Basic Research to Enable a Safer Nation

Laboratory Utilization, Construction and Operations

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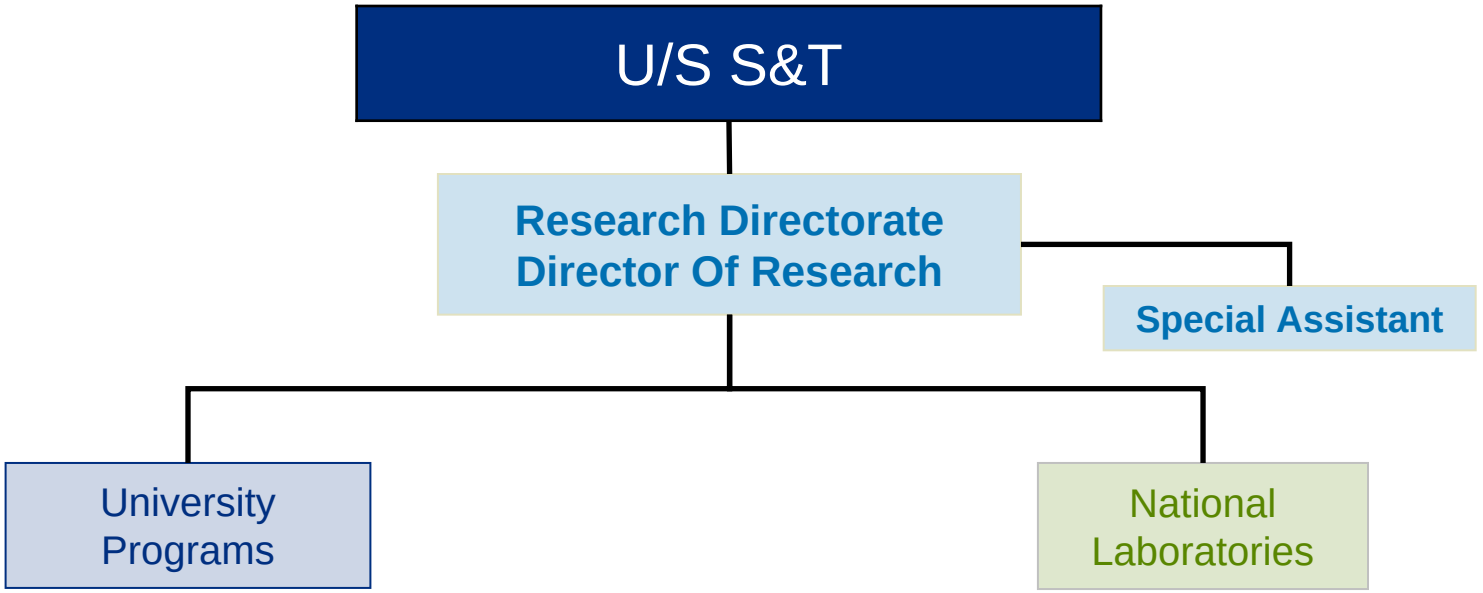
From Science and Technology… Security and Trust

Homeland Security

The Office Of National Laboratories Coordinates the Utilization of DHS and DOE Laboratory R&D Capabilities for the S&T Research Directorate



- Centers of Excellence
- Minority Serving Institutions
- Education Programs

- Coordination & Utilization of DOE National Labs
- S&T Lab Operations
- Laboratory Construction

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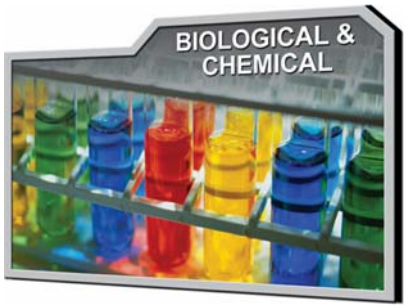
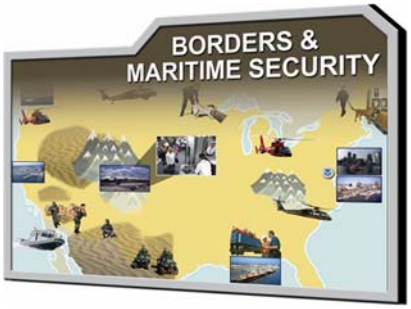
The Office Of National Laboratories (ONL) Was Created By The Homeland Security Act And Has Clearly Defined Objectives Within DHS S&T

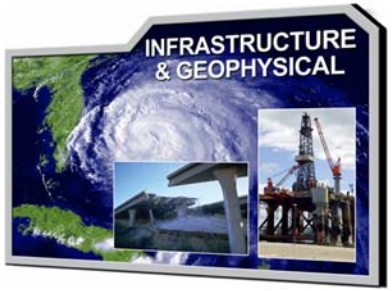


- Coordinate Lab alignment with, and support of, S&T Division needs to provide the new knowledge and technology required to respond to natural and man-made threats to the Homeland

- Identify and harvest innovation from DOE Laboratory Directed Research and Development to support S&T customer requirements

- Facilitate S&T Division utilization of the DOE and DHS laboratory infrastructure, technical expertise and capabilities





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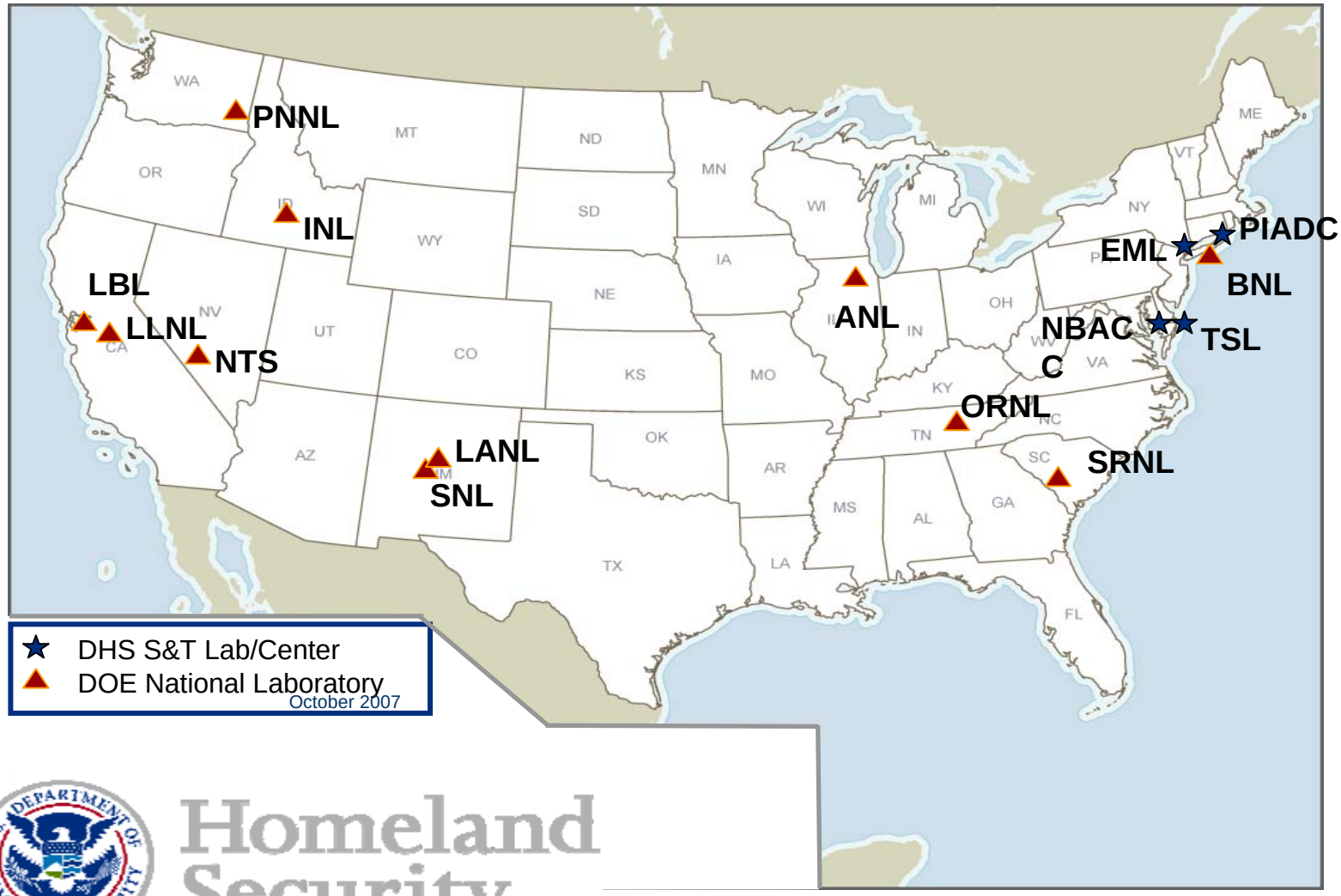
The integrated S&T & DOE National Laboratory Complex conducts <u>both</u> Applied R&D and Basic Research.



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ONL also manages specialized labs, which allow S&T R&D Divisions to satisfy specific DHS Customer needs

TEST & EVALUATION

RESEARCH & SERCICES

Environmental Measurements Laboratory (EML)

Plum Island Animal Disease Center

Transportation Security Laboratory (TSL)

National Biodefense Analysis and Countermeasures Center (NBACC) (Transition Labs Ft. Dietrich, MD)

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ONL manages Laboratory construction aimed at supporting future Homeland Security customer requirements

National Biodefense Analysis and Countermeasures Center (Illustration)

Chemical Security Analysis Center (CSAC)/ Sample Receipt Facility Illustration

(Construction)

(Construction)

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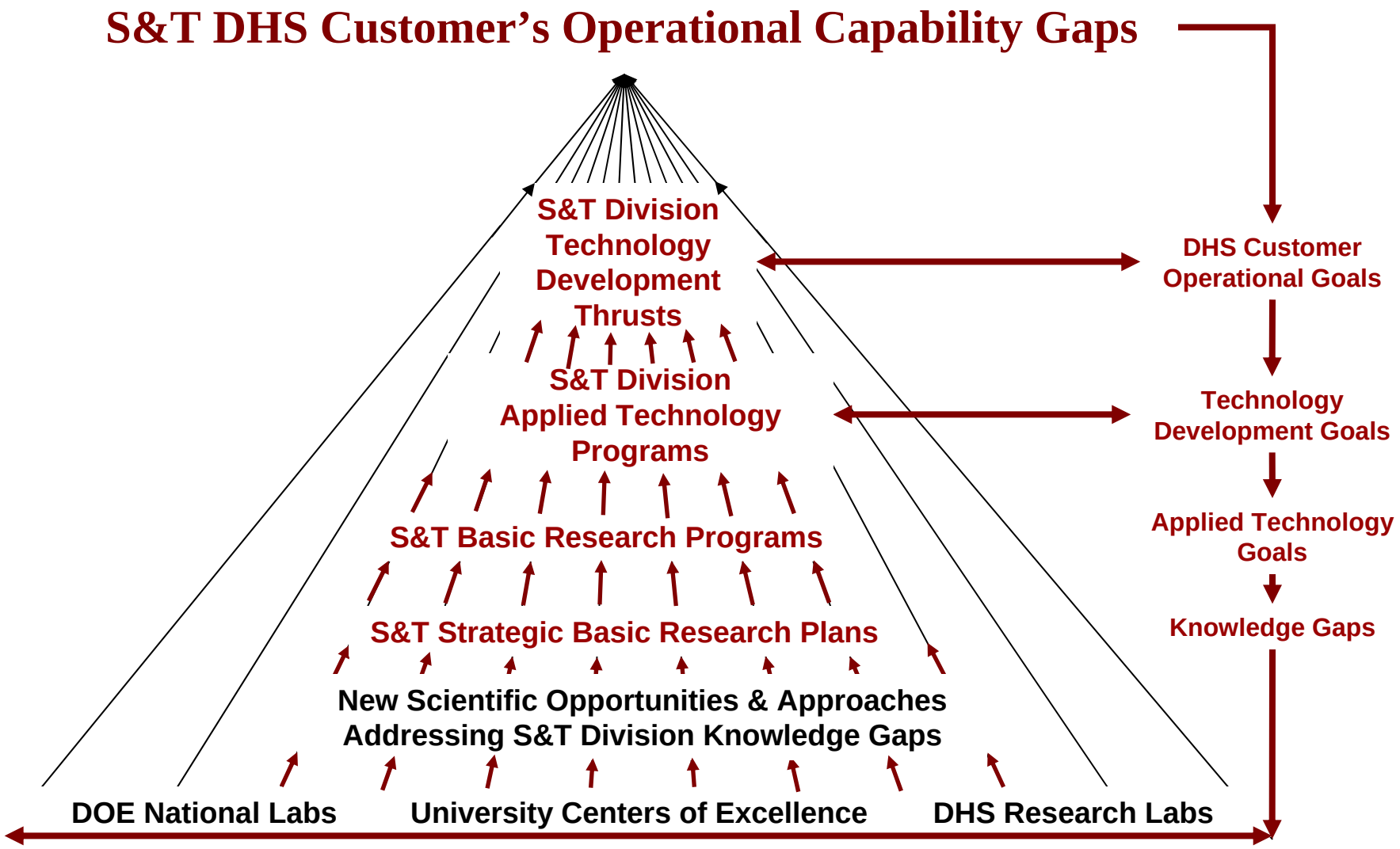
In the DHS/S&T technology development process, both Applied R&D and Basic Research must serve customers



S&T's Broad Basic Research Capability Supports DHS Customers Goals

In addition to Research, National Laboratories Also Provide Technical Expertise to Address Near Term Threats

Liquid Explosives Threat: London, August 11, 2006

• S&T U/S Cohen challenged the National Laboratories to address the liquid explosives threat to aviation with a Rapid Response Team. Outcomes included:

- •Adoption of the current 3-1-1 rule for liquids on aircraft,
- •Identification of promising technologies for screening explosives and
- • Improved alignment of basic and applied research for DHS S&T Explosives Division.

Wildfire Threat: Southern California, October 2007

• S&T U/S Cohen launched the "Secure Against Fires and Embers" (S.A.F.E) initiative explore and identify technologies that could save lives and property in the wildland-urban interface fires.

- • 147 technology possibilities have been identified by DOE, DHS and Forest Service Laboratories and NIST

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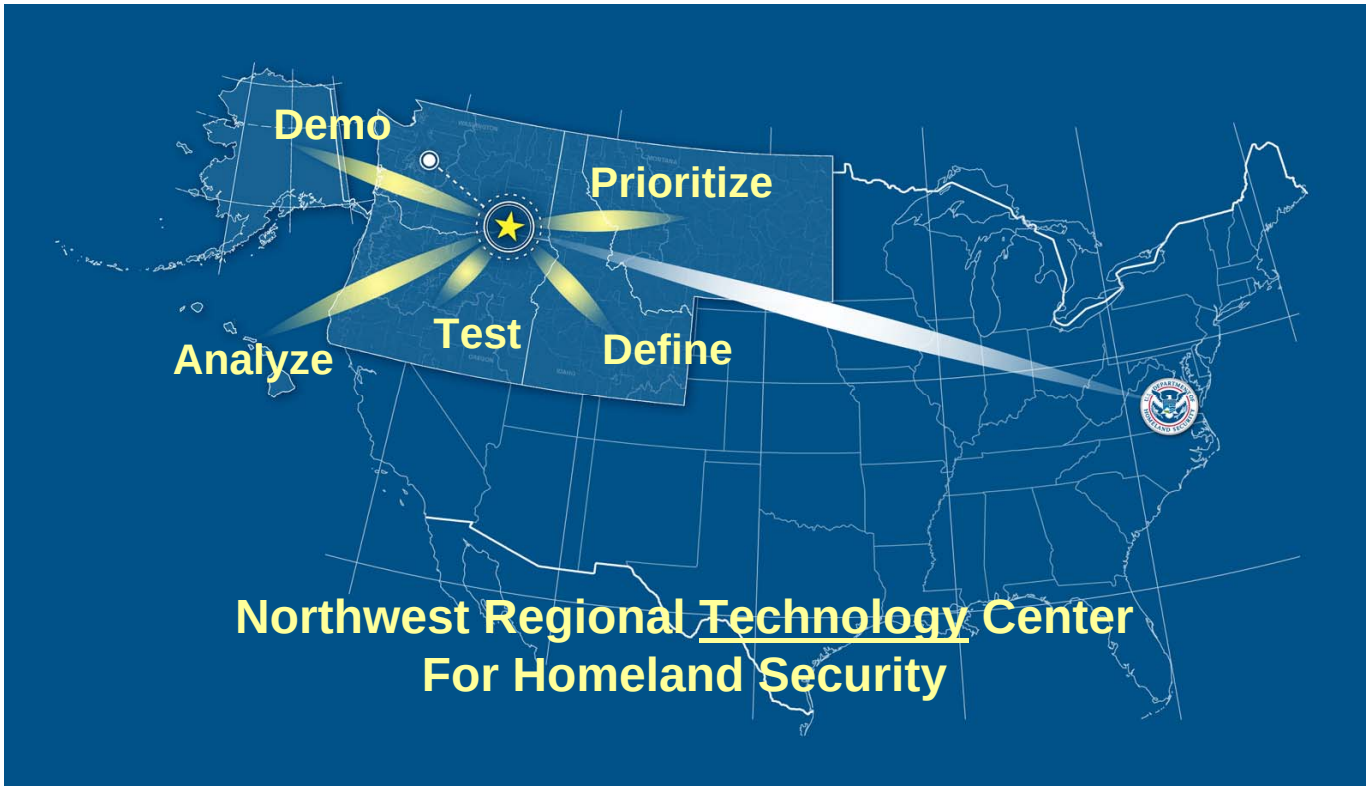
Finally, National Laboratories within the S&T Complex Constitute Virtual Resource Centers for Regional HS Technology Partnerships



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National Biodefense Analysis and Countermeasures Center (NBACC) Facility

National Biodefense Analysis and Countermeasures Center (NBACC) Facility

- Under construction at Ft. Detrick, Maryland as part of the National Interagency Biodefense Campus (NIBC).
- NBACC will be the first research facility space designed and constructed by DHS.
  - 158,000 total sq. ft.
  - Designed to highest biocontainment standards
  - Flexible to support emerging research needs
- Will be operated by Battelle National Biodefense Institute - FFRDC.

Project Milestones

Complete Design	**July 2006**
Start of Construction	**September 2006**
Complete Building Concrete Structure	**October 2007**
Begin Building Occupancy	**July 2008**
Final BSL3 and BSL4 Commissioning	**FY 2009**

Enabling Homeland Capabilities:

NBACC will support two of the seven Biosecurity program areas of the Chemical and Biological Countermeasures Division, S&T Directorate. The NBACC facility will be comprised of the National Bioforensic Analysis Center (NBFAC) and the Biological Threat Characterization Center (BTCC). The NBFAC is the lead Federal agency to conduct and facilitate technical forensic analyses and interpretation of material recovered following a bioterrorist attack. The BTCC will conduct laboratory experiments and studies to fill important gaps in our knowledge of current and future threats

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National Bio and Agro-Defense Facility

National Bio and Agro-Defense Facility (NBAF)

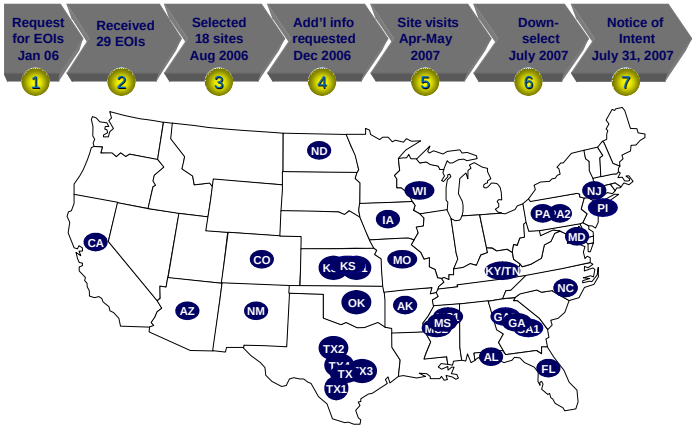
- Proposed replacement for the Plum Island (PIADC) facility
  - Building 50 years old and beyond its design life
  - Transferred to DHS from USDA in 2003
- Provides needed BSL3/4 large animal research capability
  - Unique critical National Asset for Agro-Defense
  - Continues integrated DHS and USDA mission objectives
  - Fulfills critical national biodefense research gaps
  - Provides research for countermeasure and vaccines development
- Currently undergoing environmental assessment process for remaining sites

Project Milestones

Complete Conceptual Design	**July 2007**
Begin EIS on Six Sites	**July 2007**
Complete EIS/Issue ROD	**October 2008**
Begin Detailed Design	**November 2008**
Start Construction	**2010**
Facility Operational	**2014**

Enabling Homeland Capabilities:

NBAF is a next-generation biological and agricultural defense facility proposed to enhance and protect the country's agriculture and public health and support complimentary missions of DHS and USDA. NBAF will offer safe, secure, state-of-the-art biocontainment laboratories of sufficient capacity to work on high- consequence foreign animal and zoonotic diseases in livestock, and to address a current gap in our national strategy for bio-countermeasure vaccine licensure.



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