

# Agenda Item 1:Review the latest developments in the ATN Panel and the Aeronautical<br/>Mobile Communication Panel

#### Review Latest Development in the Aeronautical Telecommunication Network Panel (ATNP) And in the Aeronautical Mobile Communications Panel (AMCP)

(Presented by Australia)

#### <u>Summary</u>

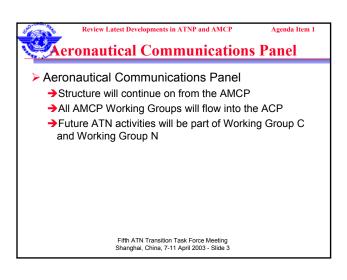
This paper provides results of the eighth meeting of Aeronautical Mobile Communication Panel (AMCP/8) including its new name and structure established after the merger of the ATN Panel into AMCP. The AMCP has been renamed as Aeronautical Communication Panel (ACP).

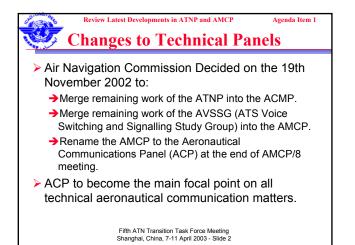


Review Latest Developments in ATNP and AMCP Agenda Item 1

Review Latest Developments in the Aeronautical Telecommunication Network Panel (ATNP) and in the Aeronautical Mobile Communications Panel (AMCP)

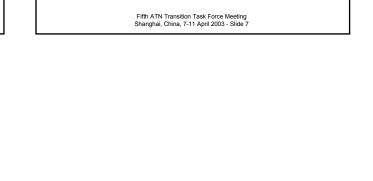
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Review Latest Developments in ATNP and AMCP Agenda Item 1 ACP New Structure (1) ACP will have the following Working Groups: Working Group B Frequency Assignment Planning for VDL (modes 2, 3 and 4) → Working Group C – Rapporteur Mr Kors van den Boogard Development of SARPs and guidance material for future systems. Next WG meeting to be determined (20/24 Oct 03 in Europe). →Working Group F – Rapporteur Mr Steve Mitchell \*Address spectrum management activities for International Telecommunication Union (ITU) conferences. Next meeting scheduled for Aug 03 in Montreal and Feb 04 in Nairobi. Fifth ATN Transition Task Force Meeting Shanghai, China, 7-11 April 2003 - Slide

	Review Latest Developments in ATNP and AMCP Agenda Item 1 ACP New Structure (2)	
	/orking Group M – Rapporteur Mr Loftur Jónasson Address corrective maintenance of guidance material and SARPs for all air-ground, and ground-ground voice signalling communications.	
•	Next meeting scheduled for 2nd week in April 2003 Iceland and Nov 03 in Bangkok.	
	<ul> <li>/orking Group N – Rapporteur Mr Jean-Yves Piram</li> <li>Address development of SARPs and guidance material for new features and develop provisions related to internet communications services, air-ground and ground-ground applications, systems management, security and directory services.</li> </ul>	
*	Next meeting to be advised.	
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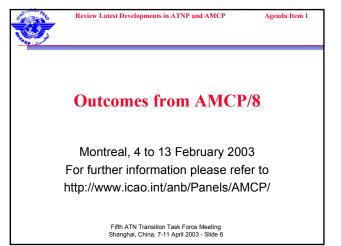


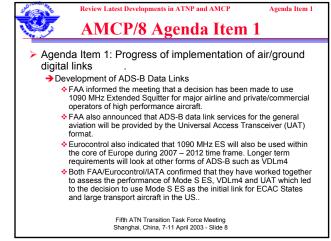
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**Remarks by ANC President** 

 AMCP/8 to develop proposals for the new ACP.
 ICAO standardisation activities should only be undertaken when new systems or technologies are mature and have demonstrated their ability to provide safety enhancements compared to existing standardised systems and/or they are cost beneficial to international civil aviation.
 Reduce the proliferation of Data Links.

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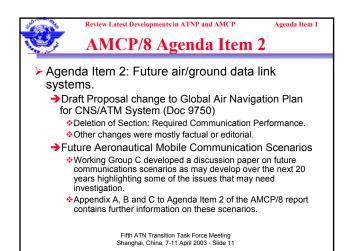


Mongolian airspace. Studies so far have found the implementation of ADS-B will improve the safety and efficiency of the NAS.

Other presentations included:

- Update on the North European ADS-B Network (NEAN) Programme
- ADS Mediterranean Upgrade Programmes (MEDUP)
- Mediterranean Free Flight (MFF) Programmes

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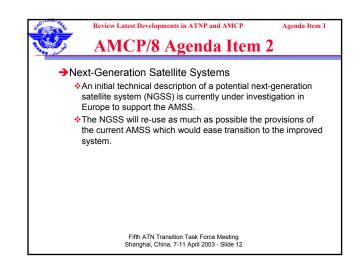
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Development of VDL Mode 3 Implementation

FAA indicated that they have selected the VDLm3 system for its next generation VHF air/ground communications systems. This is part of the FAA's NEXCOM programme which its digital voices services are planned to be fully operational by 2009.

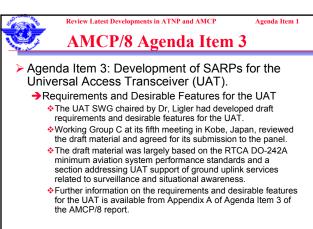
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- JCAB is studying the future implementation of VDLm3. Time scales match the plans of the USA to implement the new digital voice services by 2009/2010.
- Other Developments include:
  - ARINC's HFDL global coverage is nearing completion with message traffic levels exceeding 300,000 per month.
  - ARINC's VDLm2 ground stations now number 110 in the US and will increase to 150 by end of 2003.



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→Interactive Digital Voice Transmission in the HF Band Aena (Spanish Airports and Air Navigation) in a joint effort with Polytechnic University of Madrid and University of Las Palmas de Gran Canaria are developing a design for an Orthogonal Frequency Division Multiplex (OFDM) – Code Division Multiple Access (CDMA) system for interactive digital voice transmission in the HF Band.	ېA م Ur ج
<ul> <li>The work shows favourable results for increasing the system robustness against channel fading when combining the advantages of OFDM schemes with CDMA spread spectrum techniques.</li> <li>Working Group M will monitor the progress in this area.</li> </ul>	

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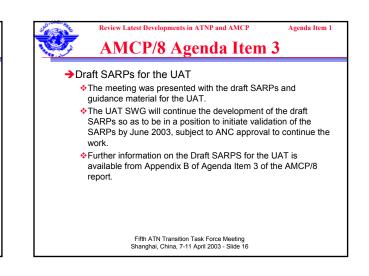


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#### Main Conclusions on Future Air/Ground Data Link Systems:

- → Assess when and in which regions VHF saturation will occur.
- → Evaluate potential alternative technologies and measures to ensure that the required ATM capacity will not be constrained by a lack of communication capacity in the VHF Band.
- Investigate feasibility to introduce new AMSS technologies such as the next-generation satellite system
- Assessment of spectrum requirements for future terrestrial and satellite communications systems.
- Review current plans for future aeronautical communication infrastructure with the objective to converge present systems into a common global infrastructure.



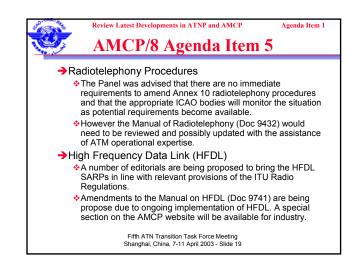


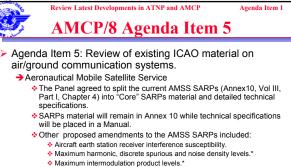
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### AMCP/8 Agenda Item 4

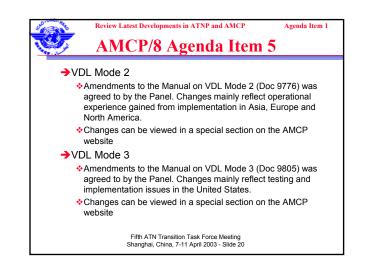
- Agenda Item 4: Comparative analysis of ADS-B data links.
  - The meeting reviewed the draft comparative analysis for ADS-B data links which was developed by Working Group C.
  - There were some concerns that the analysis was based on emerging operational requirements and on document RTCA DO-242A which is subject to further revision and were not ICAO standards.
  - Information in regards to this item is attached as an appendix to Agenda Item 4 of the AMCP/8 report.
  - It was recommended that the document be circulated to appropriate ICAO bodies for information.

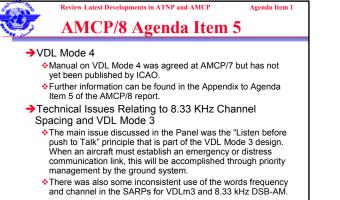
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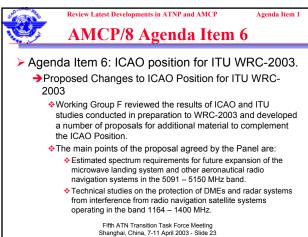


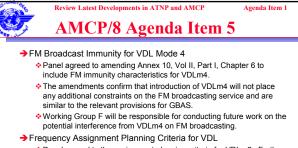
- Maximum intermodulation product levels.\*
   DTE effect on DCE restart rates and DTE effect on DCE flow control transfer rates.
- transfer rates. \* Panel did not agree due to required protection of the GLONASS receivers



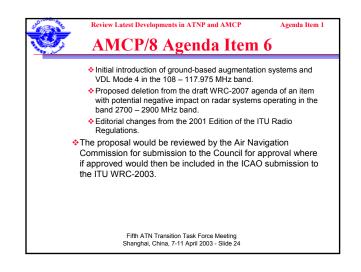


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- Panel agreed to the assignment planning criteria for VDLm2. Further information on the assignment planning criteria is in Appendix J to Agenda Item 5 of the AMCP/8 report. This information will be incorporated into the Manual on VDL Mode 2 (Doc 9776).
- Further work on frequency assignment planning criteria for VDLm3 and VDLm4 is ongoing.





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# AMCP/8 Agenda Item 6

- Ancillary Terrestrial Component for Certain Mobile Satellite Service System Providers in the AMSS SARPs Band.
  - The meeting was advised on a proposed operation of a new generation multi-beam MSS system, operating in the bands 1525 – 1559 MHz and 1626.6 – 1660.5 MHz.
  - The system will have an ancillary terrestrial component using a cellular type network of repeater stations to augment the coverage of the satellite spot beam.
  - The meeting concluded that there was an urgent need for ICAO studies to be conducted on the impact of the introduction into the 1525 – 1559 MHz band and that this study would be carried out by Working Group F in consultation with the Spectrum Subgroup of GNSSP.