



Global Air Navigation System Performance Based Air Navigation eANP Framework

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International Civil Aviation Organization

**Workshop on the Development of
National Performance Framework
(Lima 13-17 April 2009)**

Presentation Outline



- eANP Framework Overview
- Objectives
- Deliverables
- eANP Transition Architecture
- eANP Toolbox
- ICARD
 - ✓ Amendment tool
 - ✓ MET data maintenance
 - ✓ VHF Communications Planner
 - ✓ CNS/AIRS Portal
 - ✓ PBN database
 - ✓ WGS-84 Status Report
- Summary

eANP Framework Overview



- ➔ The electronic Air Navigation Planning Framework will facilitate the coordination and implementation of regional air navigation plans as well as supporting the Global Air Navigation Plan.
- ➔ The eANP will contribute to the further development of air navigation planning by providing a framework for the efficient implementation of new air navigation systems and services at the national, regional, inter-regional and global levels.
 - ✓ **The framework will support, in particular, the work of regional planning and implementation groups that plan, monitor and analyse the implementation status of planned facilities and services for inclusion in the regional air navigation plans, and recommend ways to expedite these plans in accordance with ICAO priorities. The availability of this information online will greatly facilitate updating and access to the latest information for States, ICAO regional offices and various other users.**

eANP Framework Objectives



→ **This effort has two primary objectives:**

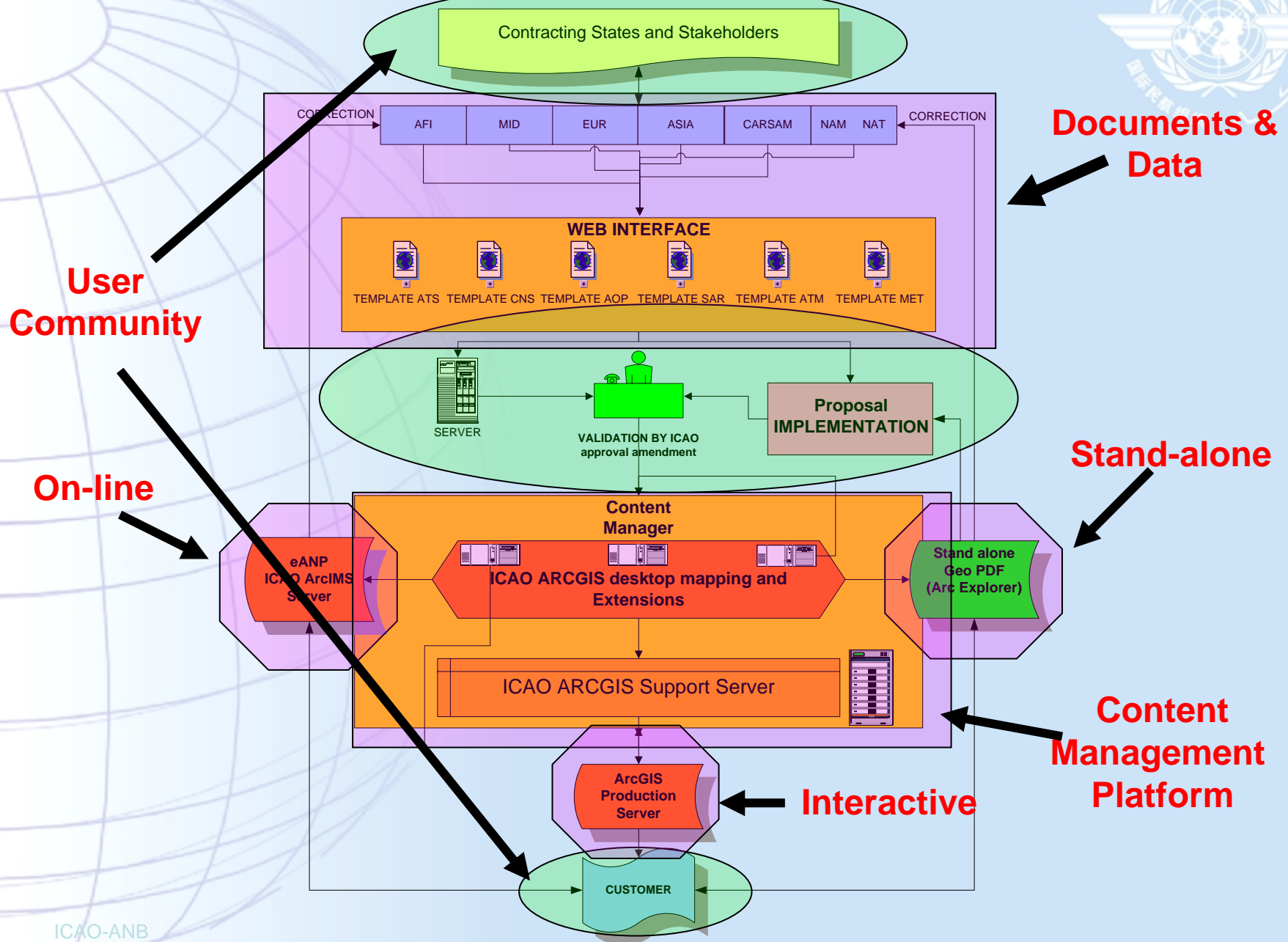
- ✓ i) **at the global level**: reconcile the Regional Air Navigation Plan with the ATM operational concept, the new Global ANP provisions and the ICAO new business planning processes; and
- ✓ ii) **at the regional level**: expedite regional planning and coordination through simplifying and freeing the core of planning from a long and cumbersome formal approval process,
 - the planning and coordination activities are still maintained within the ICAO regional process requirements.

eANP Framework Deliverables



- ➔ To support the above objectives, the following deliverables will be produced:
- ➔ i) Easy-to-use planning templates that would contain the relevant elements, specifically, homogeneous ATM areas and major international traffic flows, and the agreed Global Air Navigation Plan systems infrastructure necessary to support the implementation of the homogeneous ATM areas and major international traffic flows; and
- ➔ ii) an integrated Air Navigation Planning environment containing details currently listed in Table ATS 1 and all FASID Tables (AOP, CNS, ATM, MET, SAR, AIS). This will be designed to easily support the coordination, agreement and recording process between States and international organisations, also through a user-friendly interface.

eANP Transition Architecture



CNS/AIRS AN Planning Toolbox

(GREEN = available today)



- **The air navigation planning toolbox will support the following:**
 - ✓ development and promotion of geographic information systems (GIS) technology by providing the data, tools, and training required to implement and effectively utilize geographic data for planning purposes;
 - ✓ development, deployment and maintenance of a set of planning tools to support an Electronic Air Navigation Plan (eANP) environment
- **5LNC –5LNC database** linked to GIS interface **(ICARD)**
- **eBORPC (ICARD)**
 - ✓ **Online ATS Route Viewer**
 - ✓ Online ATS Route Designer
 - ✓ Online ATS reporting
- **Automated ANP update processing utility**
 - ✓ **Online MET data maintenance module**
 - ✓ Online AOP **viewer** and data maintenance module
 - ✓ Online CNS **viewer** and data maintenance module
 - ✓ Online FIR **viewer** and data maintenance module
- **eFASID (transition from printed tables to user selected reports)**
 - ✓ **Online MET reporting**
 - ✓ Online AOP reporting
 - ✓ Online CNS reporting
- **VHF Communication Planning (beta)**
- **On-line air navigation planning viewer**
- **Stand alone GeoPDF charts**
- **Automated ANP online mapping tool (GIS)**
- **ANP Global Data dictionary**
- **SBAS Channel Allocation Utility**

ICARD



- Since October 1995, EUROCONTROL and the ICAO EUR/NAT regional Office have worked 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 ICAO 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.

ICARD Deployment



- ➔ **5LNC** : Allocation of unique names for designated points (Annex 11 Appendix 2)
 - ✓ Phase 1 1998 – 2009, Eurocontrol host –Global database initialization
 - ✓ Phase 2 (2009) a mirror site will be established at an ICAO designated location with GIS interface.
 - ✓ Phase 3 the Global system will be transferred to ICAO (2011).

- ➔ **Route Designators** : Allocation of unique names for ATS Routes (Annex 11 Appendix 1)
 - ✓ Phase 1 is the deployment of a “Quality Assured” database and GIS tool at selected ICAO Regional locations (2009).
 - ✓ Phase 2 the system will be enabled in all ICAO regions (2010).
 - ✓ Phase 3 the Global system will be transferred to ICAO (2011)

5LNC – Welcome Page



EUROCONTROL - Five Letter Name-Codes for Designated Points - Microsoft Internet Explorer provided by ICAO ICT

http://www.eurocontrol.int/icard/public/standard_page/5lnc.html

EUROCONTROL - Five Letter Name-Codes for Design...

EUROCONTROL

Safety Regulation Strategy & Planning ATM Performance Air Traffic Control Air Navigation Charges Training Airports
Security Civil / Military Research & Development Managing the Traffic Society & Economics Capacity Traffic & Delay Environment

EUROCONTROL > ATM Performance > Icard > 5LNC

ICARD Home

5LNC

- ▶ 5LNC - for Public Users
- ▶ 5LNC - for Authorised Users
- ▶ 5LNC - Monitoring

Route Designators

Indicators

Frequency Management

data_exchange

Five Letter Name-Codes for Designated Points

Pilots need physical air navigation aids to reach their final destination. However, with modern air navigation systems being based on longitude and latitude readings, air routes are being more frequently defined by logical designated points, identified by a unique Five-Letter Name-Code (5LNC) and a longitude / latitude position (e.g. TULIP 52°22'N 3°51'E in the Netherlands).

The 5LNC codes are drawn from a set of pre-defined five letter combinations generated by ICAO and the FAA in the 1960'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.

ANNEX 11 APPENDIX 2.

Principles governing the establishment and identification of significant points

With reference to Amendment 45 to Annex 11, effective from the associated adoption date of 22 November 2007, airspace planners are reminded to adhere to the alteration to the governing ICAO provisions and refrain from relocating any waypoint without allocating it a new 5LNC as indicated in the extract below:

"The name-code designator assigned to a significant point shall not be assigned to any other significant point. When there is a need to relocate a significant point, a new name-code designator shall be chosen. In cases when a State wishes to keep the allocation of specific name-codes for re-use at a different location, such name-codes shall not be used until after a period of at least six months." (Chapter 2, Section 2.13, §3.4 refers)

The tool

Public users have access to a limited number of functionalities to query the content of the database maintained by the staff of the ICAO EUR/NAT office.

Only authorised users can make use of the application for reserving new codes from the reserve list of 140000 codes while ensuring worldwide uniqueness. They will receive acknowledgment of their request

Internet 100%

start | Inbox - Microsoft Out... | Missions - Microsoft I... | ICAO Secretariat - H... | EUROCONTROL - Fiv... | Microsoft PowerPoint ... | EN | 3:25 PM

Amendment Tool Template

(To be deployed to all Regions Q209)



Microsoft Access - [Proposal for amendment]

File Edit Insert Records Window Help

ATS Routes CNS4 Table 5LNC PFA Created by PC Created on 06/10/04 Modified by AVM Modified on 17/11/04 States

04/ED

Print PFA List Print Cover File Delete PFA Add PFA Edit related items

Search : 04/ED-ATS

04/ED-ATS
04/ARM2-ATS
04/ARM-ATS
04/36-EUR RAC/7 XC
04/35-ATS XB
04/34-ATS XA
04/33-EUR RAC/6 WZ
04/32-CNS WY
04/31-CNS WX
04/30-ATS WW
04/29-ATS WV
04/28-ATS WU
04/27-ATS WT
04/26-CNS WS
04/25-ATS WR
04/24-NAT RAC/5 WQ
04/23-ATS WP
04/22-AOP WO
04/21-AOP WN
04/20-AOP WM
04/19-AOP WL
04/18-ATFM WK
04/17-EUR RAC/4 WJ
04/16-MET WI
04/15-MET WH
04/14-ATS WG

Serial Number 04/ED Type of PFA ATS Brief Description Editorial Amendment Table CNS 4

Followed by F/S File ref pc T 17/3.E/F

Date received: 06/10/04 Date of circulation revised:
SUPPS to HQ for comments: Closing date for com. revised:
Date of circulation: Date of submission to HQ:
Closing date for comments: Date of approval:

Notification to States: AHP Amdt No: Draft

PFA Items :
ATS1 (Editorial)
G41
UM30
UM190
UN872
UP177
R42
R107
CNS4
Aviles/Asturias --> Asturias

Comments :

Originated by : Spain

Circulated to :

PFA Files:

Insert Delete

Proposal for Amendment (PFA)



II. Proposal for Amendment

II.1 PFA Screen

1. Figure 1

2. Navigation Controls.

3. Toggle button: display PFA in progress only or all PFA.

4. Navigation links between each component.

5. Command buttons.

- Print PFA List: Print List of PFA in progress in Word
- Print File Cover: print the file cover sheet of the PFA displayed
- Print the PFA in Word.
- Delete PFA: Delete PFA displayed
- Add PFA: Create a new PFA.
- Edit related items: Open the window for editing ATS1/CNS4 amendments.

6. Status: Show the PFA Status.

7. PFA Information.

8. List of States: show originators of this amendment and State(s) which are to be consulted.

9. Lists ATS1 or CNS4 items that are amended in PFA concerned.

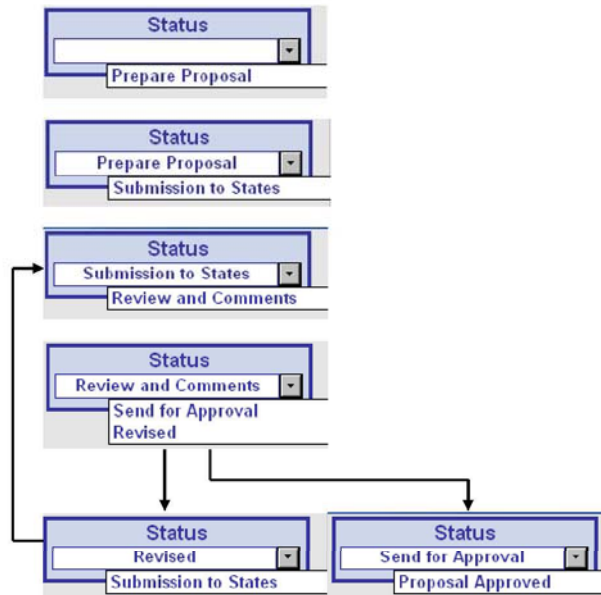
10. Links to Word files related to PFA.

11. Comments on process of development of PFA.

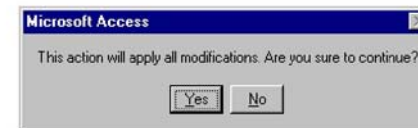
PFA Actions Status

II.4 Use PFA Status

You can select a status in the list "Status" (see Figure 1 mark n°5).
The statuses you can select depend on the previous status.



After selecting "Proposal Approved" the following message will be displayed



If you click "No" the status become "Send for approval". If you click "Yes" all PFA changes (for ATS1 Amendment, CNS4 Amendment and Editorial Amendment) will be integrate into ARN Data. And the Status becomes as figure below.





A screenshot of the "Status" dropdown menu showing "Proposal Approved" selected. Below the dropdown, the text "Approved on 13/10/04" and "Approved by PC" is displayed.

On-Line MET data maintenance

<http://192.206.28.84/MET/>



**ICAO MET Data***Global Air Navigation Plan*

[Login](#)

[Overview](#) [Browse](#) [Map Server](#) [Report](#) [Reference](#)

Region **ASIAPAC** State **Thailand**

Meteorology Database
Planning MET1A & MET2A

Aerodrome ICAO Location Indicator	Aerodrome Use	Responsible MET Office - ICAO Location Indicator	In MET1A	In MET2A	TR	SA/SP	For
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBA			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBB			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBC			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBD	RS	VTBS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	X
VTBE			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBF			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBH			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBI			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBK			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
VTBL			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Change page: < 1 2 3 4 5 6 7 > | Displaying page 1 of 7, items 1 to 10 of 68.

CNS/AIRS VHF COM FREQUENCY ASSIGNMENT PLANNING



- ➔ CNS/AIRS VHF COM provides a program that can be used for frequency assignment planning and frequency coordination.
 - ✓ The program is based on the frequency assignment planning criteria that are currently being used in the ICAO Regional Offices.
- ➔ The CNS/AIRS VHF COM is using a global data base, which has been established in 2008 on the basis of the various Regional ICAO COMLIST 3 (COM List 2 for the EUR Region).
 - ✓ The global data base will facilitate interregional coordination.
 - ✓ In order to achieve the global data base, the information currently contained in the various Regional COM lists has been harmonized.
 - ✓ Where appropriate, changes to the presentation of information in the global list have been identified for further consideration by the Regional Offices.
 - ✓ In the final format of the program, the ICAO Global COM list will reside on the ICAO website, accessible to all ICAO Contracting States.
 - ✓ Updating of the Global COM list will take place through the ICAO Regional Offices.
 - ✓ States can access the information in the data base for planning and coordination activities.

VHF COM Frequency Assignment Planning Functions



→ Data base.

- ✓ The program will allow the user to query the data base, select assignments for individual countries, Regions, locations, services and frequencies.
- ✓ The results of the query can be saved and retrieved for later consideration.
- ✓ The results of the query can be printed, in the format of the ICAO COM list, directly from the program or exported to Microsoft Excel or Adobe PDF files.

→ GIS Interface.

- ✓ The results of the query can be plotted on a geographical map. Current provision includes the use of Google Earth.
- ✓ Presentation on a map includes the plotting of the coordinated range for assigned frequencies as well as the plotting of the operational range AND the interference contour (radio horizon seen from the aircraft at maximum altitude and maximum range..)
 - *Note 1: Co-frequency assignments are compatible if the interference contours do not overlap with each other).*
 - *Note 2: The use of other programs than Google Earth that can plot the data of an assignment on different types of maps is being considered*

→ Calculation of the protection offered.

- ✓ Introduction of an additional program that will allow for the calculation of the protection offered, in particular for new assignments is being considered.
- ✓ Such a program, when available, would allow the user to select from the calculated results frequencies for, in particular, new assignments. It would also facilitate assessment of existing incompatibilities.

VHF COM Frequency Assignment Planning Functions - Database



FileMaker Pro Advanced - [CNS_AIRS-COM]

File Edit View Insert Format Records Scripts Tools Window Help

Layout: AFIAPAC

Record: 1
Total: 19865
Unsorted

Home Find modify find Show All Show All Records LIST TABLE New Delete Reports Print Export Help Quit Search Frequency

Export found records Excel Importation long fir range Restore found records COM List 3 Save found records Cancel Reset FIR circles

QUERY/FIND Mapping Frequency/GoogleEarth Coordinates Base layers 2008

<p>REGION MID Status N</p> <p>COUNTRY AFGHANISTAN</p> <p>FREQUENCY 118.100 Country code: AFG</p> <p>NAME location BAMAYAN</p> <p>SERVICE FIS-U</p> <p>Perform find records found: 19865 Reg: 19969</p> <p>FIR FIR ACCRA</p>	<p>DOC FIR-U/450 Active Record Active Selection</p> <p>Range FIR MAP RANGE MAP RANGE</p> <p>Height 45000 MAP RANGE+RH MAP RANGE+RH</p> <p>Radio Horizon 261</p> <p>Category NAT</p> <p>Condition OP</p> <p>Entry</p> <p>Modification</p> <p>Remark</p> <p>Remark_CNS</p>	<p>Lat 00D00'00" N</p> <p>Dec.lat 0</p> <p>Long 00D00'00 E</p> <p>Dec.long 0</p> <p>Google GeoPDF</p> <p>Fir world ICAO</p> <p>Fir sector world</p> <p>COM world</p> <p>Aero world</p> <p>Route AFI</p> <p>Route MID</p> <p>Route ASIA PAC</p> <p>Route CARSAM</p> <p>Route EUR</p>
<p>REGION MID Status N</p> <p>COUNTRY AFGHANISTAN</p> <p>FREQUENCY 118.100 Country code: AFG</p> <p>NAME location CHAKHCHARAN</p> <p>SERVICE FIS-U</p> <p>Perform find records found: 19865 Reg: 19970</p> <p>FIR FIR KABUL</p>	<p>DOC FIR-U/450 Active Record Active Selection</p> <p>Range FIR MAP RANGE MAP RANGE</p> <p>Height 45000 MAP RANGE+RH MAP RANGE+RH</p> <p>Radio Horizon 261</p> <p>Category NAT</p> <p>Condition OP</p> <p>Entry 11/07/03.LIPENG</p> <p>Modification</p> <p>Remark</p> <p>Remark_CNS</p>	<p>Lat 34D32'00" N</p> <p>Dec.lat 34.5333333</p> <p>Long 06SD16'00 E</p> <p>Dec.long 65.2666667</p> <p>Google GeoPDF</p> <p>Fir world ICAO</p> <p>Fir sector world</p> <p>COM world</p> <p>Aero world</p> <p>Route AFI</p> <p>Route MID</p> <p>Route ASIA PAC</p> <p>Route CARSAM</p> <p>Route EUR</p>
<p>REGION MID Status N</p> <p>COUNTRY AFGHANISTAN</p> <p>FREQUENCY 118.100 Country code: AFG</p> <p>NAME location FAIZABAD</p> <p>SERVICE FIS-U</p> <p>Perform find records found: 19865 Reg: 19970</p> <p>FIR FIR KABUL</p>	<p>DOC FIR-U/450 Active Record Active Selection</p> <p>Range FIR MAP RANGE MAP RANGE</p> <p>Height 45000 MAP RANGE+RH MAP RANGE+RH</p> <p>Radio Horizon 261</p> <p>Category NAT</p> <p>Condition OP</p> <p>Entry</p> <p>Modification</p> <p>Remark</p> <p>Remark_CNS</p>	<p>Lat 37D05'00" N</p> <p>Dec.lat 37.0833333</p> <p>Long 07D033'00 E</p> <p>Dec.long 70.55</p> <p>Google GeoPDF</p> <p>Fir world ICAO</p> <p>Fir sector world</p> <p>COM world</p> <p>Aero world</p> <p>Route AFI</p> <p>Route MID</p> <p>Route ASIA PAC</p> <p>Route CARSAM</p> <p>Route EUR</p>

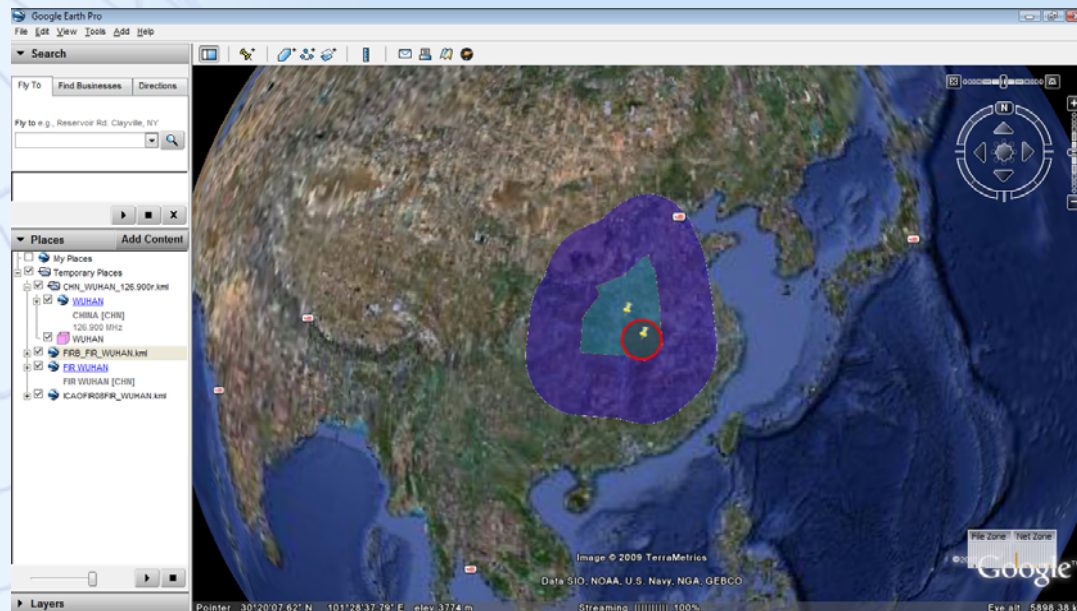
Click to see more information for a record CNS/AIRS Very High Frequency communications tool version 2.06 VHF A/G

100% Browse Puts all records in the file into the found set of records. NUM

→ Data base.

- ✓ The program will allow the user to query the data base, select assignments for individual countries, Regions, locations, services and frequencies.
- ✓ The results of the query can be saved and retrieved for later consideration.
- ✓ The results of the query can be printed, in the format of the ICAO COM list, directly from the program or exported to Microsoft Excel or Adobe PDF files.

VHF COM Frequency Assignment Planning Functions –GIS Interface



→ GIS Interface.

- ✓ The results of the query can be plotted on a geographical map. Current provision includes the use of Google Earth.
- ✓ Presentation on a map includes the plotting of the coordinated range for assigned frequencies as well as the plotting of the operational range AND the interference contour (radio horizon seen from the aircraft at maximum altitude and maximum range..
 - *Note 1: Co-frequency assignments are compatible if the interference contours do not overlap with each other).*
 - *Note 2: The use of other programs than Google Earth that can plot the data of an assignment on different types of maps is being considered*

ICAO CNS/AIRS Portal

<http://192.206.28.81/eganp/>



ICAO eANP Route ICAO eANP REGION ICAO eANP WORLD ICAO eANP Special GeoPDF product

Google product

- Download Google Earth eANP
- Download KML2SHP
- Download GEPATH
- Download Google Earth plug in
- Google Earth API
- Try API Examples

ICAO GIS Portal CNS/AIRS eANP

IMSOM CBNB ASPIK GERAK South Africa

Welcome to ICAO CNS/AIRS PORTAL

CNS/AIRS ICAO GIS
Geographic Information System

NEW! Created with ArcGIS Server 9.3

New ICAO GIS Web Server will be use for the support of the new eANP, will be in direct relation with all the new technology (eANP cdrom with GeoPDF, Data base support, ArcReader, ArcGIS Explorer, ArcGIS Server 9.3, Google Earth 3d, Google Earth plug-in) to facilitate all users for his work in the Air Navigation Plan or other task.

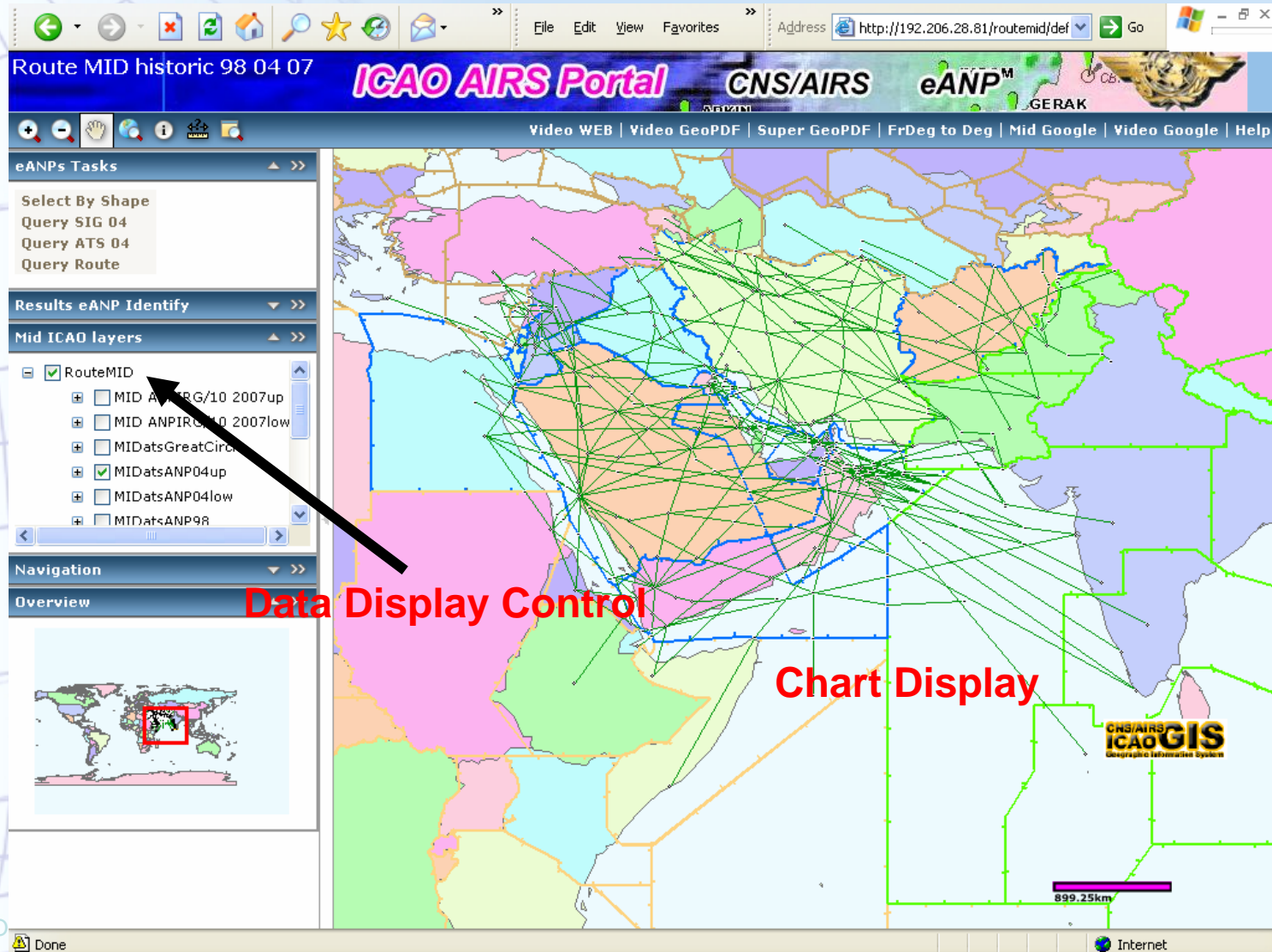
GeoPDF product:

ICAO eANP Download ICAO Geopdf eANP file to work on your computer

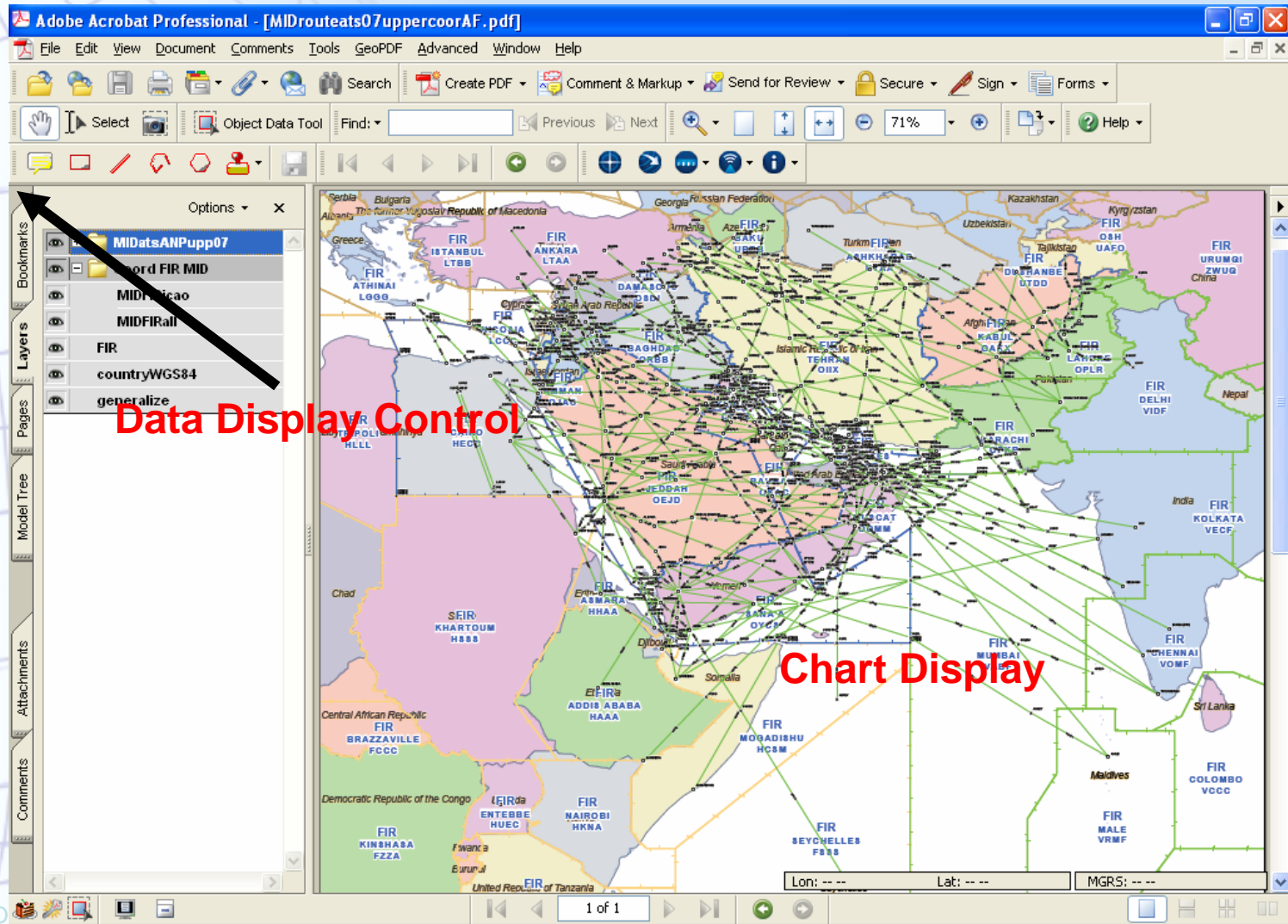
[Download ICAO Geopdf files](#)

ICAO Arctic Circle Project Download ICAO Arctic Circle Geopdf file to work on your computer

ArcGIS Server On-line Format



GeoPDF Standalone Format



PBN: Public users access



Performance-Based Navigation - Microsoft Internet Explorer provided by ICAO ICT

File Edit View Favorites Tools Help

ICAO • OACI • ИКАО
International Civil Aviation Organization

ICAO PERFORMANCE BASED NAVIGATION (PBN) PROGRAMME

[Login](#)

Overview Browse Map Report Reference

Type of Region: **ICAORO**
Region: **AFI**

Airports

ICAO LocIndic	Intl	IATACode
DFFF	<input checked="" type="checkbox"/>	FFF

Runways

RwyNo	Instrument
23L	<input checked="" type="checkbox"/>
5R	<input type="checkbox"/>

Approach

EffectiveDate	Comments	Restrictions	Approach Type	Line Of Minima	Decimal
13/01/2009	t	y	LPV200	RNP0.2x	3
04/11/2008	b	n	RNP-AR-APCH		

SID

Name	EffectiveDate	Description	SID Type
23L-SID-01-2000	11/01/2000	Good weather	Basic RNP 1
23L-SID-02-2005	06/03/2005	Bad weather 1	Basic RNP 1

STAR

Name	EffectiveDate	Description	STAR Type
23L-STAR	13/02/2008	23L-STAR Desc.	Basic RNP 1
23L-STAR 2	12/11/2008	Global	RNAV
23L-All	17/11/2008	r 2	Basic RNP 1

Done Internet

PBN: Authorized users access



http://192.206.28.84 - Performance-Based Navigation - Microsoft Internet Explorer provided by ICAO ICT

File Edit View Favorites Tools Help

ICAO - OACI - ICAO
International Civil Aviation Organization

ICAO PERFORMANCE BASED NAVIGATION (PBN) PROGRAMME

Welcome dvanness [Logout](#)

Overview Browse Map Report Reference

Type of Region: **ICAORO**
Region: **AFI**

Airports

ICAOLocIndic	Intl	IATACode
DFFF	<input checked="" type="checkbox"/>	FFF

[Add new record](#) [Refresh](#)

Runways

RwyId	Instrument
23L	<input checked="" type="checkbox"/>
SR	<input type="checkbox"/>

[Add new record](#) [Refresh](#)

Approach

EffectiveDate	Comments	Restrictions	Approach Type	Line Of Minima	Decimal
13/01/2009	t	y	LPV200	RNP0.2x	3
04/11/2008	b	n	RNP-AR-APCH		

[Add new record](#) [Refresh](#)

SID

Name	EffectiveDate	Description	SID Type	Link/Unlink SID to Rwy
23L-SID-01-2000	11/01/2000	Good weather	Basic RNP 1	∞ SID to Rwy
23L-SID-02-2005	06/03/2005	Bad weather 1	Basic RNP 1	∞ SID to Rwy

[Add new record](#) [Refresh](#)

STAR

Name	EffectiveDate	Description	STAR Type	Link/Unlink STAR to Rwy	Link/Unlink STAR to Airport
23L-STAR	13/02/2008	23L-STAR Desc.	Basic RNP 1	∞ STAR to Rwy	∞ STAR to Airport
23L-STAR 2	12/11/2008	Global	RNAV	∞ STAR to Rwy	∞ STAR to Airport
23L-All	17/11/2008	r 2	Basic RNP 1	∞ STAR to Rwy	∞ STAR to Airport

[Add new record](#) [Refresh](#)

Done Internet

PBN: Implementation Details Report



http://192.206.28.84 - Performance-Based Navigation - Report Viewer - Microsoft Internet Explorer provided by ICAO ICT

File Edit View Favorites Tools Help



International Civil Aviation Organization

ICAO PERFORMANCE BASED NAVIGATION (PBN) PROGRAMME

[Login](#)

Overview

Browse

Map

Report

Reference

1 of 2 100% Export to the selected format Export

International Civil Aviation Organization - Performance Based Navigation (PBN) - Implementation Details per Region

PBN Implementation Details

ICAO Region: **AF**

Country ICAO DESIG Intl Runway Inst

Algeria

DAAG ☐ 34L ☒

SID Details

Name	Effective Date	Description	Type
34L SID	01/01/2010 12:00:00 AM	34L SID In-proc	RNAV

STAR Details

Name	Effective Date	Description	Type
34L STAR	01/01/2010 12:00:00 AM	34L STAR 1	RNAV

DFFF ☒ 23L ☒

Approach Details

Approach Type	Effective Date	Restrictions	Comments	Line of Minima Type	Decimal
LPV200	13/01/2009	y	t	RNP0.2x	3
RNP-AR-APCH	04/11/2008	n	b	RNP0.3	

SID Details

Name	Effective Date	Description	Type
23L-SID-01-2000	11/01/2000 12:00:00 AM	Good weather	Basic RNP 1
23L-SID-02-2005	06/03/2005 12:00:00 AM	Bad weather 1	Basic RNP 1

STAR Details

Name	Effective Date	Description	Type
23L-STAR	13/02/2008 12:00:00 AM	23L-STAR Desc.	Basic RNP 1
23L-STAR 2	12/11/2008 12:00:00 AM	Global	RNAV
23L-AII	17/11/2008 12:00:00 AM	r 2	Basic RNP 1

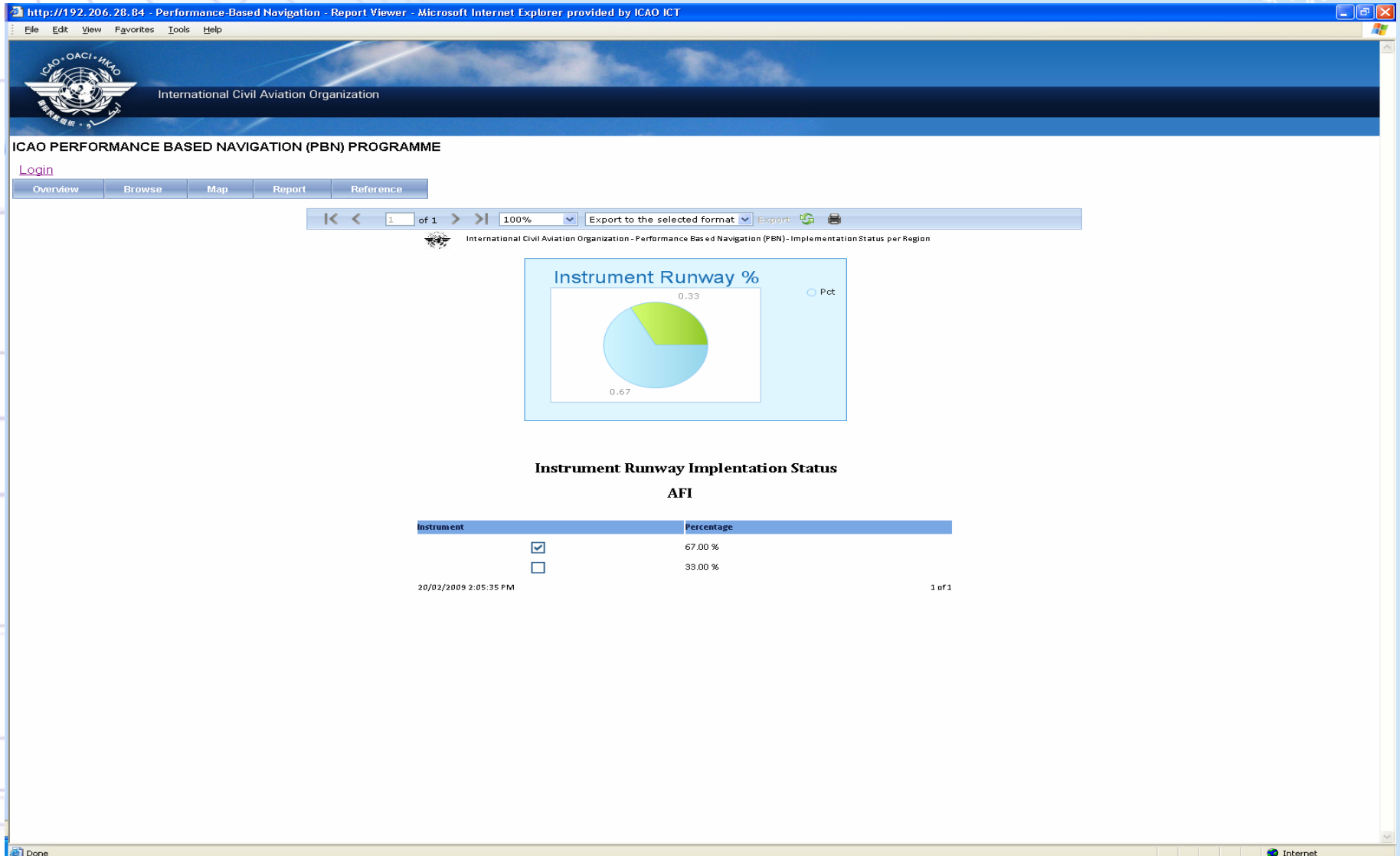
20/02/2009 2:04:51 PM

1 of 2

Done

Internet

PBN: % of Implementation Report



WGS-84 search function



WGS-84 Web interface Overview specific search

Search WGS-84 country

Select your value in the drop down menu

If layers have a plus button next to the name, you can expand the layer to display a legend for the layer

The screenshot shows the WGS-84 Web interface in Microsoft Internet Explorer. The address bar displays 'http://192.206.28.81/wgs84status/default.aspx - Microsoft Internet Explorer provided by ICAO ICT'. The page title is 'WGS-84 Web interface Overview specific search'. The interface includes a search bar with the text 'Search WGS-84 country'. Below the search bar, a dropdown menu is open, showing a list of countries including Afghanistan, Albania, Algeria, American Samoa (U.S.A.), Andorra, Angola, Anguilla (U.K.), Antarctica, Antigua and Barbuda, Argentina, Armenia, Aruba (Neth.), Australia, Austria, Azerbaijan, Bahamas, Bahrain, Baker Island (U.S.A.), Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda (U.K.), Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, and Bouvet Island (Nor.). A yellow callout box points to the dropdown menu with the text 'Select your value in the drop down menu'. Another yellow callout box points to the search bar with the text 'Search WGS-84 country'. A third yellow callout box points to the 'WGS84 present viewer' layer in the 'Map Contents' panel with the text 'If layers have a plus button next to the name, you can expand the layer to display a legend for the layer'. The map shows a world map with regions color-coded: green for 'Fully implemented', orange for 'Partly implemented', and white for 'Not implemented'. A legend at the bottom of the map area reads: 'Legend: F: Fully implemented P: Partly implemented N: Not implemented'. The map also includes a scale bar (0 to 920 Miles) and the text 'ICAO Copyright'.

WGS-84 search function



WGS-84 Web interface Overview specific search

Search country implemented

Type your value and click

Select Print Status of WGS84 to obtain a report of your research

The screenshot displays the 'WORLD ICAO STATUS OF IMPLEMENTATION' web interface. The left sidebar shows a list of countries under 'Search Country implementation (106)', including Finland, Latvia, Denmark, Lithuania, Canada, Germany, Netherlands, Poland, Belgium, Czech Republic, Mongolia, Luxembourg, Slovakia, Austria, Switzerland, Italy, Slovenia, Hungary, France, Romania, Monaco, Spain, Georgia, Portugal, and Turkey. The main content area features a world map titled 'STATUS OF IMPLEMENTATION OF WGS-84 IN THE WORLD' with a legend indicating 'Implemented' (green), 'Partly implemented' (orange), and 'Not implemented' (white). A search bar at the top right is labeled 'Search Country implementation'. The bottom of the page includes a scale bar (0 to 950 Miles) and 'ICAO Copyright'.

WGS-84 Status Form Editor



WGS-84 Web interface

http://192.206.28.81/wgs84status/default.aspx - Microsoft Internet Explorer provided by ICAO ICT

WORLD ICAO STATUS OF IMPLEMENTATION OF WGS84 (edition website)

Editor | Print Status of WGS84 | Search WGS84 country | Search Country implementation

Results

Map Contents

- ☒ WGS84status
 - ☒ WGS84 layers
 - ☒ ICAO base layers
 - ☒ Editor tool WGS84
 - ☐ WGS84 present viewer

Map

Editor

Edit: Editor tool WGS84

Create Editor tool WGS84

Edit Editor tool WGS84

Edit Editor tool WGS84 Attributes

Editor tool WGS84 /6

ICAOSYS Sudan

WGS84STATU 0

FIR

ENR

TMACTACTZ

APP

Settings

Remember the legend:
F: Fully implemented
P: Partly implemented
N: Not implemented

58.675, 7.01

Internet

CLEAN EXAMPLE FOR SUDAN

You complete the Data for WGS84 STATUS: Estimate the percentage of your implementation: here **0?**
After you fill the others fields like FIR with **F**, ENR with **F**, TMACTACTZ with **P**, APP with **N**, make the same for the others fields, for the field implemented by: You put **your name**, for the field Date: You put **the Date** you fill this form, fill the field Remark : If you have...

WGS-84 Print and Report function



**Print
Results
Only
(with map)**

Status of WGS84 implementation - Windows Internet Explorer

File Edit View Favorites Tools Help

★ ☆ 🏠 📄 📁 📂 📅 📆 📇 📈 📉 📊 📋 📌 📍 📎 📏 📐 📑 📒 📓 📔 📕 📖 📗 📘 📙 📚 📛 📜 📝 📞 📟 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿

Status of WGS84 implementation

Colombia (Editor tool WGS84)

ICAO region ANP

- ☐ AFI
- ☐ ASIA
- ☐ CAR
- ☐ EUR
- ☐ MID
- ☐ NAM
- ☐ NAT

ICAO region ANP (continued)

- ☐ NIL
- ☐ PAC
- ☐ SAM

ICAO FIR

- ☐ MID
- ☐ AFI
- ☐ ASIA
- ☐ CARSAM
- ☐ EUR

ICAO FIR (continued)

- ☐ NAM
- ☐ NAT
- ☐ NIL

Editor tool WGS84

- ☐ 0
- ☐ 1 - 10
- ☐ 11 - 20
- ☐ 21 - 30
- ☐ 31 - 40
- ☐ 41 - 50
- ☐ 51 - 60

Editor tool WGS84 (continued)

- ☐ 61 - 70
- ☐ 71 - 90
- ☐ 91 - 100

Colombia (Editor tool WGS84) -71.921, 3.119 (1)

Colombia (Editor tool WGS84) (1)

OBJECTID	FIPS_CNTRY	REGOFF	REGION	ICAOSTATE	ICAOSYS	WGS84STATU	FIR	ENR	TMACTACTZ	APP	RWY	AD_HEL	GUND	QUALSYS	AIP	REMARKS	IMPLEM_BY	WGS84DATE	Display Field
143	CO		LIMA	CARSAM	Colombia	Colombia 100												Null	Colombia

ICAO Copyright
ICAO Copyright
part of eANP
CNS/AIRS

**Print
Results
Only
(no map)**

[illegible]

Summary



- The eANP framework is an evolving effort.
 - ✓ Requires data to be maintained locally to be managed globally
- A number of tools are available today
- A number of tools will be deployed in the near term
- Transition to an electronic version of the Regional Air Navigation Plans pends the finalization of the supporting HW and SW selection.
 - ✓ PDF versions are an interim solution
 - ✓ The PFA tool will support an automated amendment process and approval archive
- As stakeholders in the effort your support and comments are welcomed.