Volatility in Air Traffic and its impact on ATM Performance
The IFATCA input to the discussion

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Marc Baumgartner, Anthony Smoker and Tom Laursen
Program

The Ideal
The goals of ATC and how it works

Deterioration of the ideal

The way forward-
some suggestions and conclusion
About IFATCA

Members
- 50,000 globally
- 18,000 in Europe
- 44 member associations in Europe

Our mission
- Professional Association
- Not for profit
- Non political

Our work
- Strong ICAO presence
- Technical and professional policies
- All are volunteers
How we collect data and our angle of approach

• IFATCA Member Associations annual reports
• ICAO documents
• Authors experience and examples
• It is an ATC - operational point of view
Creating the Ideal – The goals of Air Traffic Control

Air traffic control service:
A service provided for the purpose of:

- Preventing Collisions
- Expediting and maintaining an orderly flow of air traffic.

ICAO DOC 4444 – Air Traffic Management
“Strategic conflict management measures aim to reduce the need to apply the second layer - separation provision — to an appropriate level as determined by the ATM system design and operation”.

In other words ATM design is about two layers:

• Strategic layer
• Separation provision (tactical layer)
So how do we do it?
(Very simplified)

• Orderly flow is achieved by,
  • Agreements, rules and coordination
  • Known and organised traffic patterns

• Preventing collisions is achieved by,
  • Creation of margins
    • Time and space
  • Control of flow of traffic in sectors
  • Actions to separate – turns, level, speed, direct routings, etc

Increased Safety => Increased Capacity
Deterioration of the ideal

• Macro issues, where the main areas are,
  • Political changes
  • Global finances
  • 9-11
  • SES, e.g. difference in investment and execution
  • Noise abatement

• Changes in traffic patterns
  • Jet streams
  • Head-wind
  • En-route charges
  • Delays, etc.
  • Free route airspace
Deterioration of the ideal

- The influence of Weather,
  - Snow
  - Fog
  - thunderstorms

- Everyday operations,
  - Individual requests/local rationality - difference to flight plans
  - Military – New aircraft types
  - Strike
  - Staffing
What does it cost to produce capacity?

Is better faster cheaper the right medicine?
The way forward - some suggestions and conclusion

- Improved weather predictions

- Reduction of the number of tactical interventions by the ATCO
  - Sharing of separation could be a help to improve the flexibility, redistribute the responsibility and thereby free resources

- More homogenous Airline fleets

- Development of new weather resistant aircraft types
The way forward—some suggestions and conclusion

• More authority to the Network manager towards the airspace users

• Improve predictability of traffic patterns

• Harmonised en-route charges

• Long-term planning (SES, reference periods)
Thank you for listening