Introduction to Efficiency
TE Items 35 to 40

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01 October 2010
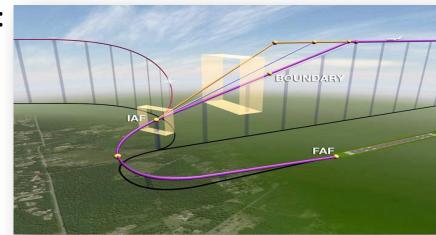
Importance to ICAO

→ Efficiency is ICAO's **Core Business;** name changed to Sustainability this triennium

→ Budget Document outlines Plans this Triennium

→ Efficiency/Sustainability is integrally linked to Safety and Environment

→ Over **$50 Billion** investment will be made by contracting States in the coming years

Optimizing Airspace Today

✈ **Need: Expedite benefits-driven PBN implementation via PBN TF**

✈ Plans this upcoming triennium:

- Joint ICAO/Industry Go-Teams (4 per year)

- Airspace Design Workshops (4 per year)

- Ops Approval Workshops (3 per year)

- Continuous Descent/Climb Operations Workshops (3 per year)

- Implementation of the NEW ICAO Flight Plan Form

- New PBN Guidance with focus on:

  - Increased route predictability

  - Increased aerodrome accessibility

Optimizing Airspace Today

➤ **Need: Reductions in Separation Minima**

➤ Plans this upcoming triennium:

– Use of 3 NM separation between aircraft utilizing ADS-B & Multilateration technologies (2012)

– Use of 2.5NM separation between in-trail aircraft up to 20 miles from runway threshold (2013)

– Allow PBN aircraft to auto-navigate in closely spaced parallel runway operations (2013)
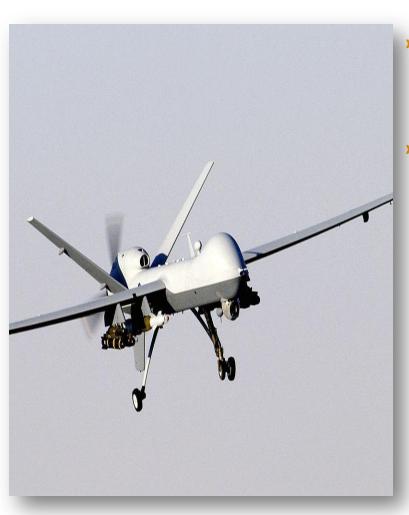
Optimizing Airspace Today

✈ **Need: Civil Military Cooperation/Shared Airspace**

✈ Plans this upcoming triennium:

- "Civil Military Cooperation in ATM" (Cir 330) Oct 2010
- 5 Collaborative Workshops
  - AFI, ASPAC, Eastern Europe & Middle East
- 2nd Global ATM Management Forum on Civil/Military Cooperation (2014)

Optimizing Airspace Today

→ Need: UAS operations in non-segregated airspace

→ Plans this triennium:

- *"Unmanned Aircraft Systems"* Circular on ICAONET (Oct 2010)

- UAS Symposium (3-5 April 2013)

- Funding (or secondment) required for Manual & SARPs/PANS development

Optimizing Airspace Today

→ **Need: Demonstrate ATM's contribution to environment by measuring enhancements**

→ Plans this upcoming triennium:

– Standardized tool for measuring & reporting fuel and CO_2 savings from operational improvements

– Regional training 2011

– Report on first benefits in 2012

Tomorrow's Aviation System

→ **Global Air Navigation Plan outlines the Future Aviation System**

→ **But -**

- When do States upgrade CNS/AIM infrastructure?
- When do Operators equip with avionics?

→ **Need -**

- **Revised Global Air Navigation Plan with**
  - Global **Block Upgrades** defined by Operational Results
  - Appendices for Avionics and Communications

→ **Plan -**

- Global Air Navigation Forum (21 – 23 Sep 2011)
- 12th Air Navigation Conference (19 – 30 Nov 2012)

How?

→ **Step 1 – Brought people together**

 – Initial Symposium (2008)

 – Convened Standards Organization Roundtable

 – Established working agreements with Standards Organisations on work programmes

How? (cont'd)

→ **Step 2 – Getting the right information**

– Reviewed Individual Regional Plans

  • Developed gap analysis

– Looking at **common areas** for possible Block Upgrades

– Dialoguing with expert Panels

  • ASP, ACP, NSP, AISAIMSG

– Next - Global Air Navigation Forum

  • Listen to our industry partners (21 – 23 Sept 2011)

– Will propose regional and global operational trials

  • Generate agreement on what needs to be tested

✈ **Step 3 – Delivering the goods**

- 12th Air Navigation Conference (Nov 2012)
  - International agreement on strategic direction
  - Identification of what performance standards are necessary - when and by whom

- New Global Air Navigation Plan
  - Global agreement on common Block Upgrades
  - Appendices for Avionics, Communications, Navigation, Surveillance & AIM

- Transparent and real-time regional planning
  - Documented with electronic Air Navigation Plan

Electronic Safety Tools

✈ **What this effort will mean to you?**

– Presents ICAO information & data in a way that makes sense to you

– Keeps you informed in 10 minutes or less

– Access & update information in real-time

– *See demonstrations in the ICAO Booth*

✈ SARPs Management & Reporting Tool (2011)

– Lets you easily do all things related to SARPs (filing, research, etc.)

✈ Online Aircraft Safety Information System (2011)

– Share aircraft & operator information with others

✈ Online interactive maps (2012)

– Up-to-date information when planning Air Navigation improvements

– Keep track of implementation