

WP4.0 Att 1: PROGRESS ON KEY OUTCOMES and RECOMMENDATIONS FROM PMC-3 and PMMM-1

The key outcomes and recommendations below are arranged in order of the PMC-3 agenda. The Recommendation is organized with an aim to provide PMC members, development partners, regional institutions, regional and international organizations and donors the opportunity to share information on current and future program and projects related to each of the fourteen (14) Pacific Key Outcomes (PKOs) of PIMS 2012-2021. Progress of implementation of each of the recommendation are also shown

PMC-3 Recommendations	Progress in the Implementation	Partners
Opening Session		
<ul style="list-style-type: none"> Ensure national and regional activities are aligned to WMO strategies and programs relevant to NMHSs such as the outcomes of Cg-17, including the Program for WMO SIDS and Member Island Territories, GFCS, WIGOS, WMO Information System (WIS), Aeronautical Meteorological Services (AeM) Program, Public Weather Service (PWS) Program and its Strategy for Services Delivery, and WMO Capacity Development Strategy. 	<ul style="list-style-type: none"> SPREP have worked with the WMO RA-V to ensure that the priority activities are aligned. The current RA-V implementation plan is well aligned with the PIMS2012-2021 PMDP is working to update the Pacific Roadmap for Strengthened Climate Services to be endorsed in August 2017 and will align with the GFCS but for the Pacific The current PIMS2017-2026 is being reviewed and is ensured that it is aligned to the WMO strategy and RAV workplan. The Chair of the RAV Infrastructure working group is invited to attend the PICI Panel to provide update and ensure that workplans are reflected in the new PIMS implementation plan The PIETR is working to develop a Capacity Development Strategy for the region based in the WMO capacity strategy to be funded by UNDP. This activity will be completed before end of 2017. 	WMO, SPREP
<ul style="list-style-type: none"> Encourage NMHSs to play an active role in the implementation of S.A.M.O.A Pathway, the Sendai Framework for DRR 2015-2030, the Post-2015 Development Agenda and SDGs and in the 	<ul style="list-style-type: none"> These strategies will be discussed in August 2017 during the PMC and how the NMHSs can contribute to implementing them PIETR panel has been coordinating and promoting the involvement of the NMHSs directors as authors of the next AR5 report as well as participate in the IPCC meetings. 	SPREP, WMO, PMC

<p>21COP/UNFCCC in December 2015 where a new global climate agreement will be proposed; and</p>		
<ul style="list-style-type: none"> Recognise the need for ongoing investment in the area of early warning and prediction systems for severe weather, climate extremes and high impacts weather events to support disaster risk reduction and adaptation to climate change; thereby safeguarding important sectors at risk such as agriculture and fisheries, water, health, transport, and tourism, contributing to building resilience. 	<ul style="list-style-type: none"> SWFDDP Steering Committee Meeting in Solomon Islands (August 2016) World Bank Project for Samoa, Tonga and PNG on EWS UNDP Russian project (RESPAC) Ministry of Environment Japan Project on developing methodologies for evaluating climate change impacts on storm surge/storm wave for SIDSs for Fiji, Samoa and Vanuatu, 	<p>All Partners</p>
<h3>Session 4: Country Reports</h3>		
<ul style="list-style-type: none"> Recognise the need, expressed by all PICTs, for increased observations in terms of spatial coverage and temporal frequency relating to marine weather, lightning detection, seismic activity, soil moisture and ultra violet (UV) radiation; 	<ul style="list-style-type: none"> FINPAC project is supporting selected RBSN stations in 14 SPREP member countries SPREP is assisting Tokelau to re-establish basic observations and instruments. 	<p>SPREP, WMO</p>
<ul style="list-style-type: none"> Encourage national governments to develop and implement strategies to retain professional and skilled staff at NMHSs; 	<ul style="list-style-type: none"> SPREP hope to assist NMHSs through the COSPPac project to develop NMHSs capacity mapping. Some NMHSs are already beginning to work on succession plans and other strategies. 	<p>NMHSs, SPREP, COSPPac</p>
<ul style="list-style-type: none"> Support specialised training in climatology, hydrology, oceanography and meteorology; 	<ul style="list-style-type: none"> Survey has been developed by the Secretariat and PIETR to collate information on training needs for NMHSs. This information will be used to guide request on specialised training for climatology, hydrology, oceanography and meteorology. 	<p>PIETR</p>
<ul style="list-style-type: none"> Adopt WMO competency standards for weather, climate and hydrology services at the national level; 	<p>There is still a lot of work to be done in this areas. While the PIETR is working on this, it may need additional support.</p>	<p>PIETR, WMO, USP, SPREP</p>

<ul style="list-style-type: none"> Encourage national governments to invest in critical infrastructure for NMHSs to support and promote disaster risk reduction; 	<ul style="list-style-type: none"> Samoa, Solomon Islands, Fiji, Vanuatu and Tonga have invested in their monitoring equipments through various climate/climate change projects through UNDP, WB or Government Support 	<p>NMHSs</p>
<ul style="list-style-type: none"> Encourage improvements to and long-term sustainability of the Climate Data for the Environment (CliDE) Data Management System which provides countries with a central database for climate records, with key entry forms, quality assurance tools, reports and data; 	<ul style="list-style-type: none"> BoM redeveloped the CliDE database under the COSPPac project to be open source The transition of the COSPPac Database is being discussed at the COSPPac steering Committee meeting for a region host to provide long-term-sustainability 	<p>BoM</p>
<ul style="list-style-type: none"> Support reliable telecommunication system, including the use of Radio internet (RANET) and Chatty Beetles, mobile phones and other innovative technologies necessary for exchanging and dissemination of hydro-meteorological data, products and information including warnings and alerts; 	<ul style="list-style-type: none"> Meeting on Ranet held in Honiara, Solomon Islands on the 24 August 2016 to discuss the realignment of priority areas for the project to focus on Pacific Desk in Hawai'i has taken on the training component to ensure Pacific participants are trained on how to operate and maintain the system SPREP is working with the PICI Panel to provide 5 Chatty Beetle units to support Tokelau Met operations. New Chatty beetles distributed to several countries in the region 	<p>NOAA/UH</p>
<ul style="list-style-type: none"> Support the development of end-to-end, people-centered preventive approach, multi-sectoral, inclusive and accessible MHEWS in order to be efficient and effective; 	<ul style="list-style-type: none"> SPREP supported proposals to CREWS on MHEWS (need update) on community-based EWS and Pacific Meteo-Alarm platform Component 2 of the FNPAC project continued to be implemented and now completed in the 8 countries (Samoa, RMI, Cook Islands, Tonga, Solomon Islands, Kiribati, Tuvalu and Vanuatu) 	<p>SPREP, FINPAC, WMO</p>
<ul style="list-style-type: none"> Encourage each country to develop National Meteorological Plan and Legislation as appropriate to formalize their national mandates, roles and responsibilities; 	<ul style="list-style-type: none"> Fiji have drafted their legislation supported by WMO Vanuatu have drafted their new legislation supported by WMO and SPREP and endorsed by Parliament in late 2016 Niue have an approved legislation supported by WMO and SPREP Tonga have their new Met. legislation drafted with the support of WMO Vanuatu have developed their National Framework for Climate Services 	<p>WMO, SPREP</p>

<ul style="list-style-type: none"> Encourage NMHSs to be proactive in establishing cross-sectoral and community partnerships in the areas of hydro-meteorology; 	<ul style="list-style-type: none"> Solomon Meteorological Service signed a memorandum of agreement with the Solomon Island Red Cross Society. The MoU is facilitated by SPREP and IFRC as an output of the FINPAC project 	<p>SPREP, IFRC</p>
<ul style="list-style-type: none"> Support public and outreach education and awareness programs at community levels about risks associated with severe weather and climate hazards and tsunami and how to make life saving decisions in these events; 	<ul style="list-style-type: none"> SPREP through the FINPAC project supported Community outreach and media trainings in Fiji, Vanuatu, Solomon Islands, Papua New Guinea, Marshal Islands, Tonga, Kiribati, Tuvalu SPREP and CSIRO through the DFAT Climate Science Outreach Project provided support to Fiji on awareness materials developed for the World Met Day celebrations. SPREP and CSIRO through the DFAT Climate Science Outreach Project provided support to Tuvalu and Samoa on translation of the Climate Crab into the local language. COSPPac project has been assisting climate officers on development of communication strategy to better tailor information for communities and sectors. 	<p>SPREP, CSIRO</p>
<ul style="list-style-type: none"> Encourage NMHSs to meet ISO 9000 series quality management standard and the International Standards and Recommended Practices (ISRP) of Annex to the Convention of International Civil Aviation - Meteorological Service for International Air Navigation, for the safety operation of aircrafts and passengers; 	<ul style="list-style-type: none"> Fiji Met Service is working towards updating its ISO certification to ISO-9001 2015. Solomon is also preparing for their ISO 9001-2015 certification. FMS organised a training with JICA to address the ISO certification in August 2016 The PIAWS Panel have had 3 meetings (face to face and online) to encourage members to address their gaps in aviation services SPREP supported the Chair of the PIAWS to attend the ICAO Meteorological Aviation Services meeting in May 2017 	<p>PIAWS, SPREP, WMO</p>
<ul style="list-style-type: none"> Encourage NMHSs to strengthen their compliance to ISO 9000 series quality management standards in the provision of weather information including warnings and alerts to mariners taking into full consideration the International Convention of Safety of Life at Seas (SOLAS), to improve transportation and safety of operation and passengers; and 	<ul style="list-style-type: none"> SOLAS has been discussed with SPC and the NMHSs in October 2016 and specific priority areas now reflected in the new drafted PIMS 	<p>PIMOS, SPREP</p>

<ul style="list-style-type: none"> Encourage PMC members and partners to support Nauru's request for assistance in setting up a NMHS under the National Emergency Service (NES). 	<ul style="list-style-type: none"> SPREP and WMO coordinated with SPC on the staff hire and the establishment of the Weather Services in Nauru Under the FINPAC project, SPREP is providing all the basic weather instruments to support the establishment of its monitoring. The instruments will be installed upon the completion of the new station. Nauru representative was also actively involved in the development of Communication Strategy for Climate Services in May 2017 which was funded by COSPPac project. On-going support is being provided by SPREP to ensure the strategy will be finalised. Fiji through the JICA office has also provided trainings to the new staff employed to man the Nauru weather office 	<p>SPREP, FINPAC, SPC, FMS, JICA</p>
<p>Session 5: Outcomes of the Seventeenth World Meteorological Congress and WMO Regional Program</p>		
<ul style="list-style-type: none"> Note the outcomes of Cg-17; and 		
<ul style="list-style-type: none"> Request that WMO Members of PMC to nominate National Focal Points and provide update information for the WMO Country Profile Database (CPDB). 	<p>WMO to send a reminder e-mail about this and that the database is not yet complete.</p>	<p>NMHSs</p>
<p>Session 6: Climate Services</p>		
<p>6.1: Pacific Islands Climate Information System</p>		
<ul style="list-style-type: none"> Note that, through the Pacific Islands Climate Information System (PaCIS) and its partners, considerable progress has been made on implementation of climate services in Pacific Islands 	<ul style="list-style-type: none"> Noted. The PEAC continue to provide monthly guidance to Pacific Island Countries. 	<p>NOAA</p>

<p>since the Second Meeting of the Pacific Meteorological Council (PMC-2) in July of 2013;</p>		
<ul style="list-style-type: none"> Request that the newly establish PMC's PICS Panel build on the progress made by PaCIS and use it as a model to support a robust and sustained forum to coordinate and collaborate with PMC members. This includes maintaining and enhancing the products and services offered by the Pacific El Nino/Southern Oscillation (ENSO) Application Center (PEAC), which plays a vital role in the region, and follow up on the ongoing and proposed projects and programs that the USA Agency for international development (USAID)-funded to develop and deliver robust climate services to PICTs' region. 	<ul style="list-style-type: none"> The PICS Panel are working very closely with the PaCIS in a number of activities including the planning and running of the PICOF meetings, planning of the RCC establishment 	<p>NOAA, PICS</p>
<p>6.2: Climate and Information Prediction Services Project</p>		
<ul style="list-style-type: none"> Express appreciation to the Government of the Republic of Korea through APCC for providing support to the development of climate service and information in PICTs' region via ROK-PI CliPS project to compliment and support the implementation of GFCS and PIMS 2012-2021; 	<p>Further to this partnership, APCC will be hosting a dinner for all the participants at the Heritage Park on Tuesday, 15 August.</p> <p>There has been a lot of progress made by the projects. Some of the updates will be presented by the project during this meeting.</p>	<p>SPREP, APCC</p>
<ul style="list-style-type: none"> Note the progress made by ROK-PI CliPS project since its implementation in early 2015, which include installation of CLiPS Server hosted in SPREP and training of NMHSS' staff; 	<ul style="list-style-type: none"> CLIKP Online Climate Prediction tool was installed at SPREP in December 2015. Available for operational use with User's Manual provided: http://clikp.sprep.org/ National trainings and demonstration of CLIKP completed for Samoa, RMI, Vanuatu and PNG. Second ROK-PI CliPS training workshop on Downscaling was held in Cook Islands in 2016. Representatives from American Samoa, Cook Islands, Fiji, Kiribati, RMI, Wallis and Futuna, Solomon Islands, PNG, Tonga, Niue, Tuvalu and Vanuatu attended the training. National Standard Operating Procedures for CLIKP Dynamical Prediction developed for Samoa and Vanuatu. 	<p>SPREP, APCC</p>

	<ul style="list-style-type: none"> • ROK-PI CliPS Three-monthly rainfall and temperature forecasts are provided on a monthly basis; derived from the APEC Climate Centre multi-model ensemble (MME) of all available dynamical model forecasts provided by WMO Global Producing Centres (GPCs) that generate seasonal forecasts. 	
<ul style="list-style-type: none"> • Request the Government of the Republic of Korea, APCC and other partners for additional resources needed for communication, capacity building and training of NMHSs' staff and in-country stakeholders consultations to facilitates the use of the Climate Information ToolKit (CLIK) tool and Climate Prediction Services (CliPS) products for decision making in sectors such as agriculture, health, water and disaster risk reduction; and 	<ul style="list-style-type: none"> • MoU between SPREP and APCC signed to facilitate additional opportunities and resources needed for NMSs. • Additional resources were made available to support NMS to attend Young Scientist Support Program (YSSP) to use CLIK information and tools for sectors. 	SPREP, APCC
<ul style="list-style-type: none"> • Request for collaboration and coordination among relevant partner agencies currently providing climate outlook services to PICTs. 	<ul style="list-style-type: none"> • The Pacific Islands Climate Outlook Forums provide avenue for regional collaboration and coordination with relevant partners and agencies. • The RA-V PI-RCC Two year demonstration phase will also provide coordination between climate outlook services providers. 	SPREP, APCC
6.3: Climate and Oceans Support Program in the Pacific		
<ul style="list-style-type: none"> • Note the changes in the Climate and Oceans Support Program in the Pacific (COSPPac) objectives and deliverables for the next two years. This included the shift of resources, build skills and transfer delivery responsibilities from Australia to Pacific Regional Organisations so activities can be sustained and further improved beyond the project lifetime; 	<p>The transfer was very successful from BoM to SPREP and SPC. Both SPREP and SPC now have additional staff to support the COSPPac tools and products. Regional Staff have gone through capacity building with the COSPPac staff in Australia and now establishing new products. These can be viewed at the new site: www.PacificMet.net</p> <p>Similarly BoM, SPREP and SPC have collaborated on several workshops for the region. SPREP has taken on the support for the media trainings.</p>	COSPPac, BoM, SPREP, SPC
<ul style="list-style-type: none"> • Provide advice and collaborate in the transition of climate and ocean products and services from COSPPac into the regional and national operational 	<p>The transition process was very successful to both SPREP and SPC. Tools and products developed under the project are now transitioned with staff recruited to the regional agencies to provide support.</p>	COSPPac, BoM, SPREP, SPC

programs with the ultimate aim to promote sustainability of these services; and		
<ul style="list-style-type: none"> Provide input to COSPPac Transition Strategy and Work Plan for 2015 to 2016 by end of September 2015. 	This is now completed with contribution for BoM, SPREP, SPC, USP and the COSPPac Steering Committee	COSPPac, BoM, SPREP, SPC
6.4: Climate Services in the Pacific Region		
<ul style="list-style-type: none"> Note the progress of works carried out by PMC's PICS Panel and encourage the Panel to continue its work as an advisory body to PMC, for strengthening climate services in PICTs' region; 	<ul style="list-style-type: none"> PICS Panel members have met physically on through online teleconferences PacMetDesk based at SPREP continue to provide secretariat support to the expert Panel 	PICS Panel
<ul style="list-style-type: none"> Express appreciation to SPREP, WMO, Environment Canada, BoM, FMS, and Ministry of Foreign Affairs of Finland, for the financial support provided to PMC's PICS Panel to carry out its works and welcome their future contributions and contributions from other development partners; 	<ul style="list-style-type: none"> The PICS Panel met in March 2016 supported by the Canada project managed by SPREP in Port Vila to discuss the RCC establishment in the region. WMO convened a special meeting on the RCC in Hawaii in which most of the PICS Panel members met to discuss the implementation plan and a RCC demonstration phase for two years. NZ WMO Permanent representative (NZ Chair of the PICS Panel) have send out letters of confirmation of the different lead nodes of the RCC RCC Node confirmations received from Australia (BOM and CSIRO), New Zealand (NIWA), Samoa (SPREP), Meteo-France, Fiji (SPC), Pacific Islands RCC Website developed http://apdrc.soest.hawaii.edu/RA-V/ 	PICS Panel, SPREP, WMO
<ul style="list-style-type: none"> Agree that Vanuatu, Palau and Niue continue to represent PMC on PMC's PICS Panel for the next two years; 	<ul style="list-style-type: none"> All the countries have been involved in the PICS Panel discussions Meteo-France New Caledonia, NDMO Cook Islands and Ministry of Agriculture in Tonga have been further invited to join the PICS Panel 	PICS Panel
<ul style="list-style-type: none"> Endorse the establishment of an annual Pacific Regional Climate Outlook Forum (RCOF), to be referred to as the Pacific Islands Climate Outlook Forum (PICOF); 	<ul style="list-style-type: none"> First PICOF held in October 2015 with over 100 participants. It was funded by the WMO Canada project with further support from USP and the COSPPac project. Second PICOF held in October 2016 with over 70 participants also funded by the WMO Canada project implemented by SPREP, UNDP RESPac Project and the COSPPac project. 	PICS Panel, SPREP, WMO

	<ul style="list-style-type: none"> The third PICOF is planned for October 2017 with the support from the Canada Project, COSPPac, UNDP and the Korean-Pacific Project. The PICS Panel with the support of the PMDP has played a vital role in finalising the concepts of each of these meetings as well as the Agenda SPREP coordinated the logistics for most of these meetings 	
<ul style="list-style-type: none"> Encourage NMHSs to undertake National Climate Outlook Forums (NCOFs) and National Climate Forums (NCFs), based on best practices and in full partnership with user of climate services and information; 	<ul style="list-style-type: none"> Through the funding support from WMO and the Canada project managed by SPREP, NCOF's and NCFs were convened in Papua New Guinea and Kiribati. SPREP through the Regional Technical Support Mechanism (RTSM), WMO and the Canada project supported the NCOF and NCF in Vanuatu and Fiji. Both Vanuatu and Fiji have developed their national climate frameworks or implementation plans 	SPREP, WMO
<ul style="list-style-type: none"> Encourage NMHSs to seek assistance from expertise of other countries and seek national and international support to ensure sustainability of results achieved from NCOFs and NCFs; 	<ul style="list-style-type: none"> The SPREP managed RTSM was used to sought experts to develop the national climate frameworks in Vanuatu and Fiji 	SPREP, WMO
<ul style="list-style-type: none"> Request that PMC's PICS Panel explore potential mechanisms for establishing a Regional Climate Centre (RCC) Network for PICTs region, and report to PMC before the end 2015; 	<ul style="list-style-type: none"> The PICS Panel met in March 2016 supported by the Canada project managed by SPREP in Port Vila to discuss the RCC establishment in the region. A letter has been send out by the PMC Chair to the different lead nodes to inform of the arrangements WMO convened a special meeting on the RCC in Hawaii in which most of the PICS Panel members met to discuss the implementation plan NZ WMO Permanent representative (NZ Chair of the PICS Panel) have send out letters of confirmation of the different lead nodes of the RCC RCC Node confirmations received from Australia (BOM and CSIRO), New Zealand (NIWA), Samoa (SPREP), Meteo-France, Fiji (SPC), Pacific Islands RCC website developed http://apdrc.soest.hawaii.edu/RA-V/ 	PICS Panel, SPREP, WMO
<ul style="list-style-type: none"> Monitor the ongoing efforts to establish partnerships and coordination mechanisms to enhance the production, delivery and use of climate information 	<ul style="list-style-type: none"> The PICS Panel discussed the different efforts in the region during their meetings A Pacific Roadmap for Strengthened Climate Services (PRSCS) now developed for the region (still in draft form) with the aim to have it endorsed at the PMC and Ministerial meetings in August 2017 in Honiara 	PICS Panel, SPREP, WMO

<p>and services at global, regional and national levels to support the implementation of GFCS in PICTs' region;</p>		
<ul style="list-style-type: none"> Express appreciation to WMO, Environment Canada and other development partners for the support, which has resulted in substantial progress towards: the process of establishing a RCC Network for PICTs region; holding the first physical RCOF in the Pacific region with a special focus on the water sector; initiating and guiding the process on NCOFs and other User Interface Platforms such as NCFs; and ongoing capacity development and training efforts provided to the NMHSs staff in the areas of climate services; and 	<ul style="list-style-type: none"> Noted that the first Pacific Island Climate Outlook Forum (PICOF) held in Suva in October 2015 was very successful with support from SPREP, WMO, Canada Project and USP. This PICOF-1 focused on the water sector This was followed by the second PICOF-2 held in Nadi in October 2016 with the support from SPREP, WMO-Canada Project, UNDP-RESPAC and COSPPac. PICOF-2 focused on DRR. PICOF 3 is now being planned to be held in Samoa in September 2017 to be supported by SPREP, COSPPac, APCC-RO-PI CLIPS Project UNDP-RESPAC, WMO-Canada and will include trainings for the CLIP-Pacific and SCOPIC NCOF's were held in PNG, Kiribati and Vanuatu and plans are underway for Fiji to host their first NCOF in September. RCC was discussed extensively by the PICS Panel A meeting on the PI-RCC was convened in Honolulu in November 2016 to focus on the PI-RCC. More of the details will be presented at the PMC-4. A draft workplan and lead nodes has been established and soon, it will be in the trial phase. 	<p>PICS Panel, SPREP, WMO, Canada Project, UNDP, COSPPac, ROK-PI CLIPS, FINPAC</p>
<ul style="list-style-type: none"> Urge PMC, SPREP, development partners and donors to support and guide GFCS implementation, the PMC's PICS Panel and other related climate services activities initiated in PICTs region, in order to ensure the sustained and continuous development of climate information and services to contribute to sustainable development in the Pacific SIDS. 	<ul style="list-style-type: none"> The PICS Panel have met to discuss about the roadmap for climate services in the region SPREP hired a consultancy group to develop the Pacific Roadmap for Strengthened climate Services (PRSCS) through the WMO/Canada project managed by SPREP This is now finalised and will be submitted to the PMC-4 for endorsement 	<p>SPREP, WMO, Canada Project, PICS Panel</p>
<p>Session 7: Marine Weather Services and Ocean issues</p>		
<p>7.1: Tropical Pacific Observing System 2020</p>		

<ul style="list-style-type: none"> Note the importance of the Tropical Atmosphere Ocean/Triangular Trans-Oceans Buoy Network (TAO/TRITON) moored buoy array for measuring and making available real-time oceanography and surface meteorological data for monitoring, understanding and predicting ENSO and La Nina and tropical climatology in the Pacific; 	<ul style="list-style-type: none"> Noted 	PIMOS
<ul style="list-style-type: none"> Understand the difficulty in sustaining TAO/TRITON moored buoy array, consequently recently been reduced to less than 40% of its operational capacity because it is frequently subject to vandalism which impacts its ability to perform vital observations and, request PMC to convey the importance of these systems to their national governments and communities and encourage them to join organizations such as United Nations General Assembly (UNGA), WMO, United National Educational, Scientific and Cultural Organization – Intergovernmental Oceanographic Commission (UNESCO-IOC) and RMFS in protecting these essential systems maintained by USA NOAA, Republic of Korea, and Japan; 	<ul style="list-style-type: none"> Noted, follow-up underway through the PIMOS Panel and NMHSs to follow up with their governments 	PIMOS
<ul style="list-style-type: none"> Request that SPREP and PMDP to provide updates information on the Tropical Pacific Observing System (TPOS) 2020 Project which reviews ocean observing requirements and will recommend a plan to modernize the tropical pacific observing system and, represent PMC interests in these undertakings. 	<ul style="list-style-type: none"> PMDP providing updates as they become available, next update will come following the TPOS Resource Forum in May. 	SPREP
<ul style="list-style-type: none"> Request that NMHSs to support and engage with TPOS 2020, where practical; and 	<ul style="list-style-type: none"> TPOS is a priority area under the PIMOS Panel and the PMPD is working with TPOS-2020 to ensure NMHSs are represented in the next phase of TPOS. 	NMHSs

<ul style="list-style-type: none"> Encourage PMC and development partners to promote and seek support for marine research and observations. 	<ul style="list-style-type: none"> The PIMOS Panel has prioritized capacity building and research, and is currently focusing on research and observations in regards to coastal inundation and SOLAS. SPREP is also submitting a Voluntary Commitment to the UN Oceans Conference on SDG 14 to establish a Pacific Ocean Research Alliance. SPREP and NOAA have engaged with the FFA to seek opportunities to expand monitoring in fisheries vessel to include weather observation. FFA has been invited to the PMC-4 to present on this opportunity. RESTEC supported by the Ministry of Environment in Japan is undergoing research in Samoa, Fiji and Vanuatu. They have been invited to present at the PMC-4 SPC is also doing research in Fiji and Tuvalu on coastal inundation modelling 	PIMOS, SPREP, SPC, FFA, RESTEC
7.2: Argo Program		
<ul style="list-style-type: none"> Note the importance of the contribution of the Argo Program comprising of free-drifting profiling floats that measures the temperature and salinity of the upper 2000 meters of the oceans for continuous monitoring of the temperature, salinity and velocity of the upper layer of the ocean, to regional climatology and real-time weather and climate forecasting and prediction. 	<ul style="list-style-type: none"> This is well noted. The UN Oceans conference also made a lot of reference to the importance of the monitoring of our oceans. 	Partners
7.3: Marine Weather Services in the Pacific Region		
<ul style="list-style-type: none"> Appreciate the support from WMO and UNECO-IOC JCOMM Data Buoy Cooperation Panel (DBCP) in hosting their first capacity building workshop in Palau; 	<ul style="list-style-type: none"> Noted. SPREP continue to work with JCOMM team provide guidance on the needs of the Pacific. 	SPREP, WMO
<ul style="list-style-type: none"> Recognize the importance of marine weather services for safety and livelihoods and request that NMHSs to improve the services; 	<ul style="list-style-type: none"> This is now included as a delivery of the PIMOS Panel in their ToR. It is further emphasised in the new draft PIMS 2017-2026 Updates will be presented at the PMC-4 meeting 	SPREP

<ul style="list-style-type: none"> Express appreciation to the Pacific islands Oceans Observing System (PacIOOS) and COSPPac for their contributions to ocean observing and data products development in PICTs' region; 	<ul style="list-style-type: none"> Noted. The PI-GOOS officer placed at SPREP working closely on the SPC. New additional staff have been recruited at SPC under the COSPPac project to continue support for the Ocean Portal and other data products 	SPC, SPREP, COSPPac
<ul style="list-style-type: none"> Request PICTs to nominate point of contact on marine issues to SPREP; 	<ul style="list-style-type: none"> This request has been made through the PMC and in the lead up to the UN Oceans Conference with limited success Updates will be presented at the PMC-4 meeting 	SPREP
<ul style="list-style-type: none"> Note the resolutions and recommendations of Cg-17 which address oceanography and marine meteorology; 	<ul style="list-style-type: none"> Noted. Some of the resolution have been included in the ToR for the PIMOS Panel 	PIMOS
<ul style="list-style-type: none"> Approve the establishment of a Pacific Islands Marine and Ocean Services (PIMOS) Panel and note that Palau, Solomon Islands, Vanuatu, Samoa, Fiji, Tonga, Niue, United States of America, New Zealand, UNESCO-IOC, WMO, the Secretariat of the Pacific Community (SPC), the University of the South Pacific (USP) and SPREP have volunteered to form the PIMOS Panel, with SPREP as the Chair; 	<ul style="list-style-type: none"> The PIMOS Panel has been established in November of 2015 and have since had 2 meetings. They have reviewed their ToR and elected new chairs for the PIMOS. Updates will be presented at the PMC-4 meeting 	PIMOS
<ul style="list-style-type: none"> Request for volunteers and invite regional and international organisations to work with PMDP to develop a Terms of Reference (TOR) and a costed work plan for the new PMC's PIMOS Panel 	<ul style="list-style-type: none"> The PIMOS TOR and work plan have been drafted. They are aiming to develop a Roadmap for Marine and Ocean Services Updates will be presented at the PMC-4 meeting 	PIMOS
<ul style="list-style-type: none"> Request WMO to consider supporting the PMC's PIMOS Panel through the Program for WMO SIDS and Member Island Territories, WMO Regional Program and WMO/UNESCO-IOC JCOMM; 	<ul style="list-style-type: none"> Discussion regarding this are ongoing, with the CREWS program noted as an avenue for possible support. 	PIMOS
<ul style="list-style-type: none"> Request SPREP to approach and seek support from other relevant partners to support PMC's PIMOS Panel; and 	<ul style="list-style-type: none"> This is underway and we are currently organizing a coastal inundation experts meeting that will contribute to the development of a regional project. 	PIMOS

<ul style="list-style-type: none"> Request that PMC's PIMOS Panel to report progress of its work to PMC-4 and the Annual SPREP meetings. 	<ul style="list-style-type: none"> PIMOS Panel progress report is being drafted and will be presented at these meetings. 	PIMOS
<h2>Session 8: Multi Hazard Early Warning System</h2>		
<h3>8.1: National Multi-Hazard Early Warning Systems</h3>		
<ul style="list-style-type: none"> Request that NMHSs to promote and implement impact-based forecasting and risk-based warnings to better communicate threats related to meteorological, hydrological and marine hazards, noting the importance of timely delivery of warnings and alerts for the successful operation of MHEWSs and Multi-hazards information Systems (MHIS). 	<ul style="list-style-type: none"> Tonga and Samoa under the PReP have prioritized impact-based forecasting in their project with the world bank. Lessons-learned from this project will contribute to a greater understanding of how this can be applied in the other NMHSs. SPREP through the FINPAC project has worked with 8 communities in the Pacific to setup community-based-early warning systems to assist them trigger pre-disaster activities to safeguard their families 	PREP, Tonga, Samoa
<h3>8.2 National Flood Early Warning System</h3>		
<ul style="list-style-type: none"> Note concern in the lack of progress made on recommendations of PMC-2 on hydrological services and call on PMC and partners with assistance from SPREP, SPC and WMO Regional Association V (South-West Pacific) (WMO RA V) Working Group on Hydrology to urgently address these recommendations; 	<ul style="list-style-type: none"> This concern has been brought up in several meetings where the WMO RA-V working group on hydrology were present Samoa has taken this further and presented a paper on hydrology to the 27th SPREP council meeting A team has been established consisting of SPC, SPREP and WMO to discuss this issue and develop a working paper for the PMC-4 	SPREP, SPC, WMO, Samoa
<ul style="list-style-type: none"> Note Fiji's recent successful transfer of the mandate for flood forecasting to FMS which has improved service delivery and encourage other NMHSs to adopt similar best practices to reduce the considerable risks faced by flooding; 	<ul style="list-style-type: none"> Fiji's successful transfer is well noted They are invited to present again at the PMC-4 meeting 	FMS

<ul style="list-style-type: none"> Request SPREP to closely monitor progress on recommendations regarding hydrological services and report to PMC; 	<ul style="list-style-type: none"> SPREP has been following up with the WMO RAV working group and SPC on these. A team will be working together on hydrology 	SPREP
<ul style="list-style-type: none"> Encourage SPREP to collaborate and draw on the SPC and other partners' expertise in hydrological services, as needed. 	<ul style="list-style-type: none"> SPREP working with SPC and WMO on this. UNESCO has been invited to the PMC-4 to present on their proposal to establish a hydrology programme in the Pacific 	SPREP, WMO, SPC, UNESCO
8.3 Coastal Inundation and Hazards		
<ul style="list-style-type: none"> Note that mitigating coastal hazards are a priority in PICTs region and that technical support is required to build resilience and sustainable development; 	Noted	SPC
<ul style="list-style-type: none"> Recognise the contribution that SPC and partners have made in developing tools to support NMHSs in the development of coastal inundation early warning systems and encourage wide dissemination of these tools to other countries; 	<ul style="list-style-type: none"> Progress has been made by SPC. An update will be presented at the PMC-4 meeting 	SPC
<ul style="list-style-type: none"> Request that PMC's PIMOS Panel to include coastal hazard forecasting and early warning systems in its TOR; and 	<ul style="list-style-type: none"> The PIMOS Panel has included coastal hazard forecasting and early warning systems in its TOR. 	PIMOS
<ul style="list-style-type: none"> Encourage WMO and SPC to seek further support for the Pacific Islands region-wide implementation of real-time forecasting systems of coastal inundation hazards such as the Coastal Inundation Forecast Demonstration Project (CIFDP). 	<ul style="list-style-type: none"> Ongoing. Updates will be presented at the PMC-4 RESTEC is also undergoing coastal inundation research in Vanuatu, Fiji and Samoa. 	SPC, WMO RESTEC
8.4 Progress on Tsunami Warning and Mitigation - Status on Implementation of New Tsunami Products in South West Pacific		
<ul style="list-style-type: none"> Note the 50th anniversary of the Pacific Tsunami Warning and Mitigation System (PTWS) and the leading role taken by PICTs; 	<ul style="list-style-type: none"> Noted Updates will be presented at the PMC-4 	IOC/UNESCO

<ul style="list-style-type: none"> Welcome the election of Ms. Filomena Nelson from Samoa as the Chair of the UNESCO-IOC Inter-governmental Coordination Group for the PTWS (ICG/PTWS); 	<ul style="list-style-type: none"> Noted Updates will be presented at the PMC-4 	IOC/UNESCO
<ul style="list-style-type: none"> Welcome the election of Mr. 'Ofa Fa'anunu from Tonga and Ms Eslie Garebiti from Vanuatu as Chair and Vice-Chair of ICG/PTWS Regional Working Group for the South-West Pacific, respectively; 	<ul style="list-style-type: none"> Acknowledged They have led several meetings and discussions in the region Updates will be presented at the PMC-4 	IOC/UNESCO
<ul style="list-style-type: none"> Express appreciation to USA NOAA Pacific Tsunami Warning Center (PTWC) for the enhanced tsunami guidance products and convey to partners – especially emergency managers that the mandate to provide national and local tsunami warnings is a sovereign responsibility of each country; 	<ul style="list-style-type: none"> Updates will be presented at the PMC-4 	IOC/UNESCO
<ul style="list-style-type: none"> Note that tsunamis are high-impact events and those originating in the region are localized rapid onset events and this should be fully taken into consideration when developing Standard Operating Procedures (SOPs) and awareness programs; 	<ul style="list-style-type: none"> Noted. Several meetings have been organised in 2016 (Honiara) and 2017 (Tahiti and Honiara) to further make these points Updates will be presented at the PMC-4 	IOC/UNESCO, ORSNET
<ul style="list-style-type: none"> Encourage PICTs to seek assistance, support and guidance from UNESCO-IOC, USA NOAA and development partners to develop and design SOPs and awareness programs, taking into full consideration high-impact events, those originating in the region and localized rapid onset events; 	<ul style="list-style-type: none"> Update will be provided at the PMC-4 	IOC/UNESCO
<ul style="list-style-type: none"> Request that PMC's PIMOS Panel to include Tsunami Early Warning System (TEWS) in its TOR; 	<ul style="list-style-type: none"> The PIMOS ToR has now been updated and the SPREP has attended meetings organised on Tsunamis to provide guidance 	IOC/UNESCO, SPREP
<ul style="list-style-type: none"> Encourage the PMC's PIMOS Panel to collaborate with UNESCO-IOC ICG/PTWS for further improvement of US NOAA PTWC enhanced products and their uptake by the PICTs; and 	<ul style="list-style-type: none"> SPREP have collaborated with WMO and IOC/UNESCO to organise meetings to share information Update will be provided at the PMC-4 	IOC/UNESCO, WMO, SPREP
<ul style="list-style-type: none"> Requests PMC to keep up to date listings of the Tsunami National Contacts (TNCs), the Tsunami 	<ul style="list-style-type: none"> Tsunamis meetings have been organised in Solomon where this is raised 	IOC/UNESCO

Warning Focal Points (TWFPs) and contacts for the National Tsunami Warning Centre (NTWCs) to ensure efficient and effectively delivery of tsunami advisory products from USA NOAA PTWC.		
Session 9: Public Weather Services		
9.1 Finland-Pacific Support to Public Weather Services and Communication to Communities		
<ul style="list-style-type: none"> Note the progress made by FINPAC project in supporting the development of NMHSs including the implementation of SmartMet in Fiji, Papua New Guinea, Samoa, Solomon Islands, and Tonga to strengthen their NMHSs PWS; 	<ul style="list-style-type: none"> SmartMet and SmartAlert successfully installed in Fiji, PNG, Samoa, Solomon Islands, Tonga and Vanuatu SPREP has coordinated and carried out 2 IT trainings for the relevant staff through the FINPAC project and the Canada project 	SPREP, FMI
<ul style="list-style-type: none"> Note the requests from Vanuatu and Kiribati for the implementation of SmartMet in their respective NMHSs; 	<ul style="list-style-type: none"> This was endorsed by the FINPAC steering committee and the SmartMet and SmartAlert have been successfully installed and training was carried out Vanuatu was the subsequently invited to the IT trainings carried out by SPREP 	SPREP, FMI
<ul style="list-style-type: none"> Encourage NMHSs to build relationships with Community Based Organizations (CBOs) and national media as partners to assist with the delivery of weather and climate information to communities; and 	<ul style="list-style-type: none"> The FINPAC media trainings was able to establish connections between the NMHSs and the different media outlets in the country Solomon Island Met. Service became the first country to establish a formal relationship with the Solomon Island Red Cross Society 	SPREP, IFRC
<ul style="list-style-type: none"> Encourage partners to work closely with NMHSs to engage with communities to help them better understand and use weather and climate information. 	<ul style="list-style-type: none"> SPREP and the IFRC has developed an engagement strategy in communities based on the experience by SPREP Engagement to get information to communities is also captured in the new PRSCS 	SPREP, IFRC
9.2 Severe Weather Forecast and Disaster Risk Reduction Demonstration Project		
<ul style="list-style-type: none"> Express appreciation to WMO, MetService New Zealand, USA NOAA and participating partners for supporting the Severe Weather Forecast and Disaster 	<ul style="list-style-type: none"> The SWFDDP had their meeting in August 2016 and noted progress in the upgrade of the website and the work that has been done so far 	WMO, MetService NZ

Risk Reduction Demonstration Project (SWFDDP) to strengthen NMHSs in their capacity to forecast severe weather and waves other than cyclones; and		
<ul style="list-style-type: none"> Request that SPREP to work with WMO and relevant partners to secure resources to continue implementing SWFDDP in PICTs' region. 	The SWFDDP meeting organised in Honiara had a great turn out. NOAA indicated to support an additional staff to be based at SPREP.	WMO, SPREP, NOAA
Session 10: Communication		
10.1 Radio Internet		
<ul style="list-style-type: none"> Request that SPREP to work with USA to explore the establishment of a fund for Pacific emergency meteorological communications development which can be supported by multiple donors, countries and local stakeholders focusing on SIDS and Least Developed Countries (LDCs); 	<ul style="list-style-type: none"> A number of meetings have been organised by NOAA to progress this. Update will be provided at the PMC-4 	NOAA
<ul style="list-style-type: none"> Request that SPREP and PMDP to explore opportunities with mobile phone service providers for additional distribution pathways for emergency communications messages; and 	<ul style="list-style-type: none"> SPREP attended the World Food Program (WFP) workshop on the emergency telecommunication cluster (ETC) held in Samoa in July PICI Panel established in August 2016 with Samoa as the Chair and the Solomon Islands telecom regulator as the vice chair Salma Farouque of WFP was invited and is now a member of the PICI Panel The PICI Panel organised its second face to face meeting supported by UCAR, COSPPac and FINPAC project in May 2017 with telecom regulators, mobile phone providers invited to attend WFP presented to the Telecommunications Regulators meeting in May 2017 held in Vanuatu the need to work together with NMHSs. A draft of the National Emergency Plan was circulated for comment by the PICI Panel. NMHSs are encouraged to engage with their own telecom regulators to provide input into the National Emergency Plans being developed to highlight their needs. A presentation on this will be provided at the PMC-4 	PICI Panel

	<ul style="list-style-type: none"> • PICI Panel members also attended and presented on the Regional ETC held in Vanuatu in June 2017 on the needs of the NMHSs and how opportunities for closer partnerships 	
<ul style="list-style-type: none"> • Note that USA NOAA's Pacific International Training Desk (PITD) is conducting a survey in Pacific SIDS NMHSs to determine the type of communications systems training that is deemed a priority and request the Pacific SIDS NMHSs to respond to the survey. 	<ul style="list-style-type: none"> • The survey has been send out and now completed 	Pacific Desk, NOAA, UH Tasi
10.2 WMO Information System		
<ul style="list-style-type: none"> • Recommend that PMC and SPREP to work with non-WMO Members but members of PMC to provide to them update and information on WMO activities in the development of key programs that may benefit these concerned PICTs; 	<ul style="list-style-type: none"> • Most of the non-members of the WMO are members of the PMC expert Panels where priorities relating to WMO and the region have been discussed • The PICI Panel has worked with World Food Programme (WFP) and other partners to support the Infrastructure and Communication needs of the NMHSs • Similarly the other Panels PIAWS have engaged ICAO and other partners, PIETR engaging UH and PIMOS have engaged IRD and other partners. 	SPREP, WMO, PMC Panels
<ul style="list-style-type: none"> • Request that PMC Chair to discuss with WMO RA V Management Group for inclusion of additional experts from PICTs in the WMO RA V Working Group on Infrastructure, specifically to its Task Teams on WIGOS and WIS. 	<ul style="list-style-type: none"> • The Chair of RA-V WG Infrastructure was invited to join the PICI Panel in May 2017 and presented on the WIGOS and WIS. • The WIGOS and WIS activities are also now reflected in the new PIMS 2017-2026. 	PMC, WMO SPREP
Session 11: Education, Training and Research		
11.1 Education, Training and Research in the Pacific		
<ul style="list-style-type: none"> • Request that PMC's Pacific Island Education Training and Research (PIETR) Panel to revise its TOR and update its membership, noting that current members are Cook Islands, Federated States of 	<ul style="list-style-type: none"> • ToR has been revised and updated. • Several meetings have been organised for the PIETR. The Chair is Cook Islands director and University of Hawai'i as the vice chair 	PIETR

Micronesia, Fiji, Marshal Islands, Solomon Islands, USP, University of Hawaii (UH), WMO and SPREP;		
<ul style="list-style-type: none"> Request that PMC's PIETR Panel to explore the possibility of establishing a WMO Regional Training Centre (RTC) for the Pacific Islands region in consultation with WMO, taking into full consideration criteria established by WMO for becoming and designation as WMO recognized RTC; 	<ul style="list-style-type: none"> Some progress has been made and will be presented at the PMC meeting 	PIETR
<ul style="list-style-type: none"> Request that PMC's PIETR Panel to explore the development of a Capacity Development Strategy for the Pacific within the context of PIMS 2012-2021; 	<ul style="list-style-type: none"> SPREP and UNDP RESPac are exploring the opportunity to collaborate in is the development and funding the Capacity Development Strategy for the region. 	PIETR
<ul style="list-style-type: none"> Request that USP to review curriculum development and course mapping in regards to weather, climate, hydrology and ocean services in PICTs, including a full tropical meteorology course; 	<ul style="list-style-type: none"> Some progress has been made. Further Update will be provided at the PMC-4 	USP, FMS
<ul style="list-style-type: none"> Encourage the development of Pacific Islands' research capacity and recognise the importance of academic and regional organization research partnerships; and 	<ul style="list-style-type: none"> PMC Chairman has send a letter on behalf of members to USP to support the establishment of the Oceanographic Course at USP Further update will be provided by USP and FMS during the PMC-4 	USP, FMS, PMC Chair
Note the establishment of the Pacific Island University Research Network (PIURN) in supporting research capacity development.	<ul style="list-style-type: none"> Noted and USP is working actively with the PIURN 	USP
11.2 Pacific International Training Desk and Other USA NOAA Training Programs		
<ul style="list-style-type: none"> Request that SPREP and NMHSs provide guidance and recommendations for specialised topics for in-country and follow-up training by PITD; 	<ul style="list-style-type: none"> Some guidance have been provided 	SPREP, NMHSs

<ul style="list-style-type: none"> Request that the NMHSs to nominate participants to attend future cohorts at PITD, particularly countries who have not previously submitted nominations nor participated in this training event; 	<ul style="list-style-type: none"> Excellent progress with NMHSs attending the training in Honolulu. Tokelau participants have been trained here for the first time 	UH Tasi
<ul style="list-style-type: none"> Request that NMHSs to assist in updating the PITD database, a communication tool or system used by NMHSs; and 	<ul style="list-style-type: none"> Progress has been made 	UH Tasi
<ul style="list-style-type: none"> Request that UH to work closely with PMC's PIETR Panel to enable greater coordination and information sharing on courses including clarification on how they relate to the WMO requirements, classifications for meteorologists and competency standards. 	<ul style="list-style-type: none"> Great Progress UH have facilitated all the teleconference meetings through Zoom UH is nominated as the vice Chair of the PIETR at the meeting in Honiara in August 2016 	PIETR, UH Tasi
11.3 SPREP Media Outreach		
<ul style="list-style-type: none"> Note the progress made by SPREP through FINPAC project, the Pacific Media Assistance Scheme (PACMAS) and its partners to develop capacity of the media in the region for better reporting on weather and climate hazards, information and services 	<ul style="list-style-type: none"> FINPAC Project now completed. Final tasks being finished and delivered/launched during the PMC4 such as the Pacific Women in Met Case Studies which were started during regional Met Directors training in the Cook Islands in 2016. This was the result of a content and design training to help Met Directors design their outlook and other such correspondence to be sent to external audiences. 	SPREP
<ul style="list-style-type: none"> Acknowledge the support of PACMAS and its partners in engaging journalists in weather and climate reporting 	<ul style="list-style-type: none"> Further PACMAS support provided in media and communications training for the Fiji Meteorological Service in 2017. Discussions are now underway with PACMAS as they roll out their next phase of funding. 	SPREP, PACMAS
<ul style="list-style-type: none"> Support the continuation of activities under SPREP Media Outreach Program to support PMC; 	<ul style="list-style-type: none"> This has been ongoing in many different ways. PacMetDesk Staff and the NMHSs have supported SPREP with the national training undertaken with PACMAS and FINPAC, a Pacific side event featuring Meteorology took place at COP21 in 2015. A number of resources have been developed including a factsheet – Climate and weather hazards, Pacific island and ocean perspective. 	SPREP, PACMAS

<ul style="list-style-type: none"> Note the proposal to have a Media and Meteorology Roundtable Meeting in 2016 and encourage PMC, WMO and partners to support this initiative; 	<ul style="list-style-type: none"> This did not eventuate due to a busy schedule for all partners involved in 2016 and the lack of available funding. May be worth considering at a later date. 	
<ul style="list-style-type: none"> Agree to task PMC's PIETR Panel to consider training on weather, climate, disaster risk reduction and disaster risk management, tsunamis and other topics related to weather, climate and oceans for the media, noting that some PICTs do not have televised forecasts but rely on radio; 	<ul style="list-style-type: none"> PIETR have developed their ToR and will be presented to the PMC-4 meeting 	PIETR
<ul style="list-style-type: none"> Urge SPREP and partners to support the attendance of PMC members at COP21/UNFCCC in December this year, including participation in side events and other pre-COP trainings for participants; and 	<ul style="list-style-type: none"> Very few NMHSs directors were part of their national delegation to the COP meeting SPREP has organised pre-COP trainings for high level officials and it is usually the climate change focal points that attend this trainings SPREP in partnership with the Governments of Samoa and Vanuatu hosted a side event at the UNFCCC COP21 on building a resilient Pacific through effective weather, climate, and early warning systems. This saw presentations from Secretary General of WMO, Dr Petteri Taalas, Mr Jesse Benjamin of Vanuatu and Mr 'Ofa Fa'anunu of Tonga. 	SPREP
<ul style="list-style-type: none"> Note that WMO is conducting training for TV presenters through the capacity development including the production of a series of videos, and request that PMC be updated on the progress of this project. 	<ul style="list-style-type: none"> No presenters from the Pacific attended this training SPREP through the FINPAC and COSPPac projects have delivered a number of workshops and trainings for media in the region The PMC-4 will be well covered by the media with the support of SPREP, COSPPac and the RESPAC project 	WMO, FINPAC, COSPPac, RESPAC
11.4 Reinforcing Meteorological Training Function of Fiji Meteorological Service		
<ul style="list-style-type: none"> Note that the Japan International Cooperation Agency (JICA) Project for Reinforcing Meteorological Training Function of FMS has been launched, to strengthen FMS to be innovative and more instrumental in capacity development activities in PICTs region; and 	<ul style="list-style-type: none"> FMS and JICA carried out an assessment of capacity-development needs in PICTs and performed its training activities in the areas according to the given priority. Based on the assessment, different training modes were also adopted including the group training, in-country training, and on-the-job training. 	FMS, JICA

<ul style="list-style-type: none"> Encourage PICTs and partners such as Australia, New Zealand, SPREP, USP, SPC and WMO to coordinate and collaborate with FMS and JICA in the Project for Reinforcing Meteorological Training Function of FMS. 	<ul style="list-style-type: none"> Collaborations have been built with SPREP, WMO and UNDP through the Project's activities in the fields of aviation weather service, meteorological instrument, and Basic Instruction Package for Meteorological Technicians (BIP-MT). 	FMS, JICA
<h2>Session 12: Aviation Weather Services</h2>		
<h3>12.1 Quality Management System and Competency Standards</h3>		
<ul style="list-style-type: none"> Note the importance of achieving full compliance with ISO 9000 series quality management standards and the International Standards and Recommended Practices (ISRP) of Annex to the Convention of International Civil Aviation - Meteorological Service for International Air Navigation, in the provision of aeronautical meteorological services for the safety operation of aircrafts and passengers; 	<ul style="list-style-type: none"> PIAWS established and much progress has been made Updates will be provided to the PMC-4 	PIAWS Panel, SPREP, WMO
<ul style="list-style-type: none"> Note the contribution of Australia, through BoM, towards building capacity of NMHSs in PICTs region in quality management to meet ISO 9000 series quality management standard and ISRP of Annex to the Convention of International Civil Aviation - Meteorological Service for International Air Navigation, through the implementation of a regional program of quality management auditor training and accreditation, using aid-funding under Australia's Public Sector Linkages Program; 	<ul style="list-style-type: none"> Much progress has been made PIAWS established and much progress has been made Updates will be provided to the PMC-4 	PIAWS
<ul style="list-style-type: none"> Endorse the establishment of PMC's Pacific Islands Aviation Weather Services (PIAWS) Panel to discuss and address issues relating to aeronautical 	<ul style="list-style-type: none"> PIAWS Panel have been established, developed their work plan, ToR Panel have had numerous meetings 	SPREP, WMO, PIAWS

meteorological services including cost recovery, quality management and competency standards;		
<ul style="list-style-type: none"> Note that Cook Islands, Fiji, Niue, Palau, Samoa, Solomon Islands, Tonga, USA, Vanuatu, WMO and USP volunteered to work with PMDP to establish PMC's PIAWS Panel and develop its TOR, with Tonga serving as the Chair; 	<ul style="list-style-type: none"> COMPLETED. PIAWS have worked with more than just this members 	PIAWS, WMO, SPREP
<ul style="list-style-type: none"> Note the upcoming WMO Regional Forum for Directors of NMHSs in RA V which is scheduled to be held in Nadi, Fiji from 28 to 30 October 2015 as an opportunity to kick-start discussions and advance tasks of PMC's PIAWS Panel; 	<ul style="list-style-type: none"> COMPLETED PIAWS was established at this meeting were the ToR was discussed by the members present 	SPREP, WMO
<ul style="list-style-type: none"> Request that NMHSs to assign high priority to be compliance to quality management and competency standards as soon as possible; 	<ul style="list-style-type: none"> Progress has been made Updates will be provided to the PMC-4 by the PIAWS Panel 	PIAWS
<ul style="list-style-type: none"> Request that SPREP, WMO, ICAO and partners to continue and intensify their assistance to PICTs' NMHSs to be compliance to quality management and competency standards as soon as possible; 	<ul style="list-style-type: none"> SPREP has supported the Chair of the PIAWS to attend the ICAO meeting to ensure the Panel is informed on discussions at this level PIAWS Chair has been very active with the Panel discussions SPREP is supporting ICAO to attend the PMC-4 meeting 	SPREP
<ul style="list-style-type: none"> Request that NMHSs to establish bi-lateral twinning agreements targeting the implementation of quality management and competency assessment; 	<ul style="list-style-type: none"> This has been discussed an now part of the workplan of the PIAWS 	PIAWS
<ul style="list-style-type: none"> Request that NMHSs and SPREP to include appropriate work packages in on-going and future programs and projects to ensure funding for sustainable implementation of quality management and competency to meet ISO, International Civil Aviation Organization (ICAO) and WMO requirements; 	<ul style="list-style-type: none"> SPREP continue to NMHSs through the Chair of the PMC Supported Solomon Islands to assist Samoa in their QMS documentations 	SPREP, PIAWS
<ul style="list-style-type: none"> Request that PMC's PIAWS Panel include in its TOR to address a regional target of resolving existing 	<ul style="list-style-type: none"> The council will be provide an update during the PMC-4 meeting 	PIAWS

deficiencies related to the compliance with WMO and ICAO quality management and competency standards;		
<ul style="list-style-type: none"> Encourage the attendance of PMC representatives to ICAO meetings; 	<ul style="list-style-type: none"> The council will be provide an update during the PMC-4 meeting 	PIAWS
<ul style="list-style-type: none"> Request that Australia to continue to provide technical backstopping to NMHSs on quality management and competency standards; and 	<ul style="list-style-type: none"> BoM has been actively involved in the PIAWS The council will be provide an update during the PMC-4 meeting 	BoM, PIAWS
<ul style="list-style-type: none"> Request that WMO, SPREP and PMDP to draft TOR and provide financial support to assist with Samoa's efforts to complete it quality management and competency assessment. 	<ul style="list-style-type: none"> Funded by SPREP and Solomon Sammy was deployed to assist for 3 weeks in July 2017. He will be returning in November for a week to complete the documentations 	SPREP, SIMS, WMO, SMD
12.2 Cost Recovery for Aviation Weather Services		
<ul style="list-style-type: none"> Request that PMC to work with WMO AeM Program to establish a regional task team or focal point or to include as part of PMC's PIWAS Panel, to address cost recovery in a transparent and equitable manner, to liaise with relevant WMO and ICAO groups to establish an appropriate business model that allow all countries participating in service provision to benefit from the air navigation services charges attributed to aeronautical meteorological services; 	<ul style="list-style-type: none"> Cost recovery will be presented at the PMC-4 meeting 	PIAWS
<ul style="list-style-type: none"> Request that PMC to work with WMO AeM Program to establish a pilot project on cost recovery with one or more countries to test possible solutions and business model as a component of larger scale regional project; 	<ul style="list-style-type: none"> This is being discussed by the PIAWS and ongoing 	PIAWS
<ul style="list-style-type: none"> Request that PMC through PMDP to send a formal request to WMO and ICAO Secretariats, the Commission on Aeronautical Meteorology Expert Team on Governance (CAeM ET-GOV), and the ICAO 	<ul style="list-style-type: none"> Communications between WMO and ICAO has taken place. ICAO will be attending the PMC-4 and leading on presentations WMO is also actively engaged by the Panel 	PIAWS

Meteorology Panel – Meteorological Cost Recovery Guidance and Governance Team raising Pacific cost recovery issues that need special attention;		
<ul style="list-style-type: none"> Request that PMC’s PIAWS Panel include in its TOR to address a regional target or dateline for development of specific guidance and proposed business model for cost recovery in PICTs region. 	<ul style="list-style-type: none"> This will be presented at the PMC-4 meeting 	PIAWS
12.3 Safe Skies for Aviation over the Pacific		
<ul style="list-style-type: none"> Request that SPREP and PMDP to work with WMO AeM Program to establish a regional roadmap for improvements of the meteorological service to aviation that will serve as a basis for relevant projects supported by WMO and other partner organizations; 	<ul style="list-style-type: none"> A regional roadmap is not yet established however, the RA-V action plan is incorporated into the new PIMS 	SPREP, WMO
<ul style="list-style-type: none"> Encourage NMHSs to establish priorities for technology improvement and modernization in relation to aeronautical meteorological services; 	<ul style="list-style-type: none"> Ongoing 	PIAWS
<ul style="list-style-type: none"> Request that PMC designate a regional coordinator or a team or request PMC’s PIAWS Panel to include in its TOR to work with WMO AeM Program and ICAO to develop a project proposal to addresses priority technology issues; 	<ul style="list-style-type: none"> Ongoing PIAWS has been very active and discussing with WMO ICAO is invited to this meeting 	PIAWS
<ul style="list-style-type: none"> Request that PMC’s PIAWS Panel include in its TOR to address regional target or dateline for development of a project proposal for the improvement of aeronautical meteorological service in PICT region; and 	<ul style="list-style-type: none"> Ongoing Updates will be presented by the Panel 	PIAWS
<ul style="list-style-type: none"> Endorse a regional collaborative approach with strong focus on airport weather and climate observations and reports quality and improved communications for near-real time data exchange and 	<ul style="list-style-type: none"> PIAWS meetings have include airline industry. Fiji airways has contributed to this discussion. Fiji Met Service to support Kiribati on training weather observers 	PIAWS, FMS, JICA

requested PMC's PIAWS Panel to include in its TOR to address this issue.		
13: Monitoring and Observations Systems		
13.1 WMO Integrated Observing System for Region V		
<ul style="list-style-type: none"> Request that SPREP and PMDP to work together with WMO Observations Services (WMO OBS) Department and WIGCOS Project Office (OBS/WIGOS) and WMO RA V Working Group on Infrastructure Task Team on WIGOS to identify and confirm WIGOS priorities for PICTs' region; 	<ul style="list-style-type: none"> Karl Monnik, the chair of the RAV WG on Infrastructure has been invited to the PICI Panel meeting to present on the WIGOS work plan WIGOS and WIS priorities are also now reflected in the new PIMS 2017-2016 	PICI Panel
<ul style="list-style-type: none"> Encourage PICTs to take a proactive role in WMO RA V Working Group on Infrastructure Task Team on WIGOS; 	<ul style="list-style-type: none"> Emphasised during the PICI panel to work with RAV WG on Infrastructure 	PICI Panel
<ul style="list-style-type: none"> Endorse the establishment of a Regional WIGOS Centre to ensure that operating stations are delivering observations and informed properly on failure to deliver and quality issues; and 	<ul style="list-style-type: none"> A workshop has been planned for October 2017 to develop a plan for establishing a Regional WIGOS Centre for the South West Pacific Region (WMO RA V). 	WMO
<ul style="list-style-type: none"> Request that SPREP and PMDP to work with WMO OBS/WIGOS to align national priorities with regional WIGOS priority actions and to include them in projects. 	<ul style="list-style-type: none"> PMDP Share the new PIMS review with WMO and the Chair of the RAV WG on Infrastructure to ensure that priorities are aligned 	SPREP, PICI Panel

14: The Update and Review of the Pacific Islands Meteorological Strategy 2012-2021		
<ul style="list-style-type: none"> Note the report on the summary of progress implementing PIMS 2012-2021 in PICTs' NMHSs; 	<ul style="list-style-type: none"> The review of the implementation of the PIMS also showed a lot of progress made by the PMC in implementing the strategy. A detail of the review will be presented at the PMC-4. 	PMDP
<ul style="list-style-type: none"> Endorse in principle the TOR for the review of PI 2012-2021 as well as the methodology to carry out review; 	<ul style="list-style-type: none"> The ToR was finalised in August 2016 and tender finalised in October. The Pacific Science Solution was awarded the contract to carry out the PIMS Review and the development of the new PIMS and funded by COSPPac Two workshops were organised to discuss the PIMS in October 2016 and in May 2017 on the fringes of the COSPPac meetings. These meetings are also supported by the COSPPac project, FINPAC and SPREP. 	SPREP, COSPPac, FINPAC
<ul style="list-style-type: none"> Agree to establish a team consisting of Cook Islands, Palau, Samoa, Tonga, and USA to support the Secretariat in the process of the mid-term review of PIMS 2012-2021; and 	<ul style="list-style-type: none"> SPREP updated the team on the all of the stages of the process to get the PIMS review to be finalised The draft of the PIMS is now ready for endorsement at the PMC-4 meeting 	SPREP, WMO
<ul style="list-style-type: none"> Encourage partners to support the mid-term review process of PIMS 2012-2021. 	<ul style="list-style-type: none"> COSPPac provided financial support for the PIMS Review and the development of the new PIMS2017-2026 Pacific Science Solutions was hired to do the review as well as develop the new PIMS COSPPac, FINPAC and SPREP organised 2 workshops with the relevant stakeholders in October 2016 and from 8-9 May 2017 to finalise the draft PIMS It is now ready to be presented at the PMC-4 meeting 	SPREP, WMO

<p>15. Strengthening the Pacific Meteorological Council and the Pacific Meteorological Desk Partnership</p>		
<p>15.1 Governance of the Pacific Meteorological Council</p>		
<ul style="list-style-type: none"> Request that the team tasked with assisting the Secretariat in the mid-term review of the PIMS 2012-2021 would also assist the Secretariat in ensuring meteorology, climatology and oceans are emphasized in the new SPREP Strategic Plan 2016-2020. 	<ul style="list-style-type: none"> SPREP strategic plan finalised with climate resilience one of the core pillars of the Plan 	<p>SPREP</p>
<p>15.2 Pacific Meteorological Desk Partnership</p>		
<ul style="list-style-type: none"> Note PMDP work plan and budget and the planned schedule of works for the next 2 years (July 2015 to July 2017); 	<ul style="list-style-type: none"> Noted 	<p>SPREP</p>
<ul style="list-style-type: none"> Encourage PMC and partners to provide update information on their activities to PMDP planned schedule of activities, to be circulated at the end of each month; 	<ul style="list-style-type: none"> A new website (www.pacificMet.net) is now developed and will be able to host all the updated meteorology activities Partners will be able to share their planned activities to be updated in this new website 	<p>SPREP</p>
<ul style="list-style-type: none"> Encourage partners to advocate for and provide financial support for the Pacific Islands Global Climate Observing System (PI-GCOS) Officer and the Meteorology and Climate Advisers positions in PMDP; 	<ul style="list-style-type: none"> Not yet secured 	<p>SPREP</p>
<ul style="list-style-type: none"> Encourage PMDP to provide ongoing guidance and timely advice to PMC; 	<ul style="list-style-type: none"> Support provided and is ongoing. PMDP has provided numerous support to the expert panels of the PMC PMDP worked with members to finalise the new reviewed PIMS and the PRSCS for the region 	<p>PMDP</p>

	<ul style="list-style-type: none"> • PMDP also worked very closely with the PMC steering Committee to develop the agenda for the PMC-4 meeting 	
<ul style="list-style-type: none"> • Request that SPREP and partners continue to increase efforts to secure financial resources for PMDP and meteorological activities for PICTs region; and 	<ul style="list-style-type: none"> • Support and effort ongoing • WMO has committed funds to support the operations of the PMDP on an annual basis. They are providing USD25K per annum for this support • Through the Transition process, COSPPac is also able to support 5 additional staff to SPREP who are working to support the PMDP • RESPAC project is the new project by UNDP attempting to support NMHSs in the region • COSPPac is providing ongoing support to SPREP • FINPAC funded by Finland is also provided support to NMHSs in various areas 	SPREP, WMO, COSPPac
<ul style="list-style-type: none"> • Request SPREP, WMO and partners to increase efforts to secure funds including support for future of PMMM. 	<ul style="list-style-type: none"> • PMMM-2 is supported by WMO, COSPPac, FINPAC, SPREP and the Government of Solomon Islands. Additional financial support is provided by UH Tasi through use of the conference facilities 	WMO
<h2>16: Resources Mobilization</h2>		
<h3>16.1 Regional Technical Support Mechanism</h3>		
<ul style="list-style-type: none"> • Encourage PMC to use and promote the Regional Technical Support Mechanism (RTSM) and the Rapid Response Fund (RRF) noting that current available funding of USD\$149,689 and proposed second tranche of approximately USD\$300,000; 	<ul style="list-style-type: none"> • Vanuatu was successful in securing funds to engage an expert to develop its National climate framework in April 2016 • Fiji also was able to secure funds to support an expert team to develop its National Implementation Plan for climate services in September 2017 • The RTSM mechanism is now ended in June 2017 	SPREP
<ul style="list-style-type: none"> • Encourage PMC members and PICTs' NMHSs staff register as RTSM experts; 	<ul style="list-style-type: none"> • Noted and ongoing. Several staff from NIWA, BoM and known experts have now registered, These known experts have been engaged through the RTSM process to assist each NMHSs 	SPREP
<ul style="list-style-type: none"> • Encourage PMC members and PICTs' NMHSs to utilise RRF before its end date of June 2016, noting that requests for Technical Assistance (TA) are accepted and considered throughout the year; and 	<ul style="list-style-type: none"> • Same as above. The RTSM came to a close in June 2017 	SPREP

<ul style="list-style-type: none"> Note that PMC may assist a country to prepare and submit an application or request to RTSM, and requests must come from a country, not on behalf of a country or a group of countries. 	<p>SPREP and WMO assisted both Vanuatu and Fiji to develop the ToR for the experts, workshop agenda's, and input into the final output from the consultants</p>	<p>PDMP</p>
<p>16.2 Green Climate Fund and Adaptation Fund</p>		
<ul style="list-style-type: none"> Note that SPREP has been accredited as a Regional Implementing Entity (RIE) for the Adaptation Fund (AF) and the Green Climate Fund (GCF); and 	<ul style="list-style-type: none"> A project Management Unit (PCU) has since been established at SPREP with the support of a full time manager and additional SPREP staff allocated to support this PCU 	<p>SPREP</p>
<ul style="list-style-type: none"> Encourage PMC members in full consultation with their national governments to submit proposals for the two funds for inclusion in project proposals. 	<ul style="list-style-type: none"> Several PMC member countries were approached in 2015 and 2016. Only Vanuatu was able to provide a No-Objection letter to confirm working with SPREP to develop a project under the GCF SPREP and its partners developed the project and after several meetings with the Vanuatu team, was able to finalise a draft The Vanuatu Climate Application Information Services Project was endorsed by the GFC board in December 2016 of a total of USD26 million over 5 years WMO is also working with Fiji, PNG, Solomon Islands, Vanuatu and Timor Leste to develop proposals for the GCF. Other accredited entities such as UNDP, WB, FAO are also working with countries to secure projects with components to support the NMHSs 	<p>SPREP, WMO, Other Accredited partners</p>
<p>16.3 WMO Resource Mobilization and Partnership</p>		
<ul style="list-style-type: none"> Commend WMO for their continued comprehensive support to PICTs region; and 	<ul style="list-style-type: none"> WMO has provided to the region a project funded by the Canada project since 2015 to support the implementation of the GFCS 	<p>WMO</p>
<ul style="list-style-type: none"> Note that the United Nations Development Program (UNDP) is developing two project concepts, namely the South-South Cooperation on Integrated Climate and Disaster Resilient Development between Pacific and Caribbean SIDS and; Disaster Resilience, Response and Recovery for Pacific SIDS 	<ul style="list-style-type: none"> The South-South Cooperation did not make it through The RESPAC project was launched in October 2016 in Nadi, Fiji 	<p>UNDP</p>

<h2 style="text-align: center;">17: Disaster Risk Reduction and Climate Change in the Pacific</h2>		
<h3>17.1 <i>The Strategy for Climate and Disaster Resilient Development in the Pacific</i></h3>		
<ul style="list-style-type: none"> Note the development of the draft regional Strategy for Climate and Disaster Resilience Development in the Pacific (SRDP). 	<ul style="list-style-type: none"> This is finalised as the Framework for Resilient Development in the Pacific 	SPREP, SPC, PIFS
<h3>17.2 The Intergovernmental Panel on Climate Change and the 21st United Nations Convention of Climate Change Conference of the Parties</h3>		
<ul style="list-style-type: none"> Encourage PMC, SPREP and partners to consider publishing their works for the Intergovernmental Panel on Climate Change (IPCC) peer review and further encourage PMC members to contribute as an author or reviewer to IPCC 6th Assessment Report (AR6); and 	<ul style="list-style-type: none"> The IPCC vice Chair of WG2 has been invited to the PMC-4 to provide guidance on how the PMC members can effectively contribute to this 	IPCC
<ul style="list-style-type: none"> Invite those in a position to do so to provide additional resources to support SPREP and regional organizations to support PMC members participation in the COP for UNFCCC and IPCC meetings, noting that support from IPCC Secretariat is available for one delegate per country to attend IPCC meetings. 	<ul style="list-style-type: none"> Limited support is provided by SPREP due to financial constraints USP has been able to provide updates to members of activities relevant to the IPCC 	IPCC
<h3>17.3 Third United Nations World Conference on Disaster Risk Reduction</h3>		
<ul style="list-style-type: none"> Note the similarity between the Sendai Framework on DRR 2015-2030 and the SRDP that both have similar goals and are consistent with the proposed Post-2015 SDGs; and 	<ul style="list-style-type: none"> The SRDP is now endorsed by the leaders as the FRDP in 2016 A presentation will be provided by SPREP on the role of NMHSs to support the implementation of the FRDP at the PMC-4 	Partners

	<ul style="list-style-type: none"> A presentation of the SDG's will also be presented at the PMC-4 where the role of NMHSs to support its implementation will be further highlighted 	
<ul style="list-style-type: none"> Encourage PMC members to note the Sendai Framework and the need for collaboration within national agencies and partners to implement the Framework. 	<ul style="list-style-type: none"> The priorities in the Sendai framework are linked to the new PIMS 2017-2026 	All Partners
<h2>18: Guidance to the First Pacific Ministers Meeting on Meteorology</h2>		
<h3>18.3 Review and Finalize the Draft Nuku'alofa Declaration</h3>		
<ul style="list-style-type: none"> Draft Nuku'alofa Declaration is endorsed by PMC. 	<ul style="list-style-type: none"> Endorsed by the first Ministerial Meeting on Meteorology Declaration was presented and endorsed at the SPREP meeting in September 2015 SPREP, WMO and partners have been working to implement some of the key recommendation from the Declaration 	PMMM-1, SPREP, WMO
<h2>19: Venue of the Fourth Meeting of the Pacific Meteorological Council</h2>		
<ul style="list-style-type: none"> Endorse the offer from the Solomon Islands to host the Fourth Meeting of the Pacific Meteorological Council (PMC-4). 	<ul style="list-style-type: none"> Solomon reiterate their willingness to host the next PMC meeting during the SPREP council meeting in September 2015 PMDP worked with Solomon Islands from 2016 to organise the hosting arrangements Solomon Islands well prepared for the meeting 	Solomon Islands and PMDP
<ul style="list-style-type: none"> Request that SPREP and PMDP review the meeting duration to allow for adequate discussions, 	<ul style="list-style-type: none"> The PMC-4 is closely guided by the PMC steering Committee. 	PMC Chair,

and provide a recommendation to the next meeting of PMC Steering Committee.		PMC Steering Committee