International Civil Aviation Organization
South American Regional Office – Regional Project RLA/03/901
REDDIG Management and Satellite Segment Administration System
Twenty-Second Meeting of the REDDIG Coordination Committee (RCC/22)
(Lima, Peru, 5 to 7 March 2019)

RCC/22-WP/07
26/02/2019

Agenda Item 7: **Other matters**

MEVA III 100 KHZ BANDWIDTH INCREMENT PAYMENT SCHEME

(Presented by the Secretariat)

SUMMARY

This working paper presents a breakdown of the amounts to be included in the budget of Project RLA/03/901 to pay for 100-kHz bandwidth increments in MEVA III, as discussed at the RCC/21 meeting.

REFERENCES

- Report of the Twenty-First Meeting of the REDDIG Coordination Committee (RCC/21) – Lima, Peru, 14-16 May 2018.

ICAO strategic objectives:	*A – Safety* *C – Environmental protection and sustainable development of air transport*

1. Background

1.1 The Twenty-First Meeting of the REDDIG Coordination Committee (RCC/21), held in Lima, Peru, 14-16 May 2018, took note that the MEVA III group, given the increased number of new services over its network, such as the implementation of several AMHS circuits and the exchange of surveillance data, had seen the need to upgrade its satellite bandwidth. Accordingly, the MEVA group had considered that the cost of upgrading the bandwidth should be equally divided amongst all States in which a MEVA III node is located, including the Bogota and Maiquetía nodes, where it interconnects with the REDDIG II.

1.2 In this regard, the RCC/21 took note that the contractual aspects between REDDIG and the MEVA III provider were specified in contract No. 22501528, signed between ICAO and COMSOFT GmbH (now Frequentis) for the *Provision of interconnection services between the MEVA III and REDDIG II telecommunication networks*, and that additional 100 kHZ band increments, as shown in **Appendix A** to this working paper, required an amendment to the contract.

2. The 100-kHz bandwidth increment payment scheme

2.1 Pursuant to Contract No. 22501528, item 1.2 – *"MEVA III and REDDIG II Member States/Territories/International Organization"*, MEVA III participants are Aruba, Bahamas, Cayman Islands, Cuba, Curacao, United States, Haiti, Jamaica, Mexico, Panama, Puerto Rico, Dominican Republic, Sint Maarten and COCESNA (14 participants). Accordingly, the amount of USD 500.00 shall be divided by 15 (14 participants of MEVA III + REDDIG Project), resulting in a monthly fee of USD 33.33 (USD 500.00/15) for each 100 kHz increment.

2.2 For this reason, the Secretariat has initiated the corresponding arrangements with the Technical Cooperation Bureau (TCB) for the introduction of the aforementioned amendment, in accordance with the figures shown in Table 1 below.

Table 1 – Cost of 100 kHZ bandwidth increments in MEVA III

	Upgrade Stage 1, 2 and 3 (3 x USD 500/15)				Upgrade Stage 1, 2, 3 and 4 (4 x USD 500/15)					
	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Ago 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
MEVA participants	$1,400.00	$1,400.00	$1,400.00	$1,400.00	$1,866.76	$1,866.76	$1,866.76	$1,866.76	$1,866.76	$1,866.76
REDDIG	$100.00	$100.00	$100.00	$100.00	$133.34	$133.34	$133.34	$133.34	$133.34	$133.34
TOTAL (USD)	$1,500.00	$1,500.00	$1,500.00	$1,500.00	$2,000.10	$2,000.10	$2,000.10	$2,000.10	$2,000.10	$2,000.10
	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Ago 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019

2.3 Starting in March 2019, USD 100.00 (3 x USD 33.33) per month shall be charged to Project RLA/03/901, as payment for 100 kHz bandwidth increments in the MEVA III network in Upgrade Stages 1, 2, and 3, which have already been implemented.

2.4 In July 2019 or in the subsequent months, when Upgrade Stage 4 is implemented, the REDDIG contribution will be USD 133.34 (4 x USD 33.33).

2.5 In order to activate Upgrade Stage 5 and subsequent ones, the NACC and SAM CNS Regional Officers will develop a plan that will be communicated to the States and submitted to the approval of the participants of Project RLA/03/901 (REDDIG).

3. Suggested action

3.1 The Coordination Committee is invited to:

a) Take note of the information contained in this working paper; and

b) Approve the cost-sharing payments, starting in March 2019, for each 100 kHz bandwidth increment in MEVA III, as described in item 2.2 of this working paper.

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APPENDIX A
100 kHz Bandwidth Increment Schedule

Upgrade Stage	Upgrade Start	Type of Service	Date of Implementation	Station A	Station B	Nominal Bandwidth	DAMA Factor	Weighted Bandwidth towards Satellite	Coding & FEC	Symbol Rate	TDMA Overhead	Occupied Bandwidth Summary per Stage	Additional Satellite Bandwidth	Occupied Bandwidth Summary	Additional Costs
1	Dec-16	VSD	Q4/2016	San Juan	Curacao	25.20 kbps	1	25.20 kbps	QPSK 6/7	14.70 kHz					
1	Dec-16	VSD	Q4/2016	Miami	Cuba	25.20 kbps	1	25.20 kbps	QPSK 6/7	14.70 kHz					
1	Dec-16	AMHS transfer	Q1/2016	Atlanta	St Maarten	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz	15.00%	**114.76 kHz**	100 kHz		USD 500
1	Dec-16	AMHS transfer	Q3/2015	Atlanta	Cuba	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
1	Dec-16	AMHS transfer	Q1/2017	Atlanta	Aruba	89.60 kbps	0.3	26.88 kbps	QPSK 6/7	15.68 kHz					
2	Sep-17	AMHS transfer	Q4/2016	Atlanta	COCESNA	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
2	Sep-17	AMHS transfer	Q2/2017	Atlanta	Jamaica	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz	15.00%	**105.10 kHz**	100 kHz		USD 500
2	Sep-17	AMHS transfer	Q3/2017	Atlanta	Panama	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
2	Sep-17	AMHS transfer	Q3/2017	Atlanta	Cayman	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
														434 kHz	
3	?	AMHS transfer	?	Atlanta	Caracas	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
3	Feb-19	AMHS transfer	Q4/2018	Atlanta	Bogota (Lima)	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz	15.00%	**105.10 kHz**	100 kHz		USD 500
3	?	AMHS transfer	?	Atlanta	Bogota (Brasilia)	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
3	?	AMHS new	?	Panama	Bogota	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
4	?	AMHS transfer	?	Atlanta	Nassau	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
4	?	AMHS transfer	?	Atlanta	Haiti	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz	15.00%	**108.60 kHz**	100 kHz		USD 500
4	?	new 64k circuit	Q2/2018	COCESNA	Jamaica	108.80 kbps	0.3	32.64 kbps	QPSK 6/7	19.04 kHz					
4	Jul-19	AMHS transfer	?	Atlanta	Nassau	108.80 kbps	0.34	36.99 kbps	QPSK 6/7	21.58 kHz					