

Third Meeting of the Pacific Meteorological Council (PMC-3)

20-23 July 2015
Nuku'alofa
The Kingdom o Tonga

Agenda Item 9.1: FINPAC Support to Public Weather Services and Communications to Communities.

Purpose

1. To **provide** an overview of some of the progress made in Public Weather Services and Communications and
2. To **inform** the council on some of the progress made under the FINPAC project.

Background

3. The provision of public weather services and other weather services is an end product of a system that involves several important components from monitoring, communications and sharing of data, analysis of information both from local and from other sources, analysis of satellite and dynamical models as well as mode of dissemination of weather services to the public. The whole operation is summarized in the Figure 1 below.

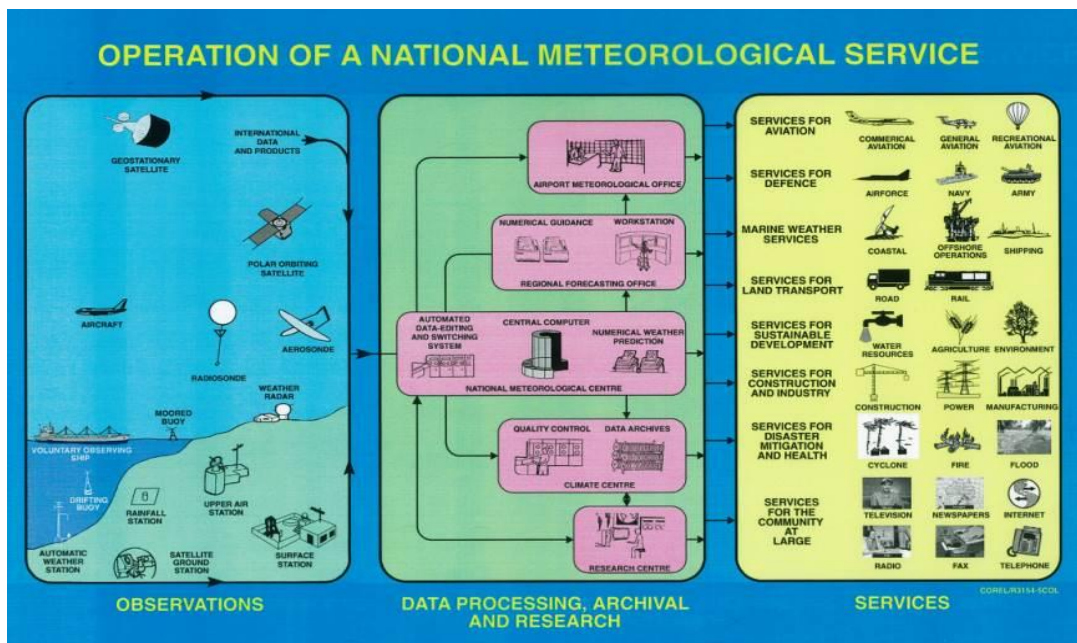


Figure 1: Operation of a National Meteorological Service (Source: Zillman, J W, 1999. The National Meteorological Service. WMO Bulletin, 48, 2, pp129-159)

4. Public Weather Services in the Pacific region have improved tremendously over the past number of years with NMHSs now providing information on a regular basis on their own websites for access by the general public. Some NMHSs are now providing forecast information for up to 7 days.
5. Fiji Meteorological Service (FMS) still provides public weather forecast guidance for several smaller NMHSs in the region. Progress has been made by these smaller NMHSs in terms of translation of weather information into their own local dialects so they can be understood better by local communities, as well as providing their own additional information to complement the information provided by FMS.
6. Some of the NMHSs in the region have been successful in securing partnerships with their TV networks to broadcast information. Cook Islands Meteorological Service for instance has provided this service for many years. Recently, Samoa Meteorological Division has created its own studio and providing recordings to TV1 for evening broadcasts in both English and Samoan.
7. The operation and maintenance of observations stations continue to be one of the highest priorities for the region. Communication of data collected from remote locations in the region and providing them to the WMO Global Telecommunications System (GTS) system continues to be an ongoing challenge in some of the member countries.
8. The RANET project (Agenda 10.1) has also contributed significantly to strengthening the operational system of the NMHSs in the region by addressing communication gaps in getting information from remote communities to the main offices for decision making. These include the Chatty beetle and the HF radio communications.

Update

9. These updates are mostly on what FINPAC has carried out or is planning to carry out in the next couple of months to support the different components of the whole operations of the NMHSs as in Figure 1. It should be noted that other programmes, partners and institutions have made important contributions to strengthen the operations of the NMHSs.
10. **Support by FINPAC to strengthen the observations systems** - This is a very critical component of the operations of the NMHSs and contributing to the public and other weather services. FINPAC project will be supporting the NMHSs observations systems under activity 1.5 of the project. Currently we have completed the assessments of NMHSs in Cook Islands, Fiji, FSM, Marshall Islands, Niue, Palau, PNG Samoa, Solomon Islands, Tonga and Vanuatu. These assessments are being finalised and will be in touch with the NMHSs to start purchasing systems for them. The Niue automatic weather station will be put on tender soon and looking at having it installed this year.
11. **FINPAC support to the Integrated Forecasting System** - Analysis of information can be systematically carried out to assist weather forecasters. Under the FINPAC project, experts from the Finnish Meteorological Institute have installed the SmartMet Integrated forecasting System in Fiji, PNG Samoa, Solomon Islands and Tonga, and carried out forecaster trainings to manage and operate the systems. The system will be complemented by the SmartAlert System that will be installed in the same countries in 2015-2016. Met

Connect Pacific (Agenda Item 9.2) has also been very resourceful for the NMHSs in the ongoing delivery of public weather services in the region.

12. **Provision of Lightning Data** - Lightning detection information is very useful and is introduced to the region by the FINPAC project. A total of seventeen forecasters and technicians from eleven Pacific Island Countries (Cook Islands, Fiji, Kiribati, Marshall Islands, Niue, Palau, PNG, Samoa, Solomon Islands, Tuvalu and Vanuatu) participated at the first regional workshop on Lightning Location data usage that was held in Apia in October 2014. It was the first time for operational weather forecasters to discuss this new initiative in the Pacific following the availability of direct 'lightning location data feed' from Vaisala Pty Ltd to FMI in June 2014. Participants found the workshop extremely useful. While it is not a new subject, as it has been discussed in various fora, the "data feed" from Vaisala Pty Ltd is new to most forecasters, which is one of the various means of accessing lightning location data. The feedback from participants at the end of the workshop included strong support for the continuation of the lightning location data service after the FINPAC Project given its significance to aviation and maritime services, disaster risk reduction efforts as well as the social and economic benefits for instance in ensuring that electricity infrastructure are well protected from lightning related events. Fiji has established its own lightning detection sensors to assist with aviation services at the Nadi International Airport.
13. **Development of Climate Services** - Climate services is a large and important part of NHMSs operations and it is also perhaps one of the most contributed sectors in terms of development aid for NMHSs in the Pacific region. FINPAC recognizes the work that has already been done or is planned to be done by other projects and therefore aims to avoid overlapping with the existing activities. The approach is to share the information, methods, products and templates in the Pacific area by collecting best practices that are already in use in NHMSs in the region. These best practices will be published in a booklet, following the examples and experience gained from similar work from other parts of the world. The workshop for collecting the best practices is planned to be held during the Q3 or Q4 of 2015.
14. **Dissemination of critical information** to the public in a timely manner is also very critical. Most NMHSs in the region use their National Radio stations as a means to communicate the weather information to remote communities. Other countries with better television coverage have used this medium to complement the information related by radios. One of the challenges faced by communities is the weather terminologies often used very loosely by NMHSs in their messaging to communities without much thought to simplify them. In an attempt to bridge this gap and improve messaging to communities, the FINPAC project targeted several areas;
 - i. improve the level of understanding of the national media on weather and climate and helping to foster a relationship between the NMS and the media outlets;
 - ii. providing the NMHSs with useful tips on how to be effective communicators including practical exercises;
 - iii. the COSPPac Project has also contributed to the capacity of NMHSs by providing media trainings and assisting NMHSs to develop Communications Strategies
15. **Engaging communities** as users and recipients of weather and climate information is an important process which is imperative to island communities especially where literacy rates are usually low or vary considerably. Under the FINPAC project, the community Climate and Disaster Resilience Planning workshops are coordinated and delivered jointly by the NMHS the National Red Cross Societies, National Disaster Management Offices and

the International Federation of Red Cross and Red Crescent Societies. These workshops are usually preceded by surveys on how the community is applying day to day weather information for decision making to determine how much information is applied. In countries where these consultations have been carried out, it shows that there is a disconnect between the information provided and how it is being received and applied. With the advancement in telecommunication in the region particularly through the availability of mobile telephones this is an opportunity that NMHSs could take advantage for the dissemination of public weather forecasts and engaging communities.

16. In that connection, the FINPAC project with additional support from WMO is coordinating small scale projects with communities to demonstrate how weather information can be applied to aid decision making in a community setting.
17. A glossary of weather terms and Traditional Knowledge is being compiled in Tonga and Samoa for publication to ensure that island communities with low literacy rates are not left out.

Recommendations

18. The Meeting is invited to:
 - **Acknowledge** the progress made by the FINPAC project to strengthen the Public Weather Services of Tonga, Samoa, Solomon Islands, Fiji and PNG.
 - **Note** the progress and approach taken by the FINPAC project
 - **Encourage** NMHSs to build relationships with community mobilizers as a medium to take information to communities.
 - **Encourage** the NMHSs to work closely and build relationships with the National Media (paper and broadcasters) as a medium to take information to communities.
 - **Encourage** partners to work closely with the NMS to engage with remote communities so they better understand media information and be drivers of change to other nearby communities and islands.
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