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 and  accounts: search for PRFFWC  
Websites: [prffwc.synthasite.com](http://prffwc.synthasite.com); [prffwc.webs.com](http://prffwc.webs.com)



## PRFFWC in the Year 2017

**A major** breakthrough in PAGASA norms was introduced in year 2017 as the Pampanga River Basin Flood Forecasting & Warning Center led in organizing and implementing the 1st PAGASA River Basin Flood Forecasting and Warning Centers (RBFFWCs) Conference-Workshop last May 8-10, 2017 held at the Grand Regal Hotel in Lanang, Davao City. The event was a collaborative effort of the NCR-PRSD, the Training Section of RDTD, and other various Divisions of PAGASA.

And now a regular annual PAGASA River Center Conference has been made possible as a result of this conference event and as river centers in the country clamor for its regular annual activity gathering.

(Conference Proceedings: <http://prffwc.synthasite.com/resources/activity%20report-%21st%20RBFFWCs%20conf-wrkshp.pdf>)



These and many other activities have been some of the highlights of the PRFFWC during the year 2017. Other highpoints for the center during the year were as follows:

- 10 Flood Advisories (FAs) and 5 Flood Bulletins (FBs) were issued in 4 hydrological related events in the PRB. No major flood (no Critical level attained) during the year.
- Conducted river cross-sectioning at several river sections as follows:
  - 3 cross-sections along Angat River with HAU OJTs (supported by Bulacan PDRRMO)
  - 3 cross-sections at San Jose Del Monte area with HAU OJTs (supported by Bulacan PDRRMO)
  - 2 cross-sections along Sta. Maria River with HAU OJTs (supported by Bulacan PDRRMO)
  - 2 PRB forecasting stations as follows - Zaragoza (Rio Chico River) and San Isidro (Pampanga River) stream gauging stations with OJTs from Bulacan State University
  - 4 cross-sections along Pampanga River at Jaen Municipality with DHVTSU & St. Nicholas CBT OJTs (supported by Jaen MDRRMO)
- Year-round (365 days) daily updating of hydrological forecast and uploading of basin rainfall (RR) / water level (WL) status in the center's website ([www.prffwc.webs.com](http://www.prffwc.webs.com) / [www.prffwc.synthasite.com](http://www.prffwc.synthasite.com))
- Resource speaker on hydrometeorological & climatological related topics in some 44 occasions to some 3,168 individuals (1,794 males and 1,374 females) from various sectors within and outside the basin of concern
- Participation in some 33 gatherings that included DRRMC (Regional, Provincial and local) meetings, Consultation workshops, launching ceremonies, project culminating activities and the like within and outside PRB of concern
- Several center personnel attended and actively participated in some 9 training courses (various personnel capacity development programs)
- Several tri-media interviews (TV, radio stations, and regional paper)
- Participation in 2 regular maintenance of telemetry stations with HMTSS-HMD and several center-initiated emergency trips to San Rafael repeater station and other telemetry stations;
- School-related activities as in the orientation of 6 new SHINE (School Hydrological Information Network) school beneficiaries and revisits to 19 other secondary schools in Bulacan Province (Bulacan PDRRMO initiated)
- Data encoded into electronic format: 1,595 stn-mos of RR and 823 stn-mos of WL data; 37 scanned documents as a continuing program of the center's data electronic filing system activity
- Data Quality Control (validation / append): 101 stn-mos of RR; 51 stn-mos of WL data



- Converted and uploaded 240 stn-yrs of RR and 168 stn-yrs of WL to the RIMES (Regional Integrated Multi-Hazard Early Warning System for Africa and Asia) DSS website

Hydrological monitoring problems were encountered as well during the year particularly in data reception at the center. Numerous data reception downtimes mostly in the last quarter of the year resulted in an overall total of 15.5% of rainfall and 26.0% of water level station-hours downtimes for the whole year (including Mayapyap RR-WL station).

Aside from the usual programs and activities with regional agencies and local government units within region 3, some collaborative activities with several international entities were also undertaken during the year such as the continuing interaction with resident JICA experts based in PAGASA on operational FFW activities, and with ICHARM and RIMES groups in terms of capacity-building and flood modeling, respectively. The center also catered to several College and University On-The-Job (OJT) Trainees as part of their school curriculum on actual job immersion programs.

There were not much streamgaging field work activities carried-out during the year due to limitations of river measuring equipment, center personnel and inappropriate service vehicle. However, the center was augmented by two Job Order (JO) personnel in the last quarter of year for the handling of preventive maintenance of the center's facilities and for the development of its database management system aside from being support personnel during flood watch operations and in hydrographic field measurement activities.

## I. Operational Activities

### 1.1 Flood Monitoring and Warning Activities

There were 4 basin flood events that were monitored and covered by the center in 2017. A total of 10 Flood Advisories and 5 Flood Bulletins were issued for those events and listed as follows:

2017 Event	Period	FA issued	FB issued
Southwest Monsoon as enhanced by Tropical Storm Gorio (Nesat)	July 27 - 29	3	
Tropical Storm Jolina (Pakhar)	Aug. 25 - 28	1	5
Tropical Depression / Tropical Storm Maring (Doksuri)	Sept. 12-13	3	
Tropical Depression Ramil (Damrey) enhanced Frontal system	Nov. 02 - 04	3	
<b>Total</b>		<b>10</b>	<b>5</b>

**REPUBLIC OF THE PHILIPPINES**  
**Department of Science and Technology**  
**Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)**  
 Pampanga River Basin Flood Forecasting and Warning Center  
 10081-3 Compound, Rgy. Marikina, San Fernando, Pampanga 2009  
 Websites: www.pagasa.dost.gov.ph; www.prffwc.synthase.com

**PAMPANGA RIVER FLOOD FORECASTING & WARNING CENTER**

**FLOOD ADVISORY No. 1**

**PAMPANGA RIVER BASIN & ALLIED RIVERS**  
**ISSUED AT 2:00 PM, 25 AUGUST 2017**  
**(VALID FOR THE NEXT 24-HOURS UNLESS THERE IS AN INTERVENING ADVISORY OR AN INITIAL FLOOD BULLETIN TO BE ISSUED)**

**AVERAGE BASIN RAINFALL AS OF 1:00 PM TODAY**

PAST 24-HR OBSERVED RAINFALL: 15.0 millimeters

FORECAST 24-HR RAINFALL: LIGHT TO OCCASIONALLY MODERATE AT UPSTREAM SECTIONS OF THE BASIN (NUEVA ECUA AREA)

**AREAS OF CONCERN (WATERWAYS LIKELY TO BE AFFECTED):**

- TRIBUTARIES CORONEL, DIGMALA, PENARANDA, RIO CHICO RIVERS AND OTHER STREAMS AT EASTERN AND NORTHERN PART OF NUEVA ECUA; SAN MIGUEL, MAJIM AND ANAGAT RIVERS AND OTHER STREAMS AT EASTERN PART OF BULACAN PROVINCE
- UPPER AND MIDDLE MAIN PAMPANGA RIVER

**AWARENESS INFORMATION / ADVISORY:**

GENERALLY MAIN PAMPANGA RIVER COMING FROM THE PROVINCE OF NUEVA ECUA DOWN TO ITS MOUTH IN MANILA BAY REMAINS WAY BELOW ALERT LEVEL; HOWEVER, LIGHT TO OCCASIONALLY MODERATE RAINS ARE LIKELY TO AFFECT THE UPPER PAMPANGA RIVER BASIN (UPPER PRB) STARTING LATER TODAY.

RESIDENTS AND THE LOCAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCILS (DRRMC's) ADJACENT TO AND / OR ALONG THE ABOVE-MENTIONED AREAS OF CONCERN ARE ADVISED TO TAKE PRECAUTIONARY MEASURES TO MITIGATE POTENTIAL ADVERSE IMPACTS OF POSSIBLE FLASH FLOODS AND LANDSLIDES AT MOUNTAINSIDE AREAS, AND POSSIBLE RIVER OVERFLOWING OF MAIN TRIBUTARIES.

PRFFWC – HTH / RPY / PTH / JRD

**PHILIPPINE ATMOSPHERIC, GEOPHYSICAL AND ASTRONOMICAL SERVICES ADMINISTRATION**  
**PAGASA**  
 Pampanga River Basin Flood Forecasting and Warning Center  
 DMCC, Rgy. Marikina, San Fernando City, Pampanga

**FLOOD BULLETIN NO. 1**  
**PAMPANGA RIVER BASIN**  
**ISSUED AT 6:00 AM, 26 AUGUST 2017**  
**VALID UNTIL THE NEXT ISSUANCE AT 5:00 PM TODAY**

**AVERAGE BASIN RAINFALL**  
 PAST 24-HRS ENDING AT: 5:00 AM TODAY = 60 MM  
 FORECAST 24-HRS STARTING AT 5:00 AM TODAY = LIGHT TO OCCASIONALLY MODERATE; BETWEEN 30-60 MM

**EXPECTED BASIN RESPONSE**

WATER LEVEL STATION / LOCATION	RIVER/LAKE/SWAMP TREND AT STATION	FLOOD SITUATION MESSAGE	LOW-LYING AREAS LIKELY TO BE AFFECTED
SAPANG BUNO STATION, PAMPANGA RIVER	NOW AT 2.98 M / SLOW RISE BUT TO REMAIN BELOW 3.70 M ALERT WL TODAY; FORECAST TO PEAK JUST BELOW ALERT WL THIS AFTERNOON	FLOODING IS POSSIBLE UNTIL LATE TODAY.	PALAYAN CITY, LAUR, CABANATUAN CITY AND GEN. NATIVIDAD
SAN ISIDRO STATION, PAMPANGA RIVER	NOW AT 0.45 M / SLOW TO GRADUAL INCREASE BUT TO REMAIN BELOW 3.20 M ALERT WL TODAY.	FLOODING IS POSSIBLE BEGINNING LATE TODAY.	JAEN, SAN ISIDRO, SAN ANTONIO AND CABAJO
ARAYAT STATION, PAMPANGA RIVER	NOW AT 5.51 M / SLOW RISE ABOVE 5.00 M ALERT WL TO REACH ABOVE 6.00 M ALERT WL BY AFTERNOON TODAY.	FLOODING IS POSSIBLE BEGINNING TONIGHT.	CABAJO, ARAYAT, CANDABA, SAN LUIS, SAN SIMON AND APALIT

**EXPECTED FLOOD SITUATION**

P = POSSIBLE  
 T = THREATENING  
 O = OCCUR  
 P = PERSIST

PREPARED BY: NBN / RPY / JRD / PTH, RFD  
 NOTED BY: HTH

Basin Flood advisory (top left) and Flood Bulletin no. 1 (top right) that were issued during event Tropical Storm Jolina on August 25, 2017. The Flood Bulletin on top right was generated using the beta test Google Cap suite.

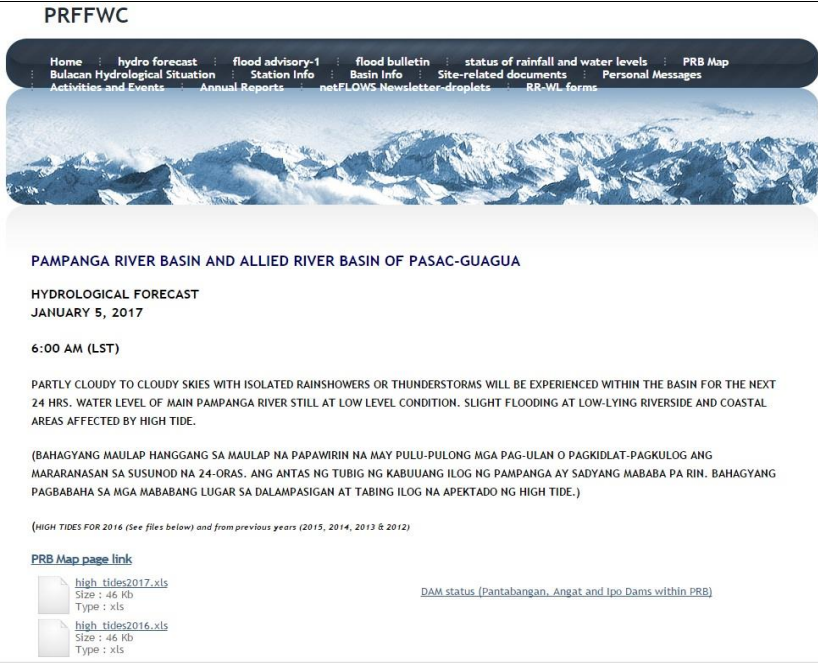
No post-flood reports were prepared for any of the events listed above. At the moment data validation are being

carried-out on said events to form part of the set of flood events for modeling if applicable.

### Daily Hydrological Forecast:

Basin hydrological forecast are issued by the center on or before 6:00 AM daily. Likewise, basin status particularly past 24-hour rainfall ending at 5:00 AM and instantaneous water levels at the same time for all stations are uploaded on regular daily basis together with the hydrological forecast.

Lately, starting just the last quarter of 2017, hydrological forecast had been revised into a matrix format as part of the innovation that the center has started during the year.



**PRFFWC**

Home hydro forecast flood advisory-1 flood bulletin status of rainfall and water levels PRB Map  
Bulacan Hydrological Situation Station Info Basin Info Site-related documents Personal Messages  
Activities and Events Annual Reports netFLOWS Newsletter-droplets PR-WL forms

**PAMPANGA RIVER BASIN AND ALLIED RIVER BASIN OF PASAC-GUAGUA**

**HYDROLOGICAL FORECAST**  
JANUARY 5, 2017  
6:00 AM (LST)

PARTLY CLOUDY TO CLOUDY SKIES WITH ISOLATED RAINSHOWERS OR THUNDERSTORMS WILL BE EXPERIENCED WITHIN THE BASIN FOR THE NEXT 24 HRS. WATER LEVEL OF MAIN PAMPANGA RIVER STILL AT LOW LEVEL CONDITION. SLIGHT FLOODING AT LOW-LYING RIVERSIDE AND COASTAL AREAS AFFECTED BY HIGH TIDE.

(BAHAGYANG MAULAP HANGGANG SA MAULAP NA PAPAWIRIN NA MAY PULU-PULONG MGA PAG-ULAN O PAGKIDLAT-PAGKULOG ANG MARARANASAN SA SUSUNOD NA 24-ORAS. ANG ANTAS NG TUBIG NG KABUUNG ILOG NG PAMPANGA AY SADYANG MABABA PA RIN. BAHAGYANG PAGBABAHA SA MGA MABABANG LUGAR SA DALAMPASIGAN AT TABING ILOG NA APEKTADO NG HIGH TIDE.)

(HIGH TIDES FOR 2016 (See files below) and from previous years (2015, 2014, 2013 & 2012))

[PRB Map page link](#)

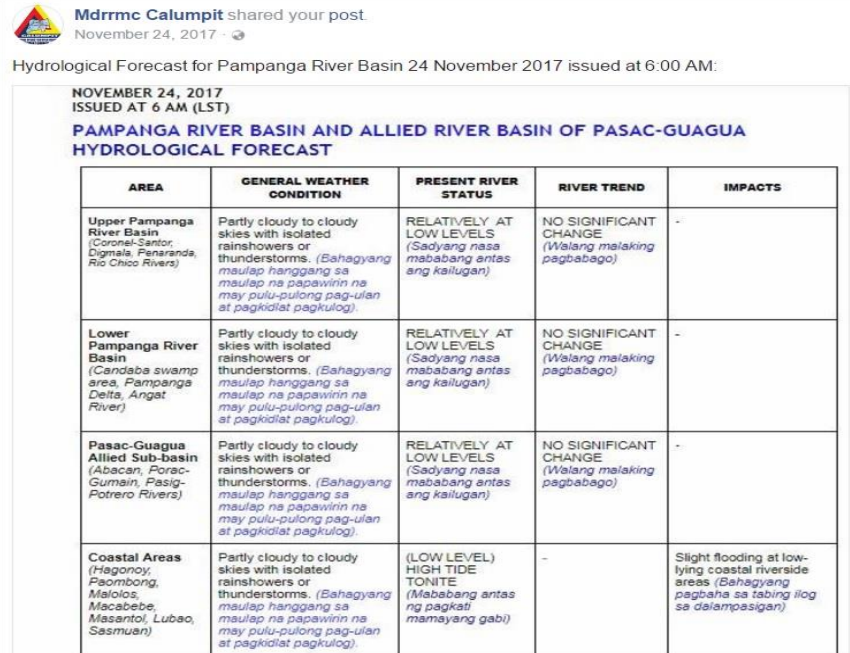
[high\\_tides2017.xls](#)  
Size : 46 Kb  
Type : xls

[high\\_tides2016.xls](#)  
Size : 46 Kb  
Type : xls

[DAM status \(Pantabangan, Angat and Ipo Dams within PRB\)](#)

Date: JANUARY 5, 2017  
Time Update: 6:00 AM (LST)

Station	Rainfall (mm)	Water Level (m)	Water Level Trend
Munoz	0		
Sapang Buho	0	0.54	--
Calaanan	0		
Mayapayap	*	*	-
Gabaldon	0		
Palali	0		
Zaragoza	0	0.02	--
Penaranda	0	0	-
San Isidro	0	0	-
Sibul Spring	0		
Arayat	0	1.23	--
Candaba	0	1.89	--
Porac	0		
Mexico	0	0	-
San Rafael	0		
Sasmuan	0	2.50	--
Sulipan	0	1.56	--
San Fernando	0		



**Mdrmc Calumpit** shared your post.  
November 24, 2017 · 🌐

Hydrological Forecast for Pampanga River Basin 24 November 2017 issued at 6:00 AM:

**NOVEMBER 24, 2017**  
**ISSUED AT 6 AM (LST)**

**PAMPANGA RIVER BASIN AND ALLIED RIVER BASIN OF PASAC-GUAGUA**  
**HYDROLOGICAL FORECAST**

AREA	GENERAL WEATHER CONDITION	PRESENT RIVER STATUS	RIVER TREND	IMPACTS
<b>Upper Pampanga River Basin</b> (Coronel-Santor, Digmales, Penaranda, Rio Chico Rivers)	Partly cloudy to cloudy skies with isolated rainshowers or thunderstorms. (Bahagyang maulap hanggang sa maulap na papawirin na may pulu-pulong pag-ulan at pagkidlat pagkulog)	RELATIVELY AT LOW LEVELS (Sadyang nasa mababang antas ang kailigan)	NO SIGNIFICANT CHANGE (Walang malaking pagbabago)	-
<b>Lower Pampanga River Basin</b> (Candaba swamp area, Pampanga Delta, Angat River)	Partly cloudy to cloudy skies with isolated rainshowers or thunderstorms. (Bahagyang maulap hanggang sa maulap na papawirin na may pulu-pulong pag-ulan at pagkidlat pagkulog)	RELATIVELY AT LOW LEVELS (Sadyang nasa mababang antas ang kailigan)	NO SIGNIFICANT CHANGE (Walang malaking pagbabago)	-
<b>Pasac-Guagua Allied Sub-basin</b> (Abacan, Forac, Gumain, Pasig, Potrero Rivers)	Partly cloudy to cloudy skies with isolated rainshowers or thunderstorms. (Bahagyang maulap hanggang sa maulap na papawirin na may pulu-pulong pag-ulan at pagkidlat pagkulog)	RELATIVELY AT LOW LEVELS (Sadyang nasa mababang antas ang kailigan)	NO SIGNIFICANT CHANGE (Walang malaking pagbabago)	-
<b>Coastal Areas</b> (Hagonoy, Paombong, Malolos, Macabebe, Masantol, Lubao, Sasmuan)	Partly cloudy to cloudy skies with isolated rainshowers or thunderstorms. (Bahagyang maulap hanggang sa maulap na papawirin na may pulu-pulong pag-ulan at pagkidlat pagkulog)	(LOW LEVEL) HIGH TIDE TONITE (Mababang antas ng pagkati mamayang gabii)	-	Slight flooding at low-lying coastal riverside areas (Bahagyang pagkati sa tabing ilog sa dalampasigan)

The old format of daily updated basin “hydrological forecast” (top left) and the basin’s “status of rainfall and water levels” (top right) as how it appears when uploaded in the center’s website.

The picture on the right is the new format of “hydrological forecast” which is now in matrix form. The new format was implemented on September 22. The picture is a shared post of the hydrological information by one of the center’s regular FB friends – Calumpit MDRRMC.

The center’s websites:  
[www.prffwc.synthasite.com](http://www.prffwc.synthasite.com)  
[www.prffwc.webs.com](http://www.prffwc.webs.com)

PRFFWC served also as a redundant messaging point for dam information when it comes to FFWSDO (Flood Forecasting & Warning System for Dam Operations). During the year, there were 19 Angat dam related messages which were faxed by the HMD from the period December 20 to 24 and December 28-29. All messages were forwarded to the OCD-3 which chairs the RDRRMC-3. For the record, there were no flood events related to dam discharges during the year.

### 1.2 PRB hydrological data for year 2017

The present PRFFWC system is composed of 17 Rainfall and 10 Water Level telemetry stations situated within the provinces of Nueva Ecija, Pampanga and Bulacan. However, one station, Mayapyap RR-WL telemetry station, remained inoperative for the whole year 2017. Further, Candaba water level sensor had to be pulled-out temporarily for more than six months as a result of bridge repair at the station site.

Below is a summary of received RR and WL data (stn-hrs) for each station by month with total and percentage of data received for the year 2017:

Telemetry RR stations Data Reception Summary (2017)														
Monthly Telemetry RR data received (station-hours)														
Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (stn-hrs) for the year	% data received
Monthly total (baseline)	744	672	744	720	744	720	744	744	720	744	720	744	8760	
Muñoz	744	672	744	717	744	714	743	744	706	466	720	744	8458	96.6
Sapang Buho	744	672	744	717	744	716	743	744	706	466	720	744	8460	96.6
Calaanan	744	672	744	717	744	716	743	744	706	466	720	744	8460	96.6
Mayapyap	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Gabaldon	744	672	744	717	744	716	743	744	706	466	720	744	8460	96.6
Palali	744	672	744	717	744	718	743	744	706	466	720	744	8462	96.6
Zaragoza	744	672	744	715	744	716	743	744	706	466	718	742	8454	96.5
Peñaranda	744	672	744	717	744	716	743	744	708	466	720	744	8462	96.6
San Isidro	721	670	680	720	744	593	666	742	708	429	52	668	7393	84.4
Sibul Spring	723	672	680	720	744	593	666	744	708	431	52	670	7403	84.5
Arayat	715	672	680	720	744	587	666	738	708	422	50	666	7368	84.1
Candaba	725	672	680	720	744	593	666	744	708	421	52	670	7395	84.4
Porac	725	672	680	720	744	593	666	744	708	431	52	670	7405	84.5
Mexico	725	672	680	720	744	593	666	744	708	430	52	670	7404	84.5
San Rafael	725	672	680	720	744	593	666	744	708	429	52	671	7404	84.5
Sasmuan	725	672	680	720	744	593	666	744	708	433	52	670	7407	84.6
Sulipan	725	672	680	720	744	593	666	744	708	430	52	670	7404	84.5

Mayapyap telemetry station remained non-operational for the whole year 2017.

Telemetry WL stations Data Reception Summary (2017)														
Monthly Telemetry WL data received (station-hours)														
Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (stn-hrs)	% data received
Sapang Buho	744	672	744	718	744	718	743	744	709	280	720	744	8280	94.5
Mayapyap	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Zaragoza	744	672	744	716	743	716	743	744	709	280	718	744	8273	94.4
Peñaranda	744	672	744	718	743	716	743	744	709	280	720	744	8277	94.5
San Isidro	722	671	681	720	744	594	662	743	709	429	52	673	7400	84.5
Arayat	687	672	681	720	741	590	667	741	709	422	50	670	7350	83.9
Candaba	726	672	460	0	0	0	0	0	0	421	52	674	3005	34.3
Mexico	726	672	681	720	744	593	667	744	709	430	52	674	7412	84.6
Sasmuan	726	672	681	720	744	593	667	744	709	433	52	674	7415	84.6
Sulipan	726	672	681	720	744	593	667	744	709	430	52	674	7412	84.6

Mayapyap telemetry station remained non-operational for the whole year 2017.

Data downtimes were quite evident during the months of June, July October until December mostly at the downstream stations of the basin. These downtimes were mostly due to interferences and malfunctioning of the San Rafael repeater station.

### 1.3 PRB available data summary for the year

Summary stats of available RR and WL data of all stations within the basin (without data quality-control applied) and at the center are as follows:



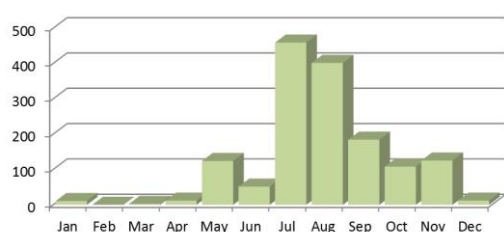
Available Monthly Rainfall Totals Summary for 2017 (without Quality-Control)															
Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total for the year *	Number of RR days *	
Muñoz	14	20	7	16	247	213	252	297	105				1171	123	
Sapang Buho	30	35	3	22	190	185	206	342	239				1252	70	
Gabaldon	135	131	50	32	182	146	364	476	299				1815	131	
Zaragoza	9	4	0	4	152	87	267	465	227				1215	90	
Mayapyap														0	
Peñaranda	35	5	23	86	111	153	170	424	169				1176	152	
Calaanan	41	48	9	26	219	96	317	450	196				1402	126	
Palali	42	36	78	20	168	88	207	341	178				1158	110	
San Isidro	15	8	0	64	106	145	224	370	248				1180	131	
Arayat	8	0	1	30	104	34	232	362	139				910	77	
Candaba	15	2	0	23	97	98	308	220	119				882	80	
Sibul Spring	49	9	10	60	217	110	258	241	258				1212	62	
Sasmuan	6	3	11	4	18	34	439	208	235				958	77	
Sulipan	24	2	3	13	64	126	332	267	213				1044	64	
Mexico	11	0	3	7	92	50	453	393	148				1157	83	
Porac	9	20	3	2	74	18	414	589	300				1429	108	
San Rafael	13	0	0	71	0	27	295	298	240				944	77	
PRFFWC	10.9	0.3	2.5	11.9	124.2	51.6	459.5	401.8	184.4	108.5	125.5	11.9	1493.0	131	
* excluding last quarter (Oct. Nov. and Dec.) except for PRFFWC															
Mayapyap - not operational for the whole year															

### PRB Water Level Stations

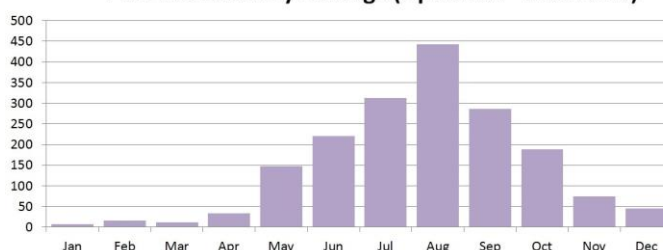
Station	Max WL for the year (meters) *	Time / Day of Max WL	Remarks (event of maximum WL for the year) *
Sapang Buho	3.33	0800H / 26 Aug	T.S. Jolina
Zaragoza	2.96	0100H / 30 Aug	T.S. Jolina
Mayapyap			
Peñaranda	1.39	0200H / 26 Aug	T.S. Jolina
San Isidro	2.22	1800H / 26 Aug	T.S. Jolina
Arayat	7.68	0300H / 27 Aug	T.S. Jolina
Candaba	3.32	1900H / 03 Jan **	
Sasmuan	3.21	2300H / 29 Sept	
Sulipan	2.60	1600H / 27 Aug	T.S. Jolina
Mexico	1.74	2100H / 20 Aug	

\*Excluding last Quarter observations (Oct. Nov. and Dec.); \*\*For Candaba station only the months from January to March have available data

Monthly Rainfall (2017) for PRFFWC



PRFFWC Monthly Average (Apr. 2009 - Dec. 2017)



Above shows the monthly rainfall totals for 2017 (top left) and monthly average distribution (top right) for PRFFWC, CSFP.

The last quarter (October to December) dataset are yet to be gathered from data loggers of telemetry stations to complete the year 2017 summary. Present modification on the management of the center's database is currently being carried-out by a job order IT personnel in the center.

Below is a list of electronic info/data filling activities of the center for the year 2017:

- Encoded 144 telemetry RR stn-months and 75 telemetry WL stn-months with partial data quality-control
- Validated 101 rainfall station-months and 51 water level station-months for data gaps and breaks

- Encoded 12 RR station-months for PRFFWC station (2017)
- Encoded 1,595 stn-mos of RR and 823 sth-mos of WL data of historical RR-WL data from other various stations
- Scanned 37 documents (reports and various papers, etc.)

Improvement of the PRFFWC database management system was just started last October by the assigned job order (JO) IT personnel in the center. The system is around 35-40% completed.



Screenshots of the application menu and encoding format of the database management system being developed for the center.

#### 1.4 Telemetry System and Station Physical Maintenance:

Telemetry System Maintenance by the HMTSS-HMD and supported by the center's technician are done on quarterly basis throughout the year. Unfortunately, there were only two general visit carried-out during the year: April 05 to 12 and on June 10 to 17.

An emergency trip by the HMTSS to pull-out the Candaba telemetry station's water level sensor was carried-out on March 10 due to the on-going bridge rehabilitation which was just adjacent to the station's area. The water level sensor was re-installed back by HMTSS on one of the station's concrete post on October 13.

Physical maintenance of center facilities were also carried-out by ETSD and supported by the center personnel. On the other hand, physical maintenance of telemetry station area which included installation of instrument and equipment as well as emergency trips were practically carried-out by the center personnel as follows:

- Repair of center's main water pipeline with ETSD (March 14-15)
- Installation of a back-up manually recorded tipping-bucket type rain gauge at Sulipan telemetry station with HAU OJTs (March 30)
- Delivery of diesel fuel for San Rafael repeater station's generator (June 12)
- Reset of IP converter (telemetry system) at San Rafael repeater station on the following dates: June 15; October 09, 11, 19, 26 and 27; November 30; December 15 and 18
- Repair of tipping-bucket LCD monitor at Sulipan telemetry station (July 24)
- Cement overlaying of concrete roofing of the center's generator housing (July 25)
- Assisted HMTSS in troubleshooting the center's generator set (August 25)
- Delivery and replacement of 1 air conditioning unit and replaced generator's battery set of San Rafael repeater station (October 09)
- Cleaning of station and clearing of its surroundings of the San Rafael repeater station area (October 26 and 27)
- Installed new air conditioning unit at San Rafael station (November 30)
- Emergency trips to San Rafael repeater station: exchange of a/c operation (December 15 and 18)



(Above pictures) Construction of a guard house, comfort rooms for both male and female, improvement / repair of the center's parking lot, construction of entrance gate, repainting and finishing works, and other related works had just been started on December 2017. Said works are expected to be finished by February-March of 2018.





Top left: Installation of tipping-bucket type rain gauge at the roof of Sulipan telemetry station; Top middle: A view of the completed concrete overlaying of the center's generator housing; Top right: Clearing of San Rafael repeater station's surrounding (October); Bottom left: Installation of the new air conditioning unit at San Rafael repeater station; Bottom middle: Cleaning of generator room of the San Rafael repeater station; Bottom right: A view of the bridge construction activities adjacent to the Candaba telemetry station.

### 1.5 Streamgaging and hydrological related activities

Streamgaging activities carried-out by the center for the year were mainly focused on river cross-sectioning and stream gauging station's river level validation during flood events.

There were several river cross-sectioning activities undertaken during the year. The center occasionally partners with some local government entities for collaborative river measurement activities. The list of hydrographic work activities undertaken during the year are as follows:

- Collaborative river cross-sectioning activities with Bulacan-PDRRMO at the following sites:
  - o Angat River at 3 sites: Matictic Bridge, Norzagaray; Sto. Cristo Bridge, Pulilan; Alejo Santos Bridge, Baliwag-Bustos with HAU OJTs (April 19-21)
  - o Sta. Maria River at 2 sites: Poblacion-Bagbaguin and at Sta. Clara Bridges with HAU OJTs (April 25)
  - o Rivers in San Jose Del Monte: Dulong Bayan, Alat Bridge & Kay Tiago Bridges with HAU OJTs (April 27)

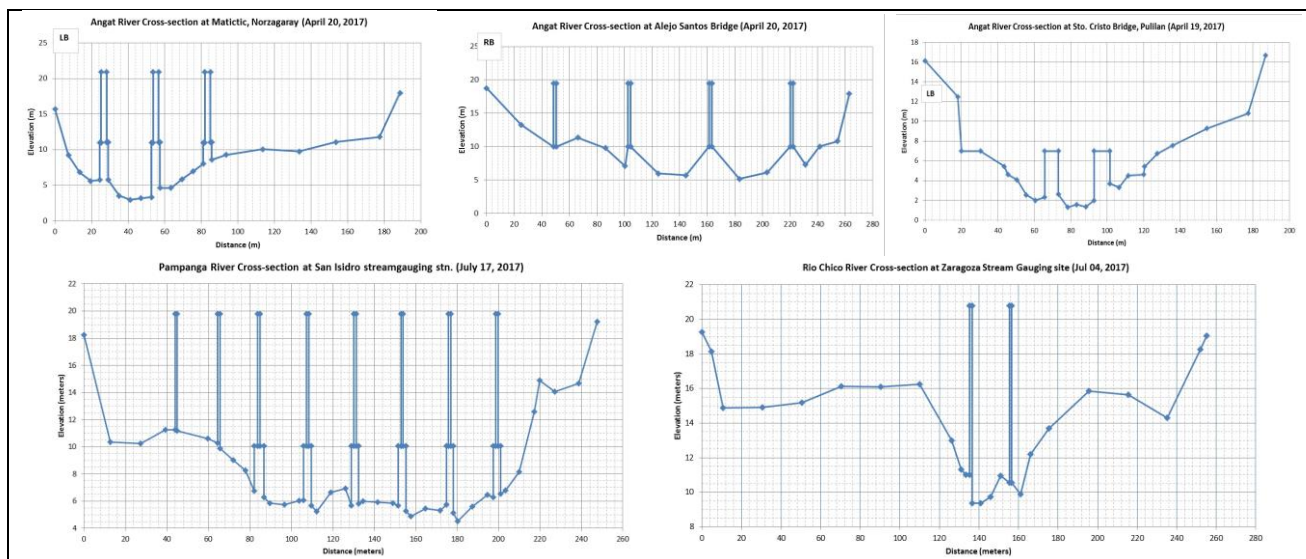


Above left and middle pictures: Joint river cross-sectioning with Bulacan-PDRRMO at Kay Tiago in San Jose del Monte and Sta. Clara Bridge in Sta. Maria, respectively. Top right: Survey team at Zaragoza stream gauging site. Bottom left: Survey at San Isidro stream gauging site. Bottom 3 other pictures: Collaborative river cross-sectioning with Jaen-MDRRMO along Pampanga River adjacent to the town Jaen, Nueva Ecija.

- Along Rio Chico River at Zaragoza stream gauging station with BuSu OJTs (July 04)
- Along Pampanga River at San Isidro stream gauging station with BuSu OJTs (July 05)
- Candaba swamp water level validation at Candaba Telemetry station (August 26)
- Assisted Jaen-MDRRMO in the determination of possible location for water level gauges in their municipality as per Local Flood Early Warning System program of the municipality (October 19 and 26)
- Emergency river stage validation at Arayat, Candaba and Mexico Telemetry stations (November 03)
- Collaborative river cross-sectioning activities with Jaen-MDRRMO and DHVSU OJTs:



- Along Pampanga River at Barangay Magsalisi in Jaen, N.E. (December 06)
- Along Pampanga River at Barangay Ocampo Rivera in Jaen, N.E. (December 07)
- Along Pampanga River at Barangay Langla in Jaen, N.E. (December 07)



Top 3 pictures from left to right are Angat River Cross-sections at Matictic in Norzagaray, Alejo Santos Bridge in Baliwag, and at Sto. Cristo Bridge in Pulilan, respectively. Below: River cross-sections at Pampanga River in San Isidro stream gauging site and Rio Chico River in Zaragoza stream gauging site.

## II. Public Information, Data provision, Trainings and other related Center Functions

### 2.1 Presentations & lectures in events, various occasions and functions

Information, Education and Communication (IEC) activities occupy a bulk of the center's year-long operational existence being situated in the government center of Region 3. As resource speaker on hydrometeorological-climatological related topics, the center provided presentations to a total of 3,168 individuals (1,794 males and 1,374 females) from various sectors in some 44 occasions within and outside the basin of concern. Below is a list of IEC conducted in various events and occasions for 2017:

Date	Topic / Presentation	Event / (Venue)	Remarks
January 11	Local Climate Change Projections	Orientation-Workshop on Climate and Disaster Risk Assessment (CDRA) / Subic Peninsular Hotel	75 persons from 10 LGUs of Tarlac and Nueva Ecija
January 18	Local Climate Change Projections	Orientation-Workshop on Climate and Disaster Risk Assessment (CDRA) / Subic Peninsular Hotel	86 persons from 10 LGUs (4 in Bulacan and 6 in Pampanga)
January 19	Hydromet Hazards	Contingency Planning Workshop for MSWDO of LGUs from Aurora, Tarlac and N.E. / Harvest Hotel, Cabanatuan City	80 MSWDOs from Aurora, Tarlac and Nueva Ecija
January 22	Local Climate Change Projections	Orientation-Workshop on Climate and Disaster Risk Assessment (CDRA) / Subic Peninsular Hotel	92 persons from 11 LGUs from Zambales, Aurora and Nueva Ecija
February 01	Orientation on Pampanga River Basin & PRFFWC	Center Orientation to visiting ICHARM personnel / PRFFWC	7 persons
February 22	Orientation on Pampanga River Basin & PRFFWC	Center Orientation to visiting FRICS officials (Japan) / PRFFWC	2 persons
March 08	Local Climate Change Projections & Hazards	Local Climate Change Action Plan (DILG-3) / Subic Peninsular Hotel	73 persons from 22 LGUs within Region 3
March 17	Climate Outlook for March to August 2017	1 <sup>st</sup> Quarter Meeting of Pampanga-PDRRMC / Villa del Sol, CSFP	48 PDRRMC members
March 22	Local Climate Change	Local Climate Change Action Plan (DILG-3)	80 persons from 25 LGUs

	Projections & Hazards	/ Subic Peninsular Hotel	within Region 3
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(L to R) Orientation-Workshop on Climate and Disaster Risk Assessment (CDRA) with Calumpit contingency team (January 18); Center personnel pose with other RDRRMC-3 member agencies during the 3rd Quarter RDRRMC-3 meeting at Orani, Bataan (May 11); Visiting ICHARM personnel being briefed on PRFFWC activities (February 01).

April 03	Local Climate Change Projections & Hazards	LCCAP and CDRA of Municipality of Castillejos, Zambales / Prime Asia Hotel, Angeles City	15 persons from Municipality of Castillejos
April 26	Updates on Tropical Storm Dante	Regional Pre-Disaster Risk Assessment (PDRA) / OCD-3 Conference Room	9 RDRRMC members
May 08 to 09	Various operational River Basin related topics	1st River Basin Flood Forecasting & Warning Center Conference-Workshop / Grand Regal Hotel, Davao City	33 persons from various river basin centers of PAGASA
May 11	Climate Outlook for May to Sept. 2017 & Brief Understanding on Clouds	3 <sup>rd</sup> Full Council meeting of RDRRMC-3 / Tala Vista, Orani, Bataan	81 RDRRMC-3 members
June 06	Flood Forecasting & Warning in the PRB	Inter-Agency IEC on Angat Dam / Hiyas Convention, Malolos City	94 attendees from various LGUs and Agencies of Bulacan Province
June 08	Flood Forecasting & Warning in the PRB	Inter-Agency IEC on Angat Dam / Hiyas Convention, Malolos City / Matictic, Norzagaray	173 attendees from target barangays along Angat River
June 14	Flood Forecasting & Warning in the PRB	Inter-Agency IEC on Angat Dam / Hiyas Convention, Malolos City / San Rafael Municipal Hall	112 attendees from 17 target barangays along Angat River
June 15	Flood Forecasting & Warning in the PRB	Inter-Agency IEC on Angat Dam / Hiyas Convention, Malolos City / San Rafael Municipal Hall	95 attendees from 17 target barangays along Angat River
June 20	Flood Forecasting & Warning in the PRB	Inter-Agency IEC on Angat Dam / Hiyas Convention, Malolos City / Bustos Municipal Hall	95 attendees from 17 target barangays along Angat River



(L to R) Orientation at Tagum-Libuganon River Basin center during the 1st PAGASA RBFFWC Conference-Workshop (May 08-09); Members of the PDRRMC-Pampanga during 2nd Quarter Pampanga-PDRRMC meeting (June 21); Inter-agency IEC on Angat Dam at Matictic, Norzagaray (June 08). (Below) Center visits by NIA-UPRIIS, NTC-3 and Candaba MDRRMO, and PAGASA MTTC trainees.



June 21	Latest Climate Outlook	2 <sup>nd</sup> Quarter Meeting of Pampanga-PDRRMC / CSFP	26 PDRRMC members
June 23	Pampanga River Basin & the PRFFWC-System	Center Field Visit of NIA-UPRIIS Personnel	28 NIA-UPRIIS personnel
July 05	Pampanga River Basin & the PRFFWC-System	Field visit of MTTC trainees / PRFFWC	41 trainees
July 12	Climate Outlook from July to December 2017	Multi-Hazard Disaster Summit of Pampanga PDRRMC / Kingsborough International Convention Center, CSFP	666 attendees coming from various provincial and municipal agencies
July 24	Updates on Present Weather over the Region	Regional Pre-Disaster Risk Assessment (PDRA) / OCD-3 Conference Room	8 focal RDRRMC members
July 26	Center Orientation	Field visit of Calumpit-MDRRMO personnel / PRFFWC	3 Calumpit-MDRRMO personnel
August 12	Hydromet Hazards Awareness and Mitigation	Luzon Disaster Program by People based Humanitarian Action Consortium / Heroes Hall, CSFP	41 attendees representing various people-based organizations in Luzon
September 05	Climate Change Impacts: Adaptation & Mitigation	Agricultural Extension Workers (AEW) Congress of Provincial Agriculture Office of the Provincial Government of Bulacan / Klir Water Resort and Hotel, Guiguinto, Bulacan	177 agricultural extension workers attended
September 05	Climate Outlook from September 2017 to February 2018	Joint Bulacan PDRRMC and C/MDRRMOs Meeting / Hiyas Convention Center, Malolos City	50 LDRRMOs in attendance
September 12	Updates on T.D. Maring and status of PRB	Regional Pre-Disaster Risk Assessment (PDRA) / OCD-3 Conference Room	13 RDRRMC-3 members attended
September 26	SHINE Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / City of Malolos Integrated School	50 Secondary students and 2 advisers
September 27	SHINE Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / Balagtas Agricultural National High School	50 Secondary students and 2 advisers
September 28	SHINE Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / Dona Candelaria Meneses Duque High School in the town of Bulacan	46 Secondary students and 2 advisers



Orientation of new SHINE school beneficiaries of Bulacan Province for the year 2017 (From top left to bottom middle): Dona Candelaria Meneses Duque NHS in the town of Bulacan; Guiguinto National Vocational HS, Guiguinto; Orientations at Malolos City Integrated School, Malolos City and at San Roque National HS in Paombong. (bottom right) Briefing RDRRMC-3 members during the PDRA on T.D. Maring (September 12).

September 29	SHINe Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / Guiguinto National Vocational High School	52 Secondary students and 2 advisers
October 03	SHINe Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / San Roque National High School, Paombong	51 Secondary students and 2 advisers
October 04	SHINe Activities Orientation	School Hydrological Information Network Program with Bulacan-PDRRMO / Bunsuran National High School, Pandi	51 Secondary students and 2 advisers
October 05	SHINe updates	SHINe Revisit Program with Bulacan-PDRRMO / Bajet Castillo NHS, Pulilan & Dr. F. de Jesus NHS, Plaridel	66 secondary students plus 4 advisers
October 05	Hydromet Hazards and its effect to people and environment	City of San Fernando DRRM for PWD / Heroes Hall, CSFP	36 attendees



The 8<sup>th</sup> SHINe Conference, November 16: (L to R) Student delegates in the St. Agatha Resort Ballroom lobby; a customized t-shirt SHINe design from one of the school beneficiaries; PRFFWC personnel and Bulacan-PDRRMO together in a group picture.

October 06	SHINe updates	SHINe Revisit Program with Bulacan-PDRRMO / I.R.Mendoza Memorial H.S., Bocaue	46 secondary students plus 2 advisers
October 10	SHINe updates	SHINe Revisit Program with Bulacan-PDRRMO / Angat NHS & Binagbag H.S., Angat	89 secondary students plus 4 advisers
October 12	SHINe updates	SHINe Revisit Program with Bulacan-PDRRMO / Akle H.S., San Ildefonso	40 secondary students plus 2 advisers
October 13	SHINe updates	SHINe Revisit Program with Bulacan-PDRRMO / F. Halili Agricultural H.S., Sta. Maria & Norzagaray National H.S	93 secondary students plus 4 advisers
October 19	Hydromet Hazards Awareness & Mitigation	Orientation-Workshop of Guagua-MDRRMC / Guagua Municipal Hall	26 Guagua-MDRRMC members



(L to R) Presentations during the NCR-PRSD CMO Conference-Workshop at BSA Towers, Ortigas Center (November 09); at the Angeles City DRRM Summit in Veniz Hotel in Baguio City (December 12); during the center visit of personnel of the National Center for Hydrology and Meteorology of the Kingdom of Bhutan (December 14)

November 09	Enhancing RBFFWC Services	NCR-PRSD CMO Conference / BSA Towers, Ortigas	20 CMOs / Representatives of NCR-PRSD
December 12	Angeles City Vulnerability and Susceptibility to Climate Change Induced Hydromet Hazards	Angeles City DRRM Summit / Veniz Hotel, Baguio City	169 DRRM officers attended
December 14	Center Orientation	Field visit of Industrial Advancement	1 Filipino and 4 Bhutanese



		Academy of the Philippines and from the National Center for Hydrology and Meteorology of the Kingdom of Bhutan / PRFFWC	
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## 2.2 Public information and Briefings (Multi-media)

There were not much media exposures for the center during the year as there were only 4 flood events that transpired in 2017 in the PRB. Below is a list of media-related public information and briefings by the center for 2017:

- Radio live guesting in the OCD-3 sponsored 1-hour radio program “OCD in Action” at station Bright 91.9 FM in CSFP (January 03)
- Pre-recorded interview by CLTV-36 (reporter Chastine Sayo) on updates regarding the status of PRB and PRFFWC’s activities being implemented in preparation for the rainy season (June 29)
- Pre-recorded interview by CLTV36 (reporter: Angelica Simpao) on updates on T.D. Maring (September 12)
- Pre-recorded interview by CLTV36 (reporter: Angelica Simpao) regarding Status of the Monitoring equipment of PRFFWC and present hydrological situation within the PRB (September 13)



(L to R) As guest in the OCD-3 program at Bright 91.9 FM with OCD-3 personnel and Radio DJs; CLTV-36 pre-recorded interviews with reporters Chastine Sayo (2<sup>nd</sup> pic) and with Angelica Simpao (3<sup>rd</sup> and 4<sup>th</sup> pics)

## III. Participation in various events, occasions & other undertakings (meetings, seminars, workshops, conferences, etc.)

Situated in the Regional Government Center of Region 3, the PRFFWC has had many involvements in inter-governmental and local undertakings particularly pertaining to hydrometeorological issues and regional development programs. Participation in local, regional, national and even international undertakings, meetings and other similar gatherings remain a major social commitment of the center. Providing its technical expertise has also benefitted quite a number of entities who have been partners in joint programs and project undertakings. The various activities, gatherings and in extra-social curricular activities considering the center’s limited logistical resources and manpower for the year are listed below:

- 1st Regular DMGC-MANCOM meeting for CY2017 led by NEDA-3 and chaired by DILG-3 Regional Director (January 10; NEDA Conference Room)
- Consultation Workshop on the Formulation of the Integrated Climate Responsive Master Plan for Pampanga River Basin, 2016 – 2023 led by NEDA-3 (January 19; NEDA Conference Room)
- Appointed member by the PDRPMC-Pampanga in the evaluation of the province for being a nominee in the 2016 Kawad Kalasag validation coordination meeting (January 23; Executive House, Pampanga Capitol Bldg.)
- 1-day 1st PAGASA Administrator’s Bowling Tournament (January 27; Quezon City)
- Participation in the ICHARM’s Follow-up Seminar to ICHARM’s former trainees (January 31; H2O hotel, Manila)
- Participated in the Team Building activities of OCD-3 (February 09; OCD-3 grounds, CSFP)
- Meeting on the proposed Sports Fest in the DMGC organized by CHR-3 (February 13; CHR-3 Conference room)
- 2nd Public Consultation Meeting on the Formulation of the Central Luzon Regional Plan (CLRDP) 2017-2022 (February 16; NEDA-3 Conference Room)
- Orientation kick-off for the preparation of Comprehensive Land Use Plan (CLUP), Zoning Ordinance (ZO) and Comprehensive Development Plan (CDP) for the City of Malolos as per invitation from the said LGU (March 14; Malolos Sports & Convention Center, Malolos City, Bulacan)



(L to R) Launching of GOVNET for Region 3 (March 24); with Pampanga PDRMO and members of GAWAD KALASAG selection committee (March 31); participation in the Team Building activities of OCD-3 (February 09)

- One center personnel attended the NRCP General Assembly (March 22)
- WMO day activities at PRFFWC (March 23) – (see picture below)
- Launching ceremony of the regional government network (GOVNET) project by Regional DICT (March 24; SACOP, CSFP)
- 2nd regular DMGC-Management Committee General Assembly Meeting for CY 2017. (March 29; NEDA-3 conference room, CSFP)
- 1st Quarterly Meeting of RDRRMC-3; PRFFWC appointed as member of selection committee for 2016 Regional Gawad Kalasag Awards by RDRRMC-3. (March 31)
- Evaluator member of Regional Selection Committee for the Regional GAWAD KALASAG as requested by RDRRMC-3 / OCD-3 (April 03 & 06)
- Attended the JPOW Project Seminar on Tropical Cyclone (April 20; Amihan Conference Room, Science Garden, Q.C.)
- Participated in the Regional Inter-Agency Sports Fest 2017 under the DOST men's basketball team
- Progress Meeting on Flood Forecasting Project (Development & Implementation of User-Relevant End-to-End Flood Forecast Generation & Application System for Disaster Mitigation in the Philippines) (May 03-05; Science Garden, Q.C.)
- 1st PAGASA RBFFWCs Conference / Workshop (May 8-10; Grand Regal Hotel)
- Earthquake Contingency Plan Formulation Workshop for the Province of Pampanga (May 08-10; Hotel Stotsenberg, Clark field, Pampanga)
- JICA-OCD seminar on "How to understand and monitor DRR in the locality under GCC" as a final seminar of JICA Policy Advisor on DRRM, Mr. Itagaki (May 19; Legend Villas, Mandaluyong City)



(L to R) Participation in the Regional Inter-Agency Sports fest under DOST-3 Team; with Google Cap Team during their reorientation of center personnel (June 28); with ICHARM and Municipality of Calumpit officials (June 16).

- Regional Land Use Committee (RLUC) meeting to review the CLUP of Olongapo City as directed by OIC of NCR-PRSD (May 25, NEDA-3 Conf. Rm.)
- Kick-Off Meeting of the All-weather Communications System program of DOST-PAGASA and DICT (June 09; SEAMEO, Diliman, Q.C.)
- 4th quarter RDRRMC-3 full council meeting (June 16, Tarlac Recreational Park, San Jose, Tarlac)
- Meeting with ICHARM personnel during field visit to the center and assisted them in their courtesy call and program presentation to the Municipality of Calumpit, Bulacan (June 16; with 2 ICHARM personnel)
- Supported Google Cap personnel in their reorientation of center personnel on the operation of the said application. (June 28; with 4 Google Cap personnel)
- FY 2017 mid-year Performance Review and Analysis (July 10-11; Amihan Conference room, Q.C.); and participated in the 2017 Strategic Planning Workshop for PAGASA Strategic Plan (2018 to 2022) (July 12 to 14; Amihan Conference room, Q.C.)
- Unified Flag Raising Ceremony of the DMGC Regional Offices (July 17; NEDA-3 Covered Court, CSFP)



- Small group meeting with PAGASA-based JICA consultants regarding the project entitled Roadmap for Future Development of FFWS in the Philippines (July 19; WFFC, Q.C.)
- Assisted NPC, PAGASA and 7 Lakes Contractor in their center survey for the enhancement of the basic FFWSO of Angat Dam Operations (July 19; with 4 NPC, 2 PAGASA personnel and 3 from 7 Lakes)
- PDRA on T.S. Jolina called for by the RDRRMC-3 (August 25; OCD-3 Conference Room)
- Consultation-Workshop for the NDRRMP Review, Regional DRRMP assessment, and Formulation of a National Disaster Prevention and Mitigation Plan (NDPMP) sponsored by OCD-3 (September 19 to 22; Torre Venezia Suites, Q.C.)
- DMGC-MC cum General Assembly Meeting (September 22; NEDA-3 Conference room)
- DMGC Unified Flag Ceremony and Tree Planting activities (September 25, DMGC, CSFP)
- Pampanga PDRRMC 3rd Quarter Meeting (September 26; Max Restaurant, CSFP)
- Consultation Workshop on the Formulation of the Integrated Climate Responsive Master Plan for PRB, 2015-2030. (October 23; NEDA-3 Conference Room)
- Participation in the DOST Inter-Agency Bowling Tournament with PAGASA Male and Female Teams winning as back-to-back champions
- NCR-PRSD CMO Conference (November 08-10; BSA Towers, Ortigas)
- Conference activity organizer and as Poster and Logo contest judge in the 8th Bulacan SHINe Conference (November 16; St. Agatha Resort, Plaridel, Bulacan)
- Supported agency-based JICA consultants in their center visit and station (Mexico) survey as per on-going Project for Strengthening Capacity of Integrated Data Management of FFW in the Philippines. (November 17)
- Consultation on the draft Administrative Order on Social Media Use for Government as per invitation by Regional DICT (December 01; Gracelane Hotel, CSFP)
- Coordination meeting regarding the National Simultaneous Earthquake Drill (NSED) as per memo by RDRRMC-3 (December 08; OCD-3 Conference room)
- RDRRMC-3 full council meeting (December 28; Epatha Center, CSFP)



(L-R) Sharing knowledge with PWDs in one-day DRRM training; as playing member of the winning Men's Bowling Team in the DOST inter-Agency Bowling Tournament 2017; and interaction with visiting JICA experts to the center.

#### IV. Trainings

Trainings and enrichment programs (seminars, workshops, etc.) to center personnel during the year:

- Refresher Course on Meteorological Observations, Practices and Procedures and PUMIS (PAGASA Unified Meteorological Information System) application for NCR-PRSD personnel. (March 07-10; Clark, Angeles City)
- Training-Workshop on Rainfall Warning System (RWS) & Local Weather Forecasting for the NCR-PRSD Personnel (April 19-22; Tagaytay City)
- 2 center personnel attended and participated in the CSC-PAGASA training on Mentoring & Coaching for Leaders (June 01-02, Amihan Conference room, Q.C.)
- One center personnel attended and participated in the Succession Planning for Leaders Training (July 20-21; Amihan Conference, Q.C.)
- One center personnel attended and participated in the Coaches Training on Enhanced Local Climate Change Action Plan as per invitation by DILG-3 for Region 3 participants. (July 25-28; Rembrandt Hotel, Q.C.)
- PAGASA-RIMES Technical Training / Workshop on the Development & Implementation of User-Relevant End to End Forecast Generation & Application System for Disaster Mitigation in the Philippines (July 31 to August 04; Science Garden, Q.C.)



(L-R) CSC-PAGASA Training on Mentoring and Coaching (June 01-02) and Technical Training / Workshop on the Development & Implementation of User-Relevant End to End Forecast Generation & Application System for Disaster Mitigation in the Philippines (July 31 to August 04)

- One center personnel attended and participated in the training on 4C's of Change Management for Leaders as per CSC Memo No. 5, series of 2016 (September 14-15; Amihan Conference Room, Q.C.)
- One center personnel participated and completed the Gender Sensitivity Training conducted by PAGASA for a total of 16 training hours (October 19-20; Caliraya Resort, Lumban, Laguna)
- Two center personnel attended and participated in the training on "Completed Staff Work (CSW)". (December 13-14; Amihan Conference Room, Science Garden, Q.C.)

The center, on the other hand, has also hosted several On-the-Job (OJT) trainees from various universities and colleges within the region. Training included the usual office functions such as encoding, scanning and e-filing of center's telemetry records. They were also oriented on field activities such as river cross-sectioning and field validation surveys. A total of 20 students from 3 universities and 2 colleges finished their OJT immersions in the center as follows: 4 Environmental Science students from Bulacan State University (BuSU), 2 Electronics & Communications Engineering from Holy Angel University (HAU), 4 Information Technology (IT) students from the Don Honorio Ventura Technological State University (DHVTSU), 5 Information Technology students from Saint Nicholas College of Business and Technology, and 5 students of 2-year IT course from the International School of Technology and Skills Development (ISTSD).



(Top L-R) OJTs from ISTSD with several PRFFWC personnel; from Saint Nicholas CBT; HAU OJTs installing a rain gauge together with a PRFFWC personnel; (Bottom L-R) from DHVTSU with PRFFWC personnel; and OJTs from BuSU during surveying activities with PRFFWC personnel.



## V. Published Reports (In-house), features and other hydrological-related materials

- Proceedings on the 1st PAGASA River Basin Flood Forecasting and Warning Centers Conference-Workshop (<http://prffwc.synthasite.com/resources/activity%20report-%21st%20RBFFWCs%20conf-wrkshp.pdf>)
- On-going updates on the following PRFFWC reference manuals:
  - Reference Manual No. 1: General Information on Floods, Telemetry System, the Pampanga River Basin and Operational Activities for Flood Forecasting & Warning of the PRFFWC (last updated February 2017)
  - Reference Manual No. 2: PRFFWC Flood Forecaster / Operational Hydrologist (& Hydro Technician) Guide in the preparation and Issuance of Flood Advisories and Flood Bulletins (with relevant information & other related issues); Flood Watch operational activities (last updated June 2017)



## VI. Recognitions for 2017

PRFFWC was presented the GAWAD PAGASA “Best Flood Forecasting and Warning Center” for the year 2017. Two other center personnel were likewise presented the GAWAD PAGASA “Best Hydrologist” and “Best Hydrological Aide” awards for the same year.

Some of the received certificates of participation and completion in seminars, conferences and trainings, recognitions, appreciations, awards (individual and for the center), etc., for its uncommitted service and involvement in other activities are listed below as follows:



- Certificate of Participation in the RDRRMC-3 Earthquake Contingency Plan Formulation Workshop (May 10; Hotel Stotsenberg, Clark, Pampanga)
- Certificate of Completion given by Civil Service Institute of Civil Service Commission for completing the Mentoring and Coaching for Leaders (June 2 Amihan Conference Room, PAGASA Science Garden, Quezon City)
- Certificate of Participation in the PAGASA Strategic Planning Workshop (July 14; Amihan Conference Room, PAGASA Science Garden, Quezon City)
- “Certificate of Recognition for invaluable contribution in making schools and communities safe and resilient” for Project Encore of Save the Children Organization (July 14; 8F Robredo Hall, DILG Central Office, Q.C.)
- Certificate of Participation in the DILG-CCC-UN Habitat Coaches’ Training on Enhanced Local Climate Change Action Planning (July 28; Hotel Rembrandt, Quezon City)
- Certificate of Training by PAGASA in collaboration with RIMES in the Technical Training / Workshop on the Development and Implementation of User-Relevant End-to-End Forecast Generation and Application System for Disaster Mitigation in the Philippines (August 04; WMO Regional Training Center, PAGASA, Quezon City)
- Certificate of Appreciation given by People Based Humanitarian Action Consortium (PBHAC) for invaluable inputs and updates on the threats and hazards in the event of Luzon Disaster Risk Reduction Network General Assembly (August 12; Tiburcio Hall, Heroes Hall, CSFP)
- Certificate of Appreciation as Resource Person in the Agricultural Extension Workers Congress given by Province of Bulacan (September 05; KLIR Water Resort and Hotel, Sta. Rita, Guiguinto, Bulacan)
- Certificate of Participation in the OCD Consultation-Workshop for the National DRRM Plan Assessment, and Formulation of the National Disaster Prevention and Mitigation Plan (September 22; Torre Venezia Suites, Quezon City)
- Certificate of Recognition as Resource Speaker in the SHINe Orientation given by Dona Candelaria Meneses Duque National High School (October 03; Dona Candelaria Meneses Duque National High School, Bulakan, Bulacan)
- Certificate of Recognition as Resource Speaker in the SHINe Orientation given by San Roque National High School (October 03; San Roque National High School, Paombong, Bulacan)
- Certificate of Recognition as Resource Speaker in the SHINe Orientation given by Bunsuran National High School (October 04; Bunsuran National High School, Pandi, Bulacan)
- Certificate of Appreciation by PAGASA as Resource Speaker in the CMO / OICs Conference and Climate Workshop for NCR-PRSD (November 09; BSA Towers, Ortigas Center, Metro Manila)
- Certificate of Completion presented by PAGASA for Gender Sensitivity Training (October 20; Caliraya Resort Club, Laguna)
- Certificate of Training by PAGASA in the CMO / OICs Conference and Climate Workshop for NCR-PRSD (November 10; BSA Towers, Ortigas Center, Metro Manila)
- Certificate of Appreciation given by Angeles City as Resource Speaker in City Disaster Risk Reduction and Management (DRRM) Summit (December 12, Veniz Hotel, Baguio City)
- Certificate of Participation given by PAGASA and Cornerstone in the training program on Completed Staff Work (December 14; Amihan Conference Room, PAGASA Science Garden, Quezon City)

**Working out enhanced Flood Warning efforts for a safer  
and resilient Pampanga River Basin in 2018 ...**



(..with the OJTs from DHVTSU 2017-18)

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