



SEVENTH MEETING OF THE PACIFIC METEOROLOGICAL COUNCIL (PMC-7)

"AT THE FRONTLINE OF WEATHER, CLIMATE, WATER, AND OCEAN ACTION IN THE PACIFIC"

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"At the Frontline of Weather, Climate, Water, and Ocean Action in the Pacific"

17-19 September 2024, Warwick Le Lagon-Vanuatu Resort, Port Vila, Vanuatu

Agenda Item 9.4: Certification for organisations providing Aviation weather service

Purpose:

1. To inform the meeting of the gaps within meteorological service organizations that are hindering their certification under Civil Aviation Rule Part 174
2. To seek the meeting's guidance and decisions to assist Pacific Island States in addressing these deficiencies.
3. To highlight the necessary training staff must undergo to effectively perform the duties of a Meteorologist, Meteorological Technician (observer), observing infrastructure technicians, quality manager and safety management systems officer.

Background:

1. Part 174 prescribes:
 - a. Rules governing the certification and operation of organisations providing meteorological service for aviation; and
 - b. Requirements governing the provision of basic weather reports for aviation
2. Meteorological service organizations from States that have adopted the New Zealand Civil Aviation Rules are required to be certificated under Part 174, if they are providing a service to aviation.
3. In addition, as ICAO-contracting States, the meteorological service organizations are expected to adhere to the standards and recommended practices set by the International Civil Aviation Organization (ICAO) and the World Meteorological Organization (WMO).



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4. PASO is the sole international organisation responsible for regional regulatory aviation safety oversight service for the 10 Pacific States who are signatories to the Pacific Islands Civil Aviation Safety and Security Treaty (PICASST).

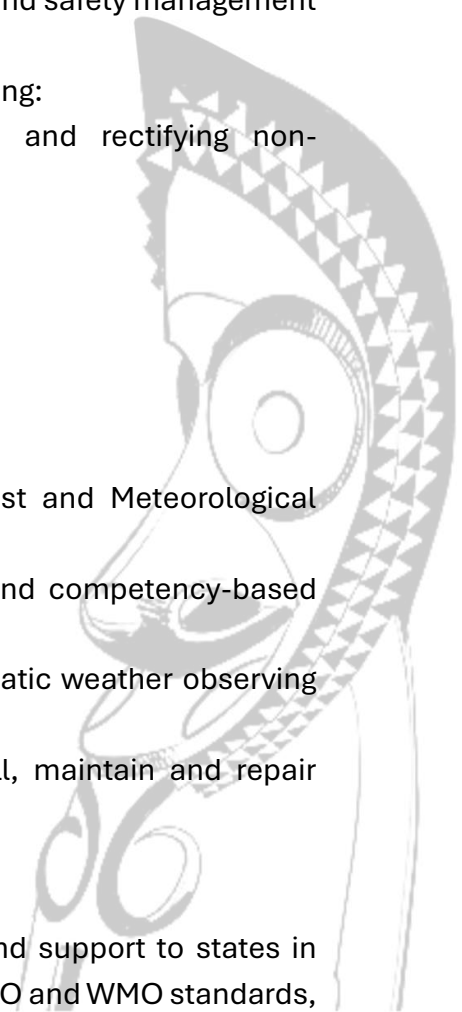
Recurring themes in aviation meteorological service provision

Through its work in the Pacific over recent years, recurring themes have been observed by PASO across many meteorological service providers, including:

1. Inadequate understanding of the Civil Aviation Rule part 174 requirements
2. Development of manuals for Part 174 Exposition, quality and safety management systems
3. Maintaining an effective quality assurance system, including:
 - a. Monitoring, identifying, recording, investigation and rectifying non-conforming products and equipment malfunctions
 - b. Performance analysis and evaluation
 - c. Product verifications
 - d. Customer engagement and feedback analysis
 - e. Conducting Internal Audits
 - f. Conducting management review meeting
4. Trainings on basic instruction package for Meteorologist and Meteorological technicians (observers)
5. Trainings on quality and safety management systems and competency-based assessment.
6. Irregular station inspections and un-availability of automatic weather observing systems spares
7. Upskilling observing infrastructure technicians to install, maintain and repair meteorological instruments and observing systems

Improvement in provision of aviation meteorological services

PASO invites the PMC to consider the provision of guidance and support to states in meeting the requirements of civil aviation rules, together with ICAO and WMO standards, to help address the issues outlined above.





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This support may be in the form of training programs on quality and safety management systems, aimed at developing and enhancing skills to ensure fully operational management systems. The success of such training programs has been already shown via the work of the Australia's Bureau of Meteorology in assisting Samoa, Kiribati and Papua New Guinea, as discussed in Agenda 9.1, and there is a need for this work to be extended to more States.

PMC is further invited to consider the need for supporting states in meeting the minimum qualifications required to those meteorological service organization personnel providing aviation weather service, as well as providing training for technicians to maintain and repair observing network infrastructure.

By implementing the training and support suggested above, States will then be able to continually improve on the provision of aviation weather services in the region, for the safety and efficiency of air navigation. The Meeting may also note that the benefits will not be solely confined to aviation service provision, as by implementing such training and support, all meteorological service provision will be improved.

Recommendations:

The Meeting is invited to:

- **Note** the recurring deficiencies in the meteorological service organisations which are common challenges for all organisations
- **Recommend** that the issues raised via audits and other reporting shall be addressed as soon as practicable as it could pose risk to aviation safety, with appropriate corrective action plans to be developed by States
- **Endorse** the establishment of a PIAWS Panel Task Team to develop a roadmap for the provision of best practice aviation services in the Pacific region, including awareness of the requirements of Civil Aviation Rule Part 174.
- **Request** that regional institutions and/or development partners develop and make available training to all Pacific Island meteorological services on quality management systems, safety management systems, risk management, root cause analysis, internal auditor trainings, quality tools and competency-based assessments to be made accessible to staff. This should include an element of 'train the trainer', to ensure that the knowledge and skills can continue to be shared within each organisation.



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- **Task** the PIAWS Panel Task Team for QMS to develop a forum or similar for Pacific Island meteorological services more advanced in QMS to share their QMS best practices.
- **Task** the PIAWS Panel Task Team for QMS to explore options for online platforms for occurrence reports and corrective action development for the Pacific region.
- **Request** assistance to ensure aviation meteorological personnel providing aviation weather service to undergo relevant basic instructions package training for Meteorologists and Technicians (observer)
- **Request** training for instrument technicians to be able to maintain and repair, as appropriate, local observing instrumentation.

