**Federal Aviation Administration**

# TSO-C199 Traffic Awareness Beacon System (TABS):
# Purpose, Requirements, Status

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April, 2015

# TSO-C199 Purpose

- **Increase safety by providing a standard for a low cost surveillance solution for aircraft excepted in 14 CFR 91.215 and 91.225**
  - i.e. balloons, aircraft without electrical systems etc.
- **Make aircraft visible to others equipped with collision avoidance systems such as TAS, TCAS I, TCAS II, ADS-B In**
- **Provide platform or interface to ADS-B functionality, loggers, flight computers etc.**

# TSO-C199 Requirements

- **Derived from existing transponder and ADS-B requirements**

- **Requirements are reduced from full capability required in reference documents, but full functionality is acceptable**

- **Allows for use of commercial grade GNSS that pass defined screening tests**

# TSO-C199 Requirements

- **Cannot transmit false or misleading information**

- **SDA=1    (1x10$^{-3}$ or better)**

- **NACp=9 (30 meters or better)**

- **NACv=1 (10 m/s or better)**

- **NIC=6     (0.5 NM or better)**

- **SIL=1     (1x10$^{-3}$ or better)**

- **Detect Step errors greater than 700 meters**

- **Capable of using SBAS integrity**
  - Ramp errors detected by SBAS integrity

# TSO-C199 Status

- **The TSO posted 10 Oct, 2014 to RGL:**
  - [http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgTSO.nsf/0/1600DF588A6F53AE86257D710070D105?OpenDocument](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgTSO.nsf/0/1600DF588A6F53AE86257D710070D105?OpenDocument)

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