APPENDIX D AERONAUTICAL INFORMATION SERVICE PROVIDERS

Aeronautical Information Service Providers (AISPs) have a critical role to play in the provision of safety significant "essential" information. AISPs must therefore work together with Aerodrome Operators, ANSPs and the Meteorological Office (as necessary) to ensure the integrity of the "essential" information supply chain. The aim is to ensure that the right (quality) information is available in the right place for it to be passed (by various and appropriate means) to flight crews at the right (optimal) time to aid operational decision making.

AISPs are invited to review this guidance material and, where necessary, amend their processes and procedures with regard to their involvement in the provision of safety significant, "essential" information.

Recommendation 3.3.4 Review processes covering the provision of safety significant 'essential' information such as weather, wind and runway surface conditions (e.g. when 'wet' or contaminated):

4a. To ensure a consistent, timely and accurate broadcast of aerodrome information.
4b. To ensure the integrity of the safety significant information supply chain from the provider (e.g. Met Office/Aerodrome Operator) to ATC/AISP and on to the flight crew.
4c. Consider equipping for digital transmission of ATIS, as appropriate.
4d. Ensure that training on the use of ATIS/D-ATIS is provided to relevant operational staff (ANSP/AISP).

The Aerodrome Operator, Aircraft Operator and ANSP sections all have complementary Recommendations and Guidance Material related to the provision of safety significant "essential" information.

Working Arrangements between Data Providers and Receivers

Formal arrangements allow a solid baseline against a data provider and a data receiver may reasonably expect the exchange of aeronautical data/information to take place.

Formal arrangements should be established between AISP and aerodrome authorities responsible for the aerodrome services to report to the responsible AIS unit with a minimum of delay. This would include information on aerodrome conditions of serviceability and operational status of associated facilities. Visual and non-visual navigation aids and the state of the manoeuvring area (Annex 14, Chapter 20).

To ensure promptness and accuracy in the provision of aeronautical information, liaison should be arranged between AISP and data providers being responsible for the origination of current information/data.

Formal arrangements between data providers and ANSP/AISP (e.g. in the form of a contract or Service Level Agreement (SLA)) should be introduced to support and enable the relevant data exchange.

EUROCONTROL has developed guidance about how to facilitate the establishment of SLAs between aeronautical data originators/providers and AISP, with the purpose to set agreed required quality levels of the data, the timeframe of delivery and their format. Guidance is provided by the CHAIN (Controlled and Harmonised Aeronautical Information Network). More information can be found at http://www.eurocontrol.int/articles/service-level-agreements-phase-3-p-18

Aeronautical Information Services

It is critical for the safety of operations that aeronautical data relating to runway operations is promulgated according to recognised standards. Changes to national AIPs and NOTAMs must be published in accordance with internationally agreed timeframes to ensure that key operational information is made available to aircraft operators with sufficient time for it to be processed and to inform operational decision-making.

APPENDIX D AERONAUTICAL INFORMATION SERVICE PROVIDERS

Examples of the information to be provided are mentioned variously throughout ICAO Annex 15, Aeronautical Information services.

5.1.1.1 A NOTAM shall be originated and issued concerning the following information: a) establishment, closure or significant changes in operation of aerodrome(s)/heliport(s) or runways;

8.1.2.1 presence and depth of snow, ice or water on runways and taxiways, including their effect on surface friction.

Appendix 1 referring to the content of National AIPs says that that the AIP-GEN 3.5.3 Meteorological Observations and Reports section should contain:

4) specific type of observation system and number of observation sites used to observe and report surface wind, visibility, runway visual range, cloud base, temperature and, where applicable, wind shear (e.g. anemometer at intersection of runways, transmissometer next to touchdown zone, etc.)

Whilst section AIP-AD 1.1 should include details of

5) friction measuring device used and the runway friction level below which the State will declare the runway to be slippery when wet; and
6) other information of a similar nature.

Quality Assurance of AIS Data

ANSPs and AISPs should implement quality assurance procedures regarding the provision of aerodrome information. Adequate QA should also be implemented by any other organisation that originates numerical data (e.g. runway condition/friction data) supporting aeronautical data elements.

EUROCONTROL has developed guidelines supporting the implementation of Quality Management Systems (QMS) in accordance with ISO 9001. More info at:

http://www.eurocontrol.int/aim/public/standard page/qmqa.html

Further guidance is provided at ICAO Annex 14, Aerodromes, § 2.13 Coordination between aeronautical information services and aerodrome authorities.

To ensure that aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, arrangements shall be made between aeronautical information services and aerodrome authorities responsible for aerodrome services to report to the responsible aeronautical information services unit, with a minimum of delay:

a) information on the status of certification of aerodromes and aerodrome conditions (ref. 1.4, 2.9, 2.10, 2.11 and 2.12);
b) the operational status of associated facilities, services and navigation aids within their area of responsibility;
c) any other information considered to be of operational significance.

2.13.2 Before introducing changes to the air navigation system, due account shall be taken by the services responsible for such changes of the time needed by aeronautical information services for the preparation, production and issue of relevant material for promulgation. To ensure timely provision of the information to aeronautical information services, close coordination between those services concerned is therefore required.

The Implementing Rule on Aeronautical Data and Information Quality (ADQ IR) was adopted by the European Commission and is now referred to as Commission Regulation 73/2010. The Regulation lays down the requirements on the quality of aeronautical data and information for the Single European Sky, in terms of accuracy, resolution, integrity and timelines. The actual scope goes beyond the ANSPs/AISPs to include non-ANSP entities. In terms of scope, the aeronautical data/information process chain extends from the original data source (e.g. surveyors, procedure designers etc) through AIS (publication) to the end use, either by human users or aeronautical applications. Concerning aerodrome operators, Regulation 73/2010

applies for those aerodromes for which IFR or Special-VFR procedures have been published in national AIPs because these procedures demand high quality data.

ATIS/D-ATIS

NOTE:
Depending on the organisational/operational structure, AISPs or ANSPs may be responsible for the provision of ATIS/D-ATIS. This guidance material is therefore repeated in the Air Navigation Service Provider section.

The reception of ATIS via data-link, allows both pilots to maintain their listening of ATC communications during critical high workload phases of flight, thus increasing the situational awareness and reducing the likelihood of distraction induced mistakes, lapses or confusion. Furthermore, depending on the traffic density and the complexity of the approach, it may assist flight crews with the go-around /Landing decision making process by providing the latest changes to the runway condition and local weather, which is subject to the equipment being set up to allow this data to be sent to the pilot automatically.

ICAO Annex 11, Air Traffic Services, Chapter 4 (Flight Information Services) states variously that ATIS/ D-ATIS broadcasts shall include,

- significant runway surface conditions and, if appropriate, braking action;
- surface wind direction and speed, including significant variations;
- any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;
- "other essential operational information". Runway surface conditions and reduced runway lengths for landing and takeoff fall into this category of data.

In accordance with Sections 4.1 and 4.3 of Appendix 3 to Annex 3, the surface wind direction and speed is to be averaged over 2 minutes. The wind information is to refer to conditions along the runway for departing aircraft and to conditions at the touchdown zone for arriving aircraft. Specifically, Annex 11 Chapter 4 also says that ATIS broadcasts shall include:

"surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers."

NOTE:
ICAO Annex 3, § 4.1.5.2 states that presence of wind gusts more than 5kts above the average will be indicated if noise abatement procedures are in force. A wind below 1kt will be considered as calm. This information is essential to pilots in their process decision making.

To ensure that ATIS/D-ATIS provide operational and safety benefits it is essential that the relevant operational AIS/ATC staff is competent in the use of ATIS/D-ATIS equipment and understand and apply the broad principles for the operation of these systems as described in Annex 11, Chapter 4.

Reference Documents

- ICAO Annex 15, Aeronautical Information Services
- ICAO Annex 14, Aerodromes
- European Commission Regulation, EU 73/2010.
- ICAO Annex 11, Air Traffic Services
- ICAO Annex 3, Meteorological Services for International Air Navigation
- ICAO Doc 8126, Aeronautical Information Services Manual