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Agenda Item 3: Air Navigation Matters
3.6 Other Air Navigation issues

THE FUEL CRISIS AND THE URGENT NEED TO IMPLEMENT FUEL SAVING MEASURES

(Presented by IATA)

SUMMARY

In spite of international passenger and cargo traffic growth exceeding expectations, the extraordinarily high level of oil prices threatens the industry with yet another year of airline losses. In addition, the high cost of fuel has spotlighted the existing inefficiencies in the air traffic services infrastructure. This paper highlights areas were ATS Providers and State ATS Authorities could assist in driving fuel inefficiencies out of their systems, and assist airlines in their internal fuel efficiency strategies.

1. Introduction

1.1 In spite of the rising numbers of flights and passengers, the air transport industry continues to struggle with costs. The multiple crises of previous years - 11 September 2001, the war in Afghanistan, the war in Iraq, the war on terrorism, and SARS - combined to place our industry in an extremely vulnerable position. The rising price of crude oil has now become an even greater threat.

1.2 The airlines' 2005 fuel bill was US$92 billion, **a staggering US$48 billion more than 2003**. Without doubt, the price of fuel is the biggest crisis facing the airspace user today.

1.3 It appears that the **oil market forward curves are at historic highs and <u>are here to stay</u>**. Oil reached **USD$70.85 in late-August 2005 – a record price!**

1.4 In an industry that typically takes 15 to 20 years before new technologies can translate into system-wide efficiency gains, it is unlikely that switching to an alternative form of energy will be an option in the foreseeable future. Coupled with the lack of control over price, this means that the only hope of winning the battle to reduce energy costs is to achieve even greater operational efficiency.

2. Discussion

2.1 Fuel efficiency is a pervasive concept touching almost every aspect of the industry from aircraft design and construction through aviation regulatory requirements to airline operation and air navigation service provision. The cost of fuel, as a percentage of overall operating costs, has risen from around 10-12% in 2002, to around 20-25% now. Airlines are undertaking a number of fuel mitigation activities – both to reduce the amount of fuel burned – and to mitigate the cost of fuel as a "bottom line" item.

2.2 For those airlines with cash reserves or appropriate credit, there had been a temporary solution of fuel hedging - but increasingly, airlines are unable to muster the cash necessary to enter into long term hedging arrangements – particularly when those contracts may be at $60+ per barrel. Many airlines have implemented fuel surcharges – however, market forces make such surcharges unpopular, and can actually dissuade passengers from flying. **The key to mitigating the effect of fuel price is to increase operating efficiency – across the entire system**.

2.3 The fuel efficiency of air transport operations is influenced by many factors, not all of which are under the airlines direct control. Many areas, such as route structure, air traffic control and airport capacity and layout are beyond airlines' control - but **directly** impact their fuel consumption.

2.4 In 2004, IATA launched a Fuel Action Campaign, aimed at reviewing every aspect of air transport operations. The campaign was structured in four parts:

a. Identification of fuel conservation best practices in air transport operations – supported by an assistance program to put these practices into place;
b. Enhancement of the current commercial fuel activities;
c. Identification and remediation of ATM infrastructure deficiencies; and
d. Identification and remediation of ATS effectiveness issues – engaging the ANS providers in a "Save One Minute" campaign.

2.5 In March 2005 – and again in July 2006 - IATA wrote to every one of the 188 Air Traffic Service providers in the world with an urgent plea to review specific areas that could bring fuel savings to airlines and asked for feedback on actions that could be considered by States. Regrettably, the response from ANSPs has been less than satisfactory, with only around 60 responses (only 4 from the CAR/SAM Region) from 188 States.

2.6 The core of the IATA's request to States on fuel conservation measures hinges in the following areas:

a. Airspace and air route design;
b. ATC techniques that take advantage of aircraft navigation capabilities rather than vectoring or assigned speed restrictions;
c. Review of Noise Abatement Procedures;
d. Closer coordination and cooperation with military authorities to facilitate transit of military restricted airspace;
e. Reviewing opportunities that would allow aircraft to operate closer to preferred flight levels; and
f. Discussing fuel conservation with local airlines and seek their assistance in better understanding fuel conversation target areas.

2.7 IATA also suggested that a “Fuel Champion” be appointed in each ANSP – not as an additional position, but as an add-on function that is focused on delivering fuel conservation benefits.

2.8 While airlines and air traffic service providers invest in safety with their safety management systems and departments that are devoted to the safety culture of the workforce, many airlines have a similar investment in fuel efficiency as well and employ a full time Fuel Programme Manager who is responsible for monitoring the airline’s fuel use as well as ensuring that procedures and practices are in place for maximising fuel efficiency. If Civil Aviation Authorities were to have a policy or programme that reviews system efficiency and a department responsible for maintaining and promoting the efficiency of the air traffic system, significant efficiency gains could be realised in the air traffic system.

2.10 The following are examples of States being involved;

1. Chile: Improving the arrival and departures procedures at several airports at several airports and direct routes. Operational savings $1.85M and 18,480 minutes.
2. Ecuador: Development of RNAV/RNP procedures for Quito Airport. Upgrading ARFF at Manta Airport permitting airlines to use as the primary alternate for Guayaquil and Quito, eliminating the need to use further alternates. Airlines savings $1.85M
3. Colombia: Working on opening a corridor over Palenquero airspace, saving 5 minutes of flight time. Implementation of 4 domestic RNAV routes and development of RNAV procedures for BOG and MDE. Savings $9.8M
4. Panama: ATC authorizes "Direct" within Panama FIR. Developing RNAV/RNP procedures in cooperation with IATA.
5. Guyana: GNSS RNAV approaches for Cheddi Jagan Int’l Airport.
6. Mexico City: Redesign of the Mexico City TMA. More efficient approach and departure procedures.

3. Action by the Meeting

3.1 Considering the critical nature of the fuel crisis, the meeting is asked to urgently consider areas in their respective airspace and ATS operations where fuel efficiencies can be gained. No matter how small they are, if implemented quickly, these changes can have a significant effect on airline fuel consumption. Specifically, States are requested to:

a. **Identify** – with IATA and local airlines - actions that would provide fuel efficiency;

b. **Establish and promulgate** a program to implement fuel efficiency measures; and

c. **Nominate** a Fuel Champion who would liaise with IATA, airlines and other ANSPs to ensure all possible fuel conservation strategies are evaluated and if safe and cost effective, implemented.

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