



ICAO CAIRO UNITING AVIATION

CRV Workshop

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Regional Officer/ Communications, Navigation and
Surveillance – ICAO MID Office

Cairo/1st March 2018





- **The Objective of the Workshop**
 - To provide State with update on CRV project progress;
 - To provide a forum to discuss CRV's Technical aspects and to clarify any pending issue;
 - To communicate States' requirements to the CRV service provider to develop SDDs and agree on implementation plan, as appropriate





Work Programme

First Session: Background Information, including:

- The need for MID IP Network
- CRV Progress
- PCCW Global Limited Profile

Second Session: CRV Development

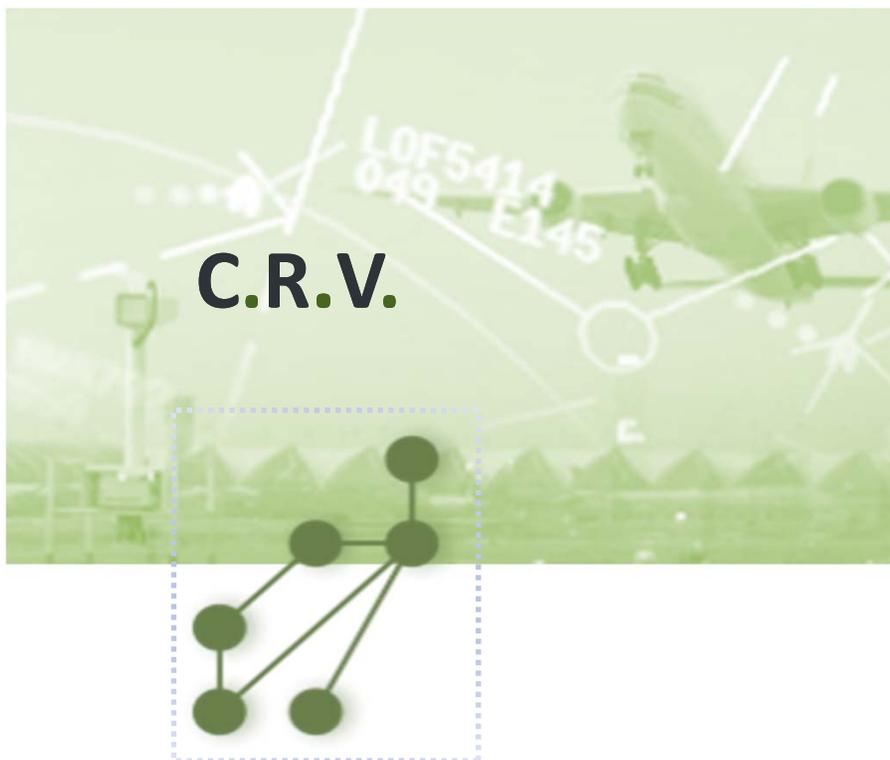
- CRV Concept of Operation
- CRV Packages
- Q&A

Third Session: Next Steps and Way forward

- States Requirements & the High level Questionnaire
- System Design Document (SDD)
- Implementation Plan



WHY??





CRV benefits

- Half circuit arrangement between States is increasingly difficult to order and time consuming.
- Circuit upgrade between States is also impacted due to variable pricing and bandwidth availability of the half circuit at each State.
- Several Network problem (Looping, Non delivery, message loss) due to point to point topology (multiple hops).
- New future Information Management such as System Wide Information Management (SWIM), is not supported



CRV benefits

- Reduce telecommunication costs.
- Enable integration in the aeronautical infrastructure and enhanced services (GANP, regional objectives)
- Provide a standardized interface for AFS (instead of multiple protocols, some of which are obsolescent)
- Rationalize coordination for network management and enhancement
- Respond to Air Traffic requirements in a timely and standardized manner

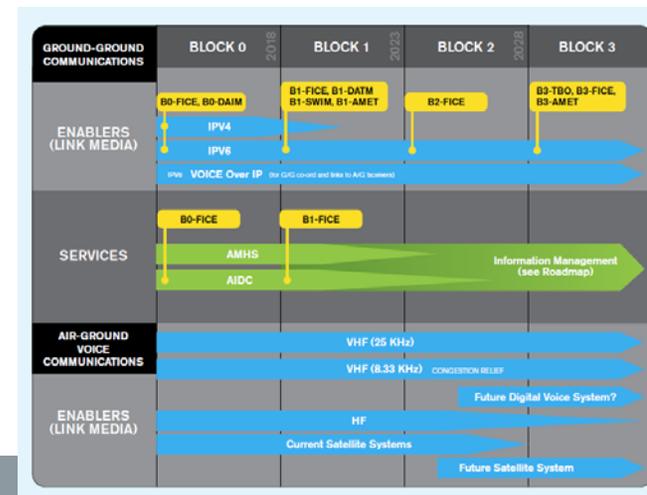
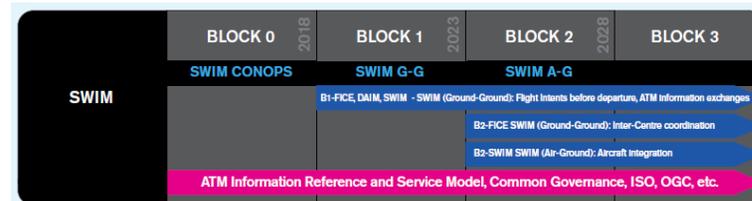
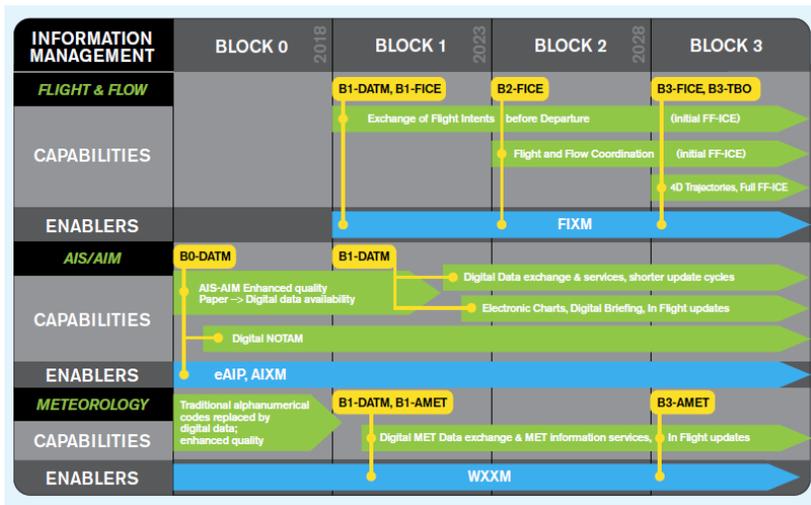


Services carried by CRV

- Ground-ground voice ATM communications, referred to as voice communications
- Ground-ground ATS surveillance data
- Ground-ground AIDC/OLDI data
- Ground-ground COM data
- Ground-ground ATFM data
- Ground-ground SWIM data
- Miscellaneous data: other data not pertaining to the categories above



GANP





IPv4 / IPv6 interregional connectivity

Voice over IP

Directory / Security Services

B1-SWIM Performance Improvement through the Application of SWIM

B1-NOPS Enhanced Flow Performance through Network Operational Planning

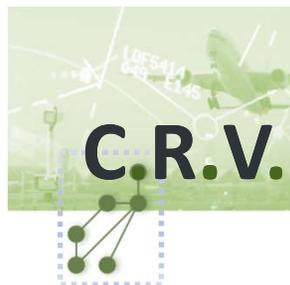
B2-NOPS Increased User Involvement in the Dynamic Utilization of the Network

B2-SWIM Enabling Airborne Participation in Collaborative ATM through SWIM

B3-TBO Full 4D Trajectory-based Operations

B3-AMET Enhanced Operational Decisions through Integrated Meteorological Information (Near-term and Immediate Service)

Enables



Facilitates

B0-NOPS Improved Flow Performance through Planning based on a Network-wide view

B0-ASUR Initial Capability for Ground Surveillance

B0-FICE Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration

B1-RATS Remotely Operated Aerodrome Control

B1-FICE Increased Interoperability, Efficiency and Capacity through FF-ICE/1 application before Departure

B1-AMET Enhanced Operational Decisions through Integrated Meteorological Information (Planning and Near-term Service)

B2-FICE Improved Coordination through Multi-centre Ground-Ground Integration (FF ICE, Step 1 and Flight Object, SWIM)

B3-FICE Improved Operational Performance through the Introduction of Full FF-ICE

B3-NOPS Traffic Complexity Management



MAEP board/2 agreed that the procurement framework of the APAC CRV be used for the implementation of the MID IP Network Project; and the MID IP Network be renamed as Common aeRonautical VPN (CRV) in order to represent both Regions.



CONCLUSION 16/15: MID IP NETWORK PROJECT (CRV)

That,

- *States that have already committed to join CRV, are invited to engage with the recommended supplier to establish individual service contracts; and*
- *States that have not yet done so, are urged to carry out a comprehensive CBA related to the implementation of an IP Network under the CRV framework; and inform the ICAO MID Office, as soon as possible, about their decision related to the joining of CRV.*



DRAFT CONCLUSION 8/3: THE COMMUNICATION NETWORK FOR IWXXM DATA EXCHANGE

That, the Main and Backup Regional OPMET Centres (Bahrain and Saudi Arabia) and the Main COM Centres in the MID Region be urged to join the CRV Project in order to enable the exchange of OPMET information in IWXXM format.



CNS SG/8 Report:

- The meeting urged States that have not yet completed the high level Questionnaire, to do so and touch-base with PCCW during the CRV Workshop, which will be held back-to-back with the CNS SG/8 meeting on 1 March 2018.
- The meeting invited States to attend the CRV OG/4 meeting in Nadi, Fiji to discuss and approve their SDD.



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THANK YOU