



Agenda Item 3: Air Navigation Services

3.1) CNS/ATM

AIS SYSTEMS AND COCESNA AIS/MET

(Note presented by COCESNA)

SUMMARY

The present working paper summarizes the advances and improvements given on the systems developed by COCESNA regarding to AIS System and AIS/MET System as well as its future use.

1. Introduction

1.1 As part of COCESNA's continuous process in the modernization of its systems and services, the evolution of the systems developed by COCESNA had been included and that are operating in different countries members of COCESNA, as well as another facilities.

1.2 The implementation by COCESNA of its AIS automated systems has facilitated the harmonization of the processes for the handling of the aeronautical information and the homogenous technological evolution of these services in all Central American countries.

1.3 This is the case of the AIS and AIS/MET systems that manage the processing and display of aeronautical information.

1.4 The AIS System, on its current version 2.0, has been operating since 2002; by the other hand the version of AIS/MET System implemented in CENAMER Control Center has been operating since 2003.

1.5 In COCESNA's Central Office, has been implemented a Central monitoring of AIS Regional System which is able to verify the performance of this system and also is able to offer a supervision of it on a 24/7 schedule.

1.6 Both the AIS System and the AIS/MET System are developed with interfaces that dynamically adopted to selected language by the user.

2. Current AIS System

2.1 In **Appendix A** of this note it is shown the architecture of the AIS Central System in Tegucigalpa.

2.2 The layout of implementations and users of AIS integrated System in Central America, is shown on the **Appendix B** of this working paper.

3. System AIS Projection and Future Actions

3.1 On demand of new operative requirements such as capacities level, presentation and processing, COCESNA continues the analysis and attention of them making on time updates, which will concrete soon as a new AIS version for all users. Among the main improvements on the AIS System are:

- Application available on the WEB.
- Generation of management advices for operative and administrative control, for example: aircraft registration, crew, operators, etc.
- Automated aeronautical messaging Manager
- Automated data bank interrogation manager
- AMHS Communications
- Copies by e-mail
- Graphic Presentation of AIS/MET information
- Flight progress data display (TZ format)

4. Current AIS/MET System

4.1 In the **Appendix C** of this note it is shown the architecture of AIS/MET System implemented in CENAMER Control Center.

4.2 Nowadays it is in implementation process the AIS/MET system for operation in COCESNA's Backup Control Center at Ilopango to be used as alternative system on ATS Contingencies Plan.

4.3 Among the facilities of the AIS/MET, we can mention the following:

- a) Inquiring and visualization of all aerodromes status, nav aids, prohibited, dangerous and restricted areas, volcanoes and meteorological information within the FIR/UIR by graphic interpretation of NOTAM, ASHTAM and METAR.
- b) Inquiring and visualization of updated flight plans from the Flight Data Processor system as well as all aeronautical information related to the route of flight by mean of previous flight bulletin.
- c) Inquiring in text format of all NOTAM, ASHTAM and METAR messages on the original format that were internationally issued.
- d) Easy communication through AFTN messages, as well as aeronautical information and clear text messages.
- e) Easy inquiry of complete aeronautical charts with a high resolution.
- f) Easy inquiry of different documents related to aeronautical safety in general.

- g) Access to clear text inquiries for meteorological messages and generation of voice files for an easy and quick inquiry and comprehension of them.
- h) SAR alerts management capabilities and automated plotting of coordinates on videomaps.

5. Projection and Future Actions of AIS/MET System

5.1 *Air Traffic Flow Management Center (ATFM)*

5.1.1 Because of new operatives requirements of capabilities, presentation and processing, COCESNA continues the analysis and updating, identifying with the following improvements on the system, for it future use on Control Towers, Approach Centers, Area Control Centers, Air Traffic Flow Management Centers (ATFM), Search and Rescue (SAR):

- Flight progress strip printing.
- Electronic flight progress strips display.
- Synthetic tracks display based on the flight plan.
- Radar Track/Flight Plan Correlation.

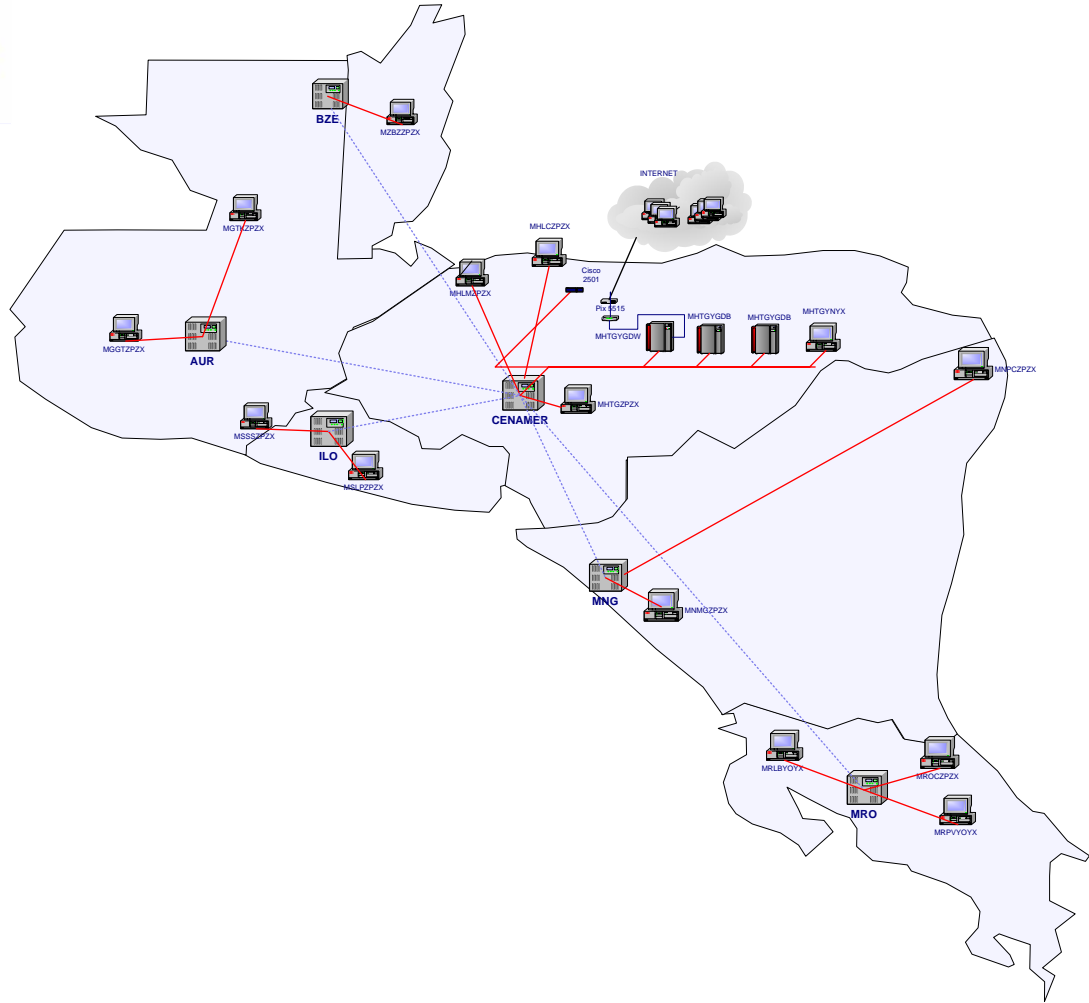
6. Suggested Actions

6.1 The Meeting is invited to :

- a) take note of the information presented on this working paper;
- b) analyze the convenience of adopting AIS/MET automated systems on the ATC facilities on each country, as well as AIS System for all the AIS and AFTN facilities of CAR Region; and
- c) consider the possibility of establish technical cooperation projects that support the implementation of automated systems.

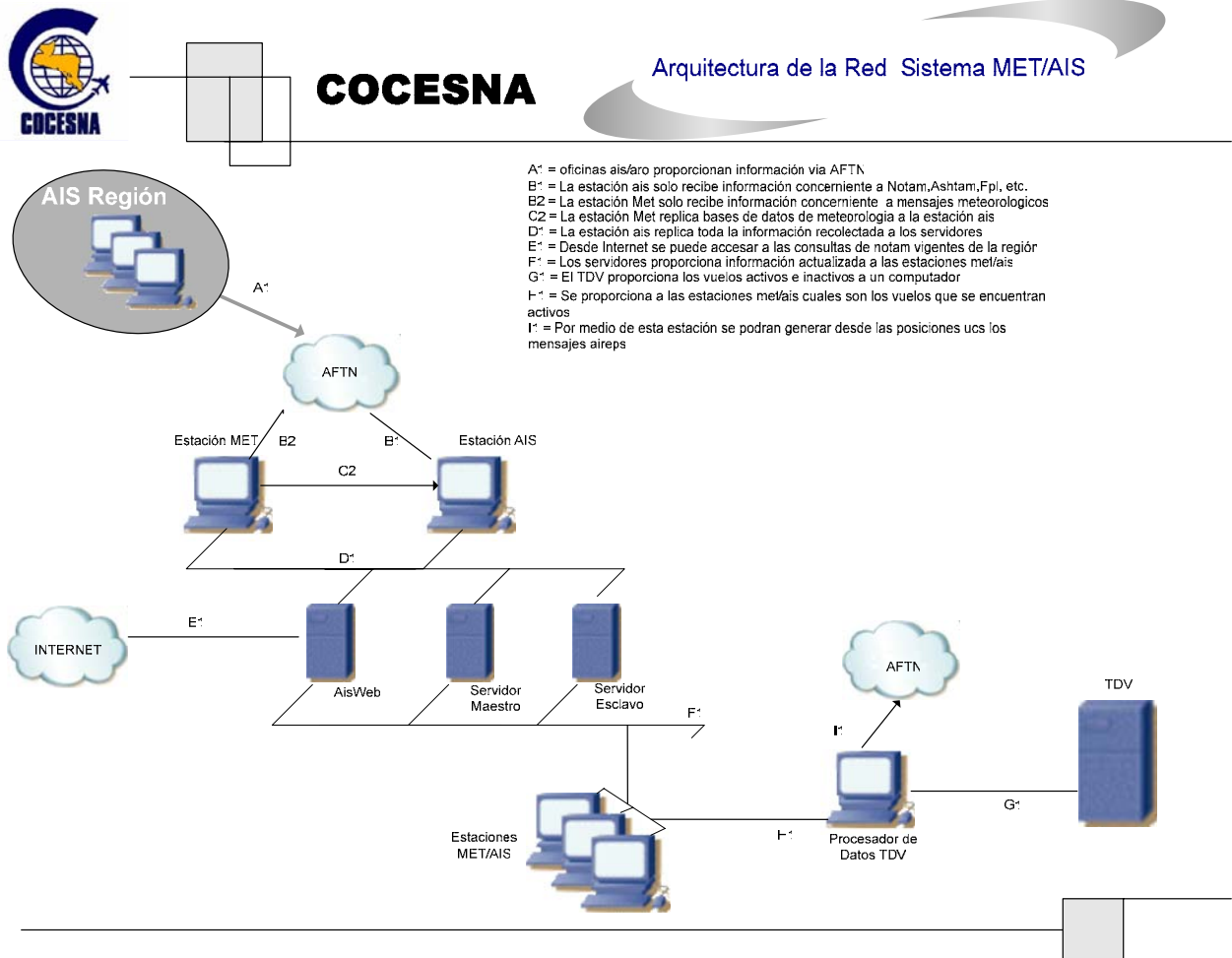
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APPENDIX B: AIS System Range Schema



APPENDIX C:

AIS/MET Architecture System



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