



U.S. ARMY

# ERDC OVERVIEW



US Army Corps  
of Engineers.



**ERDC**  
ENGINEER RESEARCH & DEVELOPMENT CENTER



**US Army Corps  
of Engineers.**

# USACE INFRASTRUCTURE

- 25,000 miles of navigation channel
  - Supporting 926 ports
- 707 dams
  - 75 hydroelectric power facilities
  - 55,390 miles of shoreline
- 14,500 miles of flood levee
- 236 lock chambers at 192 lock sites
- 929 navigation structures
- 844 bridges
- 12 million acres of public land and water



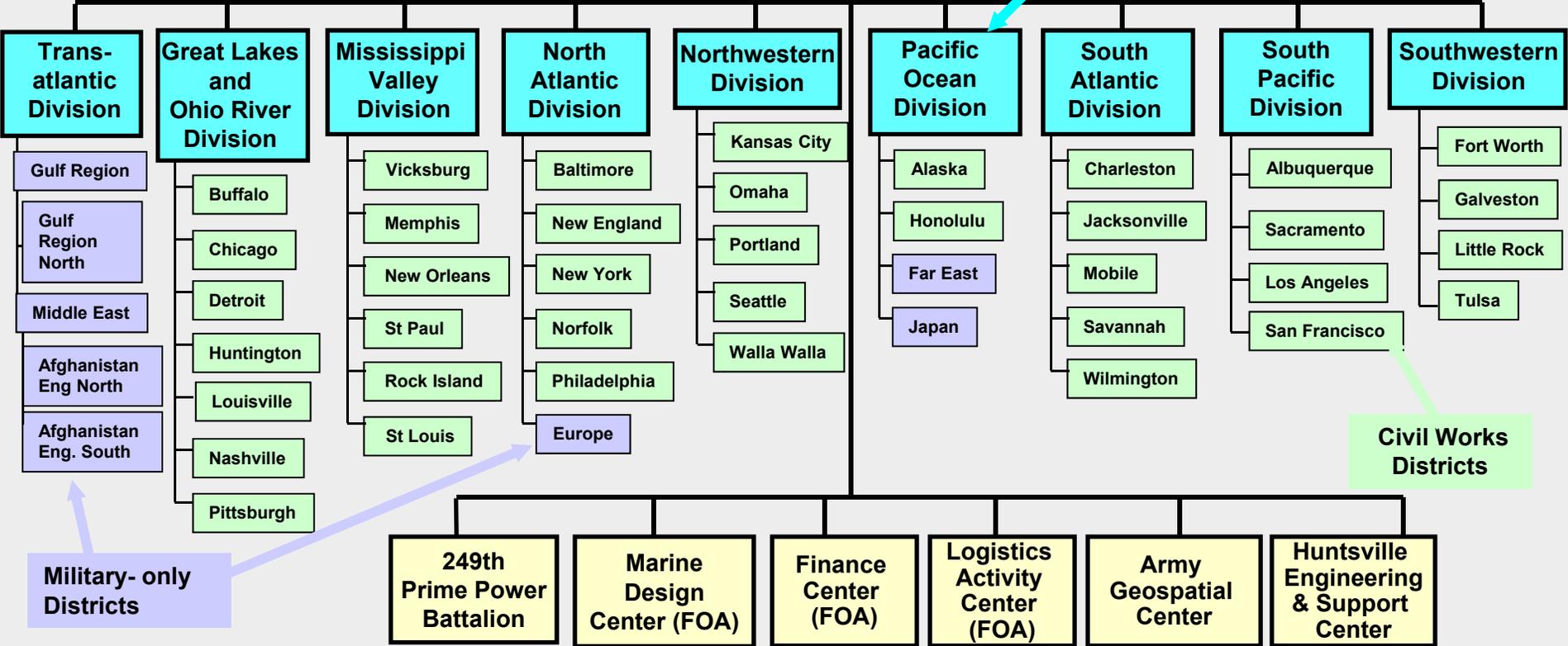
# USACE HEADQUARTERS

**ERDC**

Humphreys Engineer Center Support Activity (FOA)

Institute for Water Resources (FOA)

Major Subordinate Commands



# MISSISSIPPI RIVER FLOOD OF 1927

Courtesy of Bea Neill



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# ERDC by the Numbers

## People

2,100 Strong  
 1,157 E&S  
 31% E&S PhDs  
 45% E&S MS  
 Degrees



## Program

\$1B/year, 65% Reimbursable

Air Force Marines DoS  
 DTRA Army NSF  
 NGA OSD  
 Navy Other USACE DoI

## Processes

### BESST

- Hiring 800 E&S in 5 years
- ERDC University
- 100% Projects have Wiki's

Cut Acquisition Lead Time by 50%

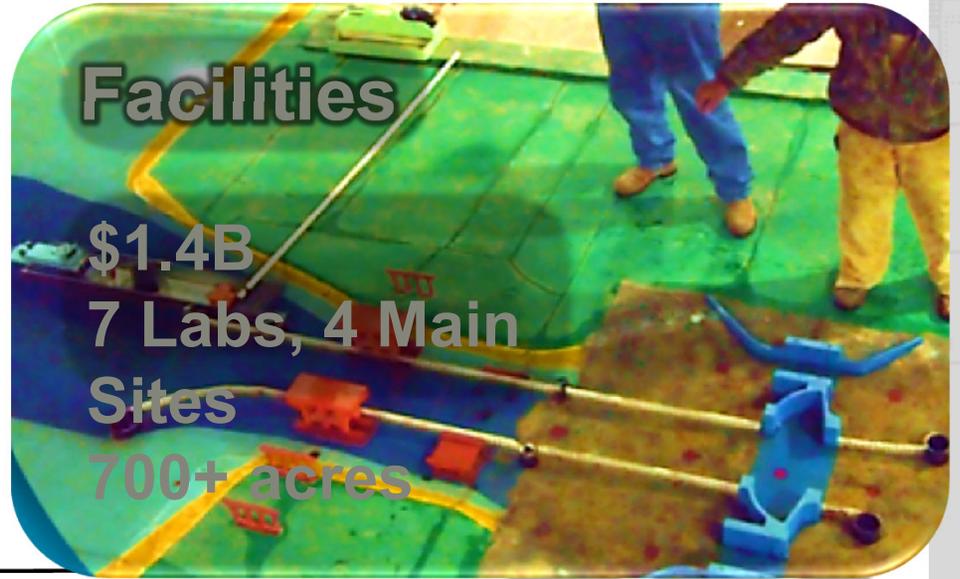
## Facilities

\$1.4B

7 Labs, 4 Main

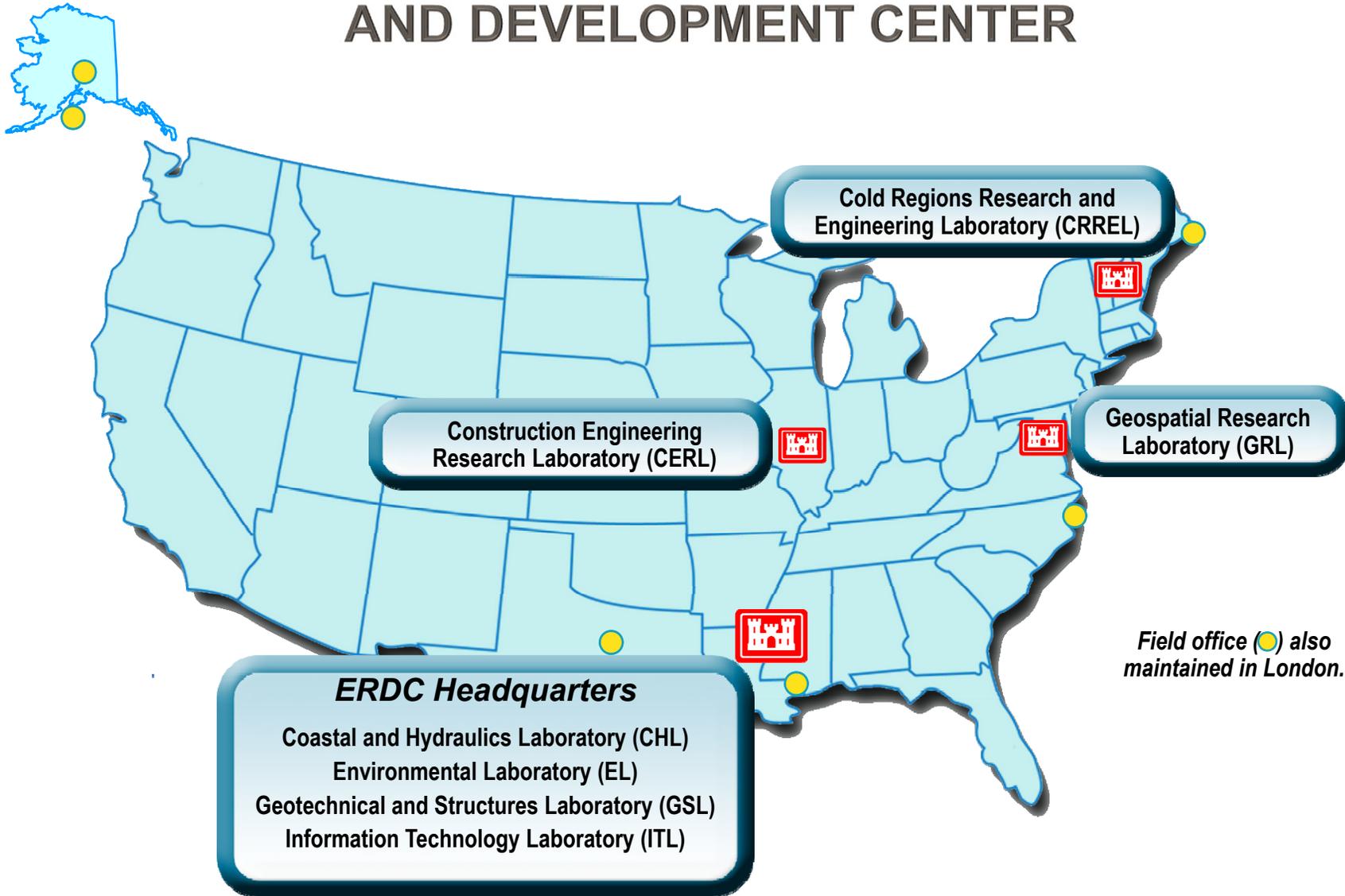
Sites

700+ acres



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# U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER



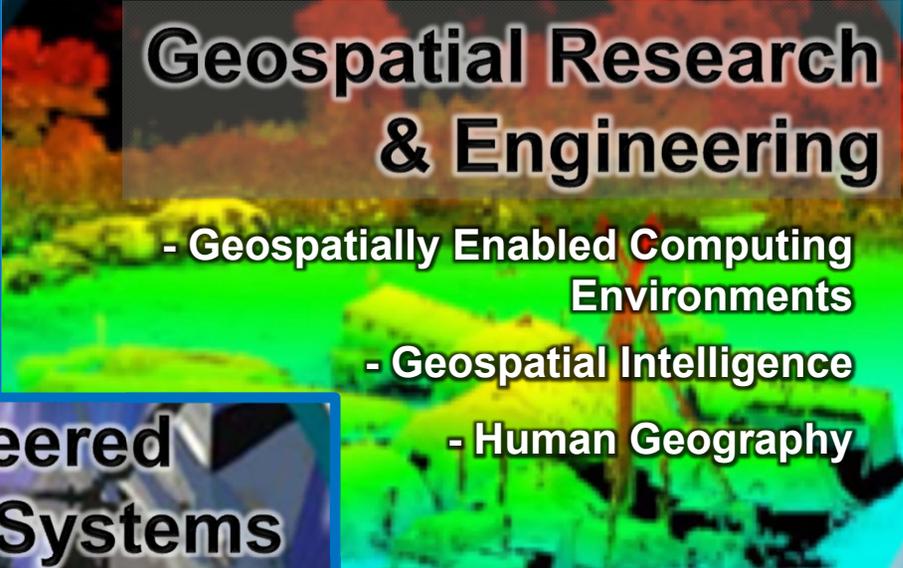
UNCLASSIFIED

# ERDC Business Areas



## Military Engineering

- Force Protection
- Force Projection
- Manuever Support



## Geospatial Research & Engineering

- Geospatially Enabled Computing Environments
- Geospatial Intelligence
- Human Geography



## Engineered Resilient Systems

- Virtual Prototyping Environment
- Computational Proving Ground
- Tradespace Analytics



## Environmental Quality & Installations

- Contingency Basing
- Environmental Lifecycle
- Training Lands
- Sustainable Infrastructure



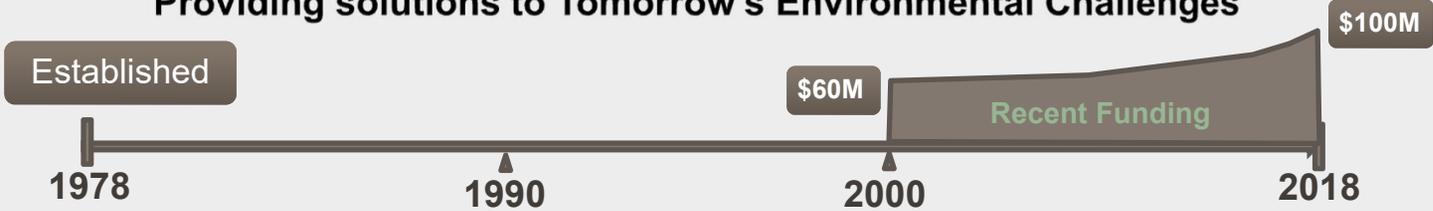
## Civil Works

- Navigation
- Flood and Coastal
- Environment

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# Environmental Laboratory

Providing solutions to Tomorrow's Environmental Challenges



## History

Founded to address environmental issues related to dredged material

Today we are meeting the environmental challenges across military and civil works

## Facilities

### HQ



### Lab Facilities

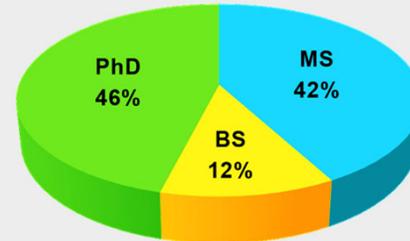
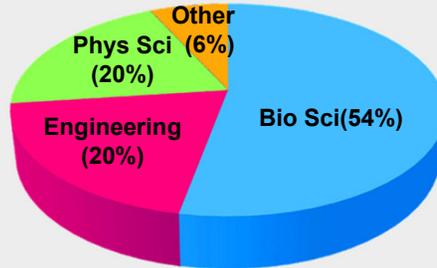
- Chemistry
- Hazardous Waste
- Toxicology
- Genetics
- Sediment
- Soil Geochemistry
- Aquatics & Wetlands
- WETRF
- Microbiology
- Geospatial Data Analysis
- Fate & Affects

### Lewisville



## People

Federal: 228  
E&S Fed: 185



Laboratory Organization Chart

## Research

Civil Works

ERDC Civil Works

Army S&T

Award Winning Solutions

Focus Areas

# Environmental Laboratory Organization Chart

**DIRECTOR**  
Dr. Ilker Adiguzel

**DEPUTY DIRECTOR**  
Dr. Jack Davis

## Senior Scientists

Dr. Todd Bridges  
Dr. Ed Perkins

Management Integration Office

## Technical Directors

Dr. Al Cofrancesco  
Dr. Pat Deliman  
Dr. Elizabeth Ferguson

## Environmental Processes & Engineering Division

Mr. Warren Lorentz

Environmental  
Chemistry

Environmental  
Engineering

Environmental  
Processes

Environmental  
Risk  
Assessment

Water Quality  
& Contaminant  
Modeling

## Ecosystem Evaluation & Engineering Division

Mr. Mark Farr

Aquatic Ecology  
& Invasive  
Species

Environmental  
Systems

Ecological  
Resources

Wetlands &  
Coastal Ecology

# CIVIL WORKS R&D PORTFOLIO

