



# MINISTRY OF TRANSPORT

Te Mana Tumotu o Te Kuki Airani

P O Box 61, Rarotonga, Cook Islands.

Tel: (682) 28-810, Fax: (682) 28-816, E-mail: [dennis.hoskin@cookislands.gov.ck](mailto:dennis.hoskin@cookislands.gov.ck)

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10 June 2024

Secretary for Infrastructure  
Infrastructure Cook Islands  
PO Box 102

**RAROTONGA**

For the Attention of: Mr. Robert Heather

Kia Orana Robert,

**SUBJECT: MANIHIKI AIRPORT DESIGN COMPLIANCE**

Thank you for submitting the design and staging drawings for the development of Manihiki Airport, to enable us to review the design with respect to compliance with the Civil Aviation Standards as prescribed in Cook Islands Civil Aviation Rules (CICAR) Part 139.

## 1.0 Design Overview

The proposed 1450m x 30m bitumen surfaced runway will offset further to the south than the current northern threshold to enable the take-off and approach obstacle limitation surfaces (OLS) to remain clear of the current buildings on the northern perimeter of the airport.

It is not possible to achieve the minimum runway strip width of 90m and in our discussions we have agreed that an 80m strip width is as wide as is all that is practicable. This complies with the minimum strip width for a code 2 (runway length under 1200m) non instrument runway. Code 3 aircraft such as the Saab 340 and ATR will require an exemption. An existing example is the Funafuti International Airport, in Tuvalu, which has only an 80m runway strip width due to land constraints. Code 3 aircraft such as Fiji Airways ATR 72 aircraft operate scheduled international services from the airport to and from Fiji.

The western transitional OLS which should have a 14.3% (1:7) slope will not be able to be achieved due to the permanent building structure and trees. It is agreed that an OLS with a slope of 20% (1:5) will be implemented, which complies with a Code 2 non instrument runway requirement. This will require the relocation of the existing TAU electrical reticulation line. Any remaining permanent structure that penetrates the OLS will be required to be marked on the appropriate aerodrome charts in the Cook Islands Aeronautical Information Publication (AIP).

It is understood that a temporary runway while the construction phase is in progress will not be included in the project. Should a temporary runway be required a minimum runway strip width of 60m would be required for EMB 110 aircraft.

## 2.0 Airport Management, Operation and Facilities

The airport is currently operated, by the Manihiki Island Council without a formal document, trained personnel, facilities or services. For the operation of an aircraft such as the Saab 340 at the airport, will require the airport to gain certification as detailed in CICAR Part 139. Although given the remote location, potentially small number of flights and lack of facilities on Manihiki, it is unlikely the full requirements detailed under CICAR Part 139 will be mandated, and the lesser requirements of those for an "Qualifying Aerodrome" as defined in CICAR 139. This requires the Director of Civil Aviation to conduct an Aeronautical Study and determine the minimum facilities and services.

It is likely the above-mentioned study will require:

- Management manual detailing responsibilities, maintenance and operational procedures
- Aerodrome Emergency Plan (AEP)
- Limited rescue fire capability
- Personnel trained to perform the above services and duties.

This is likely outside your current brief, but the appropriate Government Departments and Island Council will need to get a formal programme underway once the project is approved.

### **Design Compliance**

The design and staging drawings are approved as meeting the CICAR requirements noting that an exemption will be issued for the runway strip width and transitional OLS.

Kia Manuia,



Dennis Hoskin

**Director of Civil Aviation**