

International Civil Aviation Organization



**THE SIXTH MEETING OF AERONAUTICAL
TELECOMMUNICATION NETWORK (ATN)
IMPLEMENTATION CO-ORDINATION GROUP
OF APANPIRG (ATNICG/6)**



Seoul, Republic of Korea, 16 - 20 May 2011

Agenda Item 4: Review States' ATN/AMHS Implementation Status, Transition and Operational Issues

ATN/AMHS TRIAL BETWEEN INDONESIA AND SINGAPORE

(Presented by Indonesia and Singapore)

SUMMARY

This Information Paper serves to update the meeting on the status of the ATN/AMHS trial activities between Indonesia and Singapore.

1. INTRODUCTION

1.1 At the Fourth Meeting of the ATNICG (ATNICG/4) held in Singapore, in May 2009, an Information Paper was presented on the ATN/AMHS trial activities between Indonesia and Singapore. This paper serves to provide the meeting with a status update of this ATN/AMHS trial.

2. ATN/AMHS TRIAL

2.1 In mid March 2009, the ATN router trial using SNDCF over IP was completed and a connection was successfully established between the Jakarta and Singapore ATN router. Both States proceeded onto the next stage of bilateral testing which was carried out in accordance to the interoperability test procedures as defined in Annex E of the Asia/Pacific guidance document for AMHS conformance testing (AMHS Manual).

3. TEST PROCEDURES AND OUTCOME

3.1 The testing process was however challenging and took longer time than planned as both States are using system from different AMHS system manufacturers. Issue such as different interpretation of the ISO documents by the manufacturers was one of the main problems encountered during the trial. However, both States have made good progress and in Jan 2011, the following test procedures were successfully performed between the AMHS systems under test of both States except for the stress traffic situation test:

- Testing of submission, transfer and delivery operations (AMHS to AMHS)
- Testing of gateway operations converting a user message from AFTN to AMHS
- Testing of gateway operations converting a user message from AMHS to AFTN
- Testing of gateway operations converting a user message from AFTN to AMHS and back to AFTN
- Testing of gateway operations under special case scenarios
- Testing of stress traffic situation

3.2 During the trial, the AMHS system under test were verified to be interoperable under normal operating scenarios but errors were observed while performing test under stress traffic operating condition. Both States had worked together to resolve this issue and on 11 May 2011, it was observed that both ends are able to send and receive 800 messages. However, some delay was still observed when messages are exchanged simultaneously between the two sites. On 12 May 2011, Jakarta did some modifications on their AMHS system and improvement was observed. Further testing was however required to verify this test under stress traffic operating condition.

3.3 In addition, it was noted that the addresses used during the test should be synchronized and included in the Address Look-up Table and MTA Routing table on both ends to avoid misrouting of messages.

3.4 The pre-operational trial will be carried out once the interoperability trial is successfully completed prior to the operational commencement of migration from AFTN to ATN for the Indonesia and Singapore connection which is planned in 2012.

4. ACTION TAKEN BY THE MEETING

4.1 The meeting is invited to note the above information.
