



International Civil Aviation Organization

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
SIXTEENTH MEETING (APIRG/16)
(Kigali, Rwanda 19-23 November 2007)**

3. Global and Inter-regional Activities

3.3: Global Air Navigation

Report on the development of ICAO provisions on the use of the Internet

(Presented by the Secretariat)

SUMMARY

This paper provides a report on the process of enabling the use of the Internet for aeronautical data exchange and suggests that potential uses of the Internet in the AFI Regions be identified.

References:

1. Introduction

1.1 The MET Divisional Meeting (2002) formulated a number of recommendations pertaining to the use of the Internet and the qualification of Internet service providers in the context of aeronautical meteorology. Following the review of the report of that meeting by the Air Navigation Commission (ANC), the Aviation Use of the Public Internet Study Group (AUPISG) was established to assist the Secretariat with undertaking the necessary studies with a broader scope to include other types of aeronautical information.

1.2 AUPISG held two meetings and developed Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855) which was published in 2005. States and international organizations were then consulted on the need for ICAO to do further work on the subject of the use of the Internet. Based on views received, the ANC agreed that amendments to Annex 3 — Meteorological Service for International Air Navigation and Annex 15 — Aeronautical Information Services, be developed to enable the use of the Internet for operational purposes.

1.3 The aforementioned proposed amendments were developed and subjected to the usual approval process. At the same time, AUPISG was disbanded as it had successfully completed its work.

1.4 On 30 October 2007, the ANC conducted the final review of the proposed amendments and agreed that they be consolidated with other amendment proposals for inclusion in Amendment 75 to Annex 3 and Amendment 35 to Annex 15 (both to become applicable on 18 November 2010). The

aforementioned amendments (as presented in Appendices A and B) will be considered by the Council for adoption in the first quarter of 2010.

2. Discussion

2.1 In certain situations, the low level of traffic doesn't warrant implementing dedicated aeronautical fixed service (AFS) facilities. In such cases, the use of other available means of communications like the Internet should be seriously considered.

2.2 The published guidelines (Doc 9855) and the proposed amendments to Annexes 3 and 15 enable States to use the Internet for certain types of aeronautical data exchanges. As Internet is available through commercial Internet service providers and the necessary hardware/ and software are also widely available, States do not need to embark on any significant implementation activities in order to exchange data over the Internet. However, It would be necessary for planning and implementation regional group (PIRGs) to clearly identify places and situations where such uses can be made. It is also be prudent that States become familiar with information security and other related aspects of the Internet to safeguard the integrity of aeronautical information.

3. Action by the meeting

3.1 Based on information provided and the points discussed, the meeting is invited to adopt the following decision:

Decision XX/YY: Planning for the use of the Internet in the AFI Regions

that the CNS subgroup develop a report on the potential uses of the Internet for aeronautical data exchanges in the AFI Regions in accordance with relevant ICAO provisions.

Appendix A

PROPOSED AMENDMENT TO ANNEX 3

(As per the final review by the Air Navigation Commission on 30/10/2007)

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CHAPTER 11. REQUIREMENTS FOR AND USE OF COMMUNICATIONS

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11.1 Requirements for communications

11.1.1 Suitable telecommunications facilities shall be made available to permit aerodrome meteorological offices and, as necessary, aeronautical meteorological stations to supply the required meteorological information to air traffic services units on the aerodromes for which those offices and stations are responsible, and in particular to aerodrome control towers, approach control offices and the aeronautical telecommunications stations serving these aerodromes.

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11.1.8 Suitable telecommunications facilities shall be made available to permit meteorological offices to exchange operational meteorological information with other meteorological offices.

11.1.9 **Recommendation.**— *The telecommunications facilities used for the exchange of operational meteorological information should be the aeronautical fixed service or, for the exchange of non-time critical operational meteorological information, the public Internet, subject to availability, satisfactory operation and bilateral/multilateral and/or regional air navigation agreements.*

Note 1.— Three aeronautical fixed service satellite distribution systems providing for global coverage are used to support the global exchanges of operational meteorological information. Provisions relating to the satellite distribution systems are given in Annex 10, Volume III, Part 1, 10.1 and 10.2.

Note 2.— Guidance material on non-time-critical operational meteorological information and relevant aspects of the public Internet is provided in the Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855).

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11.2 Use of aeronautical fixed service communications and the public Internet — meteorological bulletins

Meteorological bulletins containing operational meteorological information to be transmitted via the aeronautical fixed service or the public Internet shall be originated by the appropriate meteorological office or aeronautical meteorological station.

Deleted: *Note.— Circuits of the aeronautical fixed service are used for the collection and regional and inter-regional exchanges of operational meteorological information as well as for access to international operational meteorological data banks. Three aeronautical fixed service satellite distribution systems providing for global coverage are used to support the regional and inter-regional exchanges of operational meteorological information. Provisions relating to the satellite distribution systems are given in Annex 10, Volume III, Part 1, 10.1 and 10.2.*

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Note.— Meteorological bulletins containing operational meteorological information authorized for transmission via the aeronautical fixed service are listed in Annex 10, Volume II, Chapter 4, together with the relevant priorities and priority indicators.

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APPENDIX 10. TECHNICAL SPECIFICATIONS RELATED TO REQUIREMENTS FOR AND USE OF COMMUNICATIONS

(See Chapter 11 of this Annex.)

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2. USE OF AERONAUTICAL FIXED SERVICE COMMUNICATIONS AND THE PUBLIC INTERNET

2.1 Meteorological bulletins in alphanumeric format

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2.1.3 Heading of bulletins

Meteorological bulletins containing operational meteorological information to be transmitted via the aeronautical fixed service ~~or the public Internet~~ shall contain a heading consisting of:

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- a) an identifier of four letters and two figures;
- b) the ICAO four-letter location indicator corresponding to the geographical location of the meteorological office originating or compiling the meteorological bulletin;
- c) a date-time group; and
- d) if required, a three-letter indicator.

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2.2 World area forecast system products

2.2.1 Telecommunications for the supply of WAFS products

Recommendation.— *The telecommunications facilities used for the supply of world area forecast system products should be the aeronautical fixed service ~~or the public Internet~~.*

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2.2.4 Heading of bulletins containing WAFS products

Meteorological bulletins containing WAFS products in digital form to be transmitted via aeronautical fixed service or the public Internet shall contain a heading as given in 2.1.3.

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Appendix B

PROPOSED AMENDMENT TO ANNEX 15

(As per the final review by the Air Navigation Commission on 30/10/2007)

CHAPTER 9. TELECOMMUNICATION REQUIREMENTS

9.1 International NOTAM offices shall be connected to the aeronautical fixed service (AFS).

9.1.1 The connections shall provide for printed communications.

9.2 Each international NOTAM office shall be connected, through the aeronautical fixed service (AFS), to the following points within the territory for which it provides service:

- a) area control centres and flight information centres;
- b) aerodromes/heliports at which an information service is established in accordance with Chapter 8.

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9.3 **Recommendation.**— *Subject to availability, satisfactory operation and bilateral/multilateral and/or regional air navigation agreements, the use of public Internet should be permitted for exchange of non-time critical types of aeronautical information.*

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Note.— *Guidance material on non-time critical types of aeronautical information and relevant aspects of the public Internet is provided in the Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855).*

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