SIP/2012/ASBU/Dakar-WP/29

Measurement of environmental benefits

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Workshop on preparations for ANConf/12 − ASBU methodology
(Dakar, 16-20 July 2012)

OVERVIEW

- KPA
- ASSEMBLY RESOLUTION
- OPERATIONAL IMPROVEMENTS
- IFSET
- SUMMARY

KPA

- ENVIRONMENT

The air navigation system should contribute to the protection of the environment by considering noise and **emissions** in the implementation and operation of the global air navigation system.

Assembly Resolution

- Climate change
- **A37-19-Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change**

Assembly resolution

- **A37-19**
- ***Resolves:***
- **to achieve a global annual average fuel efficiency improvement of 2 per cent until 2020.**
- **and an aspirational global fuel efficiency improvement rate of 2 per cent per annum from 2021 to 2050.**

Assembly resolution

- **A37-19**
- **Requests ICAO to:**
- **develop the necessary tools to assess the benefits associated with ATM improvements.**

OPERATIONAL IMPROVEMENTS

- **PBN**
- **CDO/CCO**
- **RVSM**
- **FUA**
- **ETC.**

IFSET

- **ICAO FUEL SAVINGS ESTIMATION TOOL**

 - Simple to use and scientific defendable

- States will begin reporting on fuel savings from operational improvements in 2012.
- Not all States have the ability to quantify these savings.

IFSET – WHAT IT DOES

- Allows those States without modelling and/or measurement capabilities to estimate fuel savings from operational improvements.
- Consistent with CAEP-approved GHG models.
- Consistent with Global Air Navigation Plan.
- Easy-to-use / minimal data requirements.

IFSET – WHAT IT DOES (Cont.)

- The tool can estimate:
  - Effects of shortening / eliminating level segments on departure and arrival.
  - Effects of shorter routes (either in time or distance).
  - Effects of cruising at different altitudes.
  - Effects of reduced taxi times.

IFSET – WHAT IT DOES NOT

- **The tool does not replace detailed modelling or measurement of fuel consumption already available in a State.**

IFSET – HOW IT WORKS

- Pre-compute aircraft performance
  - Level, climb and descent fuel consumption
  - By group of aircraft type
  - In 1000 foot intervals

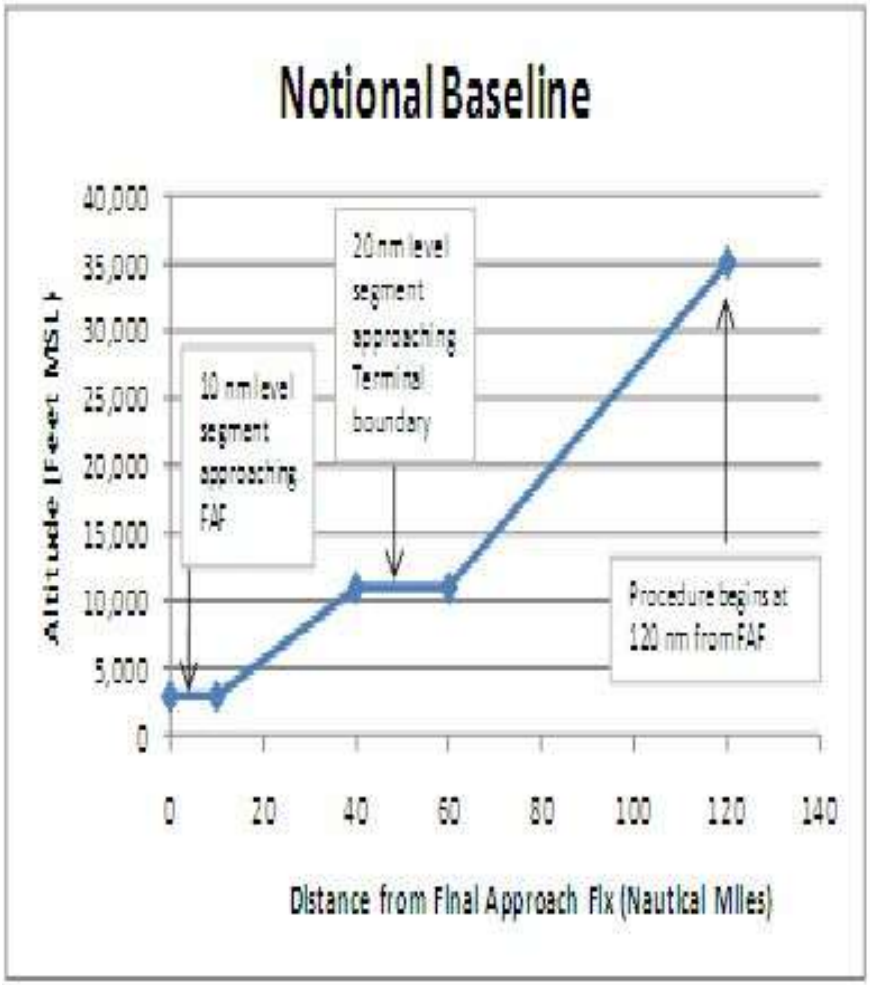
IFSET – HOW IT WORKS – USER INPUT

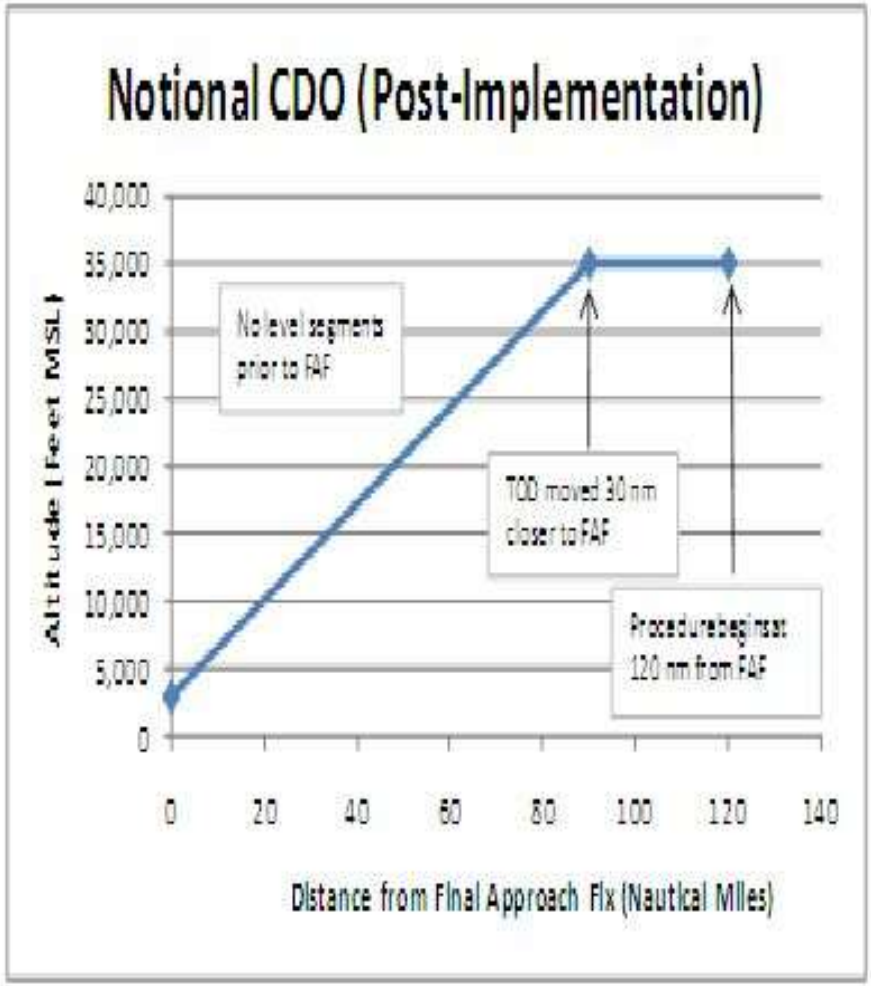
- Fleet mix defined for baseline and post-implementation scenario
  - Aircraft type group
  - “Remaining flight distance”(as a surrogate for weight)
- User selects “elements” to define the baseline and “new” procedure
- Tool estimates the change in total fuel consumption between the 2 scenarios

IFSET – SCHEDULE

- **December 2011** – ICAO releases the first version of the IFSET. (SL AN 13/61-12/4, 6Jan 2012)
- **2011/2012** – Workshops on how to use IFSET.
- **2012** – States/ANSPs start estimation and reporting fuel savings accrued from operational improvements.
- **Dec 2012** – ICAO releases the environment report with the results obtained.

IFSET – example





IFSET – example

- IFSET

SUMMARY

- KPA
- ASSEMBLY RESOLUTION
- OPERATIONAL IMPROVEMENTS
- IFSET

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