



Former NAS Moffett Field



Hangar 1 Removal Action Update

Mike Schulz, PMP

AMEC Earth & Environmental, Inc.

**July 8, 2010
RAB Meeting**



Presentation Overview



- Project Objective and Approach
- Progress to Date
 - ✓ Community Outreach
 - ✓ Biological Survey
 - ✓ Asbestos Survey
 - ✓ Mobilization
 - ✓ Work Plans
 - ✓ Coating Condition Survey
 - ✓ Pre-construction Sampling
- Future Activities
- Schedule
- Questions



Project Objective



- Control release of PCBs from Hangar 1 in accordance with EE/CA (July 2008) and Action Memorandum (December 2008)
 - Demolition of interior structures
 - Removal of contaminated siding
 - Application of weather-resistant coating to steel frame



Project Approach



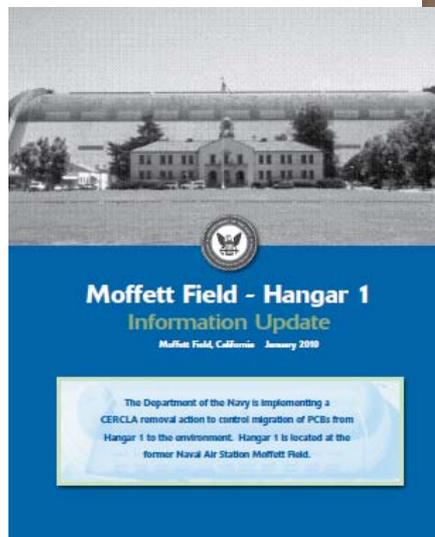
- Use of interior scaffold system to promote safety and contaminant control
- Use of the hangar shell as containment during interior demolition and coating
- Epoxy coating system with proven performance
- Rigorous air monitoring program



Community Outreach Update

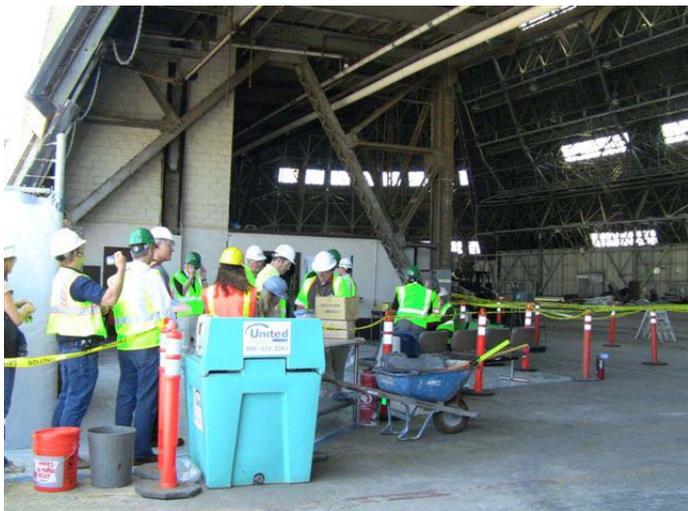


- RAB presentation November 2009
- Fact Sheet January 2010
- NASA briefing January 2010
- Video documentation
- RAB tour July 2010





RAB Tour of Cork Room





Work Plan Status



- Accident Prevention Plan (February 2010)
- Final Sampling and Analysis Plan (April 2010)
- Final Work Plan (June 2010)
- Biological Hazard Abatement Plan





Biological Survey



- Biological surveys conducted January – April 2010
- Final Biological Survey Report submitted May 2010
- Species observed:
 - White-throated Swift
 - Common Raven
 - Barn Owl
 - Cliff Swallow
 - House Finch
 - Burrowing Owl
 - Coyote, Gray Fox, Red Fox
 - Black-tailed Jack Rabbit
 - California Ground Squirrel



Inactive Cliff Swallow nest



Biological Survey Recommendations



- Recommendations approved by California Department of Fish & Game and US Fish & Wildlife Service
 - Remove inactive nests
 - Protect active Raven nest
 - Periodic nesting surveys
 - Monitor and protect Burrowing Owls



Inspection of clamshell doors for Swift nests



Burrowing Owl Locations



Construction fence approximately 175 Feet north of active burrow



Coating Condition Survey



- Evaluated condition of existing coating on steel frame in accordance with Society of Protective Coatings TU-3:
 - Rust
 - Corrosion
 - Peeling/Blistering
 - Cracking/Checking
 - Chalking
 - Film Thickness
 - Adhesion
- Evaluated performance of new coating system adhesion
 - Patch tests



Patch test on new coating



Coating Condition Survey Results



- Adhesion of existing coating very good at all locations tested
 - Average adhesion strength of 603 psi
 - 200 psi is acceptable
- Recommended coating system:
 - Carbomastic 15 (CM15) aluminum epoxy mastic
 - Surface preparation by low-pressure water cleaning and localized abrasive blasting or power tool cleaning
 - Application by spray, brush, or roller at 3 – 10 mils
- Excellent adhesion of CM15 coating system demonstrated in all tests (550 psi – 675 psi)



Pre-Construction Sampling

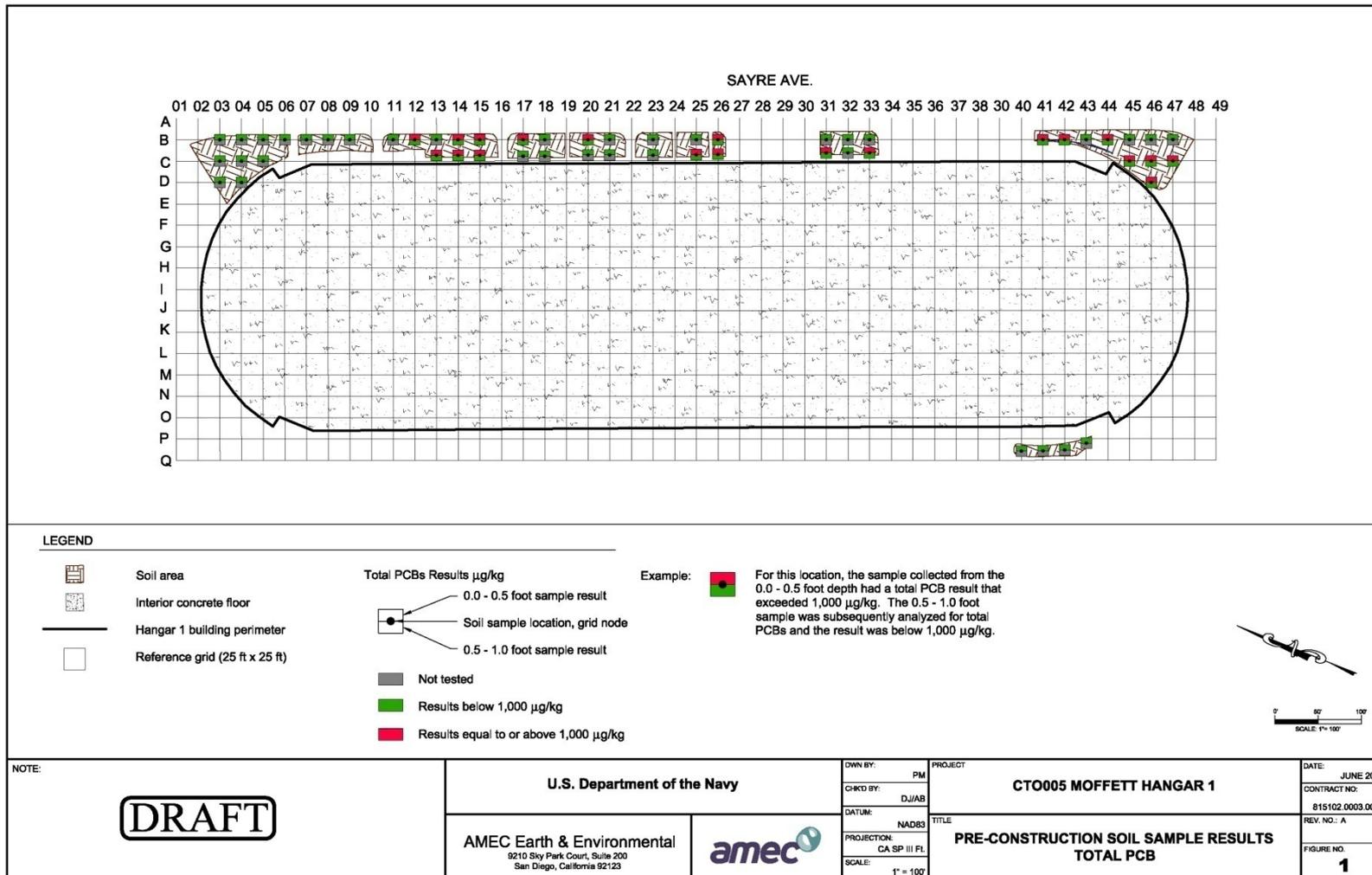


- Soil Areas
 - 110 samples collected from soil areas
 - 20 samples $>1,000 \mu\text{g}/\text{kg}$ PCB action limit
 - PCB contamination restricted to upper 6 inches
 - Contaminated soil will be excavated and disposed off site
- Storm Drain Trench Sediment
 - 4 samples collected from the storm drain
 - All samples exceed PCB action limit
 - Sediment will be removed by vacuum methods and disposed off site





Baseline Sampling Results





Asbestos Survey



- Inspection of all building materials completed in May 2010
- Over 300 samples collected
- Asbestos-Containing Materials include:
 - Floor tile
 - Pipe insulation
 - Drywall and plaster on walls
 - Roofing on interior buildings
 - Mastics under flooring
 - Fire doors, file cabinets and safes
 - Window sealants and caulk
 - Gaskets on electrical fixtures
 - Sealant between siding and steel frame



Examples of Asbestos Materials



Drywall



Mastic under flooring



Duct tape and wrap



Light fixture gaskets



Asbestos Abatement Controls

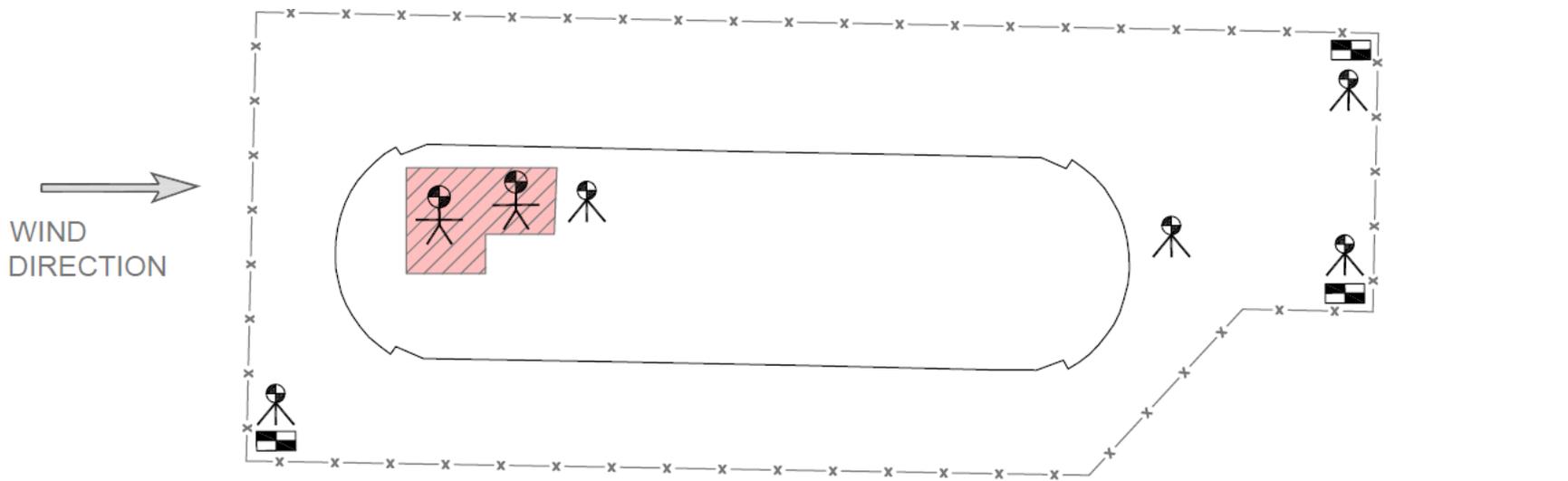


- Compliance with OSHA and Cal. Code of Regulations (CCR Title 8)
- Install containment barriers and negative air pressure
- Air monitoring supervised by Certified Industrial Hygienist
- Post abatement inspection and clearance sampling
- All work under direction of California Asbestos Consultant





Air Monitoring Plan - Interior



LEGEND



REGULATED WORK AREA



WORK AREA PERIMETER MONITORING - "CHEMICAL SPECIFIC"



FENCE LINE



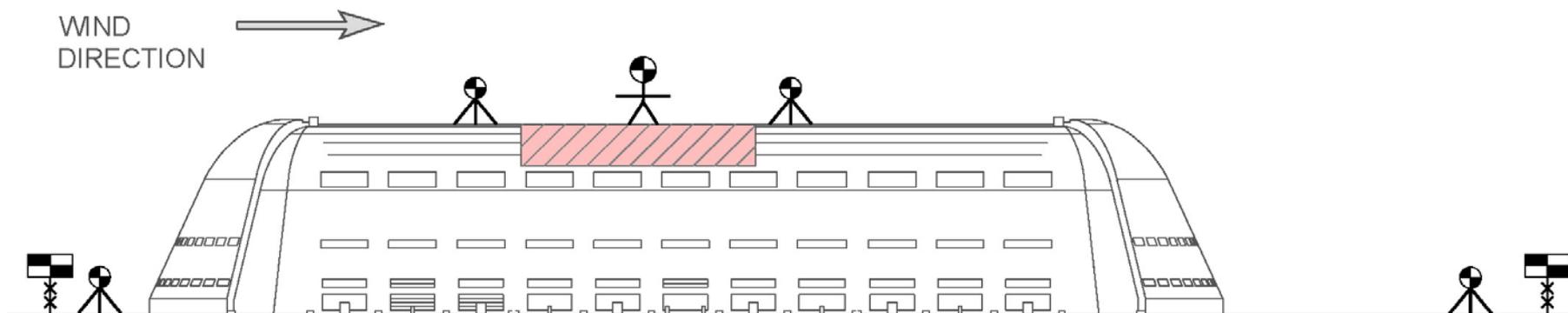
"PERSONNEL" WORKER AIR MONITORING



SITE PERIMETER DUST MONITORING



Air Monitoring Plan - Exterior



LEGEND



REGULATED WORK AREA
ACTIVE ROOF ABATEMENT



WORK AREA PERIMETER
MONITORING - "CHEMICAL
SPECIFIC"



FENCE LINE



"PERSONNEL" WORKER AIR
MONITORING



SITE PERIMETER DUST
MONITORING



Mobilization

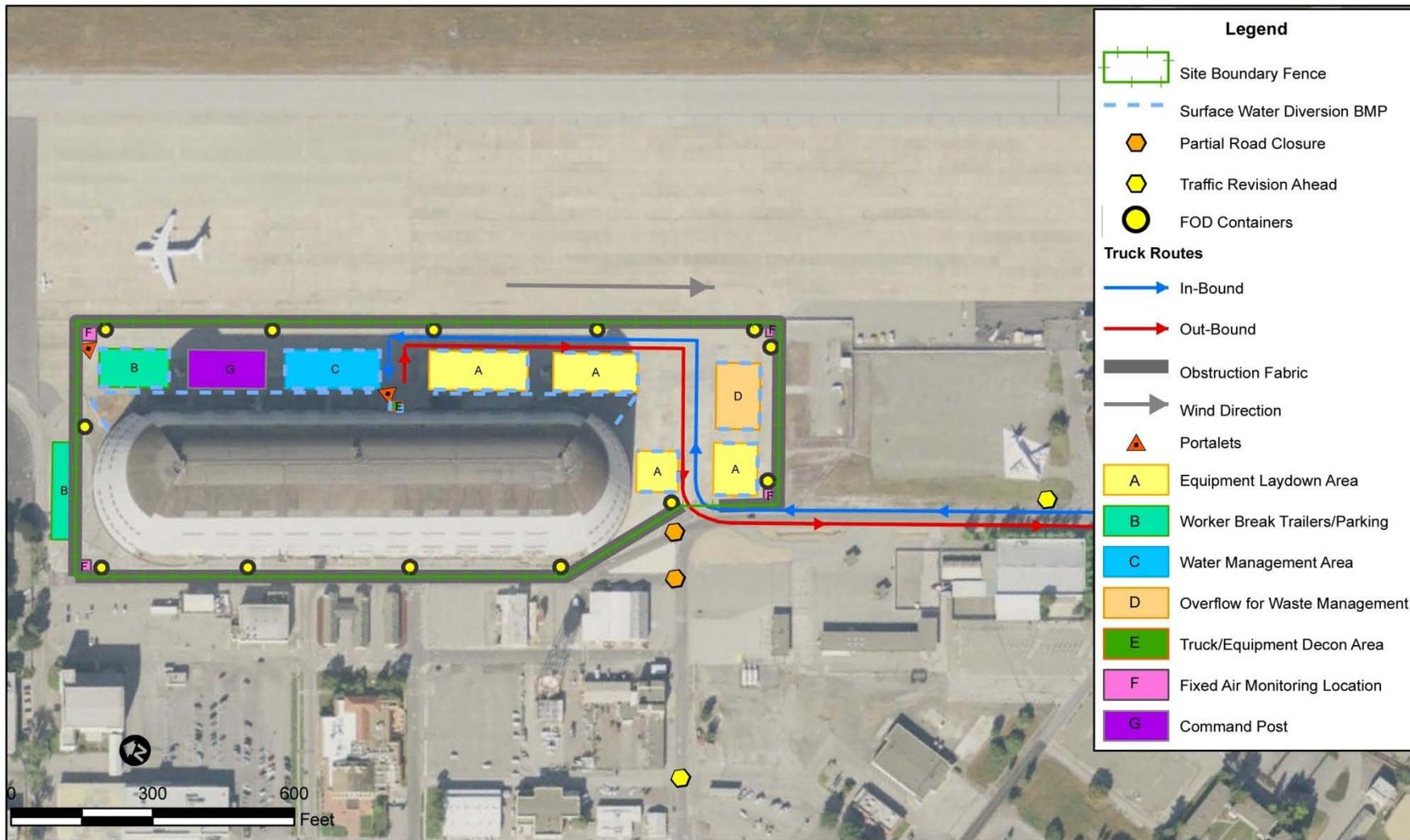


- Temporary construction fence
- Owl buffer zone
- Utility termination
- Decontamination areas
- Lay down areas
- Storm water controls
- Air monitoring stations
- Command post
- Worker orientation
- Ellis Gate open





Site Plan





Preservation of Historic Artifacts





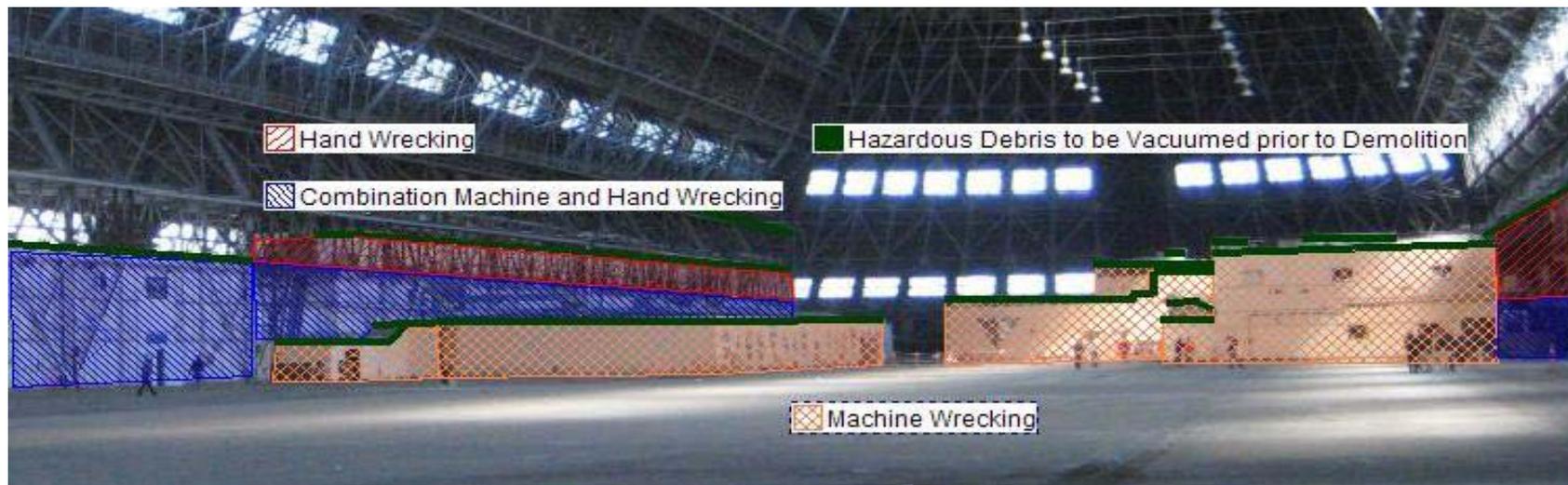
Future Activities



- Continue biological monitoring
- Complete decontamination of salvaged items
- Asbestos abatement
- Demolition of interior structures
- Repair of secondary structural steel members
- Scaffold installation
- Siding removal and coating
- Community outreach meetings
- Fact sheets



Interior Demolition

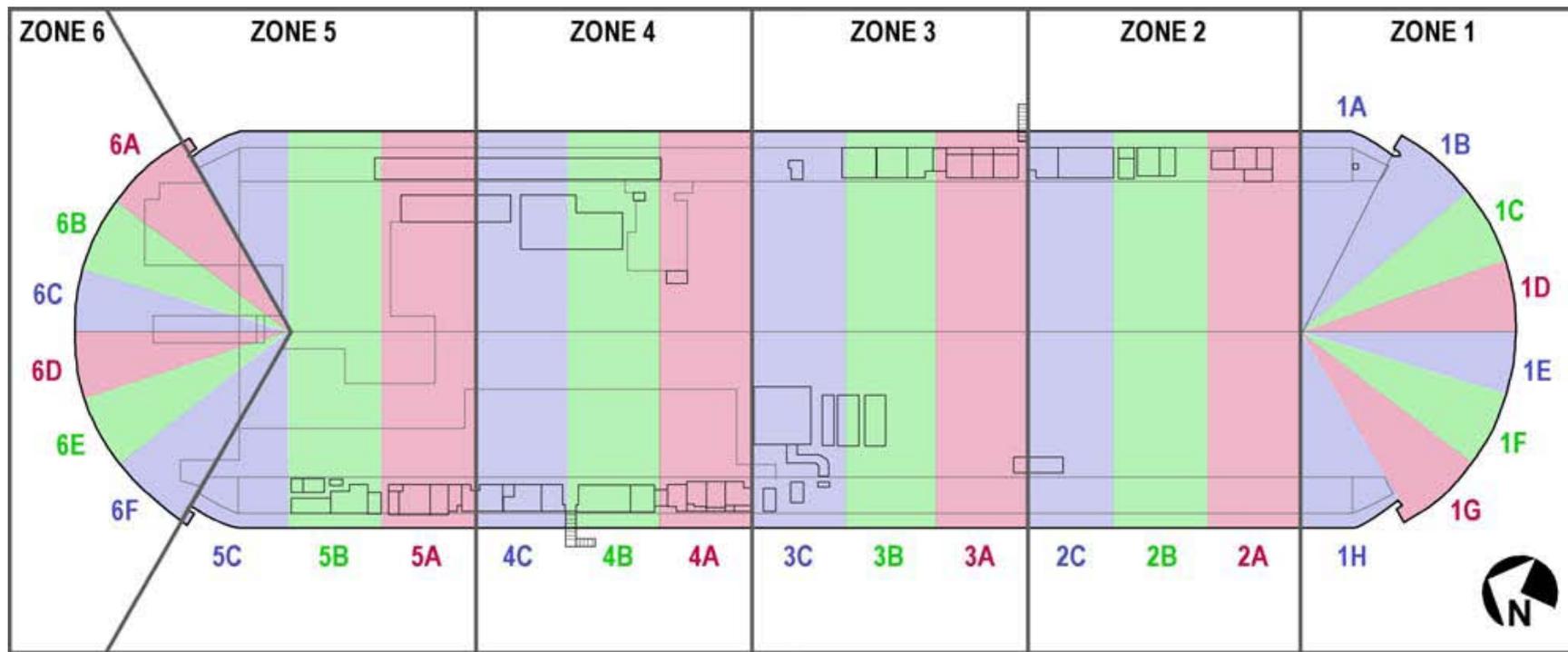


- Combination of manual and machine demolition methods
- Designed to protect structural integrity of the hangar



Siding Removal Plan

- Phase work in 6 Zones
- Start on the south end
- Work from roof to ground
- Coordinated with coating





Schedule



- Start asbestos abatement anticipated
July 2010
- Start interior demolition anticipated
October 2010
- Start siding removal
Spring 2011
- Complete siding removal and coating
Winter 2011
- Submit final report
Spring 2012





Questions



Point of Contact

Kathryn Stewart, P.E.
BRAC Environmental Coordinator
(619) 532-0796
Kathryn.Stewart@navy.mil