Selective Calling Code Pool Expansion Update

AFC Meeting

Vancouver, BC

June 10 - 11, 2014

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
  - 13% 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

- The team already developed a draft ARINC Characteristic 714-7 (MARK 3 Airborne SELCAL System) to incorporate the proposed solution

- ASRI is working with ICAO and ANSPs for September 2016 implementation

ASRI Proposal

- The solution has been agreed with vendors and is backwards compatible with existing avionics
  - **No changes or costs required for existing avionics**
  - **Existing users would continue to operate on 12 or 16 tone systems**
- The proposal is a long-term solution to the duplicate SELCAL calling
  - It will slow, and eventually reverse, the duplicate calling rate for SELCAL
  - Mitigates the problem without a compulsory upgrade
  - Compatible with the normal lifecycle of existing avionics

SELCAL Code Pool Expansion

The ICAO step process to amend Annex 10 Volume 3 with the SELCAL code pool expansion is the following:

1. Aeronautical Communications Panel (ACP) WG-M agreed (Done)
2. Preliminary review by Air Navigation Commission (ANC) (Done)
3. ICAO ACP Working Group of the Whole meeting is scheduled for December 2-5, 2014 in Montreal, Canada
4. Final review by ANC (4Q 2014)
5. Adoption by council (1Q 2015)
6. State letters (1Q 2015)
7. Applicability date (4Q 2015)
8. Implementation (3Q 2016)

SELCAL Code Pool Expansion

- The ASRI staff met with the FAA Aircraft Certification Service group on Wednesday April 9, 2014 in Washington, DC.
  - The intent of the meeting was to brief the FAA certification management on the SELCAL code pool expansion efforts and gain their support for soliciting RTCA to address the work program.
  - The FAA agreed to support the SELCAL code pool expansion program at the meeting.
  - The FAA sent the necessary documentation to RTCA in support of this activity on May 19, 2014.

SELCAL Code Pool Expansion

- ASRI staff had a meeting with the RTCA staff on April 10, 2014 in Washington, DC.
    - The intent of the meeting was to brief the RTCA staff on the SELCAL code pool expansion efforts and gain their support.
    - The RTCA staff endorsed the SELCAL code pool expansion work and were pleased with the draft TORs. The special committee will be responsible for the development of a new Minimum Operational Performance Standard (MOPS).
    - The ASRI staff were invited to attend the June 17, 2014 PMC meeting to solicit support for the SELCAL code pool expansion work program.
    - The TORs proposed co-chairs from Avtechtyee and ASRI staff and a secretary from ASRI staff.

SELCAL Code Pool Expansion

- 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

- The AEEC staff using the current 714-6 and the draft 714-7 produced a new draft SELCAL standard (714A) which eliminated all references to 500 series avionics standards, revised tables, and eliminated unnecessary text

- American Airlines volunteered Robert Holcomb as chairman and Paul Prisaznuk will be the AEEC secretary to support the SELCAL working group
  - First meeting is scheduled for July 8-10, 2014 in Annapolis
  - ASRI staff will support this working group

Questions

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