



## National Tower-Antenna Multiple Award Construction Contract (TMACC)



**Location:**  
Nationwide



**Business Needs:**  
Maintenance and support for the hundreds of US Coast Guard tower sites across the nation, in need of repairs.

## Customer Challenge

The USCG is in need of support to perform new construction, maintenance, rehabilitation, inspection, corrective action, and repairs of towers and antennas belonging to the Coast Guard at sites throughout the Nation. The work ranges from preventative tower maintenance to full demolition and new construction depending on the site and tower condition. All towers built and maintained are to adhere to the TIA-222 Structural Standard, a standard designed to ensure safety and reliability for Antenna Supporting Structures and Antennas used in high-tech communications networks.

## Customer Profile

The United States Coast Guard is a unique branch of the military responsible for an array of maritime duties, from ensuring safe and lawful commerce to performing rescue missions in severe conditions. Nearly 42,000 men and women are actively serving in the Coast Guard to defend America's borders and protect the maritime environment.

## CommDEX Solution

- Full range of construction and installation services:
- Tower Demolition
- Maintenance
- New Construction and rehabilitation



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# Commdex Roles

## **Tower Maintenance - Districts 11 and 13 - West Coast and The Pacific Northwest**

Commdex provided tower inspection and maintenance services to the US Coast Guard as part of the ongoing Tower Multiple Award Construction Contract (TMACC). This work consists of 31 towers located in Districts 11 and 13 which consists of 8 states in the Western US. These towers require ongoing routine inspections and maintenance along with specific repairs and painting.



## **Tower Operations and Maintenance**

All towers are inspected per TIA recommended guidelines to ensure proper condition and note any deficiencies. Inspections include multiple areas of consideration including structural elements, obstruction lighting, electrical systems, grounding, guy wires condition and tensioning as well as anchor inspection, tower alignment, and twist. Qualified tower inspections teams inspect all required elements and document findings using a comprehensive reporting template that Commdex maintains. This includes photos of noted items as well as inspector notes.

## **Tower Remediation (Disassembly, Repair and Re-Stacking)**

One of the towers (CAMS Tower Bolinas API VOBA) required more extensive remediation and repair. A modification plan was developed and reviewed with USCG prior to work on the tower. Then the tower was disassembled along with the antenna system to prepare for the modification. Upgrades were made and the tower was re-stacked and assembled with new fiberglass insulators.

## **Tower Maintenance Repair and Support Services**

In addition to the inspections and routine maintenance, 11 of these towers also require more substantial maintenance to correct damaged components, improve grounding or repaint the tower. Items repaired include:

- Preform remediation
- Guy wire tensioning
- Repair/replace broken ground leads
  - Replace rusted members
  - Replace safety climb
  - Replace bent members
  - Corrosion cleaning
- Apply tar guard to anchor blocks

Finally, six of the towers require a complete painting. All towers are mechanically cleaned to remove corrosion and loose paint prior to painting. Once clean, cold galvanizing compound is applied that meets Federal Specification DOD-P-21035A. All painting meets FAA requirements as outlined in the SOW.



# Commdex Roles

## Demolition - District Eight, The Midwest

Commdex provided tower demolition services to the US Coast Guard as part of the ongoing Tower Multiple Award Construction Contract (TMACC). This work consists of 7 Inland Differential Global Positioning System (DGPS) towers located in District 8 in the Midwest.

The removal of all towers includes a controlled, vertical disassembly (with a gin pole, crane or other lift apparatus) of all tower structural components. Prior to demolition of the tower structure, all electrical power is disconnected from the site, coordinating with the local utility company as necessary to disconnect the service from the meter. All lighting is removed along with any other electrical wiring on the tower and utility poles in the compound. Any remaining antennas and transmission line are also removed prior to tower disassembly.

Once completely prepared, the tower is disassembled by removing all the structural steel and guy wires (as applicable) as well as mast steel towers. Each site includes 2 reference mast towers. Once all the structural steel and support elements have been removed, each of the associated foundations for the reference masts, tower foundations and guy anchors are all excavated and removed. Each of the sites contains approximately 50 CY of concrete as part of the base foundation, guy anchors or radial anchors and extends 6' to 8' below the surface.

All of the shelter structures and generators are also demolished and removed. HVAC systems are removed from the shelters with refrigerants disposed of according to local, state and federal regulations. The generator, fuel tank and wiring are removed with any remaining diesel fuel disposed of according to local, state and federal regulations.

Once all structures and foundations have been removed and disposed of, the site is returned to its pre-installation condition. All excavated areas and depressions are backfilled with matching native material and compacted as required. All gravel roadways including the base material are removed and filled. Any remaining chain link fence is removed, and the site cleaned of all remaining debris and seeded.

Upon completion, all work is documented through photos that are incorporated into a final report that is reviewed with the USCG COR to ensure compliance with all SOW requirements.



## About Commdex:

Commdex provides network solutions to telecommunications service providers and manufacturers for the deployment of telecom networks, facilities and supporting systems. Commdex specializes in designing and implementing mission critical voice and data networks over Wi-Fi, microwave, land mobile radio and other technologies. Commdex offers a broad, rich portfolio of proven telecom solutions. Its solutions, services and methodologies have been tested and proven in hundreds of customer environments. Its customer base ranges from state, local and federal customers, to large enterprises and equipment manufacturers.

## Connect With Us:



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