

TONGA AVIATION INVESTMENT PROJECT (TAIP)
Consulting Services
TERMS OF REFERENCE AND SCOPE OF SERVICES
TAIP ENGINEER
(TAL/ICS/D55)

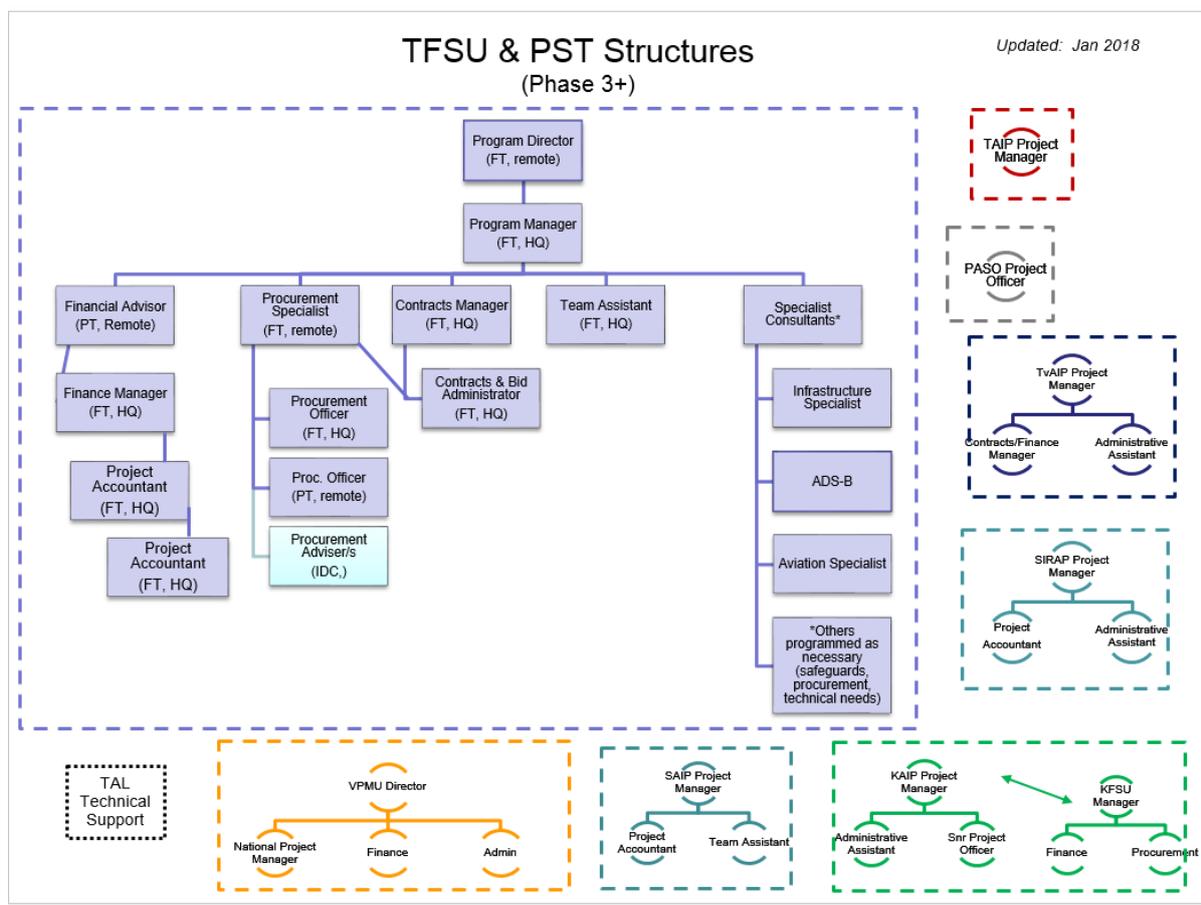


1. BACKGROUND

- 1.1 The Government of Tonga is currently implementing the Pacific Aviation Investment Program (PAIP), supported by the World Bank. PAIP is a regional aviation program with the development objective to provide safe and secure air transport operations and environmentally sustainable and efficient airports. PAIP is currently implementing key aviation investments in five (5) Pacific Island countries: Kiribati, Tuvalu, Samoa, Tonga and Vanuatu, with a sixth country the Solomon Islands currently under preparation. The program's Implementing Entity is Tonga Airports Ltd (TAL), who leads the program via the TFSU "Technical and Fiduciary Services Unit". The PAIP TFSU also provides project implementation support to the related Pacific Aviation Safety Office (PASO) Reform Project supported by The World Bank.
- 1.2 PAIP is being implemented in recognition of the key place of transport in the economic and social development of each participating country and the need to strengthen the efficiency and viability of this sector. Reviews of the transport sectors in each country point to the need to mainstream disaster risk reduction and climate change adaptation into infrastructure planning and management. Addressing climate change by providing carbon-neutral airport facilities are part of this investment program, as are investments in alternative and sustainable energy efficient technologies. This will help ensure that the airports are operated in an environmentally sustainable manner.
- 1.3 Investments under PAIP fall under four main components:-
- Component A: Aviation Infrastructure Improvements:** This component will invest in the aviation infrastructure at the three project airports so that they are able to meet ICAO standards, while preserving and extending the service life of existing airport assets.
- Component B: Aviation Sector Reform:** This component will support aviation sector reform through the provision of support to the Civil Aviation Departments/Authorities of each country. These investments will be targeted to (i) support the strengthening of each State's civil aviation system (through the adoption and implementation of new Civil Aviation Regulations; agreed corrective action plans following ICAO safety and security audits of each State and targeted capacity building and training of each CAA); and (ii) to assist in the capacity and efficiency of the regional safety oversight agency, the Pacific Aviation Safety Office (PASO).
- Component C: Strengthening Airport Operations and Management Capacity:** During Phase 1 of the Program, this project will coordinate regional studies: (i) Options for Regional Aviation Supply; (ii) Long-Term Sustainability of Aviation Infrastructure; and (iii) Analysis of Flight Information Region (FIR).
- Component D: Program Support and Training:** (i) Support to the Technical and Fiduciary Services Unit (TFSU) to implement the Program and Implementing Agent (Tonga Airports Limited) to support the project as necessary.
- Note: The Vanuatu Project also has a fifth Component E relating to Project Support aligning with Component D of other PAIP countries. Component D for VAIP concerns repairs to transport infrastructure in response to Cyclone PAM, with activities to be confirmed on a case by case basis.*
- 1.4 Day to day implementation of PAIP is led by the '**Technical and Fiduciary Services Unit (TFSU)**', and supported by Tonga Airports Ltd. Each country has a Project Support Team (PST) who drives in-country project implementation and work closely with the TFSU. The TFSU also acts as the Tonga project team, supporting the Tonga Project Manager.

1.5 Figure 1 shows the Phase 3 implementation arrangements.

Figure 1: TFSU and PST Staffing (from Phase 3 onwards)



1.6 Investments in each country vary according to specific requirements and these are reflected in the table below. These may change according to specific requirements of project implementation:

Planned Phase 1 & 2 Major Infrastructure Investments by Airport – Updated June 2018

Description	Kiribati		Tonga		Tuvalu	Samoa	Vanuatu
	TRW	CXI	TBU	VAV	FUN	APW	*
Navigation Aids							
Automatic weather station (AWS)							
Automatic dependent surveillance-broadcast (ADS-B)							
Terminal building improvements							
Security screening equipment							
Airfield lighting and cabling							
Air Traffic Control Equipment							
Obstacle Limitation Survey							
Fire Tender Vehicle Shelter							
Resurfacing Road CXI-London							

Maintenance Equipment Building							
Airfield Maintenance Equipment							
Improved Power Supply							
Security Fence							
Fire Tender Vehicle							
Fire Safety Equipment for Fire Crews							
Emergency Infrastructure Repairs							
Very Small Aperture Technology Network (VSAT)							
Design and Supervision of CXI-London Road							
Design and Supervision Aviation Investments							
Laboratory/Testing Equipment							
Fuelling Equipment							
Airport Seawall and Construction of Bonriki Village Facilities							
Land Acquisition and Resettlement							
Solid Waste Removal							
Flight Service Office Tower							
Multipurpose Courts & Toilet Blocks							
Water Tanks							

* Investments in Vanuatu are expected to involve the 3 main airports in Vanuatu (Bauerfield, Tanna and Pekoq); not all investments will be required in each location.

- 1.7 TFSU also provides project implementation support to the Pacific Aviation Safety Office (PASO) Reform Project. This is also governed by a Service Agreement for TFSU services. Technical support may also be required at times to support this Project as part of the broader TFSU implementation support.
- 1.8 The implementation mechanisms for PAIP include the following: (i) a Program Steering Committee (PSC) with representatives from each participating Government is responsible for high level project direction and coordination; (ii) each country has established a National Steering Committee (NSC) to provide project specific oversight and direction; (iii) day to day implementation of PAIP is led by the 'Technical and Fiduciary Services Unit (TFSU)', and supported by Tonga Airports Ltd (TAL); (iv) each country provides in-country project management through its own Project Support Team (PST) who work in close liaison with TFSU.
- 1.9 A Service Agreement between TAL and each participating PAIP country (and PASO) has been signed identifying the roles and responsibilities of the TFSU and each Implementing Agency (IA), through their PST.
- 1.10 A Program Operations Manual (POM) has been adopted by each country and will guide day to day implementation and covers all aspects such as program/project management, procurement, financial management, contract management, and other aspects.

1.11 Successful program implementation requires robust, collaborative relationships to ensure smooth and timely implementation.

2. ASSIGNMENT BACKGROUND

- 2.1 TAIP is currently in its 7th year of implementation and whilst it is currently scheduled to conclude on 31 December 2018, is expected to be extended into 2019 to allow remaining investments to be implemented.
- 2.2 The pavements at Fua'amotu and Lupepau'u International Airports were resurfaced in 2015 through the TAIP project and are currently in their Defect Liability Period (DLP). Supervision of the civil works was undertaken by the design engineer, AECOM, however this contract is no longer live and as such supervision during the DLP period is now being taken over by the technical specialists within the PAIP TFSU and supported by TAL.
- 2.3 Sustainability of investments is a key focus for TAL and also supported through TAIP. As such, an Engineer is sought to provide support and advice to the TAIP PST Project Manager and to TAL regarding their airport pavements. It is anticipated that this support will involve working with and supporting the DLP period for the TBU and VAV pavements, as well as working with TFSU and TAL to ensure that sustainable pavement management plans are developed and embedded into existing maintenance practices.
- 2.4 The Consultant will be part of the TAIP team and responsible to the TAIP Project Manager but will also be required to work in close collaboration and at times at the direction of the PAIP TFSU in carrying out this assignment. The Consultant will also be required to work closely with the implementing agency Tonga Airports Limited (TAL) and The World Bank.

3. OBJECTIVE

The main objective of this consultancy is to support TAL in managing the airport pavements, through providing technical advice and support, and working in close collaboration with the PAIP TFSU and TAIP Project Manager to deliver outcomes consistent with TAIP project objectives.

developing appropriate pavement management embedding pavement maintenance into regular work programs and liaising with the TFSU pavement specialist for more direction.

4. SCOPE OF SERVICES

The detailed scope of services to be provided may include, but not limited to:-

- i. Undertaking supervision tasks to support DLP supervision relation to the pavements at TBU and VAV.
- ii. Developing, reviewing or adjusting pavement management plans for TALs airport and supporting their implementation within TALs existing maintenance practices.
- iii. Provide technical advice to the TAIP Project Manger and to TAL regarding the pavements, related infrastructure or maintenance requirements.
- iv. Any other work as directed by the TAIP Project Manager or TAL CEO to support the technical/civil works investments across the Project.

This assignment is essentially focused on supporting TAL/TAIP and the PAIP TFSU during the DLP period for the two main airports of Fua'amotu and Lupepau'u Airports, as well as the provision of technical advice to support associated maintenance and pavement management plans and practices. Technical support may also be required for TALs other airports.

In undertaking this assignment, the Consultant will be working in close collaboration with the TAIP Project Manager and PAIP TFSU. The Consultant will be required to undertake this assignment in close collaboration and at times at the direction of the PAIP TFSU Pavement Specialist who provides specialist technical expertise to TAL. Advice provided by the Consultant shall be consistent with the objectives of TAIP and the implementation

mechanisms under PAIP. Opportunities to work closely with the TFSU Pavement Specialist will also further the Consultant's professional development and development of local resource and availability.

In approaching this assignment, particular care must be taken to ensure that the advice and approach taken is practical, and fit for purpose in consideration of the resources and capabilities of TAL. Consideration will need to be given to balancing compliance and 'ideal' solutions, with those that are practical, affordable and fit for purpose. The Consultant will be expected to be innovative and consider long-term goals of sustainability.

The Consultant's ability to build relationships effectively and collaboratively will be of critical importance, as will cultural sensitivities and a personal style which affirms and respects the various stakeholders, IAs and the operational context.

5. EXPERTISE REQUIREMENTS

Essential

The Consultant shall have the following experience and qualifications:

- i. Tertiary qualifications in civil engineering, at an advanced professional or educational level;
- ii. Demonstrated experience of at least (5) years' professional work experience in civil engineering in pavement construction and design, preferably in runways;
- iii. Demonstrated experience in related skills such as development of maintenance programs, or contract supervision tasks;
- iv. Demonstrated ability to work independently, with initiative and at high quality levels, whilst working independently being a team player through clear concise communications is important;
- v. Excellent verbal, written and presentation communication skills in English, networking and coordination skills, including high-level report-writing skills;

Desirable

- i. Experience with donor funded projects;
- ii. Demonstrated work experience in small island developing states;
- iii. Experience and knowledge of local conditions and culture, and language

6. INSTITUTIONAL ARRANGEMENTS

The **TAIP Engineer** shall be directly responsible to the TAIP Project Manager and will be expected to coordinate closely with the TFSU senior management team, particularly the TFSU Pavement Specialist/s. The **TAIP Engineer** will be required to work pro-actively, collaboratively and supportively as a TAIP team member and with the Implementing Agency. The role will be based in Tonga as a national consulting role.

7. LEVEL OF EFFORT, SCHEDULE & REPORTING REQUIREMENTS

It is anticipated that the consultant will commence as soon as possible o/a June 2018 over an initial seven (7) month period which may be extended subject to Project extension, performance and mutual agreement.

Inputs are expected to be 'lumpy' at times to reflect particular activities (e.g. DLP supervision tasks) with an estimated level of input of 50 days over the contract duration.

An **Time Based Contract** will be signed in which both parties will agree on a unit fee rate fixed for the duration of the contract.

As TFSU is leading the PAIP program, an understanding of the team's vision and values follows:

Technical and Fiduciary Services Unit (TFSU)

"Gateway to Excellence through our People working in true partnership, communicating and delivering high quality and innovative technical and fiduciary development solutions"

Values

Respect	Courtesy
Fun & Enjoyment	Openness
Teamwork	Fair
Responsibility	Confidence
