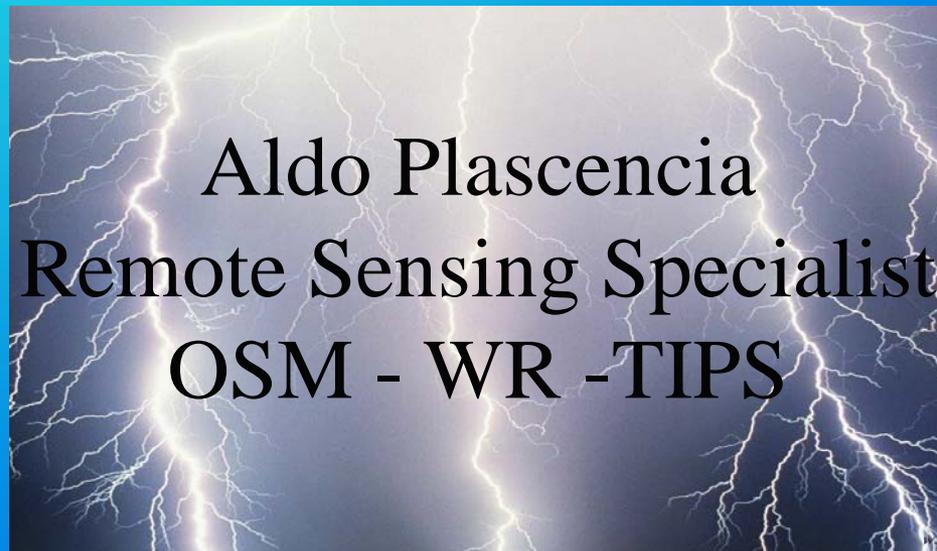


Honey, I shrunk the images: Making satellite images field ready



TIPS Steering Committee Meeting
Santa Fe, NM
May 11, 2010

Need for Smaller File Sizes

- Allow data to load faster for users in field offices
- Allow data to be usable in handheld devices out in the mines
- Need data to be accurate and resolute
- Perfect for visual purposes (not for analyzing pixel values)

JPEG 2000 Compression



original .img image

3.48 GB

14 x 14 km coverage

0.5m resolution



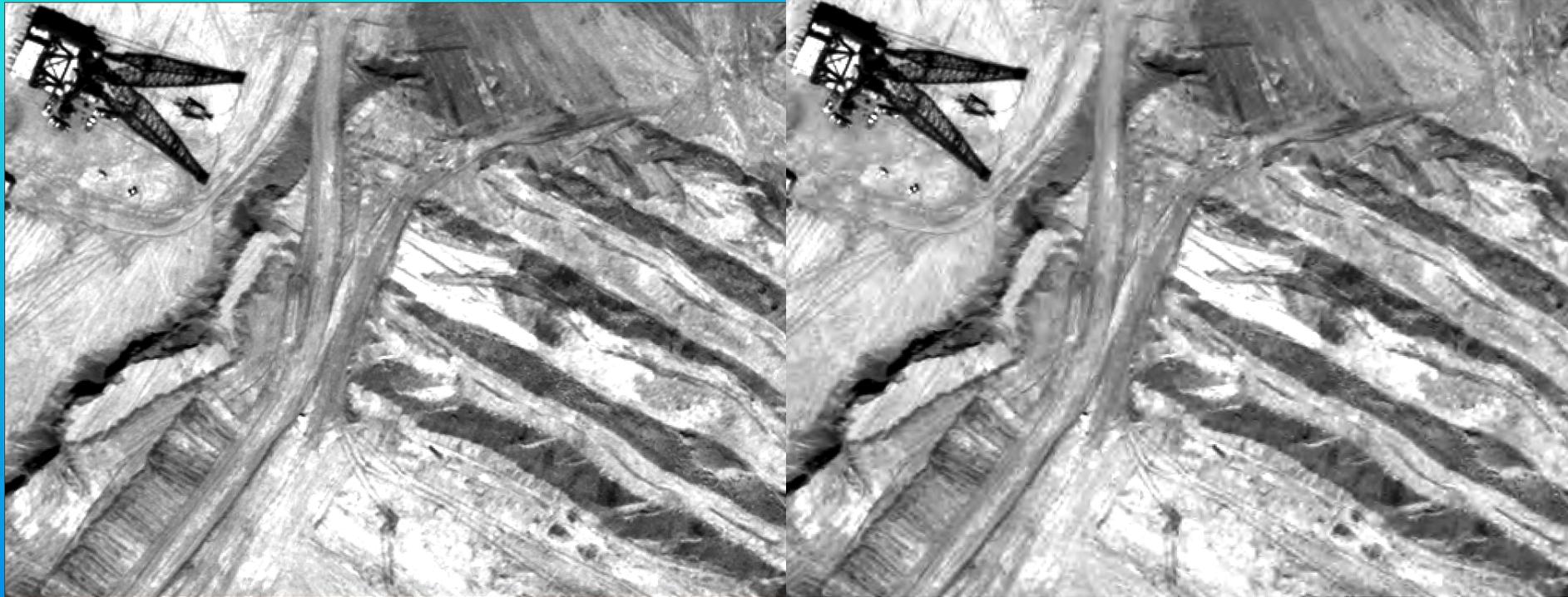
compressed image

132 MB

14 x 14 km coverage

0.5m resolution

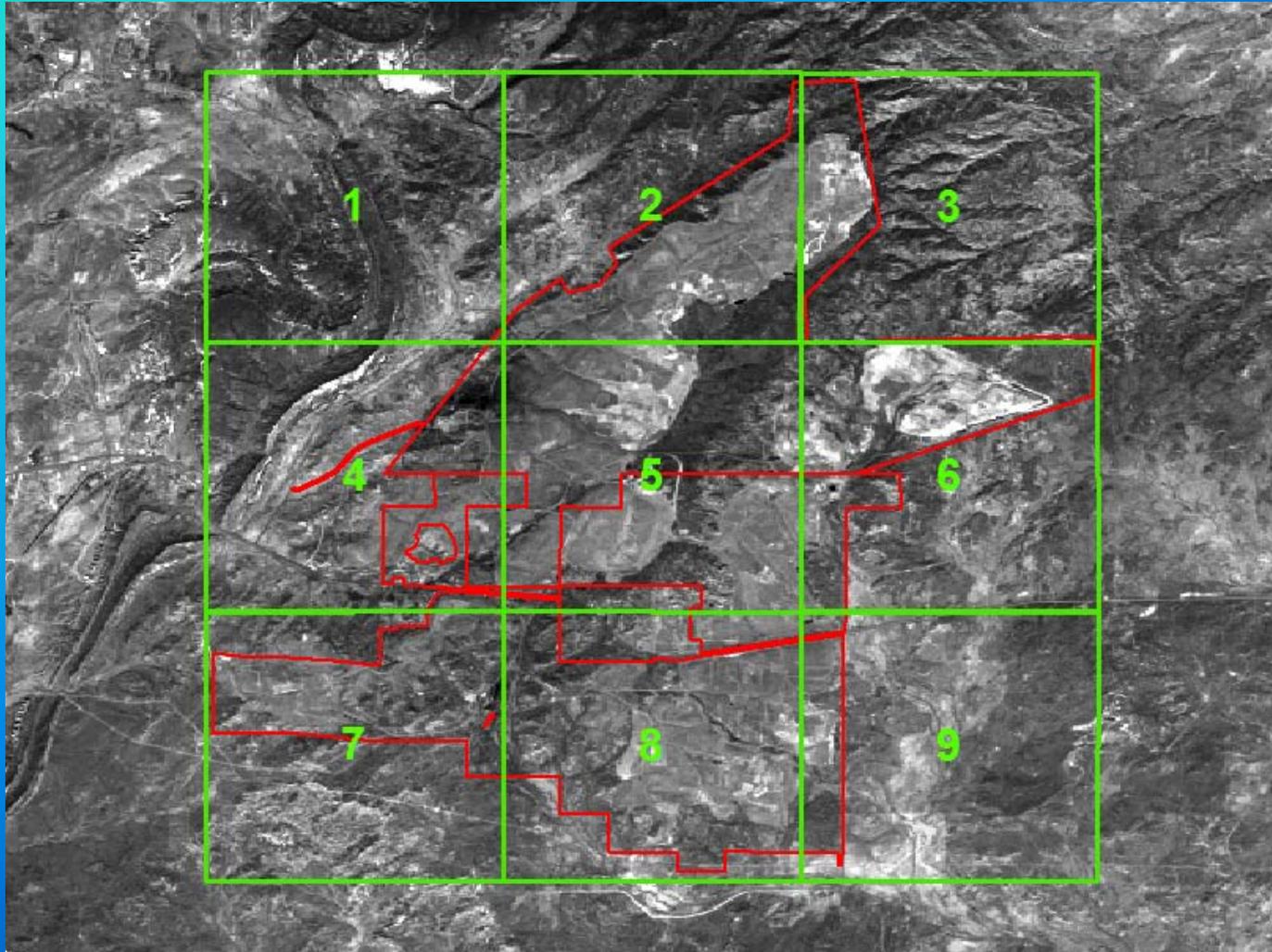
JPEG 2000 Compression Cont.



original

compressed

Preparing Imagery for Handheld Devices



MrSID Compression

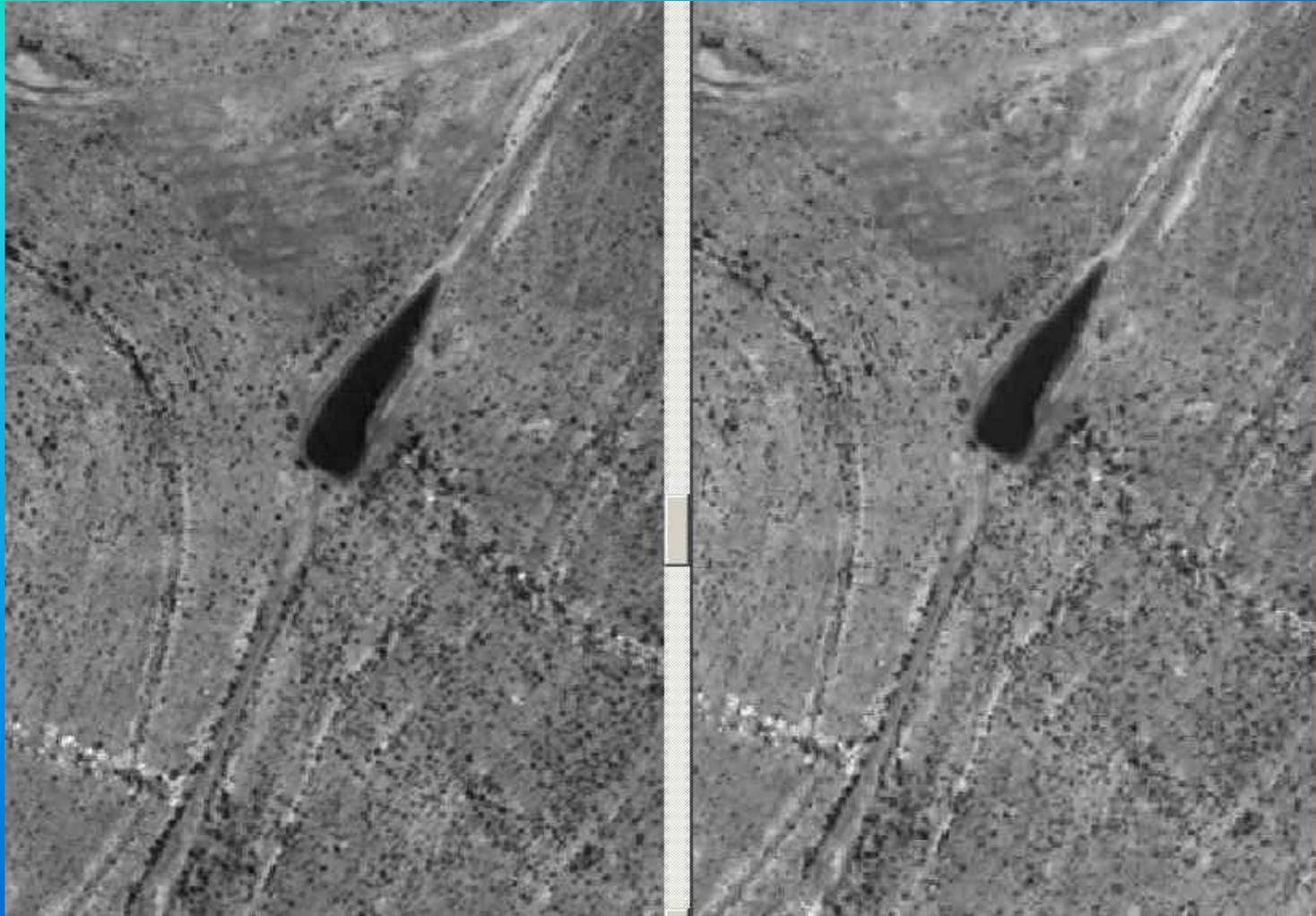


Original .img image chip
213.37 MB
5.1 x 5.7 km coverage
0.5 m resolution



Compressed MrSID image chip
15.41 MB
5.1 x 5.7 km coverage
0.5 m resolution

MrSID Compression Cont.



original

compressed

Conclusion:

- Image compression allows for smaller file sizes and without giving up detail
- For field offices, JPEG 2000 compression is the way to go
- For mobile computing users, in the short run, MrSID is the answer