Wallops Island Assets & Programs

Current Value of Wallops Island Assets

NASA: $170 Million

Navy: $70 Million

Plus $800 Million outfitting

MARS: $5 Million

Total: $1.1 Billion

Supporting: $46.5 Million in NASA and $50 Million in Navy Programs Annually

New Launch Range Infrastructure Investment:

Virginia: $26 Million

Federal: $51 Million

Private Sector: $23 Million

Total: $100 Million for $1.9Billion Program (Antares CRS)

2 Problems (not to mention climate change…)

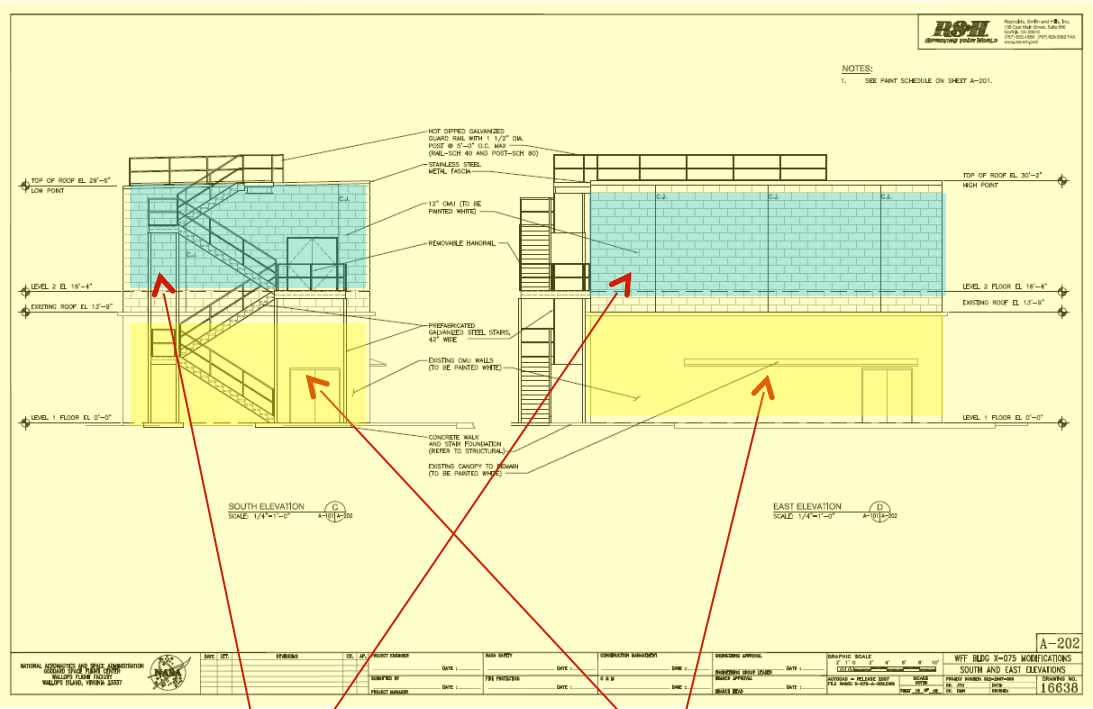
Deteriorating Seawall

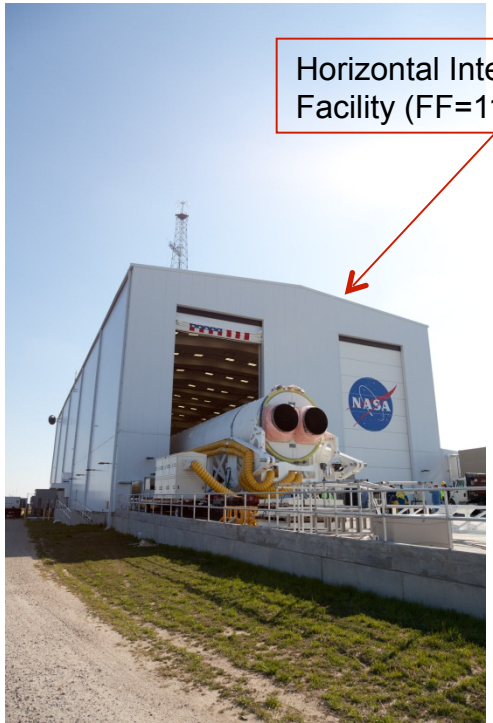
Unprotected Structures

Strategies (Near Term)

Near Term (present through 50 years)

- Elevate critical infrastructure to 11 feet above MSL





Strategies (Near Term)

Near Term (present through 50 years)

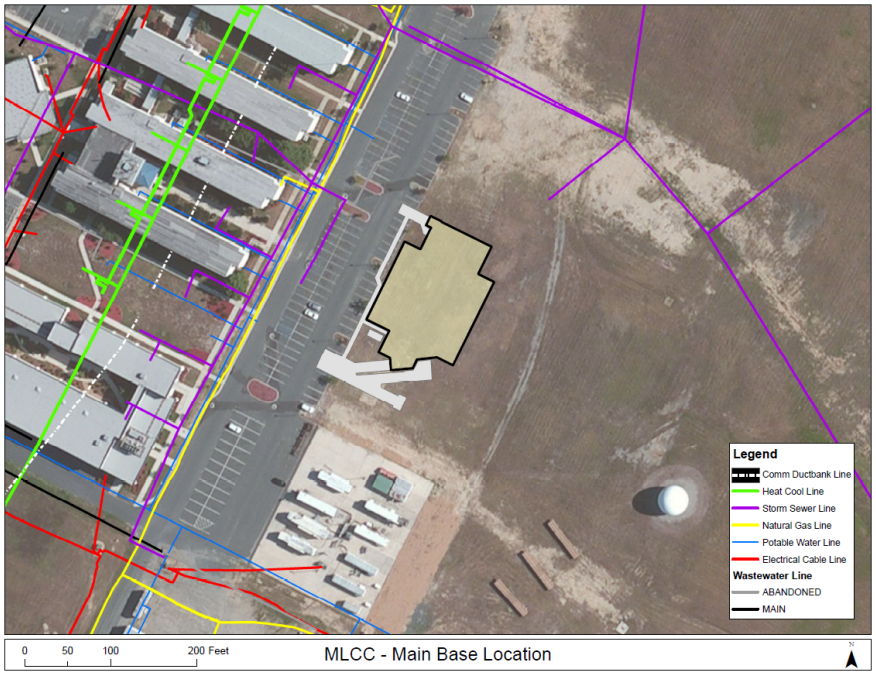
- Shoreline Restoration Program
  - 50-year planning horizon; adaptive management; periodic nourishment

Wallops Island looking north. Photo taken on 4-20-2012

Wallops Island looking north. Photo taken on 8-17-2012.

Long Term (>50 years)

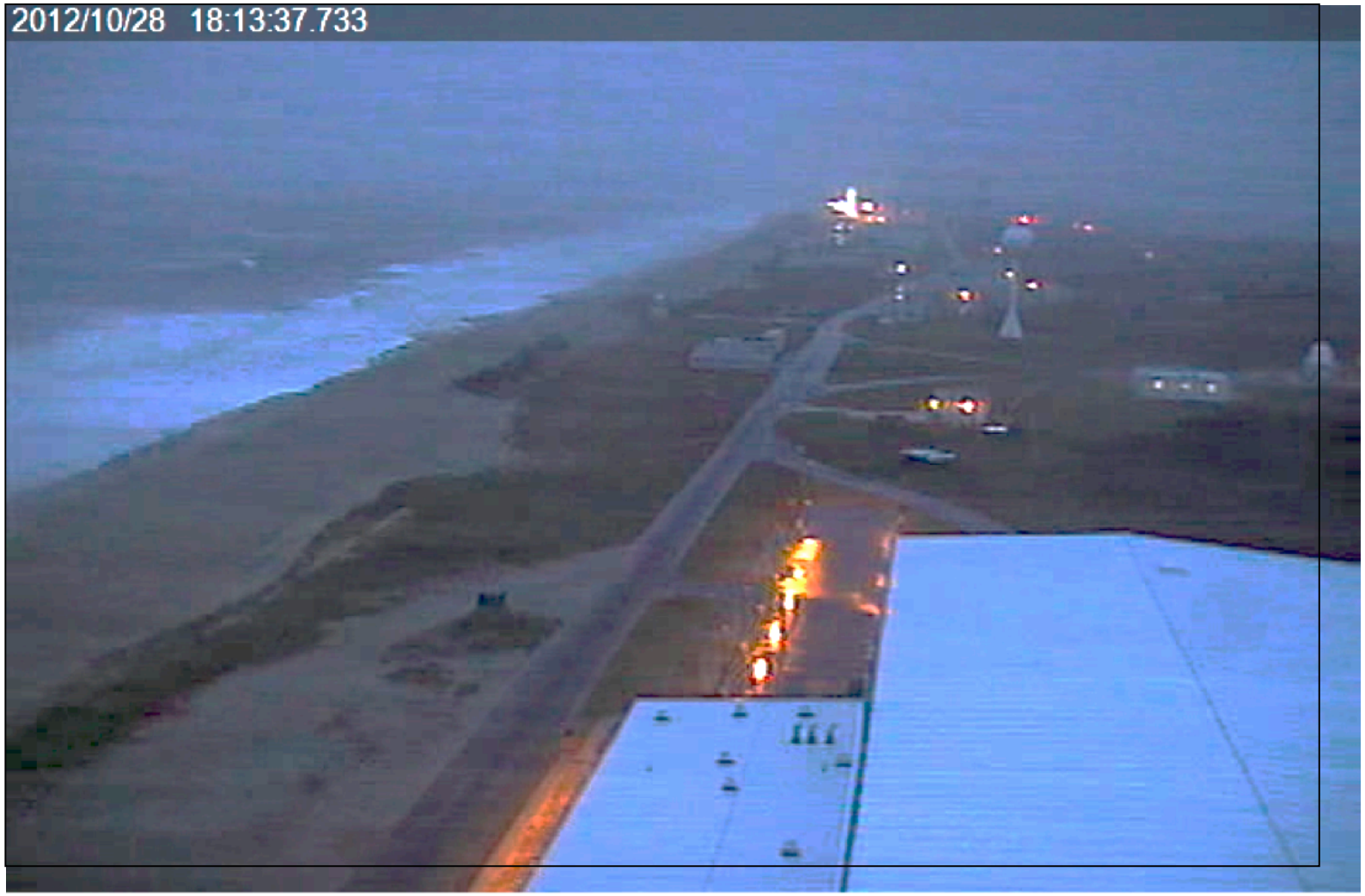
- Selective relocation of non-essential Island facilities
  - Master plan will evaluate necessity for facilities to be sited on Wallops Island.



Houston, we have a problem…..

- Photo during Hurricane Irene (8/27/11)

And…Along Came Sandy

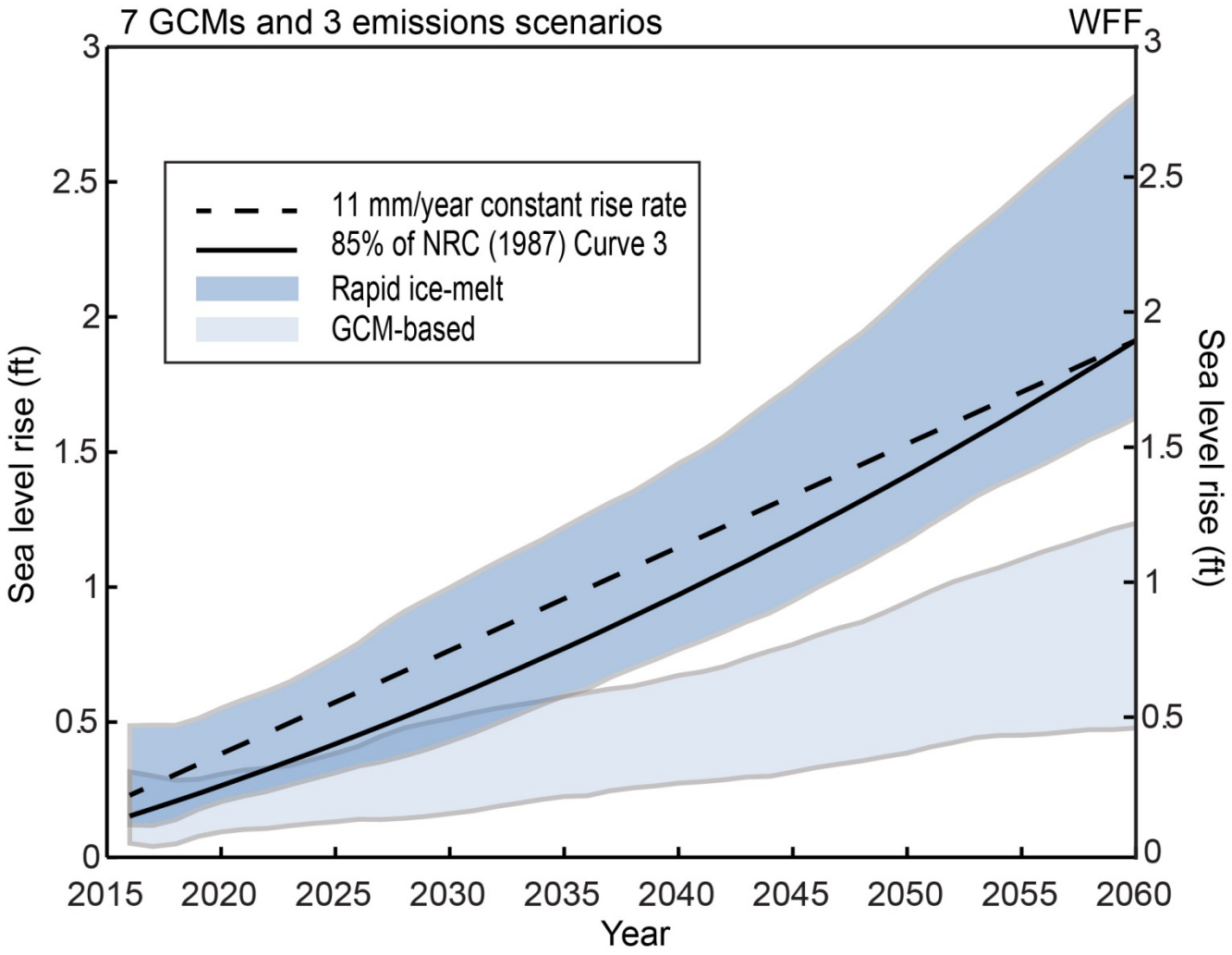


- Photo during Hurricane Sandy (10/28/12)

Questions

Back-up Slides

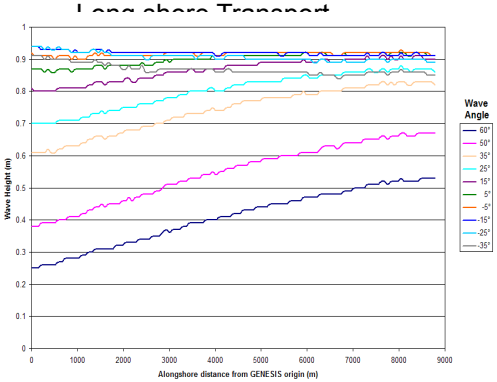
Project Overview – SLR

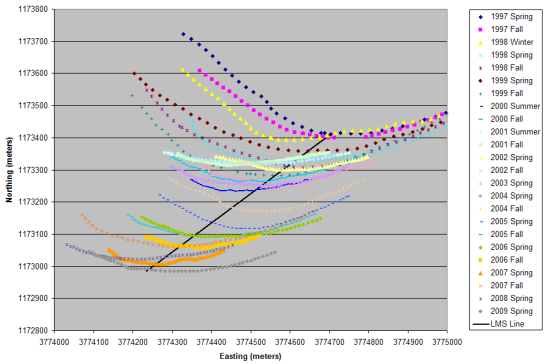


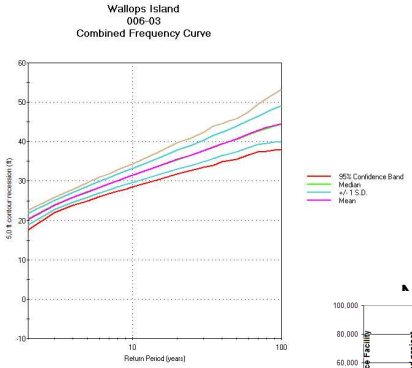
Project Overview – Design

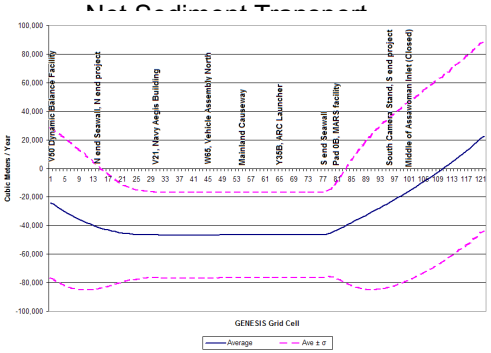
Design (USACE retained for design)

- 4-year design evolution 2 reports produced
  - Multiple presentations and oversight from senior leadership
  - 54 design alternatives developed
  - Bathometric surveys and offshore borrow site investigations conducted
  - Condition survey of the existing seawall conducted
  - Hours of modeling of beach profile changes and sediment transport using SBEACH/EST and STWAVE/GENESIS
    - Used a dataset consisting of 149 years of hurricanes and 49 years of nor'easters





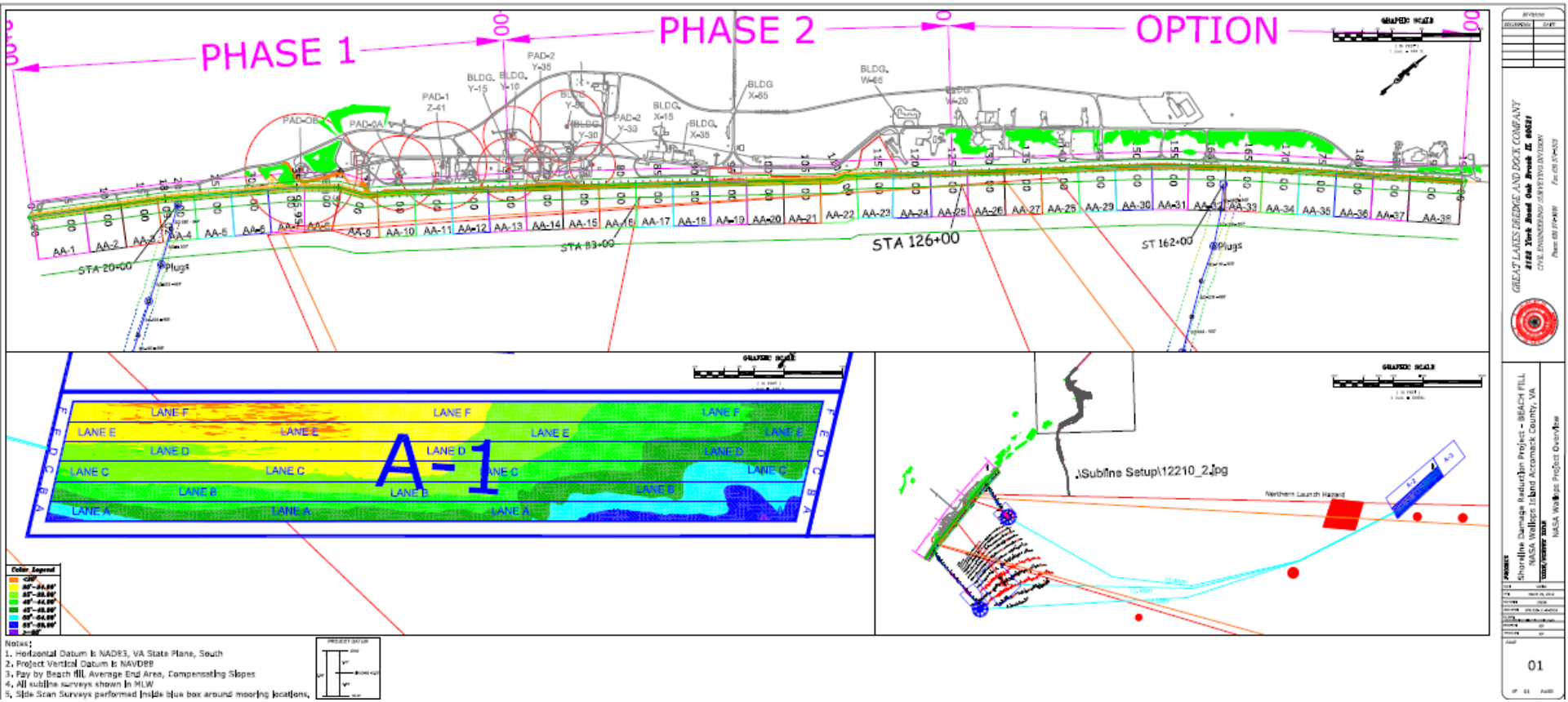




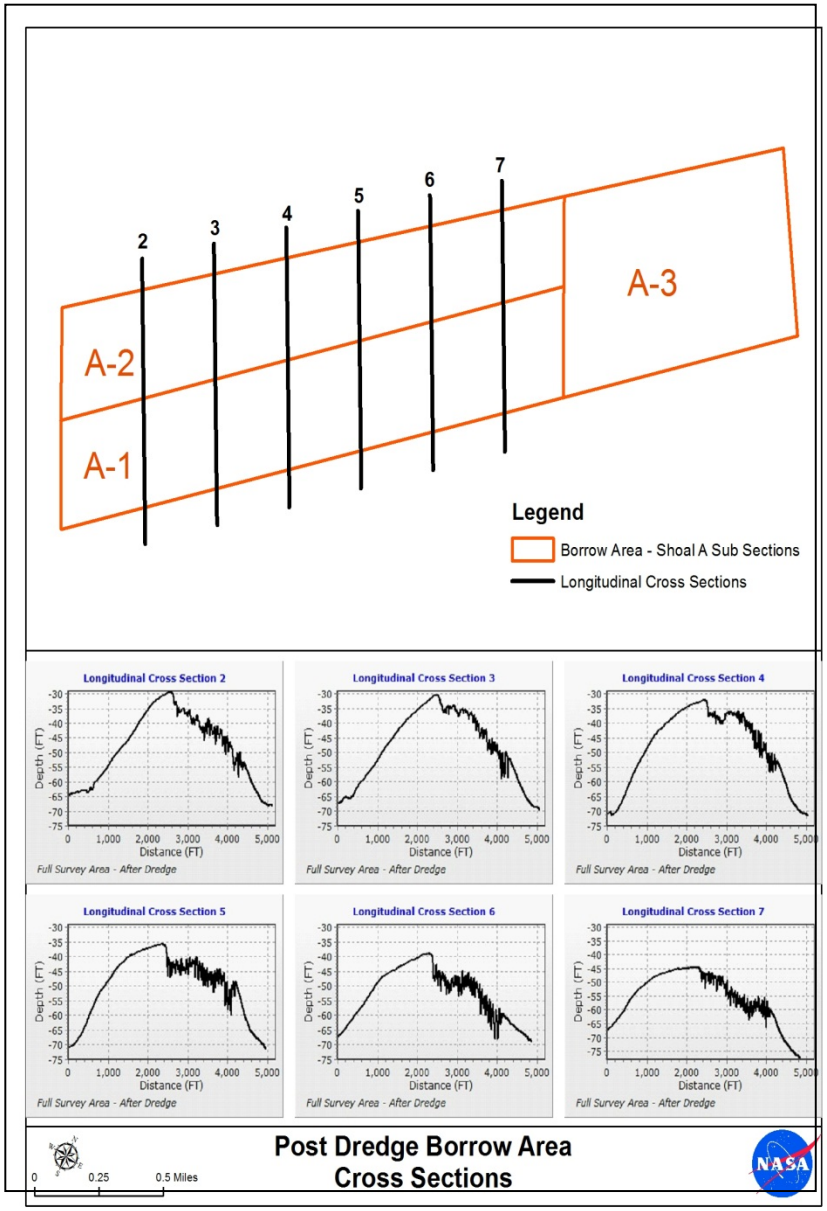
Project Overview – Phase 1 (Seawall Extension) 9/15/11

Project Overview – Phase 1 (Seawall Extension) 3/27/12

Project Overview – Phase 2 (Beach-Fill)



Project Overview – Phase 2 (Beach-Fill)



Project Overview – Phase 2 Photos

Dredge Padre Island coming in with sand.

North pump out – first sand on the beach!

North pump out location – sand pumping on the beach!

North pump out location looking north.

Project Overview – Phase 2 Photos

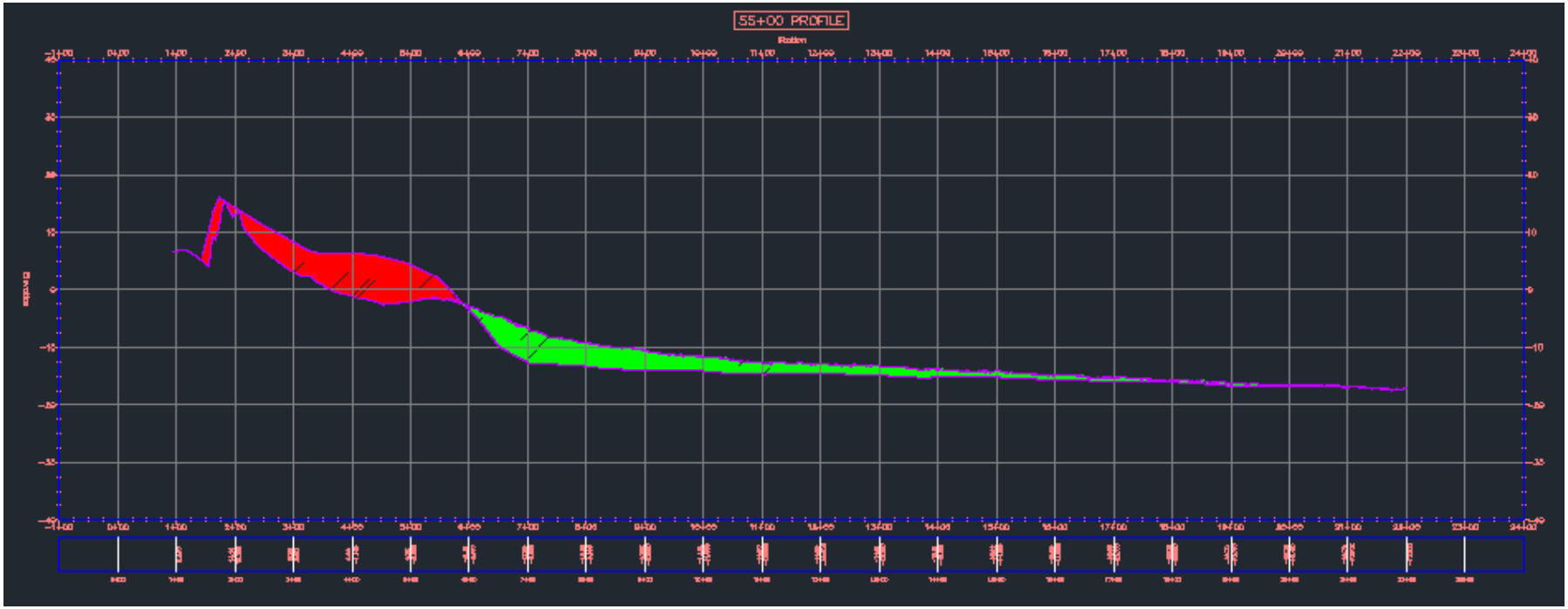
North pump out location – view from Navy building V-3

Project Overview – Phase 2 Photos

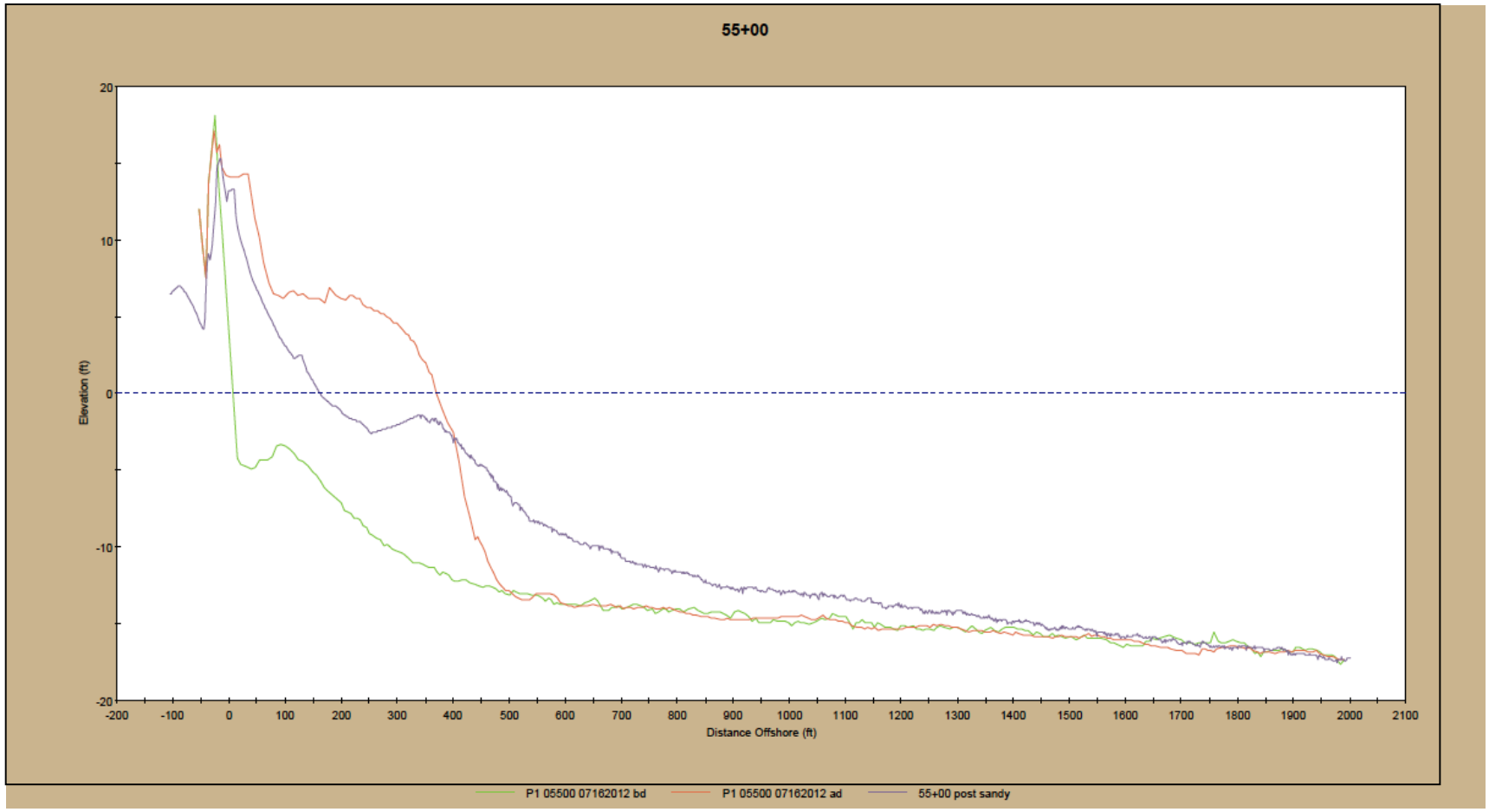
Looking south– after 2009 nor' easter.

Looking south– notice geotubes.

Along Came Sandy



Along Came Sandy



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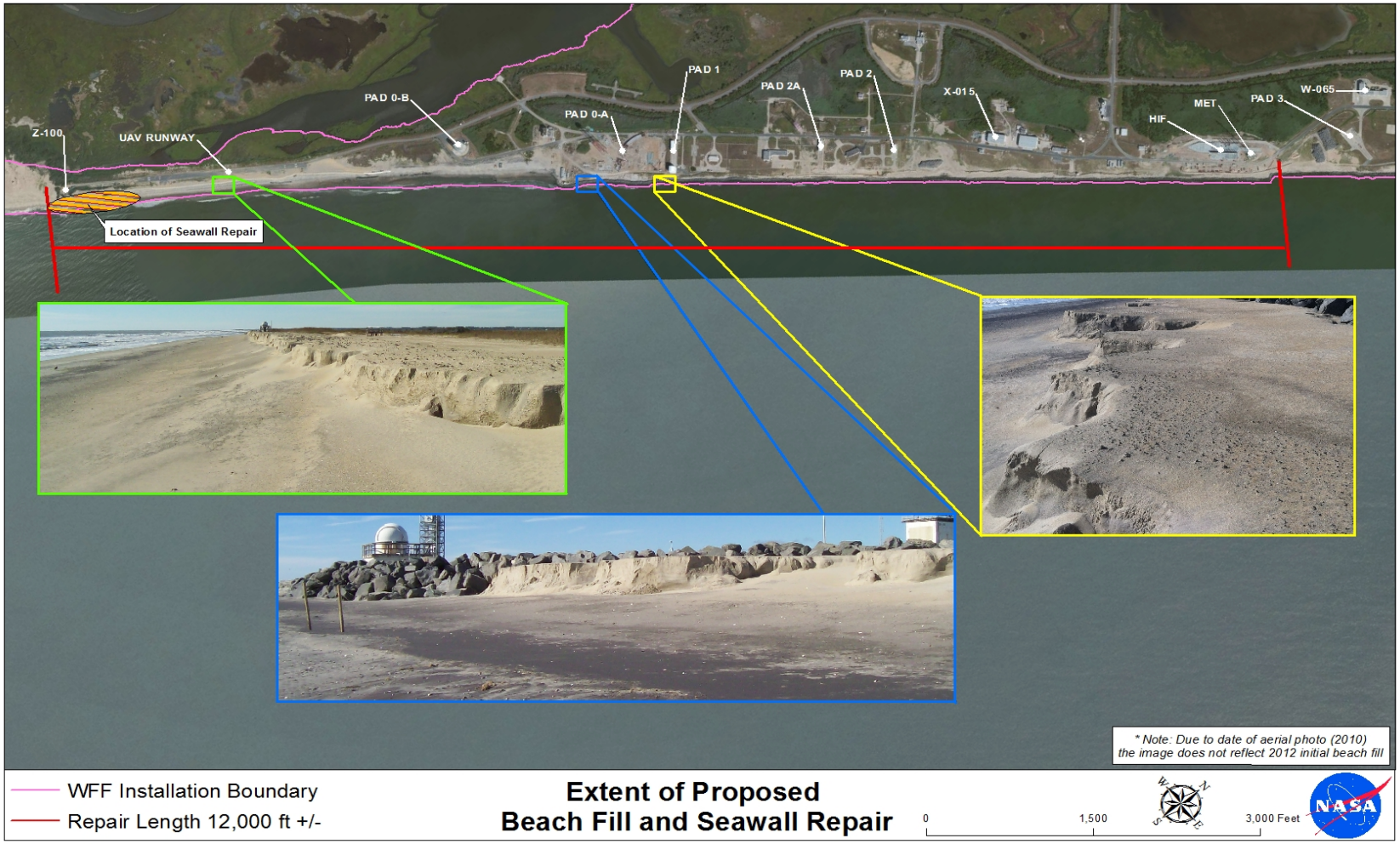

Best lunch you'll ever eat…on a dredge!