

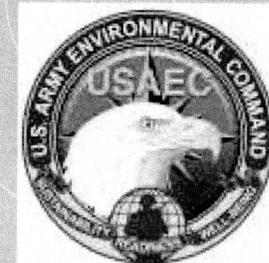
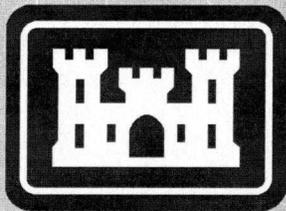
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MILITARY MUNITIONS RESPONSE PROGRAM (MMRP) SITE INSPECTION TECHNICAL
PROJECT PLANNING (TTP) MEETING 2 FORT STORY VA
3/18/2008
URS

Military Munitions Response Program (MMRP) Fort Story, VA Site Inspection (SI)

Technical Project Planning (TPP) Meeting 2 18 March 2008

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Meeting Agenda

1. Introductions
2. MMRP SI Goals Overview
3. MMRP Policy Review
4. TPP Process Overview
5. HRR Findings
 - Small Arms Range
 - Inner Coastal Defense Range
6. SI Path Forward
 - Incorporation of MRSPP
 - MRS Recommendations
7. Path Forward/Schedule
8. Discussion Items

MMRP SI Goals

Primary Goals

Collect information necessary to make a decision if the following actions are warranted at the site:

- MMRP Remedial Investigation/Feasibility Study (RI/FS).
- Interim Response (Removal Action).
- No Further Action Determination.

Secondary Goals

- Collect necessary information required to improve Cost to Complete (CTC) estimate for the remediation of the MMRP site.
- Develop information for, and run the Prioritization Protocol.

MMRP Policy Review

- Follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan.
- Applies only to releases that occurred prior to 30 Sep 02.
- Does not apply to operational ranges, operating storage/manufacturing facilities, or to permitted treatment or disposal facilities.
- Implements response alternatives to address unacceptable risks, both explosive safety risks and munitions constituent risks.
- Provides for meaningful stakeholder involvement.
- Provides for response actions consistent with reasonably anticipated future land use.
- Fosters and supports the development and application of improved and innovative technologies and methods.

TPP Process Overview

- Phase I: Identify the current project (Kick-off Mtg).
- Phase II: Determine data needs (TPP 2 Mtg).
- Phase III: Develop data collection options (TPP 2 Mtg).
- Phase IV: Finalize data collection program (TPP 2 Mtg).
- Objective is to work together to reach consensus so we are in agreement as to what data is needed, how it will be used, and what conclusions will or will not be supported.

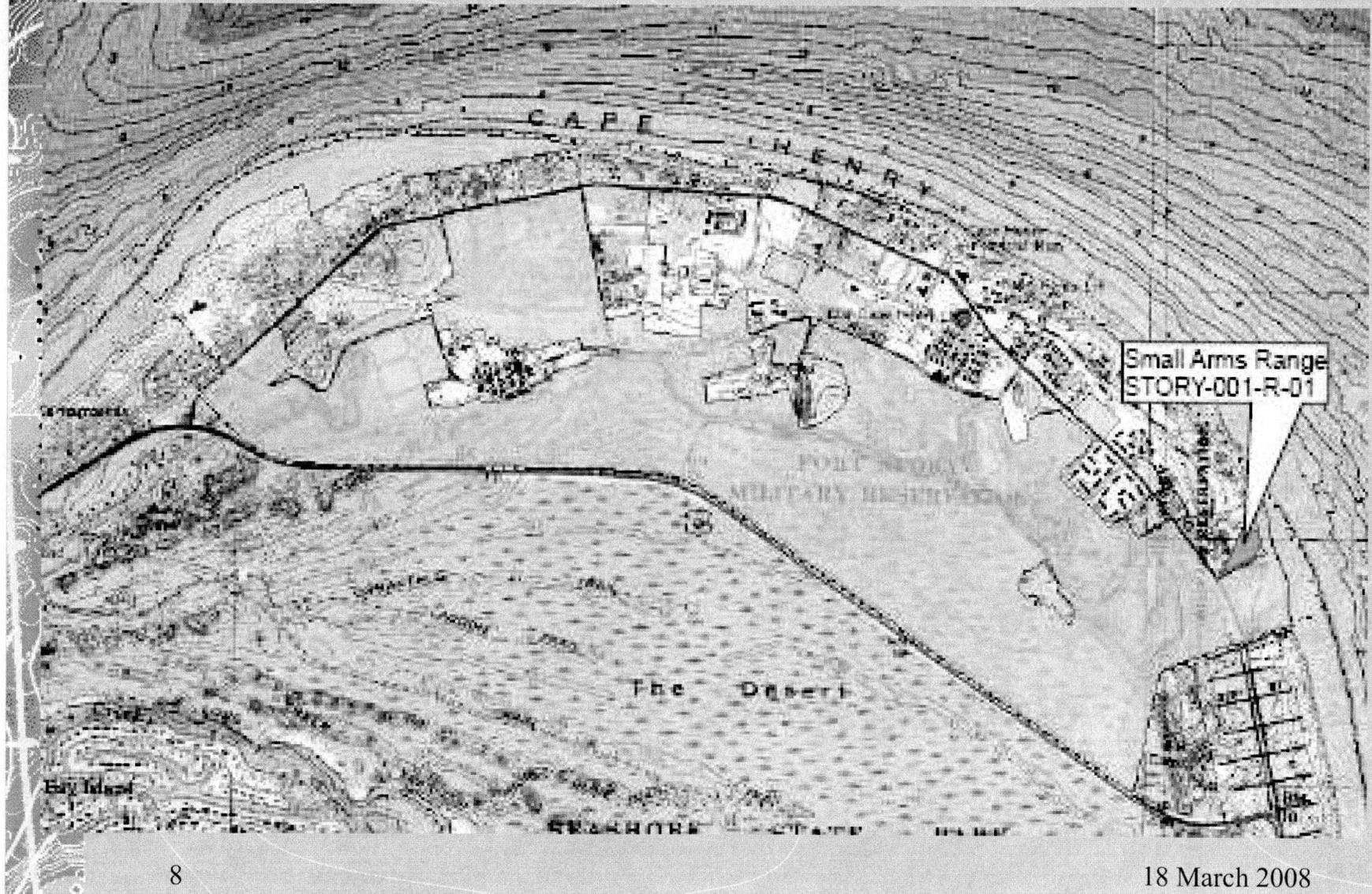
Overview of Fort Story, VA HRR Findings

- Increase in operational range area eliminated:
 - Small Arms Range
- Numerous batteries identified that resulted in defining a new off-shore site:
 - Inner Coastal Defense Range.

Small Arms Range Findings

- Small Arms Range identified in CTT Inventory.
- Update expanded limits of Fort Story Operational Range area since CTT Inventory performed.
- Small Arms Range now resides within Operational Range Area.
- Small Arms Range is ineligible for MMRP owing to its location within the Operational Range Area.

Summary of Small Arms Range Findings



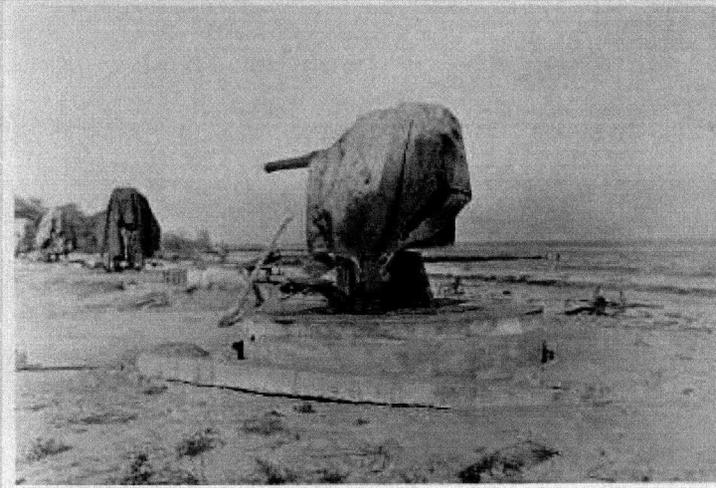
Summary of Small Arms Range Findings



Coastal Defense Guns and Batteries

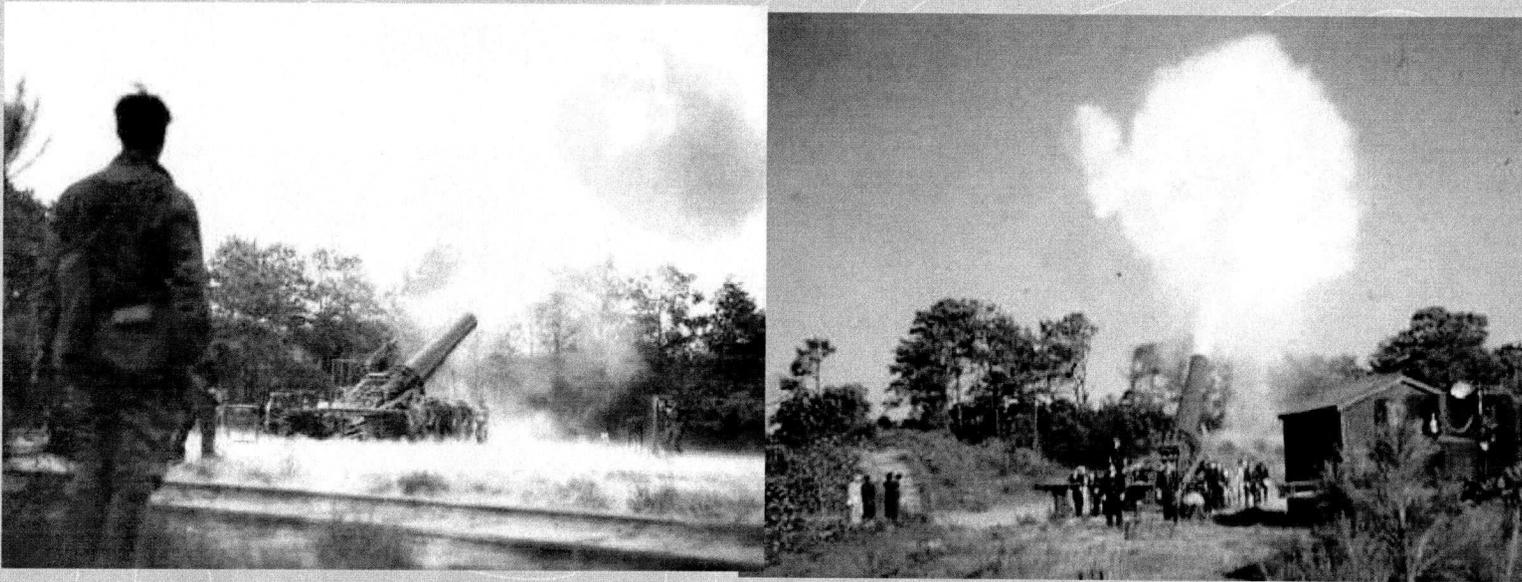
- 18 batteries identified during HRR, none of which identified during CTT Inventory.
- Some dated back to WWI; most WWII vintage.
- Sizes ranged from .50 caliber machine guns to 16-inch artillery.
- Batteries included anti-aircraft; coastal artillery; AMTB; missiles, and underwater mines.
- Purpose of batteries was to protect the entrance to the Chesapeake Bay.
- All firing directed out toward Chesapeake Bay and Atlantic Ocean.
- Some battery locations now off-shore due to erosion.

Coastal Defense Guns and Batteries



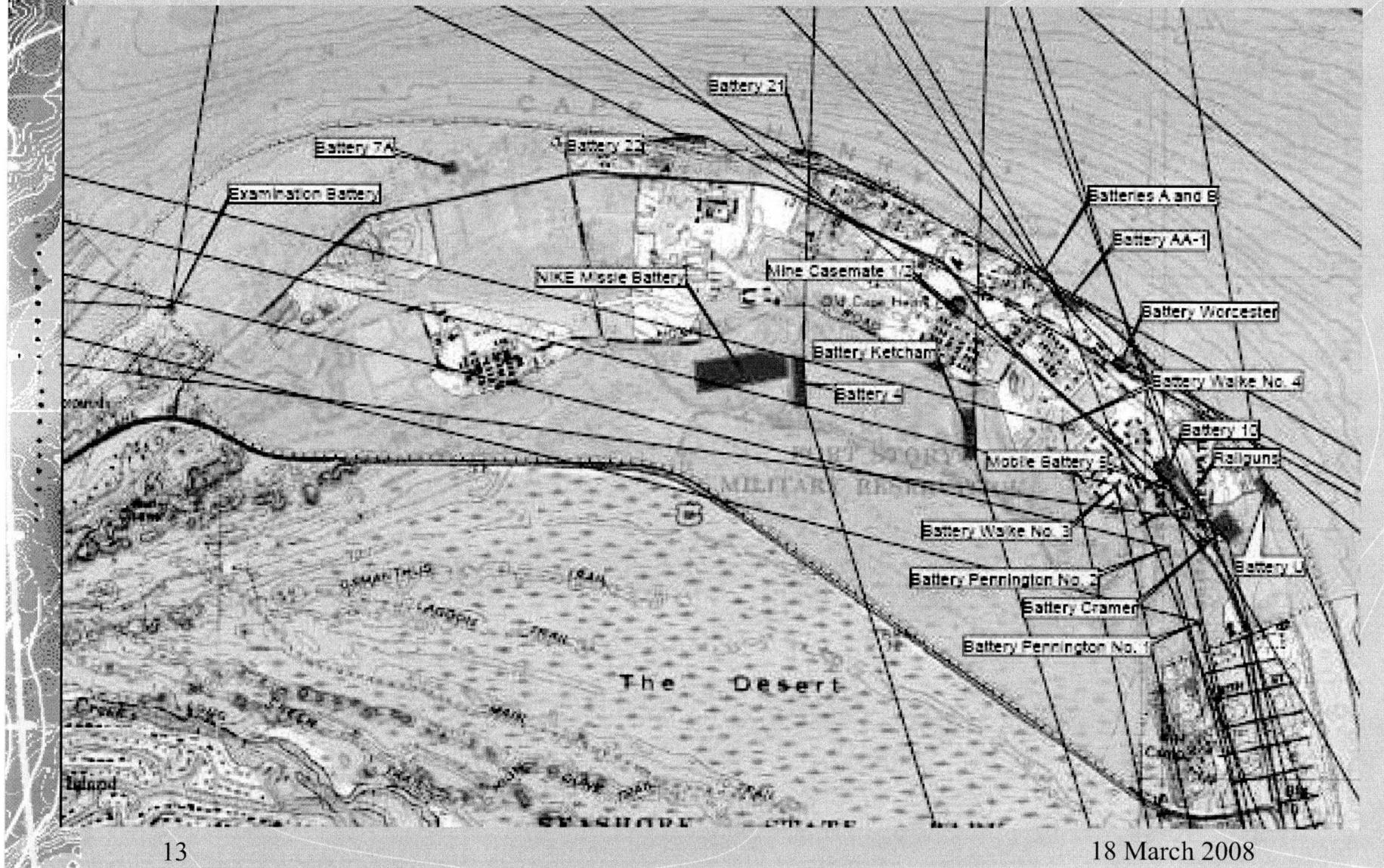
Battery AA-1 during WWII and now

Coastal Defense Guns and Batteries



Batteries Pennington and Walke

Coastal Defense Guns and Batteries



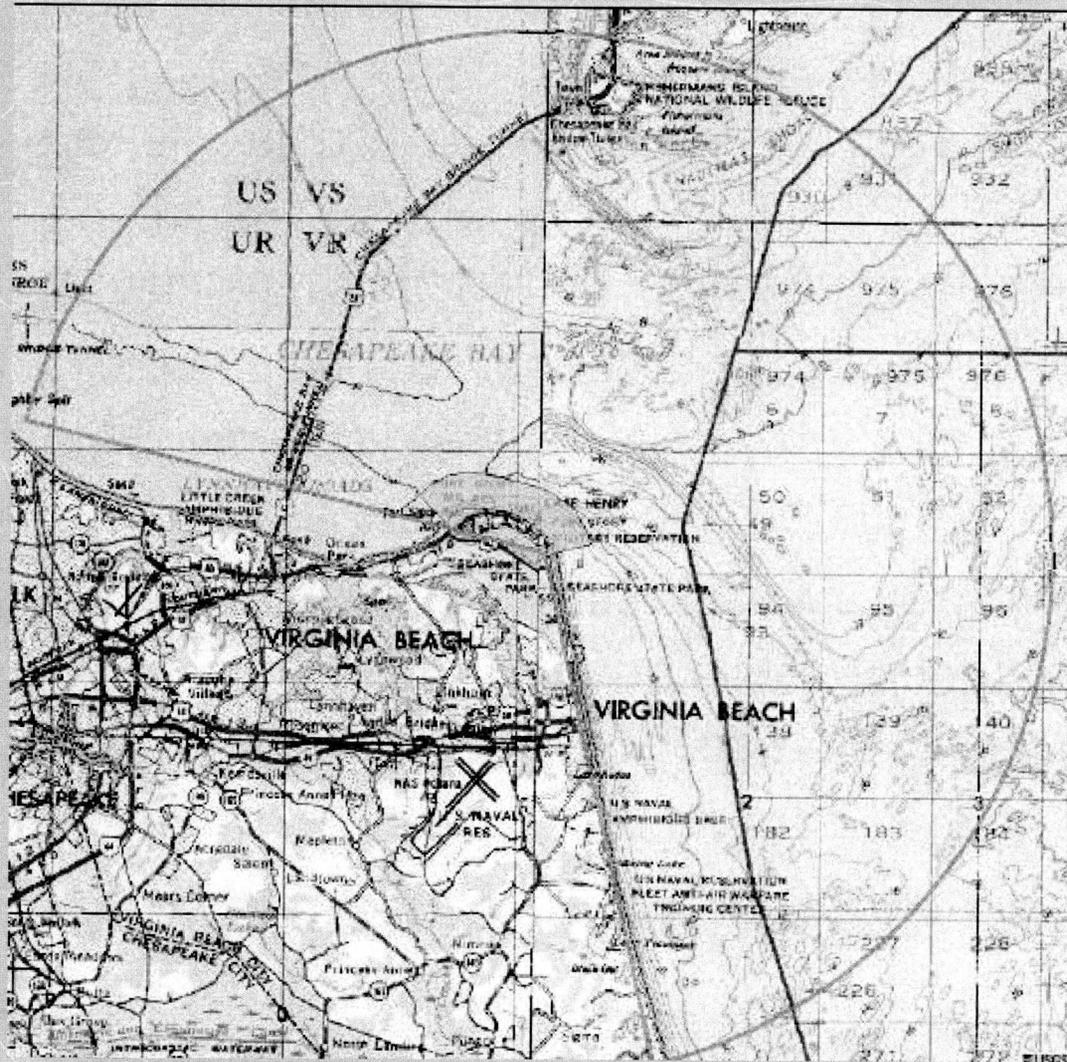
Development of Inner Coastal Defense Range

- Historical documents used to define “field of fire.”
- Historical documents found that indicated ammunition allotments for training.
- Historical documents found that described training methods, all of which consisted of firing at off-shore targets.
- Historical documents found that describe design of off-shore firing fans and appropriate safety zones.

Development of Inner Coastal Defense Range

- Defined historical firing fans based on “fields of fire” or maximum firing range of guns if map did not exist for each battery.
- Plotted historical firing fans and mine fields (Figure 4-42 in HRR).
- Used general range layout descriptions to identify safety zones (Figure 4-43 in HRR).
- Eliminated portions of historical firing fans that were over land.
- Eliminated historical firing fans of batteries where only practice or inert projectiles were fired.
- Plotted historical firing fans of those batteries that potentially fired HE-filled munitions (Figure 4-45).
- Used general range layout to define set-back from land (600 yards laterally and 2000 yards beyond the target zone).

Sample Historical Firing Fan



Historical Firing
Fan: Battery
Pennington No. 1

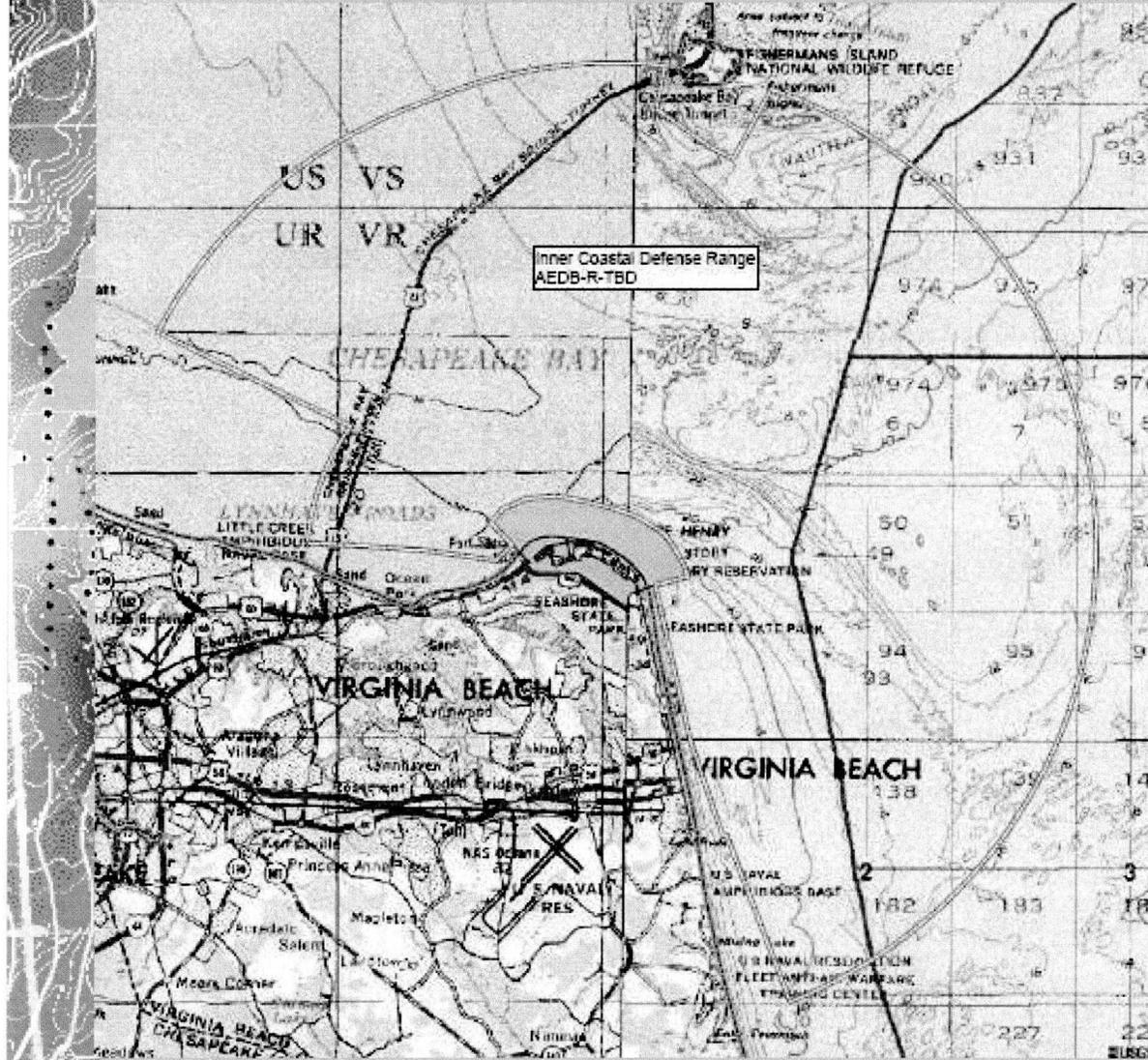
Historical Firing Fans



**Figure 4-42
from HRR,
compilation
of historical
firing fans**

Inner Coastal Defense Range MRS

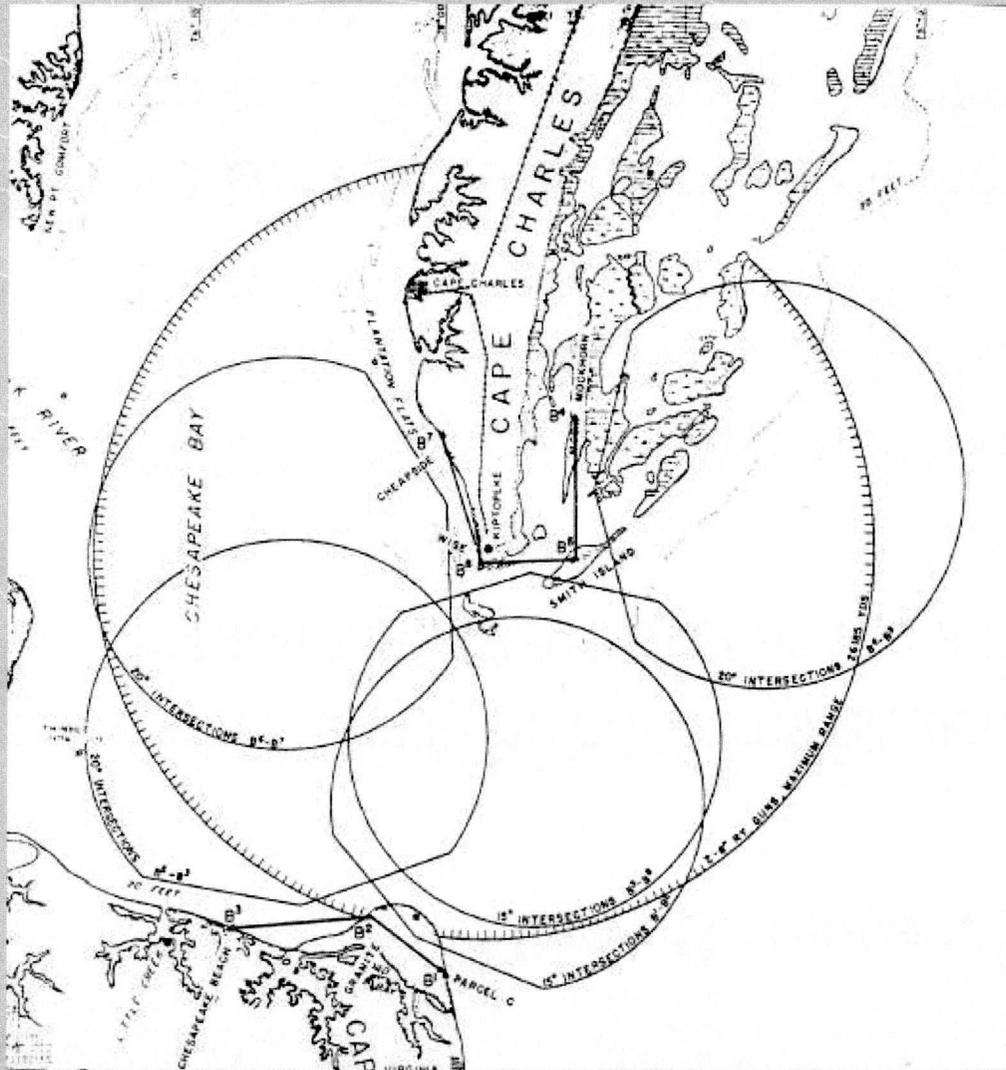
Figure 4-47 from
HRR



Inner Coastal Defense Range MRS

- Comprised of Battery AA-1; Railguns; Examination Battery; Battery 21; Battery 22; Batteries A and B; mine fields from Battery 7.
- Covers 258,510 acres.
- Potential MEC includes 5 & 6" mortars; 3-inch; 37-mm subcaliber; 90-mm; .50 caliber; M1, M2, M4, and M6 mines.
- Active from WWI through end of WWII.

Example of Overlapping Fields of Fire from Fort Custis and Fishermans Island



Also considered firing fans from Fort Monroe (BRAC) and Fort Wool (FUDS), none of which overlap the Inner Coastal Defense Range at Fort Story

Other Considerations

- Firing fans from former installations Fort Custis and Fishermans Island overlap the Inner Coastal Defense Range.
- MEC from these fans within the Inner Coastal Defense Range considered part of the MRS, and are similar to the munitions fired from Fort Story.
- Portions of these fans outside the Inner Coastal Defense Range are not part of the MRS, and to be addressed by FUDS.

Conceptual Site Model

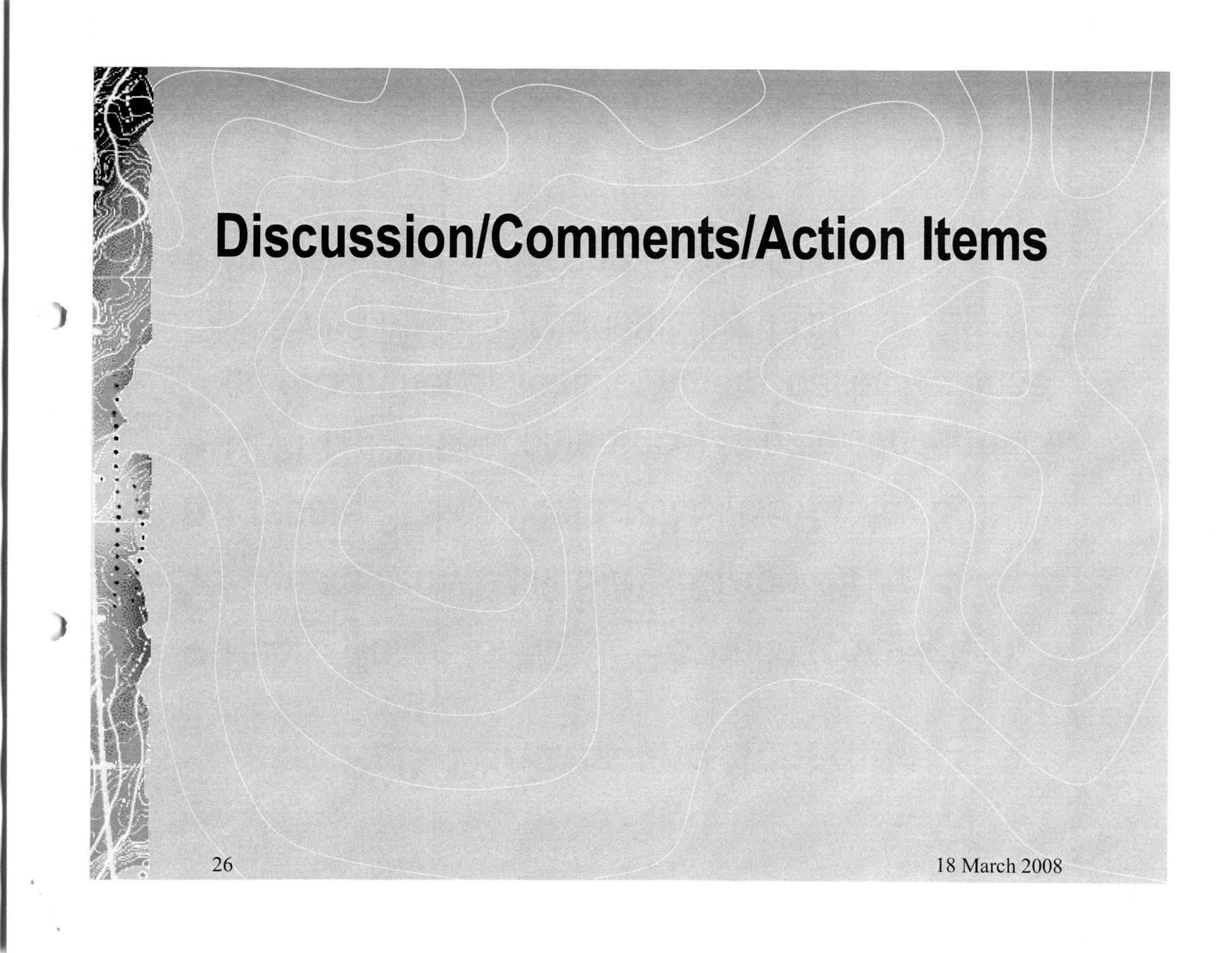
- Primary receptors are dredge workers and commercial fishermen who may ignore restrictions on dredging.
- Portions of Chesapeake and Thimble Shoal Channels are located within Inner Coastal Defense Range and are actively maintained (i.e., dredged).
- NOAA charts indicate potential for mines and place restrictions on dredging and activities that disturb the ocean floor (anchoring, bottom fishing, etc.).
- Dredged materials disposed of offshore at Dam Neck Disposal Site, located within active firing fan operated by the Navy; therefore, not eligible for inclusion under MMRP.

Next Steps

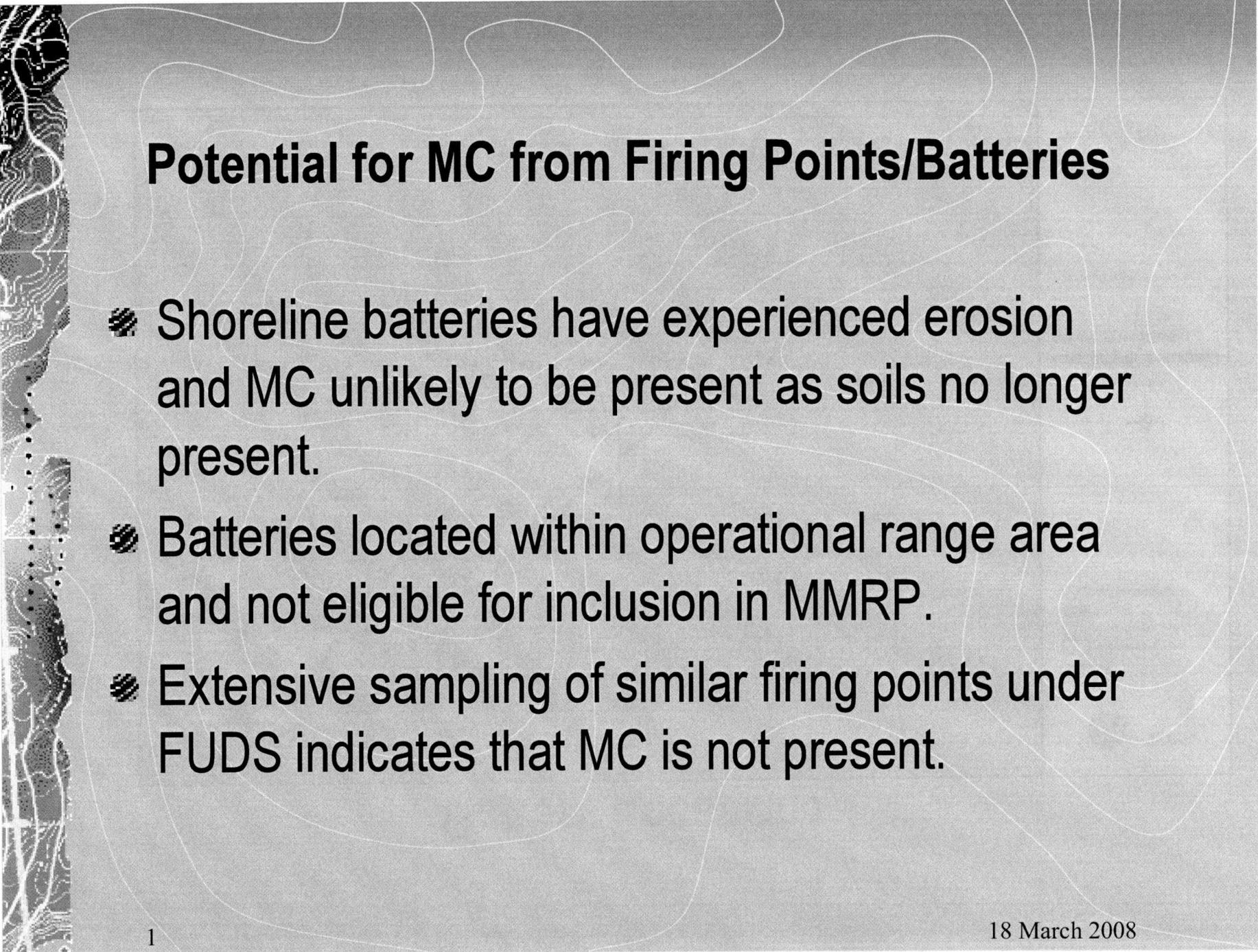
- No sampling proposed as part of the SI.
- Inner Coastal Defense Range should be recommended to proceed to further investigation (RI).
- Revise HRR report to be a combined SI/HRR Report that includes the MRSPP scoring sheets.

Path Forward and Schedule

- Public Notice for MRSPP scoring (completed).
- Prepare Army Draft SI/HRR (April 18).
- Prepare Stakeholder Draft SI/HRR (May 30).
- Hold TPP3 (teleconference) to gain concurrence on recommendations for Inner Coastal Defense Site and MRSPP scoring (July 11).
- Finalize SI/HRR Report (August 1).



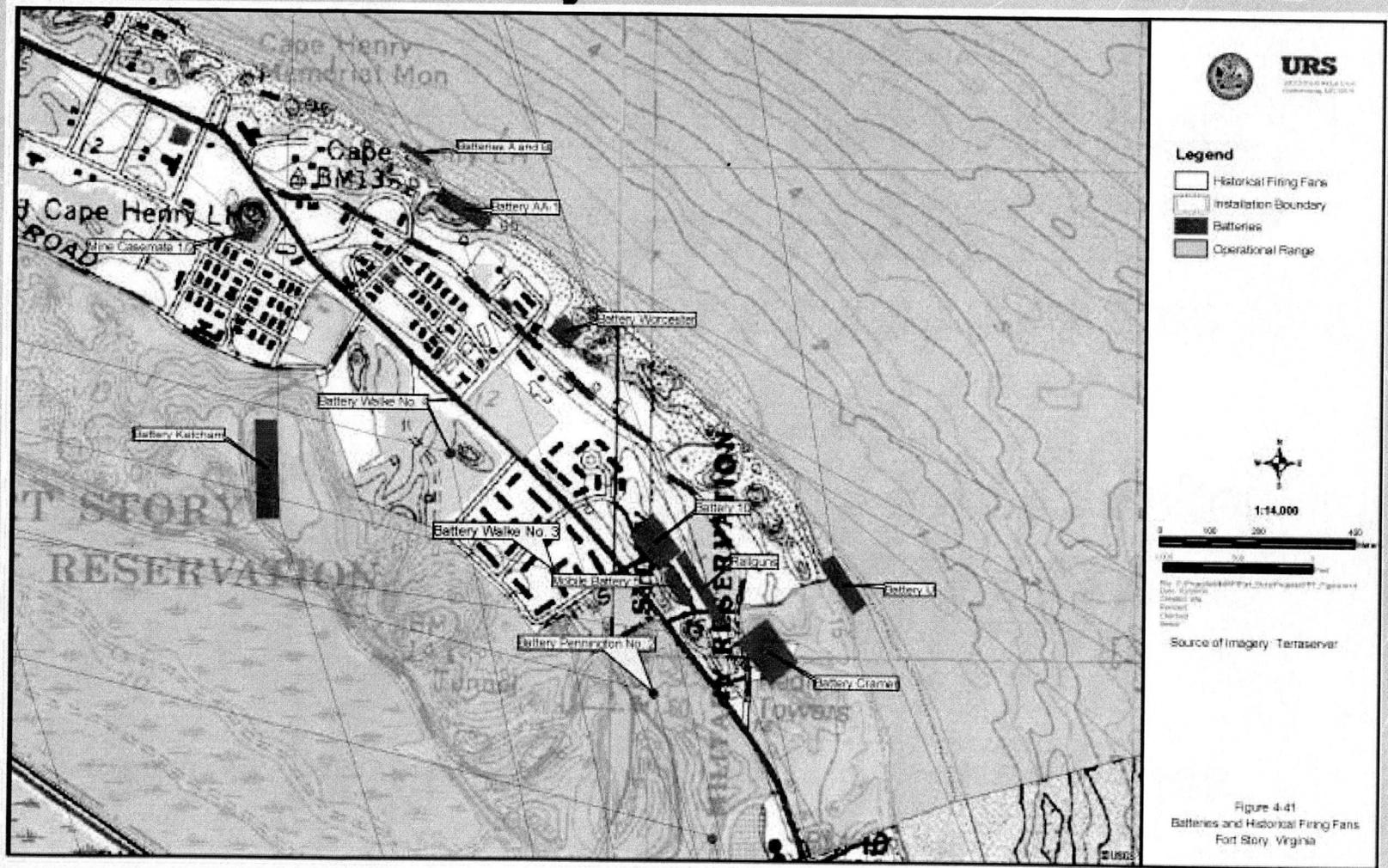
Discussion/Comments/Action Items



Potential for MC from Firing Points/Batteries

- Shoreline batteries have experienced erosion and MC unlikely to be present as soils no longer present.
- Batteries located within operational range area and not eligible for inclusion in MMRP.
- Extensive sampling of similar firing points under FUDS indicates that MC is not present.

Battery Locations



- Legend**
- Historical Firing Fans
 - Installation Boundary
 - Batteries
 - Operational Range

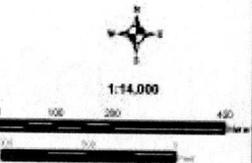


Fig. 4-41 Batteries and Historical Firing Fans
 Fort Story, Virginia

Source of Imagery: TerraServer

Figure 4-41
 Batteries and Historical Firing Fans
 Fort Story, Virginia

Development Near Temporary Battery 5, Railguns, and Battery 10 (looking NW)



Aerial Photograph Depicting Current Conditions

