



International Civil Aviation Organization

**Third Meeting of the Air Traffic Management
Performance Measurement Task Force**

(APM TF/3)

(Cairo, Egypt, 5 November 2016)

Agenda Item 2: Global and Regional developments related to Environment

FUEL REPORTING AND EMISSIONS

(Presented by IATA)

SUMMARY

This paper presents Captured fuel consumption data associated with 96.5% of total Revenue Tonne-Kilometer (RTKs) operated by Middle Eastern Carriers on both domestic and international routes.

Action by the meeting is at paragraph 3.

REFERENCES

- APM TF/2 Report

1. INTRODUCTION

1.1 The meeting may wish to recall that the APM TF/2 meeting (Cairo, Egypt, 10 -11 November 2014), IATA's willingness to support the environmental activities in the MID Region. In this respect, the meeting encouraged IATA to present a working paper related to the environmental benefits accrued from the measures undertaken by some Air Operators.

1.2 The meeting may wish to note that IATA has a dedicated department located in Geneva (Carbon Offset System Development) that works with its member airlines and their respective departments on Co2 and fuel efficiency.

2. DISCUSSION

2.1 The meeting may wish to note that fuel savings per airline fleet which translates to CO2 emissions can be considered confidential information and as such releasing public information needs airline approval.

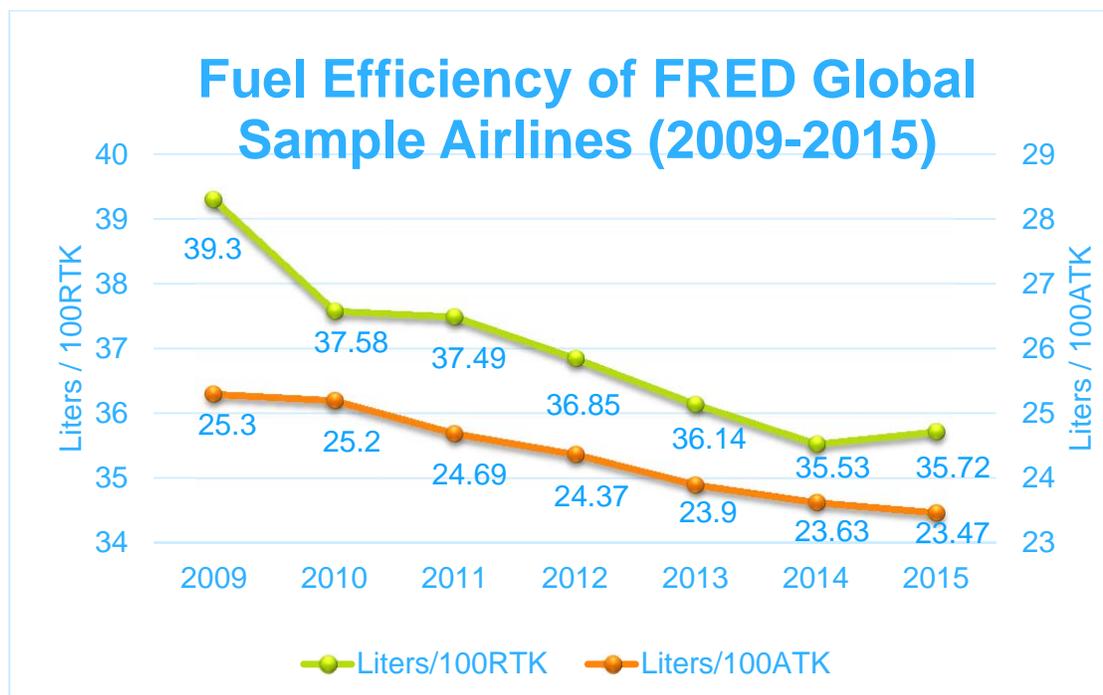
2.2 The IATA Fuel Reporting & Emission Database (FRED) has 230 participating airlines (2016) globally of which 18 Airlines from Middle East.

2.3 The Captured fuel consumption data associated with 96.5% of total revenue tonne-kilometer (RTKs) operated by Middle Eastern Carriers on both domestic and international routes. Available Tonne Kilometres (ATK) is a measure of an airline's total capacity (both passenger and

cargo).

2.4 The Average fuel efficiency performance of sample airlines (11) in Middle East continues to be slightly better than global average (both RTK and ATK).

2.5 Regional decline in annual fuel efficiency performance year-on-year (2014-15) slightly more pronounced than global decline in performance



RTK = Relates to flights and flight stages for which remuneration is received. Include passenger tonnes (including baggage), freight tonnes and mail tonnes.

ATK = Multiply the number of tonnes of capacity available for the carriage of revenue load (passengers, baggage, freight and mail) on each flight stage of a flight by the flight stage distance

2.6 Therefore you see ATK efficiency continue to improve in the region (newer aircraft – even if only slightly) but RTK efficiency is not increasing.

2.7 Geopolitical Factors Impacting Fuel Efficiency

- a) Avoidance of conflict zones if requiring airlines to fly sub-optimal routes resulting in longer flight paths on key lanes
- b) Perceived increases in the threat of terrorism continues to drive down visitors volumes in regional mass tourism destinations
- c) Rapid expansion in regional capacity coupled with the above-mentioned factors contributing to downward pressure on load factors

2.8 Airline Initiatives to Improve Fuel Efficiency

2.8.1 Emirates Airline undertakes a comprehensive approach to enhancing fuel efficiency. This extends from the selection of aircraft, through reducing the weight of the aircraft and onboard items, to flight planning and operational procedures, as well as engineering maintenance. For example, flight crews use a variety of procedures to help save fuel and reduce emissions where it is safe and practicable to do so. One example is idle reverse thrust: when landing on a dry runway, the pilot sets the thrust reversers at idle instead of selecting full reverse thrust. This technique saved 4,059 tonnes of fuel in financial year 2014-15, equivalent to 12,786 tonnes of CO₂. Another technique is shutting down one engine while taxiing. This saved 2,093 tonnes of fuel over the year, or 6,593 tonnes of CO₂.

2.8.2 In addition, Emirates' flight operations specialists cooperate with aviation authorities and air traffic control organisations across the world to test and validate new fuel-saving flight procedures, including performance-based navigation procedures. These both help to reduce fuel consumption and enhance operational safety. At Emirates' main hub of Dubai International, recent infrastructure and operational improvements have increased capacity and reduced holding delays, increasing the predictability and resilience of operations.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information provided in this paper and take action as appropriate.