

## **Sea Level Station Operations in Commonwealth of DOMINICA**

1. Date of report: 01 March, 2018
2. Title: Report on Sea Level Station Operations in the Commonwealth of Dominica
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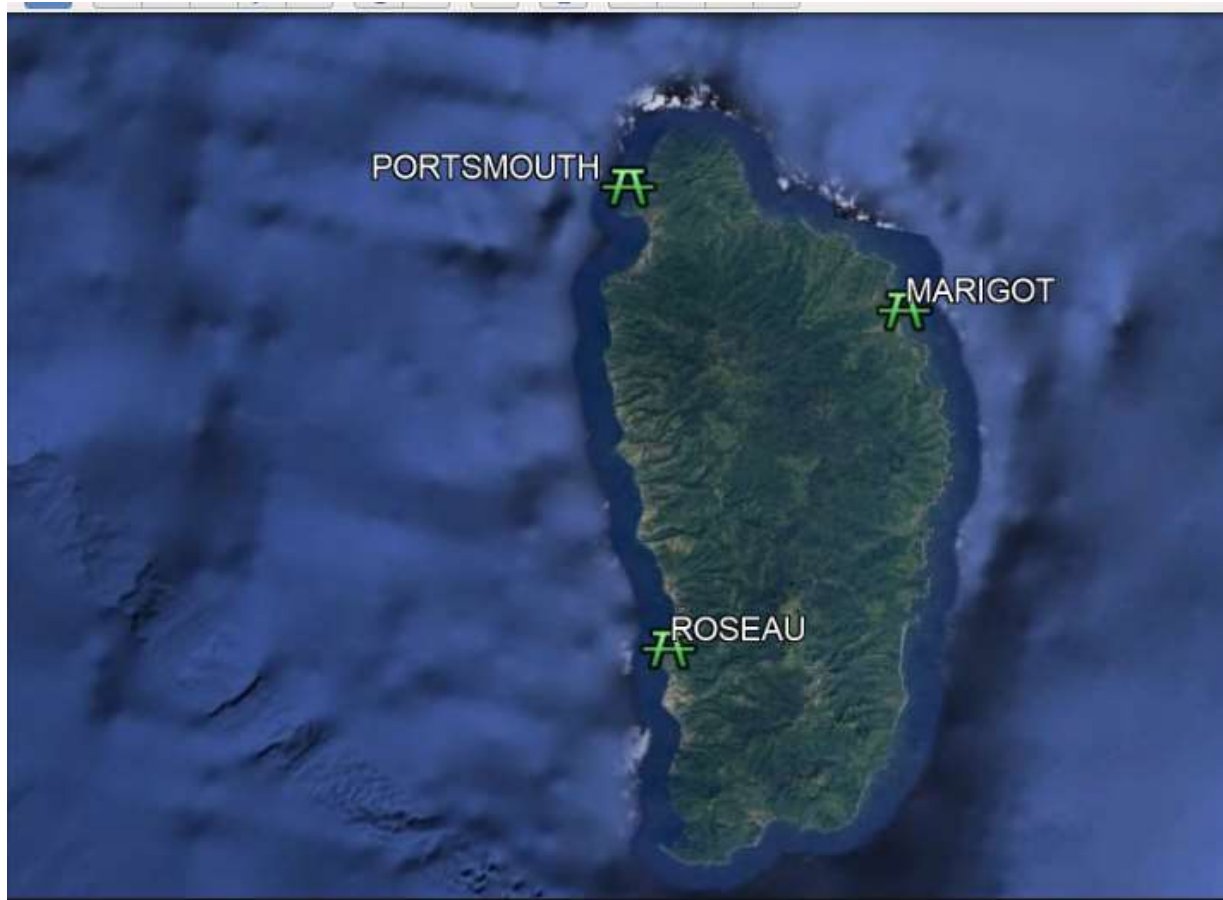
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#### 4. Map of tide gauge network in Dominica

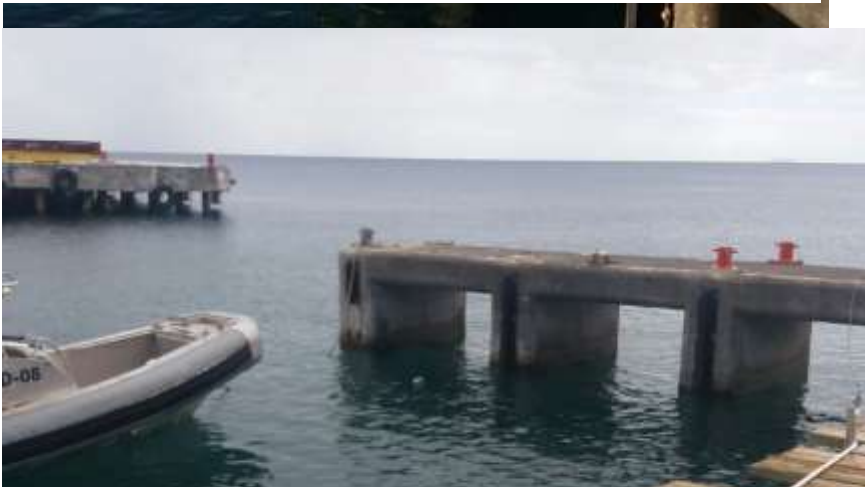
**Figure 1. Google Map showing locations of stations**



#### Roseau Tide Gauge



Pre Hurricane Maria



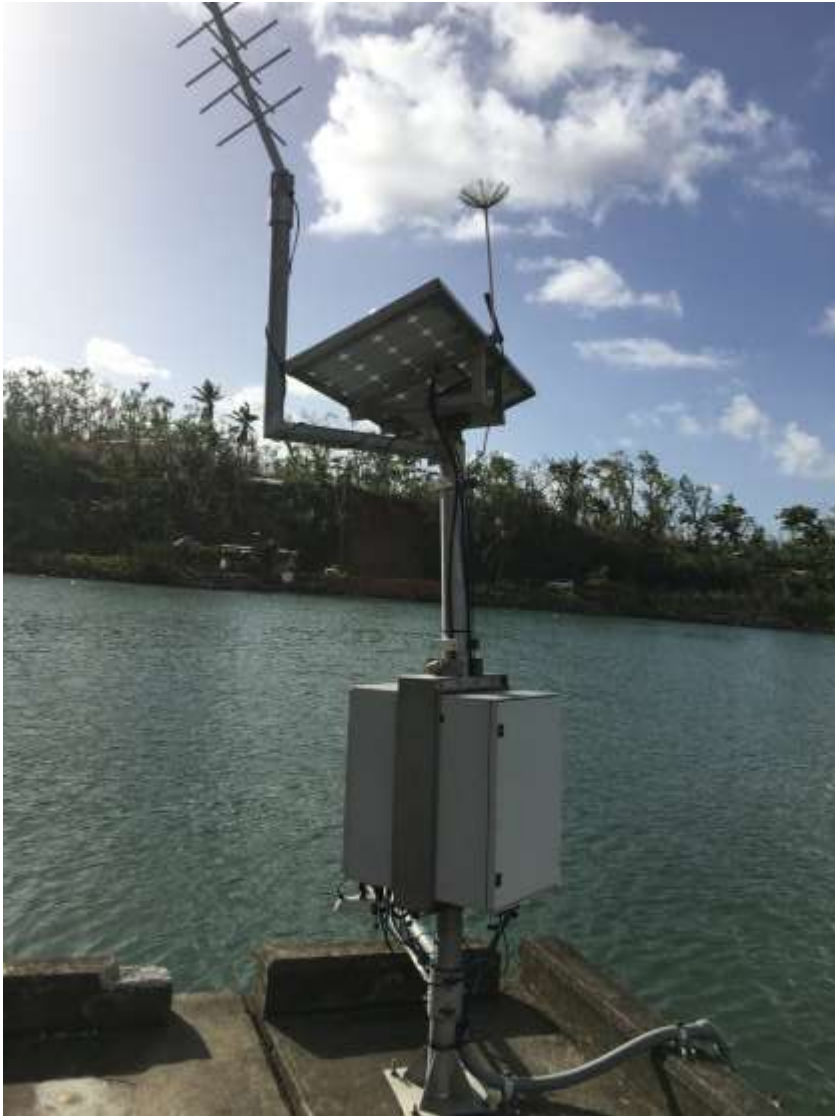
Post Hurricane Maria



Roseau Pier Post Hurricane Maria

# Marigot Tide Gauge







Marigot gauge post Hurricane Maria showing damage to mast

Portsmouth Tide Gauge







Portsmouth gauge with bench mark pre Hurricane Maria



Portsmouth gauge post Hurricane Maria

5. Tide gauge station(s)

<b>Name:</b>	<b>Roseau</b>
<b>GOES PID/Station Code:</b>	354097CA ROSE
<b>Lat</b>	15.31385
<b>Long</b>	-61.391833
<b>Date Installed</b>	May 2011
<b>Status</b>	Destroyed during Hurricane Maria
<b>Operator:</b>	University of Hawaii Sea Level Center (USA)

<b>Name:</b>	<b>Portsmouth</b>
<b>GOES PID Station Code:</b>	D6700338 PTMD
<b>Lat</b>	15.558969
<b>Long</b>	-61.468456
<b>Date Installed</b>	July 2017
<b>Status</b>	Destroyed during Hurricane Maria
<b>Operator:</b>	Dominica Meteorological Service

<b>Name:</b>	<b>Marigot</b>
<b>GOES PID</b>	D6700DEA
<b>Station Code:</b>	MRIG
<b>Lat</b>	15.547938
<b>Long</b>	-61.283093
<b>Date Installed</b>	July 2017
<b>Status</b>	Slightly damaged but Operational
<b>Operator:</b>	Dominica Meteorological Service

6. An overview of the gauge technology employed in the Stations:

<b>Name:</b>	<b>Roseau</b>
<b>Communications</b>	GTS message
<b>GOES PID</b>	354097CA

<b>WMO Header</b>	SEPO40
<b>GOES Channel</b>	
<b>Transmit Period</b>	5 minutes
<b>Sampling Rate</b>	Pressure transducer 1 minute Radar 1 minute Bubbler 5 min
<b>GLOSS Station ID</b>	
<b>DCP</b>	
<b>GPS (timing)</b>	5 minutes
<b>GPS (high precision for positioning)</b>	
<b>Sensor #1</b>	Pressure
<b>Sensor #2</b>	Radar
<b>Sensor #3</b>	Bubbler
<b>Met Sensors</b>	

<b>Name:</b>	<b>Portsmouth Dominica</b>
<b>Communications</b>	GTS message
<b>GOES PID</b>	D6700338
<b>WMO Header</b>	SODO10
<b>GOES Channel</b>	
<b>Transmit Period</b>	5 minutes
<b>Sampling Rate</b>	Pressure 10 minute Radar 10 minute
<b>GLOSS Station ID</b>	
<b>DCP</b>	
<b>GPS (timing)</b>	
<b>GPS (high precision for positioning)</b>	
<b>Sensor #1</b>	Pressure
<b>Sensor #2</b>	Radar
<b>Sensor #3</b>	Water Temperature and Salinity (available of Port log Website)
<b>Met Sensors</b>	

<b>Name:</b>	<b>Marigot</b>
<b>Communications</b>	GTS message
<b>GOES PID</b>	D67000DEA
<b>WMO Header</b>	SODO10

<b>GOES Channel</b>	
<b>Transmit Period</b>	5 minutes
<b>Sampling Rate</b>	Radar 1 minute Radar 1 minute Pressure Transducer 5 min
<b>GLOSS Station ID</b>	
<b>DCP</b>	
<b>GPS (timing)</b>	
<b>GPS (high precision for positioning)</b>	
<b>Sensor #1</b>	Radar
<b>Sensor #2</b>	Pressure transducer
<b>Sensor #3</b>	Water Temperature and Salinity (available of Port log Website)
<b>Met Sensors</b>	

7. Bench Marking and Leveling:

Portsmouth and Marigot Tide gauge Station:

- 5 Benchmarks were installed and levelled in late August 2017

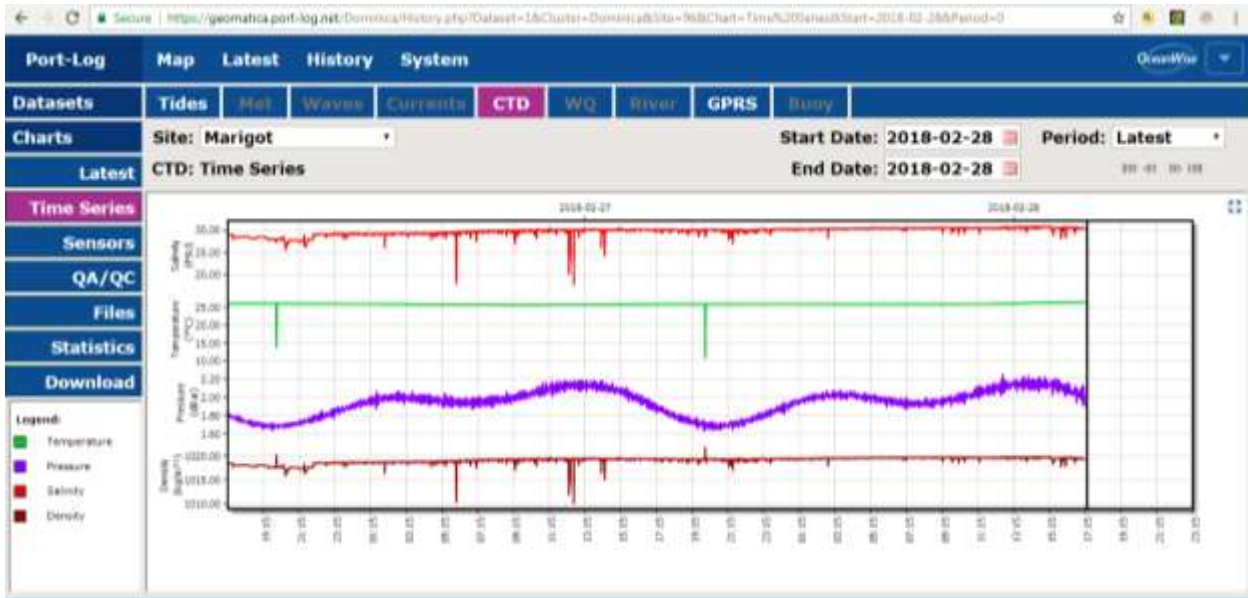
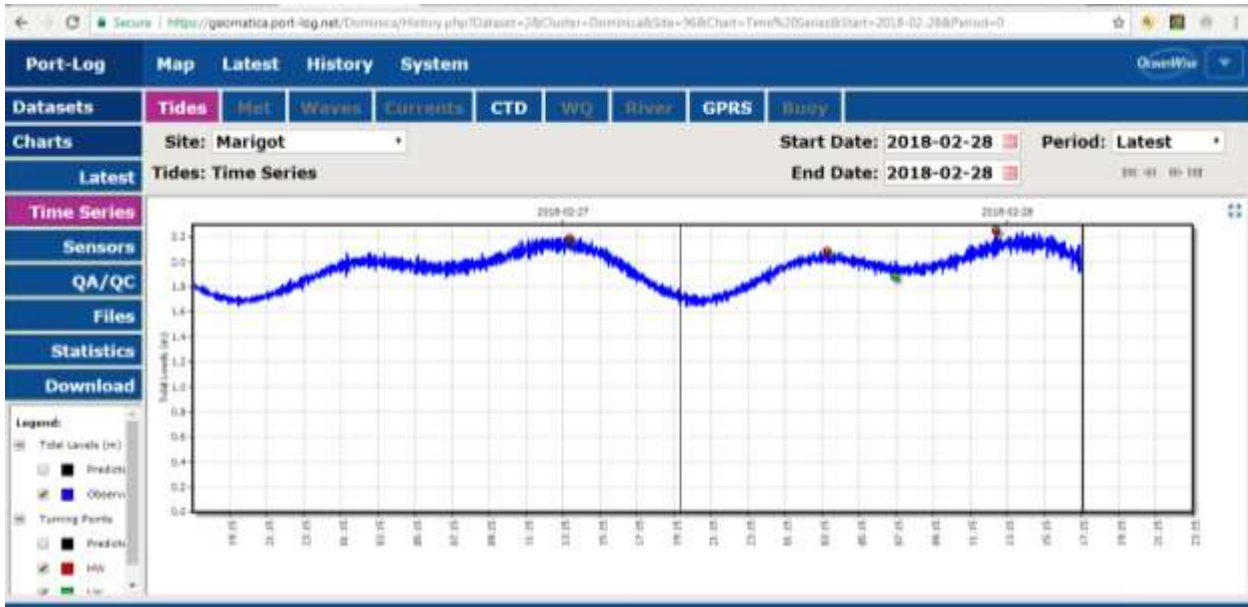


Bench Mark layout at Roseau site

8. An overview of the data availability:

The data of Marigot Station is available on the website:

<https://geomatica.port-log.net/Dominica/map.php>



Port-Log **Map** Latest History System Download

**Datasets** **Tides** [Rat](#) [Waves](#) [Currents](#) [CTD](#) [WD](#) [River](#) [GPRS](#) [Buoy](#)

**Charts** Site: **Marigot** Start Date: **2018-01-01** Period: **Monthly**

**Latest** Tides: **Download** Format: **TXT** Date/Time: **Default** Interval: **Raw**

**Time Series** Preview of last 25 out of an anticipated 44640 records are show below.

Sensors	idSite	Site Name	DateTime	Observed	Predicted	Surge	MSL	Residual	StdDev	Quality	Status	Quality Flag
QA/QC	96	Marigot	2018-01-31 23:35:00	1.572			1.915			100		0
Files	96	Marigot	2018-01-31 23:36:00	1.652			1.906			100		0
Statistics	96	Marigot	2018-01-31 23:37:00	1.681			1.906			100		0
Download	96	Marigot	2018-01-31 23:38:00	1.641			1.892			100		0
	96	Marigot	2018-01-31 23:39:00	1.617			1.903			100		0
	96	Marigot	2018-01-31 23:40:00	1.669			1.905			100		0
	96	Marigot	2018-01-31 23:41:00	1.673			1.909			100		0
	96	Marigot	2018-01-31 23:42:00	1.635			1.902			100		0
	96	Marigot	2018-01-31 23:43:00	1.640			1.900			100		0
	96	Marigot	2018-01-31 23:44:00	1.649			1.908			100		0
	96	Marigot	2018-01-31 23:45:00	1.658			1.904			100		0
	96	Marigot	2018-01-31 23:46:00	1.666			1.900			100		0
	96	Marigot	2018-01-31 23:47:00	1.603			1.900			100		0

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## 9. Web, email etc. addresses of data banks and of sources of further information

National Disaster Coordinator - Mr. Fitzroy Pascal

Office of Disaster Management

Jimmit,

Dominica

Tel: (767)-448-7777; Mob:(767)-275-6806

Dominica Meteorological Service

Tel: (767)-449-2200; Fax: (767)-449-2020

Senior Meteorological Officer - Mr. Marshall Alexander

Mob: (767)-275-5461

Instrument Technicians - Mrs. Janelle Garraway-McPherson / Mrs. Farrah Rocque-Carriere

Mob: (767)-225-6698; /

(767)-277-2237

Lands and Surveys Division - Surveyor – Mr. Vivian Eugene

Mob: (767)-245-6861

PPCR/DVRP Project Coordination Unit

(Pilot Programme on Climate Resilience/Disaster Vulnerability Reduction Project)

Project Coordinator - Mr. Colin Guiste and/or Environmental Specialist - Mrs Andrea Marie

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Commonwealth of Dominica

Tel: (767)-266-3139 / (767)-448-3873

## 10. Future Plans.

 National Oceanography Centre (UK) - (ETA March 2018)

- Repair/upgrade the Marigot Station GPS functionality to collect GNSS data.
- Replacement of the Portsmouth Tide gauge at a new location

 University of Hawaii - (ETA July 2018)

- Replacement of the Roseau Tide gauge Station



SAMPLE DATA - ONLINE TIDE TABLE AND TASK TIDE  
PREDICTION

DATE	DMS	TASK	DATE	DMS	TASK	DATE	DMS	TASK
11/1/2018	11:30	11:54	22/01/2018	7:00	7:45	22/01/2018	7:00	7:45
11/1/2018	18:44	18:56	22/01/2018	12:58	14:01	22/01/2018	12:58	14:01
1/1/2018	3:15	3:30	22/01/2018	18:59	19:36	22/01/2018	18:59	19:36
1/1/2018	8:06	7:48	23/01/2018	1:26	2:16	23/01/2018	1:26	2:16
1/1/2018	14:27	14:25	23/01/2018	7:40	8:06	23/01/2018	7:40	8:06
1/1/2018	21:39	21:53	23/01/2018	14:04	14:52	23/01/2018	14:04	14:52
2/1/2018	4:02	4:23	23/01/2018	20:04	20:27	23/01/2018	20:04	20:27
2/1/2018	8:56	8:30	24/01/2018	2:11	2:44	24/01/2018	2:11	2:44
2/1/2018	15:18	15:21	24/01/2018	8:26	8:36	24/01/2018	8:26	8:36
2/1/2018	22:28	22:39	24/01/2018	15:19	15:41	24/01/2018	15:19	15:41
3/1/2018	4:47	5:34	24/01/2018	21:26	21:16	24/01/2018	21:26	21:16
3/1/2018	9:47	9:41	25/01/2018	3:03	2:09	25/01/2018	3:03	2:09
3/1/2018	16:10	16:08	25/01/2018	9:20	9:14	25/01/2018	9:20	9:14
3/1/2018	23:16	23:26	25/01/2018	16:36	16:31	25/01/2018	16:36	16:31
4/1/2018	5:32	6:30	25/01/2018	22:59	22:06	25/01/2018	22:59	22:06
4/1/2018	10:41	11:00	26/01/2018	4:01	2:47	26/01/2018	4:01	2:47
4/1/2018	17:02	16:52	26/01/2018	10:22	9:58	26/01/2018	10:22	9:58
5/1/2018	0:04	0:12	26/01/2018	17:47	17:29	26/01/2018	17:47	17:29
5/1/2018	6:18	7:21	27/01/2018	0:21	0:40	27/01/2018	0:21	0:40
5/1/2018	11:40	11:52	27/01/2018	5:02	3:31	27/01/2018	5:02	3:31
5/1/2018	17:56	17:39	27/01/2018	11:27	10:46	27/01/2018	11:27	10:46
6/1/2018	0:51	0:54	27/01/2018	18:51	19:27	27/01/2018	18:51	19:27
6/1/2018	7:05	8:03	28/01/2018	1:24	1:27	28/01/2018	1:24	1:27
6/1/2018	12:44	12:46	28/01/2018	6:02	4:18	28/01/2018	6:02	4:18
6/1/2018	18:54	18:37	28/01/2018	12:30	11:39	28/01/2018	12:30	11:39
7/1/2018	1:39	1:34	28/01/2018	19:47	20:04	28/01/2018	19:47	20:04
7/1/2018	7:55	8:31	29/01/2018	2:16	2:09	29/01/2018	2:16	2:09
7/1/2018	13:57	13:53	29/01/2018	7:00	6:27	29/01/2018	7:00	6:27
7/1/2018	19:58	19:47	29/01/2018	13:28	12:42	29/01/2018	13:28	12:42
8/1/2018	2:28	2:20	29/01/2018	20:38	20:45	29/01/2018	20:38	20:45
8/1/2018	8:48	9:07	30/01/2018	3:01	2:50	30/01/2018	3:01	2:50
8/1/2018	15:16	15:06	30/01/2018	7:55	7:19	30/01/2018	7:55	7:19
8/1/2018	21:14	20:54	30/01/2018	14:23	14:11	30/01/2018	14:23	14:11
9/1/2018	3:19	3:10	30/01/2018	21:25	21:29	30/01/2018	21:25	21:29
9/1/2018	9:44	10:00	31/01/2018	3:42	3:35	31/01/2018	3:42	3:35
9/1/2018	16:35	16:12	31/01/2018	8:48	8:22	31/01/2018	8:48	8:22
9/1/2018	22:40	22:48	31/01/2018	15:15	15:02	31/01/2018	15:15	15:02
10/1/2018	4:11	4:02	31/01/2018	22:10	22:15	31/01/2018	22:10	22:15
10/1/2018	10:39	11:00	21/01/2018	0:11	0:59	21/01/2018	0:11	0:59
10/1/2018	17:45	17:49	21/01/2018	6:23	7:30	21/01/2018	6:23	7:30
11/1/2018	0:00	0:06	21/01/2018	12:01	13:05	21/01/2018	12:01	13:05
11/1/2018	5:03	4:50	21/01/2018	18:08	18:39	21/01/2018	18:08	18:39
			20/01/2018	11:13	12:08			
			20/01/2018	17:23	17:42			

Acknowledgement & Credit:

National Oceanographic Centre;  
University of Hawaii;  
IOC Sea Level Monitoring Facility;  
UNESCO