



Agenda Item 3: Air Navigation Matters

3.3 Specific Developments in Air Navigation
• **ATM**

**ICAO NACC DATABASE (ICARD) /
FIVE-LETTER NAME-CODES (5LNCs)
AND ELIMINATING DUPLICATION OF 5LNC'S**

(Presented by the Secretariat)

SUMMARY Authorized airspace planners have access to an ICAO database tool that provides the ability to allocate five letter name codes (5LNCs). The ability to query this database and directly allocate 5LNCs greatly enhances the safety and efficiency of airspace planning. It also reduces the duplication of 5LNCs and therefore enhances safety by ensuring a unique 5LNC for airspace planning purposes. To avoid the duplication of 5LNC's, State/Territory should discard any previously allocated 5LNC's assigned by this office prior to the implementation of ICARD and which have not yet been published.	
References: • ICAO Annex 11, Appendix 2 • EMX0530 - 1 June 2011, requesting States/Territories discard allocated 5LNC's assigned by this office	
Strategic Objectives	<i>This working paper is related to Strategic Objective A</i>

1. Introduction

1.1 ICAO Annex 11, Appendix 2, paragraph 3.1. states that “Where a significant point is required at a position not marked by the site of a radio navigation aid, the significant point shall be designated by a **UNIQUE** five-letter pronounceable “name-code”.

1.2 In the 1960's, ICAO and the FAA set up a list of 140,000 five letter combinations of five-letter name-codes (5LNCs). This list was then split and distributed to the various ICAO Regional offices throughout the world. These reserve lists have since served as the database for 5LNCs allocation by the ICAO Offices with the objective of world-wide unique allocation to enable unambiguous designation of significant points not linked to the site of a radio navigation aid.

1.3 In route planning and design, two activities are essential:

- the allocation of Route Designators, uniquely identifying individual routes;
- the allocation of 5LNCs codes, uniquely identifying designated point, forming part of a route.

1.4 In a cooperative effort, a system was developed by Eurocontrol, which is called the ICAO Five-Letter Name-Code and Route Designator Database (ICARD) system, which facilitates the management of Five Letter Name Codes (5LNCs). This system, which was designed with the perspective that it is global in scope, was implemented by the EURNAT (1998), MID region (2005), ASIAPAC (2007), NAM/CAR 2008 and globally (2009).

2. NACC ICARD Regional Activities

2.1 As a result of the global deployment of the 5LNCs Database, which is implemented through their ICAO ICARD application, several activities were coordinated regionally. These activities were grouped as Phase I, Phase II and Phase III activities:

Phase I:

This phase consisted mainly in the review of the existing NAM/CAR list of assigned 5LNCs for introduction to the ICARD

- 1) Based on the existing hard-copy of the NAM/CAR list of assigned codes, the NACC Regional Office prepared a preliminary electronic NAM/CAR list of assigned 5LNCs, which incorporated information from the State's AIPs, State's communication and route chart data. This information was posted on the Regional office Website.
- 2) The ICAO NACC Regional Office conducted a review and update of the preliminary electronic NAM/CAR list of assigned 5 LNCs, registered in the ICAO NACC Regional Office. This process required States to confirm and update the information regarding 5LNC codes allocated for their use and the respective coordinates as well as other internal ICAO code confirmations and formalization of assignments. Replies and comments were received until April 24, 2009.
- 3) Based on the replies received, an initial NAM/CAR list of assigned 5LNCs was formulated and, prior to its inclusion into ICARD, other data verification through other sources was made to ensure its validity.
- 4) Updated information to the ICARD System was coordinated with EUROCONTROL and ICAO for its inclusion into the ICARD global system as it applies to the CAR and NAM States, Territories and International Organizations. Other useful information associated to this review and update process was discovered as for example the classification of ICAO and non-ICAO codes.
- 5) The initial NAM/CAR list of assigned 5LNCs was introduced in ICARD.

- 6) An ICAO NACC Regional Office ICARD Data Base Manager was designated along with two alternates to support the operation of this database (nacc-icard@icao.int).

Phase II:

This phase consisted of registering users to the ICARD database and continued revision of the ICARD database, which included identifying duplicated codes and proposing recommendations to resolve these cases.

- 1) Each State/Territory/International Organization, within the NAM/CAR Regions, was required to complete the following two steps:
 - a) A State letter EMX0597 was sent on 18 June 2009 requesting States to nominate one Primary Route Planner as an authorized user of the ICARD system, and one alternate.
 - b) New authorized users were advised to coordinate their registration with the ICAO NACC Regional Office ICARD Data Manager in order to complete the process of becoming an authorized user.
- 2) State Authorized users will Access the ICARD System to allocate 5LNCs in coordination with the NACC Regional Office ICARD Data Manager. Only authorized users can use the application for allocation new codes. The overall objective of the system is to allow contracting States/Territories/International Organizations, the ability to allocate unique 5LNCs as needed to meet airspace planning needs.

Phase III:

As part of the ongoing initiatives to improve ICARD/5LNCs system, EUROCONTROL transitioned the ICARD service to ICAO during the month of September 2010. ICAO is now hosting and operating the system.

- 1) State letter EMX0850 was sent on 24 September 2010 advising current users to re-register and for States to notify the NACC regional office of their respective authorized state user.
- 2) ICARD Registration is a two-step process. The first step is to register for Access to the ICAO Portal, and the second step is to subscribe as a 5LNCs authorized route planner.
- 3) Access to the ICARD application and instructions on how to register have been uploaded to the NACC website and can be accessed at: <http://www.mexico.icao.int/ICARD.html>.
- 4) An ICARD user guide has been developed and is also available on the NACC website address listed above (English only).

3. Discussion

3.1 ICARD has now been implemented worldwide and is currently the only authorized ICAO method for assigning 5LNC's. To ensure the success of ICARD and to avoid the duplication of 5LNC's, ICAO NACC letter EMX0530 was sent 1 June 2011, requesting that your State/Territory discard any previously allocated 5LNC's assigned by this office prior to the implementation of ICARD and which have not yet been published. This is a necessary step in order to ensure that 5LNC's are not duplicated when authorized users now request the allocation of codes using the ICARD database system.

3.2 The ICARD administrators have attempted to minimize any duplication of 5LNC's by updating ICARD with all sources of 5LNC's that were previously assigned. To request 5LNC's, States should now use ICARD.

3.3 States should verify the availability of 5LNC's using ICARD before publishing 5LNC's that were not allocated through the ICARD database. This will minimize the possibility of duplication and will assist States in adhering to the principles of establishing and assigning 5LNC's as stated in Annex 11, Appendix 2.

3.4 The current list of State designated authorized users is presented in the **Appendix** to this paper. Only ECCAA, Barbados and France have designated users to ICARD.

4. Suggested action

4.1 The Meeting is invited to note the contents of this working paper and follow up on the previously assigned tasks as indicated below:

- a) designate a State authorized user to access the 5LNCs database system and forward this information to the NACC regional office if not yet completed;
- b) coordinate any problems with the database or the registration process to the ICAO NACC regional database manager (nacc_icard@icao.int);
- c) review ICARD user guide for instructions on how to access and utilize for the allocation of 5LNCs;
- d) provide ongoing feedback on the methods to improve the 5LNCs database system;
- e) request a report of State 5LNCs in ICARD and review against State 5LNCs published in the AIP, and
- f) Release 5LNCs no longer published in State AIPs but still listed as allocated to State, and
- g) discard any previously issued list of 5LNC's not allocated through ICARD.

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APPENDIX / APÉNDICE
AUTHORIZED ICARD USERS / USUARIOS AUTORIZADOS ICARD

NAME/ NOMBRE	TITLE/ TITULO	DEPARTMEN T/ DEPARTAME NTO	STREET/ CALLE	CITY/ CIUDAD	COUNTRY/ PAIS	TELEPHO NE/ TELEFON O	FAX	E-MAIL
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