

International Civil Aviation Organization



ICAO

INFORMATION PAPER

ICAO Asia and Pacific (APAC)

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(MET SG/27)

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Agenda Item 6: Research, development and other initiatives

IMPLEMENTATION OF TAF3 FOR INTERNATIONAL AIRPORTS

(Presented by Solomon Islands)

SUMMARY

This paper outlines the information on the TAF3 implementation by Solomon Islands on the Services provision development initiatives implementation of the ICAO provisions for MET service for international air navigation. TAF3 is a three-hourly updated and responsive TAF to replace the Trend Forecast service (TTF). The TAF3 service exceeds ICAO's standards and recommended practices (SARPs) for an aerodrome forecast (TAF). Solomon Islands implemented TAF3 because the Trends (TTF) are not mandatory for an international airport under ICAO rules. TTF code is not compliant with ICAO formats.

1. INTRODUCTION

- 1.1 Solomon Islands received a request from Solomon Airlines requesting 2-3 hours' forecasts and since Trends are not mandatory for an international airport under ICAO rules and that Solomon Islands TTF code is not compliant with ICAO formats, therefore, Solomon Islands Meteorological Service agreed to produce a TAF3.
- 1.2 Solomon Islands started implementing the TAF3 in May 2023.
- 1.3 The civil airports affected by this change are Henderson, Munda, and Gizo. Other domestic airports still under the normal TAF.
- 1.4 A TAF3 service is a TAF issued routinely every three hours and receives priority, pro-active amendments to ensure it contains the latest forecast information.

2. DISCUSSION

Advantages of the TAF3

- 2.1 TAF3 is a single accurate forecast available for the selected local & international airports in Solomon Islands.
- 2.2 TAF3 eliminates any potential ambiguity between the TAF and TTF. Understanding the precedence between the two different forecasts would no longer be required.
- 2.3 TAF3 format.

FTNG31 AGGG 062315
TAF AGGH 062315Z 0700/0724 09008KT 9999 FEW018 SCT028 BKN100
FM070100 12015KT 9999 FEW019 BKN030
PROB40 INTER 0702/0706 5000 SHRA SCT016 BKN026
T 30 31 30 28 Q 1010 1008 1007 1009
TAF3=

TAF AGGM 062315Z 0700/0724 09008KT 9999 FEW018 BKN100
FM070100 14015KT 9999 FEW019 BKN030
Q 1011 1009 1008 1010
TAF3=

TAF AGGN 062315Z 0700/0724 14008KT 9999 FEW018 BKN100
FM070100 14015KT 9999 FEW019 BKN030
Q 1010 1008 1007 1009
TAF3=

3. ACTION BY THE MEETING

- 3.1 Request the meeting to note the information contained in this paper.

APPENDIX 01:

TAF3 SOP

1. SCOPE

This procedure applies to all the activities within the scope of the SIMS forecasting production of TAF3.

2. PURPOSE

- 2.1 To ensure that forecasters to have a uniform knowledge and instructions of producing a TAF3.
- 2.2 To review the adequacy, suitability and effectiveness of previous corrective and preventive actions including those related to outsourced service and supplier performance.

3. GENERAL

TAF3 is a three-hourly updated and responsive TAF to replace the Trend Forecast service (TTF).

The proposed TAF3 service exceeds ICAO's standards and recommended practices (SARPs) for an aerodrome forecast (TAF).

Trends (TTF) are not mandatory for an international airport under ICAO rules. TTF code is not compliant with ICAO formats.

TAF3 Service will be operating 24/7 at Munda (AGGM) and Honiara (AGGH) International Airports and Nusatupe (AGGN), one of the busiest domestic airports. This will be issued at the MWO in Honiara.

All international operators understand the ICAO TAF code and should be comfortable using TAF3 which is basically a TAF issued every 3 hours.

The amount of forecaster time devoted to TAF airports will remain the same for TAF3. Their time will be more effectively used during periods of fluctuating or marginal weather resulting in improved forecast services.

TAF3 service will offer flight planning rules similar to those of the TTF.

4. LIMITATIONS

TAF3 service will be available at least 99% of the time. Outside these published hours, standard TAF provisions will apply.

The TAF3 will require amendment immediately when certain criteria are met to create similar responsiveness as the TTF. Currently TAF amendments are delayed because the TTF supersedes the TAF in the first 3 hours.

The amount of forecaster time devoted to TTF airports will remain the same for TAF3. Their time will be more effectively used during periods of fluctuating or marginal weather resulting in improved forecast services.

In the rare event that SIMS needs to cease issuing a major airport TAF3 service, a NOTAM will be issued to inform users; in which case the service will revert to the provision of a standard TAF.

If the TAF3 cannot be maintained due to a lack of forecasting or observing staff, then forecasting staff should inform:

Quality Manager (QM), Director SIMS and CMO/F and CMO/Ops should be advised by email and phone.

The current state of knowledge of meteorological science and the limitations imposed by the available observations network together with the desirability where possible to produce a reasonably concise TAF3 forecast should be kept in mind.

5. TAF3 LOCATIONS

TAF3 are prepared for the following locations via Aviation consultation and Weather Policy approval.

Table : TAF3 Locations (civil aviation)

Aerodrome	ICAO ID:	Hours of Coverage	Frequency*
Henderson	AGGH	Mon-Sun 1800Z,2100Z,0000Z,0300Z & 0600Z,0900Z,1200Z,1500Z TAF3	3 hr
Munda	AGGM	Mon-Sun 1800Z,2100Z,0000Z,0300Z & 0600Z,0900Z,1200Z,1500Z TAF3	3 hr
Nusatupe/Gizo	AGGN	Mon-Sun 1800Z,2100Z,0000Z,0300Z & 0600Z,0900Z,1200Z,1500Z TAF3	3 hr
Tingoa	AGGR	Mon-Sun 1800Z,0600Z -TAF	6 hr
Taro	AGGC	Mon-Sun 1800Z,0600Z -TAF	6 hr
Lata	AGGL	Mon-Sun 1800Z,0600Z -TAF	6 hr
Ferah	AGGF	Mon-Sun 1800Z,0600Z -TAF	6 hr
Auki	AGGA	Mon-Sun 1800Z,0600Z -TAF	6 hr
Kira Kira	AGGK	Mon-Sun 1800Z,0600Z -TAF	6hr

6. RESPONSIBILITY FOR PREPARATION

TAF3 are prepared by the MWO or MO located at the aerodrome during periods when a forecaster is on duty. In Solomon Islands TAF3 is prepared by Honiara MWO.

TAF3 must not be issued without the forecaster.

7. TIMES OF PREPARATION

SIMS Observers will comply with the ICAO requirements by providing METARs every half hour or an hour and SPECIs as required.

Forecasters preparing a TAF3 will utilize the same suite of observations (AWS/AWOS, Observations, and satellite) and prediction Models information as used in the preparation of a TTF.

The TAF3 service consists of a TAF that is issued routinely every 3 hours. The TAF3 will be issued from the aviation forecast office 30 - 45 minutes before the forecast validity period, with a target issue time of 25 minutes before validity time (this means that the TAF should be sent 25 minutes before the hour or validity time).

Forecasters will use FM groups in the first three hours of the TAF3 validity to indicate onset and cessation of meteorological phenomena.

The validity of the TAF3 forecast will only be extended every 6 hours regardless of how many TAF3 forecasts are issued within that timeframe.

The underlying meteorological forecast information is the same regardless of the code used to convey the forecast. The forecaster provides the accuracy.

8. REVIEW AND AMENDMENT

TAF3 will be kept under continuous weather watch and as a premium service will receive priority, proactive amendments to ensure it contains the latest forecast information.

The TAF3 will require amendment immediately when certain criteria are met to create similar responsiveness as the TTF.

9. CHANGES TO TAF3 SERVICE

The implementation of the TAF3 service will result in improved services and safety for aviation stakeholders because:

- It is a simpler system. There will be a single accurate forecast available for the aerodrome which is well known to local and international operators.
- It eliminates any potential ambiguity between the TAF and TTF. Understanding the precedence between the two different forecasts would no longer be required.
- It will eliminate alignment issues. These are currently periods when TAF & TTF are not well aligned due to the TAF being amended up to an hour after TTF. The TAF would be amended immediately as required.

10. TAF3 AND NORMAL TAF HEADERS.

The new Header for TAF3/TAF is stated below:

FTNG31 AGGG xxxxxx

11. TAF3 EXAMPLE

The validity of the TAF3 forecast will only be extended every 6 hours regardless of how many TAF3 forecasts are issued within that timeframe.

24/7 TAF3 Service

FTNG31 AGGG 292310
TAF AGGH 292310Z 3000/3100 19008KT 9999 FEW020
FM300245 14011KT 9999 FEW035
FM300800 21005KT 9999 FEW030
FM301600 17010KT 9999 SCT0400
T 18 20 18 15 Q 1025 1023 1022 1023
TAF3=

12.0 VALIDITY OF TAF3

For example: The following TAF3 forecast is issued and valid from 08/0000z to 09/0000z (24 hours) **but updated after every 3 hours.**

FTNG31 AGGG 072310
TAF AGGH 072310Z 0800/**0900** 03018KT 9999 FEW020

FM081000 34010KT 9999 -SHRA SCT016
 FM081800 21015G25KT 9999 -SHRA FEW015 SCT025
 FM090000 15015KT 9999 FEW019
 T 30 32 31 30 Q 1013 1011 1012 1014
 TAF3=

The next (scheduled) issue of the TAF3 (3 hours after previous) is issued and valid from 08/0300z to 09/0000z (21 hours) –

FTNG31 AGGG 080210
 TAF AGGH 080210Z 0803/0900 03018KT 9999 FEW020
 FM081000 34010KT 9999 -SHRA SCT016
 FM081800 21015G20KT 9999 -SHRA FEW015 SCT025
 FM090000 15015KT 9999 FEW019
 T 32 31 30 27 Q 1011 1012 1014 1014
 TAF3=

Only on the next 3 hourly issue (every 6 hours) will the validity revert back to 24 hours, i.e. 0806/0906

Table B : Collection and Dissemination of TAF (FT) Bulletins									
1 ROC		2 TAF Bulletin						3 Dissemination	
Name	CCCC		CCCC	Aerodrome	Filing time	Start of validity	TAF validity	RODB/ROC	AFTN address
		FTNG31	AYPY	PORT MORESBY Intl	0535	0600	24	BANGKOK	VTBBYPYX
			AYWK	WEWAK	1135	1200	24	BRISBANE	YBBBYPYX
			AYVN	VANIMO	1735	1800	24	NADI	NFFNYPYX
			AYNZ	NADZAB	2335	0000	24	SINGAPORE	WSZZYPYX
			AYMH	MOUNT HAGEN			24	TOKYO	RJTDYPYX
			AYMO	MOMOTE			24	Beijing	ZBBBYPYX
			ANYN	NAURU I.			24	Hong Kong	VHZZYPYX
		AGGH		HONIARA (HENDERSON)			24	Jakarta	WIZZYPYX
								Manila	RPLLYPYX
								Mumbai	VABBYPYX
								Wellington	NZZZYPYX

Note: The table below shows what has been stated above. 24 hours TAF3 & normal TAF are issued and available from Mondays to Sundays.

Aerodrome	Category	TAF filing Times		Hours of Coverage	Freq..	Start validity / Coverage (24 hrs)
		Preparation	Issued			
Henderson Munda Nusatupe/Gizo	TAF3	2300z-2339z	2335z	0000z-0300z	3 hrs	0000z – 0000z
	TAF3	0200z-0230z	0235z	0300z-0600z	3 hrs	0300z – 0300z
	TAF3	0500z-0530z	0535z	0600z-0900z	3 hrs	0600z – 0600z
	TAF3	0800z-0830z	0835z	0900z-1200z	3 hrs	0900z – 0900z
	TAF3	1100z-1130z	1135z	1200z-1500z	3 hrs	1200z – 1200z
	TAF3	1400z-1430z	1435z	1500z-1700z	3 hrs	1500z – 1500z
	TAF3	1600z-1630z	1635Z	1700Z-2100Z	3 hrs	1700z – 1700z
	TAF3	2000z-2030z	2035z	2100z-0000z	3 hrs	2100z – 2100z
Tingoa Taro Lata	Normal TAF	2300z-2330z	2335z	0000z-0600z	6 hrs	0000z – 0000z
	Normal TAF	0200z-0230z	0235z	0300z-1800z	18 hrs	0300z – 0000z
	Normal TAF	1700z-1730z	1735z	1800z-0000z	6 hrs	1800z – 1800z

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13.0 TAF3 CHARACTERISTICS

TAF3 is a TAF issued routinely every three hours and receives priority, proactive amendments.

Issued routinely every 3 hours;

- The TAF3 is issued from the aviation forecast office 30 - 45 minutes before the forecast validity period, with a target issue time of 25 minutes before validity time.
- Kept under continuous weather watch by the responsible aviation forecasters focusing on the next 5-hours of the:
 - validity and timings of probabilities (PROBs) (updated if necessary); and
 - validity and timings of TEMPO/INTERs (updated if necessary)
 - It remains a TAF coding with ICAO Annex 3.
- Available 24/7 at Munda, Nusatupe and Honiara airports.
- Identical code format as the standard TAF.
- Stamped with ‘TAF3’ in the END section for easy identification
- To limit prolonged PROB periods affecting aviation operations, forecasters will use FM groups in the first three hours of the TAF3 wherever possible to indicate the onset, cessation and gaps in meteorological phenomena.

14.0 TAF3 & TAF TRANSMISSION (DISTRIBUTION)

All forecasters to take note that TAF3 (AGGH, AGGM & AGGN) to be transmitted in one message and the other TAFs to be transmitted together in another message.

Aerodrome	ICAO ID	TAF TYPE	Distributions List
Henderson/HIR	AGGH	TAF3 (After every 3 hours)	cmss@bom.gov.au
Munda/MUA	AGGM		flightsvc@solomon.com.sb
Nusatupe/GZO	AGGN		flight.planning@fijiairways.com
Tingoa/RNL	AGGR	Normal TAF (After every 6 hours)	Hcomcentre@mca.gov.sb
Taro/CHY	AGGC		HoniaraInfor@mca.gov.sb
Lata/SCZ	AGGL		occ@flysolomons.com.sb
Fera/FRE	AGGF		operation@met.gov.sb
Auki/AKS	AGGA		taro@met.gov.sb
Kira Kira/IRA	AGGK		auki@met.gov.sb
			lata@met.gov.sb
			munda@met.gov.sb
			tingoa@mecdm.gov.sb
			m.tepa@met.gov.sb
			s.sammy@met.gov.sb