Civil Engineering in the US Coast Guard
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.
## U.S. Coast Guard Assets – 2094 Total

<table>
<thead>
<tr>
<th>TYPE</th>
<th>QUANTITY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>USCG Cutters(^1)</td>
<td>243</td>
<td>(23 classes)</td>
</tr>
<tr>
<td>USCG Boats</td>
<td>1650</td>
<td>(nearly all are in 14 of over 40 classes)</td>
</tr>
<tr>
<td>Aircraft</td>
<td>201</td>
<td>(7 classes)</td>
</tr>
</tbody>
</table>

1: Any U.S. Coast Guard vessel 65-feet or larger in length
Coast Guard Shore Facilities

- 7,462 Buildings and 34,716 Structures
- 2,000+ Sites, covering 92,000 Acres
- $17.75B Replacement Value
- Average Building Age +45 Years
- ~$265M annual maintenance budget
Coast Guard Shore Facilities

- Air Facilities (Hangars & Runways)
- C4IT & CC Spaces
- Admin/Leased Spaces
- Sectors & Stations
- Industrial Facilities & Bases
- Housing, Barracks, & Community Support Facilities
- Training Centers
- Waterfront & Dredging
- Waterways
Shore Asset Overview

Age of CG Buildings

- >50 Years: 32%
- 41 - 50 Years: 11%
- 31 - 40 Years: 11%
- 21 - 30 Years: 13%
- 11 - 20 Years: 18%
- 1 - 10 Years: 15%

Last 5yr RECAP Rate

- Air: 15%
- Shore: 11%
- Naval: 64%
FDCC’s and CEU Area of Responsibility

<table>
<thead>
<tr>
<th>Maintenance &amp; Repair – CEU’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dist</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>5/9</td>
</tr>
<tr>
<td>7/8</td>
</tr>
</tbody>
</table>

New Construction - FDCC

<table>
<thead>
<tr>
<th>Main Office</th>
<th>Satellite Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norfolk, VA</td>
<td>Seattle, WA</td>
</tr>
</tbody>
</table>
Shore AC&I

Funding History

- Hurricane Supplemental Appropriations 2008 & 2013
  
  2% of $18B PRV = $360M/year
  
  2% of $14B PRV = $280M/year

Target RECAP Rate:
  
  2% of $7B Plant Replacement Value (PRV) = $140M/year
Hurricanes (2005-2012)

- Hurricane Sandy made landfall on 29 OCT 2012 near Atlantic City, NJ
  - Ultimate result of $75 billion in property damage and 233 lives lost
- Congress appropriated the Coast Guard $205 million to recapitalize shore infrastructure
- Hurricane Ike made landfall on 13 Sep 2008 in Galveston TX
  - $37.5B and 195 lives lost.
- Hurricane Katrina made landfall August 29th 2005 in Southeast LA
  - $108B and 1,833 lives lost on U.S. soil
Shore AC&I Process Overview

- **Shore AC&I Process Overview:**
- **Planning Documents:**
- **Planning – Planned Obligation Prioritization (P-POP) Board**
  - Held annually by SILC in May (mid-year insert held in December)
  - Principle voting members: LANTAREA; PACAREA; DCMS; DCO
- **Shore Facilities Requirement List (SFRL)**
  - Generated by CG-43 using the annual P-POP results and MASI PM input
  - **Prioritized:** Projects in the current 5-year window
  - **Unprioritized:** Identified list of Shore AC&I projects

Shore AC&I Backlog
Shore AC&I Process
Overview

- **SFRL**: *The Shore AC&I Backlog*

- Prioritized Projects FY18-22:
  - CG-43 Major/Minor/Housing: 21 projects [$328M]
  - CG-93 MASI: 22 projects [$380M]

- Unprioritized Projects: *(with a cost estimate)*
  - 101 projects with a preliminary cost estimate
  - $1.3B total

- Unprioritized Projects: *(without cost estimate)*
  - 297 additional projects have been identified
## FY16 Shore AC&I

### FY16 Omnibus Appropriation (in $k)

- Survey & Design
- Minor Shore AC&I
- Improve Pier at Little Creek, VA for 210’ WMECs
- Air Station Barbers Point Utilities
- Protect Waterfront Ops at Station Siuslaw River, OR
- Provide Permanent Facilities at Station Vallejo, CA
- CG Yard – Oakridge Phase I
- **CG Yard – Oakridge Phase II**
- MASI AC&I
- Relocate Air Station Los Angeles
- Military Family Housing
- **Not specified (AS Corpus Christi GSA Bldg & Petaluma Waterline)**
- Total

*$202,600 ($103,700)*

*Note: Projects in green italics are inserts into the FY16 Omnibus Appropriation*
FY17 Shore AC&I RPs

**FY17 Shore AC&I RPs**
- Survey & Design
- Aids to Navigation (AtoN) & Waterways
- Minor Shore AC&I
- Base E-City – RECAP Airfield Pavement
- Total - $23.1M

**FY17 MASI AC&I RP**
- Eng/Env/Feasibility Studies & Program Support
- MRS Facility at Air Station Clearwater, FL
- FRC Homeport Galveston, TX
- LRS Facility at Air Station Kodiak, AK
- Total - $28M
<table>
<thead>
<tr>
<th>SFRL Results</th>
<th>Estimate (in $k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. STA Tillamook Bay – Phase I</td>
<td></td>
</tr>
<tr>
<td>2. STA Tillamook Bay – Phase II</td>
<td></td>
</tr>
<tr>
<td>3. Sector Honolulu – Construct FOC Facilities</td>
<td></td>
</tr>
<tr>
<td>4. Sector Buffalo – Recapitalize Facilities Phase III</td>
<td></td>
</tr>
<tr>
<td>5. Sector Sault St Marie – Implement Master Plan</td>
<td></td>
</tr>
<tr>
<td>6. Station Cleveland Harbor – Phase 2 (Waterfront)</td>
<td></td>
</tr>
<tr>
<td>7. Sector Lake MI – Expand Sector, STA Milwaukee, ESD</td>
<td></td>
</tr>
<tr>
<td>8. Sector Detroit – Construct FOC Facilities</td>
<td></td>
</tr>
<tr>
<td>9. Bay Area, CA – Small Arms Firing Range (SAFR)</td>
<td></td>
</tr>
<tr>
<td>10. Station Key West – Construct New Station</td>
<td></td>
</tr>
<tr>
<td>11. Station Maui – Facility Improvements</td>
<td></td>
</tr>
</tbody>
</table>
## Current Unfunded Prioritized Backlog (FY18-22)

<table>
<thead>
<tr>
<th>SFRL Results</th>
<th>Estimate (in $k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. STA Port Angeles – Recap Covered Moorings &amp; Docks</td>
<td></td>
</tr>
<tr>
<td>2. MSU Morgan City – Relocate MSU</td>
<td></td>
</tr>
<tr>
<td>3. Elizabeth City - Consolidate AS/Sta Facilities Ph II Hangar 49</td>
<td></td>
</tr>
<tr>
<td>4. Sector North Bend – Construct Family Housing</td>
<td></td>
</tr>
<tr>
<td>5. Sector Columbia River – Construct UPH</td>
<td></td>
</tr>
<tr>
<td>6. TRACEN Cape May – Reno Female Barracks/Classrooms Ph I</td>
<td></td>
</tr>
<tr>
<td>7. Station S Padre Island – Rebuild &amp; Right-Size Station &amp; UPH</td>
<td></td>
</tr>
<tr>
<td>8. Station Siuslaw – Phase II</td>
<td></td>
</tr>
<tr>
<td>9. E-City Runway Lighting</td>
<td></td>
</tr>
<tr>
<td>10. Aids to Navigation (AtoN) &amp; Waterways</td>
<td></td>
</tr>
</tbody>
</table>

- **Total** $328,380
Future Challenges: New Asset Size

Legacy Assets vs. New Assets
Questions?