SAND2012-0630P

Various GPS-Gamma Applications

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Cleanups at Various Ra-226 Sites

- El Toro
- KAFB
- Aberdeen
- Denver 1985
- Mare Island
- NYC Radium Dial & Radium Dial Paint, Ottowa IL
- Johnston Island
- Aircraft Component Site, Detroit Mi
- Norton AFB
- Surplus Radioactive Materials Management Guide (Brooks)
- Barksdale AFB

Precision Differential Global Positioning System (PDGPS)

3 detectors

Used on Treasure Island & Johnston Island

9 Detectors
Used at Mare Island and El Toro

UltraSonic Ranging and Data System (USRADS®)

USRADS® FEATURES

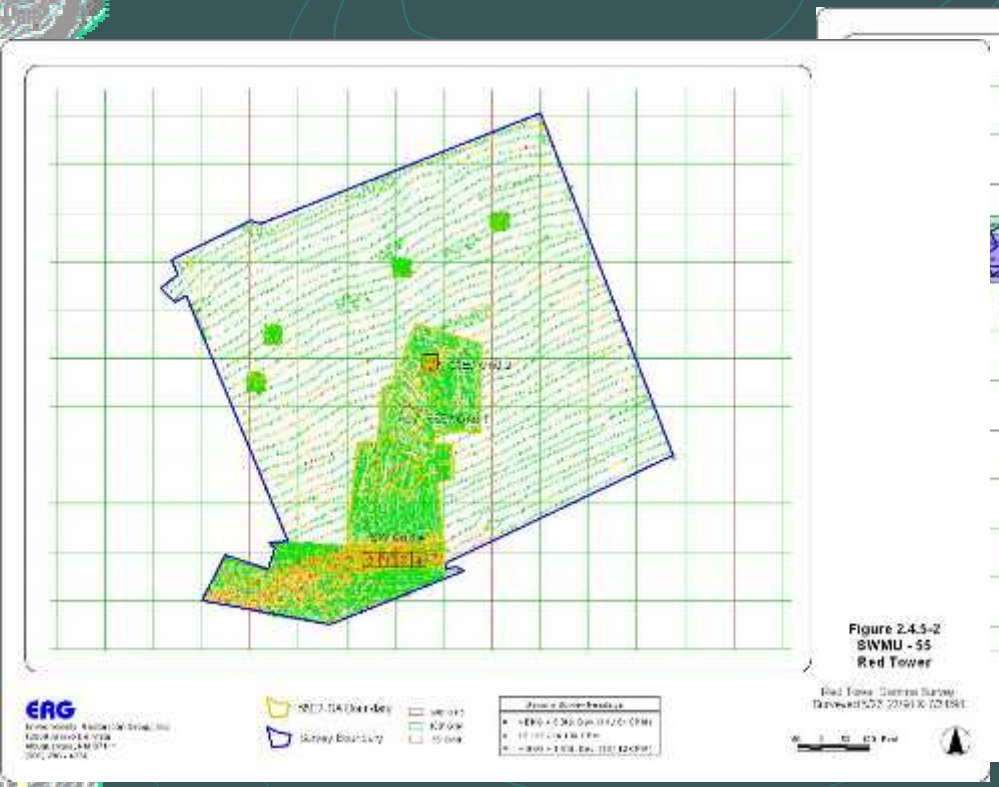
- Ultrasonics – fixes location of survey
- Radio Frequency (RF) – data & telemetry
- Computer – collect & analyze data
- Data & location recorded every second
- 3600 readings per detector per hour of survey time
- Works around Physical Obstructions
- Laser Ranging is Future Direction

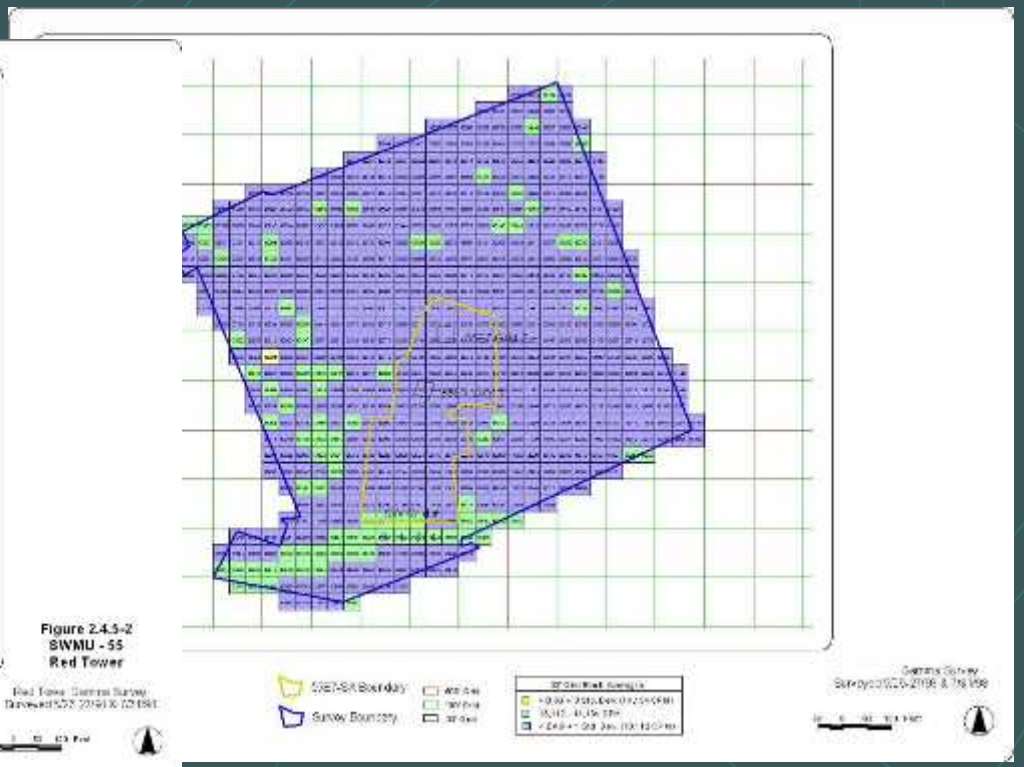
GPS/Gamma at Johnston Island

Baby Stroller GPS/gamma

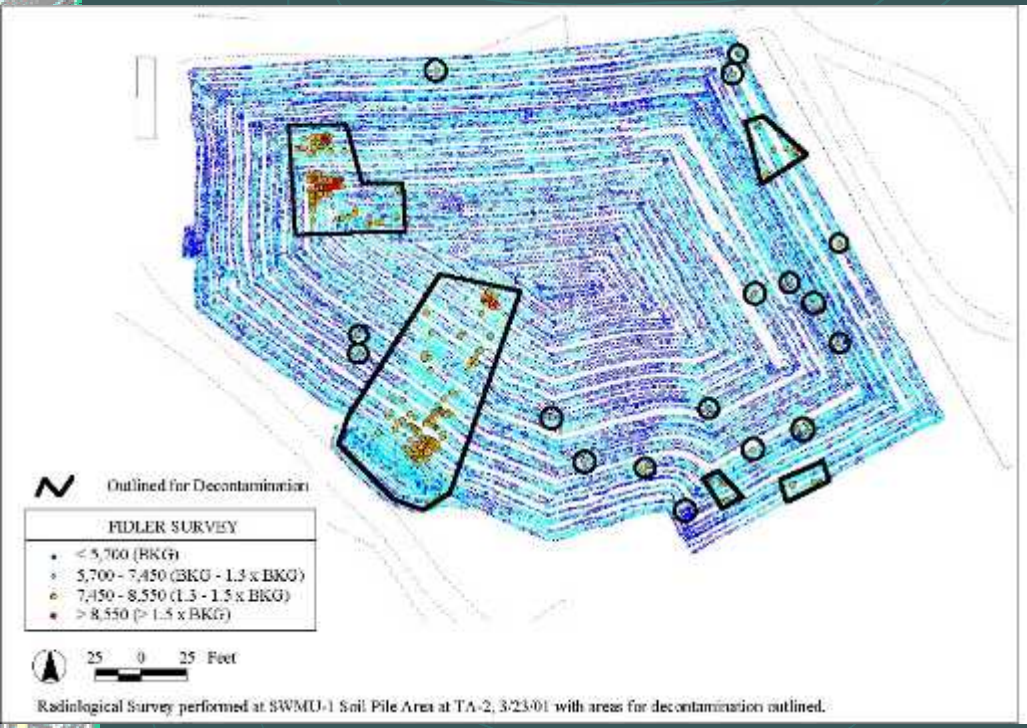
Backpack GPS/gamma

Example of Data Manipulation

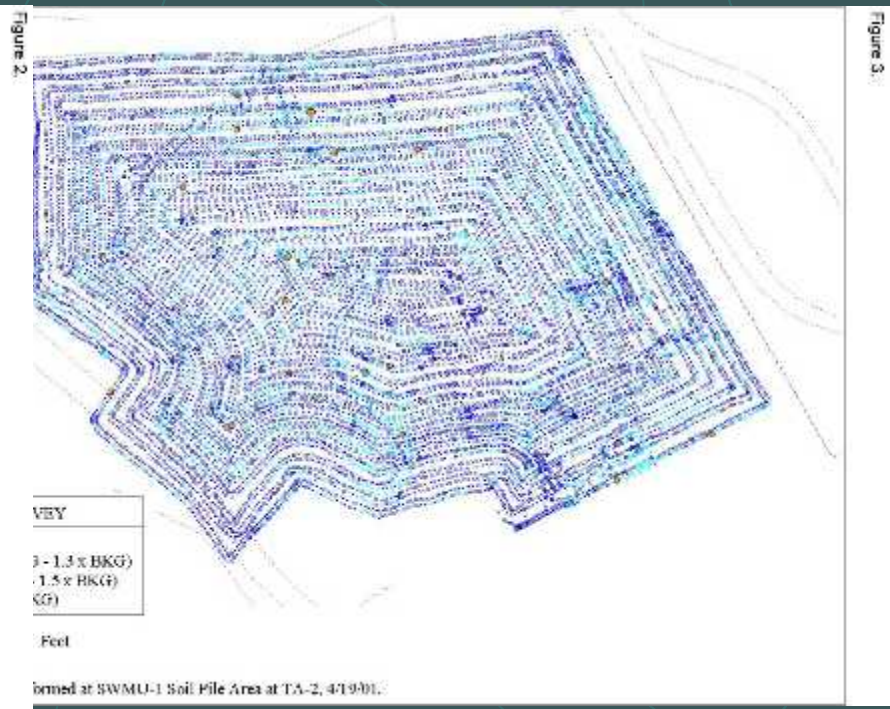




GPS/gamma Before & After

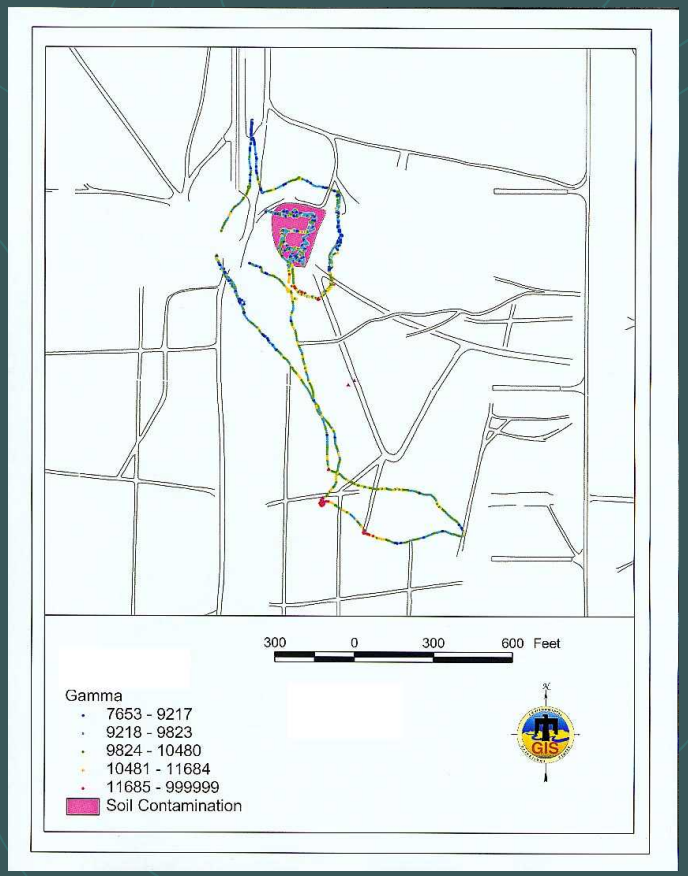


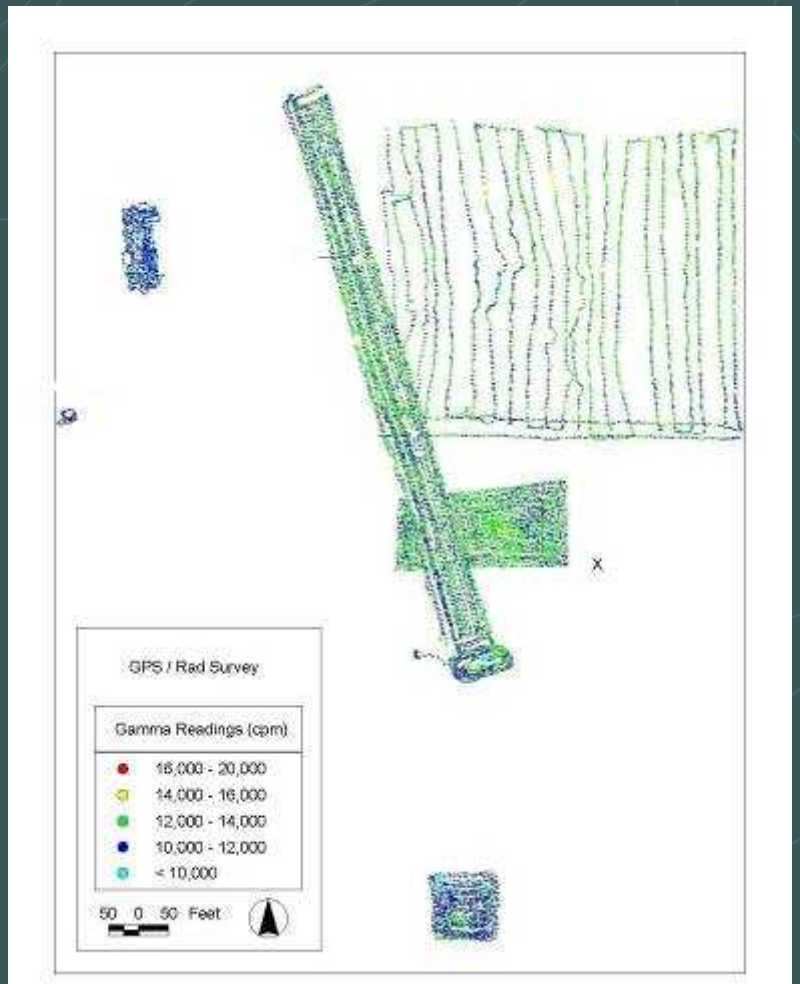
Radiological Survey performed at SWMU-1 Soil Pile Area at TA-2, 3/23/01 with areas for decontamination outlined.



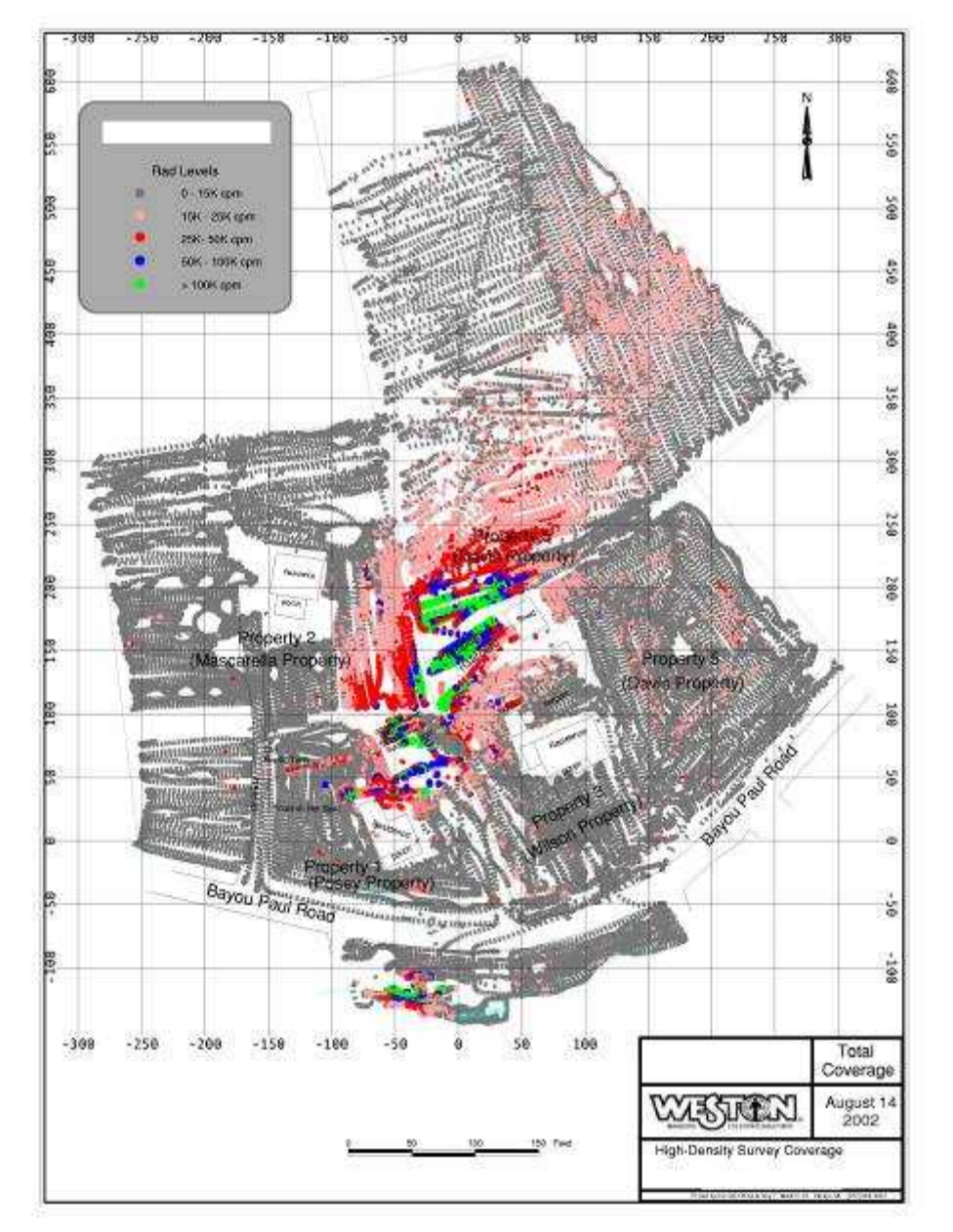
formed at SWMU-1 Soil Pile Area at TA-2, 4/19/01.

GPS/gamma shows where you went and logs 100's more data points!



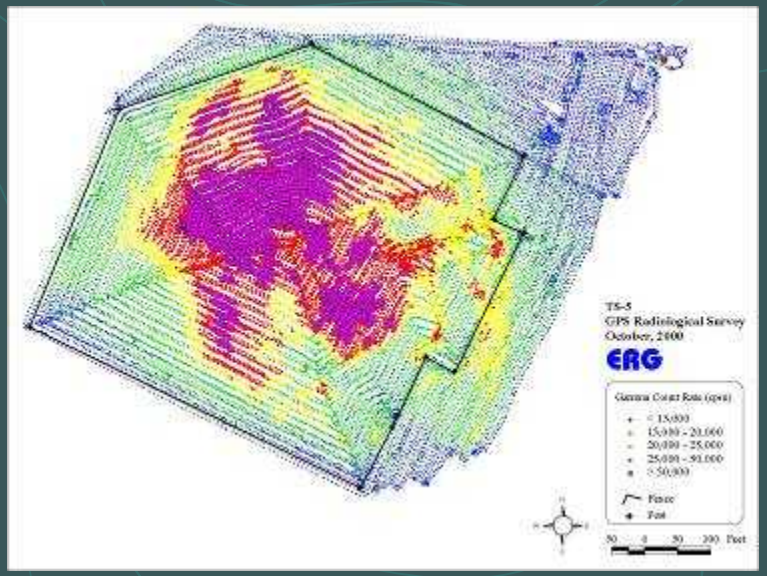


Sample Survey

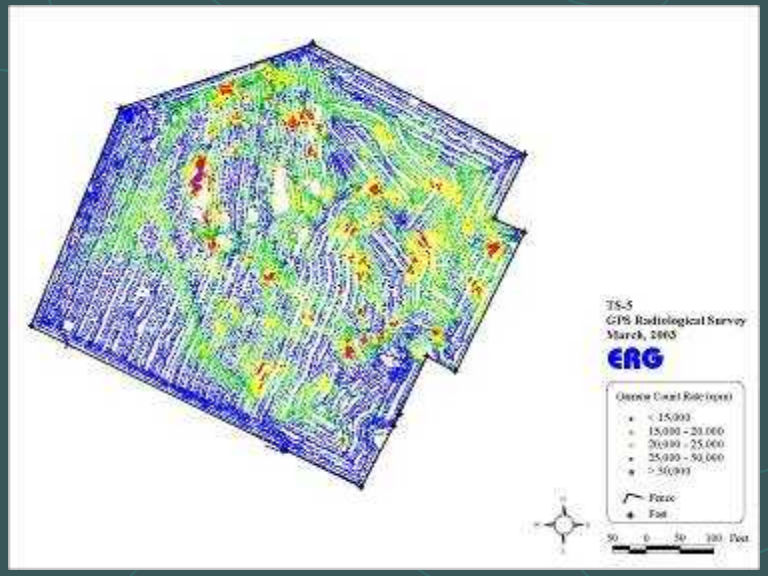


Kirtland AFB TS-5

Before Cleanup



During Cleanup



Segmented Gate System and Screen Plant