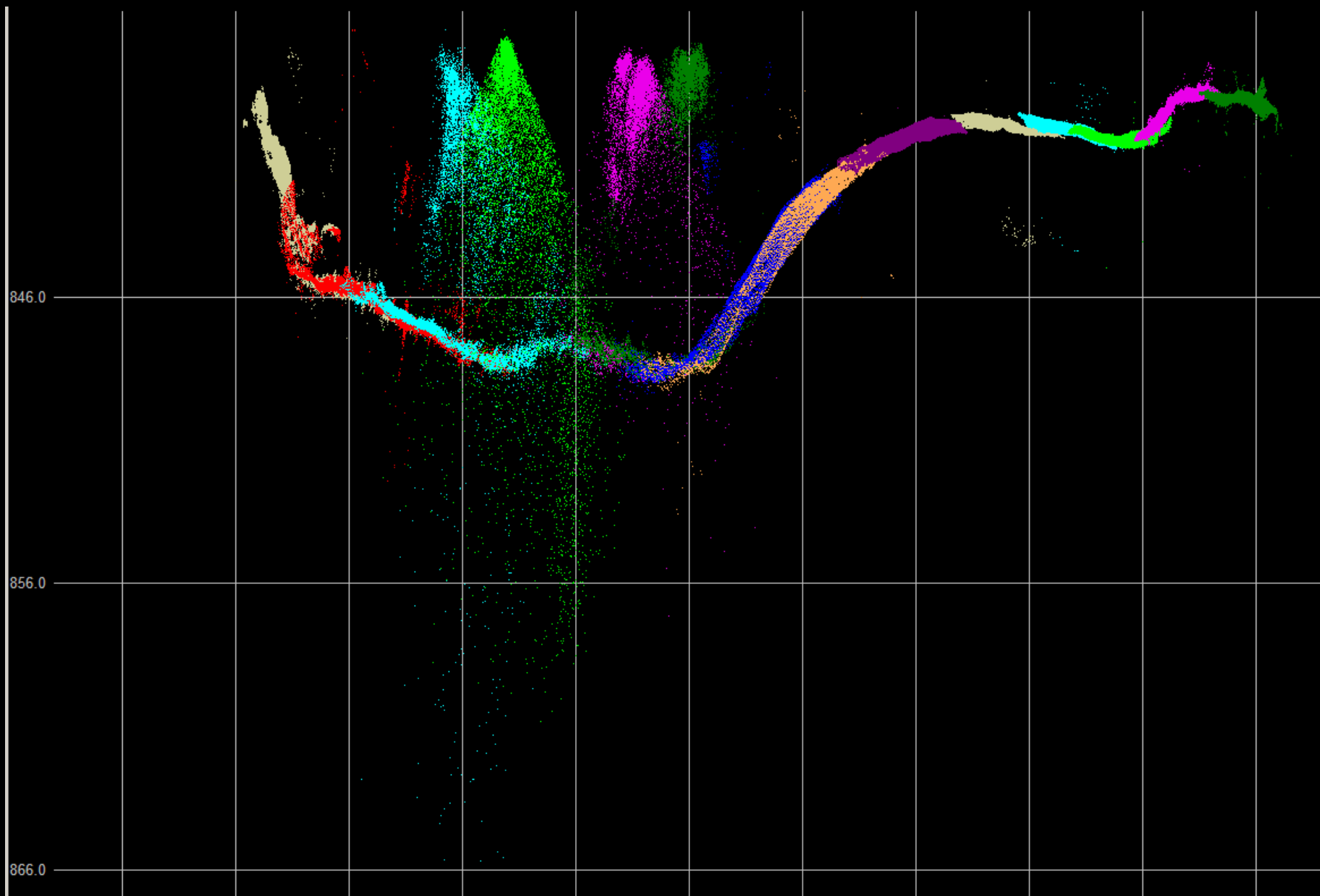
Highest - Ground:

S









Tide and Draft Corrections



Static Draft

0.00

13:53:04.516

Tide: 820.19

Tide Correction

821.0



819.0

13:48:24

13:54:54

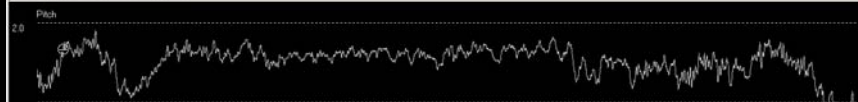
Pitch, Roll and Heading

Line Azimuth

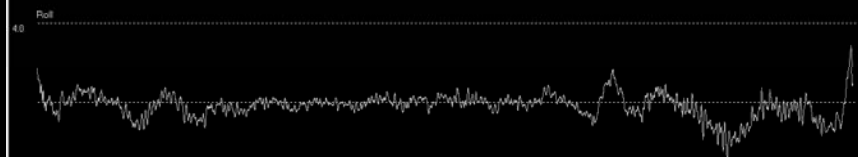
309.1

13:48:37.014

Pitch: 1.49



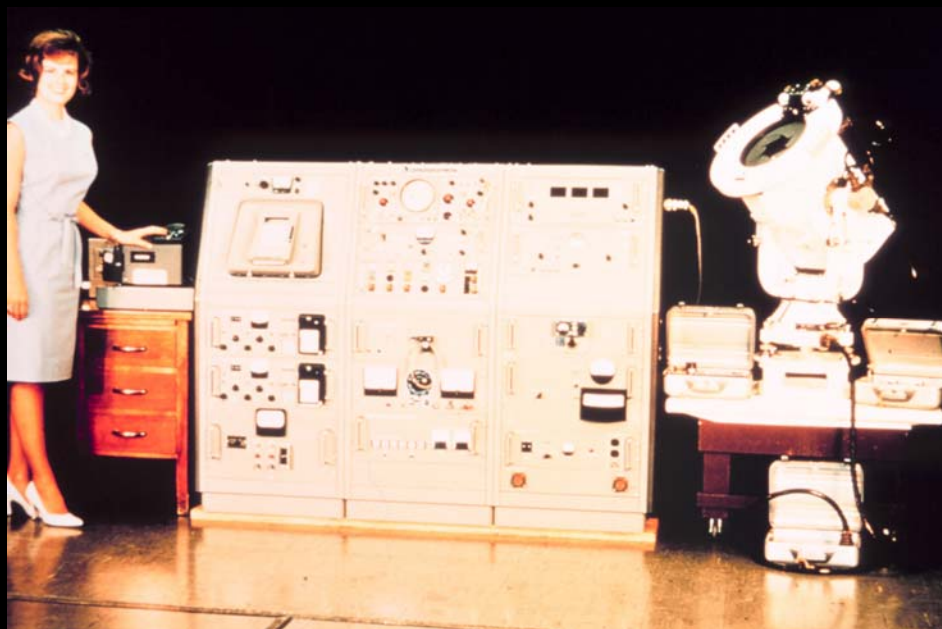
13:48:24 13:54:54



13:48:24 13:54:54



13:48:24 13:54:54



Integrated data sets

- photogrammetric contours
- surveyed topography
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