



Agenda Item 3

CNS Developments

3.3 Development of ground-ground communications

STATUS REPORT ON THE USE OF THE INTERNET

(Presented by the Secretariat)

SUMMARY

This information paper provides a status report on the process of enabling the use of the Internet for aeronautical data exchange.

1. Introduction

1. Pursuant to MET Divisional Meeting (2002) formulated a number of recommendations concerning the use of the Internet and the qualification of Internet service providers in the context of aeronautical meteorology. Consequently, 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 as a result, Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855) was published in 2005. Consequently, States and international organizations were 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 consequently developed and were subject to preliminary review by the ANC on 30 November 2006. The ANC agreed that the subject proposed amendments be transmitted to States and international organizations for comments.

1.4 Consequently, the proposed amendments, as reproduced in **Appendices A** and **B** to this paper, were sent under the cover of State letter AN 7/11.15 dated 19 January 2007 to States and international organizations for comments. The date for receiving the replies was 16 May 2007 and the proposed applicability date is 18 November 2010.

1.5 The majority of replies received show support for the proposals. The ANC will conduct a final review of the proposed amendments during its 176th Session (15 October to 14 December 2007).

2. Conclusion

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

2.2 The guidelines already developed and the regulatory material that will be forthcoming would enable States to use the Internet for certain types of aeronautical data exchanges.

APPENDIX A

PROPOSED AMENDMENT TO INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

METEOROLOGICAL SERVICE FOR INTERNATIONAL AIR NAVIGATION

ANNEX 3

TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION

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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.

~~—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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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 agreements between States.*

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 in alphanumeric format

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.

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 ~~facilities~~ ~~or the public Internet~~ shall contain a heading consisting of:

- 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 ~~facilities~~ ~~or the public Internet~~ shall contain a heading as given in 2.1.3.

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APPENDIX B

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AERONAUTICAL INFORMATION SERVICES

ANNEX 15

TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION

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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.

9.3 Recommendation.— *Subject to availability, satisfactory operation and bilateral/multilateral agreements between States, the public Internet should be used for exchange of non-time critical types of aeronautical information.*

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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