



**The Twentieth First Meeting of the Informal South Pacific ATS Coordinating Group  
(ISPACG/21)**

Auckland New Zealand March 06 to March 08 2007

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**Agenda Item 5:**  
Identify Future Work Programs

**Outcome of the International Oceanic Airspace Conference (IOAC)  
Performance Measurement Workshop**

(Presented by the Federal Aviation Administration)

**SUMMARY**

This working paper provides a summation of the two-day Performance Metrics Workshop from the International Oceanic Airspace Conference 2006. The paper also outlines proposed next steps for consideration and development of harmonized performance metrics for the ISPACG and other regional groups.

**1. Background**

1.1 The primary focus of this year's International Oceanic Airspace Conference (IOAC) was to create a shared understanding of stakeholder perspectives, and to promote a unified international approach for tracking and measuring collective success in oceanic airspace through performance metrics. The conference, hosted this year by the Federal Aviation Administration (FAA), was attended by 127 people representing 15 countries, 16 airlines and airline organizations, and 12 air navigation service providers. The U.S. Military, NASA and over a half dozen industry partners also attended the three (3) day event. Conference highlights included presentations from service providers, airlines, and industry on current activities in oceanic air traffic control and the need for additional measurements to ensure continued success and improvement. This paper focuses on the two-day Performance Metrics Workshop portion of the conference, in which the conference attendees examined a variety of issues facing oceanic air travel to determine new ways to measure and define success.

**2. Discussion**

2.1 The Performance Metrics Workshop identified a core set of performance metrics to build upon as a framework for harmonized tracking and reporting.

2.2 Metric: Efficiency - *Perfect Trajectory vs. Actual Flown Trajectory*

Approach:

- Airlines will identify a meaningful set of case studies broken down by airline and city pair.

- Airlines will capture data on *perfect trajectories* (i.e., unconstrained optimal trajectories), calculated both pre-flight and post-flight, for a defined period. Airlines will then compare these *perfect trajectories* to actual flown trajectories, and define the delta.
- In an informal forum, the IOA community will collaboratively examine these discrepancies to determine root causes.
- The IOA community will define strategic and/or tactical actions to address these root causes where possible.

Data table:

Key Elements:	Pre-flight “Perfect”	Post-flight “Perfect”	Actual	Discrepancy
Delta Fuel				
Delta Time				
Altitude Requests granted				
Altitudes (% of time on sub-optimal altitude + delta alt (des-act))				
Navigation fees				
Route Requests granted				

Actions:

Action	Lead	Due
<b>Efficiency</b>		
Define possible “case study” scope and content and timeframes. Bring proposal to IOA community to finalize approach.	Charlie Hall*, Airlines	Oct. 1, 2006
Implement case study development (data capture and measurement of discrepancies).	Airlines	Sept., 2006
Present and analyze case studies to identify root causes and define strategic and tactical actions.	IOA community	

\*Indicates *Lead*

### 2.3 Metric: Predictability - *Filed trajectory vs. Actual Flown Trajectory*

Approach:

- Air Navigation Service Providers (ANSP) will capture data on the discrepancies between *filed* flight plans vs. actual, *flown* routes.
- In an informal forum, the IOA community will collaboratively examine these discrepancies to determine root causes.
- The IOA community will define strategic and/or tactical actions to address these root causes where possible.

Actions:

Action	Lead	Due
<b>Predictability</b>		
1. Define key elements, scope and timeframe for data capture and analysis. Bring proposal to IOA community to finalize approach.	David Ford*, ANSPs	Oct. 1, 2006
2. Implement data capture and measurement of discrepancies.	ANSPs	Sept., 2006
3. Present and analyze data to identify root causes and define strategic and tactical actions.	IOA community	

\*Indicates *Lead*

2.4 Metric: Operations Cost - *Oceanic service provision costs and investments*

Approach:

- ANSPs will capture data on costs and investments related to oceanic service provision.
- In an informal forum, the IOA community will collaboratively examine the data to identify opportunities to reduce costs and maximize investment.
- The IOA community will define strategic and/or tactical actions to reduce costs and maximize investment.

Key Measures:

- Labor cost of direct ops for oceanic service provision per flight mile;
- Capital investment in oceanic service (per flight mile?);
- Support service cost for oceanic service provision per flight mile; and
- Total cost of service provision per flight mile.

Actions:

Action	Lead	Due
<b>Cost of Operations</b>		
1. Define key elements, scope and timeframe for data capture and analysis. Bring proposal to IOA community to finalize approach.	Dave Rollo*, ANSPs	Oct. 1, 2006
2. Implement data capture and measurement of discrepancies.	ANSPs	Sept., 2006
3. Present and analyze data to identify root causes and define strategic and tactical actions.	IOA community	

\*Indicates *Lead*

2.5 Metric: Safety trends relevant to oceanic airspace

Approach:

- ANSPs will report on safety-related data and trends in existing regional forums.

- If appropriate, the IOA community will collaboratively examine safety data and trends to identify opportunities to improve safety in the oceanic airspace.
- The IOA community will define strategic and/or tactical actions to improve safety.

Key Measures:

- Existing safety data and trends as identified by ANSPs and the oceanic airspace community.

Actions:

Action	Lead	Due
<b>Safety</b>		
1. Define key elements, scope and timeframe for data capture and analysis. Bring proposal to IOA community to finalize approach.	ANSPs	Ongoing
2. Present and analyze safety data and trends to identify root causes and define strategic and tactical actions.	IOA community	As appropriate

2.6 The FAA's Air Traffic Organization (ATO) (*Enroute/Oceanic Service Unit*) is actively pursuing oceanic performance metrics based on the results of: 1) the IOAC workshop; and 2) the FAA ATO goal of development and implementation of performance metrics. Development of the identified metric for predictability – Filed v/s Flown trajectories - will be implemented as a key performance milestone in the FAA Strategic Management Process (SMP) plan for fiscal year 2007. Other identified performance measurements from the IOAC are under analysis for implementation in the near future.

2.7 The FAA highly values the expertise of the ISPACG and other regional groups, and seeks their assistance in development of these unified performance metrics. In October 2006, the FAA proposed to the Informal Pacific ATC Coordinating Group (IPACG) that the regional service providers collaborate on developing an IPACG strategy for harmonized performance measurement. The Japan Civil Aviation Bureau (JCAB) agreed that this collaboration was desirable, and to work with FAA on development of a shared performance metric. This proposed metric is under development for consideration at the next IPACG meeting.

### 3. Recommendation

3.1 The meeting is invited to:

- a. Discuss the information submitted in this paper; and
- b. Consider adding the following performance measurement initiatives to the future ISPACG work program:
  - i. Consider a performance based measurement philosophy as a mechanism for strategic decision making;
  - ii. Consider the outcome of the IOAC workshop as a working foundation for regional and international performance measurement to promote regional and global harmonization; and
  - iii. Consider development of an ISPACG strategy for harmonized performance measurement.

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