



## U.S. Customs and Border Protection

## *Air and Marine Operations Tethered Aerostat Radar System (TARS)*

# FACT SHEET



U.S. Customs and Border Protection's Air and Marine Operations (AMO) uses the Tethered Aerostat Radar System (TARS) to provide long-range detection of low-altitude aircraft at the radar's maximum range. The elevated sensor mitigates curvature of the earth and terrain masking limitations.

TARS detects and tracks a majority of suspicious air traffic along the southwest border, including ultralight and short landing aircraft threats. DHS requires this unique TARS capability in areas beyond the southwest border, including the Gulf of Mexico, southern Atlantic and Pacific coastlines and extended regions throughout the Caribbean used by transnational criminal organizations for illicit smuggling of narcotics and people.

AMO operates two types of aerostats, the 275K and 420K. The hull of the aerostat contains two parts separated by a gas-tight fabric partition. The upper chamber is filled with helium and provides the aerostat's lifting capability. The lower chamber of the hull is a pressurized air compartment.

The aerostat system consists of a helium-filled balloon, fixed site mooring and tether controls, command and control stations, data distribution network, and maintenance support vehicles and facilities. A minimum of five operators launch and recover the TARS.

AMO operates eight sites along the southern border from Arizona to Puerto Rico. Although these eight TARS sites represent less than 2% of the total integrated radars in the Air and Marine Operations Surveillance System, they account for nearly half of all suspect targets detected by radar each year.

From FY 2014 through FY 2020, TARS was responsible for detecting 68% of all suspected air smuggling flights approaching the southwest border from Mexico.

### Performance and Weights:

- **Manufacturer**  
ILC Dover
- **System Integrator**  
TCOM
- **Volume**  
275,000 cubic feet (275K)  
420,000 cubic feet (420K)
- **Length**  
186 feet (275K) / 208.5 feet (420K)
- **Diameter**  
62.5 feet (275K) / 69.5 feet (420K)
- **Maximum Payload**  
1,200 pounds (275K)  
2,400 pounds (420K)
- **Range (Air Search)**  
Approximately 200 miles