



ICAO

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WORKING PAPER

MEVA/TMG/33 — WP/08
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**Thirty third MEVA Technical Management Group Meeting (MEVA/TMG/33)
Willemstad, Curaçao, 29 – 31 May 2018**

- Agenda Item 2: Operations and Performance of the MEVA III Network**
2.2 Improvements to MEVA III node performance
2.3 MEVA III monitoring and reporting

**MEVA-III DISASTER RECOVERY RECOMMENDATION
MEVA III FLYAWAY ANTENNA**

(Presented by United States)

EXECUTIVE SUMMARY	
The purpose of this working paper is to highlight the need for a revised MEVA-III Contingency Plan. It was during the recent hurricane season, that we discovered an inoperable and aging flyaway antenna. As a result, many of the requirements set forth in the Draft Contingency Planning for MEVA-II are unobtainable as the next hurricane season quickly approaches.	
Action:	The suggested actions are detailed under Section 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Update draft contingency plan for MEVA III• Rapid restoration of services• Establish a new flyaway antenna solution
<i>References:</i>	<ul style="list-style-type: none">• Eighteenth MEVA II Technical Management Group Meeting (MEVA/TMG/18), Mexico City, Mexico, 20 to 22 February 2007• Nineteenth MEVA II Technical Management Group Meeting (MEVA/TMG/19) 26 to 27 February 2008 Summary of Discussion and Conclusion• Frequentis MEVA-III Emergency Antenna Commercial Offer

1. Introduction

1.1 During the Eighteenth MEVA Technical Management Group Meeting (MEVA TMG/18) in Mexico City on February 2007, a discussion was held to consider the use of a Flyaway antenna in the event of a catastrophic antenna failure. As a result, MEVA members agreed to develop and compose a Contingency Plan for MEVA-II, which included the availability of a Flyaway antenna. The Contingency Plan received approval during the Twenty second MEVA TMG held in Melbourne, FL on May 2011.

1.2 In the past several years, the Flyaway Antenna has had several storage locations. The primary storage facility has been an FAA provided facility in Miami and later in Independence, Missouri.

2. Discussion

2.1. The current 3.8mm flyaway antenna is stored in five large crates weighing an estimated 4000 pounds. Its large size and heavy weight makes it costly and impractical for immediate deployment in the event of an emergency. Moreover, during its time in storage, the antenna has experienced heavy oxidation in several key areas and many of the components have suffered reduced solderability, which has resulted in component failure.



2.2 During the most recent hurricane season, the FAA recovered the flyaway antenna from its storage location in Independence, MO and had it restored to a working condition. However, due to its aging structure and the limitation on available parts its long-term sustainability is questionable.

2.3 Frequentis has a proposal for a smaller, lighter antenna compatible with the current MEVA III. The proposed antenna, with newer components, is more suitable to be rapidly deployed and maintained than its predecessor.

3. Conclusion

3.1 The current flyaway antenna has reached the end of its life cycle and can no longer be relied on as an immediate solution to restore a damaged antenna. Furthermore, its heavy weight and bulk size makes it unsuitable as a quick deployment emergency solution.

4. **Suggested Actions**

- a) Update the MEVA-III Contingency Plan;
- b) review the Frequentis MEVA-III Emergency Antenna Commercial Offer; and
- c) provide recommendations or modifications as required

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