Pre-PLOWS operations/logistics

MAX / MIPS collocated in all IOPs

-MAX radar used for X-band vertical profiles collocated with MIPS 915 MHz profiler. These were interspersed with RHIs and full volume scans

KLOT NEXRAD

KLOT SSW MISS

KLOT SSW MIPS

KLOT SSW MAX

Lockport

Joliet

New Lenox

Orland Park

Tinley Park

Frankfort

Will

355

80

6

30

52

45

Image U.S. Geological Survey
Image USDA Farm Service Agency
© 2009 Tele Atlas
Image © 2009 DigitalGlobe
Streaming 100%

Google

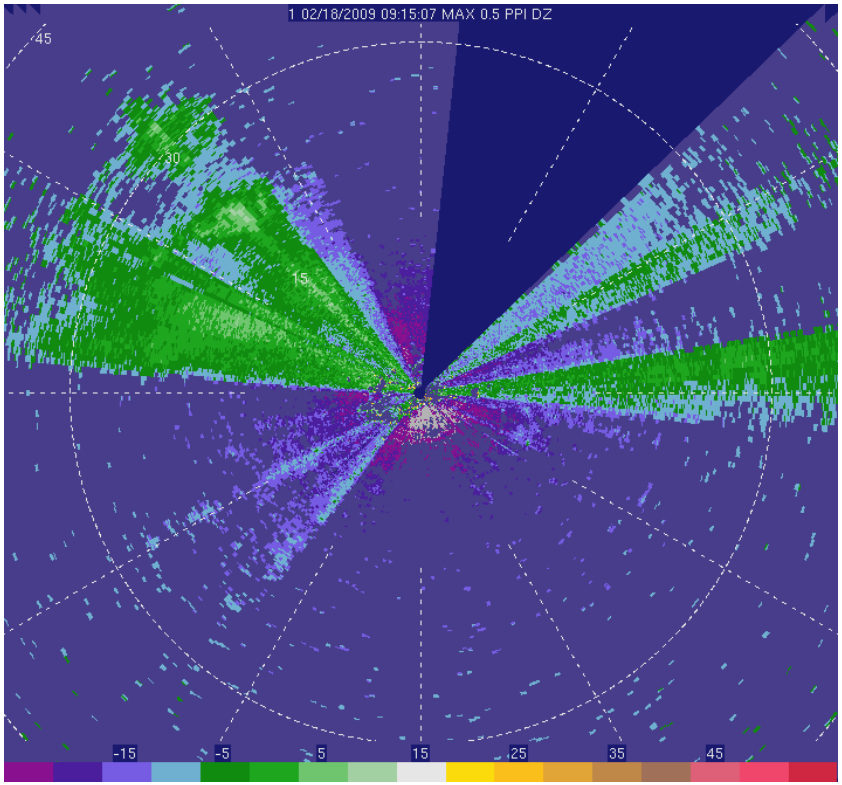
Eye alt 36.71 mi

Rawinsonde launches

- During first IOP, MISS / Univ. Missouri rawinsonde site found to have issues with line-of-sight between sonde package and receiver. Later deployments scouted for more open sites to avoid data dropout and signal issues.
- Launches in heavy rain often had issues near freezing level as water froze, slowing or bursting some balloons; decreased signal strength noted in heavy rain
- Launches needed many more crewmembers than originally planned due to strong winds in relatively open launch sites (e.g., IOP5), reducing the rest periods for the crew
- Source for replenishing helium supplies?

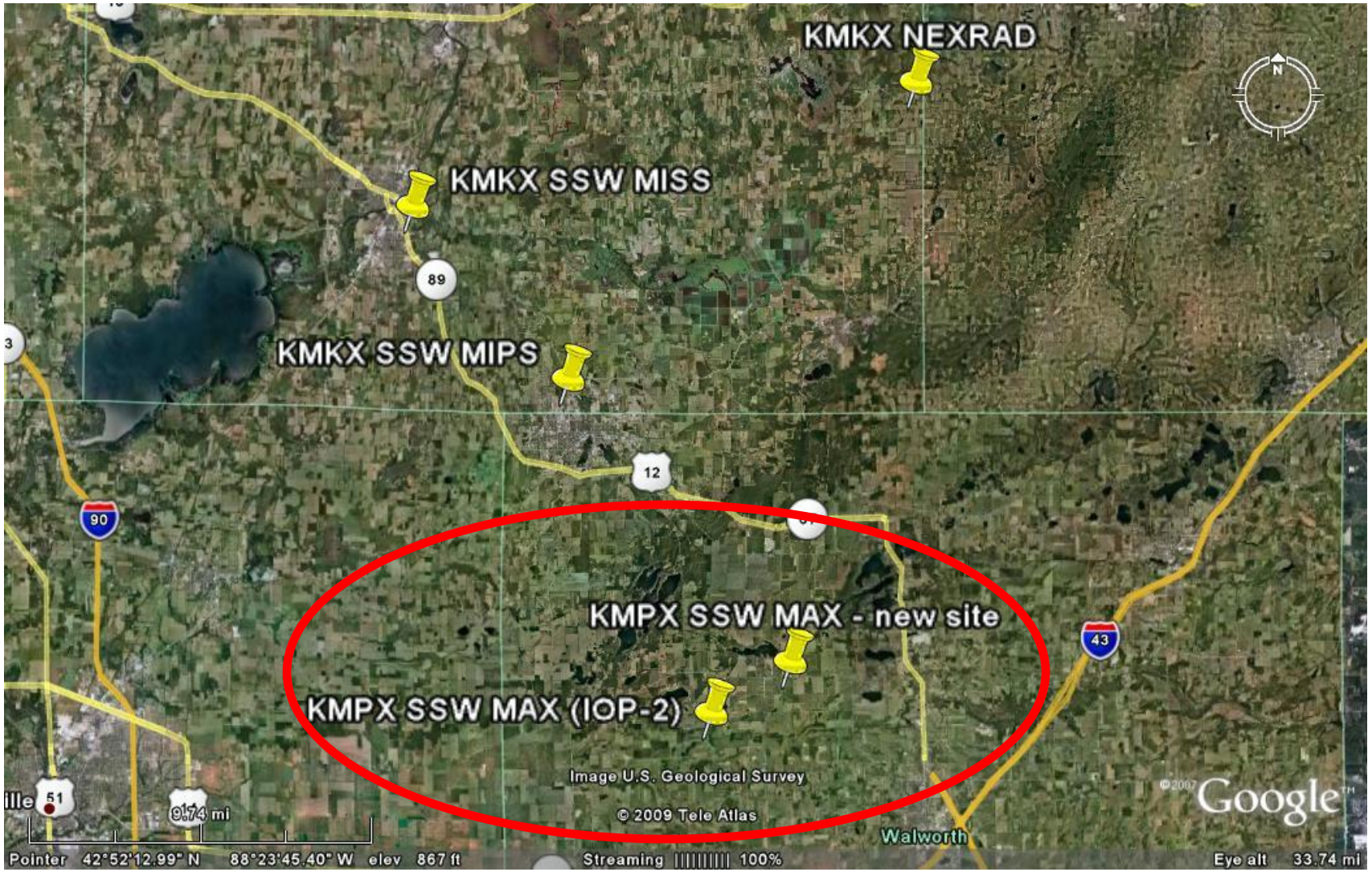
Site issues - KMKX

- MAX / MIPS site in IOP2 set in depression; blockage in MAX's lowest two elevation angles
- Scouted another MAX / MIPS site as a possibility for future KMKX deployments



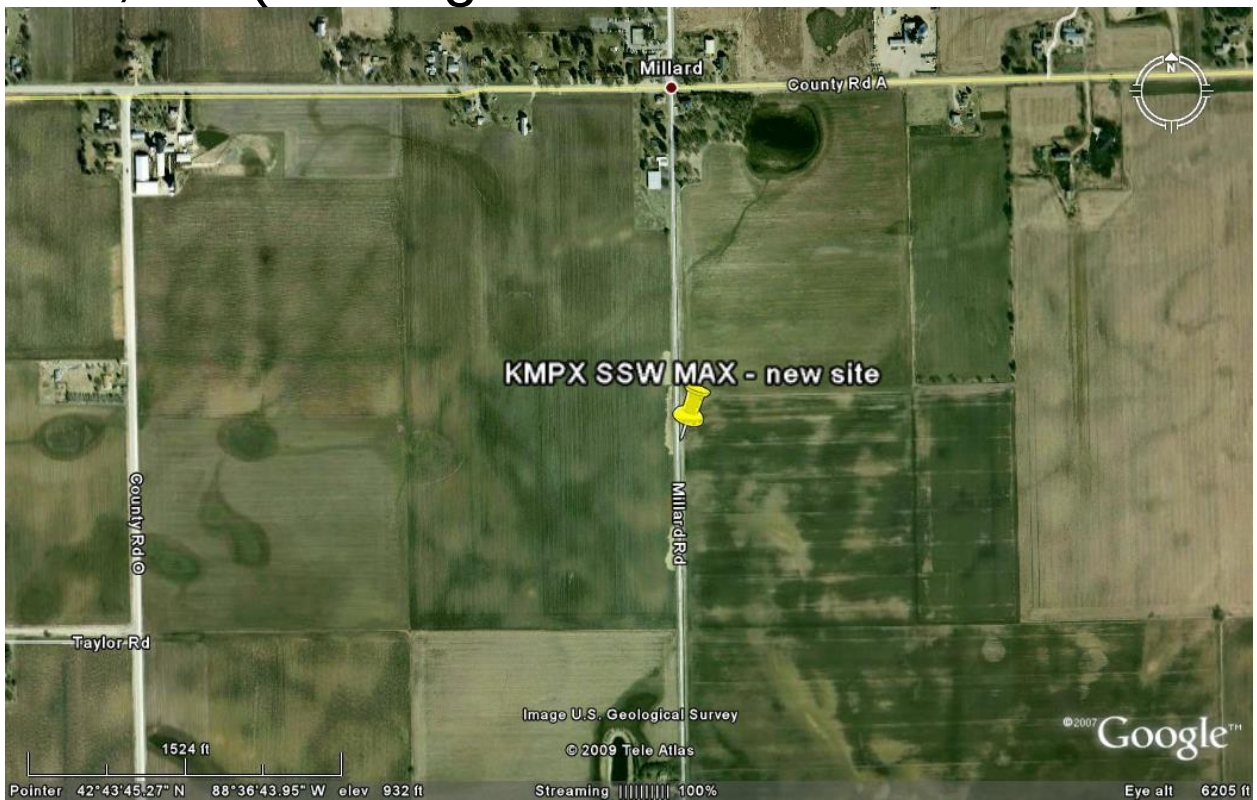
Site issues - KMKX

- New possibility for MAX / MIPS site (Link to 360 view)

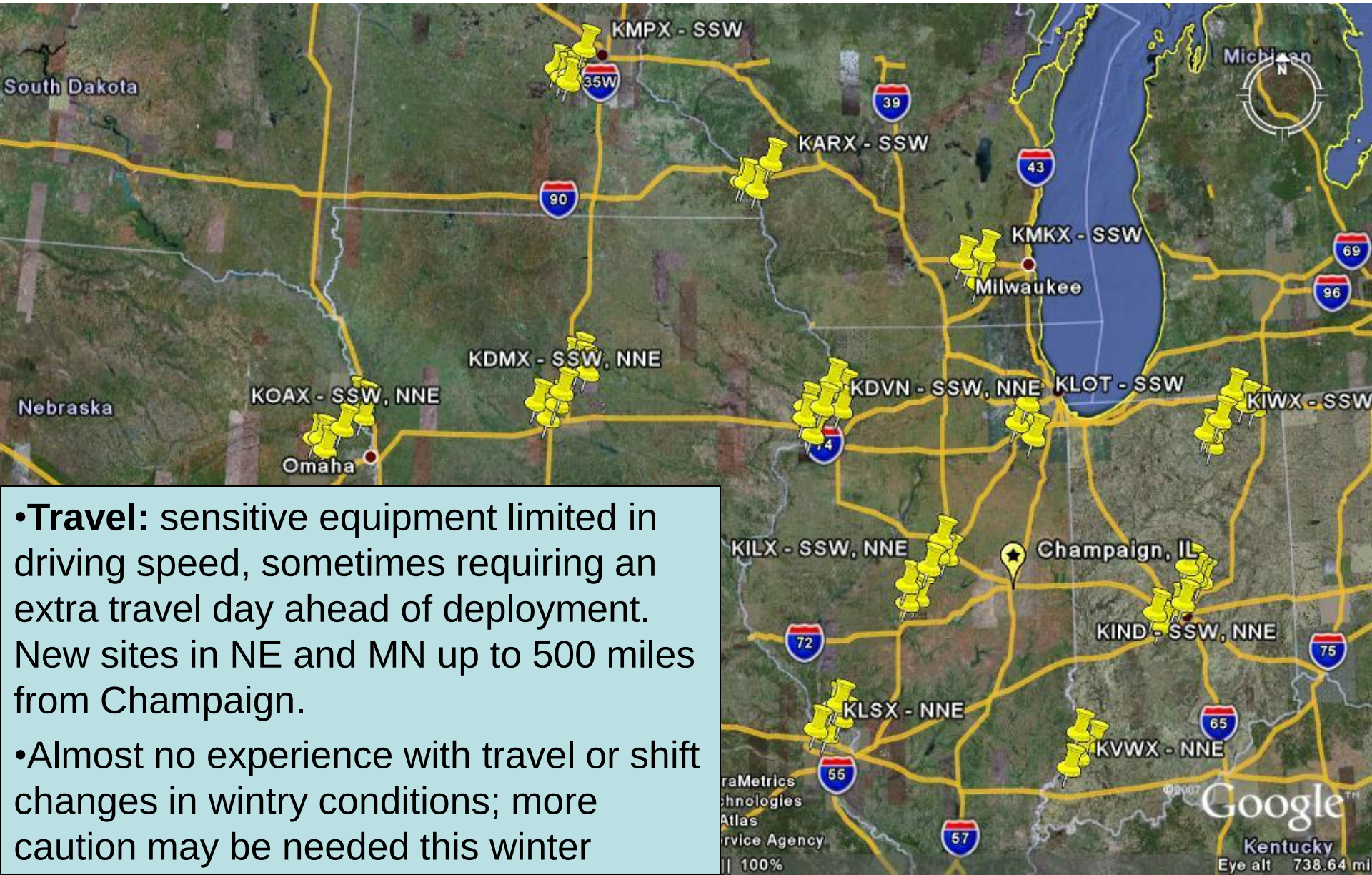


Site issues - KMKX

- New possibility for MAX / MIPS site (Link to 360 view)
- Pros: relatively close to original site but with much less blockage; wider, paved road with vegetated shoulders rather than pure dirt
- Cons: close to Millard, WI (although not much traffic observed)

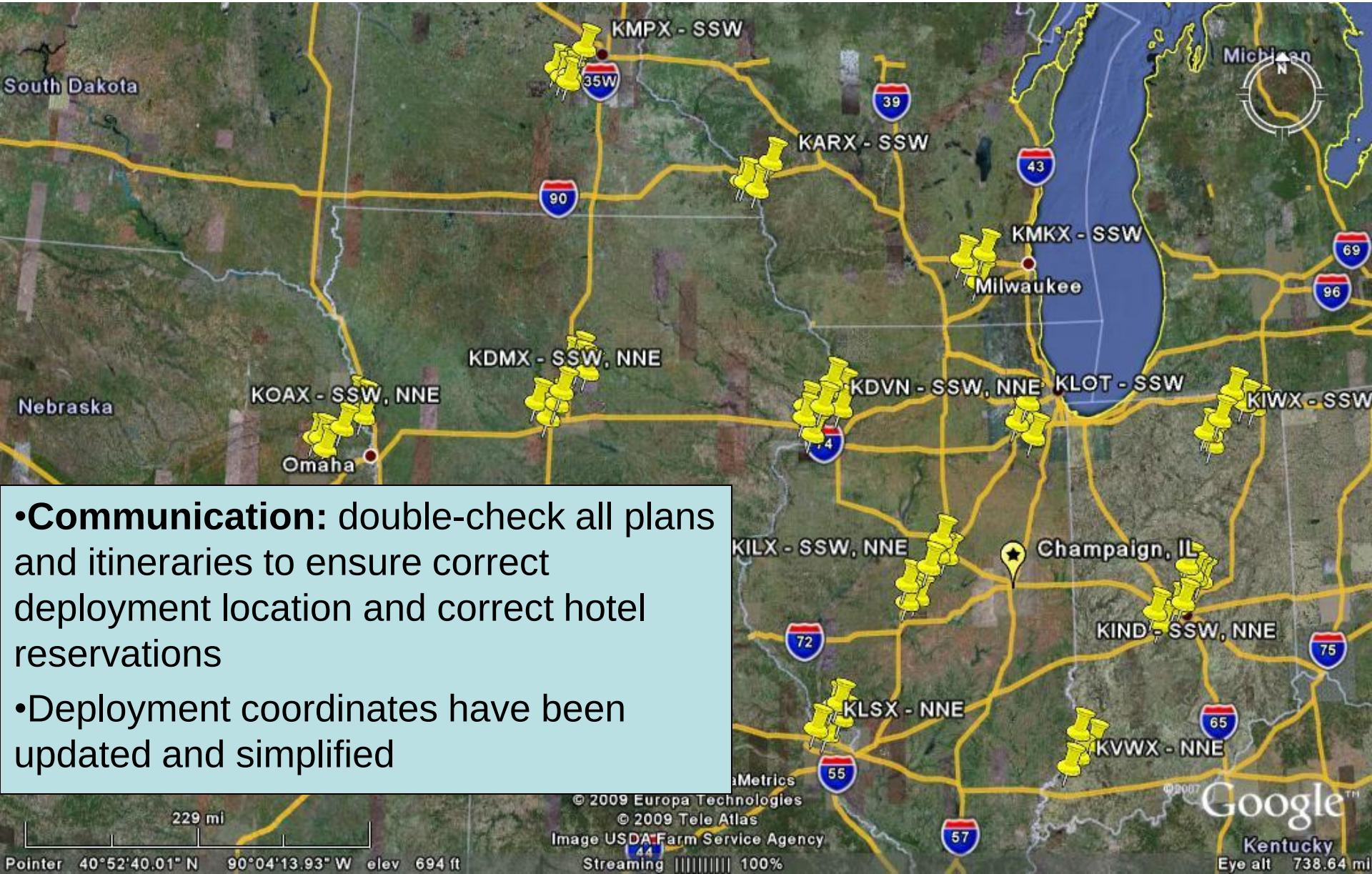


Site issues - general



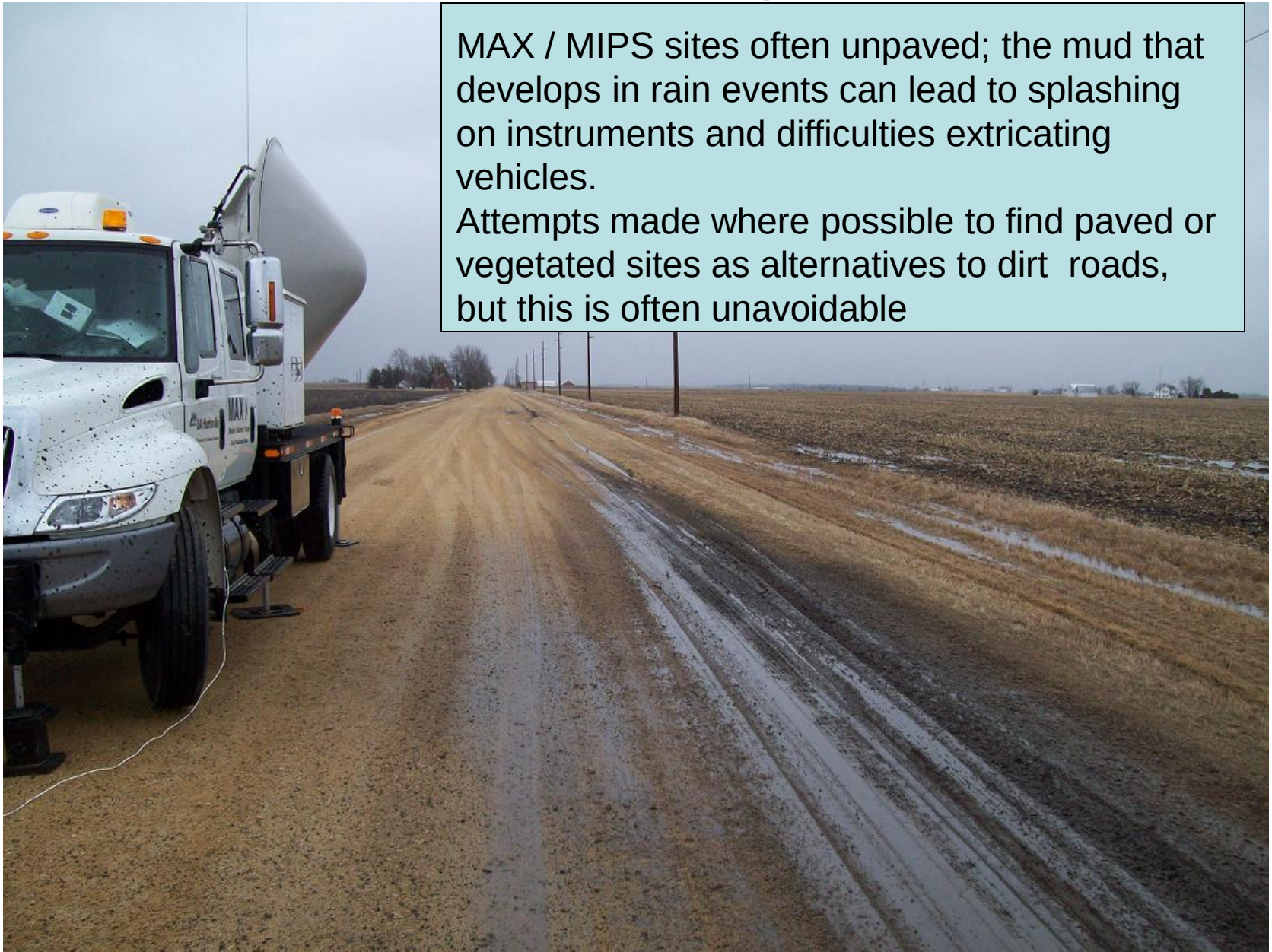
- **Travel:** sensitive equipment limited in driving speed, sometimes requiring an extra travel day ahead of deployment. New sites in NE and MN up to 500 miles from Champaign.
- Almost no experience with travel or shift changes in wintry conditions; more caution may be needed this winter

Site issues - general



- **Communication:** double-check all plans and itineraries to ensure correct deployment location and correct hotel reservations
- Deployment coordinates have been updated and simplified

Site issues - general



MAX / MIPS sites often unpaved; the mud that develops in rain events can lead to splashing on instruments and difficulties extricating vehicles.

Attempts made where possible to find paved or vegetated sites as alternatives to dirt roads, but this is often unavoidable

Site issues - general

Some beam blockage is unavoidable, particularly with powerlines present along many roads. Where possible, sites have been chosen such that blockage is in less critical directions.