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Roadmap to developing an ATFM review capability

Mr. Vernon Payne
ATFM/TF Rapporteur

NACC/WG/RAP/02

First principle – Start where you are

What data do you have available to you now?

- Counts of Arrivals, Departures, Overflights
- Categories of operations such as;
 - ❖ Scheduled Flight Carriers
 - ❖ Unscheduled operations
 - Business Aviation
 - General Aviation
 - Sport Aviation
 - Military
 - ❖ Flight Rules
 - Instrument Flight Rules
 - Visual Flight Rules

Second principle – Where/how is the data stored

Storage systems can range from simple to complex

- Excel spreadsheet
- Google Sheets
- Microsoft Access Database
- Oracle Database
- “Big Data” solutions
- Cloud solutions

Regardless of complexity, have a solid data backup plan

Third Principle – Once the data is accessible, what are meaningful visualizations?

Depending on the type of data storage, you will have different tools to examine and visualize the data

- Spreadsheet charts and tables
- Database charts/tables/graphs
- “Tableau” type portals
- Baselines of historic data can be very useful to understanding the current situation

Fourth Principle – Now that data is gathered, visualized and compared with baselines, how often is it reviewed?

Review of ATFM data can be used for many purposes and each may have it's own timeframe. Figure out what makes sense for your situation

- CDM reviews with flight operators
- Reviews with ATFM and ATS units
- Trend identification and awareness for state/funding authorities
- Trend identification and planning with airport authorities

Fifth Principle – What is next?

Improving ATFM review capabilities should be an iterative process, possible next steps in the process could be:

- Gather departure delay data, could be from ADS-B surveillance of the airport surface
- How many flights hold and for how long
- How many flights transition various airspace sectors
- What percentage of flights have specific levels of avionics/navigation/communication equipage

Progress in a logical and reasonable order as driven by your operations and ability to invest.

Additional data gathering and analyzing will allow for better airspace design and improved procedure development.



Thank You!