



SELCAL Code Pool Expansion Status

AFC Fall 2016 - Austin

The Current Limitation



- The ICAO SELCAL register is oversubscribed
 - Current 16-tone SELCAL standard is limited to 10,290 codes
 - SELCAL register holds over 32,000 assignments
- Oversubscription is resulting in up to 6 aircraft responding to the same code
 - Over 250 known duplicate call occurrences recorded in 12 months by worldwide ANSPs
- The demand for SELCAL is still growing
 - ASRI issues approximately 2,500 per year
 - 3% year-on-year growth
 - Problem will continue to increase without action

Industry Solution



- ASRI working with SELCAL avionics vendors, manufacturers, and the FAA developed a SELCAL code pool expansion solution
- The solution expands the SELCAL system to 32 tones
 - The update would create 215,760 unique codes
- ASRI immediately began working with the various standards organizations (AEEC, RTCA, and ICAO) to move the proposed solution forward

AEEC SELCAL Working Group



- The AEEC Executive Committee unanimously voted to approve the SELCAL Code Pool Expansion APIM at the AEEC General Session meeting held April 14-17, 2014
- American Airlines volunteered Robert Holcomb as chairman and Paul Prisaznuk was the AEEC secretary to support the SELCAL working group (WG)
- The AEEC Executive Committee unanimously approved the 714A document at the AEEC Mid-term meeting held September 23-24, 2015 in Seattle, WA

RTCA SC-232 Meetings



- The ASRI staff attended the RTCA Program Management Committee (PMC) meeting on June 17, 2014 in Washington, DC
 - The PMC committee approved the proposed ASRI Terms of Reference (TORs) and formed Special Committee (SC) 232 to develop a new Minimum Operational Performance Standard (MOPS) for the SELCAL system
- SC-232 held six meetings in total to develop the SELCAL MOPS
- The SELCAL MOPS document received final approval by the RTCA Program Management Committee on March 17, 2016.
- Guidance was also provided in a MOPS Appendix to ASRI, the FAA, and the airlines on the impact on their respective ground systems that currently support SELCAL codes.

ICAO Communications Panel



- The ASRI staff provided the proposed solution to the ICAO Working Group Maintenance (WG-M) committee for consideration
- ICAO WG-M agreed with the ASRI proposed SELCAL code pool expansion
 - The proposed date of implementation for ANSP ground station implementation based on survey feedback was September 2016
- The ICAO Communications Panel (CP) Meeting 1 was held in December 2014 in Montreal, Canada. Boeing/Airbus submitted a working paper with concerns that were addressed by ASRI at the meeting except for the completion of testing of avionics for backward compatibility. IATA also expressed concern about testing.
- It was concluded that testing for backward compatibility was required so the SELCAL code pool expansion proposal was deferred until the next ICAO approval cycle commencing in 2016.

ICAO Communications Panel



- ASRI attended the ICAO CP Meeting 2 (CP-2) on October 10-14, 2016 in Montreal, Canada.
- ASRI submitted a working paper that provided the results of backward compatibility avionics testing conducted under the guidance of RTCA SC-232.
- The Irish ANSP submitted an information paper highlighting the increasing number of recoded duplicate SELCAL issues observed from 2012 through 2016.
- The ICAO member from ASECNA (representing a group of African states) objected to the proposal moving forward due to concerns with schedule and cost to upgrade their ground systems.

ICAO Communications Panel



- In addition to the ASECNA objections, there were concerns expressed about the impact on airline host systems, the impact on ANSP flight processing systems, avionics availability, and the readiness of ANSPs.
- A small group of interested CP-2 participants (ASRI, Irish ANSP, IATA and DCTWG secretary) will work to provide answers to concerns and consider possible regional (NAT, PAC) implementations with near term schedules.
- The DCTWG secretary agreed to pursue approval of the SELCAL amendment via correspondence after resolving the concerns that were raised.



- Questions?