



MEVA 4.0 Technical Exploration

MEVA TMG 34
Miami, USA
11-13 June 2019



Background





MEVA III FRAMEWORK GREEMENT

2014
two thousand fourteen

january

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february

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april

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may

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june

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july

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august

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september

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october

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november

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december

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Initial 5 year term

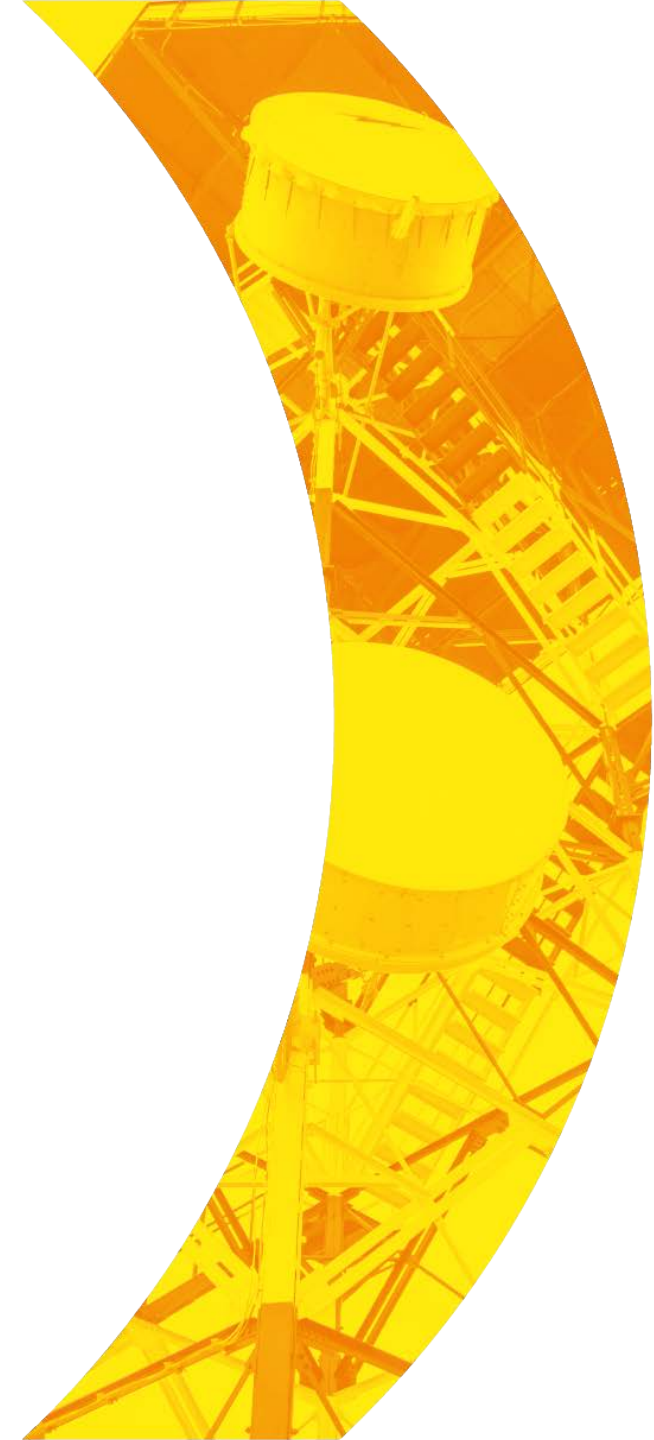
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+2

AGENDA ITEM 3 MEVA TMG/33

Under WP/15, the MEVA Rapporteur presented information about different States' plans and progress in implementing SWIM, AIM and ATFM using the MEVA III Network.

As a result, it was indicated that the MEVA III network is on a mature stage in terms of its operation and stability. It is expected to continue operating in the same way and to use Transport Control Protocol TCP/IP technology that will form an excellent platform to provide new services

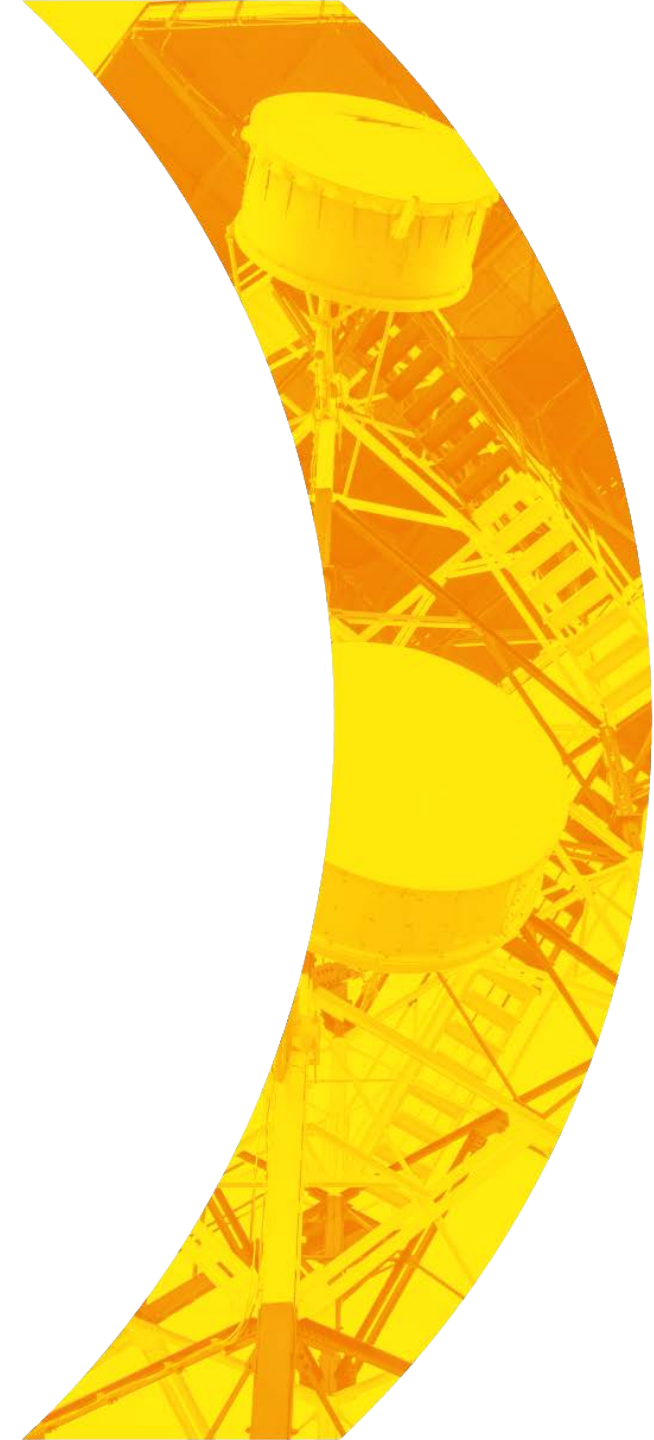


AGENDA ITEM

3 MEVA TMG/33

Under WP/03, the Secretariat presented an introduction to the future needs of Air Traffic Services and the challenges that our regions are facing. In accordance with the air traffic statistical analysis, it is expected that for 2034 the current aviation operations will be duplicated, this new challenge demands a more complex air traffic control to satisfy the security and efficiency needs demanded by aviation.

Additionally, external factors that normally affect aviation must be incorporated into this need, such as security (cybersecurity), environment (solar storms, volcanic eruptions, and hurricanes), economical resources and other factors.



AGENDA ITEM 3 MEVA TMG/33





AGENDA ITEM 3 MEVA TMG/33



Analysis of New MEVA Phase



CONCLUSION

MEVA TMG/33/8

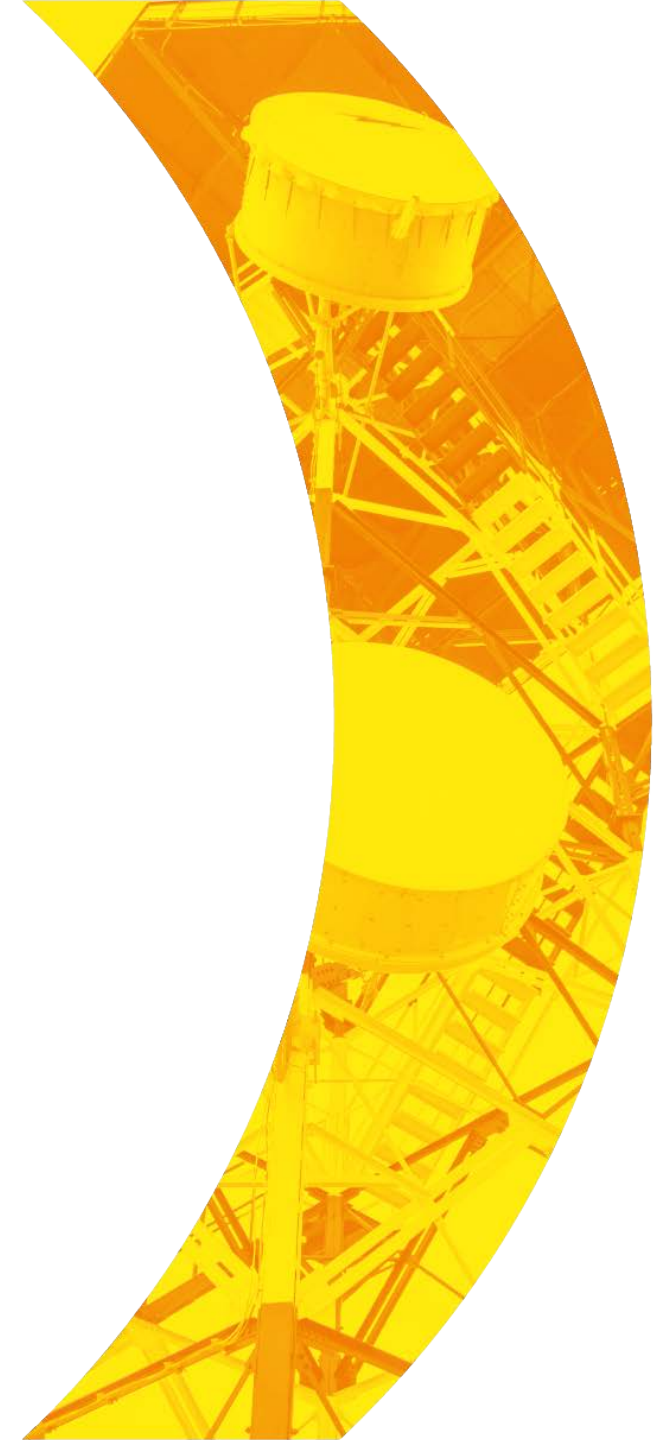
ANALYSIS OF NEW MEVA PHASE

That, in order to ensure the correct and safe implementation of the new services in the region, the Meeting agreed to:

a) provide to the MEVA rapporteur with their action plan and status for ATFM, ADS-B satellite and SWIM implementation by **25 June 2018**; and

b) create a MEVA Ad hoc Group integrated by Dominican Republic, Trinidad and Tobago, United States and COCESNA with the objective of developing technical/operational requirements for a new platform of IP-communication to support the new services and develop an action plan for execution in the next two years, as follows:

- The Ad hoc Group will be led by COCESNA and supported by ICAO.
- It will propose a new phase of MEVA network to support the new communications needs to be presented at the MEVA/TMG/34 Meeting.





AGENDA ITEM

3 MEVA TMG/33

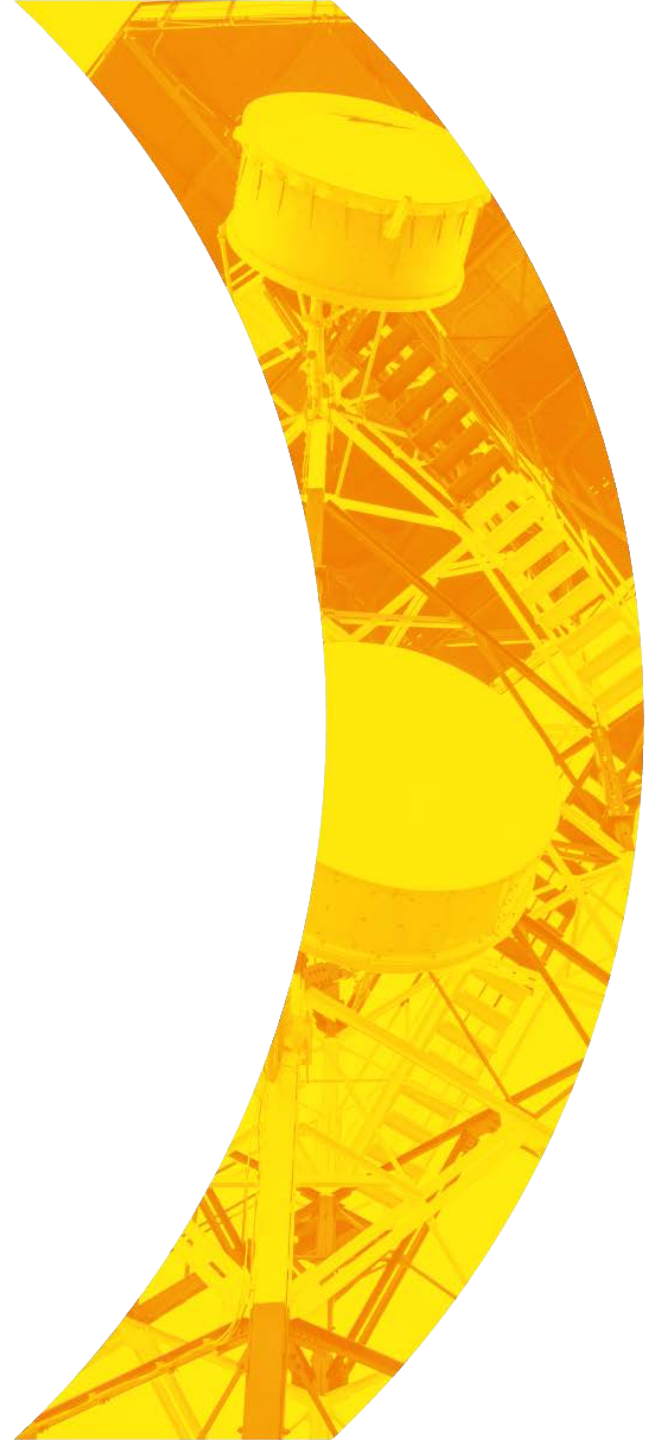
New Challenges & Services

Aeronautical Information Management (AIM)

Air Traffic Flow Management (ATFM)

System Wide Information Management (SWIM)

Automatic Dependent Surveillance – Broadcast (ADS- B)

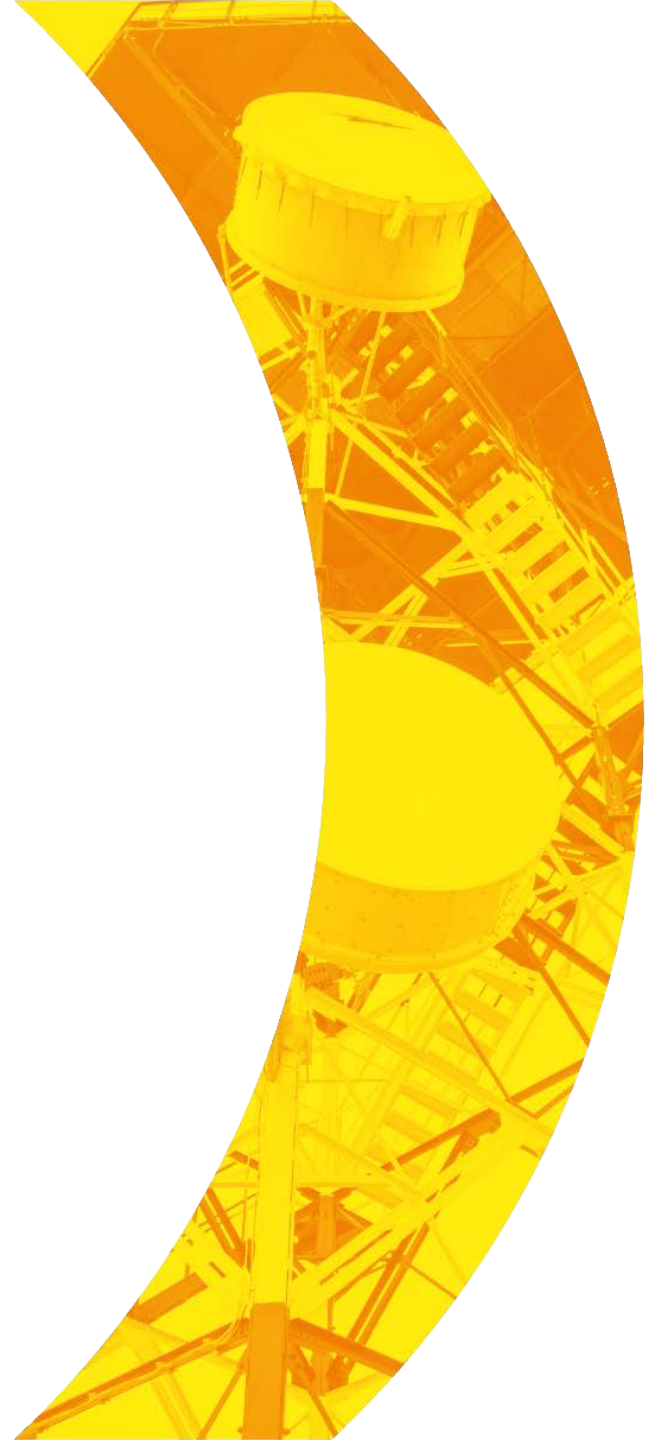


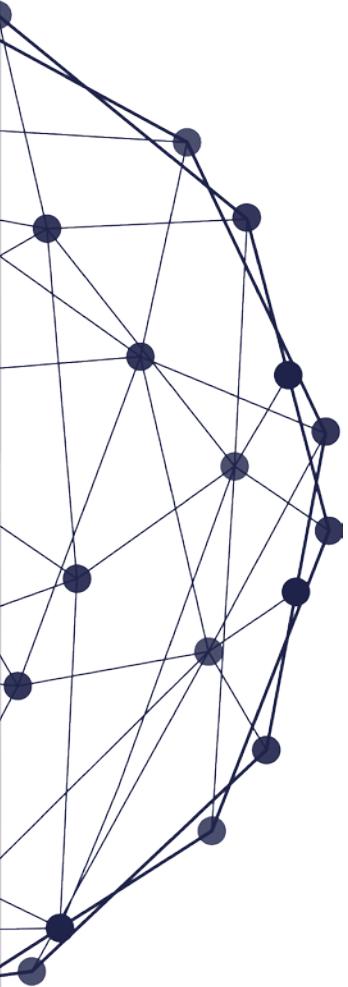






Information





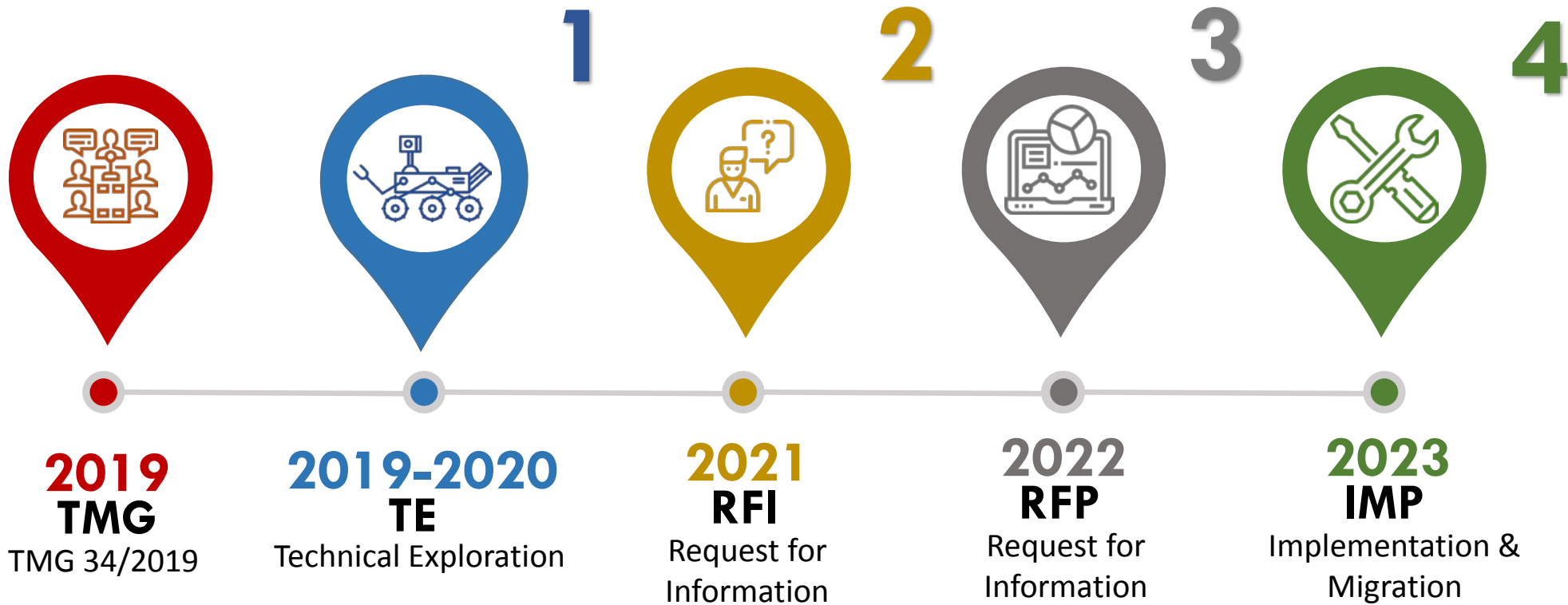
Next Steps





States' Information Collection

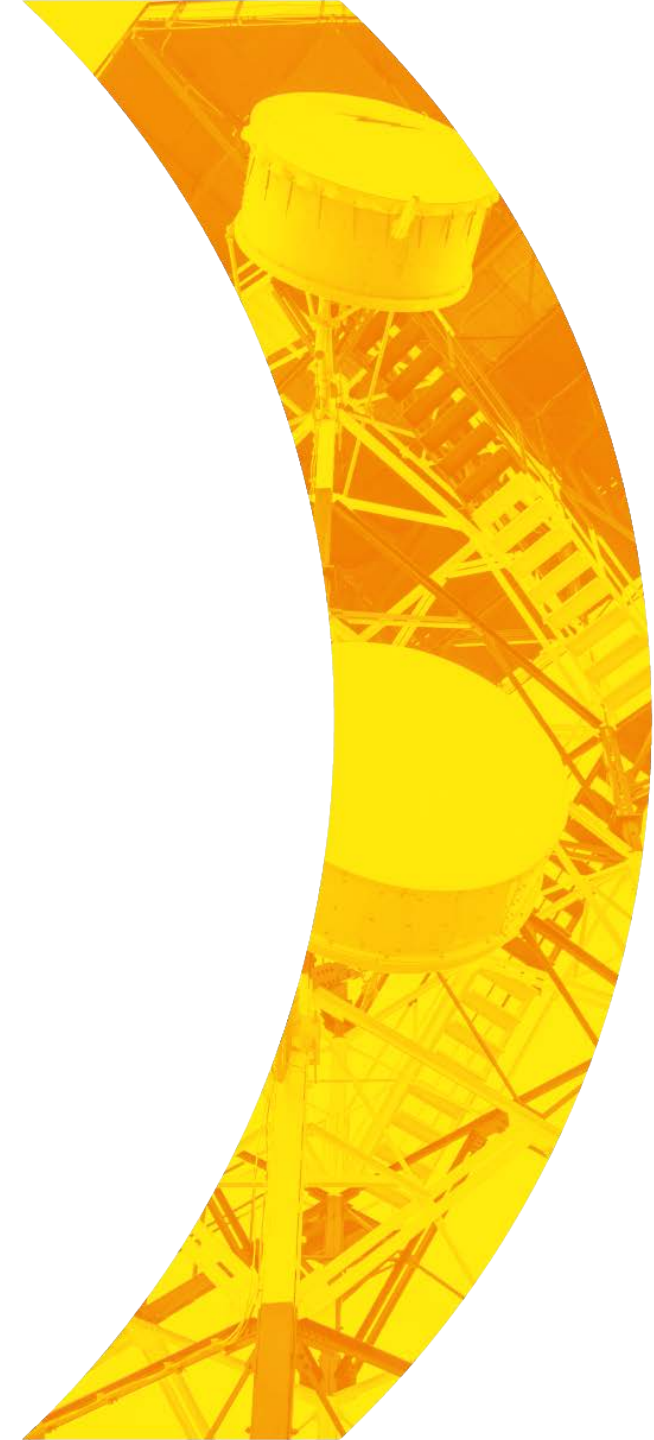
2019-2020, INFORMATION COLLECTION



Technical Exploration

The technical exploration consists of the first phase of the renewal/update process of the current MEVA III network, with the provision of technical information for new technologies and solutions for land and/or satellite-based telecommunication voice and data network services between ATC Centers throughout the geographical region of the Central Caribbean (C/CAR) covering an area bounded to the north by the United States, to the South by Colombia and Venezuela, to the west by Mexico and Central America, and go as far east as Sint Maarten.

The updated technical solution must include all the possible modern, secure and reliable associated equipment, telecommunication technologies, data technologies available that will serve as a technical base for analysis and drafting of a future RFI.



Technical Exploration

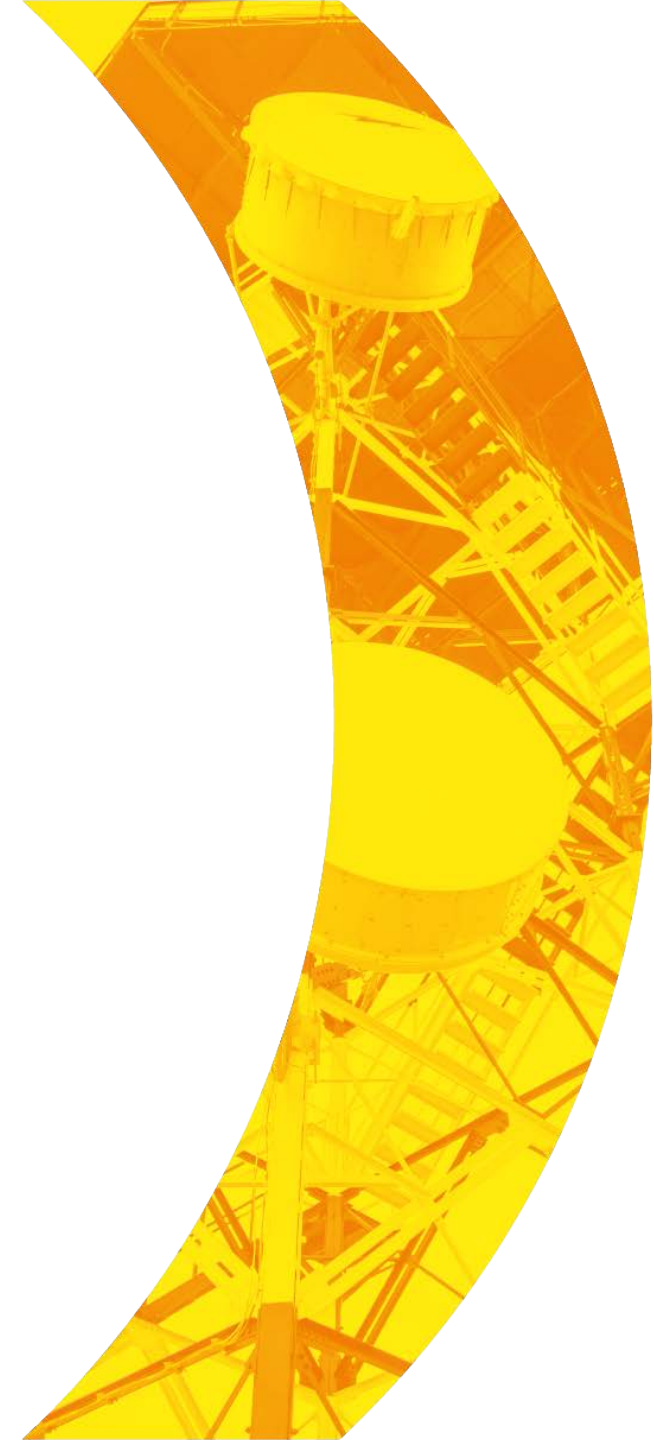
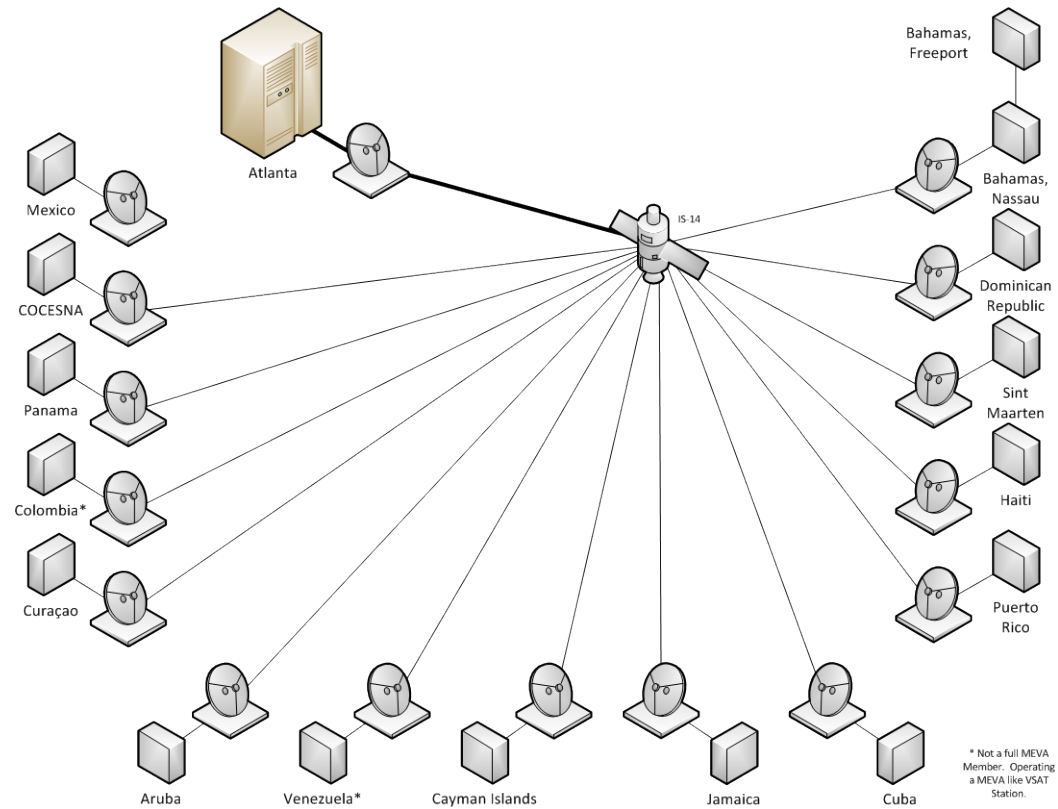
The telecommunication services currently offered are analog shout-downs and dialed voice services, messaging services, and radar exchange services. These services are:

- a) Shout-down circuits
- b) Dialed voice circuits
- c) X.25 channels
- d) IP Circuits
- e) Radar data circuits
- f) AMS Voice circuits

With the following Interfaces/Ports/Connections:

- a) Ethernet
- b) Serial RS232
- c) Async V.35
- d) EIA-530/EIA-422
- e) FXS
- f) E&M
- g) E1

Technical Exploration



Cybersecurity and Information Security

Due to the critical of the information to the Safety of Civil Aviation Operations, the network, equipment, software, endpoints and all the elements of the telecommunications chain (end user to end user), must comply with and the following:

- a) Secure internal network and cloud services (if applicable).

The network should be separated from the public Internet by strong authentication mechanisms and policy enforcement systems such as firewalls and web filtering proxies, as well as additional monitoring and security solutions such as intrusion detection systems.

- a) Encryption
- b) Remote access



For the MEVA 4.0 migration phases, the following is required:

Full member services information (new services, updated services, future requirements, among others)

TMG Exploration Approval to be carried out by the Adhoc group

NEXT STEPS





www.cocesna.org

Questions?

Thank you