



ICAO Mexico
MEVA II
TMG/28 Presentation
28 May 2014 Miami, FL

SES-GS Proprietary

SES[▲]
Government Solutions

Agenda Item 3: Operation and Performance of the MEVA II Network

- MEVA Network performance and maintenance: Jun 2013-May 2014
- Review of pending maintenance issues

Agenda Item 4: Implementation Status of the New MEVA II Circuits

- Aeronautical Message Handling System (AMHS) and radar circuits/MEVA II – Eastern Caribbean (E/CAR) Aeronautical Fixed Service (AFS)
- Network interconnection/other new services

Agenda Item 5: Transition to MEVA III

- Review of MEVA II contractual matters and planning of MEVA II contract milestones
- Coordination and agreements for MEVA II - MEVA III transition

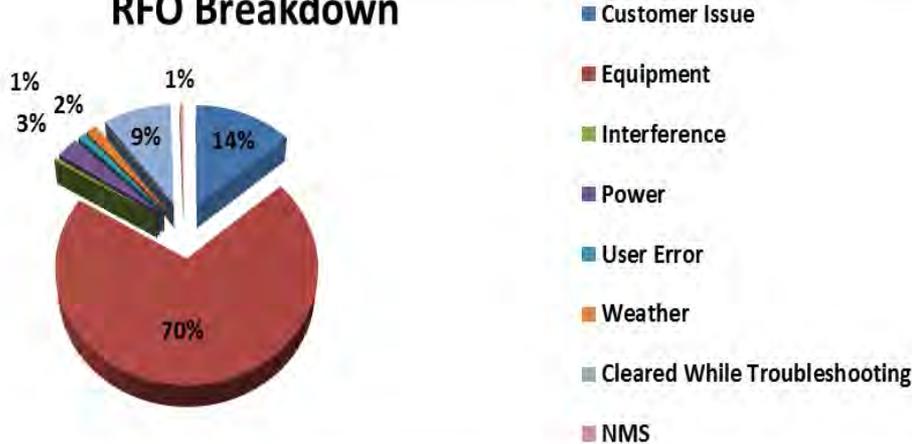


MEVA Network performance and maintenance: Jun 2013-May 2014

- » Opened 191 trouble tickets this period
- » Summary
 - » FAA to Santo Domingo problems revealed several systemic issues within MEVA II network. Progress made but troubleshooting continues. [See follow-on slides.](#)
 - » Majority of the trouble tickets were related to equipment issues:
 - » Memotec
 - » Lynkway modem
 - » Customer issues
 - » Hub equipment
 - » Working with the sites to provide more complete information when calling the SES GS NOC
 - » Recommend referring to the Quick Reference Guide procedures
 - » Also, recommend verifying all active circuits to determine if issue is related to all circuits (voice, data) or isolated to individual circuit before calling NOC



RFO Breakdown



191 Trouble Tickets during period Jun 2013 – May 2014.

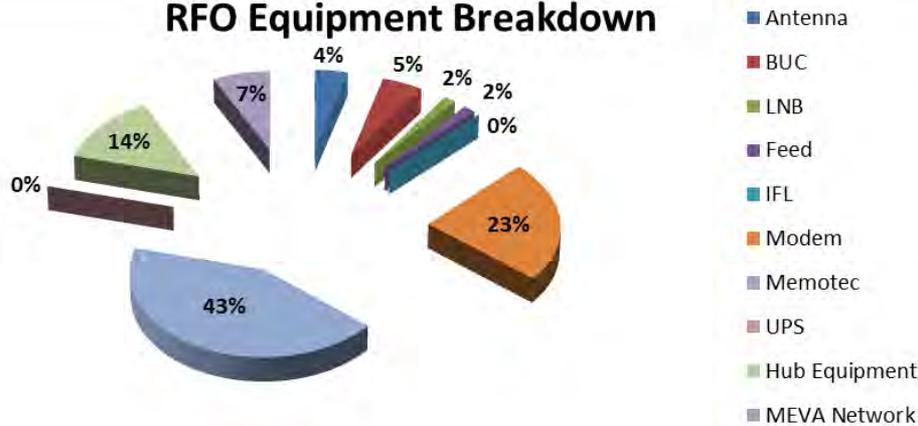
Key findings on overall RFOs:

- » 70% RFOs are equipment related
- » 14% RFOs are customer issues

Key findings on equipment RFOs:

- » 43% are Memotec related
- » 23% are Modem related

RFO Equipment Breakdown



RFO	#	Equipment	#
Customer Issue	26	Antenna	8
Equipment	134	BUC	10
Interference	1	LNB	3
Power	6	Feed	3
User Error	2	IFL	
Weather	3	Modem	45
Cleared While Troubleshooting	18	Memotec	82
NMS	1	UPS	
		Hub Equipment	26
		MEVA Network	14

Link Performance: June 2013 – May 2014

- » Average **peak** usage, overhead and M&C was 94% of BW
- » Average link availability was greater than **99.9% for MEVA II sites**

Overall Assessment

- » Available bandwidth may not be enough for the additional AMHS, Radar and voice circuits activation
- » SES-GS is looking for alternatives with Intelsat to solve this issue:
 - » Conduct a power balance of the entire network,
 - » Add another 1.25 msbs (mega symbols per second) slot on IS-14
 - » Change all carriers and new carrier to FEC of 1/2, this will require a new carrier and push new option files to each remote
- » Will continued monitoring as we activate new data & voice circuits



Average Link Performance Table Jun 2013 – May 2014

Sites	Transmission Information per Site							Availability Adjusted for PM
	Maximum		Minimum		Average		Down Time	
	Tx	Rx	Tx	Rx	Tx	Rx		
Aruba	64.00	65.33	0.00	0.00	11.29	10.44	8:14:15	99.90%
Curacao	158.10	145.71	0.00	0.00	59.04	55.82	6:22:20	99.92%
Dominican Republic	192.00	192.00	0.00	0.00	32.16	31.85	7:28:06	99.91%
Freeport	64.00	32.00	0.00	0.00	8.12	7.51	6:26:57	99.92%
Grand Cayman	112.00	96.00	0.00	0.00	45.17	45.67	7:17:09	99.91%
Haiti	96.00	96.00	0.00	0.00	36.51	36.68	5:29:05	99.93%
Havana, Cuba	247.43	272.00	0.00	0.00	110.46	114.14	5:09:18	99.94%
Kingston, Jamaica	192.00	192.00	0.00	0.00	104.18	100.31	6:33:42	99.92%
Miami	433.71	422.86	0.00	0.00	185.31	185.85	4:57:03	99.94%
Nassau	80.00	96.00	0.00	0.00	11.50	11.95	6:26:10	99.92%
Panama City	128.00	128.00	0.00	0.00	9.31	9.28	6:47:40	99.92%
St. Maarten	128.00	128.00	0.00	0.00	23.39	23.22	6:58:14	99.92%
COCESNA	112.00	112.00	0.00	0.00	24.21	23.10	6:54:14	99.92%
San Juan, PR	118.67	120.00	0.00	0.00	52.80	54.10	8:27:57	99.90%
Bogota	80.00	80.00	0.00	0.00	28.32	28.28	22:30:58	99.73%
Caracas	64.00	64.19	0.00	0.00	24.25	24.53	49:29:52	99.41%
Atlanta	480.00	480.00	0.00	0.00	164.87	165.28	6:02:31	99.93%
Merida	0.00	0.00	0.00	0.00	0.00	0.00	0:00:00	0.00%

Downtime is measured as hours, minutes and seconds

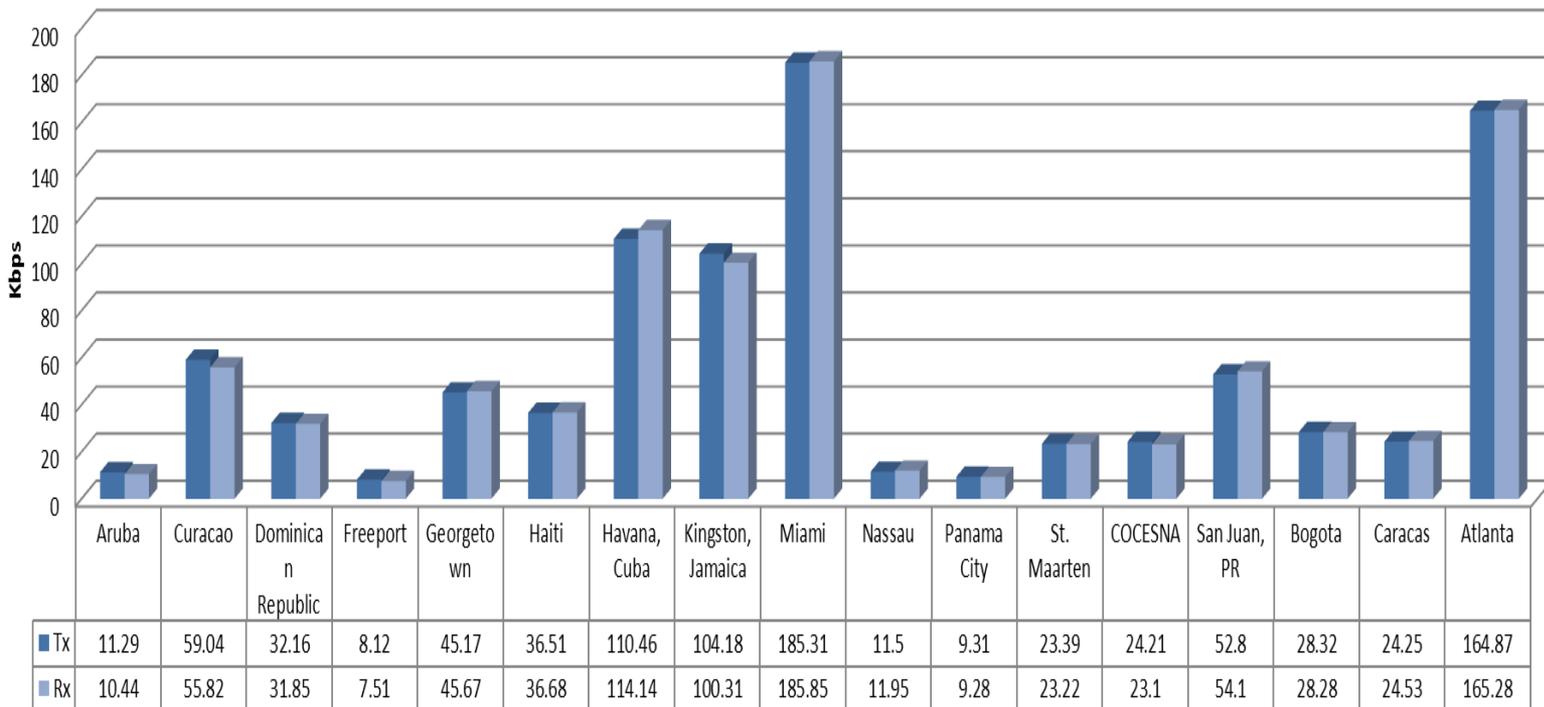
NOTES:

1) Adjusted all sites for: , weather issues, equipment issue, Customer maintenance, annual maintenance and Miami scheduled maintenance



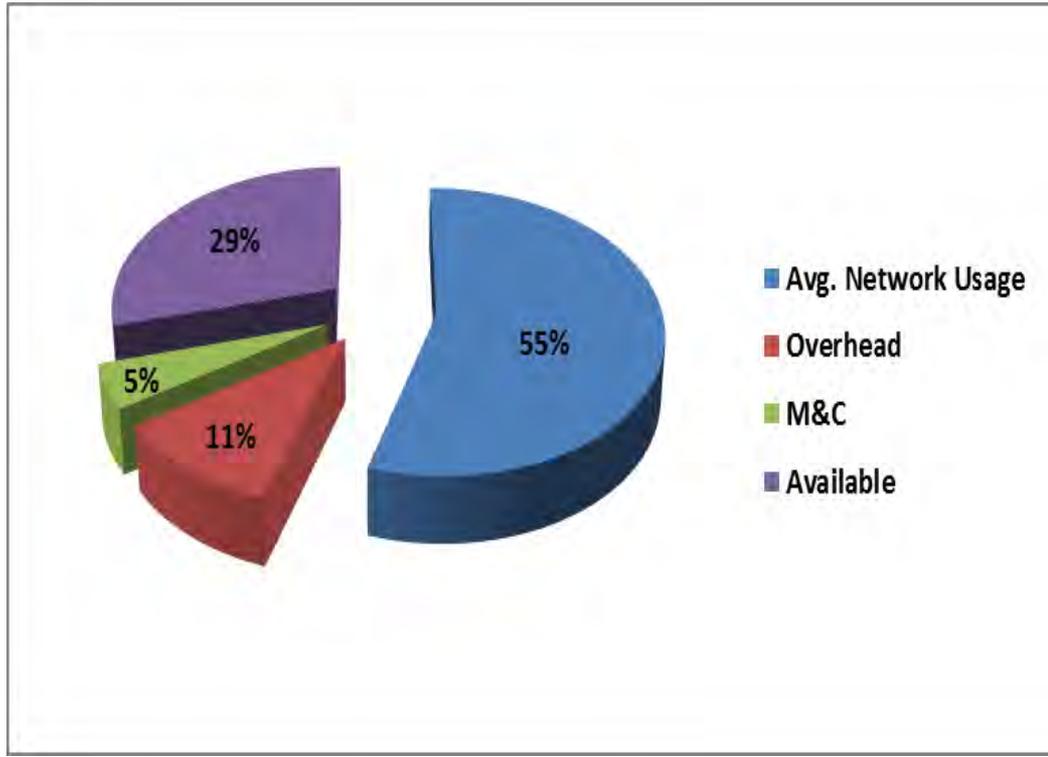
Average Transmission Rate Jun 2013 – May 2014

Jun 2013 - May 2014





Average Bandwidth Usage Jun 2013 – May 2014



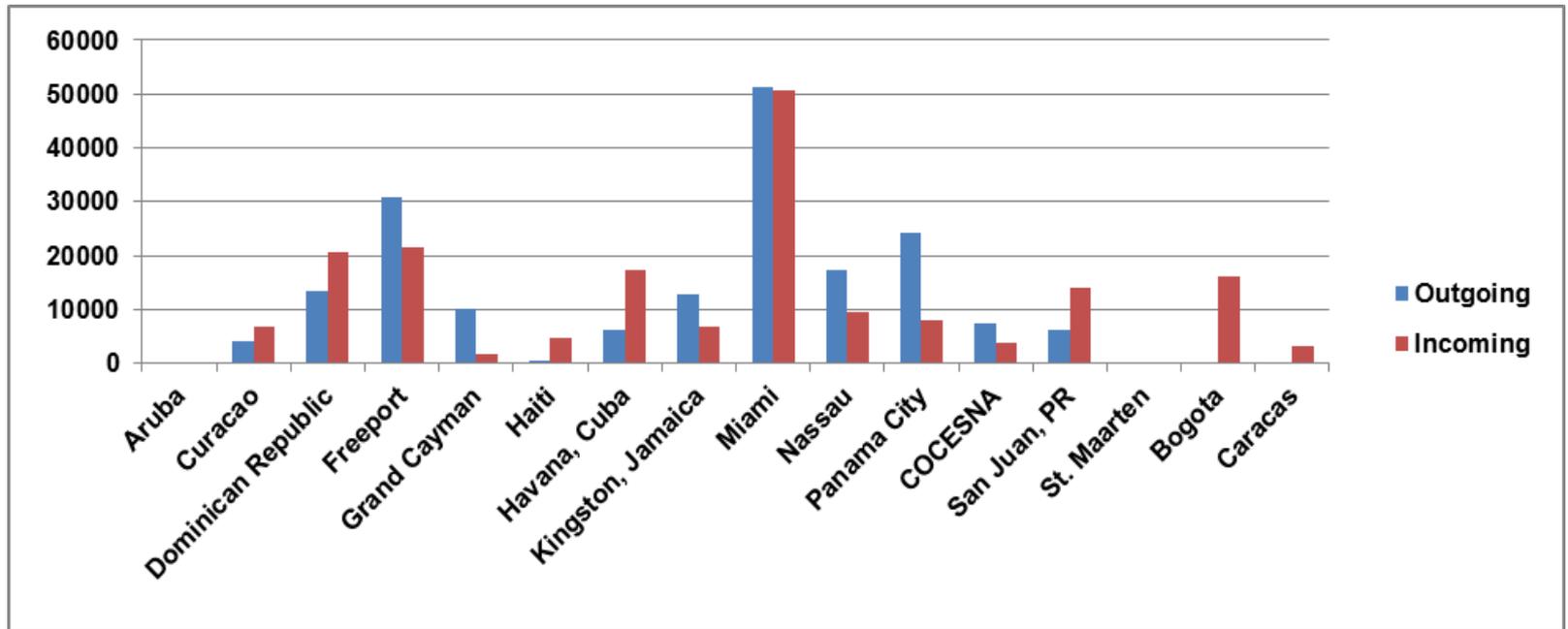
Alloted Information Rate	5160
Avg. Network Usage	2827.26
Overhead	565.45
M&C	258.00
Available	1509.29
20% of Alloted Info Rate	1032



184,809 calls made & received to SES GS NOC between Jun 2013 – May 2014

	Aruba	Curacao	Dominican Republic	Freeport	Grand Cayman	Haiti	Havana, Cuba	Kingston, Jamaica	Miami	Nassau	Panama City	San Juan, PR	COCESNA	St. Maarten	Bogota	Caracas	TOTAL OUTGOING CALLS
Aruba	9	289	0	0	0	0	0	0	0	0	0	0	0	0	0	59	357
Curacao	1	0	1106	0	0	51	0	492	0	0	0	264	0	0	590	1649	4153
Dominican Republic	0	3461	1	0	0	3229	0	0	3317	0	0	3380	0	0	0	0	13388
Freeport									29401	1340							30741
Grand Cayman	139				115		8570	49					1251				10124
Haiti		51	421			20	25	67	2								586
Havana, Cuba					1305	302	10	252	1292				3157				6318
Kingston, Jamaica	2	2468			24	835	103	8	4		3567		1461		4329		12801
Miami	4	15	15256	20667	6	246	6856	5	31	8059		38	4	5			51192
Nassau				783					16471	31							17285
Panama City								4894			84		8143		11224		24345
COCESNA					162		1822	1057	1		4256		4		28		7330
San Juan, PR	2	610	3968									5	2	34		1568	6189
St. Maarten																	N/A
Bogota																	N/A
Caracas																	N/A
TOTAL INCOMING CALLS	157	6894	20752	21450	1612	4683	17386	6824	50519	9430	7907	3687	14022	39	16171	3276	

Calls Details Jun 2013 – May 2014





Maintenance Schedule

- » 2014 Annual Maintenance was completed on Apr 2014
- » AIS Engineering performed the annual maintenance in all sites
- » Maintenance results;
 - » Sint Maarten antenna feed need replacement, feed have been ordered & received. Will make arrangement with the site to coordinate replacement
 - » Grand Cayman EL jack screw need replacement, this was also observed on the 2013 annual maintenance. A price quote was submitted on 9 May 2013
 - » Santo Domingo antenna need an immediate replacement. Antenna panels have deteriorate to the point that all the RF reflecting paint is gone. Antenna lost ½ of the total gain forcing the BUC to transmit at saturated power
 - » Curacao antenna feed need replacement, feed was ordered & received. Will make arrangement with the site to coordinate replacement
 - » Atlanta antenna feed also need replacement, feed is on hand and will make arrangement for replacement
 - » Kingston, Aruba & San Juan need band pass filters to eliminate local interference. Filters have been ordered and received. Will make arrangements with the sites for installation
 - » Maintenance reports will be distribute and place in the MEVA website as soon they are completed by AIS Engineering. ETC: 30 May 2014

MEVA Spares Inventory

- » During this period we depleted all spares modem due to the numbers of modem failures within the network
- » Defective modems (3) have been sent to ViaSat for evaluation & repairs; ETC: 30 May 2014
- » We will have five (5) modems in the spare pool if the defective modems are repairable
- » The Linkway 2100 modems are no longer supported, no spare parts
- » Only required to maintain three (3) in the spare pool
- » Monthly spares report will be posted in the MEVA website and included in the Monthly Status Report

Other Issues

Monthly MEVA II Conference Calls

- » Still little participation
- » All sites need to participate, opportunity to bring up issues

NOC Improvements

- » Added additional Spanish speaking technicians to provide better customer support
- » Conducted NOC training to improve services and perform more detailed and higher level troubleshooting
- » Added capabilities to do instant PVC reset and to adjust site power in the event of signal degradation cause by heavy weather

Ongoing Activities

- » Grand Cayman EL Jack Screw replacement
 - » Submitted price quote on 9 May 2013
 - » Waiting response
- » Preparation to deploy the FAA 3.8 M contingency antenna to Santo Domingo, if approved by Dulce or Julio
- » Band pass filter installation planning
- » C-Band feeds replacement coordination
- » Preparation for MEVA II to MEVA III transition

Summary of Issue: FAA to Santo Domingo voice and data circuits have been unreliable with issues dating back to Sept 2013. Urgent actions required to resolve.

Summary of SES GS actions to date:

- **Formed Tiger Team to conduct deep dive analysis of problem**
- **Assessed issues at various sites and developed plans to resolve**
 - ❖ **Conducted hand over hand check of equipment at Santo Domingo & replaced faulty equipment at Santo Domingo, Miami and Atlanta**
 - ❖ **Conducted assessment of IS-14 BW & identified low level interference**
 - ❖ **Peaked & Poled Atlanta, Miami and Santo Domingo terminals**
 - ❖ **Conducted extensive monitoring of Santo Domingo circuits**

Overall Trouble-shooting Plan

- **3-Step plan to resolve potential transponder saturation**
 - (1) Assess site transmit powers and potentially balance network
 - (2) Provision new carrier on IS-14
 - (3) Change all carriers from $\frac{3}{4}$ FEC to $\frac{1}{2}$ FEC
- **Establish baseline to extend for remainder of contract**
- **Work with Intelsat to resolve low level interference on IS-14**
- **Review maintenance actions for other potential issues, ex. BUC replacements**



Issue: Cable between Memotec multiplexer to Santo Domingo AMHS interface was not correct type
Fix: New V.35 Cable Type installed

V.24 RS232 Cable



Required type should be **V.35 Cable Type**. Inspection of cable showed it to be **V.24 RS232 type** – not the correct connector.

Action Completed: Cable replaced with correct **cable type (V.35)**

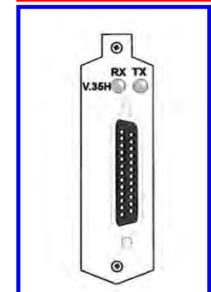
LOCATION - NOTES						LAST KNOWN CONFIGURATION FILE		SW REV:
Dominican Republic MEVA site - CX960e						domrepublic (v6).cxt		4.5.0
IP LAN: 172.17.26.11/24			GATEWAY: 172.17.26.1			IP WAN: 192.168.1.4		NBMA
SLOT	CARD	PORT	USAGE	LOCAL EXT	DESTINATION	DEST EXT OR PORT	LOCAL DLCI	NOTES
1	V35H	1	Frame Relay		Linkway 2000			V35- 2048k - DTE - Annex-D User - Satellite Frame Relay
2	V24	1						
3	V35H	1	AHMS		Atlanta	520	800	V24-64Kbps-DCE - HDLC over FR
4	DAV	1	VSD Shout	2652	Curacao	2253		
5	DAV	1	VSD Shout	2650	Miami-2	1956		
6	DAV	2	VSD Shout	2651	SanJuan	1851		
7	DAV	1	Switch Voice	2600	any			
8	DAV	2	Switch Voice	2601	any			
7	DAV	1	Switch Voice	2602	any			
7	DAV	2	Switch Voice	2603	any			
8	DAV	1	Switch Voice	2604	any			
8	DAV	2	Switch Voice	2605	any			

Voice Mesh Links				
Destination	DLCI (Primary)	DLCI (Backup)	Patter n	Billing
Aruba	252		29xx	Yes
Curacao	256		22xx	Yes
Cocesna	260		21xx	No
Bahamas (Freeport)	253		10xx	Yes
Grd Cayman Islands	263		25xx	Yes
Hagerstown, MD	250		42xx	No
Havana Cuba	255		23xx	Yes
Kingston Jamaica	261		30xx	Yes
Miami	200	400	19xx	Yes/No
Miami	200	400	17xx	Yes/No
Nassau bahamas	254		27xx	Yes
NMC	272		24xx	Yes
Panama	264		39xx	Yes
PoPrince Haiti	259		28xx	Yes
San Juan Puerto Rico	242		18xx	Yes
St Maarten	262		35xx	Yes
Woodbine	271		41xx	No
Miami - VSD	600		195x	No

Test link back to AGS headquarters

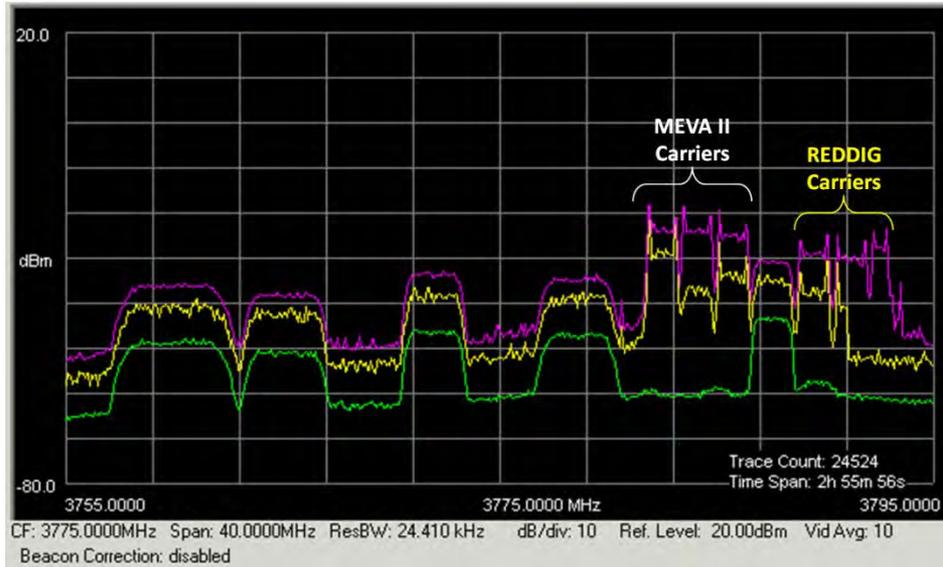
Dial Plan		
Dialed Pattern	Remote Ext	Called Nb
xxxx	+++	---->

Trap Server ID

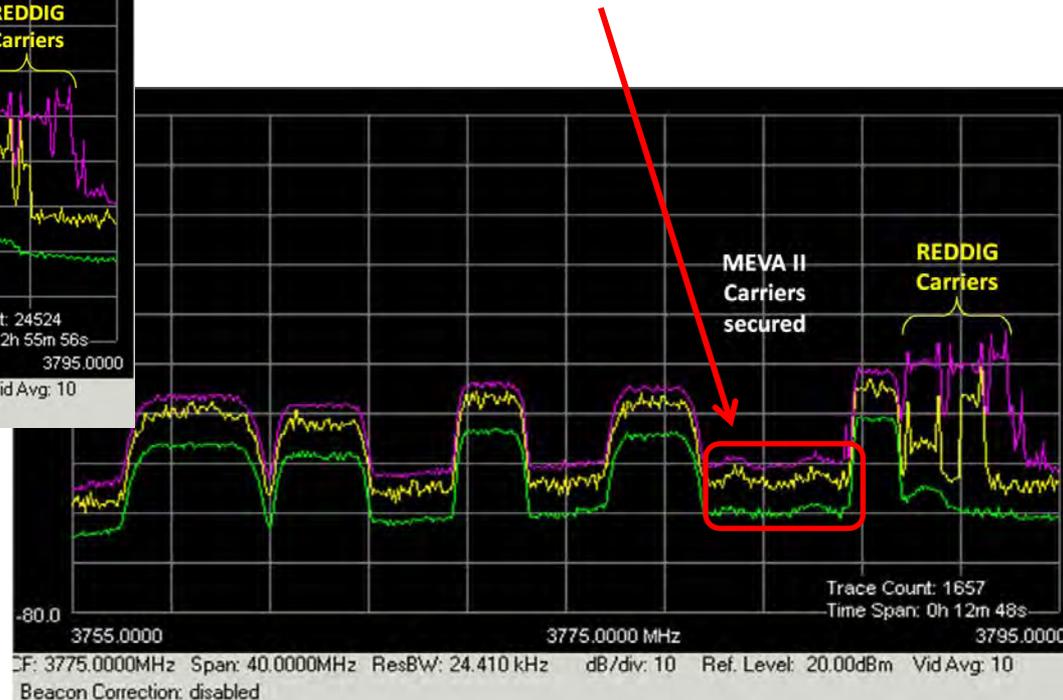


Required V.35 Cable





Issue: Low Level Interference on IS-14 is most likely ASI



Solution:

- Work with Intelsat to resolve the ASI
- Coordinating with Intelsat to re-groom and find replacement BW

Issue: Santo Domingo antenna suffered damage during **Hurricane ??** in 2009 as depicted in Site Maintenance Report from May 2013

Status: SES GS recommends antenna replacement. Developing options to include deployment of 'fly away' 3.8M antenna (located in Atlanta at M2 Transport shipping company) as well as replacing the panels

Kingpost bent back ~ 5 degrees by hurricane. Deflection due to damage to roof load frame.



Elevation jack screw upper pivot is elongated – causing 4 degrees of movement



Antenna Reflector - Half new / Half old - Pattern is off due to wear on lower half





Action Items from FAA - Santo Domingo circuits (1 of 3)

#	Action Item	Responsible	Due	Status
1	SES to share the results of the measurements taking in Santo Domingo during the maintenance as soon as the technician is back in the USA.	SES/HiraldoCruz	11Apr14	Closed 25Apr14
2	Test Protocol Procedures to be drafted, circulated and agreed with a the idea of resolving the voice issue first.	SES/HiraldoCruz	15Apr14	OBE 6May2014
3	Coordinate troubleshooting session(s) to identify the problem(s)	All	TBD	Opened 02Apr14
4	Send email noting details which unused circuits were removed from the MEVA configuration (for each: bandwidth allocation & date/time of removal)	SES/HiraldoCruz	09Apr14	Closed 09Apr14
5	Aquire and replace LNB redundant power supply at ZMA	SES/HiraldoCruz	23Apr14	Closed 18Apr14
6	Test and commission spare Linkway modem at ZMA	AIS/Lopez	18Apr14	Closed 2May214
7	Configure and commission backup MRT at ATL and email the team when the completed.	SES/HiraldoCruz	18Apr14	Closed 19May214
8	Provide date when Woodbine, MD ceased as backup MRT	SES/HiraldoCruz	25Apr14	Closed 13May14
9	Request Mar.27 peak and pol. re-pointing plots from ISOC	AIS/Lopez	18Apr14	Opened 24Apr14
10	Provide S/N data for these links and/or task Harris NOC to commence a baseline BER for the links.	SES/HiraldoCruz	18Apr14	Closed 30Apr14
11	Distribute test results from Apr.23 Memotec testing	SES/HiraldoCruz	28Apr14	Closed 25Apr14
12	Analyze IS-14 BW for interference, assess impact and determine a fix as required.	SES/HiraldoCruz	10May14	Opened 05May14



#	Action Item	Responsible	Due	Status
13	Report on Carrier Error Rates, and other measurements taken during the MRT swap and power balance events.	SES/HiraldoCruz	07May14	Closed 06May14
14	Find the source of the Ring-Back tone on a Dial call	SES/HiraldoCruz	06May14	Closed 08May14
15	Fix Nassau shout down line. Replace E&M module.	SES/HiraldoCruz	07May14	Closed 09May2014
16	Fix the Haiti, Port-au-Prince shout down line.	SES/HiraldoCruz	06May14	Closed 06May14
17	Restore the spares pool for Linkway Modems.	SES/HiraldoCruz	31May14	Opened 25Apr14
18	Check voice operation Santo Domingo to San Juan	SES/HiraldoCruz	07May14	Closed 08May14
19	Check voice operation Santo Domingo to Curacao	SES/HiraldoCruz	07May14	Closed 08May14
20	Check voice operation Santo Domingo to Haiti	SES/HiraldoCruz	07May14	Closed 08May14
21	Draft a Troubleshooting Plan for Thursday May.15	SES/HiraldoCruz	13May2014	Closed 14May14
22	Link budget ATL and MIA to all MEVA Sites	SES/HiraldoCruz	14May2014	Closed 13May14
23	Prepare AMRT Sync Maintenance Plan	SES/HiraldoCruz	9May2014	Closed 12May14
24	Provide names/company of Miami visitors to Alfonso Zamora	SES/HiraldoCruz	12May14	Closed 12May14
25	Provide names/flights of Santo Domingo visitors to Elvis Collado	SES/HiraldoCruz	13May14	Closed 13May14
26	Report dates of last peak & pol: ATL & MIA	SES/HiraldoCruz	16May14	Opened 13May14
27	Write procedure for manual switch to the ATL AMRT	SES/Ed Mikus	16May14	Closed 19May14
28	Repair/replace feed horn at ATL.	SES/HiraldoCruz	23May14	Opened 13May14
30	Inform team of SD peak & pol decision.	SES/HiraldoCruz	15May14	OBE 15May14
31	Develop comprehensive non-intrusive monitoring plan	SES/HiraldoCruz	21May14	Closed 21May14
32	Investigate & report ASAP reported SD modem reset	SES/HiraldoCruz	19May14	Opened 17May14
33	Secure the SES network by password change	SES/HiraldoCruz	17May14	Closed 18May14
34	Report antenna condition to IDAC and make recommendation	SES/HiraldoCruz	23May14	Opened 19May14



#	Action Item	Responsible	Due	Status
35	Creation May.17 timeline and corolation of events	SES/O'Loughlin	21May14	Closed 22May14
36	Locate spare antenna and assess suitability for SD	SES/HiraldoCruz	23May14	Opened 20May14
37	Overall Troubleshooting Plan	SES/HiraldoCruz	23May14	Opened 20May14
38	Re-establish the MRT/AMRT autoswitch function.	SES/HiraldoCruz	14Jun14	Opened 21May14
39	Investigate/replace LNB/BUC at Atlanta	SES/HiraldoCruz	28May14	Opened 19May14
40	Send transportable antenna specs. To Fernando.	SES/HiraldoCruz	23May14	Opened 22May14
41	Send correct ATL antenna offset value to Patton	SES/Mikus	23May14	Opened 22May14



3. Coordinate troubleshooting session(s) to identify the problem(s)

Status: Working closely with FAA to coordinate troubleshooting and maintenance actions.

12. Analyze IS-14 for interference, assess impact & determine fix as required

Status: Work with Intelsat to resolve the ASI. Coordinating with Intelsat to re-groom and find replacement BW. Additionally, also assessing interference.

17. Restore the spares pool for Linkway Modems

Status: Failed modems sent to ViaSat for RMA repair. Currently, one modem has been installed as shelf spare at Miami FAA site. Another 3 modems are being processed for RMA repairs. Before end of May, we will have 6 modems (5 at AIS and 1 in Miami) in spares pool.

26. Report dates of last peak & pol: ATL & MIA

Status: Miami recently peaked & poled 13 May 2014. Atlanta recently peaked & poled on 14 May 2014. Annually, antennas were checked for cross pole isolation and receive level strength. If both those values were in specification, peak & pole procedure was stopped.



28. Repair/replace feed horn at ATL

Status: Required parts for antenna repair shipped on 23 May. Terrasat MUX box shipped to Atlanta. LNB feed shipped to AIS in Melbourne, FL. We expect to receive parts and be ready for repairs this week. We will combine repairs for feed horn with repairs to LNB discussed in Action #39. Maintenance downtime will be required.

32. Investigate & report ASAP reported Santo Domingo modem resets

Status: Events are under investigation. Reasonable explanation was the modem resets were the result of a combination of misconfigured PVCs, which have since been corrected, and cascading events leading to antenna LNB failure.

34. Report antenna condition to IDAC and make recommendation

Status: Based on status of Santo Domingo antenna, recommend replacing.

36. Locate spare antenna and assess suitability for Santo Domingo

Status: Contingency plan 3.8M fly-away antenna located at FAA Atlanta M2 Transport. Currently obtaining manifest to determine crate contents and assessing various options for using it at Santo Domingo.



37. Overall Troubleshooting Plan

Status: Initial steps in the overall engineering-based troubleshooting plan to be completed by Friday, 30 May.

38. Re-establish the MRT/AMRT autoswitch function

Status: During MRT failure, the ANCC automatically starts but does not communicate to the AMRT. Procedure written for the SES GS NOC to manually start the AMRT. Working with ViaSat to determine a fix to the ANCC to AMRT auto-switching function

39. Investigate/replace LNB/BUC at Atlanta

Status: Required parts for antenna repair shipped on 23 May. Terrasat MUX box shipped to Atlanta. LNB feed shipped to AIS in Melbourne, FL. We expect to receive parts and be ready for repairs this week. We will combine repairs for feed horn with repairs to LNB discussed in Action #28. Maintenance downtime will be required.

40. Send transportable antenna specifications to Fernando

Status: 3.8M flyaway antenna was specially designed for MEVA I contract. No specifications are available.

41. Send correct ATL antenna offset value to Patton

Status: Completed. Antenna offset values sent to Patton.

3.8M Flyaway antenna

- Built for FAA / MEVA to provide an emergency antenna
- Part of MEVA Contingency Plan to be used when there are multiple catastrophic antenna failures at the same time
- Capable of being assembled with a minimum of tools





ICAO Mexico

MEVA II

#4: New MEVA II Circuits Status

Agenda Item 4: Implementation Status of the New MEVA II Circuits

- **Aeronautical Message Handling System (AMHS) and radar circuits/MEVA II – Eastern Caribbean (E/CAR) Aeronautical Fixed Service (AFS)**
- **Network interconnection/other new services**

- » Atlanta equipment is ready for four (4) additional circuits
- » AMHS link between Atlanta and Santo Domingo is under test due to the numerous communications issues encountered
- » Cuba AMHS circuit is next on-line. Equipment and configuration files have been installed. Cuba is waiting on Atlanta instruction to start testing. Loop back plug is already installed in Atlanta.
- » Sint Maarten, Jamaica & Curacao AMHS equipment have been installed and configured
 - » Waiting on FAA Atlanta to coordinate testing
 - » Next site after Cuba will be determined by Atlanta FAA

Note: Status of Radar circuits/MEVA II – Eastern Caribbean (E/CAR) Aeronautical Fixed Service (AFS) and network interconnection/other new services provided in separate spreadsheet



ICAO Mexico MEVA II



#5: Transition to MEVA III Review of contract milestones

Site	Equipment Owner	Start	End	CY2014												CY2015												CY2016											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aruba, Aruba	SES	1-Dec-2006	30-Nov-2016	[Blue shaded]																																			
Bahamas, Freeport	SES	1-Aug-2006	31-Jul-2016	[Blue shaded]																																			
Bahamas, Nassau	SES	1-Oct-2006	30-Sep-2016	[Blue shaded]																																			
Grand Cayman	SES	1-Jan-2006	31-Dec-2016	[Blue shaded]																																			
COCESNA, Honduras	COCESNA	1-Jan-2006	31-Dec-2016	[Blue shaded]																																			
Cuba, Havana	CUBA	1-Dec-2013	30-Nov-2014	[White]																																			
Santo Domingo	SES Rack Equipment	1-Dec-2006	30-Nov-2016	[Blue shaded]																																			
Haiti, Port-Au-Prince	SES	1-Dec-2006	30-Nov-2016	[Blue shaded]																																			
Curacao	SES	1-Dec-2006	30-Nov-2016	[Blue shaded]																																			
Sint Maarten	SES	1 Jan 2006	31-Dec-2016	[Blue shaded]																																			
Panama, Panama	SES	1-Jan-2013	31-Dec-2014	[White]																																			
Jamaica, Kingston	SES	1-Dec-2006	30-Nov-2016	[Blue shaded]																																			
Merida, Mexico	SES	Not in service		[White]																																			
FAA (PO: 22501237)		1-Oct-2013	30-Sep-2014	[White]																																			
FAA Puerto Rico	SES			[Blue shaded]																																			
FAA Atlanta	SES			[Blue shaded]																																			
FAA Miami	SES			[Blue shaded]																																			
ICAO REDDIG (PO: 22501062)		1-Apr-14	30-Sep-14	[White]																																			
Caracas	SES			[Blue shaded]																																			
Bogota	SES			[Blue shaded]																																			



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MEVA II



Conclusion

Questions?



Back-up



Significant Events June 2013 – May 2014

- » Santo Domingo – Atlanta AMHS and voice circuits became unstable and an extensive troubleshooting and testing was conducted. All MEVA equipment was replaced, bad wires were replaced, antenna peak & poled. AMHS & voice circuits are under test. Santo Domingo antenna need replacement
- » Planning to send the FAA contingency flyaway antenna to Santo Domingo. This action will affect the contingency plan
- » Miami MRT modem was found to be unstable, timing issue. Replaced the modem, timing is now stable
- » Miami antenna was peak & pol
- » Performed a power balance of the master reference signal to all sites

Significant Events June 2013 – May 2014, continue

- » Relocated the ANCC/AMRT from Woodbine to Atlanta, it is operational and can be use as the back up for Miami
- » Conducted a synchronization & auto switching test between NCC & ANCC. Auto switching is not 100%. ANCC will not start the AMRT automatically, need operator intervention. Procedure is in place to complete this function manually. Continued looking for a solution
- » Peak & pol Atlanta antenna. Discovered a small crack on the feed Millar cover. The new feed has been received
- » SES-GS is working closely with IntelSat to eliminate a possible ASI affecting the entire network

Significant Events June 2013 – May 2014, continue

- » SES-GS is monitoring the total network bandwidth availability and is working closely with IntelSat to find a solution. Possible solutions;
 - » Conduct a power balance for those sites that are transmitting with high power. This action will lower the noise floor providing additional margin
 - » Add an additional 1.25 mspcs carrier to the network
 - » Reduce the FEC on all carriers to 1/2, this action require push of new configuration files to all sites, high risk



ICAO Mexico MEVA II



Organizational Chart

