



INTERNATIONAL CIVIL AVIATION ORGANIZATION

A United Nations Specialized Agency

USOAP Continuous Monitoring Approach (CMA) Workshop

Module 5

Overview of SPACE 2 — iSTARS

Objective



The objective of this module is to provide an overview of the SPACE 2 – iSTARS to and its functionalities.

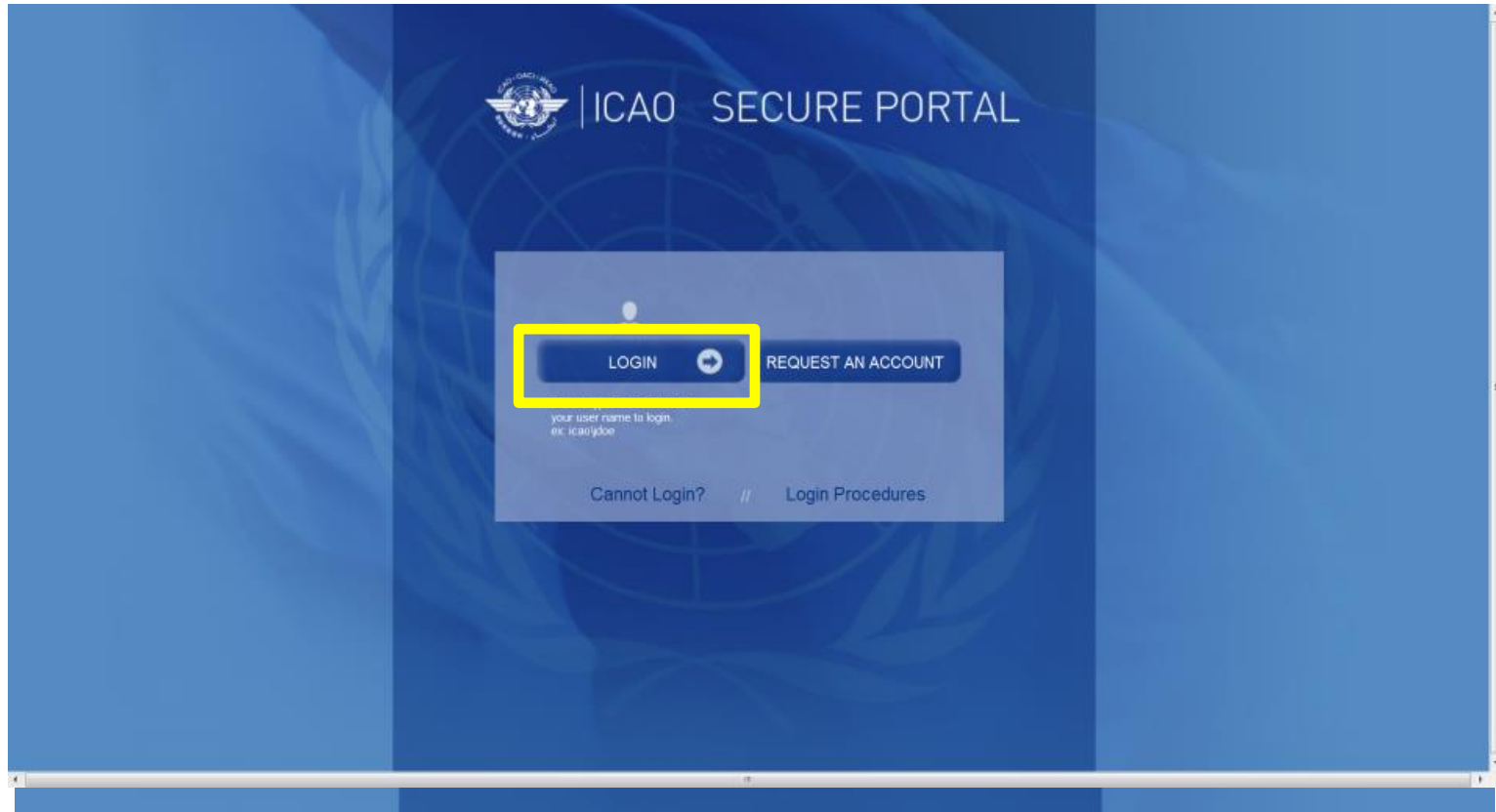
Outline



□ SPACE 2

SPACE 2

Access through portal site



Access through portal site



http://portal.icao.int

A screenshot of the ICAO Secure Portal website. The header is dark blue with the ICAO logo and the text 'ICAO SECURE PORTAL'. Below the header is a navigation bar with three tabs: 'ICAO Secure Portal', 'ICAO Public Site', and 'Profile'. The main content area is white and contains a welcome message: 'Welcome to the ICAO Secure Portal. You have access to the following groups:'. Below this message is a table listing the groups. The 'SPACE' group is highlighted with a blue box.

ICAO-NET	ICAO-NET Secure Site
ARS	Aircraft Registry System;
CMO	Continuous Monitoring and Oversight;
SPACE	iSTARS 2.0 SPACE



SPACE iSTARS 2.0



[HOME](#) | [MY APPS](#) | [CATALOGUE](#) | [GROUP MANAGER](#) | [NEWS](#) | [SUPPORT](#) | [CONTACT US](#) | [PROFILE](#)

Latest News

- 17** OCT MAP Builder released [Read +](#)
- 20** SEP iSTARS 2.0 SPACE (beta) is ready [Read +](#)
- 27** JUN Airport traffic app enhanced [Read +](#)

New App Idea

Viewing safety information online is very convenient. However, it may be useful also to have that information in a consolidated PDF report, to print, share via email or attach to a paper. We propose to add a **Print2PDF feature to all apps.**

100 users want this!

[I want!](#)

Welcome to iSTARS 2.0 SPACE

You and 1 other user are currently online

Hello, **Wajahat!** Welcome to our new website. You have installed **11** apps.

SPACE is the new version of iSTARS. The Catalogue contains all previous iSTARS apps plus some brand new ones. Apps in our new version allow more granular user access and are much faster as they are connected to our cloud based Safety Intelligence Engine (SIE).

Keep in mind that SPACE is still new, so please contact us if you experience any problems.

[Go to Catalogue...](#)

Most Installed Apps

Total Apps Installed: 4102 (+10 per day)

-  USOAP Charts (295)
-  ICAO DOCs (325)
-  ADREP (237)

[Go to my Apps >](#)

Latest Applications

[View full catalogue >](#)



MAP Builder



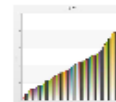
Airport Punctuality



Connections



Airports



USOAP Charts



ADREP

Contact Us

You have a request to make or a comment regarding our website or one of our application?

Please don't hesitate to contact us and share your vision and ideas with us.

[Contact Us!](#)

SPACE iSTARS 2.0



SPACE

iSTARS 2.0

MY APPS | CATALOGUE | GROUP MANAGER | NEWS | SUPPORT | CONTACT US | PROFILE

MY APPS

Allows you to access applications selected by you personally in your platform

List of all applications selected by you

My Applications [Help](#)

Desk 1



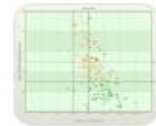
Fleet Info



ADREP



Airports



LEI by Traffic



USOAP Charts



USOAP DataTables



Safety Audit Information



PQ Tester



Safety DNA



USOAP Info



Activity Manager

SPACE iSTARS 2.0



CATALOGUE

Allows you to access all applications available to you by various categories

All categories available to you

All applications available under each category

SPACE iSTARS 2.0

MY APPS | **CATALOGUE** | GROUP MANAGER | NEWS | SUPPORT | CONTACT US | PROFILE

Catalogue

List of available SPACE Applications

The below list contains all applications which are available for you on SPACE based on your user permissions.

Catalogue (20) | Invitations (2) | Owners (0)

Select a category or use the search box

All (20) | Accident Stats (3) | ACE (3) | Airlines (1) | Airports (5) | Documentation (1) | Fleet (2) | Integrated Analysis (7) | Natural Hazards (2) | SSP/SMS (1) | State Information (15) | Traffic (4) | USOAP (8)

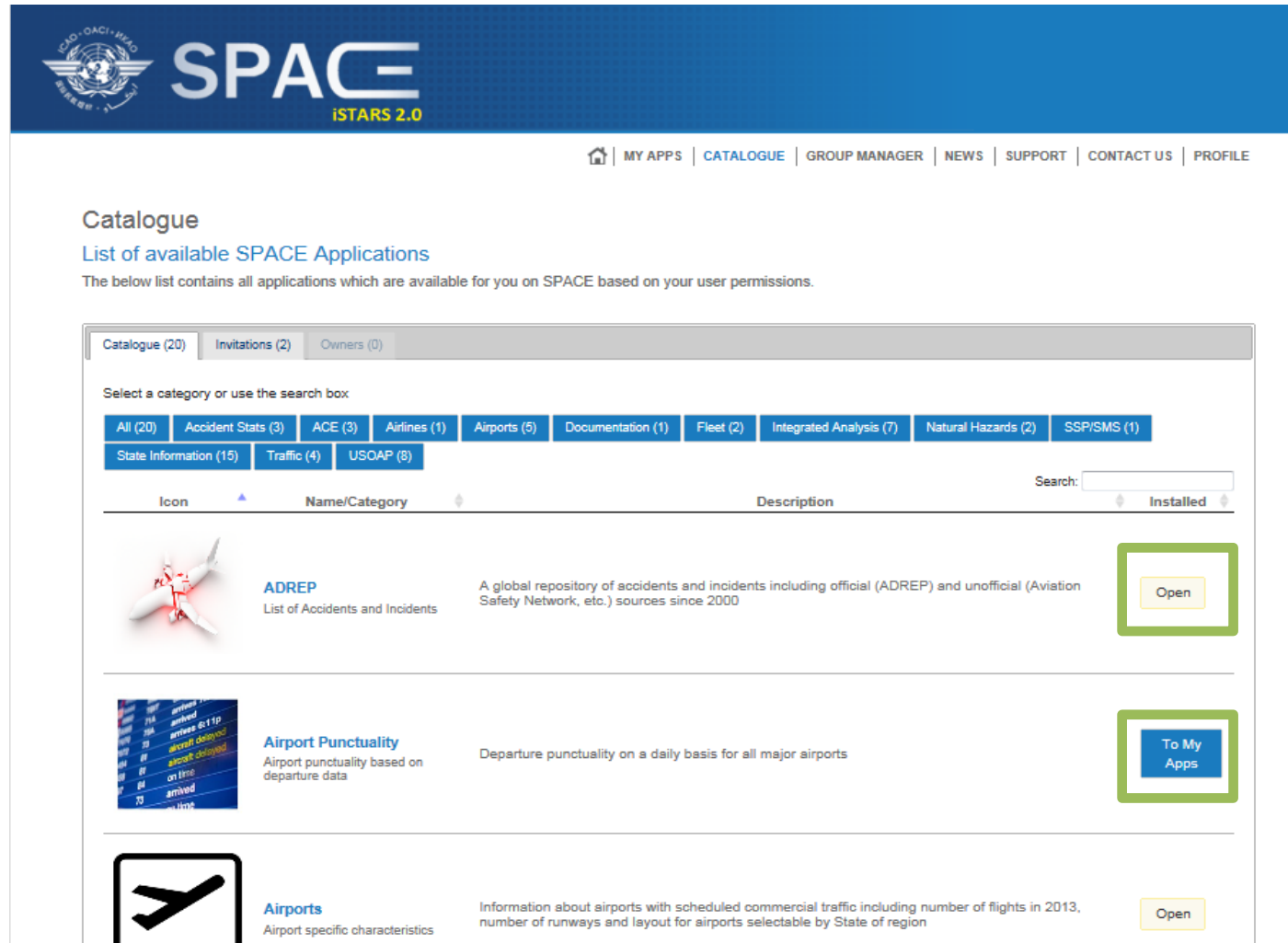
Icon	Name/Category	Description	Installed
	ADREP List of Accidents and Incidents	A global repository of accidents and incidents including official (ADREP) and unofficial (Aviation Safety Network, etc.) sources since 2000	Open
	Airport Punctuality Airport punctuality based on departure data	Departure punctuality on a daily basis for all major airports	To My Apps
	Airports Airport specific characteristics	Information about airports with scheduled commercial traffic including number of flights in 2013, number of runways and layout for airports selectable by State of region	Open

To my Apps




You must select this option if you would like to include the application as part of your personal platform (**MY APPS**)

Open

This appears if the application is already part of your personal platform (**MY APPS**)



The screenshot shows the 'Catalogue' page of the SPACE iSTARS 2.0 application. The page header includes the ICAO OACI ICAO logo and the text 'SPACE iSTARS 2.0'. The navigation menu contains links for 'MY APPS', 'CATALOGUE', 'GROUP MANAGER', 'NEWS', 'SUPPORT', 'CONTACT US', and 'PROFILE'. The main content area is titled 'Catalogue' and 'List of available SPACE Applications'. Below this, a message states: 'The below list contains all applications which are available for you on SPACE based on your user permissions.' The application list is displayed in a table with columns for 'Icon', 'Name/Category', 'Description', and 'Installed'. The 'Installed' column contains buttons for 'Open' or 'To My Apps'. The first application is 'ADREP' (List of Accidents and Incidents), the second is 'Airport Punctuality' (Departure punctuality based on departure data), and the third is 'Airports' (Airport specific characteristics). The 'To My Apps' button for 'Airport Punctuality' is highlighted with a green border.

Icon	Name/Category	Description	Installed
	ADREP List of Accidents and Incidents	A global repository of accidents and incidents including official (ADREP) and unofficial (Aviation Safety Network, etc.) sources since 2000	Open
	Airport Punctuality Airport punctuality based on departure data	Departure punctuality on a daily basis for all major airports	To My Apps
	Airports Airport specific characteristics	Information about airports with scheduled commercial traffic including number of flights in 2013, number of runways and layout for airports selectable by State of region	Open

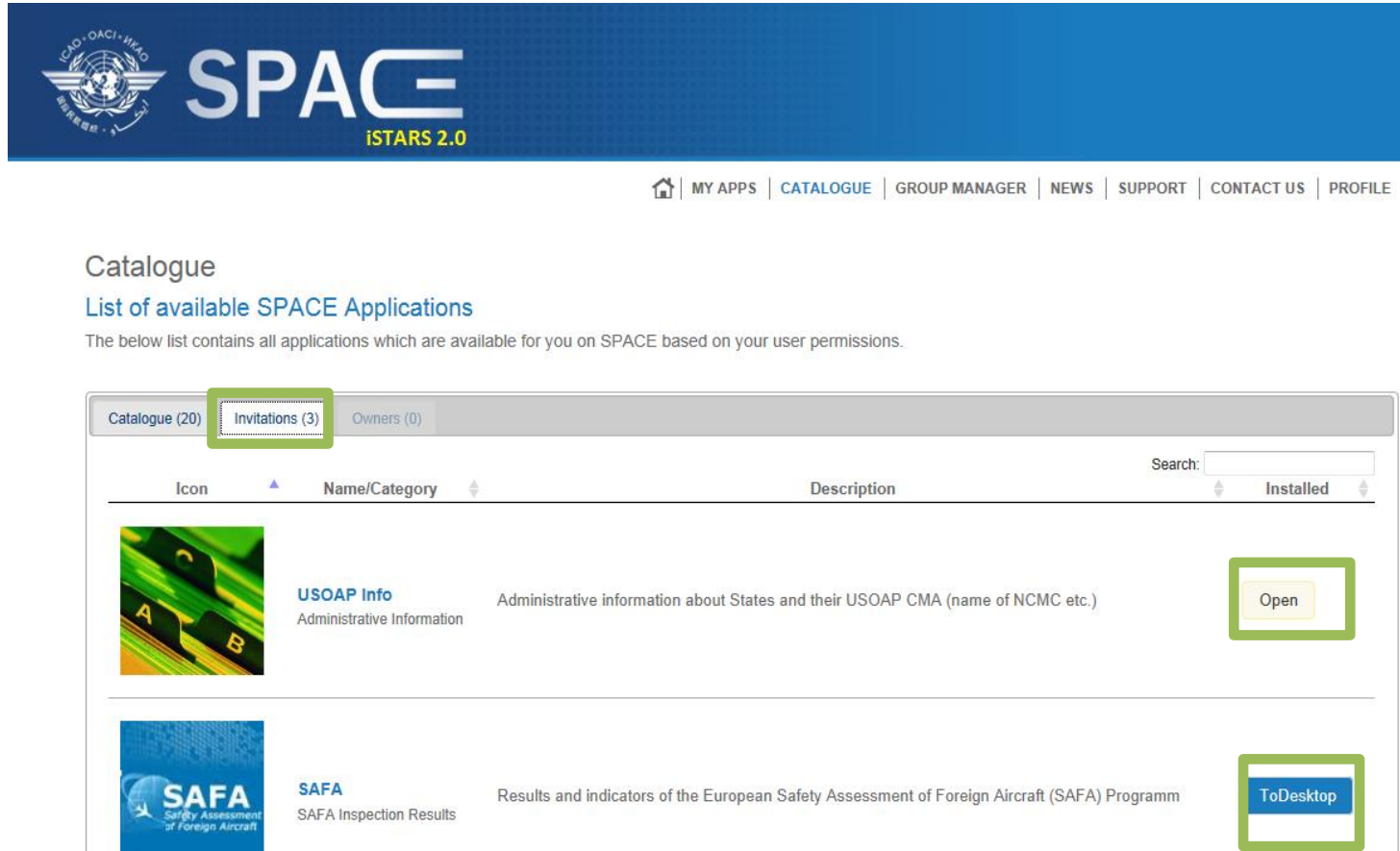
Invitations

Allows you to access applications by permission.

To Desktop

This appears if the application is not yet part of your personal platform (**MY APPS**). Click on it to include in you desktop/platform **Open**


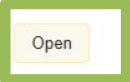


This appears if the application is already part of your personal platform (**MY APPS**)



Catalogue

[List of available SPACE Applications](#)

The below list contains all applications which are available for you on SPACE based on your user permissions.

Icon	Name/Category	Description	Installed
	USOAP Info Administrative Information	Administrative information about States and their USOAP CMA (name of NCMC etc.)	
	SAFA SAFA Inspection Results	Results and indicators of the European Safety Assessment of Foreign Aircraft (SAFA) Programm	

SPACE iSTARS 2.0



EXAMPLE 1

Here's how the [My Applications](#) tab is used.

LEI by Traffic

Let's see this application in depth

My Applications [Help](#)

Desk 1

Fleet Info

ADREP

Airports

LEI by Traffic

USOAP Charts

USOAP DataTables

Safety Audit Information

PQ Tester

Safety DNA

USOAP Info

Activity Manager

SAFA

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LEI by Traffic

Measured as the LEI for individual States by their number of schedule departures
Allows you to see the regional/global trend.

Choose your predictor(s)

Choose between one of the predicting indicators below.

Overall LEI

Build a priority list

Above the trend line (highlighted) are usually States of concern for ICAO as they represent States with LEI higher than the trend. This is used as one of the factors for prioritization of USOAP activities in the regions

LEI by Traffic

Safety risk analysis

The below chart shows USOAP LEI versus commercial scheduled departures in 2013 per State for a defined group of States.

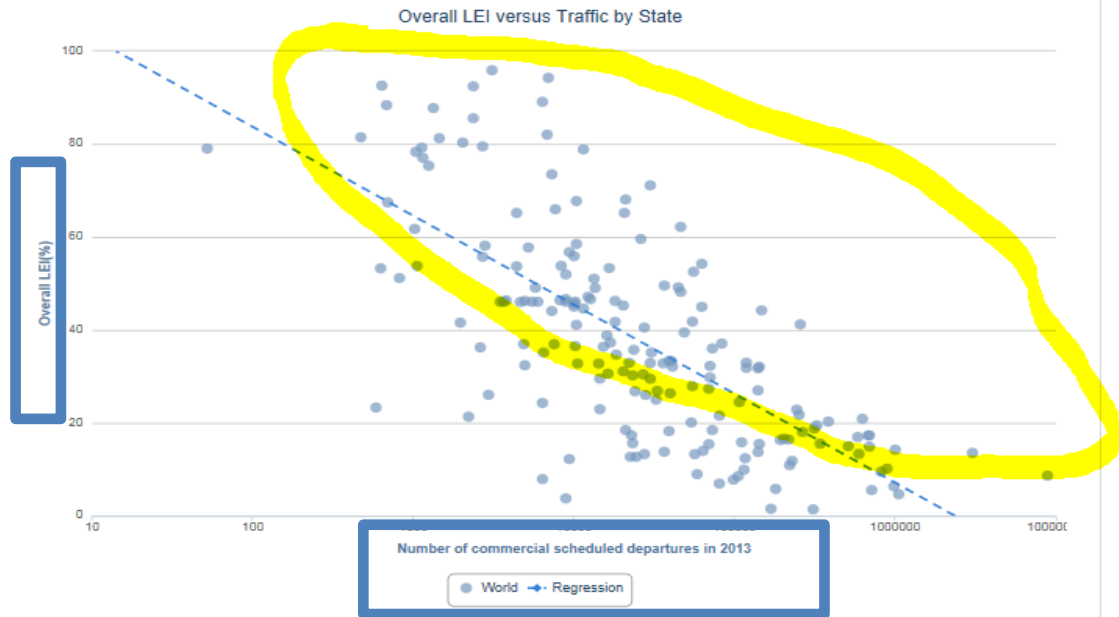
You can select a group of States from the drop-down menu. If a specific group of States does not exist, you can create that group through the "Manage my groups" section on the left. you can also view the composition of a selected group.

The LEI values may differ slightly from those published in the USOAP audit reports that were published from the period 2006 to 2010 due to changes in the LEI calculation algorithm as well as changes in the protocol question grouping structure performed since the State's audit.

World Show State Names

[View group composition](#)

[Generate graph](#)



Graph generation

Can be done for the world or various predetermined regions and sub regions/categories

State names can also be identified by ticking in the box.

LEI by Traffic

Safety risk analysis

The below chart shows USOAP LEI versus commercial scheduled departures in 2013 per State for a defined group of States.

You can select a group of States from the drop-down menu. If a specific group of States does not exist, you can create that group through the "Manage my groups" section on the left. you can also view the composition of a selected group.

The LEI values may differ slightly from those published in the USOAP audit reports that were published from the period 2006 to 2010 due to changes in the LEI calculation algorithm as well as changes in the protocol question grouping structure performed since the State's audit.



SPACE iSTARS 2.0



EXAMPLE 2

Here's how the [My Applications](#) tab is used.

USOAP Data tables

This is another application very useful for States to measure their performances versus other States

My Applications [Help](#)

Desk 1

- Fleet Info
- ADREP
- Airports
- LEI by Traffic
- USOAP Charts
- USOAP Data Tables**
- Safety Audit Information
- PQ Tester
- Safety DNA
- USOAP Info
- Activity Manager
- SAFA

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USOAP Data Tables
 Allows States to measure their effective implementation (EI) or lack of effective implementation (LEI) by **audit areas** or by **Critical Elements**



SPACE iSTARS 2.0

MY APPS | CATALOGUE | GROUP MANAGER | NEWS | SUPPORT | CONTACT US | PROFILE



Export Data

Export the data (csv format).

CSV

USOAP Data Tables

Implementation Indicators

View or download the Lack of Effective Implementation (LEI) data in table format for each State evaluated by USOAP and LEI by area and critical element

Select an Indicator: **Effective Implementation (EI)**

By Area By CE

Name	Overall	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA
Albania	53.92	46.43	45.45	47.06	51.16	50.96	28.57	74.51	52.78
Algeria	58.19	42.86	50	62.5	66.13	68.38	38.14	55.61	60.54
Andorra	26.33	71.43	54.55	66.67	35.71	51.28	12.36	15.38	13.25
Angola	34.8	76.19	72.73	36.71	60	85.32	6.32	9.09	17.78
Antigua and Barbuda	53.92	71.43	75	86.49	92.62	74.17	68.75	16.32	22.92
Argentina	86.25	90.48	92.31	91.78	90.63	92.66	96.84	72.82	81.88
Armenia	96.22	100	83.33	93.51	91.34	99.15	90.72	99.49	99.32
Australia	82.67	77.27	100	82.72	71.31	76.8	96.97	81.31	91.03
Austria	72.99	68.18	64.29	96.78	85.48	95.71	59.38	67.51	44.22
Azerbaijan	58.25	31.82	41.67	68.42	61.9	86.96	44.79	47.72	55.77
Bahamas	45.76	47.37	27.27	73.02	76.42	77.88	65.63	23.23	2.14
Bahrain	66.62	52.38	54.55	75.95	50	86.92	72.16	56.41	73.79
Bangladesh	50.45	33.33	53.85	65.82	81.15	72.97	3.09	34.67	54.68
Barbados	54.3	71.43	72.73	65.71	45.16	52.38	46.39	55.79	57.66
Belarus	53.39	66.67	41.67	57.5	63.41	54.05	59.79	43.61	49.65
Belgium	67.03	72.73	50	82.05	78.4	82.52	37.23	48.48	78.21
Belize	63.99	60.87	78.57	75	56	69.03	32.99	73.85	68.03
Benin	42.26	57.14	57.14	53.16	56.67	72.38	1.03	28.26	44.37
Bhutan	38.26	40.91	36.36	58.73	51.22	53.98	1.03	11.23	68.99
Bolivia (Plurinational State of)	72.08	80.95	50	93.75	79.84	83.93	74.74	46.88	76.67
Bosnia and Herzegovina	67.57	66.67	61.54	88	69.05	76.42	48.96	61.03	71.22
Botswana	53.37	71.43	41.67	55	41.73	63.89	70.53	51.56	43.8
Brazil	85.75	80.95	93.33	91.46	80.95	83.8	95.83	95.41	69.59
Brunei Darussalam	84.84	76.19	100	83.61	49.58	85.96	37.11	55.15	70.73

SPACE iSTARS 2.0



EXAMPLE 3

Here's how the [My Applications](#) tab is used.

USOAP Charts

Finally another application very useful for States to measure their performances versus other States and regions and to help States conduct a detailed analysis all the way down to individual PQs can be done using this application

My Applications [Help](#)

Desk 1

- Fleet Info
- ADREP
- Airports
- LEI by Traffic
- USOAP Charts**
- USOAP DataTables
- Safety Audit Information
- PQ Tester
- Safety DNA
- USOAP Info
- Activity Manager
- SAFA

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USOAP Charts
By selecting the regional or global average, States can measure their effective **over all** implementation against the selection

[HOME](#) | [MY APPS](#) | [CATALOGUE](#) | [GROUP MANAGER](#) | [NEWS](#) | [SUPPORT](#) | [CONTACT US](#) | [PROFILE](#)

Options

Show statistical lines and bands on the chart

Numbers as EI (100-LEI)

Help

USOAP Charts

State USOAP data

These two column charts display the lack of effective implementation for the selected group of States. Clicking on a column on the upper graph will generate the view for that area on the lower graph.

You can select a group of States from the drop-down menu. If a specific group of States does not exist, you can create that group through the "Manage my groups" section on the left. You can also view the composition of a selected group. By clicking or hovering over the bars in the graph, a bubble tooltip appears with the name of the State. Clicking on that name brings you to the detailed USOAP results for that State (not implemented on iPads).

The LEI values may differ slightly from those published in the USOAP audit reports that were published from the period 2006 to 2010 due to changes in the LEI calculation algorithm as well as changes in the protocol question grouping structure performed since the State's audit.

Select Group World and State Canada

Toggle Distribution Chart
 Toggle Timeline Chart

Overall EI

Canada versus World

State EI: 95.33% World Av.: 61.81%

EI (%)

EI by Area

Canada versus World

Area	EI (%)
LEG	90.37%
ORG	93.75%
PEL	97.02%
OPS	89.02%
AIR	96.31%
AIG	91.00%
ANS	89.00%
AGA	98.79%

EI by CE

Canada versus World

CE	EI (%)
CE1	96.05%
CE2	96.05%
CE3	98.11%
CE4	97.87%
CE5	94.87%
CE6	92.78%
CE7	98.84%
CE8	92.31%

2 February 2016

Page 18

This analysis can be done in further details by audit Areas and by CEs

[Home](#) | [MY APPS](#) | [CATALOGUE](#) | [GROUP MANAGER](#) | [NEWS](#) | [SUPPORT](#) | [CONTACT US](#) | [PROFILE](#)

Options

Show statistical lines and bands on the chart

Numbers as EI (100-LEI)

Help

USOAP Charts

State USOAP data

These two column charts display the lack of effective implementation for the selected group of States. Clicking on a column on the upper graph will generate the view for that area on the lower graph.

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The LEI values may differ slightly from those published in the USOAP audit reports that were published from the period 2006 to 2010 due to changes in the LEI calculation algorithm as well as changes in the protocol question grouping structure performed since the State's audit.

Select Group World and State Canada

[Toggle Distribution Chart](#) [Toggle Timeline Chart](#)

Overall EI

Canada versus World

State EI	95.33 %
World Av.	61.81 %

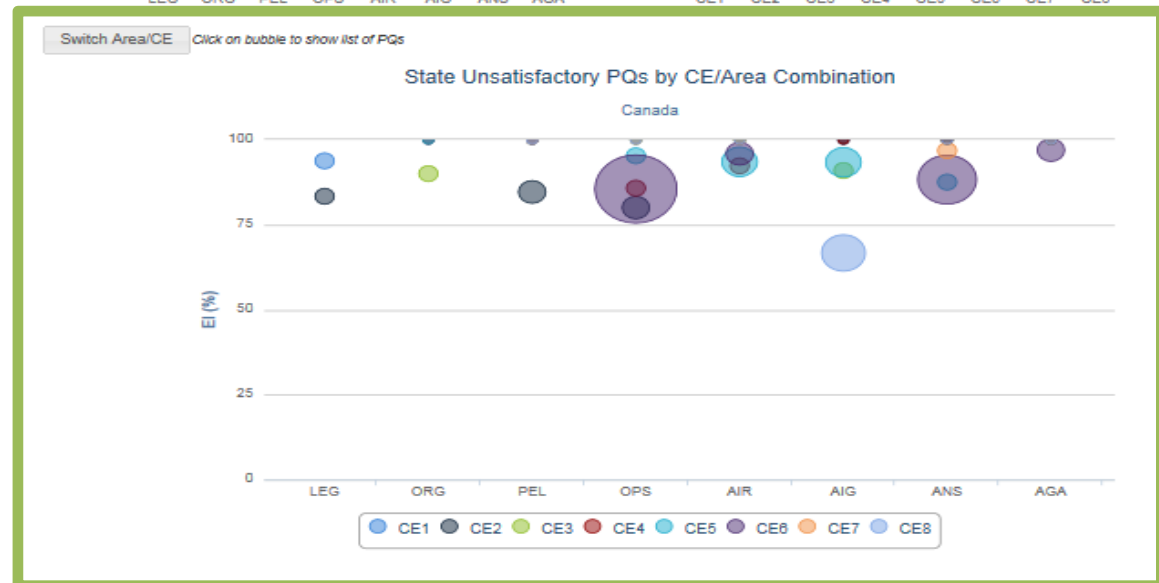
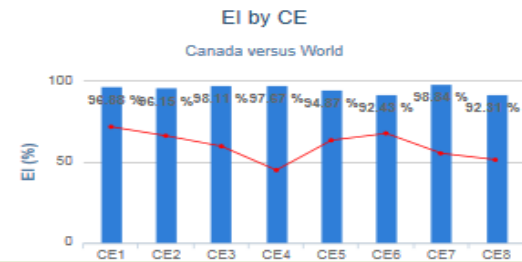
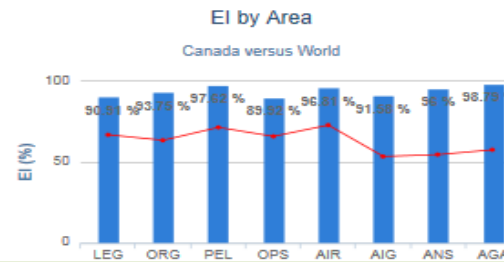
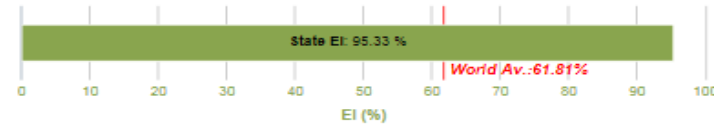
EI by Area

Area	EI (%)
LEG	90.37 %
ORG	93.75 %
PEL	97.02 %
OPS	89.82 %
AIR	96.31 %
AIG	91.88 %
ANS	98.11 %
AGA	98.79 %

EI by CE

CE	EI (%)
CE1	96.85 %
CE2	96.85 %
CE3	98.11 %
CE4	97.87 %
CE5	94.87 %
CE6	92.78 %
CE7	98.84 %
CE8	92.31 %

This analysis can be done even further by separating each audit area by CE (each combination represented by a circle)

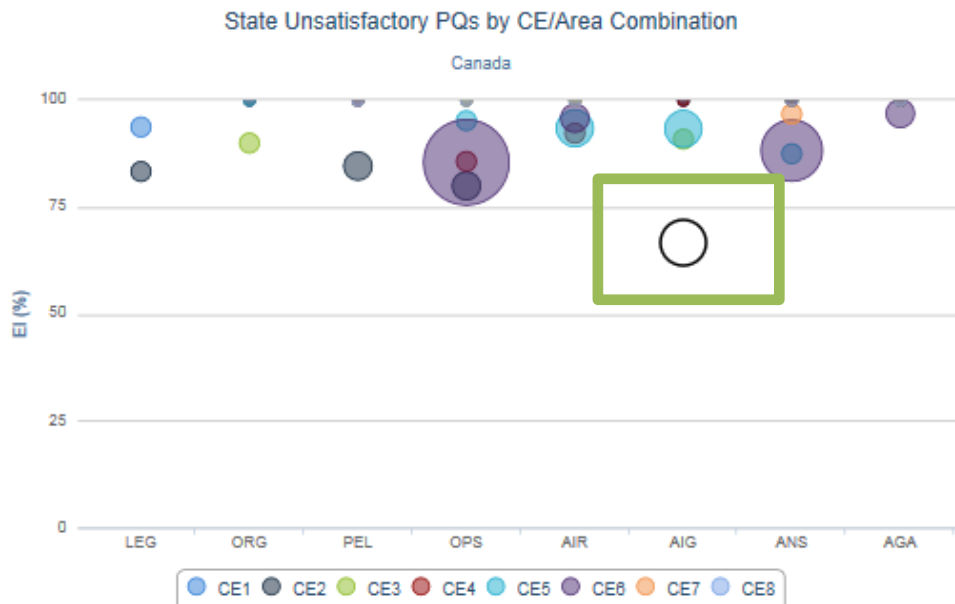


By scrolling over any one of the circles (each representing a CE) users can further determine what are the EI and LEI implementations broken down by CE under each Audit area.

For example: Going over the BLUE circle we find out that there are 4 not satisfactory PQs in the AIG audit area representing CE 8 and the total Effective Implementation of this AIG-CE8 combination is 66.67%



By clicking on the circle, one can determine which are the PQs that were identified as not satisfactory in the circle for the combination selected in the previous slide (AIG – CE8).



Unsatisfactory PQs (4) for CAN in CE8 related to AIG

Search:

PQNumber	Question	Area	CE
6.431	Has the State, as the State conducting the investigation, developed and implemented procedures to ensure that it sends preliminary reports, when the aircraft involved in an accident is of a maximum mass of over 2 250 kg, to all involved States and ICAO?	AIG	8
6.435	Has the State, as the State conducting the investigation, developed and implemented procedures to ensure that it sends accident data reports involving aircraft of a maximum mass of over 2 250 kg to ICAO, as soon as practicable after the investigation?	AIG	8
6.437	Has the State, as the State conducting the investigation, developed and implemented procedures to ensure that it sends incident data reports to ICAO for investigations into incidents to aircraft of a maximum mass of over 5 700 kg?	AIG	8
6.509	Is the database created in a standardized format to facilitate data exchange?	AIG	8

Showing 1 to 4 of 4 entries

SPACE iSTARS 2.0



Many other interesting applications can be used by users to measure their States performances vs. their region or the global averages.

The screenshot displays the SPACE iSTARS 2.0 dashboard. At the top left is the ICAO logo and the text 'SPACE iSTARS 2.0'. A navigation bar on the right contains links: MY APPS, CATALOGUE, GROUP MANAGER, NEWS, SUPPORT, CONTACT US, and PROFILE. Below the navigation bar, the text 'My Applications' is followed by a 'Help' link. A 'Desk 1' tab is visible. The main area contains a grid of 12 application icons, each with a label below it:

- Fleet Info
- ADREP
- Airports
- LEI by Traffic
- USOAP Charts
- USOAP DataTables
- Safety Audit Information
- PQ Tester
- Safety DNA
- USOAP Info
- Activity Manager
- SAFA

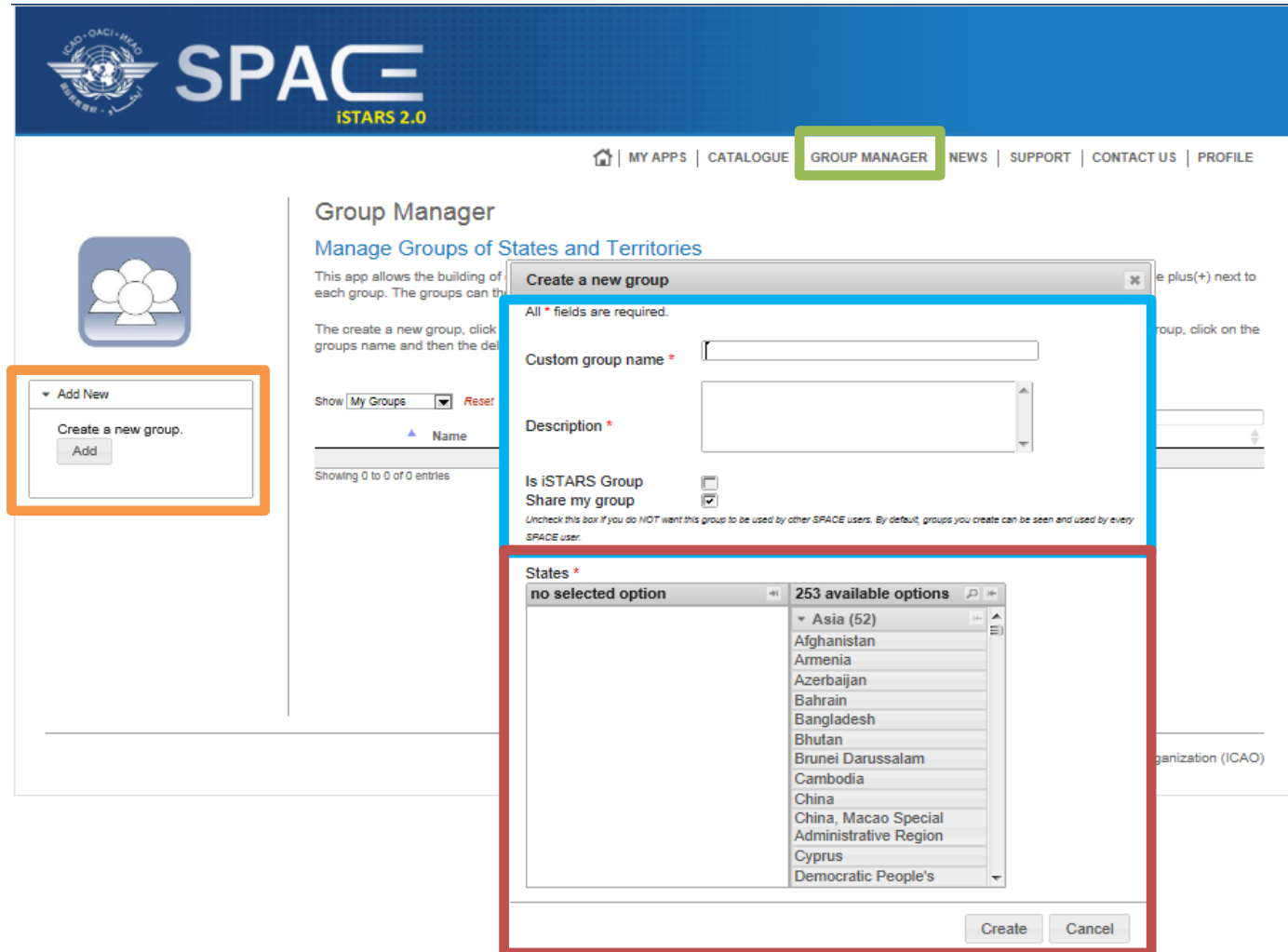
At the bottom right of the dashboard, there is a copyright notice: © International Civil Aviation Organization (ICAO).

You can create your own group for analysis by clicking on

Create a new group

and by filling in the required fields

and finally by selecting States of your interest and clicking on “Create”



The screenshot displays the 'Group Manager' interface for 'Manage Groups of States and Territories'. The 'GROUP MANAGER' tab is highlighted in the navigation bar. A 'Create a new group' modal window is open, showing the following fields:

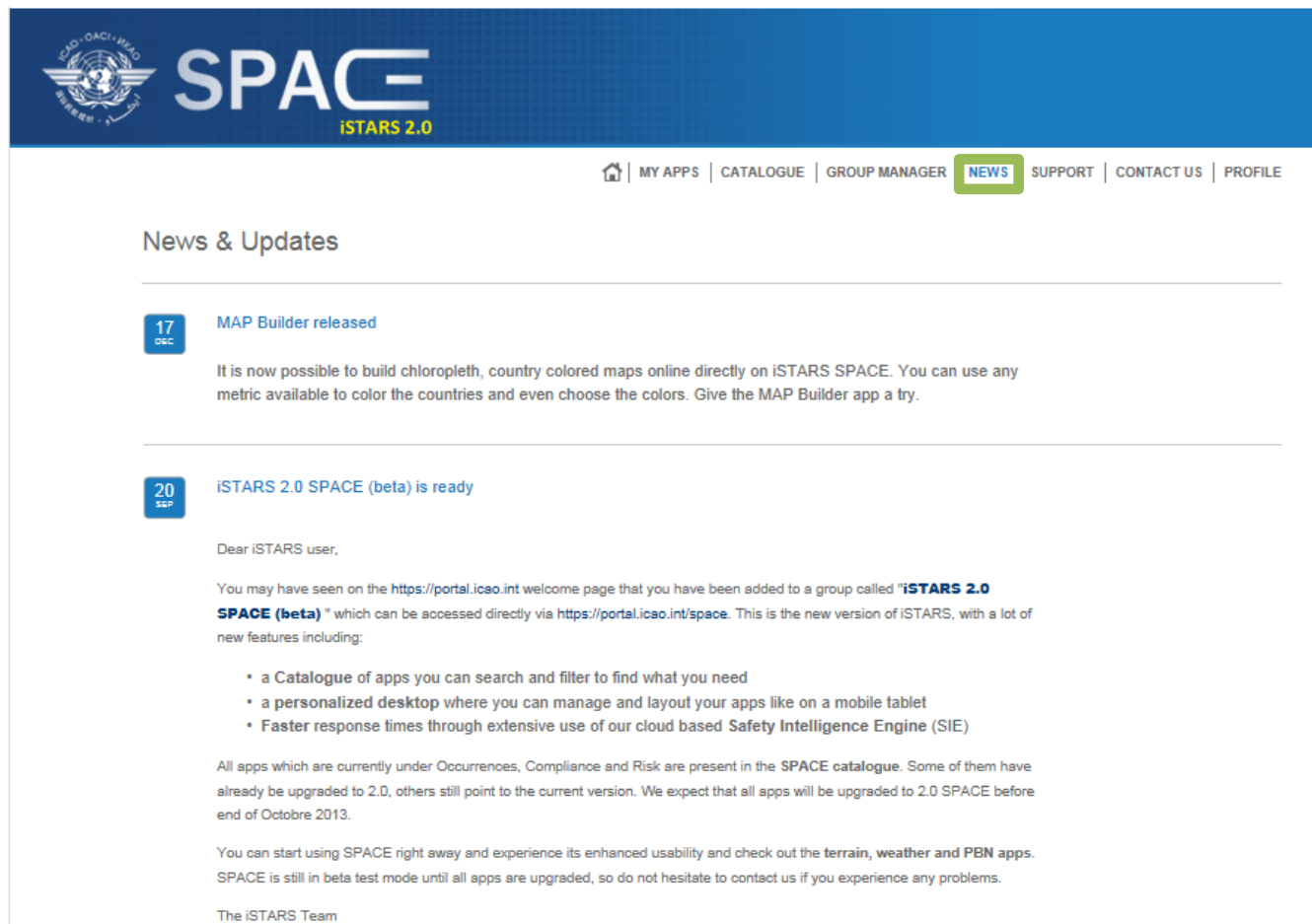
- Custom group name ***: A text input field.
- Description ***: A text area.
- Is iSTARS Group**: A checkbox (unchecked).
- Share my group**: A checkbox (checked).

Below the form, a 'States' dropdown menu is open, showing 253 available options. The visible options include:

- no selected option
- Asia (52)
- Afghanistan
- Armenia
- Azerbaijan
- Bahrain
- Bangladesh
- Bhutan
- Brunei Darussalam
- Cambodia
- China
- China, Macao Special Administrative Region
- Cyprus
- Democratic People's

The 'Create' and 'Cancel' buttons are visible at the bottom of the modal.

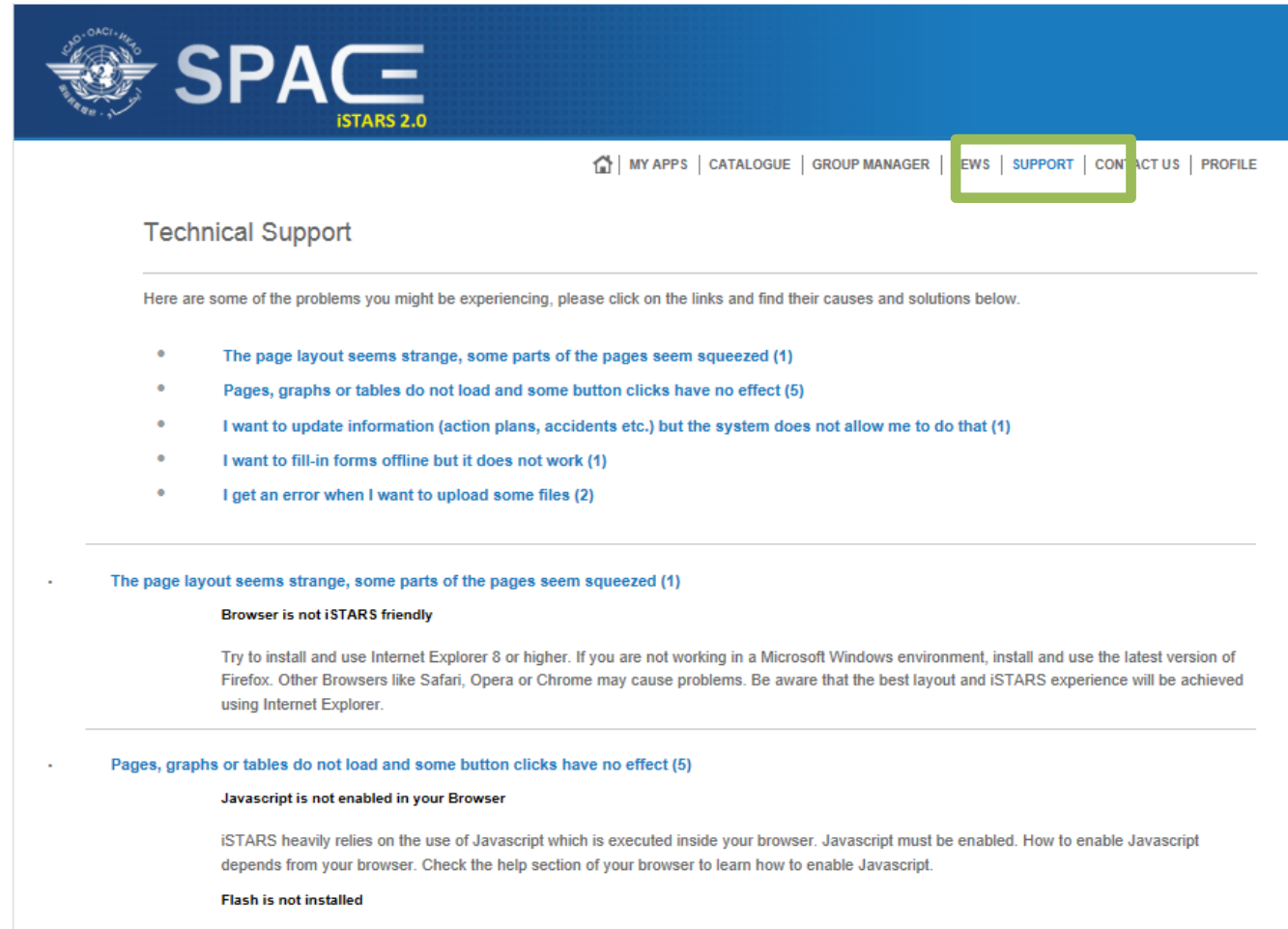
Any modifications or introduction of new applications will be identified through the “NEWS” tab



The screenshot shows the top navigation bar with the ICAO logo and the text "SPACE iSTARS 2.0". The navigation menu includes "MY APPS", "CATALOGUE", "GROUP MANAGER", "NEWS" (highlighted in a green box), "SUPPORT", "CONTACT US", and "PROFILE". Below the navigation is a "News & Updates" section with two news items:

- 17 DEC** MAP Builder released
It is now possible to build choropleth, country colored maps online directly on iSTARS SPACE. You can use any metric available to color the countries and even choose the colors. Give the MAP Builder app a try.
- 20 SEP** iSTARS 2.0 SPACE (beta) is ready
Dear iSTARS user,
You may have seen on the <https://portal.icao.int> welcome page that you have been added to a group called "iSTARS 2.0 SPACE (beta)" which can be accessed directly via <https://portal.icao.int/space>. This is the new version of iSTARS, with a lot of new features including:
 - a Catalogue of apps you can search and filter to find what you need
 - a personalized desktop where you can manage and layout your apps like on a mobile tablet
 - Faster response times through extensive use of our cloud based Safety Intelligence Engine (SIE)All apps which are currently under Occurrences, Compliance and Risk are present in the SPACE catalogue. Some of them have already be upgraded to 2.0, others still point to the current version. We expect that all apps will be upgraded to 2.0 SPACE before end of Octobre 2013.
You can start using SPACE right away and experience its enhanced usability and check out the terrain, weather and PBN apps. SPACE is still in beta test mode until all apps are upgraded, so do not hesitate to contact us if you experience any problems.
The iSTARS Team

Questions and answers (Q&A) service can be attained through the “**SUPPORT**” tab



The screenshot shows the top navigation bar of the SPACE iSTARS 2.0 website. The 'SUPPORT' link is highlighted with a green rectangular box. Below the navigation bar, the 'Technical Support' section is visible, containing a list of common user issues and their solutions.

Technical Support

Here are some of the problems you might be experiencing, please click on the links and find their causes and solutions below.

- [The page layout seems strange, some parts of the pages seem squeezed \(1\)](#)
- [Pages, graphs or tables do not load and some button clicks have no effect \(5\)](#)
- [I want to update information \(action plans, accidents etc.\) but the system does not allow me to do that \(1\)](#)
- [I want to fill-in forms offline but it does not work \(1\)](#)
- [I get an error when I want to upload some files \(2\)](#)

- [The page layout seems strange, some parts of the pages seem squeezed \(1\)](#)
 - Browser is not iSTARS friendly**

Try to install and use Internet Explorer 8 or higher. If you are not working in a Microsoft Windows environment, install and use the latest version of Firefox. Other Browsers like Safari, Opera or Chrome may cause problems. Be aware that the best layout and iSTARS experience will be achieved using Internet Explorer.

- [Pages, graphs or tables do not load and some button clicks have no effect \(5\)](#)
 - Javascript is not enabled in your Browser**

iSTARS heavily relies on the use of Javascript which is executed inside your browser. Javascript must be enabled. How to enable Javascript depends from your browser. Check the help section of your browser to learn how to enable Javascript.
- Flash is not installed**

SPACE iSTARS 2.0



SPACE 2 – iSTARS administrator can be contacted by using the “CONTACT US” tab for continuous assistance.


The screenshot shows the top navigation bar of the SPACE iSTARS 2.0 website. The 'CONTACT US' link is highlighted with a green rectangular box. Below the navigation bar, the 'Contact Us' section is visible, containing contact information for Mr. Marco Merens, including telephone, fax, and email addresses, as well as the mailing address for SPACE- ANB at the International Civil Aviation Organization (ICAO) in Montreal, Quebec.


CONTACT US

Home | MY APPS | CATALOGUE | GROUP MANAGER | NEWS | SUPPORT | **CONTACT US** | PROFILE

Contact Us

Feel free to provide us with your feedback such as general comments, bugs found or specific requests for SPACE by contacting us through the information below. The SPACE team reads every submission and replies to it in due time.

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 **Fax:: +1 514-954-8759**
Email: SPACE@icao.int

Mailing Address:
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Review



□ SPACE 2



ICAO

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Central American
and Caribbean
(NACC) Office
Mexico City

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(SAM) Office
Lima

ICAO
Headquarters
Montréal

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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) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU