Governance of Meteorological Service for International Air Navigation

Tonga Meteorological Services & Civil Aviation Office

Tonga Country Report

Content

- Tonga Aviation MET Framework
- Tonga Long-standing aeronautical meteorology deficiencies
- 174 Application Status and Progress
- Aeronautical Meteorological Advancements
- Challenges / Way Forward

Tonga Aviation Meteorology Framework

Legal Basis: Civil Aviation Act 2014 & Meteorology Act 2017

1. Aeronautical Meteorological Authority (Regulatory)

Entity: Director of Civil Aviation

Role: State authority for oversight and safety.

Key Functions: Ensures ICAO Annex 3 compliance, issues Part 174 Certification, governs air navigation safety.

2. Meteorological Service Provider (Operational)

Entity: Tonga Meteorological Service (TMS)

Role: Technical body providing operational weather services.

Key Functions: Generates METAR/SPECI and TAF, issues SIGMETs/aviation weather warnings, maintains aerodrome weather sensing equipment.

Tonga Deficiency: Background

Issue	Timeline	Root Causes	Impact
Long-standing ICAO-identified deficiency in **Reporting volcanic activity** for international air navigation	This deficiency has impacted Tonga's airspace for more than a decade, **dating back to 2008**	**Limited operational coordination** among responsible agencies	**Safety** and **operational planning** of flights transiting through Tongan and wider Oceanic airspace

Tonga Deficiency: Coordination

Consultation	Organisation	Resolution	Challenges
Extensive stakeholder consultations were conducted throughout **August 2023**	**Participating Organizations:** Tonga MET Services. Natural Resources Division Tonga Airports Ltd. Lulutai Airlines Ltd. Civil Aviation Office	Amendment of the **Letter of Agreement (LOA)** for Participating Organization.	Significant governance and coordination delays occurred following the 2023 meetings due to a proposal to **MERGE** the **Natural Resources Division** with **Tonga MET Services**

2026

Tonga Deficiency: Resolution

LETTER OF AGREEMENT (LOA)

IN RESPECT OF SERVICES FOR REPORTING VOLCANIC ACTIVITY IN TONGA

This is a multiple-party service agreement:

Between	Tonga Meteorological Services (TMS) of the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, Communications and CERT (MEIDECC)
And	Natural Resources Division (NRD) of the Ministry of Lands, Survey, Spatial Planning and Natural Resources (MLSSPNR)
And	Air Traffic Services (ATS) of the Tonga Airports Limited (TAL)
And	Aeronautical Information Services (AIS) of the Tonga Airports Limited
And	

Collectively and hereafter to be refer

Subject: Coordination procedures activity information rec Limited and other airlin Traffic Services (ATS) of Services under MEIDECC for onward dissemination Office (CAO) under the M Advisory Centre (VAAC (MWO).

6 ADMINISTRATIVE ARRANGEMENTS

6.1 To facilitate the conduct of the activities originated by this Letter of Agreement, MEIDECC designates:

Mr Sione Pulotu 'Akau'ola

Chief Executive Officer of the Ministry of Meteorology, Energy, Information/Cert, Disaster Management, Environment, Climate Change, Communications and Cert.

And MLSSPNR designates:

Mr. Siale 'Eti Teumohenga

Acting Chief Executive Officer of the Ministry of Lands, Survey, Spatial Planning and Natural Resources.

And TAL designates:

Mr. Leonaitasi Taukafa

Acting Chief Executive Officer of the Tonga Airport Limited.

And Lulutai Airline designates:

Mr. Clive Fua

Chief Executive Officer of the Lulutai Airlines Limited

SIGNED BY

For Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change, Communications and CERT
Name: Mr. Sione Pulotu 'Akau'ola
Position: Chief Executive Officer

SIGNED BY

For Ministry of Land, Survey, Spatial Planning and Natural Resources
Name: Mr. Siale 'Eti Teumohenga
Position: Acting Chief Executive Officer

SIGNED BY

For Lulutai Airlines Limited
Name: Mr. Clive Fua
Position: Chief Executive Officer

SIGNED BY

For Tonga Airports Limited
Name: Mr. Leonaitasi Taukafa
Position: Acting Chief Executive Officer

Figure 2, 3, 4 & 5: *The official signing and endorsement of the Letter of Agreement. Clockwise from the top left: Acting CEO of the Tonga Airport Ltd, Mr. Leonaitasi Taukafa, Lulutai Airlines CEO Mr. Clive Fua, and the Acting CEO of the Ministry of Lands, Survey, Spatial Planning and Natural Resources, Mr. Siale 'Eti Teumohenga and the CEO of MEIDECC, Mr. Sione 'Akau'ola.*

Resolution

Formal **LOA endorsed and signed** by all relevant agencies as of early **2026 on 31st March**.

2026

174 Certification Application

2022
1st Consultant Funded by World Bank Under PREP for TMS 174 Certification

Feb 2023
2nd Consultant (Former Director of TCAD) for TMS 174 Certification

Mar - Apr 2023
SMS Training of TMS Staff – Provided by 2nd Consultant (Former Director of TCAD)

Apr 2024
Submission for 174 App.
- Quality Manual
- SMS Manual and
- Relevant Docs

Jul 2024
External Audit with PASO and TCAD
(Result of 18 Major Findings)

Oct 2024
Audit Report
Ongoing process closing GAPS/Findings

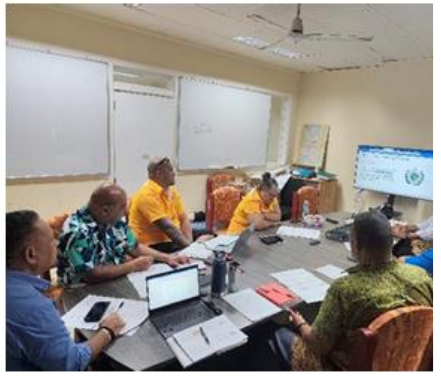
Sep 2025
Awarded of Consultation to Quality Solution for QMS establishment

Mar 2026
Internal Audit Training with QS for TMS staff

Present
Ongoing Task to Close Findings and to be submitted by End of 2026.

DEC 2026

Figure 1: Deputy Director (Mr. Laitia Fifita) submitting Documentation for 174 Certificat
from Tonga Civil Aviation Division.



ernal Audit Training for TMS staff conducted by Quality Solution (Trainer - Dior

5: Internal A

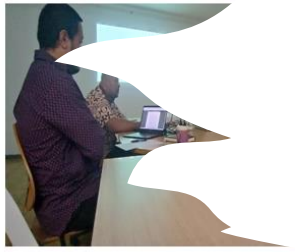
e 1: Vava'u Meteorological Staff SMS Training with Mr. John Wycliff Ha
credit: Viliami Fa'anunu (Chief Quality Officer/MF

Figure 1 Entry meeting at Fua'amotu Met office

Figure 2 Inspection of Met Facilities at Fua'amotu Aerodrome

Figure 3 Inspection of M

Figure 4. At the weather observation workstation



Our Journey towards Part 174 Certification

Aeronautical Meteorological Advancements

Building & Infrastructure

- Completed
- Funded by World Bank
- Commissioning date TBC

System Upgrade

- New ICT System & Network
- Back up by TBC & Vava'u
- Ongoing progress of WIS2.0 installation

New AWOS

- Funded by DFAT
- Installation and systems supplied by Campbell Scientific
- For NFTF & NFTV

Challenges - Way Forward

Challenges	Way Forward
Shortage of qualified Aeronautical MET Inspectors	Implement regional inspectorate training programs for MET Inspectors.
Need more MET Aviation weather service Staff	Increase workforce (MET officers and technician)
Shortage of MET Technical Staff	Develop and implement QMS (in progress)
Absence of Quality Management Systems (QMS) for both the Regulator and Service Provider	Complete necessary Corrective Actions to achieve Certification under Civil Aviation Rule Part 174.
High costs associated with acquiring and maintaining meteorological systems, technologies, and infrastructure	Establish a cost recovery mechanism.
	Promote close cooperation with national, regional counterparts and donor partners in the Aviation and Meteorology sectors.

MALO ’AUPITO!