



**PAGASA ACCOMPLISHMENT REPORT**  
(January to December, 2012)

<b>PROGRAMS/ACTIVITIES/PROJECTS</b>	<b>TARGETS</b> (January to December, 2012)	<b>ACTUAL ACCOMPLISHMENTS</b> (January to December, 2012)
	<ul style="list-style-type: none"> <li>• Operation and maintenance of mechanical, electrical and infrastructure</li>   <li>• Operation and maintenance of meteorological equipment and accessories</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted troubleshooting/repair/maintenance of 116 ACUs at various offices of the Agency.</li> <li>• Implemented the repair of electrical system including UPS at Baler radar station.</li> <li>• Installation of water system at Basco station.</li> <li>• Preparation for the inauguration of new radar tower building (JICA Project) at Virac radar including ground clearing, gardening, transfer of commemorative plate and construction of platform.</li> <li>• Provide carpentry services to various offices of PAGASA.</li> <li>• Provided assistance to PTV4 regarding the separation of their electric supply from WFFC building.</li> <li>• Conducted repair of water pipes at DIC compound and Science Garden.</li> <li>• Conducted repair/replacement of defective parts (pipes, flexible hose, water closets, p-traps, faucets, gate valves) of men's and lady's comfort room at various offices of the Agency.</li> <li>• Participated in the set-up of physical arrangement and sound system in various activities of the Agency.</li>   <li>• Conducted repair/maintenance of weather radars at Hinatuan, Baler, Subic, Tagaytay, Baguio and Tampakan.</li> <li>• Monitoring of the Doppler weather radar installation at Tampakan Radar station.</li> <li>• Monitored the delivery, installation, testing and commissioning of 25 KVA isolation transformer at Baler and Subic radar station.</li> <li>• Conducted Boring Test in preparation for the construction of new radar tower building at Iloilo, Zamboanga and Busuanga.</li> <li>• Installation of Automatic Weather Observation System (AWOS) at Mactan International Airport runway and Vis-PRSD office.</li> <li>• Participated in the in-house training of AWOS.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Operation and maintenance of electronics and communications network at field stations</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted routine calibration, repair and maintenance of meteorological basic instruments at Guiuan, Borongan, Catbalogan, VISCA-Tacloban, Sorsogon, Legaspi, BUCAF, Pili, Daet, Tayabas, Ambulong, Subic, Alabat, Iba, TCA, Cabanatuan, UPLB, Tagaytay, Basco, Itbayat, Puerto Princesa, Aborlan, Virac radar and synoptic, Tanay, General Santos, Malaybalay, Musuan, El Salvador, Lumbia, Butuan, Hinatuan, Dumaguete, Dipolog, Zamboanga, Aparri, Tuguegarao, ISU, NVSU, CavSU, Catarman, UEP, Davao, Tagum and Bago Oshiro.</li> <li>• Repaired the win equipment at Ambulong, Tayabas, Daet, BUCAF, Muñoz, Puerto Princesa, Virac radar, General Santos, Musuan, Davao, Lumbia and Tuguegarao.</li> <li>• Fabricated and installed instrument shelter at Alabat, Virac radar and synoptic, Baguio and Coron.</li> <li>• Replaced damaged lightning arrester system at Subic radar station.</li> <li>• Conducted re-briefing/re-orientation of field personnel regarding errors and correct observation procedures.</li> <li>• Installed/calibrated/repared/maintained HF SSB radiophones and dipole antenna at Baler, Casiguran, Calapan, Tacloban, Borongan, Tuguegarao, Aparri, Dumaguete, Legaspi, Maasin, VISCA, Zamboanga, Hinatuan, Butuan, El Salvador, Lumbia, Tacloban, Catarman, Laoag, MMSU, Coron, Aborlan, Musuan, Malaybalay and Davao station.</li> <li>• Provided technical assistance to the installation and set-up of iHPC network under the Automation project.</li> <li>• Installation of VOIP (Voice Over IP) with fax equipment in ODA for O&amp;S. NCR-PRSD, NL-PRSD, SL-PRSD, Subic, Clark, Iba, Laoag, Dagupan, Cabanatuan, Baguio, Tayabas, Infanta, Calapan, Catarman, Catbalogan, Tacloban, Lumbia and Butuan station.</li> <li>• Installation of FY2D VSAT in collaboration with Chinese experts at WFFC.</li> <li>• Provided technical personnel during the occurrence of inclement and extreme weather events.</li> </ul>

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<p>3. Construction/Repair/ Rehabilitation of Typhoon Damaged Weather Stations</p>	<p>Civil works related to the construction/ repair and rehabilitation of typhoon damaged weather stations undertaken</p>	<ul style="list-style-type: none"> <li>• Conducted development of Weather and Time Display system.</li> <li>• Provided technical assistance and monitoring of Ethernet Structured Cabling System project.</li> <li>• Configuration of Radar (Subic, Tagaytay, Cebu and Hinatuan) workstations and iHPC to automatically “push” the data to co-located FTP server of ASTI.</li> <li>• Provided maintenance of the LED Moving Display System at the entrance gate of PAGASA Science Garden and DIC.</li> <li>• Provided technical assistance in the monitoring of IP CCTV security system.</li> <li>• Provision of sound system services for various Agency’s official functions, meetings, conferences etc.</li> <li>• Conducted repair/maintenance of telecommunication facilities, basic electronic office equipment and telephony by various PAGASA offices.</li>   <li>• Involvement of ETSD in the monitoring of the Agency’s Infrastructure projects. <ul style="list-style-type: none"> <li>– Construction of Transient Quarter building</li> <li>– Construction of Daus synoptic station building</li> <li>– Rehabilitation of station building and facilities at Alabat, San Jose, Catbalogan, Laoag, Iba, Tayabas and Catarman</li> <li>– Repair of radar station building and facilities at Baler and Baguio radar station.</li> <li>– Renovation/conversion of old radar building for personnel quarters and guard house at Virac radar station.</li> <li>– Installation of electrical wiring system from power house to PAGASA main building for the back-up 275KVA power generator set.</li> <li>– Glass cleaning of the PAGASA Central Office building.</li> <li>– Installation of wall partition of radar control room at Tampakan station in preparation for the installation of radar system.</li> </ul> </li> </ul>

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<p style="text-align: center;">4. Magna Carta for S &amp; T Personnel</p> <p><b>II. SUPPORT TO OPERATIONS</b></p> <p>a. Climate Data Management, Agrometeorological and Weather Modification Research and Development</p> <p>1. Operation and Maintenance of Meteorological Data Banks, including the Provision of Processed Climatological Information</p>	<p>This refers to RA 8439, an act of providing a MAGNA CARTA (MC) for scientists, engineers, researchers and other S&amp;T personnel in government.</p> <p><b><i>Climatological/Agroclimatic Data/ Information Prepared, Issued and Disseminated:</i></b></p> <ul style="list-style-type: none"> <li>• Weather certifications <i>(as need arises)</i></li> <li>• 12 Monthly Agroclimatic Impact Assessment for Philippine Agriculture</li> <li>• Customized weather information and other publications <i>(as need arises)</i></li> <li>• 12 Weather Situation and Outlook/El Niño or La Niña advisories/1 Seasonal Climate Outlook/Advisories</li> </ul>	<ul style="list-style-type: none"> <li>– Enclosure/installation of wooden partition and doors, repainting of existing walling for office lecture room at Subic.</li> <li>– Roof slab waterproofing, concrete topping, repair of path walk and plant box.</li> <li>– Water proofing works of radar building, personnel quarters and repainting of radar radome panel at Baler.</li> <li>– Implementation of the electrical installation of main feeder line and metering at Aparri radar station.</li> </ul> <p>Development of the Agency's Human Resources</p> <p>445 weather certifications issued Income Generated ₱ 477,070.00</p> <p>12 publications and 446 copies disseminated (A copy is also posted in the internet.)</p> <p>412 sets of publications sold Income Generated ₱ 2,113,981.00</p> <p>4 La Niña Advisories, 8 Weather Situation and Outlook, 2 Seasonal Climate Outlook issued and 996 copies</p>

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	<p><b><i>Farm Weather Forecasting and Advisory Services Provided:</i></b></p> <ul style="list-style-type: none"> <li>• 366 Daily Farm Weather Forecasts and Advisories (FWFA)</li> <li>• Tropical Cyclone Warnings and Advisories (TCWA) for Agriculture issued <i>(whenever TC threatens PAR)</i></li> <li>• 36 Ten-day Regional Agri-weather Forecasts and Advisories</li> <li>• 36 Ten-day Weather Agro-climatic Review and Outlook for Agriculture</li> </ul> <p><b><i>Consultancy Services Extended:</i></b></p> <ul style="list-style-type: none"> <li>• Interviews granted to tri-media <i>(as requested)</i></li> <li>• Lectures/workshops attended/conducted <i>(as need arises)</i></li> <li>• 12 Climate forum</li> <li>• Researchers of climate information <i>(as need arises)</i></li> <li>• Court hearing attended <i>(as requested)</i></li> </ul> <p><b><i>Special Observations Gathered and Collected:</i></b></p> <ul style="list-style-type: none"> <li>• 1,072 Ozone observations</li> <li>• 13,056 pages of Meteorological / Climatological / Agromet data collected</li> </ul>	<p>366 issued and 42,822 copies disseminated (All issuances posted on the internet. Emailed upon request.)</p> <p>63 TCWA issued to 7,254 recipients</p> <p>36 issued and 3,240 copies disseminated Agri-weather updates aired live daily (except Sun) at DZRM radio.</p> <p>Non-issuance since it is already incorporated in the Ten-Day Agri-Weather Forecast and Advisories</p> <p>44 interviews Channel 5, Radyo ng Bayan, PIA, Kapisanan ng Brodkaster ng Pilipinas, DZMM, ABS-CBN, Manila Times, Channel 7, QTV 11, GMA 7, TV 5, Solar News, Manila Bulletin, PTV 4</p> <p>188 lectures to 14,197 participants 65 TWG meetings attended with 1,824 participants</p> <p>8 Climate Fora to 550 participants 2 Regional Climate Outlook Forum conducted 125 participants</p> <p>1,226 researchers/visitors</p> <p>2 court hearings at Makati RTC</p> <p>711 Ozone observations conducted and 48 calibrations made Remarks: Less observation due to cloudy skies</p> <p>14,052 pages of observation data collected</p>

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<p>b. Training Activities in Atmospheric Geophysical and Allied Sciences</p>	<ul style="list-style-type: none"> <li>• 799,644 records of Meteorological/Climatological/Agromet entered, checked and edited</li> <li>• 21,840 records of Solar radiation data extracted</li> </ul> <p><b>Special Observation Stations Operated and Maintained:</b></p> <ul style="list-style-type: none"> <li>• 1 Ozone monitoring station</li> <li>• Visual Storm Station (VSS)</li> </ul> <p>7 In-house Technical Training Courses conducted to 175 participants:</p>	<p>933,186 records entered, checked and edited</p> <p>20,350 records extracted</p> <p>1 Ozone station</p> <p>10 VSS</p> <p>13 In-house Training conducted with 368 participants</p> <ul style="list-style-type: none"> <li>• 11 Short-Term In-house Trainings with 282 participants               <ol style="list-style-type: none"> <li>1. Training/Workshop on the Actual Use of LIDAR in the Development of Site Multipliers Feb. 27-March 2, 12 participants</li> <li>2. Training Seminar on JMA/TCC One-Month Probabilistic Forecast, March 13-15, 15 participants</li> <li>3. Training Seminar on Government Radio Operator's Communication (GROC) NLPRSD, March 21-24, 33 participants</li> <li>4. Orientation Seminar/Workshop on Operational Hydrology (Mindanao PRSD) April 9-13, Samal Island, Davao 30 participants</li> <li>5. Workshop on the Development of Rainfall Warning System for Metro Manila April 10-11, 50 participants</li> <li>6. Orientation Seminar/Workshop on Operational Hydrology (NL-PRSD) April 16-20, Tuguegarao, 30 participants</li> <li>7. 5-Day Orientation Seminar/Workshop on Operational Hydrology fo NCR-PRSD, Amihan Conference Room, May 7-11, 21 participants</li> <li>8. 5-Day Orientation Seminar/Workshop on Operational Hydrology fo VIS-PRSD, The Legend Hotel, Puerto Princesa City, Palawan, 22 participants</li> <li>9. 5-Day Orientation Seminar/Workshop on Operational Hydrology for SL-PRSD, Villa del Rey, CWC, Pili, Camarines Sur, 18 participants</li> <li>10. Enhancing Climate Field School: Trainor's Training on Basic Meteorology and Agrometeorology (with CAD), August 28-September 1, 16 participants</li> </ol> </li> </ul>

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<p>c. Provision of Support Services</p> <p>1. Conduct of and Participation in Scientific &amp; Technical Conferences &amp; Meetings Including Membership in International &amp; National Scientific Organizations</p>	<p><b>Supported Scholars:</b></p> <ul style="list-style-type: none"> <li>• Seminars/Trainings attended: <ul style="list-style-type: none"> <li>- 20 local seminars/trainings with 25 participants</li> <li>- 20 foreign seminars/trainings with 25 participants</li> </ul> </li> <li>• 1,000 library users assisted</li> </ul> <p>Conduct of and participation in scientific meetings/activities and linkages to acquire new techniques for improving and upgrading agency services as well as membership in the WMO &amp; affiliations in the ASEAN-COST, ASGMG, UNEP, UNDP, FAO, UNESCO, ICAO, ESCAP and IUGG</p>	<p>11. Rainfall Warning System (RWS) Training/Workshop for Forecasters: Basic Doppler Radar Data Interpretation, December 11, 35 participants</p> <ul style="list-style-type: none"> <li>• 1 Long-Term In-house Training with 34 participants <ul style="list-style-type: none"> <li>1. Meteorologists Training Course November 2011 - present, 34 participants</li> </ul> </li> <li>• 1 International Training with 52 participants <ul style="list-style-type: none"> <li>1. APEC Training Workshop on Quantitative Precipitation Estimation/Forecasting (QPE/QPF), Crowne Plaza Manila Galleria, March 27-30, 30 local participants, 22 foreign participants</li> </ul> </li> </ul> <p>BS Meteorology SY 2012-13 (First Semester) under AGHAM Party List, Training Room, started June 25, 2012, 16 students</p> <p>3 Full Scholars, M.S. in Meteorology Kanda Durage Sujeewa (Sri Lanka) - Graduated 2012 Prethika Jayakody (Sri Lanka) - On-going Gayana Witarana (Sri Lanka) - On-going</p> <p>1 Partial Scholar, M.S. in Agricultural Meteorology Bernadeth Lucillo - On-going</p> <p>104 local seminars/trainings attended with 307 participants 92 foreign fellowships acquired with 144 local participants</p> <p>1,523 library users assisted</p> <p>Scientific and technical meetings/conferences represented and participated in to enhance linkages, promote cooperation and collaboration with other UN agencies and WMO member countries:</p> <ul style="list-style-type: none"> <li>➤ 44th Session of the Typhoon Committee, China, Feb. 6-11</li> <li>➤ UFRM Guidelines Drafting Meeting, China, Feb. 13-14</li> </ul>



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		<ul style="list-style-type: none"> <li>➤ 15th GEOSS Asia Pacific Symposium and the Associated 9th Asia Water Cycle Initiative (AWCI) International Coordination Group (ICG) Meeting, Tokyo, Japan, April 2-4</li> <li>➤ 10th Meeting of the ASIA/PAC OPMET Management Risk Task Force(OPMET/MTF/IO) and the 2nd Meeting of the Meteorological Advisories and Warnings Implementation Task Force, Bangkok, Thailand, April 17-20</li> <li>➤ 34th Meeting of the ASEAN Sub-Committee on Meteorology &amp; Geophysics (SCMG), Siam Reap, Cambodia, April 24-26</li> <li>➤ 4th Session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology, Korea, May 23-31</li> <li>➤ 2012 APEC Typhoon Symposium (2012 APTS) on Typhoon Prediction and Hazard Mitigation, Taipei, Taiwan, June 4-7</li> <li>➤ 35th Session of the Intergovernmental Panel on Climate Change (IPCC), Geneva, Switzerland, June 6-9</li> <li>➤ 5th Council Meeting of the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and First RIMES Ministers Conference, New Delhi, India, June 18-19</li> <li>➤ 2012 1st APEC Research Center for Typhoon and Society (ACTS) Workshop on Advanced Technology for Reducing Public Health Impacts after Heavy Rains, Thailand, July 18-20</li> <li>➤ International Geological Congress, Brisbane, Australia, July 30-Aug. 10</li> <li>➤ 4th International Disaster and Risk Conference, Davos, Switzerland, Aug. 26-30</li> <li>➤ 9th Asian Water Cycle Initiative (AWCI) International Cooperation Group (ICG) Meeting and Workshop on Climate Change Adaptation, Japan, Sept. 29-Oct. 2</li> <li>➤ 1st Meeting of the UNESCAP/WMO Typhoon Committee Working Group on Hydrology (WGH), Seoul, Korea, Oct. 7-10</li> <li>➤ APEC Climate Symposium 2012, St. Petersburg, Russia, October 8-11</li> <li>➤ 4th Southeast Asia Astronomy Network Meeting 2012 (SEAN 2012), Bandung, Indonesia, Oct. 10-11</li> <li>➤ World Meteorological Organization's (WMO) Technical Conference on Meteorological and Environmental Instruments and Methods of Observation, Brussels, Belgium, Oct. 16-18</li> </ul>

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		<ul style="list-style-type: none"> <li>➤ Dialogue on Climate Services Users and Providers: Towards Implementation of the Global Framework for Climate Services, Geneva, Switzerland, Oct. 26-27</li> <li>➤ Extraordinary Session of the World Meteorological Organization Congress (Cg-Ext), Geneva, Switzerland, Oct. 29-31</li> <li>➤ Korea Meteorological Agency-World Meteorological Organization (KMA-WMO) High-Profile Regional Satellite Training event, and the 3rd Asia-Oceania Meteorological Satellite User's Conference, Korea, Oct. 4-12</li> <li>➤ PAGASA-Korea Astronomy and Space Science Institute (KASI) Cooperative Meeting and Science Tour, Korea, Oct. 25-Nov. 4</li> <li>➤ International Training Course on the Application of Meteorological Satellites in Disaster Mitigation and Environmental Studies, Beijing, China, Oct. 22-Nov. 2</li> <li>➤ Training workshop on Competence Assessment of Aviation Forecasters and Observers, Shefayim, Israel, Oct. 29-Nov. 2</li> <li>➤ Typhoon Committee Roving Seminar 2012, Korea, Oct. 30-Nov. 1</li> <li>➤ International Workshop on Rapid Change Phenomena in Tropical Cyclones, Haikou, China, Nov. 5-9</li> <li>➤ Training Program on Flood Inundation Analysis, Japan, Nov. 12-22</li> <li>➤ 4th Tropical Rainfall Measuring Mission (TRMM) and Global Precipitation Measurement (GPM) Mission International Science Conference, Tokyo, Japan, Nov. 13-16</li> <li>➤ 2012 2nd APEC Research Center for Typhoon and Society (ACTS) Workshop, Taipei, Taiwan, Nov. 17-19</li> <li>➤ Climate Prediction Training Program 2012, Busan, Korea, Nov. 19-30</li> <li>➤ Doha Climate Change Conference, Doha, Qatar, Nov. 26-Dec. 7</li> <li>➤ Training Seminar on Climate Analysis Information, Japan, Nov. 26-30</li> <li>➤ 7th Integrated Workshop on Effective Warning, China, Nov. 26-30</li> <li>➤ 2nd Monsoon Heavy Rainfall Workshop, Malaysia, Dec. 10-12</li> <li>➤ Training Seminar on the Management of Meteorological Training Institutions, Langen, Germany, Dec. 3-7</li> </ul>

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<p>2. Implementation of Philippine-PAGASA Participation in Regional Scientific Experiments/Studies and Other Inter-Agency Projects</p>	<p>Participation and provision of necessary expertise in regional scientific experiments &amp; studies such as in Global Climate Change Programme, Joint Ocean Cruises (WOCE), Typhoon Committee (TC), Southeast Asean Center for Atmospheric and Marine Prediction (SEACAMP), International Geosphere and Biosphere Program (IGBP), South China Sea Monsoon Experiment (SCSMEX), Global Climate Observing System (GCOS), Intergovernmental Oceanic Committee (IOC), Wind Energy Development Project and other inter-agency activities</p>	<ul style="list-style-type: none"> <li>➤ TC Research Fellowship by the China Meteorology Agency, China, Jan.1-Feb. 28</li> <li>➤ Training Course on Analysis Techniques for APN/AWCI Drought Studies and Visit on the Hiroshima University's Tokyo Office, Japan, Jan. 9-13</li> <li>➤ 1st Training Workshop as part of the ASIA Pacific Network (APN) for Global Change Research Project, Kuala Lumpur, Malaysia, Jan. 10-14</li> <li>➤ Training on Solar Radiation Instrumentation and Data Management, The Netherlands, Jan. 16-20</li> <li>➤ Knowledge Sharing Workshop on Water-related Disaster Risk Management, Nepal, Jan. 15-18</li> <li>➤ ICTP-ITU/BDT School on Sustainable Wireless ICT Solutions for Environmental Monitoring followed by the International Awareness Conference on Sustainable Wireless ICT Solutions for Environmental Monitoring, Italy, Feb. 6-24</li> <li>➤ Workshop on Application of Space Technology to Enhance the Activities of Typhoon Committee, Macau, Feb. 27-March 2</li> <li>➤ First International Workshop on Climate Changes and their Effects on Agriculture in Asian Monsoon Region, Thailand, March 3-5</li> <li>➤ Seminar on Meteorological Services for Disaster Prevention and Crisis Management Operations after the Great East Japan Earthquake, Japan, March 4-10</li> <li>➤ Training Course on Great East Japan Earthquake, Japan, March 12-18</li> <li>➤ Training Course on Integrating Climate Change Adaptation into Development Planning, Germany, March 13-15</li> <li>➤ Flood Vulnerability Workshop, Australia, March 15-20</li> <li>➤ Presentation on Monsoon studies in the Tokyo Metropolitan University, Japan, March 15-22</li> <li>➤ Workshop entitled "Toward Effective Flood Management by Utilizing the Satellite Monitoring Precipitation Data of GSMaP", France, March 16-20</li> <li>➤ Korea International Cooperation Agency (KOICA) Project entitled "Establishment of an Early Warning and Monitoring System for Disaster Mitigation in Metro Manila," (System Operation and Maintenance), Korea, March 25-April 7</li> </ul>

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		<ul style="list-style-type: none"> <li>➤ Group Training Course on Capacity Development for Flood Risk Management with Integrated Flood Analysis System (IFAS), Japan, July 9-Aug. 8</li> <li>➤ Attachment Training at the Regional Specialized Meteorological Center (RSMC), Japan, July 18-27</li> <li>➤ International Training Course on Navigation and Satellite Positioning System Organized by the Center for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP), India, June 18-July 13</li> <li>➤ Group Training Course on Capacity Development for Flood Risk Management with Integrated Flood Analysis System (IFAS), Japan, July 9-Aug. 8</li> <li>➤ Regional Workshop on Integrating Local and Indigenous Knowledge with Scientific Knowledge for Knowledge-Based Risk Reduction, Jakarta, Indonesia, Aug. 6-8</li> <li>➤ 4th International Training Workshop on Climate Variability and Change (4ITWCVC)-Pacific Basin, San Jose, Costa Rica, Aug 8-17</li> <li>➤ Training Program on Analysis of Communication, Ocean and Meteorological Satellite (COMS) Data, Korea, Sept. 2-22</li> <li>➤ 2012 Capacity Building Workshop of Satellite Remote Sensing for Southeast Asian Scientists, Taiwan, Sept. 13-21</li> <li>➤ International Training Course on Regional Climate Prediction and Drought Monitoring and Warning, China, Sept. 17-27</li> <li>➤ Training Course for Pilot Cities, China, September 24-26</li> <li>➤ Asian Disaster Preparedness Center (ADPC) Regional Workshop on WRF Modeling, Hanoi, Vietnam, Sept. 24-28</li> <li>➤ 22nd United Nations/International Astronautical Federation (UN/AF) Workshop on Space Technologies Applied to the Needs of Humanity: Experience from Cases in the Mediterranean Area, in conjunction with the 63rd International Astronautical Congress, Naples, Italy, Sept. 28-30 and Oct. 1-5</li> <li>➤ Visit to Geoscience Australia, Australia, Oct. 9-19</li> <li>➤ Round Table Discussion, Bangkok, Thailand, Oct. 10-12</li> <li>➤ Typhoon Committee Research Fellowship Scheme for 2012, Hong Kong Observatory, Oct. 22-Dec. 21</li> </ul>

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<p>3. Participation in the Inter-Agency Natural Disaster Prevention and Preparedness Activities</p>	<p>Participation in inter-agency projects concerned with the planning and implementation of the national program for disaster preparedness and prevention as well as in the conduct of post-disaster surveys</p>	<ul style="list-style-type: none"> <li>➤ Japan Meteorological Agency (JMA) Workshop on World Meteorological Organization (WMO) Information System (WIS) Implementation, Tokyo, Japan, Oct. 22-24</li> <li>➤ Workshop with the Disaster Management Training Institutes from the ASEAN member states, Singapore, Oct. 29-31</li> <li>➤ International Training Course on the Application of Meteorological Satellites in Disaster Mitigation and Environmental Studies, Beijing, China, Oct. 22-Nov. 2</li> <li>➤ Training workshop on Competence Assessment of Aviation Forecasters and Observers, Shefayim, Israel, Oct. 29-Nov. 2</li> <li>➤ Typhoon Committee Roving Seminar 2012, Korea, Oct. 30-Nov. 1</li>   <li>➤ Wave Observation and Disaster Prevention Seminar, PHIVOLCS, Jan. 26</li> <li>➤ Rapid Earthquake Damage Assessment (REDAS) Software Training, La Trinidad City, Jan. 29-Feb. 3</li> <li>➤ Writeshop on Broadcasters' InfoChart on Emergency Preparedness" for tropical cyclone, flood, storm surge and thunderstorm, PHIVOLCS, Feb. 15</li> <li>➤ GMMA-Risk Assessment Project Workshop on the Development of Vulnerability Models for GMMA, Antipolo City, Feb. 17-18</li> <li>➤ Workshop on the Additional Attributes for Exposure Database for the Tropical Cyclone Severe Wind Project, PHIVOLCS, Feb. 20</li> <li>➤ Participated in the "Orientation Workshop on Disaster Preparedness and Environmental Compliance Initiatives, Torre Venezia Suites, Quezon City, Feb. 23</li> <li>➤ Seminar on the Use and Application of LIDAR Datasets and Imagery for Risk Analysis Project (RAP), NAMRIA Board Room, Fort Bonifacio, Taguig City, March 26</li> <li>➤ Resilience Meeting, NDRRMC Conference Room, Camp Aguinaldo, April 10&amp;30</li> <li>➤ Japan Technical Cooperation Project with NDRRMC entitled: "Disaster Management Capacity Enhancement in the Philippines, NDRRMC Conference Room, Camp Aguinaldo, April 18</li> <li>➤ NDRRMC-TMG DOST's NOAH Program, a MOA on LIDAR data-sharing, OCD, Camp Aguinaldo, April 18</li> </ul>

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PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
		<ul style="list-style-type: none"> <li>➤ Proposal on Multi-Hazard Early Warning and Decision Support System for the Philippines by Pacific Disaster Center, OCD, April 24</li> <li>➤ 2nd Technical Workshop on Metro Manila Greenprint Planning Methodologies, Linden Suites, Ortigas Center and MMDA Planning Office, Makati City, April 26-27</li> <li>➤ RDRRMC IV-B Meeting, NDRRMC Conference Room, OCD, May 24</li> <li>➤ Catastrophe Modelling Meeting with World Bank, PAGASA Central Office, May 24</li> <li>➤ Focus Group Discussion on Climate Change Adaptation and Disaster Risk Management, Mabini Hall, Malacañang Cmpd., Manila, May 29</li> <li>➤ National Congress on School Disaster Risk Reduction, DepEd Office, May 30</li> <li>➤ Round Table Discussion on CCA/DRR Columbia South-South Cooperation Mission to the Philippines, PIS Conference Room, Pasig, June 5</li> <li>➤ Discussion on the Implementation of EO No. 66 of DepEd No. 113 Prescribing Rules on the Consultation on Suspension of Classes during disasters, OCD-NDRRMC, June 22</li> <li>➤ Workshop on Course Material Review and Development to Standardize Training Modules on Disaster Risk Reduction Management (DRRM), Holiday Inn, Clark Economic Free Port Zone, Pampanga, June 25</li> <li>➤ Form for Nuclear Cooperation in Asia, Crowne Plaza Hotel, July 10</li> <li>➤ TWG of the National Disaster Risk Reduction and Management Training, NDRRMC Conference Room, July 13</li> <li>➤ Expert Survey with Philippine Engineers for Risk Analysis Project, NEC/UP Diliman, Aug. 10</li> <li>➤ Lecture forum on "Systems Perspective on Disaster Risk Management" organized by DOST under the Balik-Scientist Program, Traders Hotel, Aug. 17</li> <li>➤ TWG Meeting on Resilience Project finalizing programs on "Training for Media", Training Conference Room, OCD, Sept. 5</li> <li>➤ Training Course "Enhancing Management Competency of PAGASA by PAHRODF, Indang, Cavite, Sept. 13-14</li> </ul>

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PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
<p>d. Installation, Repair and Maintenance of Telemetry Multiplex System for Flood Forecasting and Warning Covering Pampanga, Agno, Bicol and Cagayan (PABC) River Basins</p>	<ul style="list-style-type: none"> <li>• 14,274 station-days of PABC real-time (telemetered) rainfall and water level data acquired at Weather and Flood Forecasting Center (WFFC) and 15,006 station-days at River Centers acquired in real-time (hourly/3 hourly) for hydrologic (flood) forecasting.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Run the “Round Table Discussion” regarding the thunderstorm and associated hazards that brought damage in Cagayan de Oro, Alabang, Muntinlupa, Sept. 17</li> <li>➤ Final Review of DRRM Manual for Teachers, DepEd Complex, Pasig City, Sept. 26</li> <li>➤ ADB/ICharm Training on Capacity Development for Flood Management in the River Basins of the Philippines, Timberland Sports and Nature Club, San Mateo, Rizal, Sept. 26-18</li> <li>➤ Training Workshop on Flood Analysis and Forecasting for the Phil, Tuguegarao City, Cagayan, Oct. 1-5</li> <li>➤ TWG Meeting with OCD to finalize Earthquake drill activity, Batangas, Oct. 4</li> <li>➤ 2nd Planning Meeting for the Conduct of the CY 2012 4th Quarter Nationwide Simultaneous Earthquake Drill, NDRRMC Operation Center, Oct. 19</li> <li>➤ Component Steering Committee meeting for the GMMA Risk Analysis Project, Pasig City, Oct. 24</li> <li>➤ Presentation and Demonstration re: Floating Technology as promoted by PROACT Philippines Inc. in the alternative solution for Disaster Mitigation and Response Activities, Camp Crame, Quezon City, Nov. 19</li> <li>➤ Consultative Meeting towards strengthening the National Emergency Response Capability for Nuclear and Radiological Emergencies, PNRI Conference Room, Nov. 21</li> <li>➤ Senate Hearing on Senate Bill No. 1586 entitled “An Act to Provide for Ocean Acidification Research Monitoring, Pasay City, Nov. 28</li> <li>➤ 2nd Vulnerability Workshop, PHIVOLCS Conference Rm. Nov. 28</li> <li>➤ Workshop/Planning on Risk Analysis Project, Rizal, Dec. 3-4</li> </ul> <p>14,202 station-days at River Centers</p> <p>11,510 station-days at Center Office</p>



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PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
<p><b>III. OPERATIONS</b></p> <p>a. Weather and Flood Forecasting and Geophysical and Astronomical Services</p> <p>1. Typhoon Warning and Weather Services, Including the Operation of Meteorological Communication and Regional Forecast Centers and the Provision of Numerical Weather Prediction Techniques and Analysis</p>	<ul style="list-style-type: none"> <li>• 32 regular preventive and 16 emergency corrective maintenance of PABC basins telemetry systems</li> </ul> <p><b>Number of Weather Forecasts/Warnings and other Information Packages Prepared and Issued:</b></p> <ul style="list-style-type: none"> <li>▪ 732 Public Weather forecasts</li> <li>▪ 732 Shipping forecasts</li> <li>▪ Tropical Cyclone:               <ul style="list-style-type: none"> <li>- Advisories/Recommendations (as need arises)</li> <li>- 183 Bulletins</li> <li>- 185 International Warnings</li> <li>- Hourly updates (as need arises)</li> </ul> </li> <li>▪ 34,770 Aviation weather forecasts &amp; flight enroute documentations</li> <li>▪ 366 Special weather forecasts for selected Asian cities/Philippine cities/municipalities (as need arises)</li> </ul>	<p>Conducted 32 check-ups (resident and central office engineers) at CRB and PRB, 16 emergency and 5 corrective maintenance of 2 gauging and 1 repeater station for BRB</p> <p>732 Public weather forecasts</p> <p>732 Shipping forecasts</p> <p>17 TC entered the PAR <i>Ty Ambo (May 31-June 5), Ty Butchoy (June 11-18) TS Carina (June 18-20), TS Dindo (June 25-30), TS Enteng (July 15-17), TD Ferdie (July 20-24), Ty Gener (July 27-August 3), TS Helen (August 12-16), Ty Igme (August 19-28), Ty Julian (August 21-26), Ty Karen (September 11-16), Ty Lawin (September 20-29), TS Marce (October 1-5), Ty Nina (October 6-18), TS Ofel (October 22-26), Ty Pablo (December 2-9), TS Quinta (December 24-26)</i></p> <p>142 Advisories 255 Severe Weather Bulletin 301 International Warning 683 Updates</p> <p>18,666 Aviation weather forecasts &amp; flight enroute documentations Remarks: Automated use of World Area Forecast System (WAFS)</p> <p>366 weather forecasts issued</p>

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2. Flood Forecasting and Hydrometeorological Services	<ul style="list-style-type: none"> <li>▪ Special forecasts for selected provinces (Mt. Pinatubo lahar-affected areas, Mt. Mayon and other selected areas) (as need arises)</li> <li>▪ Gale warnings/weather advisories for extreme weather system (as need arises)</li> <li>• 303,780 Clients received forecasts thru telephone/facsimile/autofax/ e-mail/voice server (As need arises)</li> <li>• 20,496 Weather maps plotted and analyzed</li> <li>• 1,464 Incorporation of MSL pressure, wind charts, satellite picture in public and shipping weather forecasts</li> <li>• 6,570 Public &amp; shipping weather forecasts/charts/satellite images incorporated in PAGASA Website</li> <li>• 646 Advisory/warning/bulletin incorporated in PAGASA Web page</li> <li>• 120 Pampanga, Agno, Bicol and Cagayan (PABC) river basins flood bulletin prepared/ issued</li> <li>• 120 General flood advisories for some non-telemetered river basins</li> <li>• 1,464 Daily hydrological forecasts for PABC river basins</li> </ul> <p><b>Hydromet/hydrologic predictions and other information provided:</b></p> <ul style="list-style-type: none"> <li>• 120 Rainfall Intensity Duration Frequency (RIDF)</li> </ul>	<p>366 forecasts</p> <p>398 warnings</p> <p>501,725 clients</p> <p>20,496 maps plotted and analyzed</p> <p>1,464 forecasts/charts/satellite images incorporated</p> <p>7,509 forecasts/charts/satellite images incorporated</p> <p>968 advisories/warnings/bulletins incorporated in PAGASA Web page</p> <p>152 flood bulletins issued PRB - 65, ARB - 45, BRB - 31, CRB - 12</p> <p>2,648 general flood advisories issued</p> <p>CAR-68; Reg.I-80; Reg.II-57 Reg.III-101; NCR-24.; Reg.IVA-78; Reg.IVB-111; Reg.V-84; Reg.VI-84; Reg.VII-77; Reg.VIII-92; Reg.IX-79; Reg.X-95; Reg.XI-98; Reg.XII-78; Reg.XIII-105; ARMM-86; PRB-3</p> <p>1,253 hydrological forecasts</p> <p>150 stations/sheets to 82 clients Income Generated ₱ 63,490.00</p>

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	<ul style="list-style-type: none"> <li>• 400 Station-months of PABC &amp; Metro Manila real-time (telemetered) hydro data primary processed</li> <li>• 1,500 station-months of synoptic, hydromet and PABC short-duration hydro data primary processed</li> <li>• Students/visitors on public information/education drive on flood disaster and other related topics</li> <li>• Drills conducted</li> </ul> <p><b>Community-Based Early Warning System (CBEWS) – READY Project</b></p> <p><b>Hazard Mapping</b></p>	<p>467 station-months of digitized rainfall charts</p> <p>1,767 station-months of digitized rainfall charts</p> <p>1,250 students and visitors</p> <ul style="list-style-type: none"> <li>• Flood Drill in Cupang Proper, Balanga, Bataan on June 28 with 200 participants.</li> <li>• Typhoon and Flood Disaster Preparedness Seminar for Housewives in Flood-Prone Communities in Brgy. Doña Imelda, Quezon City on June 30 with 121 participants.</li> <li>• Conducted Flood Drill in Balanga, Bataan by Ms. S.S. Schneider and Ms. R.C. Pagulayan on July 7-9 with 183.</li> <li>• Conducted Flood Drill in Angat (July 5) and Magat (July 26) with 127 and 221 participants, respectively.</li> </ul> <ul style="list-style-type: none"> <li>• Provide technical assessment in establishing of Flood Early Warning System at Esperanza in Agusan del Sur on Feb. 21-24</li> <li>• Conducted site survey for establishing Flood Early Warning System (CBEWS) in Balanga, Bataan</li> <li>• Installation of staff gauges at Bayabas River as per request by Bulacan LGU.</li> <li>• Re-visited CBEWS site in Laguna.</li> <li>• Conducted a consultation meeting regarding the installation of equipment under the GMMA-READY Project and re-visit and evaluation of existing CBEWS along Cavite province.</li> <li>• Conducted training/lecture on measuring instruments donated by JICA to TWG of FFWSO at Pantabangan dam site.</li> </ul> <ul style="list-style-type: none"> <li>• Flood Hazard Mapping Completed the mapping of Roxas, Isabela, Aparri, Abra and Cagayan.</li> </ul>

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PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
<p>3. Operation and Maintenance of Flood Forecasting and Warning System for Dam Operation Project I Covering Pantabangan and Angat Dam</p> <p>4. Operation and Maintenance of Flood Forecasting and Warning System for Dam Operation Project II Covering Binga, Ambuklao San Roque and Magat Dams</p> <p>5. Operation and Maintenance of Astronomical Observatories/ Planetarium including the Provision of Standard Time Services</p>	<ul style="list-style-type: none"> <li>• 4 Flood bulletins/warning information for Angat and Pantabangan Dam Operation</li> <li>• 1,200 Station-days of hourly hydro raw data of Angat and Pantabangan dams acquired in real-time</li> <li>• 60 Station-months of Angat/ Pantabangan dam operations real-time (telemetered) hydro data primary processed</li> <li>• 6 Flood bulletins/warning information for Binga/ Ambuklao/San Roque/Magat Dam Operation</li> <li>• 1,200 station-days hourly hydro raw data of Binga/Ambuklao/San Roque and Magat dams acquired in real-time</li> <li>• 60 station-months of Binga/Ambuklao &amp; Magat dam operations real-time (telemetered) hydro data primary processed</li> <li>• Dissemination of 9,000 time of 24-hour telephone time checks to the general public</li> <li>• Synchronized time in all TV stations in Metro Manila with the observatory clock using the telephone/internet</li> <li>• Dissemination of 200 time signals to PAGASA Synoptic Stations</li> </ul> <p><b>Promotion of Astronomy:</b></p> <ul style="list-style-type: none"> <li>• Celebration of Astronomy Week</li> </ul>	<ul style="list-style-type: none"> <li>• Storm Surge Hazard Mapping Completed the mapping of Isabela, Cagayan, Ilocos Sur and Catanduanes.</li> </ul> <p>1 flood bulletin/warning information</p> <p>1,319 station-days</p> <p>116.0 station-months</p> <p>9 flood bulletins/warning information</p> <p>1,450 station-days</p> <p>216.7 station months</p> <p>8,233 time check requests disseminated thru telephone to Metro Manila</p> <p>Time monitoring on a weekly basis undertaken every <b>Monday</b> to DOST, Office of the Administrator and other divisions of PAGASA and other institutions</p> <p>260 time signals transmitted to stations</p>

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	<ul style="list-style-type: none"> <li>- Accommodation of 100 students on stargazing &amp; telescoping sessions at the PAGASA Observatory</li> <li>- Free planetarium shows to 1,200 students and visitors</li>   <li>- Free planetarium on tour package for 2 schools in Luzon Tour package include mobile planetarium shows, telescoping and stargazing sessions</li> <li>• Mobile Planetarium lectures/stargazing/telescoping on Tour to schools in Luzon (<i>as per request</i>)</li>   <li>• Accommodation of visitors to planetarium lectures &amp; shows at Central Office</li>   <li>• Viewers to stargazing &amp; telescoping sessions at U.P. Astronomical Observatory using the 45-cm telescope</li>   <li>• Astronomical publications information - for commercialization and dissemination of complimentary copies</li>   <li>• 12 Press Releases on different astronomical events disseminated</li>   <li>• Attendance to court hearings, as friends of the court (<i>upon receipt of sub-phoena</i>)</li>   <li>• 122 Astronomical observations:</li> </ul>	<p>167 students accomodated at the Observatory</p> <p>878 students and teachers from 6 schools including 107 walk in visitors from 6 schools</p> <p>1,178 students and visitors from 3 schools</p> <p>10,425 students and visitors including non-payee from 12 schools Income Generated ₱ 35,000.00</p> <p>11,607 students and science teachers in 98 schools accommodated for planetarium lectures/shows including 860 non-payee Income Generated ₱ 295,700.00</p> <p>1,067 viewers from 6 schools accommodated on stargazing/telescoping sessions including 761 non-payee Income Generated ₱ 26,525.00</p> <p>329 publications sold (Income Generated ₱ 23,282.00) 396 complimentary copies disseminated</p> <p>12 Press releases issued on astronomical events</p> <p>2 personnel attended/appeared as witness at the Hall of Justice, Branch 32, Dumaguete City on August 29</p> <p>Astronomical observations conducted:</p> <ul style="list-style-type: none"> <li>▪ 193 sunspots</li> <li>▪ 21 lunar occultation</li> <li>▪ 5 meteor shower observed (geminids) with 16 observations</li> <li>▪ 1 Partial Lunar Eclipse</li> <li>▪ Observed the Transit of Venus</li> </ul>

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PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
<p>b. Observation and Acquisition of Data for Atmospheric-Geophysical and Allied Sciences</p> <p>1. Observation, Measurement, Recording and Reporting of Atmospheric, Geophysical &amp; Astronomical Data including the Operation &amp; Maintenance of Surface &amp; Upper Air Observation Network</p>	<ul style="list-style-type: none"> <li>• 366 Sunshine duration &amp; global radiation data</li> <li>• Provision of solar radiation data to researchers (<i>demand-driven</i>)</li> <li>• Calibration of 160 assorted meteorological instrument for various customers and for PAGASA</li> </ul> <p><b><i>Weather Observations Conducted and Reported in Real-Time:</i></b></p> <ul style="list-style-type: none"> <li>• 156,228 Surface/synoptic observations</li> <li>• 2,196 Upper-Air observations</li> <li>• 18,300 Agromet observations</li> <li>• 83,160 Aeronautical observations</li> </ul> <p><b><i>Operated and Maintained Network of Observing Stations:</i></b></p> <ul style="list-style-type: none"> <li>• 58 Surface synoptic stations</li> <li>• 6 Upper-Air stations</li> <li>• 1 Wind Profiler</li> <li>• 24 Agromet stations</li> <li>• 17 Aeronautical stations</li> <li>• 88 Climat/Rain stations</li> </ul>	<p>Observed global radiation data 366 days and sunshine duration data 366 days</p> <p>67 researchers Income Generated ₱ 59,138.00</p> <p>Repaired and calibrated 311 assorted meteorological instruments for various clients and 223 for PAGASA Income Generated ₱ 158,225.00 Additional 68 instrument of ASTI were calibrated for free</p> <p>151,154 observations</p> <p>3,031 observations</p> <p>17,542 agromet observations</p> <p>100,782 observations</p> <p>58 Surface synoptic stations 6 Upper-Air stations</p> <p>1 Wind Profiler</p> <p>24 Agromet stations</p> <p>16 Aeronautical stations</p> <p>88 Climat/Rain stations</p>

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<p>2. Operations of Upgraded Geostationary Meteorological Satellite Receiving System Acquired Under the 1988 Grant-in-Aid Program of Japan</p>	<ul style="list-style-type: none"> <li>• 150 AWS</li> <li>• 2 MTSDP Relay stations</li> <li>• 2 Marine Buoys</li> <li>• Automatic Rain Gauge (ARG)</li> <li>• Water Level Monitoring System (WLMS)</li> <li>• Aero-Meteorological Weather Observation System (AWOS)</li> <li><b>Extension Services:</b> <ul style="list-style-type: none"> <li>• Participants to lectures in DPP-IEC related trainings, seminars and workshops (<i>demand-driven</i>)</li> <li>• Students/visitors at field stations lectured/ briefed on weather/natural disaster prevention/agency services (<i>demand-driven</i>)</li> <li>• Local/public weather forecasts &amp; warnings disseminated (<i>as need arises</i>)</li> <li>• Weather certifications (<i>as need arises</i>)</li> </ul> </li> <li>• 21,228 Satellite data acquired from MTSAT, NOAA/FY-ID, Feng Yun and MODIS</li> <li>• 21,228 Images processed, pre-process level 1b to HDF &amp; other products (<i>as need arises</i>)</li> <li>• 21,228 Processed set data archived</li> <li>• 8,784 Processed hourly satellite data uploaded to PAGASA website and to Weather Information Network for Media presentation</li> </ul>	<p>155 AWS</p> <p>2 MTSDP Relay stations</p> <p>2 Marine Buoys</p> <p>187 ARG 47 WLMS</p> <p>2 AWOS</p> <p>68,420 participants</p> <p>71,468 students/visitors</p> <p>131,175 local/public weather forecasts &amp; warnings disseminated</p> <p>1,494 weather certifications issued Income Generated ₱ 1,649,211.00</p> <p>21,228 satellite data images</p> <p>21,228 satellite data images</p> <p>21,228 set of data archived</p> <p>8,760 satellite data files</p>

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<p>3. Operation and Maintenance of Weather Surveillance Radar Network</p> <p>c. Research on Atmospheric-Geophysical and Allied Sciences Research</p> <p>1. Atmospheric, Geophysical Astronomical and Space Sciences Research</p> <p>2. Weather Modification Activities and NATURAL DISASTER REDUCTION Including the Payment of P25,000 for the Flying Pay of Personnel (on flying status)</p>	<ul style="list-style-type: none"> <li>• Lectures conducted to students/visitors <i>(as need arises)</i></li> <li>• 15,288 Weather information (weather forecast, warnings &amp; bulletins) disseminated</li> <li>• Assists researchers in satellite data extraction and interpretation <i>(as need arises)</i></li> <li>• 2,196 Radar observations conducted</li> <li>• Radar stations operated &amp; maintained</li> </ul> <p>Basic and applied researches/studies conducted for applications and utilization in improving meteorological, hydrological &amp; space sciences activities</p> <ul style="list-style-type: none"> <li>• Information and Education Campaign (IEC) Program on Disaster Management/ Natural Hazards Trainings/ Workshops (as Resource Person)</li> </ul>	<p>42 lectures conducted to students/visitors</p> <p>15,200 weather information</p> <p>12 researchers assisted</p> <p>35,209 radar observations conducted</p> <p>9 Aparri, Baler, Baguio, Subic, Tagaytay, Cebu, Hinatuan, Tampakan, Virac</p> <p><b>Four (4) Researches / Studies / Projects Conducted:</b></p> <ol style="list-style-type: none"> <li>1. Enhancing Risk Analysis Capacities for Flood, Tropical Cyclone, Severe Wind and Earthquake for GMMA (Phase 1 – Taguig City, Metro Manila)</li> <li>2. Enhancing PAGASA’s Impact and Risk Assessment Capability for Severe Wind Associated with Tropical Cyclone, (Legaspi City, Albay)</li> <li>3. Intercomparison and validation of Radar Rainfall Estimates Using Raingauge data for Hinatuan and Cebu Radar (2012-2013)</li> <li>4. Development of Rainstorm Warning System for Metro Manila</li> </ol> <ul style="list-style-type: none"> <li>▪ Conducted lectures to 54,372 students &amp; teachers at WFFC</li> <li>▪ Conducted lectures on natural hazards and weather outlook to 6,290 participants at different occasions and venue</li> </ul>



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(January to December, 2012)

<b>PROGRAMS/ACTIVITIES/PROJECTS</b>	<b>TARGETS</b> (January to December, 2012)	<b>ACTUAL ACCOMPLISHMENTS</b> (January to December, 2012)
<p>Undertaking Aerial Flights, Equivalent to 25% of the Base Pay; PROVIDED, that Flying Pay shall be Given to Personnel Who Have Logged More Than 10 Flying Hours A Month</p> <p>3. Conduct of NATURAL DISASTER Researches, Pursuant to Section 10 of PD 78</p> <p>4. Agro-Climatic Research and Farm Weather Services and Climate Variability and Climate Change Studies</p>	<ul style="list-style-type: none"> <li>• Special Tropical Cyclone Reconnaissance Information and Damage Evaluation (STRIDE)               <ul style="list-style-type: none"> <li>- Conducts ground truth verification and damage assessment during and after the passage of tropical cyclones and other meteorological hazards</li> <li>- Duty of STRIDE team members at the Forecasting Center, OCD, Camp Aguinaldo during inclement weather</li> </ul> </li> </ul> <p>Operational researches/studies on tropical cyclones and other natural disaster-causing phenomena and comprehensive hazard/ vulnerability and risk assessment conducted</p> <p>Climate change studies activities</p>	<ul style="list-style-type: none"> <li>▪ Briefer at NDRRMC OPCEN, Camp Aguinaldo, Quezon City during the inclement weather including passage of tropical cyclone, LPAs and other weather system.</li> <li>▪ Prepared the 2012 Special Order on the reconstitution of PAGASA STRIDE Team</li> <li>▪ Surveyed flooding incidents in Metro Manila and Valenzuela on July 30</li> <li>▪ Conducted flood survey due to Southwest Monsoon (Habagat) at Manila, Quezon City, Marikina, Pasig, Navotas, Valenzuela and Malabon.</li> <li>▪ Conducted damage survey during the passage of TY Pablo at Davao City, Davao Oriental, Agusan del Sur, Butuan, Cagayan de Oro and Bukidnon on December 5-11.</li> </ul> <p><b>Three (3) Researches / Studies / Projects Conducted:</b></p> <ol style="list-style-type: none"> <li>1. A Study on Thunderstorm Forecasting at Selected Areas in the Philippines</li> <li>2. Validation of Radar Rainfall Estimates of Subic Radar in the Agno-Pampanga River Basin</li> <li>3. Studying the Impact of Climate Variability on Entomological Activity in Central Luzon</li> </ol> <p><b>Six (6) Researches / Studies / Projects Conducted:</b></p> <ol style="list-style-type: none"> <li>1. Climate Impact modeling on various sectors (e.g. water, agriculture, health)</li> <li>2. Develop an ensemble of climate change scenario in the Philippines</li> <li>3. Severe Wind Impact Analysis and the Exposure Database for Greater Metro Manila Area (GMMA)</li> <li>4. Development of Drought Monitoring index for the Philippines using Standard Precipitation Index (SPI) as a Drought Monitoring Tool</li> <li>5. Philippine Climate Change Adaptation Project (PhilCCAP)</li> <li>6. Assessment of Climate Change Impacts and Mapping of Vulnerability to Food Insecurity under Climate Change to Strengthen Household Food Security with Livelihoods Adaptation Approaches (FAO-AMICAF)</li> </ol>

**PAGASA ACCOMPLISHMENT REPORT**  
(January to December, 2012)

PROGRAMS/ACTIVITIES/PROJECTS	TARGETS (January to December, 2012)	ACTUAL ACCOMPLISHMENTS (January to December, 2012)
<p><b>B. PROJECTS</b></p> <p>I. Locally-funded Projects</p> <p>a. Construction of Access Road (Guiuan)</p> <p>b. Renovation of Buildings (Guiuan)</p> <p>c. Establishment of Climate Databank Center</p> <p>II. Foreign-assisted Projects</p> <p>a. Strengthening of Flood Forecasting and Warning System for Dam Operation (FFWSDO) (JICA Grant TCP)</p> <p>b. Improvement of Flood Forecasting and Warning System for Magat Dam and Downstream Communities (NORAD Grant)</p> <p>c. Improvement of the Meteorological Radar System (JICA Radar)</p>	<p>Strengthen the capability of PAGASA, NPC and NIA on dam operation thru the conduct of different activities relative to the project.</p> <p>Address issues and concerns on the issuances of timely and accurate flood forecasts and warnings in the Cagayan River Basin and the effective operation of the Magat Dam spillway for the safety of the communities in the downstream area.</p> <p>1. Renovation of old structure for observer's quarter and construction of new building/tower at Virac (2010-2011), Aparri (2011-2012), and Guiuan (2012-2013).</p> <p>2. Removal and transfer of equipment and acquisition and operation of new Doppler radar at Virac (2010-2011), Aparri (2011-2012), and Guiuan (2012-2013).</p> <p>3. VSAT connectivity at Virac (2011), Guiuan (2012), and Guiuan (2013).</p>	<ul style="list-style-type: none"> <li>• Project completed in November 2012.</li> <li>• Conducted the Final Seminar for the project on October 16.</li> </ul> <p>Submitted the final requirements of Technical Specifications for the purchase of equipment</p> <ul style="list-style-type: none"> <li>• Aparri Radar <ul style="list-style-type: none"> <li>- Operational as of November</li> <li>- Final acceptance and hand-over is scheduled on January 2013.</li> </ul> </li> <li>• Guiuan Radar <ul style="list-style-type: none"> <li>- On-going construction of radar building and procurement of equipment.</li> </ul> </li> <li>• Virac Radar <ul style="list-style-type: none"> <li>- Operational as of April 2012.</li> <li>- Inaugurated on May 4, 2012.</li> </ul> </li> </ul>

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<p>d. Improvement of Capabilities to Cope with Natural Disasters Caused by Climate Change [Strengthening the Flood Forecasting Early Warning System (FFEWS) in Bicol River Basin] (JICS)</p> <p>e. Establishment of Early Warning and Response System for Disaster Mitigation in Metro Manila (Pasig-Marikina River Basin) (KOICA)</p>	<p>The project proposal has been submitted to the Department of Finance and forwarded to Embassy of Japan for review.</p> <ul style="list-style-type: none"> <li>• KOICA design team has visited the study area for the installation of monitoring equipment and facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted site visit by PAGASA, Consultant, EoJ and reviewing budget of the project for bidding.</li> <li>• Basic design report being reviewed by MOFA.</li> <li>• PAGASA have restored the PAGASA-MMDA link using microwave radio &amp; the data from MMDA-EFCOS system are available at HMD OpCen.</li> <li>• The establishment of water level sensor gauge height &amp; warning assessment levels were done on October 1-11, 2012 and was applied to the present KOICA system set-up.</li> <li>• Three different siren sounds applied in public address system are available.</li> </ul>

2012 Accomplishment Report  
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