CIVIL AVIATION AUTHORITY OF FIJI
ISO 9001:2015 Certified

FIJI AERONAUTICAL INFORMATION CIRCULAR

Civil Aviation Authority of Fiji
Private Bag (NAP0354), Nadi Airport
Republic of Fiji
Tel: (679) 222 4222;
Website: www.caaf.org.fj

AIC 09/25
Effective
12 JUN 2025
OPS

SELECTIVE CALLING (SELCAL) 32

1. Introduction

1.1 Amendment 91 to Annex 10, Volume III is intended to address proposals developed by the second meeting of the Communications Panel Data Communication Infrastructure Working Group (CP-DCIWG/2) to amend Annex 10 — Aeronautical Telecommunications, Volume III — Communication Systems, Part II — Voice Communication System, related to the expansion of the pool of selective calling (SELCAL) codes.

1.2 The Amendment 91 to the International Standards and Recommended Practices, Annex 10 — Aeronautical Telecommunications, Volume III — Communication Systems was adopted by the Council at the sixth meeting of its 221st Session on 6 November 2020. 2.4 When adopting the amendment, the Council prescribed 22 March 2021 as the date on which it will become effective, except for any part concerning which a majority of Contracting States have registered their disapproval before that date. In addition, the Council resolved that Amendment 91, to the extent it becomes **applicable on 30 November 2022**

2. Background

2.1 Almost every aircraft operating over the ocean or in remote areas has a SELCAL code registered with Aviation Spectrum Resources Inc. (ASRI). The SELCAL code is entered into field 18 of the aircraft's flight plan that is filed with the relevant aviation authorities. When a ground station wishes to communicate with an aircraft, the radio operator enters the required SELCAL code into the radio system which then transmits the SELCAL tones.

2.2 The current rules for SELCAL code assignment, with sixteen available letters/tones, limit the number of possible allowable codes to 10,920 resulting in a large amount of duplicate SELCAL Codes.

2.3 While SELCAL is an older technology by aviation standards, demand for SELCAL codes continues to increase by approximately 4% annually. This demand is being driven by the expanding civil aviation market and the requirement for almost all aircraft flying in remote Regions to have HF communications.

3. Purpose

3.1 The purpose of this advisory circular is to:

- Ensure proper understanding and usage of SELCAL 32 by aviation personnel.
- Provide consultative information and recommendations for integrating SELCAL 32 into routine flight operations.
- Facilitate compliance with regulatory requirements and improve operational safety.

4. WHAT IS SELCAL 32

4.1 To mitigate duplicate SELCAL code concerns, ASRI has been attempting to educate users about the potential duplication issue, while radio ground station operators have been proactively managing aircraft to minimize the issue. However, these measures can only mitigate the duplication issue so far, and therefore ASRI in cooperation with the affected Civil Aviation Authorities (CAAs), ANSPs, and avionics manufacturers, has been updating the SELCAL standards to allow for aviation growth. The new SELCAL proposal uses sixteen (16) new audio tones, in addition to the existing 16 audio tones, to create SELCAL codes from a total of 32 available audio frequencies (**called SELCAL 32).**

4.2 The updated standard labels the new audio frequencies with letters from T to Z, and the numbers 1 to 9. Creating SELCAL codes from these 32 different audio tones will result in over 200,000 new unique SELCAL codes being available for assignment, mitigating the duplicate code issue for the foreseeable future.

4.3 The SELCAL 32 proposal will allow for new SELCAL avionics to operate without an increasing risk of SELCAL code duplication and the associated operational impacts. As this solution uses the existing 16 audio tones, it is backwards compatible with all existing aircraft avionics, while providing benefits to new aircraft with the updated SELCAL 32 standard.

5. Implementation by the ANSPS and Airline Operators

5.1 ANSPs will need to consider the impact of the SELCAL code pool expansion on their flight planning systems and any other systems that support the SELCAL system. Several implementation options are available, including:

- Contact SELCAL encoder supplier to include the extra tones in the existing encoder
- Install a new PC based encoder
- Upgrade HF transmitters to include a new encoder with the additional tones.

5.2 Airlines will need to evaluate the impact that the SELCAL code pool expansion may have on their ground systems including flight planning when new aircraft are added to their fleets that support the expanded SELCAL code pool functionality.

5.3 Airbus and Boeing are expected to begin offering the SELCAL 32 functionality on new aircraft being delivered after the 2020 timeframe, with some existing aircraft being already compatible with suitable software updates.

6. Current SELCAL 32 Progress in Fiji

6.1 In response to the operational and safety risks associated with the duplication of SELCAL codes under the legacy system, the Aviation Spectrum Resources Inc. (ASRI) and the affected Air Navigation Service Providers (ANSPs**)**, in coordination with ICAO, have strongly advocated for the global adoption of the enhanced SELCAL 32 architecture**.** ICAO has formally endorsed this enhancement through its amendment to Annex 10, Volume III**,** and has called upon Contracting States to align national systems accordingly.

6.2 The Civil Aviation Authority of Fiji (CAAF) fully supports the technical and operational merits of the SELCAL 32 solution and recognizes its incorporation into ICAO Standards and Recommended Practices (SARPs) as critical for maintaining the integrity of long-range communications within the Nadi Flight Information Region (FIR)

6.3 Fiji's designated ANSP, Fiji Airports Limited, has committed to the phased integration and commissioning of SELCAL 32 capabilities. Subject to system readiness and procurement timelines, full operational deployment is scheduled to be completed by **31 March 2026**, in accordance with CAAF's national implementation roadmap.