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ICARD

(International Codes and Route Designators)

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INTRODUCTION

1. The ICAO SARPS to be applied concerning the establishment and identification of routes and significant points may be found in:

   - Annex 11 — Air Traffic Services, Chapter 2, Sections 2.13-2.15; and
   - Annex 11 — Air Traffic Services; Appendixes 1-2-3.

2. 5LNC codes are drawn from a set of pre-defined five letter combinations generated by ICAO and the FAA in the 1970's. This list was then split and distributed to the various ICAO Regional offices throughout the world. These reserve lists have since formed the base for 5LNC 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.

3. States are required to coordinate usage of unique five-letter pronounceable name-code designators (5LNC')s with the appropriate Regional Office.

ICARD Home

- ICAO International Codes and Route Designators (ICARD)
- ICARD (International Codes and Route Designators) is a database of 280,000 five-letter name-codes (5LNCs) and 16,000 route designators (RDs) used for global air navigation.
- It allows Member States and Regional Managers the reservation and allocation of 5LNCs used for the identification of significant points not marked by the site of a radio navigation aid and designators for ATS routes, while ensuring uniqueness in compliance with ICAO Annex 11, Annex 15, and PANS-OPS. These 5LNCs end up on aircraft flight decks (FMS).

Five-Letter Name-Code System
Version 2

Route System
Version 2

Background

- In October 1995, EUROCONTROL and the ICAO EUR/NAT Regional Office started working together to develop and maintain a common database of facilities and services required for international air navigation within the EUR/NAT region.
- In February 1998, the first internet application on the EUROCONTROL website was developed to support the allocation process of five-letter name-codes used for the identification of significant points (for ATS routes) not marked by the site of a radio navigation aid and designators for ATS Routes. This application was named ICARD. The application gradually extended to other ICAO regions achieving global coverage in 2009.
- In September 2008, the application was updated to support ICAO process in the maintenance of the European ATS Route Network in the Air Navigation Plan, and in 2010 the ICARD database was transferred from EUROCONTROL to ICAO Headquarters.
- In March 2017 a new enhanced ICARD platform was launched to provide more stability, increased processing speed, and a more user-friendly design.

ICARD Application Access

- 5LNC : Allocation of unique names for designated points (Annex 11 Appendix 2).

- Routes : Allocation of unique names for ATS Routes (Annex 11 Appendix 1) and Description of Routes in terms of Segments.

Establishment and identification of ATS routes

Annex 11

2.13.3 ATS routes shall be identified by designators.

2.13.4 Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles set forth in Appendix 1.

2.13.5 Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles set forth in Appendix 3.

Establishment and identification of significant points

Annex 11

2.15.1 Significant points shall be established for the purpose of defining an ATS route or instrument approach procedure and/or in relation to the requirements of air traffic services for information regarding the progress of aircraft in flight.

2.15.2 Significant points shall be identified by designators.

2.15.3 Significant points shall be established and identified in accordance with the principles set forth in Appendix 2.

Principles Governing the Identification of Navigation Specifications and the Identification of ATS Routes other than Standard Departure and Arrival Routes

Annex 11 Appendix 1

- The purpose of a system of route designators and navigation specification(s) applicable to specified ATS route segment(s), route(s) or area is to allow both pilots and ATS, taking into account automation requirements:

  a) to make unambiguous reference to any ATS route without the need to resort to the use of geographical coordinates or other means in order to describe it;

  b) to relate an ATS route to a specific vertical structure of the airspace, as applicable;

  c) to indicate a required level of navigation performance accuracy, when operating along an ATS route or within a specified area; and

  d) to indicate that a route is used primarily or exclusively by certain types of aircraft.

Principles Governing the Identification of Navigation Specifications and the Identification of ATS Routes other than Standard Departure and Arrival Routes

Annex 11 Appendix 1

Assignment of basic designators

3.1 Basic ATS route designators shall be assigned in accordance with the following principles.

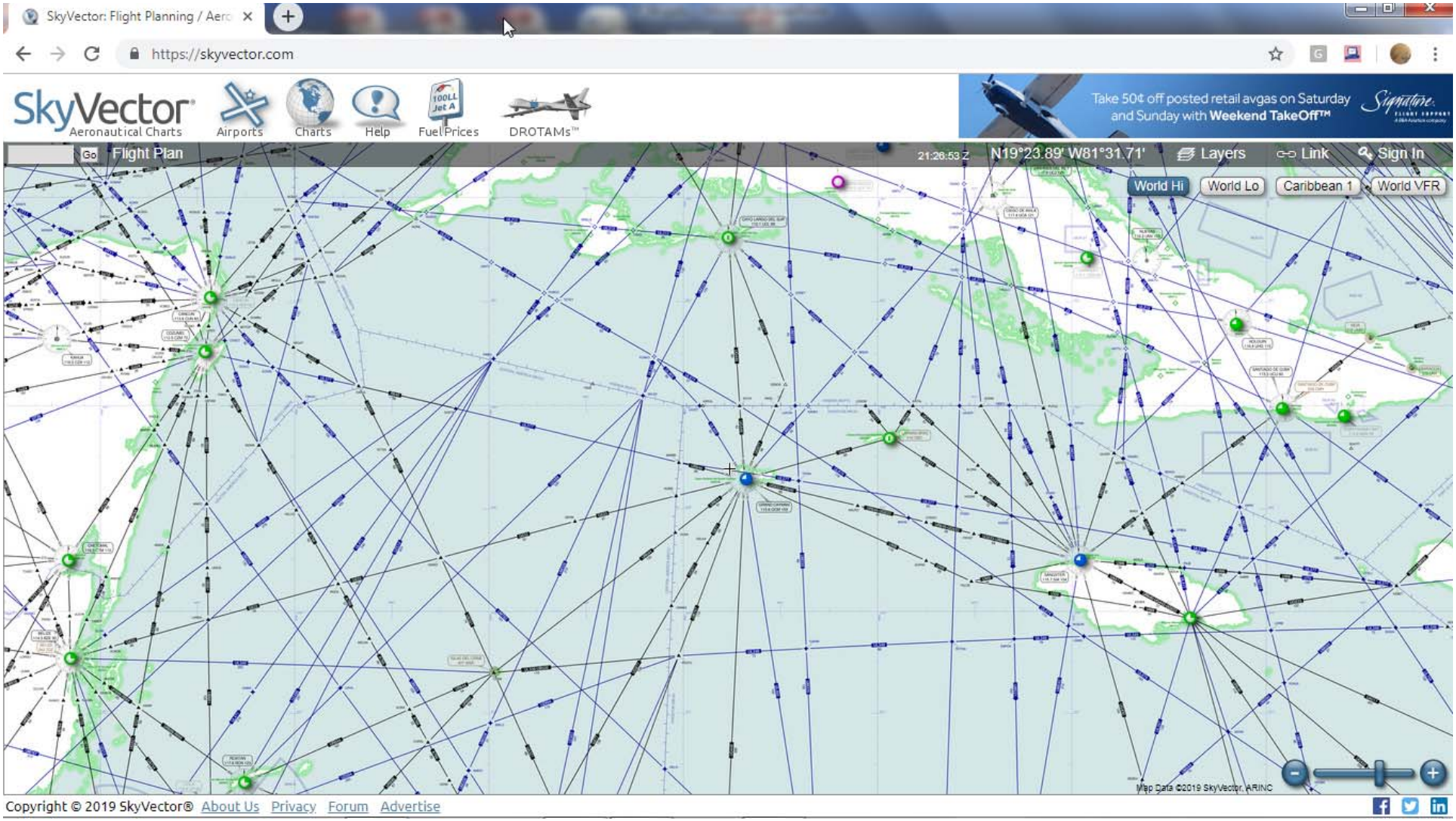
3.1.1 The same basic designator shall be assigned to a main trunk route throughout its entire length, irrespective of terminal control areas, States or regions traversed.

- Note.— This is of particular importance where automated ATS data processing and computerized airborne navigation equipment is used.

3.1.2 Where two or more trunk routes have a common segment, the segment in question shall be assigned each of the designators of the routes concerned, except where this would present difficulties in the provision of air traffic service, in which case, by common agreement, one designator only shall be assigned.

3.1.3 A basic designator assigned to one route shall not be assigned to any other route.

3.1.4 States' requirements for designators shall be notified to the Regional Offices of ICAO for coordination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Principles Governing the Establishment and Identification of Significant Points

Annex 11 Appendix 2

2.2 Composition of coded designators for significant points marked by the site of a radio navigation aid

2.2.1 The coded designator shall be the same as the radio identification of the radio navigation aid. It shall be so composed, if possible, as to facilitate association with the name of the point in plain language.

2.2.2 Coded designators shall not be duplicated within 1 100 km (600 NM) of the location of the radio navigation aid concerned, except as noted hereunder.

Note.— When two radio navigation aids operating in different bands of the frequency spectrum are situated at the same location, their radio identifications are normally the same.

2.3 States' requirements for coded designators shall be notified to the Regional Offices of ICAO for coordination.

Principles Governing the Establishment and Identification of Significant Points

Annex 11 Appendix 2

3. Designators for significant points not marked by the site of a radio navigation aid

3.1 Where a significant point is required at a position not marked by the site of a radio navigation aid, and is used for ATC purposes, it shall be designated by a unique five-letter pronounceable "name-code". This name-code designator then serves as the name as well as the coded designator of the significant point.

Note.— The principles governing the use of alphanumeric name-codes in support of RNAV SIDs, STARs and instrument approach procedures are detailed in the PANS-OPS (Doc 8168).

3.4 The unique five-letter pronounceable name-code designator assigned to a significant point shall not be assigned to any other significant point.

3.5 States' requirements for unique five-letter pronounceable name-code designators shall be notified to the Regional Offices of ICAO for coordination.

Principles Governing the Identification of Standard Departure and Arrival Routesand Associated Procedures

Appendix 3

1. Designators for standard departure and arrival routes and associated procedures

Note.— In the following text, the term “route” is used in the meaning of “route and associated procedures”.

1.1 The system of designators shall:

a) permit the identification of each route in a simple and unambiguous manner;

b) make a clear distinction between:

— departure routes and arrival routes;

— departure or arrival routes and other ATS routes;

— routes requiring navigation by reference to ground-based radio aids or self-contained airborne aids, and routes requiring navigation by visual reference to the ground;

c) be compatible with ATS and aircraft data processing and display requirements;

d) be of utmost brevity in its operational application;

e) avoid redundancy;

f) provide sufficient possibility for extension to cater for any future requirements without the need for fundamental changes.

1.2 Each route shall be identified by a plain language designator and a corresponding coded designator.

1.3 The designators shall, in voice communications, be easily recognizable as relating to a standard departure or arrival route and shall not create any difficulties in pronunciation for pilots and ATS personnel.

Principles Governing the Identification of Standard Departure and Arrival Routes and Associated Procedures

Appendix 3

2. Composition of designators

2.1 Plain language designator

2.1.1 The plain language designator of a standard departure or arrival route shall consist of:

a) a basic indicator; followed by

b) a validity indicator; followed by

c) a route indicator, where required; followed by

d) the word “departure” or “arrival”; followed by

e) the word “visual”, if the route has been established for use by aircraft operating in accordance with the visual flight rules (VFR).

2.1.2 The basic indicator shall be the name or name-code of the significant point where a standard departure route terminates or a standard arrival route begins.

2.1.3 The validity indicator shall be a number from 1 to 9.

2.1.4 The route indicator shall be one letter of the alphabet. The letters “I” and “O” shall not be used.

Principles Governing the Identification of Standard Departure and Arrival Routes and Associated Procedures

Appendix 3

2.2 Coded designator

The coded designator of a standard departure or arrival route, instrument or visual, shall consist of:

a) the coded designator or name-code of the significant point described in 2.1.1 a); followed by

b) the validity indicator in 2.1.1 b); followed by

c) the route indicator in 2.1.1 c), where required.

Principles Governing the Identification of Standard Departure and Arrival Routes and Associated Procedures

Appendix 3

5. Examples of plain language and coded designators

5.1 Example 1: Standard departure route — instrument:

a) Plain language designator: BRECON ONE DEPARTURE

b) Coded designator: BCN 1

5.2 Example 2: Standard arrival route — instrument:

a) Plain language designator: KODAP TWO ALPHA ARRIVAL

b) Coded designator: KODAP 2 A

5.3 Example 3: Standard departure route — visual:

a) Plain language designator: ADOLA FIVE BRAVO DEPARTURE VISUAL

b) Coded designator: ADOLA 5 B

ICAO Headquarters Requests

1. Address issues related to the eANP route structure to proceed with amendments.
2. Submit to ICAO all 5LNCs published by the States in the CAR Region.
3. Work to resolve 5LNCs duplicates.
4. Update ICARD with all the Regional Routes published in regional ANPs.

Pending actions to define Regional and non-Regional.

Conclusions

1. The current situation for routes continuity and nomenclature needs to take priority in the PBN Task Force Work Programme.
   a. The approval of new routes can not be stopped, due to the operational requirements and improvements expected, however, if the situation continues as of today the gap is just going to increase.
2. The situation related to the 5LNCs and ATS routes designators require a significant amount of work and should be included in the PBN Task Force Regional priorities.
3. The leadership of the PBN Task Force is required to address the regional implementation issues. The Task Force Work Methodology and Strategy should be aligned to solve the aforementioned issues.

Suggested Actions

1. States, Territories and ATS Service providers in the CAR Region submit to the ICAO NACC Regional Office a list of all published ATS Routes.
2. States, Territories and ATS Service providers in the CAR Region submit to the ICAO NACC Regional Office a list of all published 5LNCs.
3. States, Territories and ATS Service providers in the CAR Region cooperate to address discrepancies and duplicates ATS routes and 5LNCs.
4. The PBN Task Force work to identify and address the discrepancies in the CAR/SAM Air Navigation Plan Volume II TABLE ATM II-CARSAM-1-CAR/SAM REGIONS ATS ROUTES.

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