INSPIRE INDIAN OCEAN STRATEGIC PARTNERSHIP TO REDUCE EMISSIONS	AIRPORTS AUTHORITY OF INDIA

Combined Third Meeting of Arabian Sea Indian Ocean ATS Coordination Group ASIOACG/7 and Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/3) – Mumbai, India, 11 – 14th December 2012

Agenda Item 6:   Review of UPR Trials and follow-up actions

Prioritizing Future Actions to Reduce Constraints

Presented by Virgin Australia

SUMMARY

The purpose of this paper is to highlight the wide scope to develop strategy for reducing current constraints observed during Trials that can lead to derive maximum benefits from the INSPIRE program.

1.   **INTRODUCTION**

1.1   INSPIRE initiated and demonstrated excellent cross regional team efforts to enhance Operational Safety and Efficiency. Well-structured strategic plan and commitment of ANSPs successfully moved it from paper trials to operational trials.

1.2   During 2012, INSPIRE partner airlines working with the full co-operation of ANSPs have successfully completed hundreds of INSPIRE flights. The trial flights have demonstrated that significant savings in fuel burn and emissions can be achieved by permitting airlines to dispatch on a User Preferred Route.

1.3   This Paper appraises INSPIRE about Crew feedbacks that also highlighted several operational constraints impeded the flight from achieving even greater benefits. The purpose of this paper is to identify both the phase of flight and the magnitude of the constraints and to propose a strategy for dealing with those constraints.

2.   **DISCUSSION**

2.1   Virgin Australia collected data for 19 flights (John, possibly there would be more flights by then this paper will be resented, thus suggest some re-wording here) during the initial trial period. 16 of the 19 flights were well within the UPR zone (possibly one or two were not; unable to confirm conclusively from the trial data)

2.2   On 12 of 19 flights, the UPR was most efficient track

2.3   On 1 flight, the AUSOTS track was most efficient

2.4   On 2 flights, the fixed track was most efficient (even compared to the AUSOTS track)

2.5   On 2 other flights, the AUSOTS track was most efficient, although the AUSOTS very closely mirrored the fixed track

2.6   Over the trial sample, estimated average burn/time saving was 642 kg or 5 min per flight (12 ton/92 min all up). Considering only those flights where the UPR achieved a saving, these amounted to 1100 kg and 9 minutes saving per flight.

2.7   AUH DEPARTURE - Departure data for 10 of the flights was collected - 7 flights experienced holding of between 1 and 13 minutes for Muscat FIR. 3 flights were delayed due to unrelated operational issues. Muscat FIR slots are a consistent constraint (although variable in quantum)

2.8   CLIMB - 4 flights noted off-optimum climb/initial cruise. 2 of these were due off-slot Muscat entrance. 2 for traffic/weather.

2.9   CRUISE - 3 aircraft reported parts of cruise at 1000-2000' below optimum due aircraft above. 1 aircraft reported cruise above optimum during early stages, however this allowed greater success in cruising at optimum levels down route.

2.10   SYD ARRIVAL- 4 of 5 flights with crew feedback noted vectoring on arrival into Sydney. 3 flights received 6-10 minutes high-level holding at TARAL. 1 flight received 15 nm additional track miles. All flights reported application of speed restrictions.

2.11   Unfortunately requirement for crew to provide feedback on all flights was not mandated and the data is therefore limited. The limited data does however indicative that day of operation constraints are significant and there is still wide scope for achieving full benefits of UPRs.

2.12   Moving forward it is proposed that like ASPIRE, an INSPIRE Flight Crew report form be developed. A copy of the form should be provided with the flight plan documentation to the crew of all INSPIRE flights. Flight crew should be requested to record both time and fuel burn penalties for all phases of the flight where the flight plan profile differs from the operational flight profile.

2.13   Partner airlines should collate the feedback from crew and record the data in a constraints spreadsheet.

2.14   A copy of the constraints spreadsheet should be forwarded to IATA each week to allow IATA to track the process, conduct analysis with participating airlines. Once the quantum have been correlated it is proposed that the next step should be to conduct review the largest constraint phase of flight areas along with INSPIRE ANSPs to determine if a realistic opportunity to address the constraint is feasible.

2.15   Where the assessment concludes that the constraint could be realistically removed, or reduced, by the development of a new process or by an agreement with the ANSP, that constraint shall be identified as a GREEN constraint. Green constraints will be included in the INSPIRE work program for the next 12 months, identifying process. (John, I suggest to change sequence Green first, Amber next and Red at last)

2.16   Where the assessment concludes that the constraint could be realistically removed, or reduced, but not within the next 12 month term of the INSPIRE work program, the constraint shall be identified as an AMBER constraint. Amber constraints should be recorded in the INSPIRE work program with an estimate as to when the constraint may be removed or reduced. Study and analysis to determine way-outs may be developed.

2.17   Where the assessment concludes that removal of the constraint in the short term is not possible, that constraint shall be identified as a RED constraint. Red constraints will not be targeted for action within the current INSPIRE work program. (Next 12 months).

2.18   By adopting the strategy suggested above, INSPIRE partners will have a clear plan for moving forward. It will ensure that the resource effort can be applied to those areas where the constraints are having the largest negative impact. It will also provide ANSPs with the necessary justification to devote energy and resources towards removing the constraints.

3.   **ACTION BY THE MEETING**

3.1   The meeting is invited to;

   a) Note the recommendations contained in the paper.
   b) To consider adopting the strategy as recommended.