International Civil Aviation Organization

The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/22)

Bangkok, Thailand, 25 – 29 June 2012

Agenda Item 4:   Review outcome of relevant meetings

COMBINED ASIOACG/INSPIRE WORKING GROUP OUTCOMES
(Dubai, UAE 22 and 23 May 2012)

(Presented by the ASIOACG Secretary)

SUMMARY

This paper presents the outcomes of the Combined Arabian Sea/Indian Ocean ATS Coordination Group (ASIOACG) and Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE) Working Group meeting which was hosted by Emirates Airline in Dubai, UAE from 22 until 23 May 2012.

This paper relates to –

Strategic Objectives:
> A: **Safety** – *Enhance global civil aviation safety*
> C: **Environmental Protection and Sustainable Development of Air Transport** – *Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-5   RNAV and RNP (Performance-based navigation)
GPI-7   Dynamic and flexible ATS route management
GPI-8   Collaborative airspace design and management
GPI-17 Data link applications
GPI-21 Navigation systems

1.   INTRODUCTION

1.1   The combined Meeting of the ASIOACG Working Group and INSPIRE was hosted by Emirates Airline in Dubai, United Arab Emirates on 22nd and 23rd May 2012. The purpose of the meeting was to build on the work undertaken during the combined meetings of INSPIRE/2 and ASIOACG/6 (Cape Town, South Africa 29 November – 01 December 2011).

1.2   The meeting was attended by 32 participants from Australia, Ethiopia, India, Kenya, Madagascar, Maldives, Oman, Seychelles, Somalia, South Africa, Sri Lanka, United Arab Emirates, IATA and member airlines. Apologies were received from ASECNA Côte d'Ivoire and Singapore Airlines.

2.   DISCUSSION

Update on development of plans and action items since ASIOACG/6

2.1   Airservices Australia provided the meeting with information on plans to remove the IORRA (Indian Ocean Random RNAV Area) from the Melbourne FIR with effect from AIRAC date 28 June 2012. The IORRA rules will be replaced with an updated set of requirements that simplified the planning process and brought the Indian Ocean rules in line with standard Australian "Off Air Route" planning requirements.

2.2   Airservices has progressively introduced a large number of Flex Tracks and UPRs and modernised the requirements for flight planning these "Off Air route Operations" (OAO). These have all been consolidated into the *"Off Air Routes Planning Manual"* (OARP), which can now be accessed through the Airservices website at: http://www.airservicesaustralia.com/flight-briefing/off-air-route-flight-planning-options/

2.3   The meeting noted with appreciation the work that had been undertaken between Maldives Airports Company Ltd, Airport and Aviation Services Sri Lanka and Airservices Australia in regard to reactivating Waypoint SABEK. A series of AFTN messaging trials would be conducted between Melbourne, Male and Colombo ACCs commencing in August 2012. This would be followed by AIDC messaging trials in the latter part of 2012.

2.4   Ethiopia provided the meeting with an update on the ADS-B implementation program within the Addis Ababa FIR, which had been initiated by the Ethiopia CAA in 2009.

2.5   Airports Authority of India provided information on four key initiatives enhance which are intended to enhance safety, efficiency and environmental protection. These include:

   a) Implementation of RHS in step with ICAO regional plan;

   b) Upper airspace harmonization in Chennai FIR;

   c) Connector routes in the Mumbai FIR; and

   d) SATCOM Services Logon/Connection in the Mumbai FIR. The SATCOM services have been notified via NOTAM A0397/12 Dated12/04/03.

2.6   Kenya CAA informed the meeting that with the current performance contracting model of measuring performance and targets the KCAA has made tremendous strides towards improving on the infrastructure and personnel skills. The meeting was provided with highlights on the recent improvements made in the management of the airspace, its structure and capacity building.

2.7   Maldives (MACL) provided the meeting with an update on the current status and ongoing activities relating to communication and surveillance systems. Upgrading of the ATS system by the equipment supplier is expected to be completed by the end of June 2012.

2.8   Maldives (Male ACC) has signed an agreement with Mumbai and Chennai in the 2nd BOBASIO meeting held at Chennai last month, regarding the provision of AIDC between afore mentioned ATC Centers. By the end of June, after completion of upgrading and testing of the system, the interoperability tests and trials will be commenced; hence we will proceed with the outcome of the trials.

2.9   The representative for ICAO/Civil Aviation Caretaker Authority for Somalia (CACAS) provided the meeting with an overview on current status of progress made by ICAO/CACAS in supporting seamless Airspace and Seamless ATM operations within and/or through Mogadishu FIR.

2.10   The Mogadishu Flight Information Centre (FIC) is located outside Mogadishu FIR; and relies on HF radios as a primary means of communication (ground-ground and ground-air). The Flight Information Centre (FIC) is currently using HF-FAX to exchange domestic traffic information with Somali airports, as there are not yet any AFTN or ATS/DS capabilities in these facilities. \

2.11   ICAO/CACAS considers application of Satellite based communications, navigation and surveillance (CNS), and advanced automation with modern aircraft avionics as viable options in its envisaged upgrade of ATM systems.

2.12   CPDLC/ADS-C system procurement process is at an advanced stage, the tender was advertised and the bids have been received, selection and final award is in process. The minimum requirements to be met by vendors is the design, supply, installation and commissioning of a Flight Information Centre (FIC) in Nairobi- Kenya to provide Flight Information Services (FIS) through and/or within Mogadishu Flight Information Region (FIR).

2.13   The meeting was informed of the collaborative work being undertaken between Airports and Aviation Sri Lanka Limited (AASL), Maldives Airports Company Limited (MACL) and Airservices Australia (AA) to provide airlines with over 5,100Nm of continuous airspace in which to gain significant flight planning efficiencies through the application of Flex Tracks.

2.14   As a result of discussions during the meeting, it was agreed that Airservices Australia will be requested to provide assistance in developing Flex Track procedures for use by aircraft operating between the Melbourne, Colombo and Male FIRs. The target date for implementation of the extended Flex Track procedures is mid-December 2012.

<u>UPRs and the establishment of a UPR Zone in the Arabian Sea and Indian Ocean</u>

2.15   The meeting considered the results of a series of UPR paper trials that had been undertaken by Airports Authority of India within the Mumbai FIR. The first of the UPR paper trials was completed on 28th Feb 2012 and 4th & 5th April 2012 in collaboration with the IATA, India office. Seventy One flight Plans submitted by 7 Airlines were analyzed and 20 flight plans were selected to conduct simulation in live traffic scenario. A further series of paper trials was completed on 14th and 15th of May, in the Mumbai and Chennai FIRs, involving twelve flights and five airlines.

2.16   In considering the results of the UPR paper trials and the views of ANSPs and IATA, the meeting agreed to the following proposals from AAI:

a) Further Flight planning exercises to be coordinated by AAI;

b) Live UPR Operations trials as per the following schedule:

<u>28 June – 25 July 2012</u>:
Every week two flights (one flight on Gulf- AUS-Gulf and one flight on AFI-ASIA –AFI).

<u>26 July – 22 Aug 2012</u>:
Every week four flights -Either Daily two or twice weekly flights (on Gulf – AUS-Gulf and AFI-ASIA-AFI).

<u>23 Aug onwards</u>:
More flights will be considered (either increasing number of Days and / or frequencies of flights).

c) Participating FIRs:

Addis Ababa, Antananarivo, Chennai, Colombo, Johannesburg, Male, Mauritius*, Melbourne, Mogadishu, Mumbai, Nairobi, Seychelles.

d) Participating Airlines:

Emirates Airline, Etihad Airways, Qatar Airways, Virgin Australia, Ethiopian Airlines, Cathay Pacific Airways, Kenya Airways, and Singapore Airlines.

e) City Pairs:

Abu Dhabi/Dubai/Doha – Melbourne/Perth/ Sydney/Brisbane and Vice Versa

Addis Ababa-Bangkok- Addis Ababa

Hong Kong – Johannesburg – Hong Kong

Nairobi- Bangkok-Nairobi

Singapore – Johannesburg- Singapore

f) First proposed UPR Ops Trial program 28th June to 18th of July

Sr	Date	Traffic Flow *	Airline
1	28/06/2012, THU	Gulf- Australia-Gulf	Emirates Airlines
2	28/06/2012, THU	Asia-AFI-Asia	Cathay Pacific Airline
3	02/07/2012, MON	Gulf- Australia-Gulf	Etihad Airlines
4	02/07/2012, MON	Asia-AFI-Asia	Singapore Airlines
5	10/07/2012, TUE	Gulf- Australia-Gulf	Qatar Airways
6	10/07/2012, TUE	Asia-AFI-Asia	Kenya airways
7	18/07/2012, WED	Gulf- Australia-Gulf	Virgin Australia Airlines
8	18/07/2012, WED	Asia-AFI-Asia	Ethiopian Airlines

2.17   Future allocations rotations between participating airlines) for UPR operational trials beyond 18th July 2012 will be determined by the airlines in consultation with AAI.

Green Demonstration Flights

2.18   Ethiopian Airlines and Kenya Airways requested ASIOACG assistance in the conduct of a Green demonstration flight for each airline as per the following:

a) Kenya Airways   NBO – BKK   23 June 2012

b) Ethiopian Airlines   ADD – BKK   30 June 2012

2.19   Following completion of the Green Demonstration flights, both Ethiopian Airlines and Kenya Airways indicated that they would be ready to participate in the UPR operational trials

2.20   AAI (Mumbai) offered support to the conduct of a "one-off" green demonstration flight by both airlines and indicated that UPRs would be available within the proposed UPR Zone – southwest of P570.

2.21   Emirates Airline offered to provide documents and procedures for use by both Kenya Airways and Ethiopian Airlines for the green demonstration flights.   Similarly, IATA (AFI Region) and ATNS offered their support to the airlines in the conduct of their green flights.

2.22   ATNS indicated that South African Airways (SAA) may also wish to undertake green flights and UPR operational trials between Johannesburg and Mumbai and/or Beijing at a date to be notified.

Relationship with other regional groups

2.23   The meeting considered the relationship between ASIOACG, INSPIRE, BOBASIO and SAIOACG. It was agreed that that INSPIRE was directly related to the overall work of ASIOACG. It was also acknowledged that AAI had established BOBASIO and that SAIOACG had been re-established by ICAO through the Bangkok Office. All groups shared common goals in delivering ATM initiatives, however the geographical areas of interest were different.

2.24   Accordingly, the meeting reaffirmed the ASIOACG principle of extending meeting invitations to ICAO, as well as the sharing of Reports, Summaries, Analysis and Agenda Items between ASIOACG, BOBASIO and SAIOACG.

Reduced Horizontal Separation

2.25   IATA presented a working paper on reduced horizontal separation initiatives for the Arabian Sea and Indian Ocean and highlighted the recent introduction of 50NM longitudinal separation on designated routes across the Bay of Bengal. The meeting was invited to note the following key points relating to the IATA working paper on reduced horizontal separation:

   a)   That the implementation of RNP10 50/50 separation across the whole of the Arabian Sea and Indian Ocean airspace should be given priority;

   b)   Trials of a 5 minute along track longitudinal separation minimum have been conducted in the North Atlantic (for datalink approved aircraft);

   c)   Consideration should be given to the introduction of a5 minute along track longitudinal separation minimum for datalink approved aircraft operating across the Arabian Sea and Indian Ocean airspace; and

   d)   A schedule should be developed for the implementation of RNP4 30/30 separation within the Arabian Sea/Indian Ocean.

2.26   The meeting noted the work that had been undertaken within the Bay of Bengal and agreed that a timeline should be developed for the introduction of reduced longitudinal separation standards across the Arabian Sea and Indian Ocean.

Global Operational Data Link Document (GOLD) and amendment program

2.27   IATA presented a paper seeking ASIOACG stakeholder endorsement of the Global Operational Data Link Document (GOLD) procedures and processes.

2.28   Following discussion, the meeting agreed to endorse the adoption of the Global Operational Data Link Document (GOLD) procedures and processes, recognising the benefits of having a standardised set of data link procedures and processes for use in the Indian Ocean, Arabian Sea and Africa regions.

Satellite Voice (SATVOICE) Guidance Material (SVGM)

2.29   The meeting was provided with an update on the *Satellite Voice (SATVOICE) Guidance Material (SVGM)* being developed by the Inter-Regional Satellite Communications (SATCOM) Voice Task Force (IRSVTF).

2.30   It was noted that the *SVGM, First Edition*, will be presented for endorsement at APANPIRG/23, in Bangkok, Thailand, 10-14 September 2012 and that accordingly, the IATA Director (S.O.&I) for MENA Region was requested to raise this matter within the appropriate MIDANPIRG Sub-Group.

Any Other Business

2.31   The meeting agreed that the Indonesia ANSP (PT Angkasa Pura II) should be extended an invitation to join ASIOACG, given that the Jakarta FIR extends into the Indian Ocean and adjoins the Melbourne, Colombo, and Chennai FIRs. The meeting also agreed to re-issue an invitation to CAMA Yemen to participate in future ASIOACG meetings and to send a copy of the report of this meeting.

2.32   It was agreed that ASIOACG meeting reports would be routinely sent to IATA MENA, AFI, and ASPAC (India and Singapore), as well as to the ICAO Regional Offices in Bangkok, Cairo, and Nairobi.   A copy would also be sent to CANSO (Head Office, Asia/Pacific, MID and AFI regions).

2.33   Airports Authority of India has announced that AAI will host the combined ASIOACG/7 and INSPIRE/3 meeting over four days from 11th to 14th December 2012 – venue to be notified at a later date.

2.34   On behalf of ASIOACG, the Chairman expressed his appreciation to AAI for its kind offer to host the meeting and for its ongoing and significant contribution to the ASIOACG forum.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

    a)   note the information contained in this paper; and

    b)   discuss any relevant matters as appropriate.

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INSPIRE 2 MEETING

"*Indian Ocean Strategic Partnership to Reduce Emissions*"

Stellenbosch, RSA   29th – 30th November 2011

1.   INTRODUCTION

The Second Meeting of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/2) was hosted by ATNS in Stellenbosch on 29th and 30th November 2011. The purpose of the meeting was to confirm the governance and other administrative aspects of the INSPIRE partnership following the formal establishment of INSPIRE in 2011.

Airservices Australia nominated Airports Authority of India as the next Chair of INSPIRE. Mr Dangi of AAI accepted the nomination.

ATNS agreed to chair this meeting due to the absence of interim chairman Ron Rigney (DOT).

2.   BACKGROUND

INSPIRE is modeled on the successful ASPIRE program which has been operating in the Asia/Pacific region since 2008. ASPIRE is a collaborative industry initiative designed to lessen the environmental impact of aviation across the Asia and Pacific regions.

ASPIRE promotes recommended procedures, practices and services that have demonstrated or shown the potential to provide efficiencies in fuel and emissions reductions across all phases of flight, from gate to gate.

At the Fifth meeting of the Arabian Sea/Indian Ocean ATS Coordination Group (ASIOACG/5 Dubai 19th – 21st April 2011), the parties agreed that the success of the ASPIRE program should be expanded into adjoining regions and accordingly, the decision was taken by ASIOACG/5 to establish INSPIRE.

On 7th March 2011 senior representatives of Air Traffic Navigation Services of South Africa, Airports Authority of India and Airservices Australia signed a partnership agreement establishing **INSPIRE**.

3.   OPENING OF THE INSPIRE WORKSHOP

The meeting was co-chaired by Mr. Johnny Smit; Manager Air Traffic Services: Johannesburg and Mr. Leon Altree; Pool Manager Johannesburg Area North/South.

4.   ATTENDANCE

The Second Meeting of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/2) was opened by Mr. Patrick Dlamini, CEO of ATNS.

The Workshop was attended by a total of 28 participants from ANSPs, Airlines, and Industry Organisations, including ATNS South Africa, Airports Authority of India, Airservices Australia; Maldives Airports Company Limited, Civil Aviation Affairs-Oman; IATA, Dubai Air Navigation Services; ADAC; Etihad Airways; Emirates Airline, Virgin Australia, Singapore Airlines and Qantas Airways.

The list of participants is at **Attachment A**.

5. AGENDA

The provisional Agenda as shown at **Attachment B** was reordered to accommodate the availability of participants.

6. DISCUSSION ON AGENDA ITEMS

6.1 INSPIRE demonstration flights

The meeting commenced with a review of the recent INSPIRE demonstration flights.

Etihad Airlines raised the point while pre-event publicity was good, publicity after the event was somewhat fragmented and required more coordination.

There was discussion about the potential use of the INSPIRE callsign suffix use in future, in order to increase visibility of the program in the operational environment.

Etihad Airlines raised the issue of coordination between FIRs for the INSPIRE flight, and suggested that the TDM should be published by one centre only.

Mr Dangi (AAI) requested that airlines provide details on the usage of new waypoints created on the airspace Mumbai/Malé airspace boundary which Emirates and Etihad Airlines agreed to do.

Mr Dangi (AAI) advised that they have briefed BBACG/21 03/11 about the INSPIRE flights.

6.2 Communications

Mr. Johnny Smit from ATNS proposed that the INSPIRE website should be use to publish and promote fuel and CO_2 savings from the INSPIRE flights.

Virgin Australia proposed that there is a need for a formalised process for communication and sharing of information.

Mr. Rushj Lehutso (ATNS Commercial Services) briefed the meeting on public relations.

6.3 Report from Virgin Australia to convert INSPIRE opportunities for savings to realised savings

Virgin Australia delivered the working paper ".Converting INSPIRE opportunity to realized savings" and highlighted the value of the ICAO GANIS ASBU document's 4 performance improvement areas.

> ➢ greener airports
> ➢ globally interoperable systems and date
> ➢ optimum capacity and flexible flights through global collaborative ATM
> ➢ Efficient Flight Path Through Trajectory Based Operations

Virgin Australia recognised that the INSPIRE trials demonstrated that by striving to achieve an optimum flight profile from gate to gate that significant fuel and emission savings can be achieved. Moving forward, INSPIRE partners has to identify how those "opportunity savings"

can be converted to "realised savings". In order to achieve the goal of converting "opportunity savings" to "realised savings", it was proposed that the INSPIRE group should focus its efforts on identifying which of the "opportunity savings" can be fully implemented into daily operations, and "opportunity savings" which cannot be implemented by the June 2012, to be operationally implemented by agreed target dates..

It was also decided that in order to advance the case for INSPIRE daily flights, flights partners should continue to capture costs associated with inefficient ANSP practice.

Airservices Australia and ATNS of South Africa briefed the group on their recent experience with the PER – JNB SAA INSPIRE flight.

6.4   AUSOTS extension thru Sri Lankan and Maldives FIR

The meeting discussed the publication of the flex track from Mumbai FIR to Australia. Airlines (ETIHAD, Emirates, Virgin Australia) suggesting that 1 FIR should publish the TDM for the flex track. Presently there is an issue with each FIR publishing an individual TDM, the airlines pressed for AsA to coordinate with the other FIRs and publish the individual track.

IATA proposed to extend the AUSOTS thru Sri Lanka, Maldives plus Southern Chennai FIR as Flex / UPR airspace. Maldives agreed to the extension of AUSOTS however extension has to be discussed with Sri Lanka. The meeting was informed that AAI is considering connector routes in southern Chennai FIR and agreed to examine possibility of Flex/UPR airspace in Southern Chennai FIR. AAI also informed the meeting the consideration to extend the Mumbai Male connector routes to DONSA, UNRIV will be examined.

6.5   Report on INSPIRE Demonstration Flights SAA/EK/EY/VA – March/June/July 2011

On behalf of the INSPIRE Chairman, Airservices Australia presented a summary of the ISPIRE demonstration flights and highlighted specific lessons learnt.

The following Airlines participated in the initial demonstration flights conducted between March 2011 and July 2011.

  ➢ South African Airways (SAA281)
  ➢ Emirates Airline (UAE425 & UAE434)
  ➢ Etihad Airways (ETD450)
  ➢ Virgin Australia (VAU30)

The results of the initial demonstration flights are shown in the following table

INSPIRE 2 MEETING

"*Indian Ocean Strategic Partnership to Reduce Emissions*"

Stellenbosch, RSA   29th – 30th November 2011

Airline	Type	City Pair	Date	Fuel saving kg	Litres 1.25/kg	CO$_2$ saving 3.15/kg
SAA 281	A340	PER – JNB	10.03.2011	400	500	1,260
ETD 450	A340	AUH – SYD	16.07.2011	4,800	6,000	15,120
UAE 425	B777	PER – DXB	16.07.2011	2,046	2,558	6,445
UAE 434	B777	DXB – BNE	16.07.2011	3,503	4,379	11,035
VAU 30	B777	AUH – SYD	22.07.2011	2,733	3,416	8,609
Total Savings:				**13,482**	**16,853**	**42,469**

These savings were achieved through the application of 'best practice' amongst the 9 ANSPs and 5 Airlines involved with the demonstration. These best practices can be summarised as follows:

a)   Excellent cooperation between Airport Operators; Airlines; and ANSPs;
b)   Traffic Flow restrictions between the UAE and Oman lifted;
c)   Unrestricted climb and descent;
d)   Use of Datalink messaging and surveillance;
e)   Flex Tracks and direct tracking; and
f)   Approval to nominate Canberra Airport as ALTN Aerodrome for Sydney.

In determining the next steps in the INSPIRE program the meeting considered the following points:

a)   Review the results of the INSPIRE demonstration flights;
b)   Agreed on benchmarking;
c)   Agreed on work packages for 2012;
d)   Determine ways to expand the ANSP membership of INSPIRE;
e)   Consider the introduction of an "INSPIRE Daily" city pair system;
f)   Appoint a new INSPIRE Chairman for 2012;
g)   Finalise the INSPIRE Strategic Plan; and
h)   Agree on the format for the 2011 INSPIRE Annual Report.

SIA also provided the meeting with a review of their ASPIRE daily flight between LAX-SIN. SIA indicated that initial data indicates that DARP isn't producing a lot of savings on the LAX-SIN sector. SIA also noted that the lack of arrival optimisation can result in savings made in a 15 hour flight being negated in 20 minutes. SIA noted that preference is for predictable arrivals. Airlines prefer a long STAR rather than frequent changes to the arrival route.

Following the success of the PER – JNB SAA demonstration flight it was confirmed that the availability of Best Practices and the associated fuel/emissions savings be tracked on a daily basis in a similar way to the ASPIRE Daily method established by the ASPIRE partnership.

6.6   The formation of an INSPIRE Daily program

Following the success of the PER – JNB SAA demonstration flight, the formation of an INSPIRE Daily program was proposed by ATNS and Airservices Australia. The goals of the INSPIRE Daily program would include:

a)   Identify and publish INSPIRE Daily City Pairs where 3 or more fuel-saving Best Practices are available;

b)   Certify INSPIRE Daily City Pairs with a star rating system in consultation with the International Air Transportation Association (IATA);

c)   Enable and encourage reporting by airlines of their successful utilization of INSPIRE Daily City Pair routes and index this information; and

d)   Actively promote and advertise the availability and usage statistics of new and existing INSPIRE Daily City Pairs though industry forums, web distribution and the INSPIRE Annual Report.

6.7   2012 Annual Report

ATNS noted that there is a strong interest in ASPIRE/INSPIRE activities. Due to the interest, an annual report is necessary for frequent reporting of INSPIRE successes. Mr. Ron Rigney advised that he presently lacks the recourses to produce a report. ATNS accepted the role of creating the contents of the INSPIRE Annual report. ADAC will coordinate the content for UAE.

6.8   Review of the draft INSPIRE Strategic Plan

A review of the draft strategic plan was lead by Airservices Australia.

The most recent draft of the strategic plan was discussed and the partnership and administration of INSPIRE, the role of ASIOACG in relation to INSPIRE, and the INSPIRE methodology for tracking success in reducing emissions.

The group also discussed the organisation and governance of the partnership and recommended procedures, applications and technologies that have been demonstrated or have shown the potential to provide efficiencies in fuel and emissions reduction management. These best practices encompass all phases of flight from gate-to-gate, and are designed to reflect the requirements, in particular but not limited to, long haul flights that typically exceed 8 hours in duration. The work program of initiatives which aims to reduce fuel burn and greenhouse gas emissions, thus reducing aviation's impact on the environment, was discussed.

It was also agreed that to assure the momentum of the partnership and demonstrate to the wider aviation community that INSPIRE is making progress that the final strategic plan be finalised and published prior to the end of 2011.

6.9   Southern Arabian Sea & Indian Ocean "UPR Zone"

The concept of a UPR Zone in the Southern Arabian Sea & Indian Ocean has been proposed at previous ASIOACG ,INSPIRE, AFI PRND WG and BBACG meetings. Following the successes of the INSPIRE demonstration flights and the initiatives to support

best practice "Oceanic Flight" it was decided that the ideal vehicle to establish a UPR Zone in the Southern Arabian Sea and Indian Ocean will be the INSPIRE partnership programme.

IATA the proposed the implementation of a UPR Zone and proposed a strategy for implementation for consideration by the meeting. The concept proposes an area clear of the busy traffic flows across the Bay of Bengal and Arabian Sea in relatively low density traffic areas. For indicative purpose possible boundaries of proposed UPR zone are (ref figure 1).

- o Defined distance* from Western coastline of Sumatra Island
- o South of Airways P570 to G450 @ METIP
- o G450 to ORLID
- o Western Boundary of the Seychelles FIR
- o Western Boundary Antananarivo FIR

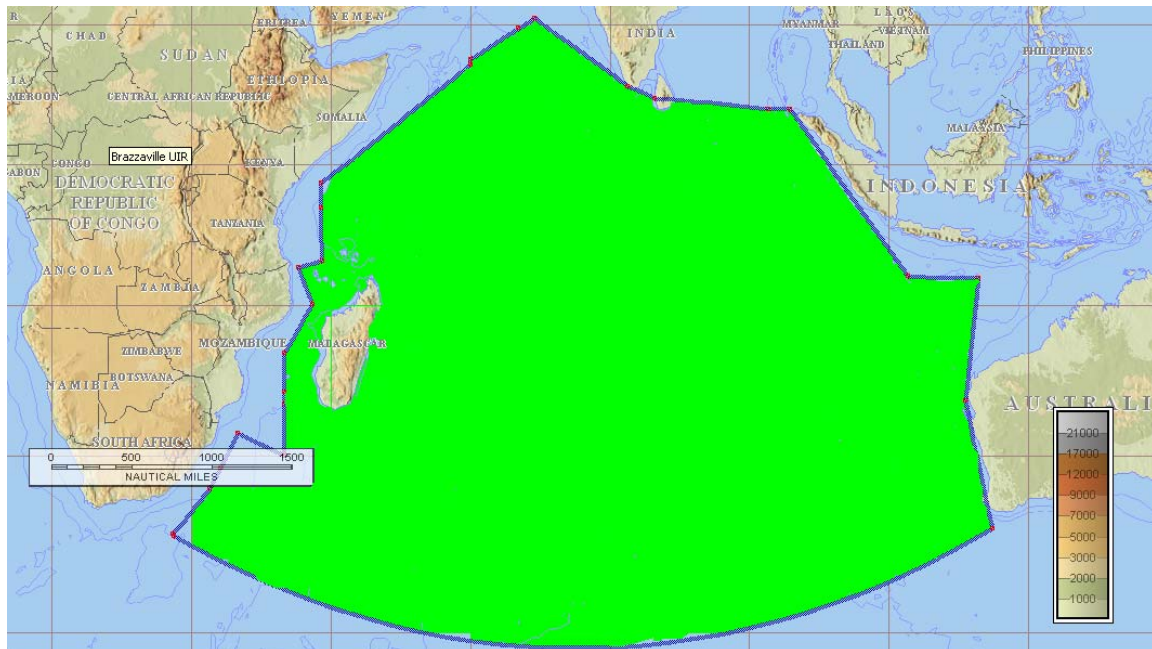An illustrative example of the geographic area under consideration is:

Figure 1

The following proposed High Level Phased Milestones & Strategy was Discussed:

1   Phase One – Data gathering: **February 2012?**

Paper Trial to be conducted to establish in general terms, airlines preferred routing and identify seasonal variations. This will assist in identifying flows and quantifying flight time, fuel & emissions savings. Proposed city pairs are:

- o Bangkok – Johannesburg
- o Hong Kong – Johannesburg
- o Singapore – Johannesburg
- o Abu Dhabi/Dubai/Doha – Melbourne/Perth/Sydney/Brisbane
- o Nairobi – Bangkok
- o Addis Ababa – Bangkok

Participating airlines will produce "paper city pair" flight plans and compare with actual flights on specified days. Draft Paper Trial process attached as Appendix 1.

2   Phase Two – Analysis: **March – April 2012?**

     INSPIRE Partners will –

- o Analyse results

- o Identify/resolve issues

- o Define proposed operational procedures

- o Develop plan and timelines to implement operational trial of Flex Tracks

3   Phase Three – Operational Trial: **Q2/3 2012?**

- o UPRs for Gulf – AUS traffic within defined geographic boundaries

- o UPRs for AFI-ASIA traffic within defined geographic boundaries

- o Flex Track Operational Trail for other defined city pairs

4   Post Trial analysis:

     Develop Plans to implement Phase Four

- o Trials for remaining UPRs?

- o Implementation timeline/phasing

- o Go/no go decisions

5   Phase Four – UPR Geographic Zone: **2013/14?**

     Implementation of UPR geographic Zone

     Discuss timeline for removal of fixed tracks.

     Areas remaining on published Flex Tracks

6.10   Replacement of IORRA in the YMMM FIR

Airservices Australia requested the meeting to consider the continued relevance of IORRA procedures as Airservices Australia updates their Indian Ocean "Off Air Routes Planning Procedures". The IORRA (Indian Ocean Random RNAV Area) flight planning requirements have been in use in the Southern portion of the Indian Ocean since the 1990's. Many operators are now making use of User Preferred Routes and Flex Tracks in this airspace. Airservices proposed to replace IORRA in Australian administered airspace with new simplified and consistent flight planning arrangements.

Airservices Australia proposed to make UPR's available in all of the YMMM Indian Ocean airspace with procedures based on these existing agreements.

6.11   New Connector Routes proposed by IATA in Chennai FIR

The possible implementation of new connector routes in Mumbai FIR at the Mumbai/Male FIR Boundary with effect from 17th November 2011 was discussed. IATA and Emirates airlines requested additional connector routes in Chennai FIR via south west of Trivandram VOR. AAI assured IATA and Emirates Airlines that AAI will support paper trials for such connector routes.

In addition, the IATA, AFI representative requested new ATS Routes across Arabian Sea to connect various airports in Africa with routes in Indian continental airspace. AAI informed that two such routes are already in final stages of implementation. Promulgation of more routes across Arabian Sea is subject to more flights utilizing ADS-C/CPDLC services provided in Mumbai and Chennai FIR. IATA AFI requested AAI to study the feasibility of allocating more "higher" flight levels to aircraft operating between Mumbai and African airports. AAI informed that aircraft departing from Mumbai to destinations in Africa are already too heavy to accept any level higher than FL300.

The meeting agreed in principle to develop uni-directional parallel Oceanic routes in Arabian Sea Indian Ocean for AFI-ASIA. IATA AFI was requested to co-ordinate with Eastern AFI states the facilitation of such routes.

6.12   Additional window for suspension of FLAS over Arabian Sea

ETIHAD Airways requested AAI to consider either suspension of FLAS or change times during another window of 1830-2130 or 1900-0100 UTC (Mr. P. Raw to confirm). AAI would examine the traffic flows/patterns on these routes over the Arabian Sea and provide back to airlines and IATA.

6.13.   AIDC Trials among neighbouring FIRs

Representatives of DGCAM, Muscat, Sultanate of Oman and Airports Authority of India agreed to conduct AIDC Trials as soon as possible. In future, AAI plans to conduct trials with all neighbouring FIRs as and when the capability exits in those FIRs.

6.14.   Updates to the ASIOACG-INSPIRE Meetings

AAI requested that adopting the ICAO APAC Office model, all states and organizations as well as airlines to provide updates regarding developments taking place in their respective organizations. Virgin Australia Airlines endorsed the proposal and recommended that such annual updates may include: acquisition of new technology, ATM Enhancement measures implemented by ANSPs. Qantas also endorsed the proposal and suggested that airlines must also present updates on fleet expansion plans of concerned airlines, emerging traffic flows etc. Qantas also endorsed the proposal and said that airlines and other participants may also present such papers to update the meeting about technological and other advances.

6.15   Reducing Back-Coordination parameters between ATS units

The requirement for ATS units to acquit back coordination for changes to an aircraft's level or track after crossing an FIR boundary can cause delay to the issuance of clearances. The meeting discussed the potential advantages of reduced back coordination parameters.

It is proposed that the following procedure be adopted:

a)   Unless specified prior to transfer, YMMM/other FIR shall be deemed to have no restrictions once the aircraft has passed the transfer of control point.

b)   Any weather deviation or tracking amendment that will cause the aircraft's procedural tolerances to enter or extend further into the transferring sector's airspace will require prior coordination.

c)   Receiving sector is responsible for boundary coordination with any other affected FIRs

6.16   Extension of CLASS A Airspace to 80° South

Australia has with effect 16th December 2010, extended the Southern boundary of the Indian Ocean Random Routing Area, within their area of responsibility from the original 65° South, to 80° South in order to accommodate extended random routing operations within the airspace. The objective of extending the boundary was to reclassify the airspace now included in the IORRA, from Class 'G" to Class 'A', - controlled airspace, thereby accommodating operations at preferred flight levels, i.e. incorrect semicircular or Block level operations such as presently applied in that portion of the IORRA bounded by the Johannesburg and Melbourne FIR Boundaries.

The present Letter of Procedure between Johannesburg Oceanic and Melbourne FIRs allows for non standard operations, such as across boundary operations involving 'Block Level" operations, in which the flight is allowed to operate between a set of Flight Levels instead of being restricted to one level, in order to accommodate efficiency, subject to there being no confliction with other traffic in the area.

Johannesburg Oceanic presently provides a controlled service within the defined area of the IORRA between Flight levels 245 and 460, which accommodates operations as discussed above. However, with the changed dimensions of the area in which a controlled service is being supplied by AirServices Australia, the implication is that should a flight operating as far South as 80°, cross into the Johannesburg Oceanic FIR, the flight will be subjective to an information service and restricted to complying with the semi circular rule, for the time period that it is operating outside the confines of the random routing area. These restrictions will impact on the efficiency of the flight.

In order to provide a transparent service between the Johannesburg Oceanic and Melbourne FIRS to flights which may operate as far South as 80°, it requires the random routing area boundary within the Johannesburg Oceanic area of responsibility to be extended to 80° South, together with the accompanying reclassification of airspace to that of Class A, in order to match the extension undertaken by AirServices Australia. This will allow flight operations to be conducted as is presently the case on routes between South Africa and Australia

6.17   Inclusion of more airlines and ANSPs to participate in INSPIRE

The meeting discussed the possibility regarding the expansion of membership of ANSPs and participating airlines in INSPIRE. The IATA AFI, expressed the urgent need to include airlines from Africa in INSPIRE programmes. IATA AFI to coordinate with ANSP's of Kenya and Ethiopia to facilitate inclusion of Kenya Airways and Ethiopian Airlines to the INSPIRE programme. The meeting was of the view that participation of more airlines may be more meaning full if the ANSP of the concerned state also agrees to participate in the INSPIRE programmes.

ATNS and AAI proposed INSPIRE flights on JNB-BOM-JNB involving South African Airlines and Jet Airways. IATA welcomed this step and agreed to co-ordinate with Airlines and East African ANSPs to facilitate these flights.

7.   NEXT MEETING

It was proposed that representatives from South Africa, India, Madagascar, Mauritius, Seychelles, Indonesia, Kenya, Ethiopia, Somalia and Mozambique meet during March 2012 in Dubai to discuss and formulate phase two of the proposed Southern Arabian Sea & Indian Ocean UPR Zone.

It is also proposed that the INSPIRE representatives will next meet at the time of ASIOACG/7 which is anticipated to occur in November 2012 in India.

8.   CLOSING OF THE MEETING

In closing, Mr Smit, thanked the participants for their active participation in the meeting and also thanked Mr. Rushj Lehutso and staff from ATNS Business Development for their hosting of the meeting.

Finally, the Chairman thanked members once again for their valuable contribution to the success of the meeting and wished them all a safe journey back home.

ATTACHMENTS

Attachment A: List of Participants

Attachment B: Agenda

ATTACHMENTS

Attachment A: List of Participants

Attachment B: Agenda

Attachment A

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INSPIRE 2 MEETING

"*Indian Ocean Strategic Partnership to Reduce Emissions*"

Stellenbosch, RSA   29th – 30th November 2011

Combined Second Meeting of the Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/2) and the Sixth Meeting of the Arabian Sea/Indian Ocean ATS Coordination Group (ASIOACG/6)

Cape Town, South Africa, 29th November – 1st December 2011

Attachment B

Agenda Item 1:   **Adoption of Agenda**

Provisional Agenda

(Presented by the Secretariat)

Agenda Item 1: Adoption of Agenda

Agenda Item 2: INSPIRE Program:

- Review of 2011 demonstration flights and follow-up actions
- Work programs for 2012
- Annual Report 2011
- INSPIRE Strategic Plan
- Appointment of INSPIRE Chairman for 2012
- Consideration of INSPIRE "Daily" proposal

Agenda Item 3: Update from ANS Providers, Airspace Users and other industry organisations

Agenda Item 4: ATM issues – including:
- Update on ATS FPL 2012
- Airspace Management
- Air Traffic Flow Management
- Civil/Military cooperation

Agenda Item 5: COM/NAV/SUR issues – including:
- Performance Based Navigation (PBN)
- Datalink Services
- FIT/CRA

Agenda Item 6: Review and Update Capacity Enhancement Table

Agenda Item 7: Review and Update List of Open Action Items

Agenda Item 8: Any other business
(next meetings of INSPIRE/2 and ASIOACG/7)

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