



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

*A United Nations Specialized Agency*

# **ICAO Data Tool Applications and Data Bases**

**NACC/WG/04 Meeting**

# SPACE Content



- To introduce participants to SPACE
- What is it?
- How do I access it?


- Integrated with iSTARS (currently 2.0 Beta)
- Marketplace of available applications
  - Select the ones useful for You
- Most available in catalogue
- Some require invitations


# SPACE




My Applications [Help](#)

Desk 1

 ANP

 Pivot Table

 Safety DNA

The screenshot shows a web application interface for "SPACE iSTARS 2.0". The header includes the ICAO logo and the user name "Mistos, Thomas". The main content area displays "My Applications" with a "Help" link. Below this, there are three application icons: "ANP" (a blue square with white and yellow circles), "Pivot Table" (a green square with a white 'X'), and "Safety DNA" (a black and white abstract shape). The "ANP" icon is circled in red.



# Access SPACE



- <http://portal.icao.int>
- 1. Access the ICAO Portal
  - ✓ “Request an Account” if you do not have one
  - ✓ “Login” if you do
- 2. Access SPACE (iStars 2.0)
  - ✓ If you already have access to iSTARS group, you should see SPACE in its place
  - ✓ If not subscribe to the SPACE group

# Access SPACE (eANP)



- eANP application is by invitation (NOT in the catalogue of apps in SPACE)
- Once you have access to SPACE, subscribe to the EANP group
- After access is granted, you will see it in the “Invitations” tab

# eANP Content



- To introduce participants to the eANP app
- Why eANP?
- Parts of the eANP

# Why eANP



- ROs process amendments via on-line tool
- Updates are visible to all immediately after processing
- Provides PIRGs with data needed for planning
- Data from all regions available to aid in coordination

# ANP Online system



- Online system to process amendments to ANPs Basic and FASID

The screenshot shows the ANP Online system interface. The browser address bar displays the URL: <http://secretariat.icao.int/anb/ANPs/Lists/ANP%20Amend...>. The page title is "ANP Proposals for Amend...". The navigation bar includes links for Secretariat, OSG, ADB, ANB, ATB, LEB, TCB, PRES, Public site, and Secure Portal. The main content area is titled "ANPs" and "Secretariat > ANB > ANPs > ANP Proposals for Amendment (PIA)". It features a table with columns: Number, Proposer, ANP, ANP Part, Implementation Date, Date Submitted to HQ, Circulated to States, and PIA circulated by RP to ANB. The table lists several proposals, including APAC 13/21 - MET, EUR/NAT-B 13/30-AOP, ESAC 13/03-GEN-AOP-CNS-ATM-MET-SAR-AIS/IMP, WACAF-13/08-MET, WACAF-13/07-MET, and APAC 13/19-AOP.

Number	Proposer	ANP	ANP Part	Implementation Date	Date Submitted to HQ	Circulated to States	PIA circulated by RP to ANB
APAC 13/21 - MET	CAA Maldives	APAC FASID	MET	As soon as practicable after approval	01/11/2013	01/11/2013	
EUR/NAT-B 13/30-AOP	Republic of Moldova	EUR Basic	AOP	As soon as practicable after approval	25/10/2013	25/10/2013	28/10/2013
ESAC 13/03-GEN-AOP-CNS-ATM-MET-SAR-AIS/IMP	ICAO Secretary General	AFI FASID	GEN, AOP, CNS, ATM, MET, SAR, AIS/IMP	As soon as practicable after approval	24/10/2013	22/10/2013	24/10/2013
WACAF-13/08-MET	Central African republic and Cote d'Ivoire	AFI FASID	MET	As soon as practicable after approval	23/10/2013	23/10/2013	24/10/2013
WACAF-13/07-MET	Secretary General	AFI FASID	MET	As soon as practicable after approval	30/09/2013	30/09/2013	01/10/2013
APAC 13/19-AOP	Indonesia	APAC Basic	AOP	As soon as practicable after approval	24/09/2013	17/09/2013	26/09/2013

<http://secretariat.icao.int/anb/ANPs/Pages/PFA.aspx>

# eANP App



- Volumes I and II of Doc-8733
- Basic and FASID for all parts of ANP
- Part I – Basic Operational Requirements and Planning Criteria, plus Table of Contents
- Part II – General Planning Aspects (GEN)
- Part III – Aerodrome Operational Planning (AOP)
- Part IV – Communications, Navigation and Surveillance (CNS)

# eANP App cont'd...



- Part V – Air Traffic Management (ATM)
- Part VI – Meteorology (MET)
- Part VII – Search and Rescue Services (SAR)
- Part VIII – Aeronautical Information Services and Charts (AIS/MAP)
- Summary Appendix of amendments



# Frequency Finder Content



- To introduce participants to the Frequency Finder and Frequency Management tools
- What can I do?
- Differences between the 2 versions
- Future work

# Background



- ACP reviewed frequency assignment criteria for VHF air/ground coms
- Goal to produce comprehensive, globally applicable criteria
- Requires Annex 10 amendments
- Completion of Volume II to the *Handbook on Radio Frequency Spectrum Requirements for Civil Aviation* (Doc. 9718)

# Frequency Assingments



- ICAO Global DB of Frequency Assignments

This website requires the most recent version of Firefox, Google Chrome or Internet Explorer 10.  
Firefox or Google Chrome are faster than Internet Explorer.  
For internet Explorer turn off "Compatibility Mode".  
This website can best be viewed with Firefox.  
Not tested for Internet Explorer 8 or 9.  
**Using Internet Explorer 7 fails.**

This website has been specifically designed for use with Firefox. Firefox can be freely downloaded from [here](#)

This web site contains the ICAO Global Database of Frequency assignments for VHF COM systems operating in the frequency range 117.975 - 137 MHz as well as radar data extracted from the Regional Air Navigation Plans. For the purpose of coordinating SSR Mode S II codes, the [assigned] SSR codes are also presented.

The Global Databases for frequency assignments for VHF/UHF NAV systems, NDB and HF frequency assignments are in preparation.

**Select country:**

Global	<input type="text" value="Afghanistan"/>	<input type="button" value="Submit Query"/>
AFI	<input type="text" value="Algeria"/>	<input type="button" value="Submit Query"/>
APAC	<input type="text" value="Afghanistan"/>	<input type="button" value="Submit Query"/>
CAR	<input type="text" value="Anguilla"/>	<input type="button" value="Submit Query"/>
EUR	<input type="text" value="Albania"/>	<input type="button" value="Submit Query"/>
MID	<input type="text" value="Bahrain"/>	<input type="button" value="Submit Query"/>
SAM	<input type="text" value="Argentina"/>	<input type="button" value="Submit Query"/>

**VHF-COM**

**Buttons for viewing and downloading Global or Regional COM lists**

<input type="button" value="GLOBAL DATABASE"/>	<input type="button" value="GLOBAL DATABASE"/>	<input type="button" value="GD - Excel"/>
<input type="button" value="AFI Region"/>	<input type="button" value="AFI Region"/>	<p>Downloading of the Global or Regional COM into your web browser can take more than 2 minutes. A high speed internet connection is required. The COM lists can be imported into Frequency Finder or an Excel file. The green button is specifically for importing COM list into Excel</p>
<input type="button" value="APAC Region"/>	<input type="button" value="APAC Region"/>	
<input type="button" value="CAR Region"/>	<input type="button" value="CAR Region"/>	
<input type="button" value="EUR Region"/>	<input type="button" value="EUR Region"/>	
<input type="button" value="MID Region"/>	<input type="button" value="MID Region"/>	
<input type="button" value="SAM Region"/>	<input type="button" value="SAM Region"/>	

# Access to Global DB



- <http://192.206.28.81/ff1/FF1.php>

# Future Work



- Review of the frequency assignment planning criteria for:
  - ✓ VHF navigation systems (ILS, VOR, DME, GBAS),
  - ✓ LF/MF beacons (NDB) and
  - ✓ HF air/ground communication systems is ongoing

# GIS Content



- To introduce participants to ICAO's Geographic Information System (GIS)
- Access the GIS portal
- Navigate around various options of maps

# GIS (Geographic Information System) Tools



## ❑ Electronic ANP : [www.gis.icao.int/eanp](http://www.gis.icao.int/eanp)

- ✓ Still under development but can be used to find latest ANPs

## ❑ GIS Safety Tools

- ✓ Partly embedded on iSTARS
- ✓ Language proficiency

## ❑ Others





# GIS Gallery



- <http://gis.icao.int/gallery>

**Public Maps** **ICAO** Carousel **IPAD only** Explain IPAD ICAO MAP GALLERY

**Now divided in ICAO Groups GIS services**

New ICAO ETOD solution

ICAO Maps and Web Applications for the Aeronautical World, Disclaimer see on the bottom of the page. Find out more about ICAO GIS by viewing the gallery below by select your Group.

**ICAO NEW STUFF**

**ICAO FIR**

**ICAO CODE**

**Sept 12th Free GIS webinar ArcGIS for Airports**

**Download EANP**

**ICAO EANP**

**Embed ICAO services**

**Edit Secure ICAO GIS services**

**ICAO Portal (Other Interface)**

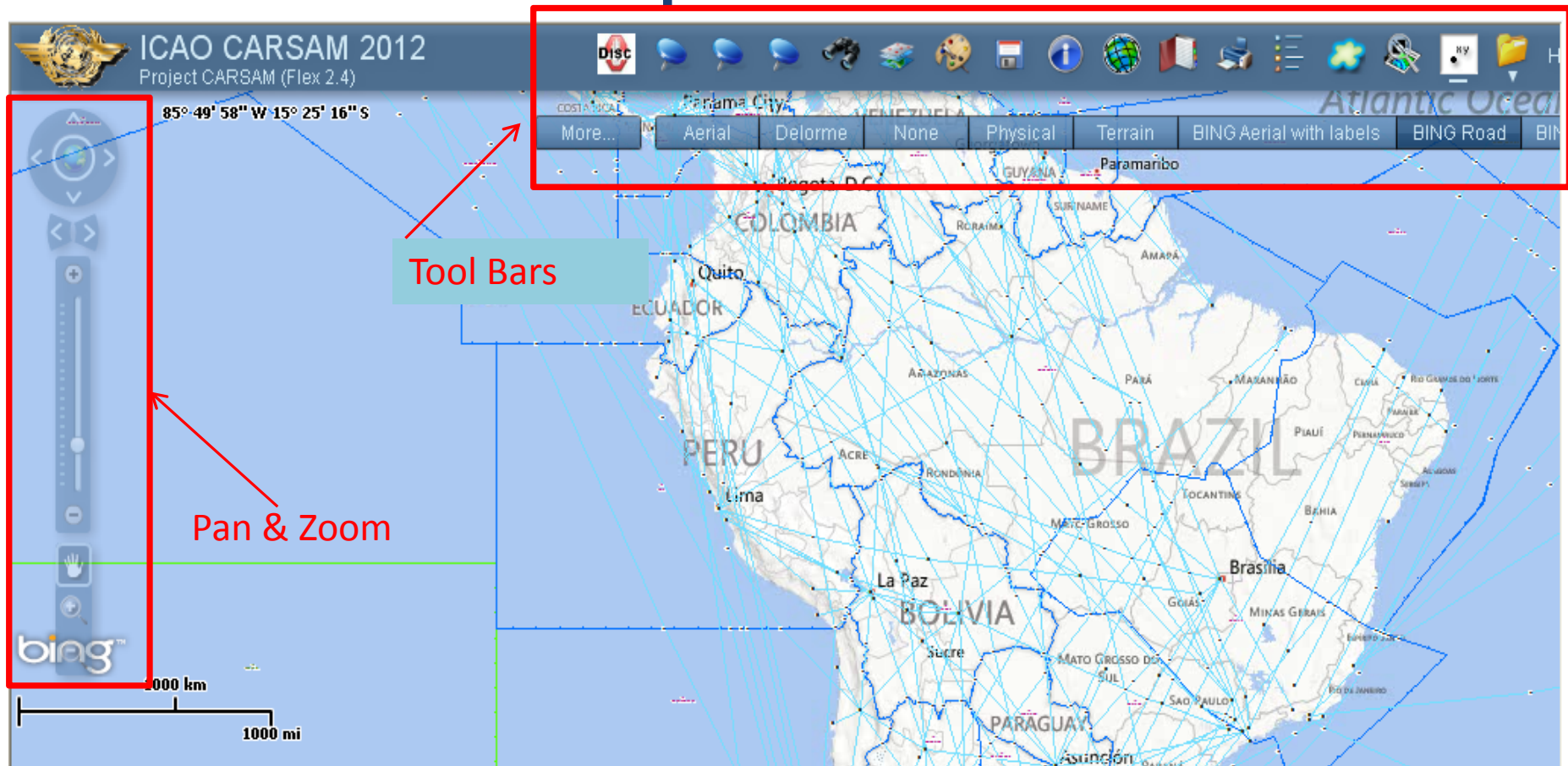
ICAO introduces a new ICAO MAP GALLERY: ICAO Server site



# Frequency Assingments



- **CARSAM ANP Map**



- Contains
  - Maps related to Safety
  - Maps related to Planning
  - Maps related to Efficiency
  - General information maps
- Let us look at some of the features!

# Other Tools Content



- ENOPA
- EFOD
- AOC
- MANNEX

# ENOPA

## Electronic Notice of Proposed Amendment



- ICAO to:

- Replace paper-based State letter processing
- Produce related working paper and State letter
- Generate various reports related to responses to ENOPA State letters

The screenshot displays the ENOPA web application interface. The top header includes the ICAO logo and the text "International Civil Aviation Organization". A user greeting "Welcome Crystal Kim" is visible on the right. The main content area is titled "Notice of Proposed Amendments" and "Search State Letter for State Response". It features a search criteria form with fields for State Letter Number, State Letter Year, State Letter Title, Annex Number, and State/Province. A "Search" button is present. Below the search criteria, a "Search Result" table is shown, listing search results with columns for Action, State Letter Number, State Letter Date, State Letter Title, and Annex Number.

Action	State Letter Number	State Letter Date	State Letter Title	Annex Number
	Test010	7/6/2011	Annx 10	10-1
	Test005	7/14/2011	Test005	6-1.18
	Test004	6/30/2011	Test004	6-1
	Test002	7/12/2011	Test002	6-1.18

# ENOPA

## Electronic Notice of Proposed Amendment



- **States to:**
  - View amendments in progress
  - Provide comments to State letter
  - View history of State responses to amendments
  - View other States' comments

The screenshot displays the ENOPA web application interface. At the top, the ICAO logo and 'International Civil Aviation Organization' are visible. A user greeting 'Welcome Crystal Kim' is on the right. The main content area is titled 'Notice of Proposed Amendments' and 'Search State Letter for State Response'. It includes a search criteria form with dropdowns for 'State Letter Number', 'State Letter Year', and 'Annex Number', and a text input for 'State Letter Title'. A 'Search' button is present. Below the form is a 'Search Result' table with columns for Action, State Letter Number, State Letter Date, State Letter Title, and Annex Number. The table contains four rows of test data.

Action	State Letter Number	State Letter Date	State Letter Title	Annex Number
	Test010	7/6/2011	Annex 10	10-1
	Test005	7/14/2011	Test005	6-1.18
	Test004	6/30/2011	Test004	6-1
	Test002	7/12/2011	Test002	6-1.18



# EFOD

## Electronic Filing of Differences



**STATES** shall give immediate notification to ICAO of the differences between its own practice and that established by the international standard

### Article 36

#### Photographic apparatus

Each contracting State may prohibit or regulate the use of photographic apparatus in aircraft over its territory.

### CHAPTER VI

#### INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

### Article 37

#### Adoption of international standards and procedures

Each contracting State undertakes to collaborate in securing the highest practicable degree of uniformity in regulation, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve navigation.

To this end the International Civil Aviation Organization shall adopt and amend from time to time, as may be necessary,

### Article 38

#### International standards

Any State which finds it impracticable to comply in all respects with such international standard or procedure, or which finds it necessary to adopt regulations or practices differing in any particular respect from those established by an international standard, shall give immediate notification to the International Civil Aviation Organization of the differences between its own practice and that established by the international standard. In the case of amendments to international standards, any State which does not make the appropriate amendments to its own regulations or practices shall give notice to the Council within sixty days of the adoption of the amendment to the international standard, or

indicate the action which it proposes to take. In any such case, the Council shall make immediate notification to all other States of the difference which exists between one or more features of an international standard and national practice of that State.

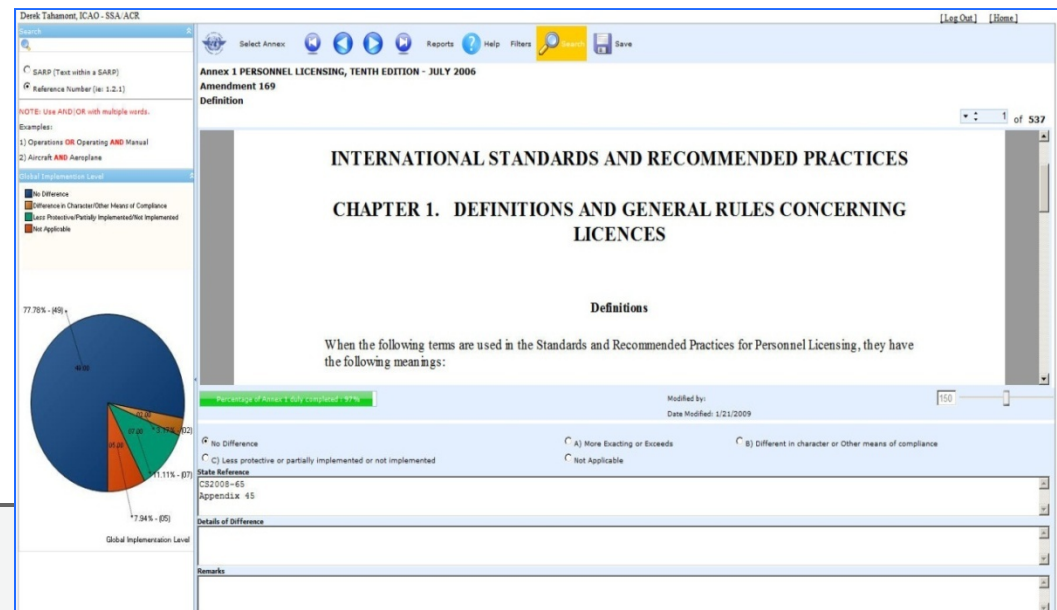
**COUNCIL** shall make immediate notification to all other States of the difference



# GIS Gallery



- **States and ICAO to:**
  - Replace paper-based filing of differences
  - Generate various reports related to States' compliance and difference information
  - On-demand and real-time access to other States' compliance and differences



# Air Operators Certificate (AOC) System



- States
  - Effective & efficient foreign operator surveillance
  - Transparency on validity & currency of AOCs
  - Transparency on Operations Specifications
- Operators
  - Reduced burden on maintaining AOCs and Operations Specifications current on fleet
  - Reduced burden to maintain current info required by States (Phase II)



# Air Operators Certificate (AOC) System



- **AOC system Version 1.0 was launched in July 2013 that allows States to :**
  - upload a dataset of required AOC and operations specifications data, complemented by optional data;
  - search and view AOC and operations specifications issued by other States;
  - print AOC and operations specifications in Annex 6 compliant format;
  - provide validation access for the Operators to their uploaded AOCs and operations specifications

# Air Operators Certificate (AOC) System



- Access at <http://portal.icao.int> Group: AOC
- iKit available at [http://www.icao.int/safety/OASIS/AOC\\_iKit/story.html](http://www.icao.int/safety/OASIS/AOC_iKit/story.html)

# MANNEX – Mobile Annexes

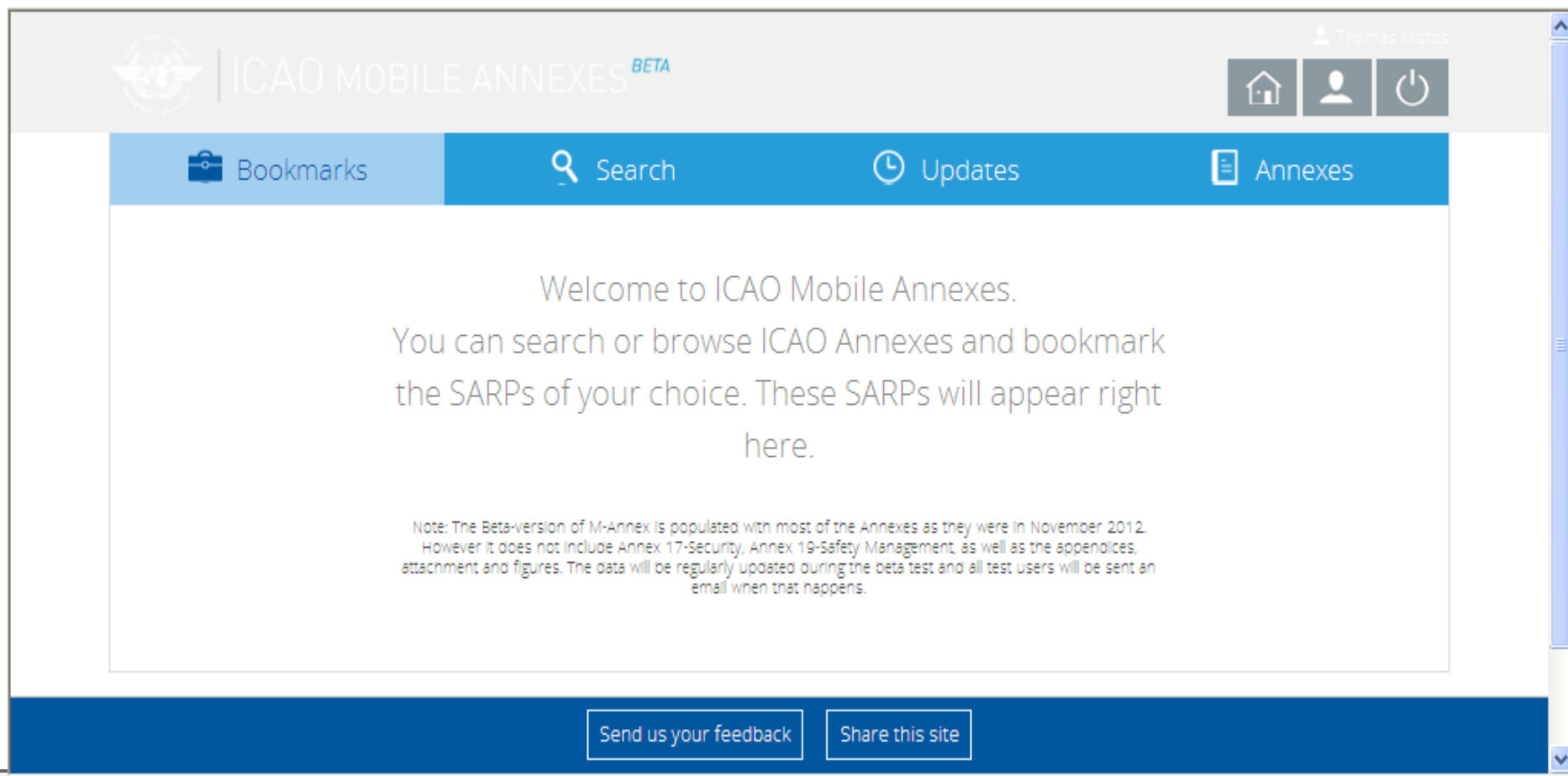


- ICAO's Annexes “on the go”
  - Browse
  - Bookmark
  - Keep track of amendments
  - Designed for mobile devices (tablets, smartphones)

# MANNEX – Mobile Annexes



- Access at <http://www.icao.int/mannex>



North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montreal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Office  
Bangkok



Thank you