



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

WORKING PAPER

MEVA/TMG/29 — WP/06  
04/12/14

**Twenty-ninth MEVA Technical Management Group Meeting (MEVA/TMG/29)**  
Mexico City, Mexico, 9 to 12 December 2014

**Agenda Item 4: MEVA III Implementation Activities**  
**4.1 MEVA III Task Force Report and Activities**

**MEVA III – ADDITIONAL CIRCUITS CONSIDERATIONS**

(Presented by MEVA III TF Ad hoc Group)

<b>EXECUTIVE SUMMARY</b>	
This working paper presents the analysis and considerations for additional circuits requirements in the operational phase of the MEVA III Network.	
<b>Action:</b>	Suggested actions are given in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• COMSOFT Response ACT 01 – ACT 04 V1.0/12.12.2013</li><li>• Commercial Offer – Options Upgrade V1.0/12.12.2013</li><li>• MEVA III_Band width-Budgetary Calculator.xlsm</li></ul>

**1. Introduction**

1.1 During the MEVA III TF/03 meeting, held in Mexico City on 23-26 Sep 2014, the Task Force created, under Conclusion MEVA/TF/03/07, an ad-hoc group tasked with reviewing the COMSOFT documentation on the price of additional services during the life of the MEVA III Network. The ad-hoc group is composed of representatives of Cuba, COCESNA and the United States.

**2. Discussion**

2.1 Two COMSOFT documents regarding the cost for additional channels were analysed:

- Commercial Offer “Options Upgrade” document dated 12 Dec 2103 (**Appendix A**).
- Workbook file containing a “Channel Cost Calculator” (**Appendix B**)

2.2 The “Commercial Offer – Options Upgrade” document (Appendix A) includes the following figures:

SERVICE	Service (Circuits)	Space Segment	Lease Site 1	Lease Site 2
Serial PAMA (up to 16 kbps)	100	500	125,75	125,75
FXS Channel	100	500	125,75	125,75
VHF-PTT	100	500	147,5	147,5
AMHS 64K IP	100	500		

2.3 The following observations on this cost scenario are highlighted:

- Under this scenario there is no difference in the serial channel costs, the price is independent of the required bandwidth up to 16kbps.
- The space segment cost of \$500.00 is for a block of 100 kHz, the minimum bandwidth increment allowed by the satellite provider according to COMSOFT.
- It is unclear if the \$100.00 cost for the service is per end-site or total circuit cost.
- No site lease cost is shown for the AMHS channel.
- The cost of implementing a new channel when the node's equipment has no free slots/ports is not shown.

2.4 The Task Force requested clarification and COMSOFT responded by sending the “Channel Cost Calculator” (Appendix B) for existing sites. This workbook allows MEVA Members to enter the number of services needed and automatically calculates a price. It includes the following figures:

Pos.	Description	Qty	MRC (in US\$)	ext. MRC	MRC (in US\$)	Duration (Months)	MRC Total (in US\$)
01.	<b>Network Access</b>						
	<u>Spare Parts Services</u>	1	150,00	150,00	<b>150,00</b>	60	<b>9.000,00</b>
02.	<b>Circuit Charges</b>						
	AFTN 9.6kbps synch		87,39	0,00		60	
	AFTN 2.4kbps		8,74	0,00		60	
	ATS Voice	0	113,61	0,00		60	
	Voice (DAMA)	0	10,49	0,00		60	
	AMHS 64kbps IP	0	419,48	0,00		60	
	<b>TOTAL</b>				<b>0,00</b>		<b>0,00</b>
03.	<b>Equipment Lease</b>						
	Have to be calculated on seperately on each case	1	N/A	N/A	N/A	60	N/A

2.5 The following observations on this cost scenario are highlighted:

- No equipment lease cost is included and the network access – which includes spare parts and services – is charged for \$150.00.
- Additionally, the cost of a Voice (DAMA) channel as well as the 2.4kbps AFTN channel does not reflect the price tendency of the table.

2.6 There are clear discrepancies and contradictions of the costs of any additional channel comparing both COMSOFT documents. The pricing is not straightforward. This is the reason why it is not possible to perform a direct comparison with the available MEVA II additional circuits pricing.

**3. Suggested action**

3.1 The meeting is invited to:

- a) take note of the information provided; and
  - b) request clarifications to COMSOFT.
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**COMSOFT**

**COMSOFT**  
SatelliteServices

**VSAT-MEVA III**

**Commercial Offer - Options Upgrade**

V1.0/12.12.2013

CFT Ref.:	Sealed Tender ST-22501390
Project No.	20131007
Doc-ID.:	VSAT-MEVA III_COM Opt Upgrade_V1.0
Customer:	ICAO MEVA III, Mexico/Canada

## Revision History

Version	Date	Description
V1.0	12.12.2013	Initial Version submitted as Telecon#1 response

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# 1 System Price – Options Upgrade Circuits

The MEVA III VSAT Network can be complemented or extended by the following options:

- Additional FXS Channel
- Additional VHF-PTT Channel
- Additional Serial Channel PAMA (up to 16 kbps)
- Additional DAMA AMHS IP Channel 64 kbps

## 1.1 Additional FXS Channel

### i. Monthly Recurring Charges 1-5 years

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Service (Circuits)	100,00	60	6.000,00
02.	Space Segment	500,00	60	30.000,00
03.	Equipment Lease Site #1	125,75	60	7.545,00
04.	Equipment Lease Site #2	125,75	60	7.545,00

### ii. Non-Recurring Charges

Pos.	Description	Qty.	NRC (in US\$)	NRC Total (in US\$)
01.	Installation	2	2.100,00	4.200,00

### iii. Monthly Recurring Charges (after 5<sup>th</sup> year)

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Option 1 Year (Contract Prolongation)	720,00	12	8.640,00
02.	Option 2 Year (Contract Prolongation)	690,00	24	16.560,00
03.	Option 3 Year (Contract Prolongation)	660,00	36	23.760,00
04.	Option 4 Year (Contract Prolongation)	630,00	48	30.240,00
05.	Option 5 Year (Contract Prolongation)	600,00	60	36.000,00

## 1.2 Additional VHF-PTT Channel

### i. Monthly Recurring Charges 1-5 years

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Service (Circuits)	100,00	60	6.000,00
02.	Space Segment	500,00	60	30.000,00
03.	Equipment Lease Site #1	147,50	60	8.850,00
04.	Equipment Lease Site #2	147,50	60	8.850,00

### ii. Non-Recurring Charges

Pos.	Description	Qty.	NRC (in US\$)	NRC Total (in US\$)
01.	Installation	2	2.100,00	4.200,00

### iii. Monthly Recurring Charges (after 5<sup>th</sup> year)

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Option 1 Year (Contract Prolongation)	720,00	12	8.640,00
02.	Option 2 Year (Contract Prolongation)	690,00	24	16.560,00
03.	Option 3 Year (Contract Prolongation)	660,00	36	23.760,00
04.	Option 4 Year (Contract Prolongation)	630,00	48	30.240,00
05.	Option 5 Year (Contract Prolongation)	600,00	60	36.000,00

## 1.3 Additional Serial Channel PAMA (up to 16 kbps)

### i. Monthly Recurring Charges 1-5 years

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Service (Circuits)	100,00	60	6.000,00
02.	Space Segment	500,00	60	30.000,00
03.	Equipment Lease Site #1	125,75	60	7.545,00
04.	Equipment Lease Site #2	125,75	60	7.545,00

### ii. Non-Recurring Charges

Pos.	Description	Qty.	NRC (in US\$)	NRC Total (in US\$)
01.	Installation	2	2.100,00	4.200,00

### iii. Monthly Recurring Charges (after 5<sup>th</sup> year)

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Option 1 Year (Contract Prolongation)	720,00	12	8.640,00
02.	Option 2 Year (Contract Prolongation)	690,00	24	16.560,00
03.	Option 3 Year (Contract Prolongation)	660,00	36	23.760,00
04.	Option 4 Year (Contract Prolongation)	630,00	48	30.240,00
05.	Option 5 Year (Contract Prolongation)	600,00	60	36.000,00

## 1.4 Additional DAMA AMHS IP Channel 64 kbps

### i. Monthly Recurring Charges 1-5 years

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Service (Circuits)	100,00	60	6.000,00
02.	Space Segment	500,00	60	30.000,00

### ii. Non-Recurring Charges

Pos.	Description	Qty.	NRC (in US\$)	NRC Total (in US\$)
01.	Installation	1	2.100,00	2.100,00

### iii. Monthly Recurring Charges (after 5<sup>th</sup> year)

Pos.	Description	MRC (in US\$)	Duration (Month)	MRC Total (in US\$)
01.	Option 1 Year (Contract Prolongation)	720,00	12	8.640,00
02.	Option 2 Year (Contract Prolongation)	690,00	24	16.560,00
03.	Option 3 Year (Contract Prolongation)	660,00	36	23.760,00
04.	Option 4 Year (Contract Prolongation)	630,00	48	30.240,00
05.	Option 5 Year (Contract Prolongation)	600,00	60	36.000,00

APPENDIX B

**Existing Site Additional Channel Calculator**

Pos.	Description	Qty	MRC (in US\$)	ext. MRC	MRC (in US\$)	Duration (Months)	MRC Total (in US\$)
01.	<b>Network Access</b>  <u>Spare Parts</u> <u>Services</u>	1	150.00	150.00	<b>150.00</b>	60	<b>9,000.00</b>
02.	<b>Circuit Charges</b>  AFTN 9.6kbps synch AFTN 2.4kbps ATS Voice Voice (DAMA) AMHS 64kbps IP <b><u>TOTAL</u></b>	1 2 2  0	87.39 8.74 113.61 10.49 419.48	87.39 17.48 227.22 0.00 0.00	<b>500.00</b>	60 60 60 60 60	<b>30,000.00</b>
03.	<b>Equipment Lease</b>  Have to be calculated on seperatetely on each case	1	N/A	N/A	N/A	60	N/A