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# Regional Collaboration: MEVA III & REDDIG II Aeronautical Communications Networks

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Riyadh, Kingdom of Saudi Arabia / 29-31 Aug 2016





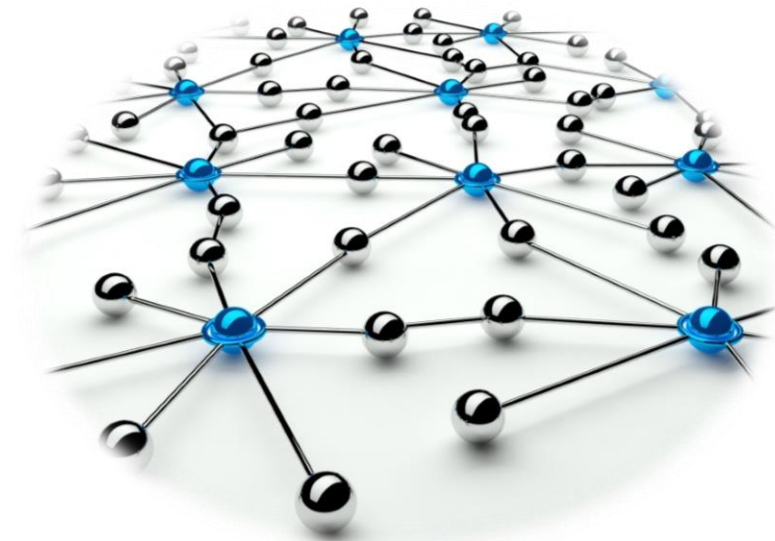
# WHY REGIONAL NETWORKS?

## Difficulties

- Coverage
- Quality

## Regional solution

- Dedicate network
- ICAO SARPS compliant
- 1995 MEVA
- 2003 REDDIG





## CONTINUOUS IMPROVEMENT

Based on:

- Cost/Benefit Analysis

Upgrades:

- MEVA – three
- REDDIG - two



**Both networks are interconnected:**

- Full Pan-American aviation telecommunication service

**MEVA III and REDDIG II started operation first quarter of 2015**



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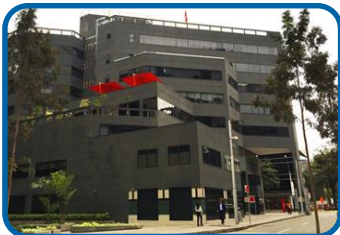


# REDDIG II NETWORK





# REDDIG II: NETWORK OVERVIEW



## Management

- ICAO Regional Technical Cooperation Project
- Headquarter:
  - ICAO SAM Regional Office
- Annual Regional Coordination Meeting
  - Activities and budget reviewed & approved.



## Maintenance and operation

- States:
  - Nodes owners
  - Responsible for its maintenance.
- Network Administrator based at Manaus, Brazil
- Spare parts managed from SAM ICAO Office



# REDDIG II: REGIONAL NETWORK

## REDDIG Nodes:

- 17 nodes
- 14 States
- 1 MEVA interconnection node (Tegucigalpa-COCESNA)
- 2 Master stations (Manaus & Ezeiza)



**REDDIG II IS A DUAL (SATELLITE VSAT & GROUND) IP NATIVE NETWORK**





# REDDIG II: SERVICES & BENEFITS



## SERVICES

- ATS Voice
- Data Messages
- Surveillance data sharing
- Administrative maintenance



## BENEFITS

- 99.99% Availability
- Support ATS and administrative services
- Fast and efficient
- Optimum bandwidth
- Lifetime maintenance assurance







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# MEVA III NETWORK





# MEVA III: NETWORK OVERVIEW



- *To improve the regional reliability of the AFS telecommunications service*
- *To help increase the **efficiency, reliability and regularity of operations** for Caribbean States and territories*
- *Single Service Provider: equipment owner*
- *Collaborative Supervision by States members: MEVA Technical Management Group*
- *States: only pay for service received*
- *ICAO NACC Office: Network Coordinator*



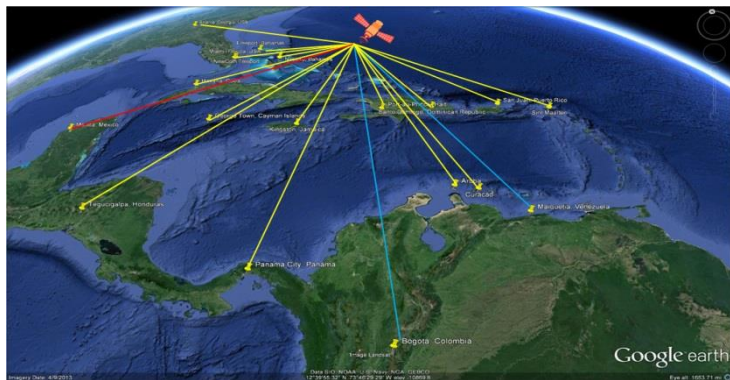
## Maintenance and operation

- Satellite-based voice and data communication services: Service Level of Agreement
- Leased service where Members share the cost.





# MEVA III: REGIONAL NETWORK



Aruba



Bahamas



Cayman  
Islands



Cuba



Curaçao



Dominican  
Republic



Haiti



Jamaica



México



Sint  
Maarten



United  
States



COCESNA (6 Central American States)

- 17 nodes
- 19 States/Territories
- 2 REDDIG interconnection nodes  
(Colombia and Venezuela)
- 2 Master stations (Atlanta & Miami)

## REDDIG Administration



Colombia



Venezuela



# MEVA III: SERVICES & BENEFITS



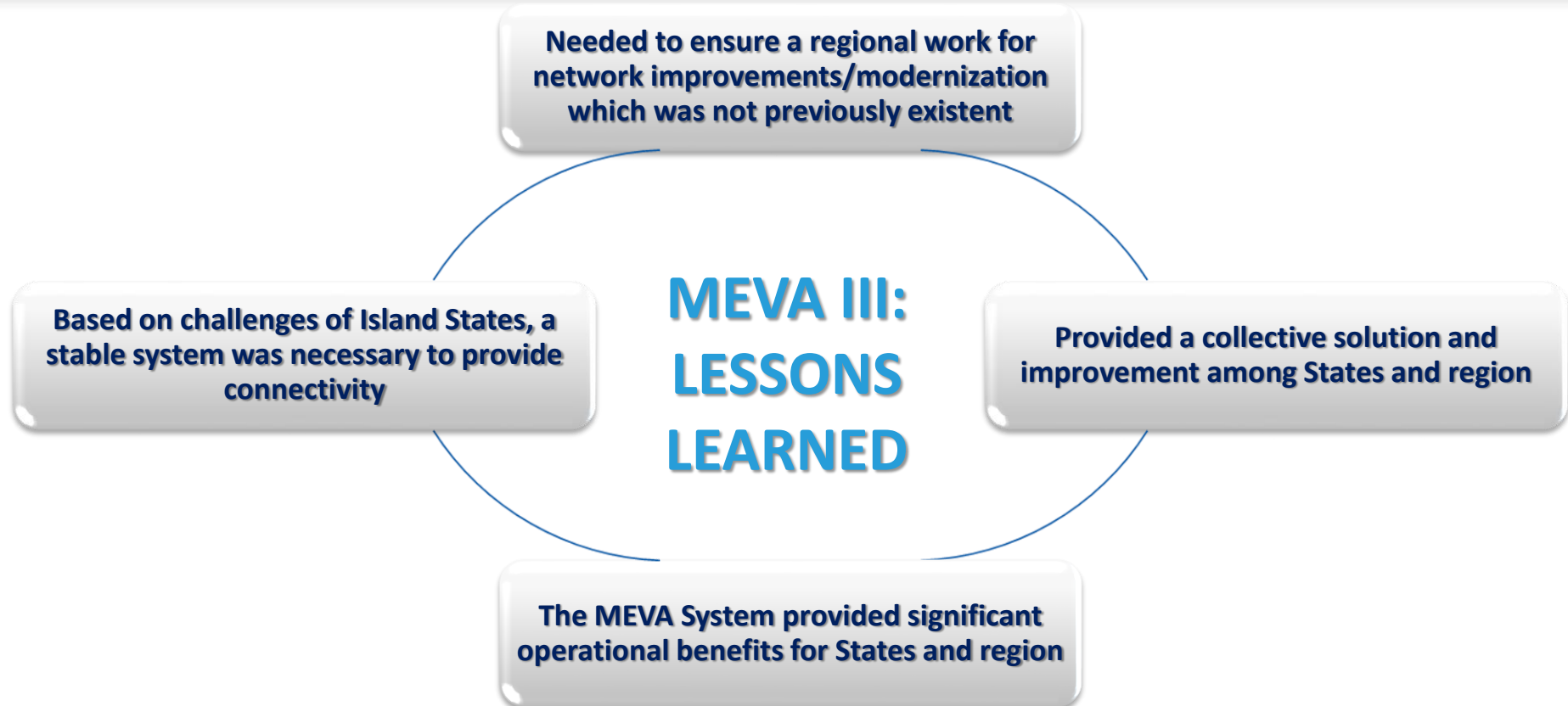
## SERVICES

- 24/7/365 Service
- ATC voice
- Messaging services (flight plans, NOTAMs, etc.) - AFTN and AMHS connections
- Radar data sharing
- Remote radio connectivity services



## BENEFITS

- 99.9% availability since its implementation
- 99.9% reliability since its implementation
- Easily responsive and scalability to future ATC communication needs
- Seamless, optimized & flexible network
- Long-term hardware support with continuous performance upgrades
- Low costs to States in needed upgrades





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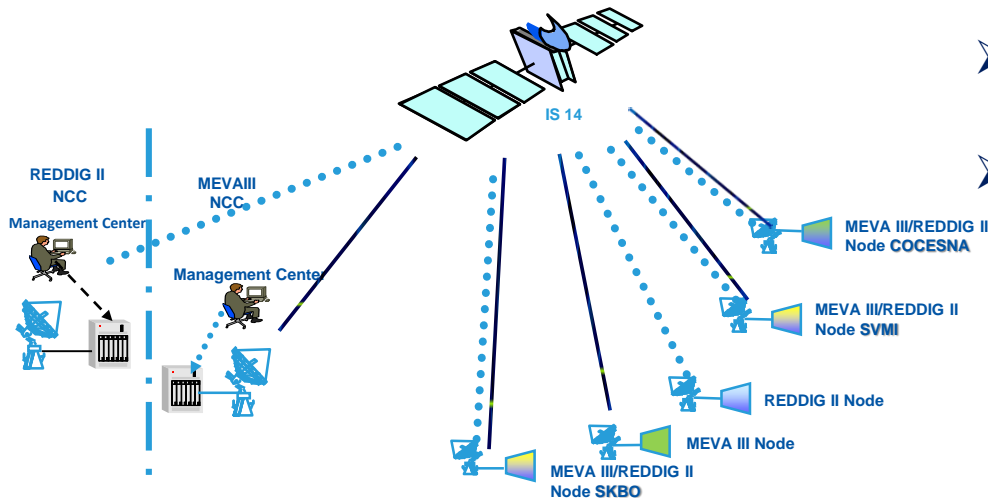
# MEVA III/REDDIG II NETWORK INTERCONNECTION







# MEVA III-REDDIG II NETWORK INTERCONNECTION OVERVIEW



- MEVA-REDDIG interconnection started its operation in 2010.
- Fully compliant with ICAO technical considerations to support air navigation services.

**Achieved a full CAR/SAM aviation telecommunication service.**



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