



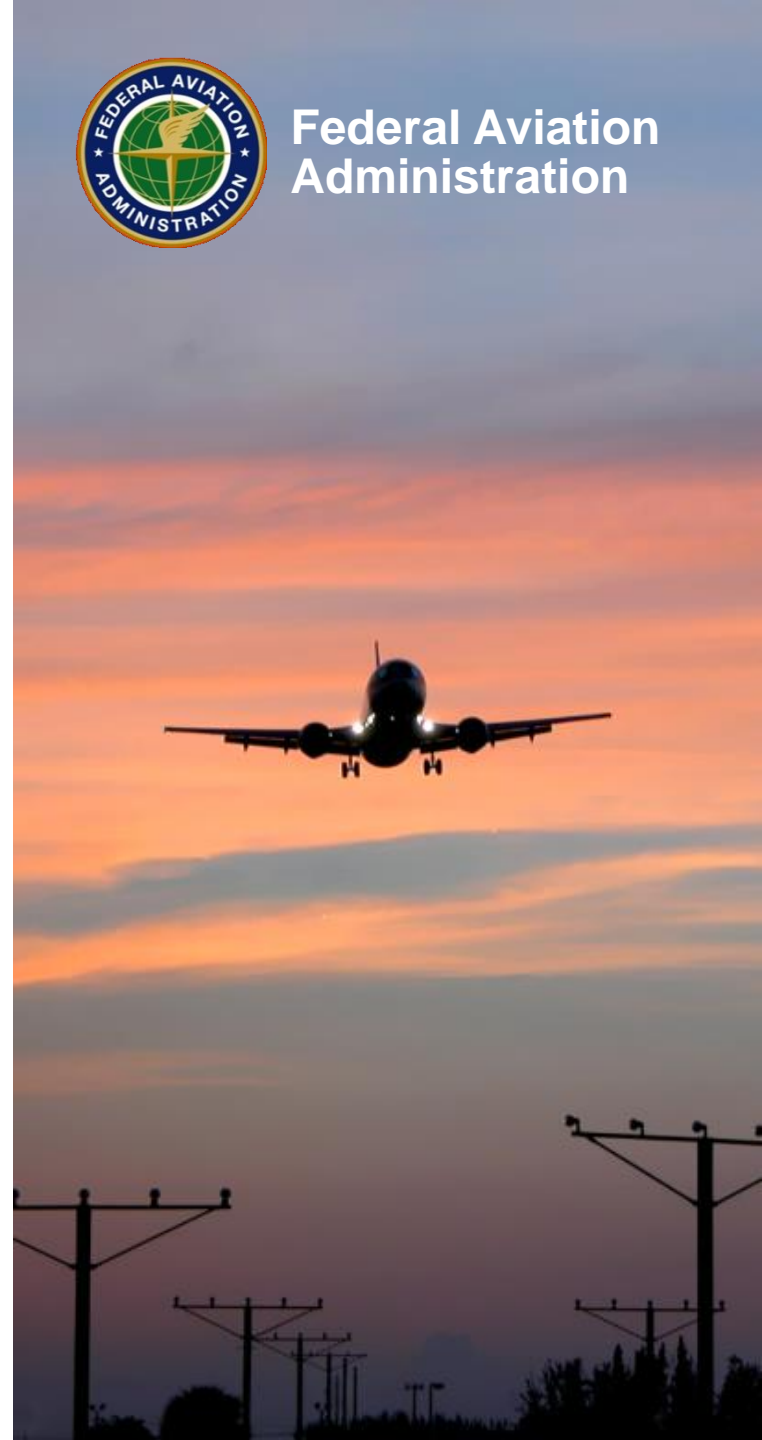
Federal Aviation
Administration

NPEF Civil Navigation (CNAV) Message Validation Task

Presented to: CGSIC

Presented by: Deane Bunce, NPEF Co-Chair

Date: 15 September 2015



NPEF CNAV Background

- **Initial CNAV Testing**
 - Test plan developed to outline how initial messages would be broadcast and monitored
 - Approach presented and discussed at the NPEF meeting in January 2013
- **Evaluation of broadcast messages**
 - First Live-Sky Test plan was established
 - Initial candidate messages broadcasted and evaluated with involvement of manufacturers and government
 - Daily updates to MT 10, 11, 30 and 31 started in December 2014
- **Future efforts underway for additional Live-Sky tests of CNAV messages**
 - Fifteen Message Types currently defined in the Interface Specifications
 - Optional messages include (12, 13, 14, 15, 31, 32, 35, 36 and 37)

NCO NPEF Task

- **Prioritize the development and testing of remaining CNAV message types**
- **Task includes:**
 - Validate need for candidate CNAV messages
 - define specific application & associated ‘needs’
 - Identify importance or significance that would lead to prioritizing candidate message types
- **Results will be used to establish priorities for development and test of CNAV messages**
 - Cooperative effort between civil community (identify needed message types) & GPSD (perform message type testing & validation)

NPEF Status

- **Teleconference on August 13, 2015**
 - Broad participation by civil community as well as DoD organizations
- **Discussion Items**
 - Reviewed the origin of CNAV message development (RTCA input) and current status
 - Message type(s) identification & validation timeline
 - Utility of L5 as an independent stand-alone signal
 - Upcoming schedule for Live-Sky testing
- **Path Forward**
 - DOT/FAA to develop template for CNAV message type survey
 - In coordination with GPS Directorate
 - Civil Agencies to identify and determine CNAV message requirements
 - Review at next NPEF meeting in January 2016
 - Validate ‘need’ for L5 as standalone signal
 - Interim status review in October 2015



NPEF Status (cont)

- **CNAV Message Type (MT) survey**
 - Ensure civil community needs are properly defined and prioritized
 - Will request input on all optional MTs:
 - Describe the intended or envisioned application where the MT would be utilized
 - Provide an assessment of the significance or importance of the MT for the application
 - Solicit input on L5 as a standalone signal



QUESTIONS?

