Facilities Design and Construction Center

Presented to:
Society of American Military Engineers
Hampton Roads Post

8 January 2020
CAPT John Barresi, P. E.
About us

- **Who we are:**
The Facilities Design and Construction Center (FDCC) is a Shore Infrastructure Logistics Center (SILC) field command and the only U.S. Coast Guard command dedicated to executing new shore facilities construction and major recapitalization projects.

- **What we do:**
We deliver the Coast Guard’s capital facility requirements through the execution of the major appropriations for shore infrastructure.

Responsible for all phases of project execution:

- Planning,
- Environmental Consultation,
- Design,
- Procurement,
- Construction,
- Commissioning, and
- Transition to Sustainment
Learning Objectives

- Understand the basic missions and organization of the U.S. Coast Guard and its Civil Engineering Program.
- Provide an overview of our projects, including future program outlook and initiatives.
- Discussion on construction industry trends and execution challenges.
United States Coast Guard

Overview

- 1 of 6 U.S. Armed Forces
- Department of Homeland Security

11 Missions:

- Ports, Waterways, and Coastal Security
- Drug Interdiction
- Migrant Interdiction
- Defense Readiness
- Other Law Enforcement
- Marine Safety
- Search & Rescue
- Aids to Navigation
- Living Marine Resources
- Marine Environmental Protection
- Ice Operations

“A few armed vessels, judiciously stationed at the entrance of our ports, might at a small expense be made useful sentinels of the laws.”

- Alexander Hamilton
## Workforce and Operational Assets

### Total Active Duty

**40,992**

### Total Reserve

**7,000**

Part-Time Workforce

### Total Civilian

**8,577**

### Total Auxiliary

**31,000**

All-Volunteer Workforce

### U.S. Coast Guard Cutters — 243 Total

<table>
<thead>
<tr>
<th>TYPE</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icebreakers — Polar/Great Lakes</td>
<td>391</td>
</tr>
<tr>
<td>Buoy Tenders — Seagoing/Coastal</td>
<td>16/14</td>
</tr>
<tr>
<td>National Security Cutters</td>
<td>5</td>
</tr>
<tr>
<td>Buoy Tenders — Inland, River</td>
<td>22</td>
</tr>
<tr>
<td>High Endurance Cutters</td>
<td>5</td>
</tr>
<tr>
<td>Construction Tenders</td>
<td>13</td>
</tr>
<tr>
<td>Fast Response Cutters</td>
<td>17</td>
</tr>
<tr>
<td>Instreaming Barges</td>
<td>9</td>
</tr>
<tr>
<td>Medium Endurance Cutters</td>
<td>28</td>
</tr>
<tr>
<td>Harbor Tugs</td>
<td>11</td>
</tr>
<tr>
<td>Patrol Boats</td>
<td>90</td>
</tr>
<tr>
<td>Training Cutter</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Any U.S. Coast Guard vessel 90-feet or larger in length
2. 1 of 2 inactive

### U.S. Coast Guard Aircraft — 201 Total

<table>
<thead>
<tr>
<th>TYPE</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-650 (Helicopter)</td>
<td>142</td>
</tr>
<tr>
<td>MH-60T (Helicopter)</td>
<td>44</td>
</tr>
<tr>
<td>HC-130H (Airplane)</td>
<td>16</td>
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<tr>
<td>HC-130J (Airplane)</td>
<td>9</td>
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<tr>
<td>HC-144 (Airplane)</td>
<td>18</td>
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<tr>
<td>HC-27J (Airplane)</td>
<td>9</td>
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<tr>
<td>C-37A (Airplane)</td>
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### U.S. Coast Guard Boats — 1,650 Total

<table>
<thead>
<tr>
<th>TYPE</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>Response Boat Small</td>
<td>372</td>
</tr>
<tr>
<td>Aids to Navigation Boats</td>
<td>152</td>
</tr>
<tr>
<td>Response Boat Medium</td>
<td>174</td>
</tr>
<tr>
<td>Cutter Boats</td>
<td>421</td>
</tr>
<tr>
<td>Motor Life Boats</td>
<td>117</td>
</tr>
<tr>
<td>All other boat types</td>
<td>414</td>
</tr>
</tbody>
</table>

3. Any U.S. Coast Guard vessel less than 60-feet in length
An Average Day...

On an average day, the Coast Guard:

- Conducts 45 search and rescue cases; saves 10 lives; saves over $1.2M in property;
- Seizes 874 pounds of cocaine and 214 pounds of marijuana;
- Conducts 57 waterborne patrols of critical maritime infrastructure; interdicts 17 illegal migrants;
- Escorts 5 high-capacity passenger vessels; conducts 24 security boardings in and around U.S. ports;
- Screens 360 merchant vessels for potential security threats prior to arrival in U.S. ports;
- Conducts 14 fisheries conservation boardings; services 82 buoys and fixed aids to navigation;
- Investigates 35 pollution incidents; completes 26 safety examinations on foreign vessels;
- Conducts 105 marine inspections; investigates 14 marine casualties involving commercial vessels;
- Facilitates movement of $8.7B worth of goods and commodities through the Nation's Maritime Transportation System.
Military Services Comparison

**Total Workforce**

- Army: 840,935
- Air Force: 508,526
- Navy: 496,530
- Marine Corps: 215,822
- Coast Guard: 49,414

**FY2015 Budget Enacted ($MIL)**

- Army: 147,565
- Air Force: 146,530
- Navy/Marine Corps: 164,700
- Coast Guard: 10,290

Source: Office of the Under Secretary of Defense, Chief Financial Officer Report
Shore Infrastructure Portfolio Highlights

- 2/3 of DHS shore infrastructure portfolio

- Over 41,000 Assets
  - 21,000+ Buildings and Structures
  - 20,000+ Aids to Navigation
  - 3,000+ Sites
  - 74,000+ Acres

- Average Building Age = 43 years

- $21 BIL Plant Replacement Value

Images:
- Industrial Facilities & Bases
- Sectors & Stations
- Housing & Barracks
- Training Centers
- Air Stations
- Waterways
USCG Civil Engineering Organization

Shore Infrastructure Logistics Center
Technical Authority
COCO for Construction - Ross Woodson (Norfolk)
DCOCO for Construction - Mark Snell (Seattle)

FDCC
New Construction
Main Office - Norfolk
SFCO - Pam Argilan
Satellite - Seattle
SFCO - Vacant

Civil Engineering Units
Maintenance and Repair

<table>
<thead>
<tr>
<th>Districts</th>
<th>CEU</th>
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<tr>
<td>1</td>
<td>Providence, RI</td>
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<tr>
<td></td>
<td>Jean Bretz (SFCO)</td>
</tr>
<tr>
<td>5, 9</td>
<td>Cleveland, OH</td>
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<tr>
<td></td>
<td>Jim Dinda (SFCO)</td>
</tr>
<tr>
<td>7, 8</td>
<td>Miami, FL</td>
</tr>
<tr>
<td></td>
<td>Leisa Moyer (SFCO)</td>
</tr>
<tr>
<td>11, 13</td>
<td>Oakland, CA</td>
</tr>
<tr>
<td></td>
<td>Jeff Cross (SFCO)</td>
</tr>
<tr>
<td>17</td>
<td>Juneau, AK</td>
</tr>
<tr>
<td></td>
<td>(Seattle Contract Support)</td>
</tr>
<tr>
<td>14</td>
<td>Honolulu, HI</td>
</tr>
<tr>
<td></td>
<td>(Oakland Contract Support)</td>
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</tbody>
</table>
Predominantly Design-Build Approach

Projects value typically range between $5MIL to $100MIL

National Multiple Award Construction Contract (NMACC)

- United States, Puerto Rico, and Territories
- Task Order Limits $4M - $100M
- $1.5B Aggregate Total
- Task Orders Not Posted on FEDBIZOPPS.GOV
- NMACC contractors listed in the next slide
- Whiting Turner Contracting
- Caddell Nova JV
- Gilbane Federal
- Haskell Company
- M.A. Mortenson Company
- Tutor Perini Corp
- GWWH JV
- Walsh Federal
- RQ-AECOM 2 JV
Historical CG Shore PC&I* Funding Levels

*Equivalent to DOD MILCON; figures are approximate
<table>
<thead>
<tr>
<th>Location</th>
<th>Fiscal Year</th>
<th>Project Description</th>
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<tbody>
<tr>
<td>Kodiak, AK</td>
<td>FY18</td>
<td>D17 Housing</td>
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<tr>
<td>TX – Multiple</td>
<td>FY18</td>
<td>STA Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>FL – Multiple</td>
<td>FY18</td>
<td>STA Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>PR – Multiple</td>
<td>FY18</td>
<td>STA Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>Mobile, AL</td>
<td>FY18</td>
<td>Aviation Simulator Bldg</td>
</tr>
<tr>
<td>Eastport, ME</td>
<td>FY18</td>
<td>New Family Housing</td>
</tr>
<tr>
<td>Curtis Bay, MD</td>
<td>FY18</td>
<td>Ship Lift Facility</td>
</tr>
<tr>
<td>Astoria, OR</td>
<td>FY18</td>
<td>Cutter Homeport</td>
</tr>
<tr>
<td>FL – Multiple</td>
<td>FY19</td>
<td>STA Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>NC – Multiple</td>
<td>FY19</td>
<td>Training Center &amp; STA Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>Charleston, SC</td>
<td>FY19</td>
<td>Base/Waterfront Facilities (Hurricane Rebuild)</td>
</tr>
<tr>
<td>Ventura, CA</td>
<td>FY19</td>
<td>Air Station Ventura County</td>
</tr>
<tr>
<td>Petaluma, CA</td>
<td>FY19</td>
<td>TRACEN Water Main</td>
</tr>
<tr>
<td>Kodiak, AK</td>
<td>FY19</td>
<td>Cutter Homeport</td>
</tr>
<tr>
<td>San Pedro, CA</td>
<td>FY19</td>
<td>Cutter Homeport</td>
</tr>
<tr>
<td>Boston, MA</td>
<td>FY20</td>
<td>Cutter Homeport</td>
</tr>
<tr>
<td>Garibaldi, OR</td>
<td>FY20</td>
<td>Station Tillamook, Replace Haul-out Pier</td>
</tr>
<tr>
<td>Warrenton, OR</td>
<td>FY20</td>
<td>AIRSTA Astoria, Aviation Apron</td>
</tr>
<tr>
<td>New London, CT</td>
<td>FY20</td>
<td>Recap USCGA Barracks Annex Charlie</td>
</tr>
</tbody>
</table>

On average, projects budgets range between $5MIL to $100MIL
Points of Contact for FDCC

New Facilities or Major Recapitalization Projects:
Procurement, Construction and Improvement (PC&I) funds

**Pam Argilan**
Supervisory Contract Specialist
USCG Facilities Design & Construction Center
Norfolk, VA  757-852-3449   pamela.j.argilan@uscg.mil

**Mark Snell**
Deputy, Chief of Contracting Office
USCG Shore Infrastructure Logistics Center - Construction
Seattle, WA  206-220-7413   mark.w.snell@uscg.mil

**Ross Woodson**
Chief of Contracting Office
USCG Shore Infrastructure Logistics Center - Construction
Norfolk, VA  757-628-4164   ross.d.woodson@uscg.mil
CEU Depot Level Maintenance and Repair

- Annual Budget: $200MIL (approx.)
- Projects typically range from $5K to $3MIL in value
- Executed by Civil Engineering Units:
  - Mix of in-house and A/E designs
  - A/E firms used extensively for planning efforts
- Regional Multiple Award Construction Contracts (RMACC)
Each District has an RMACC that is available for use

- District 1; New England (CEU Providence): 9 contractors
- District 5; Mid-Atlantic (CEU Cleveland): 12 contractors
- District 7; FL, GA, SC (CEU Miami): 11 contractors
- District 7.5; Puerto Rico (CEU Miami): 3 contractors
- District 8; Gulf Coast (CEU Miami): 7 contractors
- District 9; Great Lakes (CEU Cleveland): 11 contractors
- District 11/13; CA, OR, WA (CEU Oakland): 17 contractors
- District 14; HI, Guam (CEU Honolulu): 6 contractors
- District 17; AK (CEU Juneau): 10 contractors
RMACC Distribution (DHS-wide)

D17
HUBZONE & 8(a), $150M

D11 & D13
SDVOSB, $275M

D14
8(a), $75M

D9
8(a), $150M

D1
8(a), $150M

D5
SDVOSB, $150M

D7
8(a), $125M

Region 7.5
(Puerto Rico)
8(a), $50M
Points of Contact for Civil Engineering Units

Depot Level Maintenance and Repair:

**CEU Miami, FL:**  Lesia Moyer, 305-278-6725  
Lesia.K.Moyer@uscg.mil

**CEU Cleveland, OH:**  James Dinda, 216-902-6223  
James.E.Dinda@uscg.mil

**CEU Providence, RI:**  Jean Bretz, 401-736-1765  
Jean.M.Bretz@uscg.mil

**CEU Oakland, CA:**  Jeff Cross, 510-535-7236  
Jeffrey.A.Cross@uscg.mil

**CEU Juneau, AK:**  Shane Schmidt, 206-220-7420  
Shane.M.Schmidt@uscg.mil

**CEU Honolulu, HI:**  Jeff Cross, 510-637-5579  
Jeffrey.A.Cross@uscg.mil
Recent FDCC Projects #1

- STA/ANT/PB Facilities at Sector Southeast New England (~$22MIL)
- Replaced 100-yr old U.S. Lighthouse Service Building constructed in 1917

- Design approval required extensive coordination with local gov’t & community
Recent FDCC Projects #2

- ATTC E-City Training Facility (~$12MIL)
- High bay area for full-size mockups of HC-144A and C-27 aircraft with adjacent classrooms and support spaces.

- Replaces computer simulations and paper-based training with modern, hands-on approach for aviation maintenance/avionics personnel.
Recent FDCC Projects #3

- Sector Columbia River Family Housing (~$14MIL)

- New Units are LEED PLATINUM
- Alleviates severe shortage of adequate housing in this area
- 12 new homes, maintenance facility, and supporting infrastructure
Recent FDCC Projects #4

- SFO Galveston FRC Homeport (~$15MIL)
- A 150-ft pier extension to moor three FRCs
- New 5,365 sf cutter support building
Recent FDCC Projects #5

- TRACEN Yorktown (~11 MIL)
- Small Arms Firing Range
  23,300 SF facility with 14 lanes

- Enables qualifications for Firearms Instructors and GM A-schools.
FDCC Initiatives

Project Management:
“Cradle-to-Grave” across all phases of planning, design, contracting, construction, commissioning, and transition to sustainment.

Systems Engineering Life Cycle (SELC):
Cast aside unnecessary processes. Focus on milestones and gateways to drive internal productivity.

IT, ICT, and IoT Capabilities:
Pursue enhanced, “state-of-the-market” technology solutions for facilities, systems, and utilities.

Marketing:
Improve communications products to spread knowledge about our mission, challenges, opportunities, and successes.

Efficiency:
- Streamline SELC processes (Hint: Start w/planning and needs analysis w/the right stakeholders.)
- Better integration and collaboration with stakeholders and jurisdictional authorities.
- Strengthen partnering opportunities with Industry, Private Sector, and other Services.
Discussion on Execution Challenges and Industry Trends

FDCC is currently executing nearly 6X our normal budget.
- Unprecedented large number of projects and funding
  - Current portfolio of 60+ projects is nearing $2BIL
- $1.2BIL for 2017-2018 hurricane supplemental appropriations
  - Compared to: $125MIL (2005), $250MIL (2008), and $270MIL (2012)

Market Conditions and Economic Indicators
- Limited availability of Agents-at-Risk and Sub-Contractors?
- What are the current Industry trends for capacity and capability?
- Less interest and competition for government contracts?

Partnerships with Industry and other Services offer tremendous value.
- Can we leverage partnerships in more ways than usual?
- How do we optimize these collaboration efforts?

Design-Build:
- Are current solicitations too prescriptive?
- Is there room for more innovation, flexibility, and creativity?
- How do we “bake-in” Long-Term Planning and Resiliency for current and future projects?