



# ICAO - Air Traffic Management Operations Panel Update of ICAO Circular 211 – AFIS

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# History



- April 2015 – Jeff Dawson, Vice Chair ICAO ATMOPSP initiated a proposal for examination of ICAO Manual 211 – Aerodrome Flight Information Services for a possible update.
- There was already an initial interest in publishing the EUROCONTROL Manual on Aerodrome Flight Information Service as an ICAO document or manual.
- Jeff Dawson initiated a NAVCANADA review of the EUROCONTROL manual with the intent of creating a working paper for presentation at the ATMOPSP meeting in April 2016.
- Due to time submission constraints, the proposal was presented to ATMOPSP as an Information Paper in April 2016



International Civil Aviation Organization

INFORMATION PAPER

ATMOPSP/ WG3/IP xxx  
J/14

AIR TRAFFIC MANAGEMENT OPERATIONS PANEL (ATMOPSP)

THIRD MEETING OF THE WORKING GROUP (ATMOPSP/WG/3)

Montreal, Canada – 2 to 4 April 2016

Agenda Item 9: Any other business

CONSIDERATION OF THE EUROCONTROL MANUAL FOR AERODROME FLIGHT  
INFORMATION SERVICE (AFIS) AS AN ICAO CIRCULAR

(Presented by Jeff Dawson)

# History

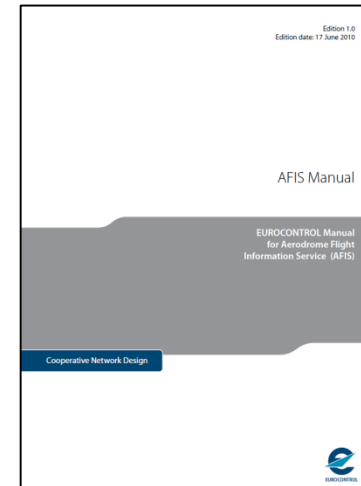
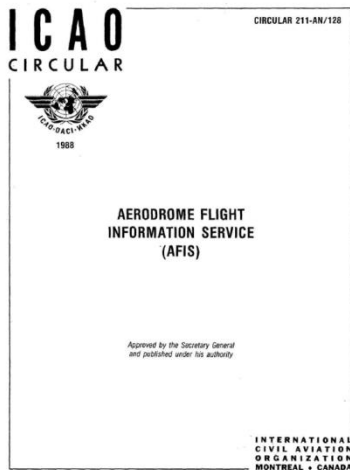


- The Information Paper was well received. Suggestions were made by various panel members supporting a review of both ICAO Manual 211 and the EUROCONTROL manual.
- It was also noted that, as many of the EUROCONTROL provisions had been extracted from PANS-ATM, that the development of any new document could be considered to be a manual. It was also suggested that the possibility of a link in the PANS-ATM/Annex 11 could be explored.
- The Secretariat put forth that a stronger recommendation be presented in the form of a working paper for the next meeting.
- The chairperson proposed that the Canadian representative provide a working paper and establish a job card for the next meeting in October 2016. Jeff Dawson established a small working group consisting of panel members to assist with creation of the working paper.

# Research



- Research has been initiated with input to be received from various members of ATMOPSP regarding examination of both manuals.
- Proposed recommendations will be amalgamated into the working paper to be presented at the October 2016 meeting.
- Recommendations and suggestions will be added to an amended EUROCONTROL manual to address national application. A finalized copy will be made available with the working paper to the ATMOPSP.



# Review



- Review of the EUROCONTROL manual was initiated in Canada and suggestions and recommendations were forwarded to participating members of the ATMOPSP for additional input.
- Where ever possible, “euro” specific references were recommended to be changed to reflect international application, or deleted if required.
- **Example:** Safety Management Systems in Appendix G were specific to European regulations. **Suggestion:** Removal or amend to encompass more general international requirements.
- **Example:** Definitions of Traffic Information Area (TIA) and Traffic Information Zone (TIZ) do not have international application. **Suggestion:** Removal from Definitions. States may be able to add local definitions as required.

# Review



- The review of the proposed document has not been completed as of this presentation, and feedback will hopefully be completed by mid-September 2016.
- After feedback is complete and a consensus has been arrived at, the resulting proposed manual and accompanying Working paper will be presented to the ATMOPSP for further examination.
- Determination on how to proceed with this information at the ICAO level will be the responsibility of the ATMOPSP.
- Eventual inclusion in PANS-ATM/Annex 11 is a future goal to provide guidance and to ensure consistent application of AFIS procedures on an international level.

# Section Review



- Changes have been proposed in the following sections of the EUROCONTROL manual:
  - **DEFINITIONS**
  - **GENERAL**
  - **PROCEDURES FOR AFIS**
  - **AERODROME TRAFFIC**
  - **PHRASEOLOGY AND AFIS REQUIREMENTS FOR COMMUNICATIONS**  
(Phraseology and Traffic information major areas)
  - **ALERTING SERVICE**
  - **EMERGENCY, COMM. FAILURE AND CONTINGENCIES**
  - **APPENDICES**
  - **ATTACHMENT A**

# Definitions



- Discussions with participating reviewers will determine how to proceed with Definitions.
- ICAO definitions are widely used but may need examination to determine if they are applicable on an international level.
- For example, “Flight Level” defined in North America encompasses both 1013.2 MB and 29.92 inches of mercury. Inches of mercury are not referred to in ICAO definitions.
- Some state definitions differ from the current ICAO definitions (“Visibility” differs in North America). Determination on the use of state specific definitions will need to be discussed or differences will need to be noted.



# General



- Minor suggestions were made to ensure a more general international application, such as:
  - Addition of *“The appropriate ATS authority determines AFIS hours of operation”*.
  - Change to the description of AFIS Unit responsibilities such as *“An AFIS Unit provides a variety of aerodrome flight information services and assistance to pilots to ensure aviation safety”* and,
  - *“Pilots operating within an AFIS area are responsible for maintaining a listening watch on specified frequencies, avoiding collision with aircraft and vehicles, conforming to traffic patterns and complying with reporting procedures.”*
  - Suggestion the addition of hyperlinks to other areas of the document to link to related references.

# Procedures for AFIS



- **Expanded runway selection** criteria to include factors other than wind speed and direction such as: calm wind runway, aircraft direction of flight, current aerodrome traffic, runway lengths, approach availability, ground traffic, cross wind, and noise abatement.
- Suggested **noise abatement procedures** may be state specific with a more general reference: *“Selection of runways for noise abatement procedures are specific to state regulations and can be found in alternate procedural documentation”*.
- Suggested **flexibility with the order and provision of traffic** information to aircraft (more detail in Phraseology), specifically allowance for the combination of Position and Direction in traffic description (PDTA vs DTAP)
- Suggested the reporting of air traffic incidents be subject to direction provided by **“appropriate ATS authorities”**.

# Procedures for AFIS



- Standard Departure and Arrival information expanded upon to provide more information details **where required** (QFE and Temperature information *where required*), such as: inclusion of traffic information, time, equipment status, wake turbulence, visibility/RVR, aerodrome conditions, weather conditions, and “other” information in supplementary information.
- Added that **SIGMET information** may be provided electronically.
- Amended the additional information (where required) that **arriving IFR traffic** may receive to avoid duplication ( deleted the information already listed for arriving aircraft).
- Amalgamated final approach information (commencement of final approach/ during final approach) into one reference.

# Procedures for AFIS



- Added “ ***where required by the appropriate ATS authority***” for situations that may have state differences and require flexibility such as: provision of additional weather information, provision of visual signals, establishment of letters of agreement or arrangement, communication transfers)
- Suggested more **general reference in Altimeter Setting Procedures** to account for state differences: no transition zones/traffic information zones or areas in many states, the use of “inches of mercury” in some states, optional use of QFE)
- Minor addition to retention of data for investigative purposes - retention of specific data **may be extended** as required by investigations or regulations

# Aerodrome Traffic



- Mostly minor additions/amendments
- Suggestion for **re-wording** of helicopter taxiing operations that includes aircraft **and** ground vehicles.
- Added the following to **Control of ground vehicles and personnel** – *“AFIS may coordinate vehicle movement with taxiing aircraft when such coordination is deemed safe and expeditious”*.
- Added *“ when approved by the appropriate ATS authority”* in the use of light signals by AFIS. Suggested hyperlink to appropriate ICAO 4444 reference. Added detail to construction and maintenance personnel operations operating on the manoeuvring area.

# Aerodrome Traffic



- Changed **runway incursion reporting procedures** from a European/ICAO reporting form, to direction provided by the aerodrome authority.
- Suggested replacement of the chapter regarding Aeronautical Ground Lights to ICAO 4444 – PANS-ATM – Ch.7 PROCEDURES FOR AERODROME CONTROL SERVICE – 7.15 AERONAUTICAL GROUND LIGHTS. These sections are **identical** with the exception of the addition of “AFIS” in the opening statement. This could be accomplished with direction for ASFISOs to follow direction in the ICAO procedures with a hyperlink.

# Phraseology and AFIS requirements for communications



- A primary area of examination is the phraseology associated with AFIS operations
- The phraseology examples and scenarios were taken directly from ICAO PANS-ATM Document 4444 – ATC Phraseologies.
- As phraseologies differ from state to state, it is essential to develop generally applied phraseologies specific to AFIS operations where none currently exist or do not apply.
- Many of the ICAO ATC phraseologies apply to AFIS operations ( Meteorological Conditions, Aerodrome Information, Vehicle Control/Operations) but could use “tweaking” to become more comprehensive – inclusion of “alternate” optional phraseologies such as **AFTER PASSING (LEAVING, THROUGH, EXITING THE ZONE, CLEAR OF THE ZONE)**

# Phraseology and AFIS requirements for communications



- The Traffic Information section is very short and would benefit from the inclusion of real world examples of general AFIS traffic phraseologies.
- Traffic Information to Aircraft in **Procedures for AFIS** detailed what information shall be provided to aircraft “as appropriate” in the following order :
  - **Direction of flight of aircraft**
  - **Type/Wake Turbulence**
  - **Level of aircraft, including changes**
  - **Relative bearing of the aircraft related to the 12 hour clock, including distance OR actual/estimated position of the aircraft, and estimated times along with any “other” information considered relevant.**
- Is this direction and order in line with current International AFIS procedures?



# Phraseology and AFIS requirements for communications



- The content and order of the information provided in traffic information originates in ICAO Document 4444 – Essential Traffic Information **in reference to ATC operations.**
- Consultation is required with representatives of the international aviation community providing AFIS traffic information to determine current practices, and to investigate the possibility of **establishing a general format** for the provision of traffic information that allow for international differences.
- Discussion regarding order, content and format is recommended in order to establish a common approach to traffic provision.

# Phraseology and AFIS requirements for communications



- The current order of traffic information in the EUROCONTROL manual is DTAL (Direction, Type, Altitude, Position).
- Some countries in other parts of the world use the same information, but **vary the order** to address regional concerns.
- U.S. traffic description (as per FAA AIM) begins traffic description with Type (TPDA).
- Canadian traffic description begins with Position (PDTA). The reasoning is to focus a pilots scan on the position of the traffic at the beginning of the advisory to assist with visual traffic identification.

# Phraseology and AFIS requirements for communications



- The categories in the current manual will be reviewed and amended to allow for flexibility while still providing basic structure.
- Feedback from the FISO conference in September 2016 will be provided to the ICAO delegates participating in the manual review.
- AFIS requirements for communications – specific coverage distances (45 km – 25 NM) have been recommended for removal to be replaced by “ as determined by the appropriate ATS authority” to allow for state differences.

# Alerting Service



- Alerting service responsibilities may differ from state to state.
- In some states, alerting service (relating to flight planning) is the responsibility of the associated AFIS for arriving aircraft while some states retain this responsibility in their associated FICs.
- As these services may differ significantly worldwide, distinctions could be made in this section to allow for the separation of alerting and emergency services.

# Emergency, Communication Failure and Contingencies



- As emergency responses can differ for situation to situation (and state to state), the procedures in this section are “intended as a general guide to AFIS personnel”.
- Efforts should be made wherever possible to establish common emergency response procedures that can be applied internationally.

# Appendix A – Surveillance Use for AFIS



- The use of ATS surveillance systems for AFIS is becoming more and more prevalent around the world.
- These recommendations are “should” be only, and are provided as general guidance.
- Efforts should be made wherever possible to establish common surveillance procedures that can be applied internationally.

# Appendix B – AFIS requirement for Information



- General references for meteorological information detail basic requirements for AFIS delivery. More detailed information can be provided at a national level.
- The requirements for information on aerodrome conditions, facility status and navigational aid status are very general in nature. Detail can be provided at a national level.

# Appendices C and D – Runway Incursion Report and Air Traffic Incident Report



- The ICAO models for runway incursion reporting and air traffic incident reporting can be retained as examples of preferred international procedures.
- As many nations have already developed national documentation in these areas, the ICAO documents can be referenced as guidelines to move toward international application.



# Appendix E – Training and Competency



- Training and Competency requirements will currently differ from state to state but these requirements are straightforward and common across many nations.
- References will need to be amended to refer to the “appropriate ATS authority” for program approvals.
- Flexibility may be added to references to take into account national differences i.e. “a minimum of 1.5 years experience in the unit and on the operation position” for OJTIs may be changed to “as determined by the appropriate ATS authority”.

# Appendices F and G – Pilot Procedures on AFIS Aerodromes and Safety Management Systems



- As pilot procedures are subject to state differences country to country, information in this section may not be accurate for inclusion in a global document. Proposal to remove this section has been submitted to address national differences.
- The current section on SMS is EU specific and will require removal or replacement with more general SMS direction. International Standards And Recommended Practices regarding international safety management have been developed and are available in ICAO Annex 19 – Safety Management.



## Attachment A – Minimum Equipment List

- The minimum requirement for AFIS accommodation and equipment states the preferences that “should” be followed in these areas.
- As these references are very general and contain very few specifics, debate may be required to recommend inclusion or amendment.



# Recommendations

- Recommendations from the 2016 FISO conference will be submitted for consideration to the panel members.
- These recommendations from different nations and operations personnel are vital to ensure that the resulting manual constitutes a strong basis for the possibility of inclusion in PANS-ATM documentation.



# Questions?



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THANK YOU

