ATMOSPHERIC STUDIES WITH THE MULTI-ANGLE IMAGING SPECTRORADIOMETER

David J. Diner
Jet Propulsion Laboratory, California Institute of Technology

Optical Society of America / Optical Remote Sensing of the Atmosphere
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MISR CHARACTERISTICS

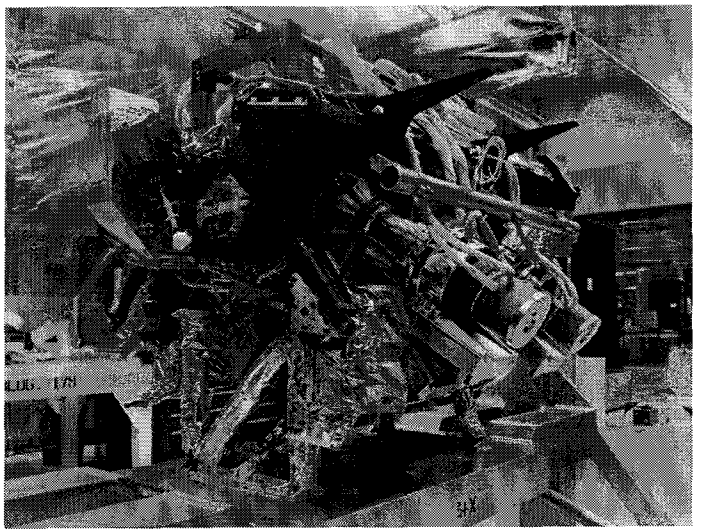
9 CCD pushbroom cameras

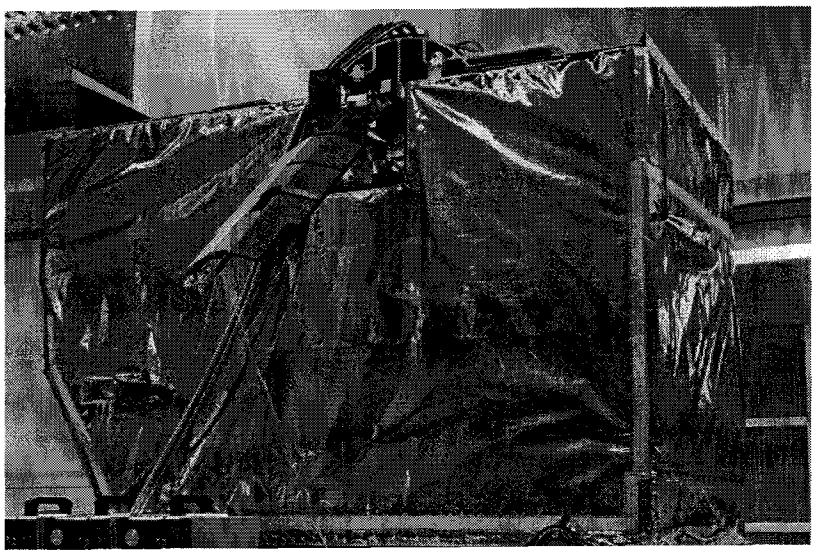
9 view angles at Earth surface:
70.5º forward to 70.5º aftward

4 spectral bands at each angle:
446, 558, 672, 866 nm

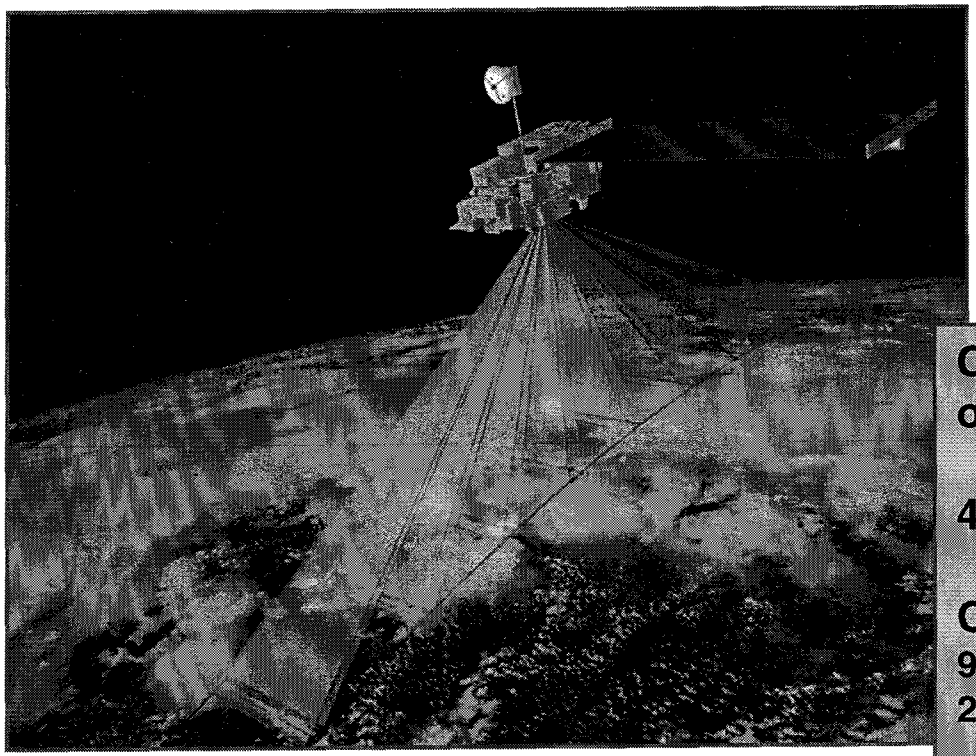
14-bit digitization

On-board calibration system





MISR OBSERVATIONAL ATTRIBUTES



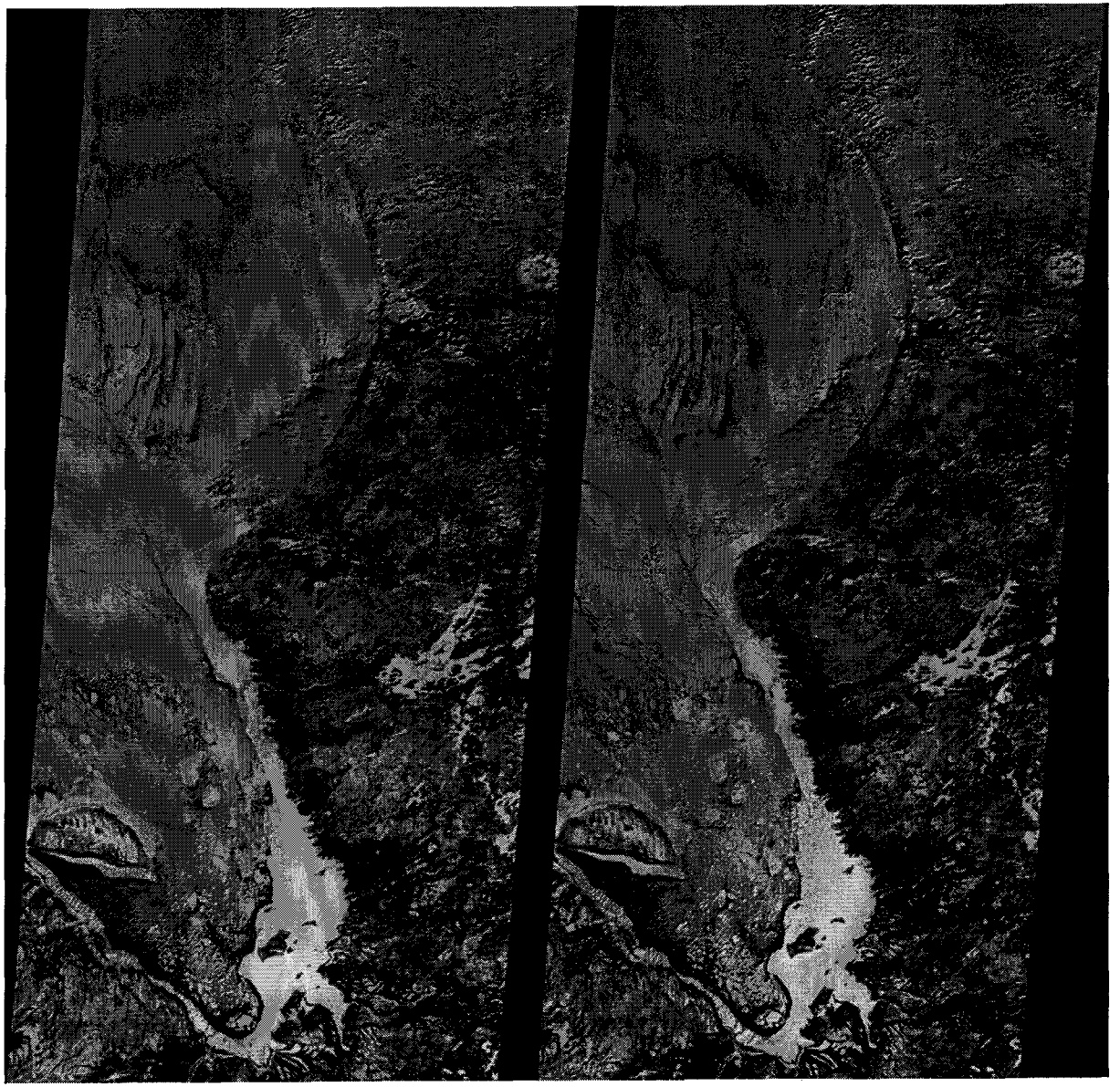
Continuous pole-to-pole coverage on orbit dayside

400-km swath

Contiguous zonal coverage:
9 days at equator
2 days at poles

275 m - 1.1 km sampling
275-m global coverage for all nadir bands and off-nadir red bands; others 1.1 km

7 minutes to observe each scene at all 9 angles

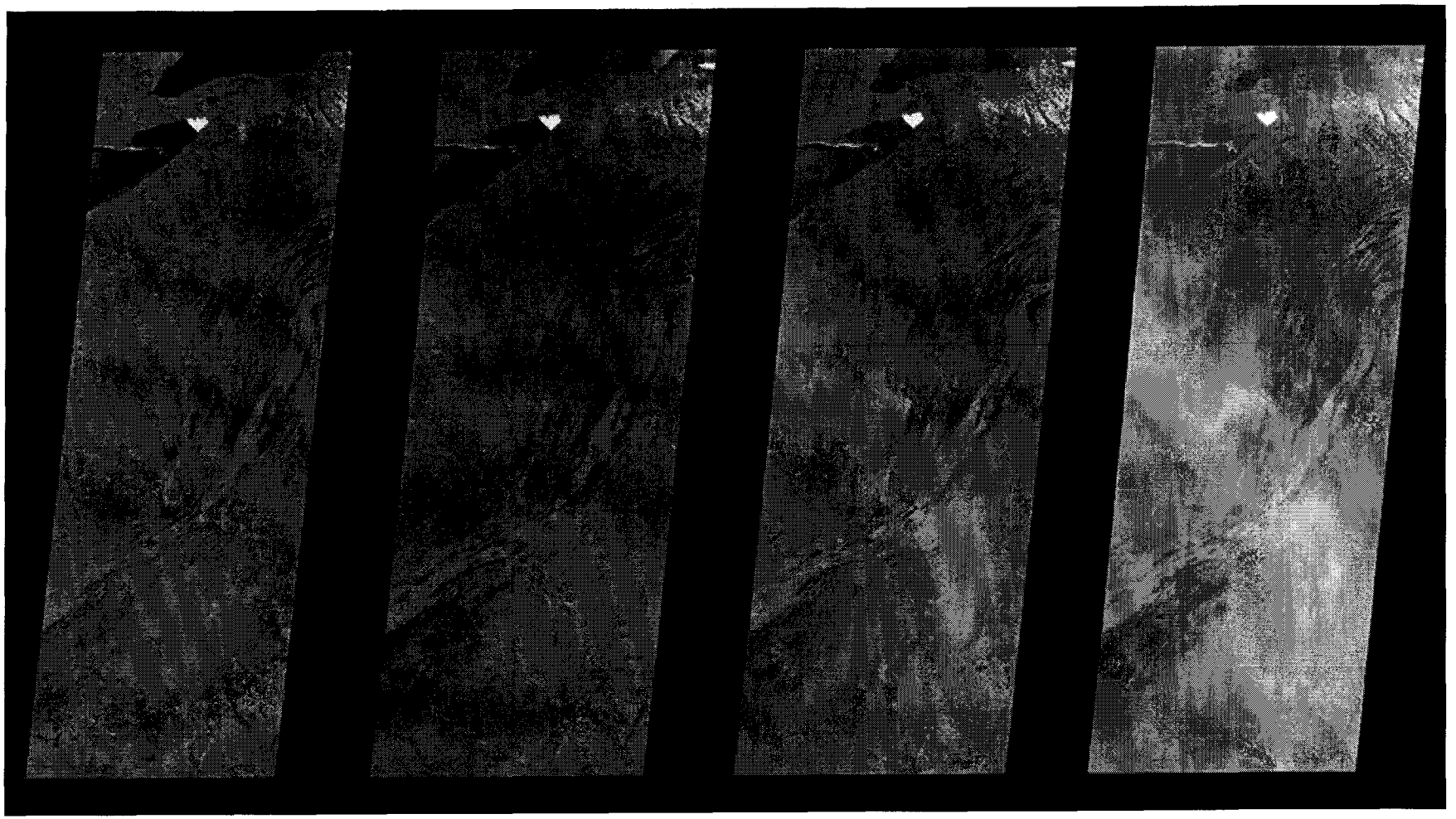


HUDSON AND JAMES BAY 24 Feb 2000

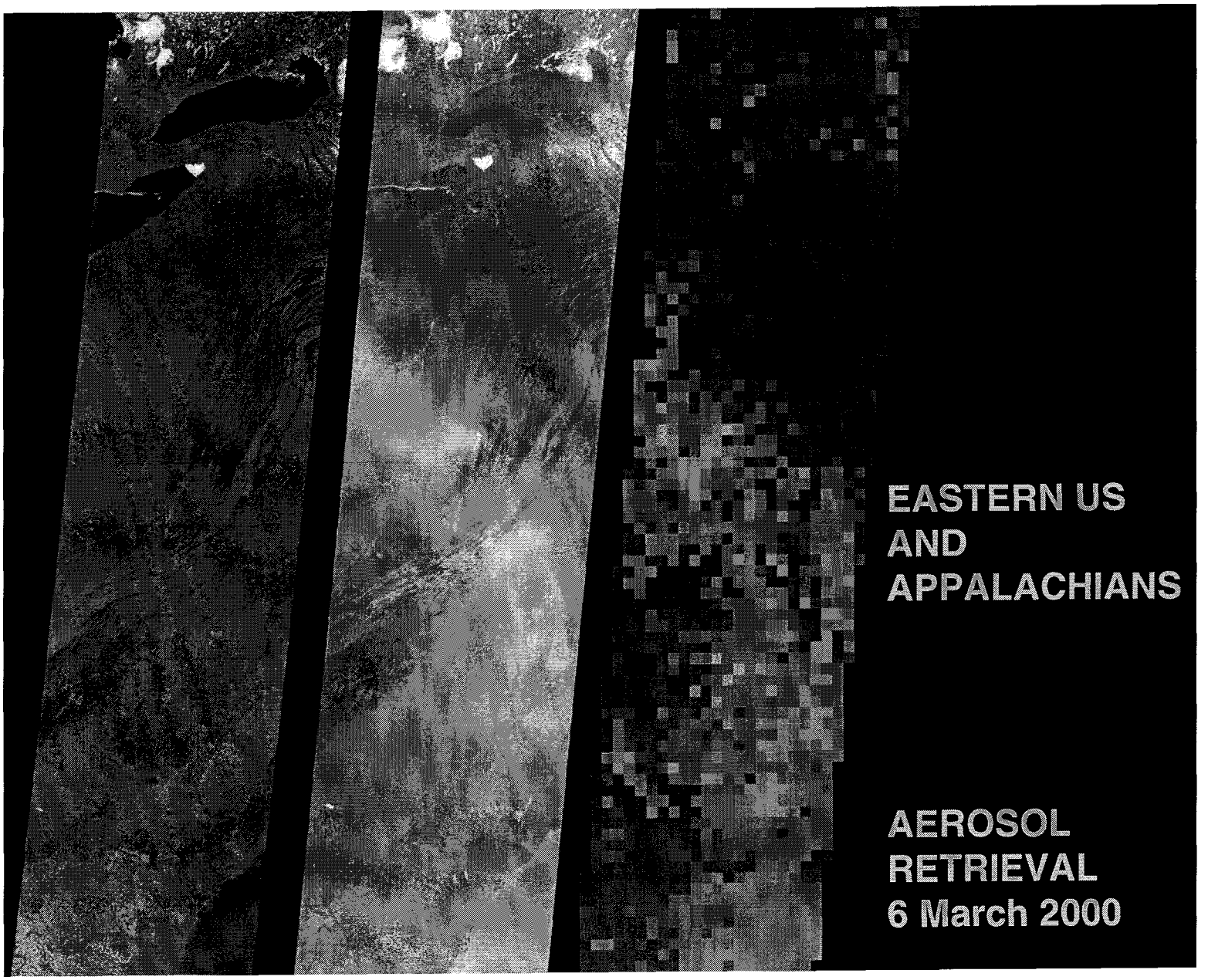
Nadir true color
blue, green, red

Multi-angle false color, red band only
46º fore, nadir, 46º aft

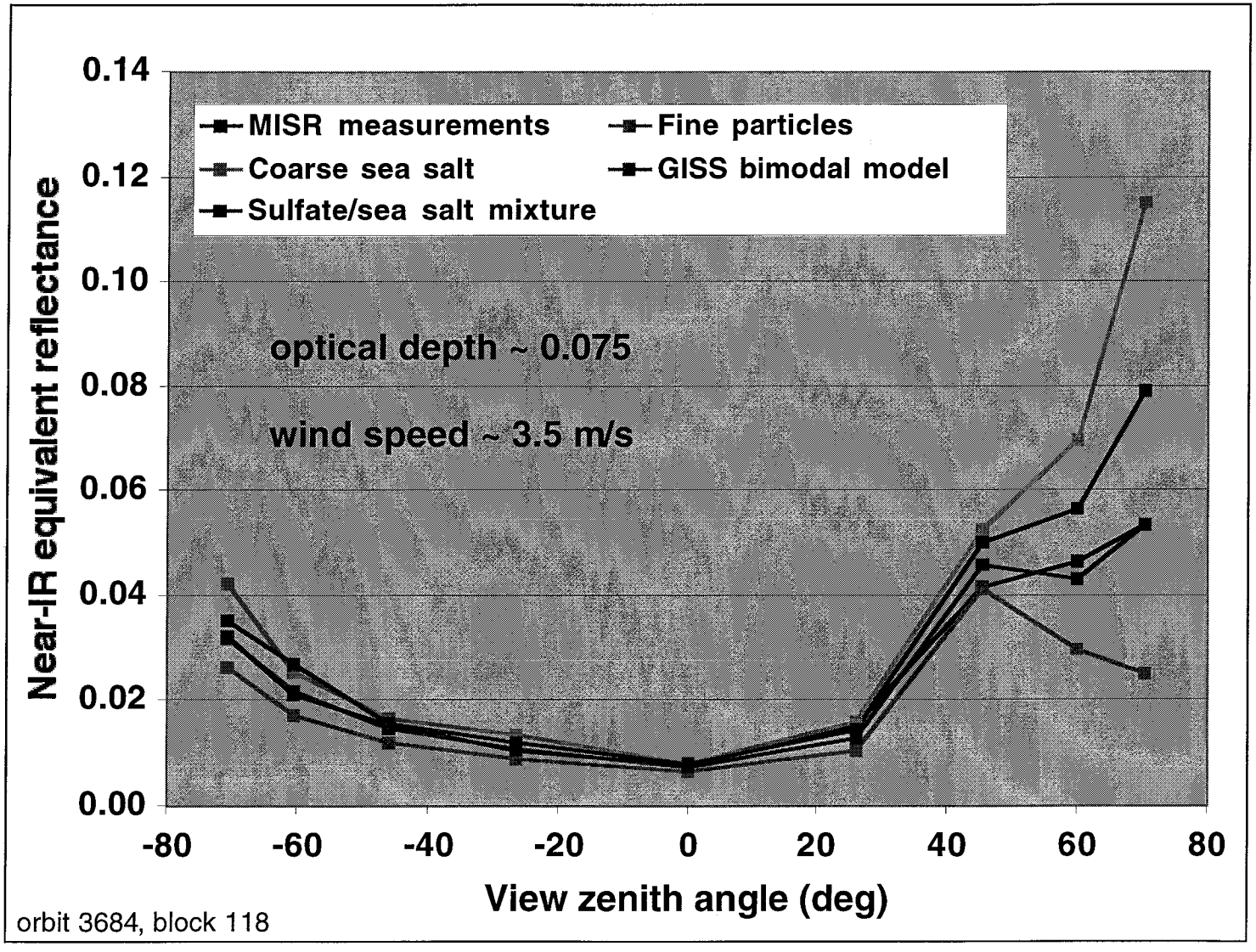
EASTERN US AND APPALACHIANS
6 March 2000



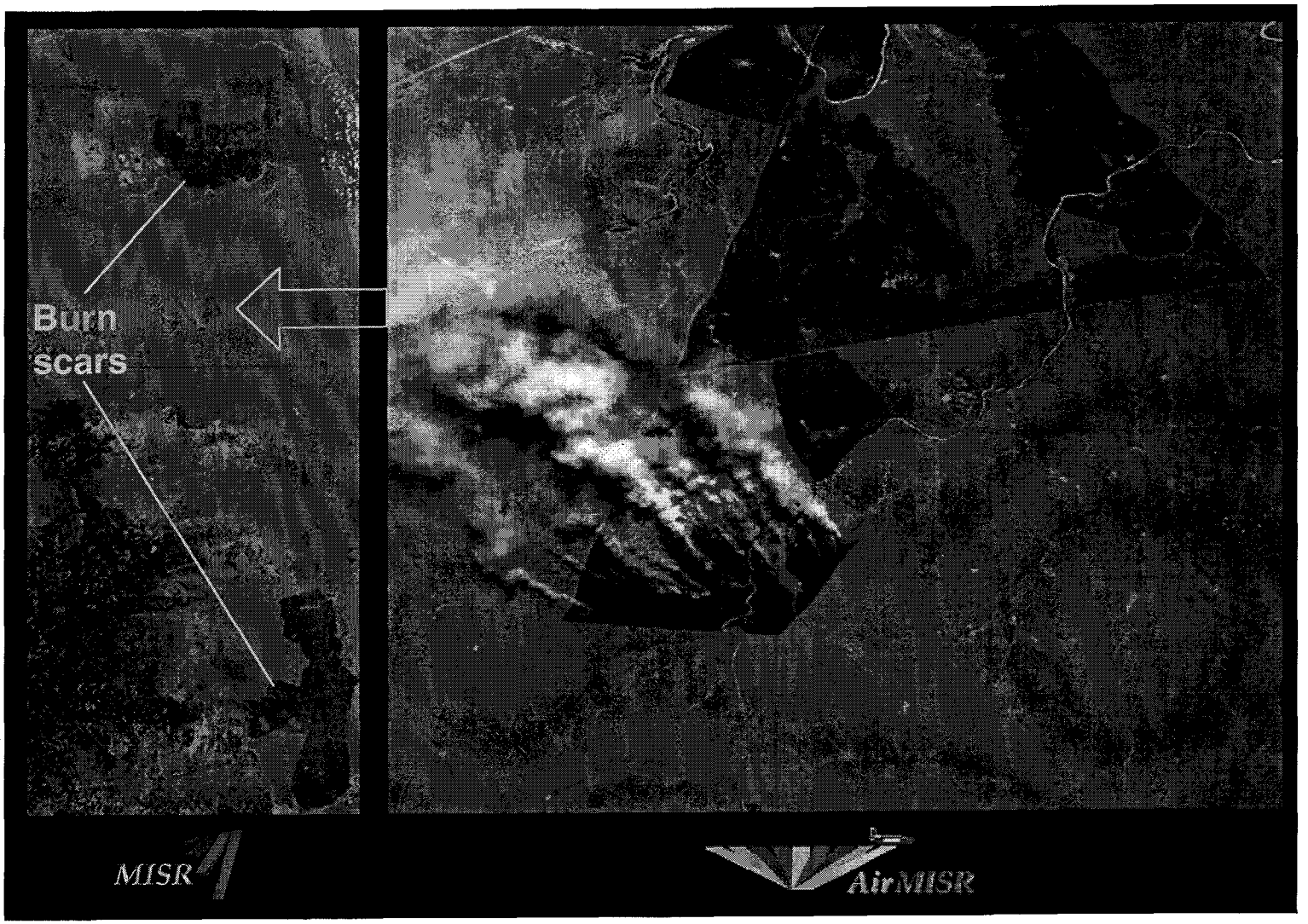
nadir 46º 60º 70º


EASTERN US
AND
APPALACHIANS
AEROSOL
RETRIEVAL
6 March 2000

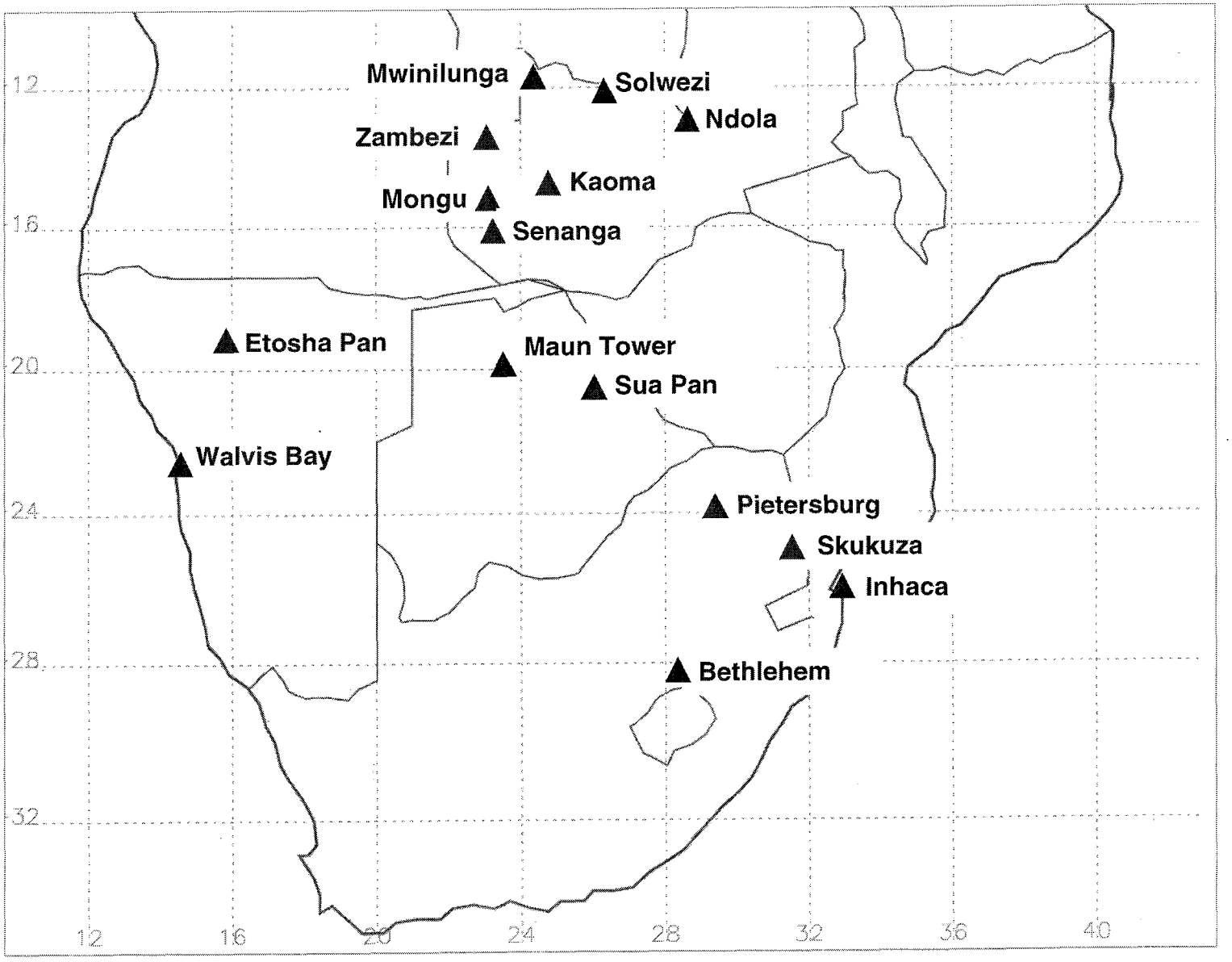
AEROSOL RETRIEVAL OVER WATER NEAR SOUTH AFRICA, 27 August 2000

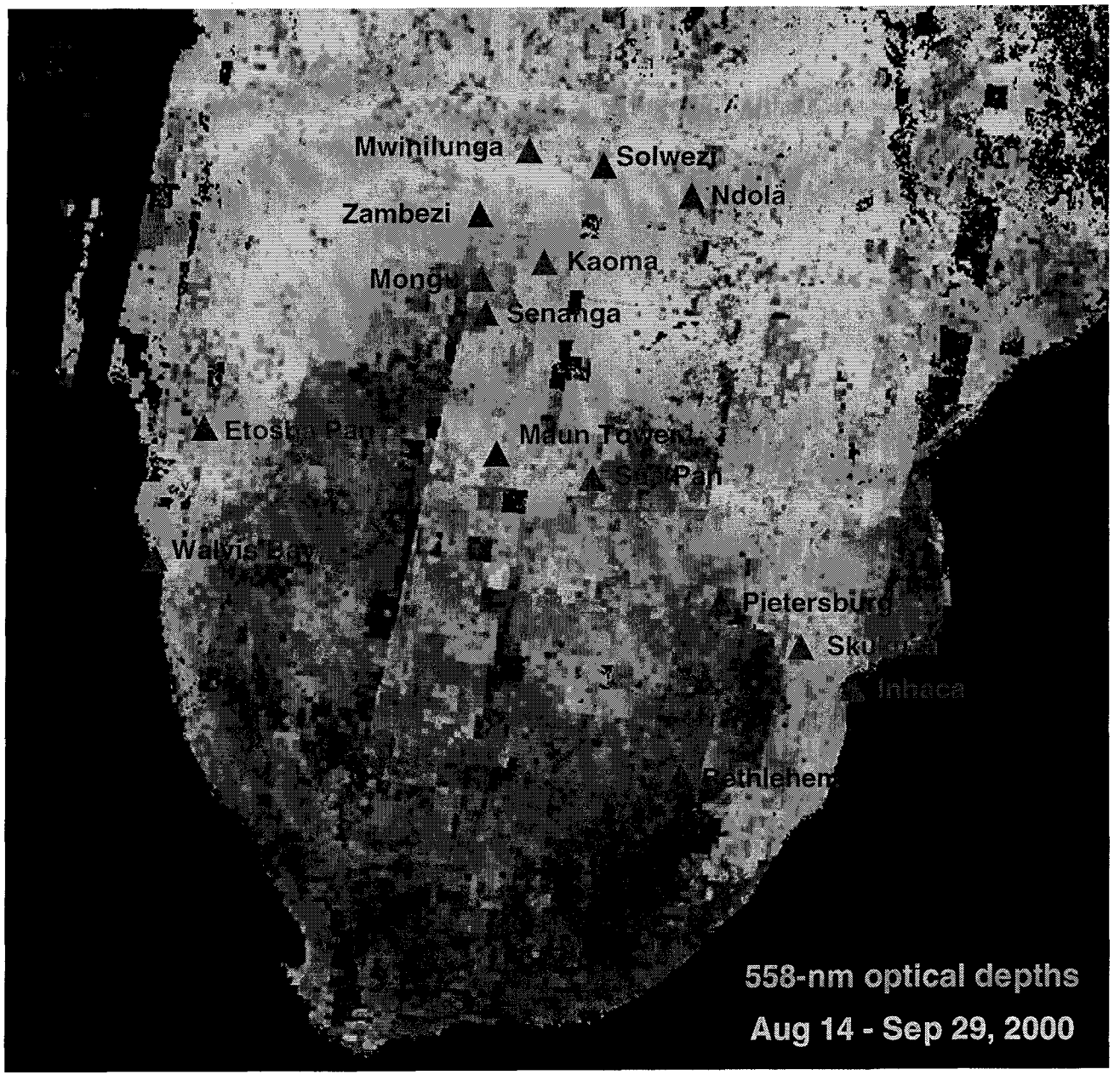


SOUTH AFRICA GRASSLAND FIRES
KRUGER NATIONAL PARK, 7 September 2000

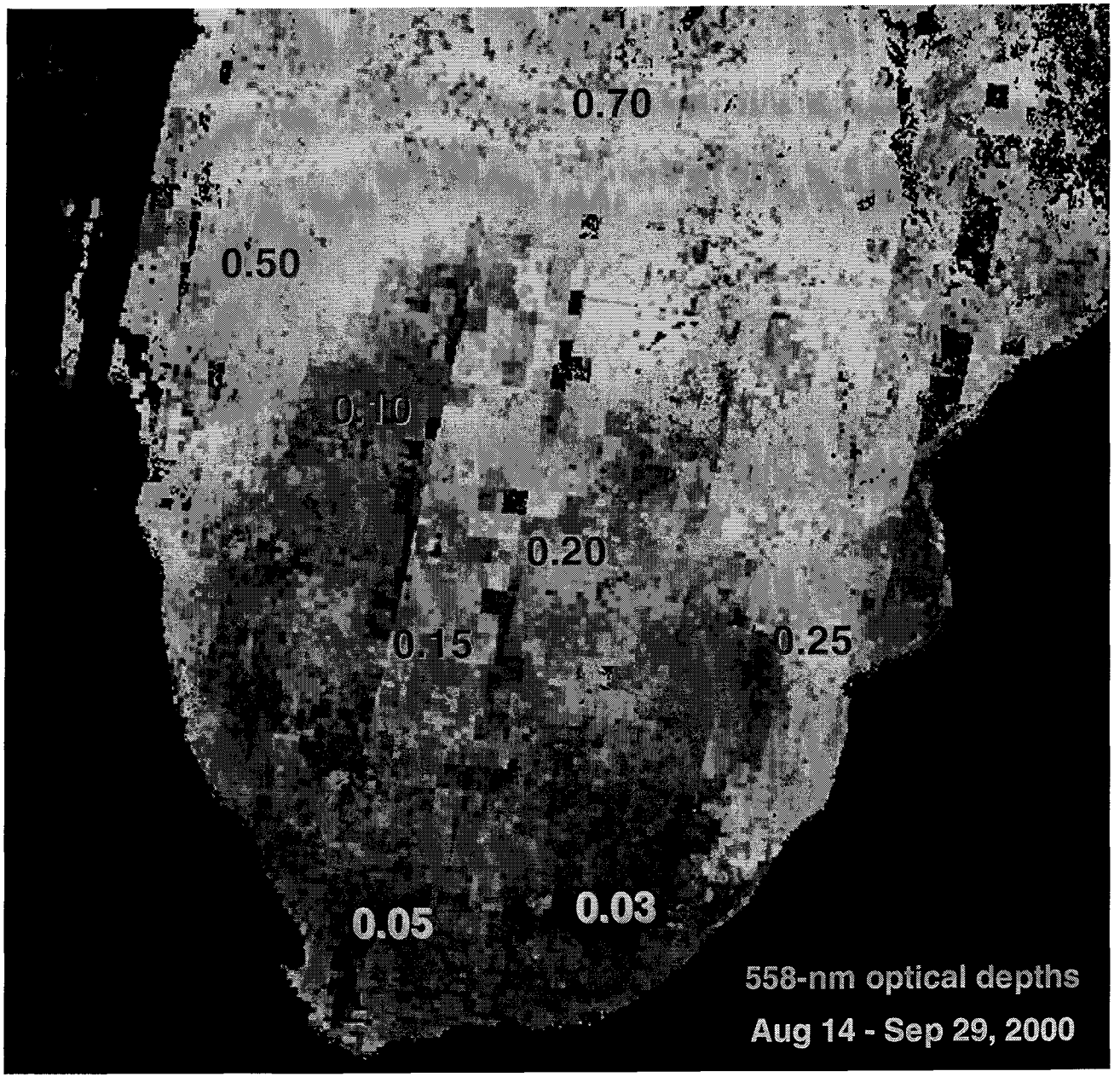


SAFARI-2000 AERONET SITES



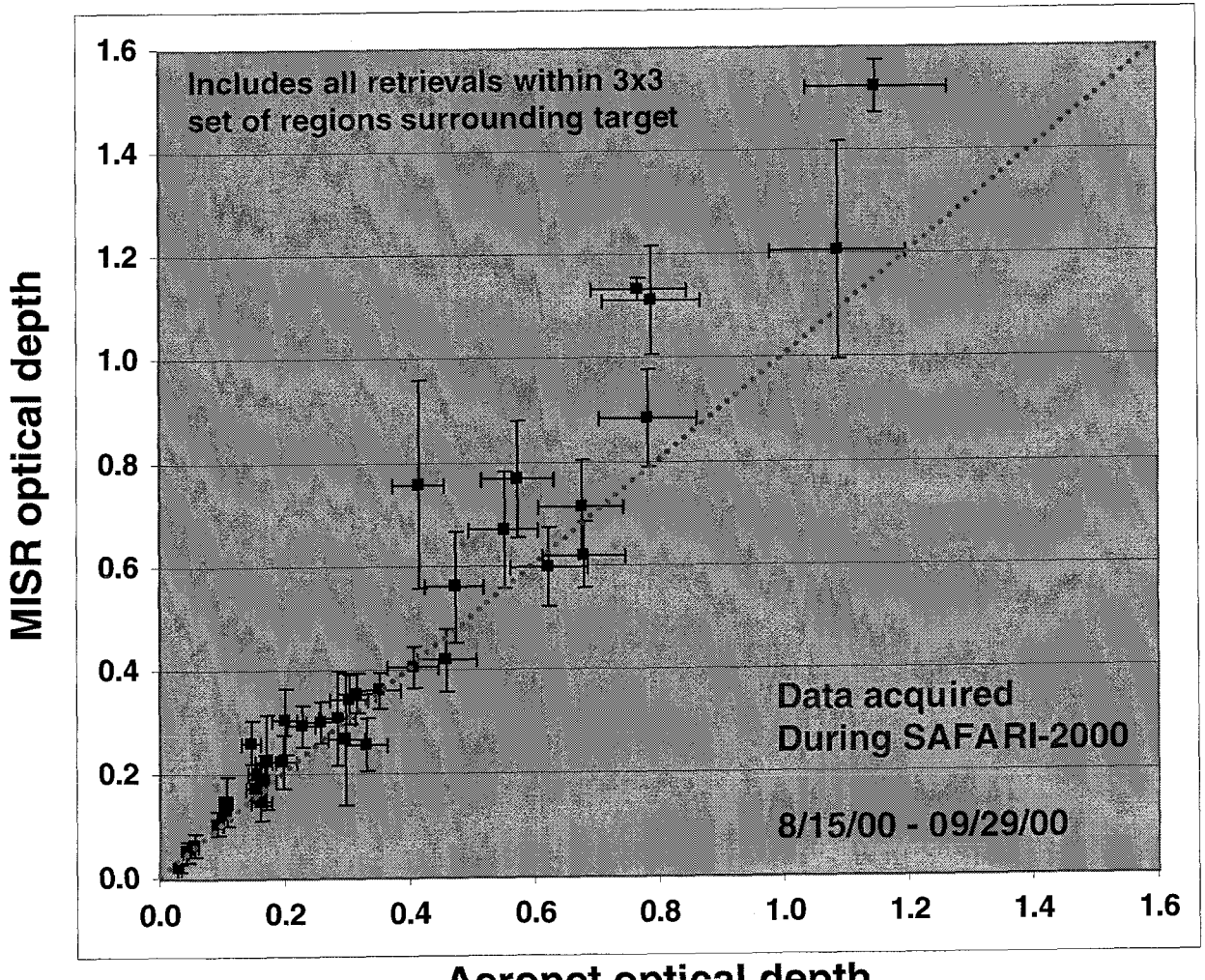


MISR AEROSOL OPTICAL DEPTH MAP



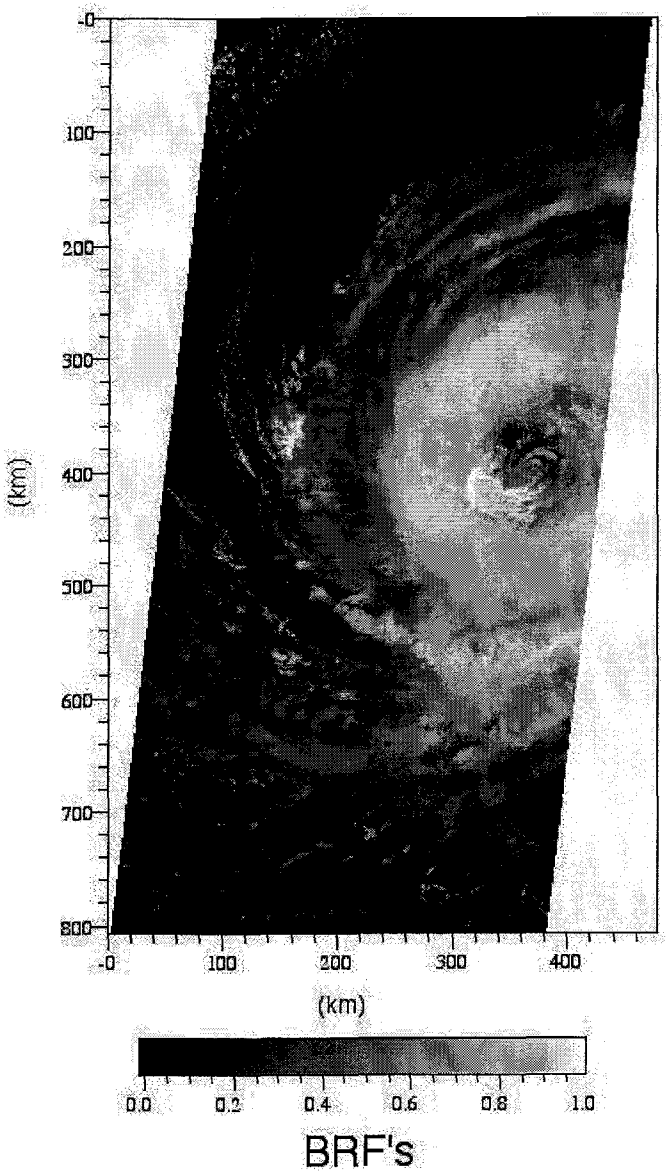
MISR AEROSOL OPTICAL DEPTH MAP

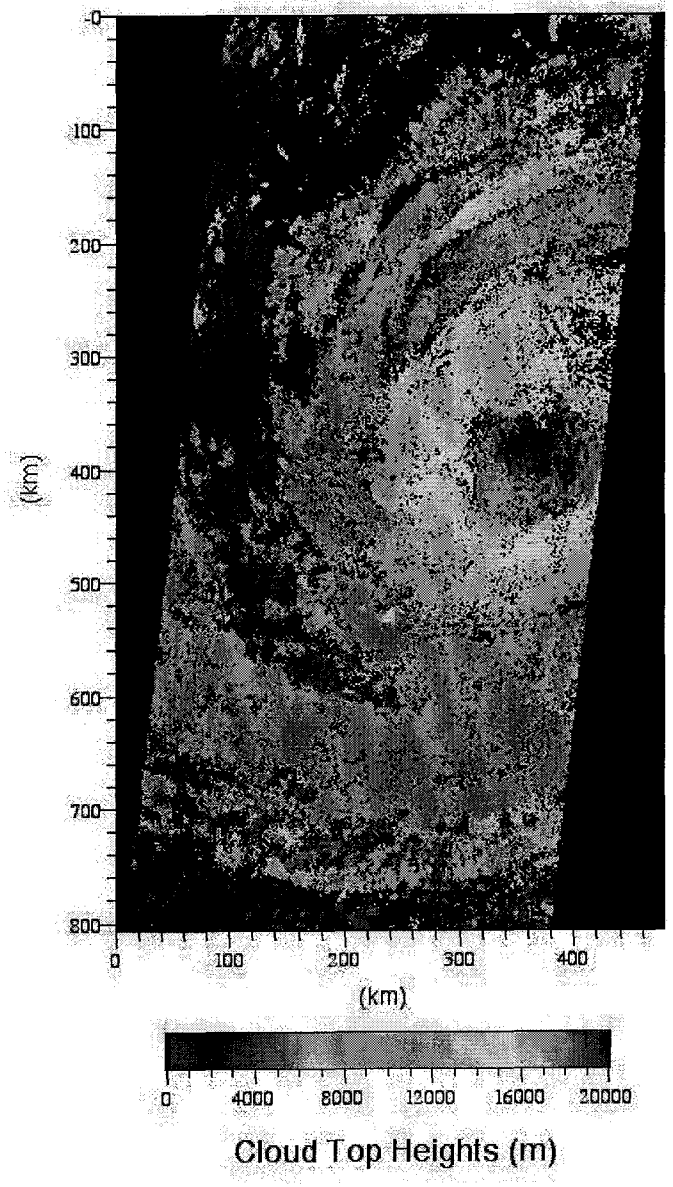
COMPARISON OF MISR AND AERONET 558-nm OPTICAL DEPTHS



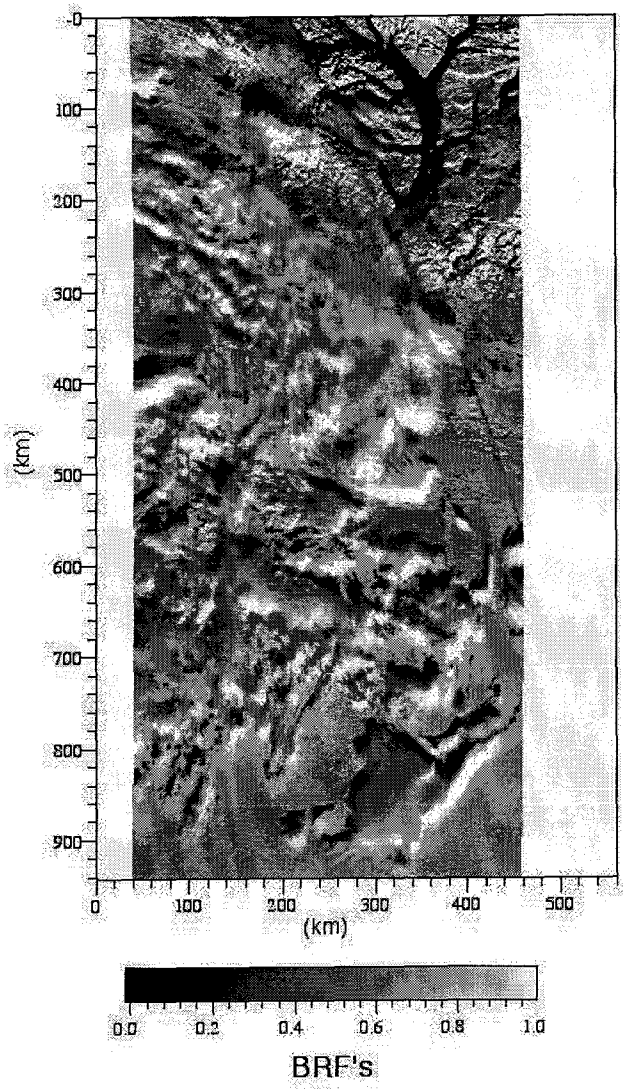
(courtesty Brent Holben, Mark Helmlinger)

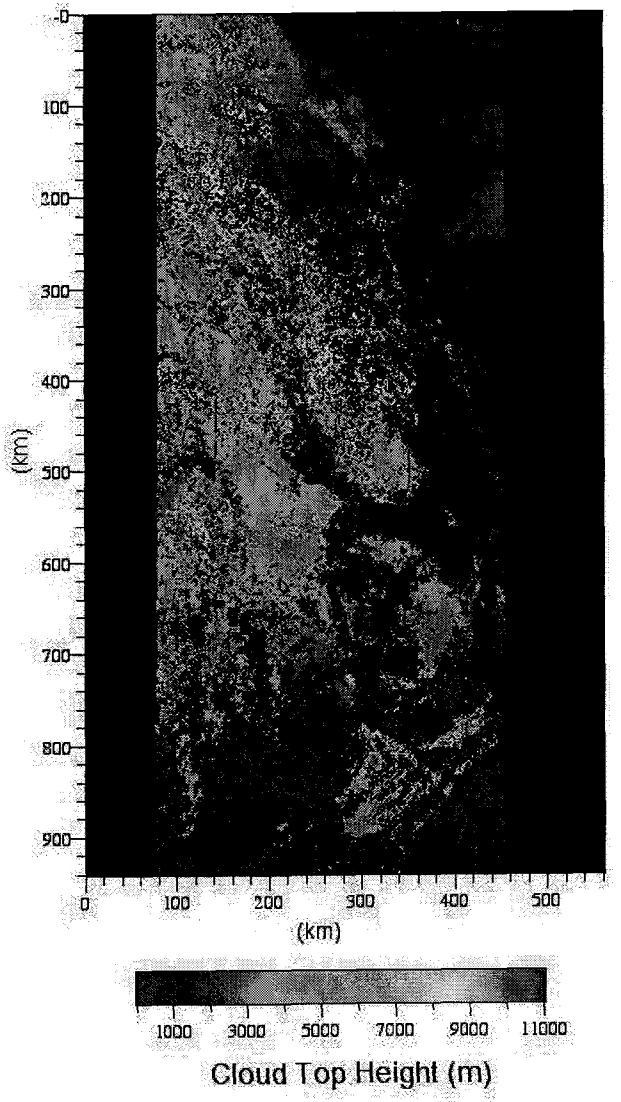
HURRICANE ALBERTO, 11 August 2000





CLOUDS OVER SNOW/ICE, 28 August 2000
N. of Queen Elizabeth Islands, 81ºN latitude





CONCLUSIONS

MISR is performing extremely well

Level 1 georectified and georegistered radiance products are publicly available through the Langley Atmospheric Sciences Data Center DAAC ***http://eosweb.larc.nasa.gov***

Sample Level 2 geophysical products are available now.
Public availability of routinely generated beta products is imminent

LaRC DAAC User Services: ***larc@eos.nasa.gov***

For more information about MISR: ***http://www-misr.jpl.nasa.gov.***
A new "image of the week" is posted on our home page every Wednesday