



International Civil Aviation Organization

**THE TWELFTH MEETING OF ASIA/PACIFIC ROBEX WORKING GROUP
(ROBEX WG/12)
FOURTH MEETING OF METEOROLOGICAL HAZARDS TASK FORCE
(MET/H TF/4)**

ICAO Regional Sub-Office, Beijing, China

19 March 2014

Agenda Item 1: VAAC Back-up Tests

WELLINGTON/DARWIN VAAC BACK-UP TEST PROCEDURES

(Presented by New Zealand)

SUMMARY

This paper presents back-up test procedures between the Wellington and Darwin VAACs.

1. Introduction

1.1 The second meeting of the International Airways Volcano Watch Operations Group (IAVWOPSG/2, Bangkok, March 2004) recognized the need for the regular testing of VAAC back-up procedures that would ensure the continuing availability of Volcanic Ash Advises and identify deficiencies in the dissemination procedures of back-up products. The meeting adopted *Conclusion 2/19* stating, “*That the Secretariat include in Doc 9766, Handbook on the International Airways Volcano Watch (IAVW) – Operational Procedures and Contact List, the VAAC back-up procedures agreed by the group.* This was subsequently included in Doc 9766 along with the following note in Appendix D, “*Back-up arrangements should be tested at least annually.*”

1.2 The report of the Conjoint session of ROBEX WG/11 & MET/H TF/3 (Bangkok, March 2013), noted that procedures for conducting a back-up test had been developed jointly by the Darwin and Tokyo VAACs, and were included in the Asia/Pacific Regional SIGMET Guide (C1.3 refers). It was also noted that a State Letter from the ICAO APAC Office was distributed with notification and information on the back-up test a month in advance of the scheduled test date.

1.3 The Darwin and Wellington VAACs have now jointly developed a similar back-up test procedure, details of which are provided in the Attachment.

1.4 The objective of the backup test procedures set out in the Attachment is to ensure continuing availability of the Darwin and Wellington volcanic ash advisories to aviation users, in case either Wellington or Darwin suffers an operations outage that prevents the dissemination of volcanic ash forecasts.

2. Discussion

2.1 In August 2013, a Memorandum of Understanding (MoU) was signed between the Meteorological Service of New Zealand Ltd (MetService), who operates the Wellington VAAC, and the Australian Bureau of Meteorology, who operates the Darwin VAAC.

2.2 Back-up functionality between the two VAACs is a component of the MoU, and includes provision for conducting a back-up test on an annual basis.

2.3 The back-up test is intended to ensure that handover procedures are robust and functional, and test the dissemination pathways.

2.4 The back-up arrangement specifies that;

2.4.1 The Wellington VAAC will provide a back-up service across the Darwin VAAC area of responsibility, south of latitude 20S. The Tokyo VAAC provides backup services north of latitude 20S; and

2.4.2 The Darwin VAAC will provide a back-up service across the entire Wellington VAAC area of responsibility.

2.5 The first back-up test between the Darwin and Wellington VAACs is expected to take place later this year, probably in September or October, with the actual date to be mutually agreed between the two VAACs.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) Review and discuss any aspects of the back-up test procedures provided in the Attachment to this paper;
- b) Agree that the back-up test procedures for the Darwin and Wellington VAACs be adopted;
- c) Invite the Secretary to issue a State letter, when appropriate, requesting States and RODBs to participate in the annual tests conducted by the Darwin and Wellington VAACs; and
- d) Invite the Secretary to include the back-up test procedures in an appropriate Asia Pacific Region document, such as the Regional SIGMET Guide.

APPENDIX

WELLINGTON/DARWIN VAAC BACK-UP TEST PROCEDURES

1. Introduction

1.1 The International Airways Volcano Watch Operations Group (IAVWOPSG) recognized the need for the regular testing of VAAC back-up procedures that would ensure the continuing availability of Volcanic Ash Advises and identify deficiencies in the dissemination procedures of back-up products. Therefore, the second meeting of IAVWOPSG held in Bangkok, 15 to 19 March 2004, adopted Conclusion 2/19, as follows:

Conclusion 2/19 – Inclusion of VAAC back-up procedures in Doc 9766

That the Secretariat include in Doc 9766, Handbook on the International Airways Volcano Watch (IAVW) – Operational Procedures and Contact List, the VAAC back-up procedures agreed by the group.

1.2 Appendix D, paragraph f) of ICAO Doc.9766 - Handbook on International Airways Volcano Watch (IAVW) states that:

The back-up arrangements should be tested at least annually.

1.3 The Wellington and Darwin VAACs have developed a mutual back-up arrangement that includes procedures for undertaking a back-up test as described in this document.

2. Purpose and Scope of VAAC Back-up tests

2.1 The purpose of the VAAC back-up test is to ensure that internal procedures for the handover of responsibility and the issue of products for the other VAAC's area of responsibility are robust and functional.

2.2 The scope of the test also includes checking the dissemination pathways of the Volcanic Ash Advisory (VAA) messages.

2.3 The test is not designed to check the issuance of Volcanic Ash SIGMET and so there is **no requirement** to issue test SIGMETs.

3. Back-up test procedures

3.1 Procedures for Wellington – Darwin VAAC Back-up tests

3.1.1 Internal procedures related to handover of responsibility and issuance of VAAs for the other VAAC's area of responsibility will be tested and the results included in a final report.

3.2 Procedures for testing the dissemination of back-up VAAs

3.2.1 On the specified date at **0100 UTC** the Wellington VAAC will issue a test Volcanic Ash Advisory (VAA) for the Darwin VAAC area of responsibility south of latitude 20S. The message will indicate that it is a TEST and will follow the format given in **Section 4** of these procedures.

3.2.2 Recipients of the message **should send a confirmation email** to the address given in the message, including the message text and the time received.

3.2.3 **MWOs should NOT issue a test SIGMET.**

3.2.4 At **0200 UTC** the Darwin VAAC will issue a test VAA for the Wellington VAAC area of responsibility. The message will indicate that it is a TEST and will follow the format given in **Section 4** of these procedures.

3.2.5 Recipients of the message **should send a confirmation email** to the address given in the message, including the message text and the time received.

3.2.6 **MWOs should NOT issue a test SIGMET.**

3.2.7 In the event of a major eruption in either area the test may be cancelled.

3.3 Processing of the test results

3.3.1 The Wellington and Darwin VAACs, in conjunction with the Asia/Pacific Regional OPMET Databanks (RODBs), will analyse the received responses to the test messages and present the results to IAVWOPSG/9 in 2015.

4. Format of test VAA for the external test

4.1 From VAAC Wellington ~~to~~ for VAAC Darwin

FVAU01 ADRM **DDHHMM**
VA ADVISORY
DTG: **YYYYMMDD/HHMMZ**
VAAC: DARWIN
VOLCANO: TEST 9999-999
PSN: N1000 E10000
AREA: UNKNOWN
SUMMIT ELEV: 9999M
ADVISORY NR: **YYYY/N**
INFO SOURCE: TEST TEST TEST
AVIATION COLOUR CODE: NIL
ERUPTION DETAILS: TEST TEST TEST
OBS VA DTG: 99/9999Z
OBS VA CLD: WIND SFC/FL999 999/99KT
FCST VA CLD +6 HR: NO VA EXP
FCST VA CLD +12 HR: NO VA EXP
FCST VA CLD +18 HR: NO VA EXP
RMK: THIS IS A TEST ADVISORY ISSUED BY WELLINGTON VAAC FOR THE
DARWIN VAAC AREA OF RESPONSIBILITY SOUTH OF LATITUDE 20S. PLEASE
ACKNOWLEDGE RECEIPT OF THIS ADVISORY BY SENDING AN EMAIL TO
DARWIN.VAAC@BOM.GOV.AU
DARWIN VAAC.

NXT ADVISORY: NO FURTHER ADVISORIES=

4.2

From VAAC Darwin to for VAAC Wellington

FVPS01 NZKL DDHHMM

VA ADVISORY

DTG: YYYYMMDD/HHMMZ

VAAC: WELLINGTON

VOLCANO: TEST 9999-999

PSN: N1000 E10000

AREA: UNKNOWN

SUMMIT ELEV: 9999M

ADVISORY NR: YYYY/N

INFO SOURCE: TEST TEST TEST

AVIATION COLOUR CODE: NIL

ERUPTION DETAILS: TEST TEST TEST

OBS VA DTG: 99/9999Z

OBS VA CLD: WIND SFC/FL999 999/99KT

FCST VA CLD +6 HR: NO VA EXP

FCST VA CLD +12 HR: NO VA EXP

FCST VA CLD +18 HR: NO VA EXP

RMK: THIS IS A TEST ADVISORY ISSUED BY DARWIN VAAC FOR THE
WELLINGTON VAAC AREA OF RESPONSIBILITY. PLEASE ACKNOWLEDGE RECEIPT
OF THIS ADVISORY BY SENDING AN EMAIL TO
VAAC @ METSERVICE.COM
WELLINGTON VAAC.

NXT ADVISORY: NO FURTHER ADVISORIES=
