



Central America Flash Flood Guidance System: CAFFG Forecaster Interface

Hydrologic Research Center

CAFFG SCM1

03-05 MAY 2017

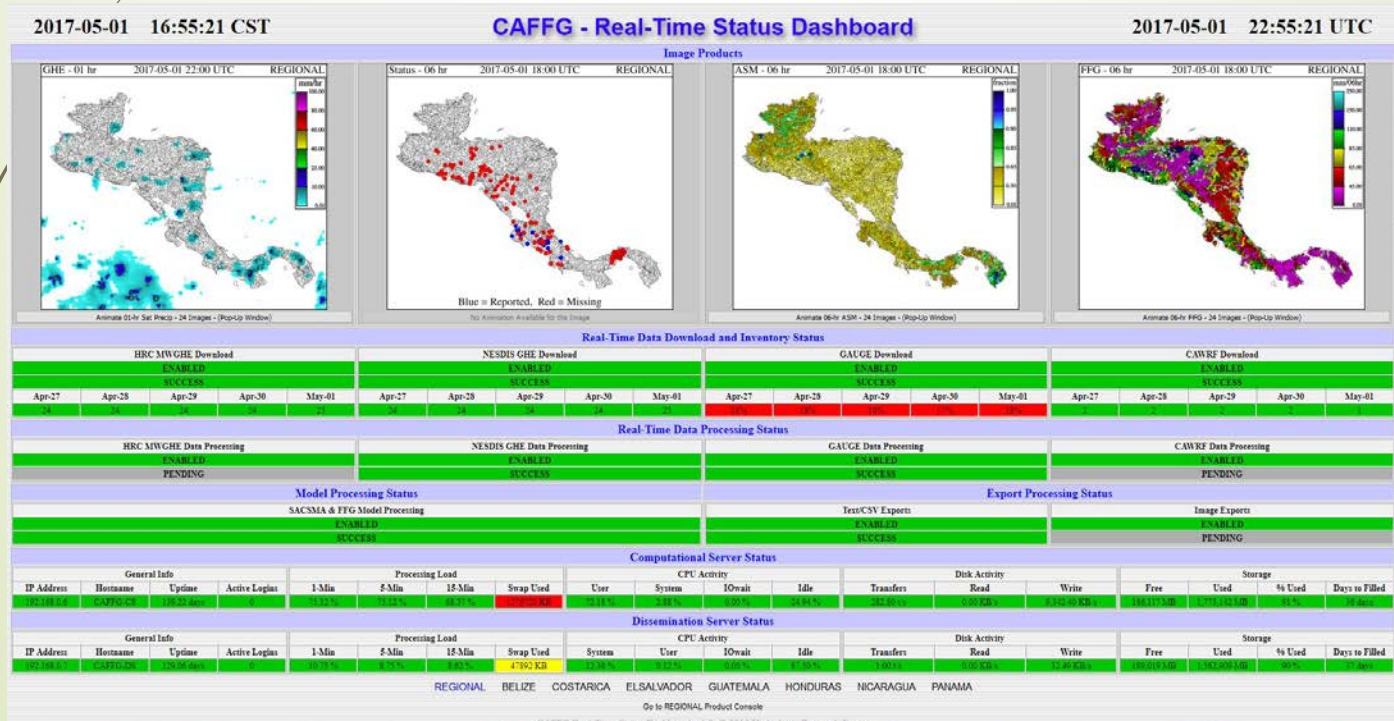
San Jose, COSTA RICA

Flash Flood Guidance System User Interfaces

The FFGS User Interfaces are secure web-based interfaces designed to provide visual overview of system processing status and current (and historical) system products for IT and forecasting personnel.

As of last few weeks, CAFFG System and Interfaces are operational at the Regional Center at San Jose, Costa Rica.

1. DASHBOARD – gives an overview of processing status for Forecasters and IT management.



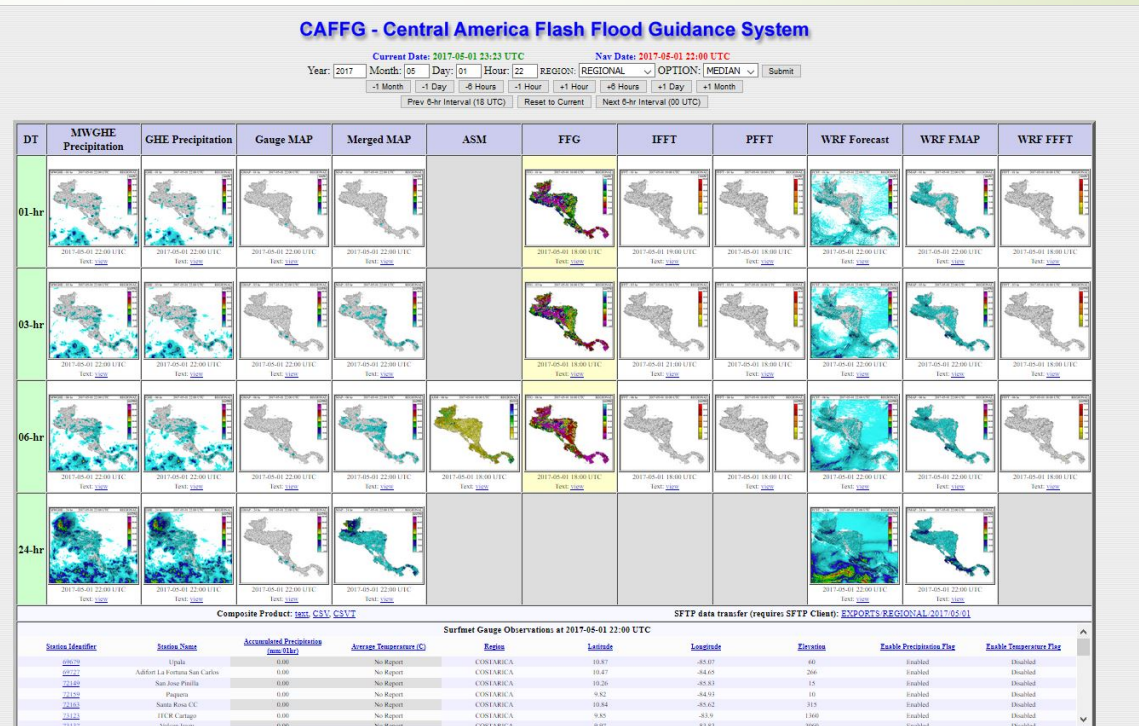
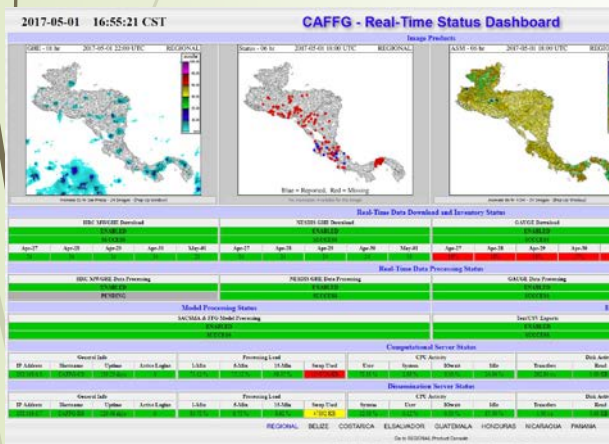
Flash Flood Guidance System User Interfaces

The FFGS User Interfaces are secure web-based interfaces designed to provide visual overview of system processing status and current (and historical) system products for IT and forecasting personnel.

As of January 2017, CAFFG System and Interfaces are operational at the Regional Center at San Jose, Costa Rica.

1. DASHBOARD

2. PRODUCT CONSOLE – forecaster interface



CAFFG System Dashboard

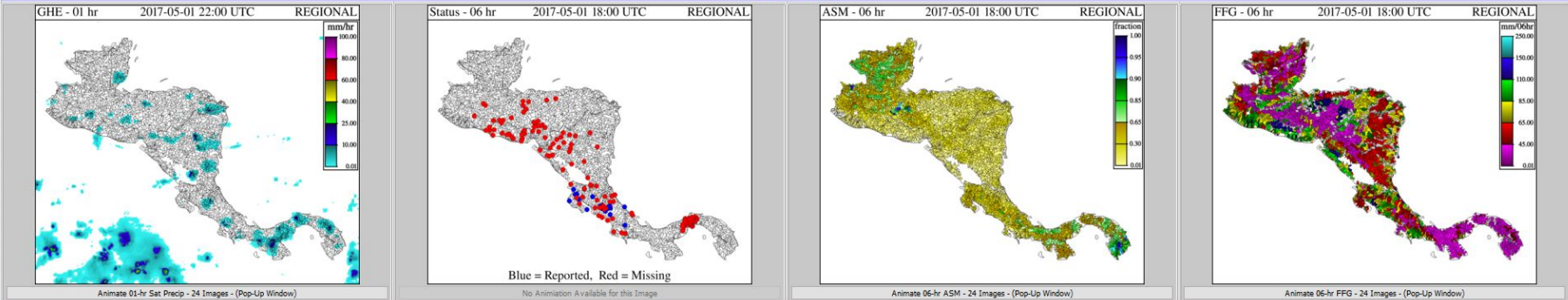
Provides a "quick" look at the current system status

2017-05-01 16:55:21 CST

CAFFG - Real-Time Status Dashboard

2017-05-01 22:55:21 UTC

Image Products



Real-Time Data Download and Inventory Status

HRC MWGHE Download					NESDIS GHE Download					GAUGE Download					CAWRWF Download				
ENABLED					ENABLED					ENABLED					ENABLED				
SUCCESS					SUCCESS					SUCCESS					SUCCESS				
Apr-27	Apr-28	Apr-29	Apr-30	May-01	Apr-27	Apr-28	Apr-29	Apr-30	May-01	Apr-27	Apr-28	Apr-29	Apr-30	May-01	Apr-27	Apr-28	Apr-29	Apr-30	May-01
24	24	24	24	23	24	24	24	24	23	10%	14%	15%	13%	18%	2	2	2	2	1

Real-Time Data Processing Status

HRC MWGHE Data Processing		NESDIS GHE Data Processing		GAUGE Data Processing		CAWRWF Data Processing	
ENABLED	PENDING	ENABLED	SUCCESS	ENABLED	SUCCESS	ENABLED	PENDING

Model Processing Status

SACSMA & FFG Model Processing
ENABLED
SUCCESS

Export Processing Status

Text/CSV Exports	Image Exports
ENABLED	ENABLED
SUCCESS	PENDING

Computational Server Status

General Info				Processing Load				CPU Activity				Disk Activity			Storage			
IP Address	Hostname	Uptime	Active Logins	1-Min	5-Min	15-Min	Swap Used	User	System	Iowait	Idle	Transfers	Read	Write	Free	Used	% Used	Days to Filled
192.168.0.6	CAFFG-CS	139.22 days	0	75.12 %	75.12 %	68.37 %	1276128 KB	72.18 %	2.88 %	0.00 %	24.94 %	282.80 t/s	0.90 KB/s	9.342.40 KB/s	186.117 MB	1,773,142 MB	91 %	36 days

Dissemination Server Status

General Info				Processing Load				CPU Activity				Disk Activity			Storage			
IP Address	Hostname	Uptime	Active Logins	1-Min	5-Min	15-Min	Swap Used	System	User	Iowait	Idle	Transfers	Read	Write	Free	Used	% Used	Days to Filled
192.168.0.7	CAFFG-DS	129.06 days	0	10.75 %	8.73 %	8.63 %	12801 KB	13.16 %	0.13 %	0.00 %	83.50 %	1.00 t/s	0.90 KB/s	32.40 KB/s	189,019 MB	1,562,909 MB	90 %	37 days

REGIONAL BELIZE COSTARICA ELSALVADOR GUATEMALA HONDURAS NICARAGUA PANAMA
Go to REGIONAL Product Console

• Three sections:

- images (animation)
- process status
- navigation

• In process status:

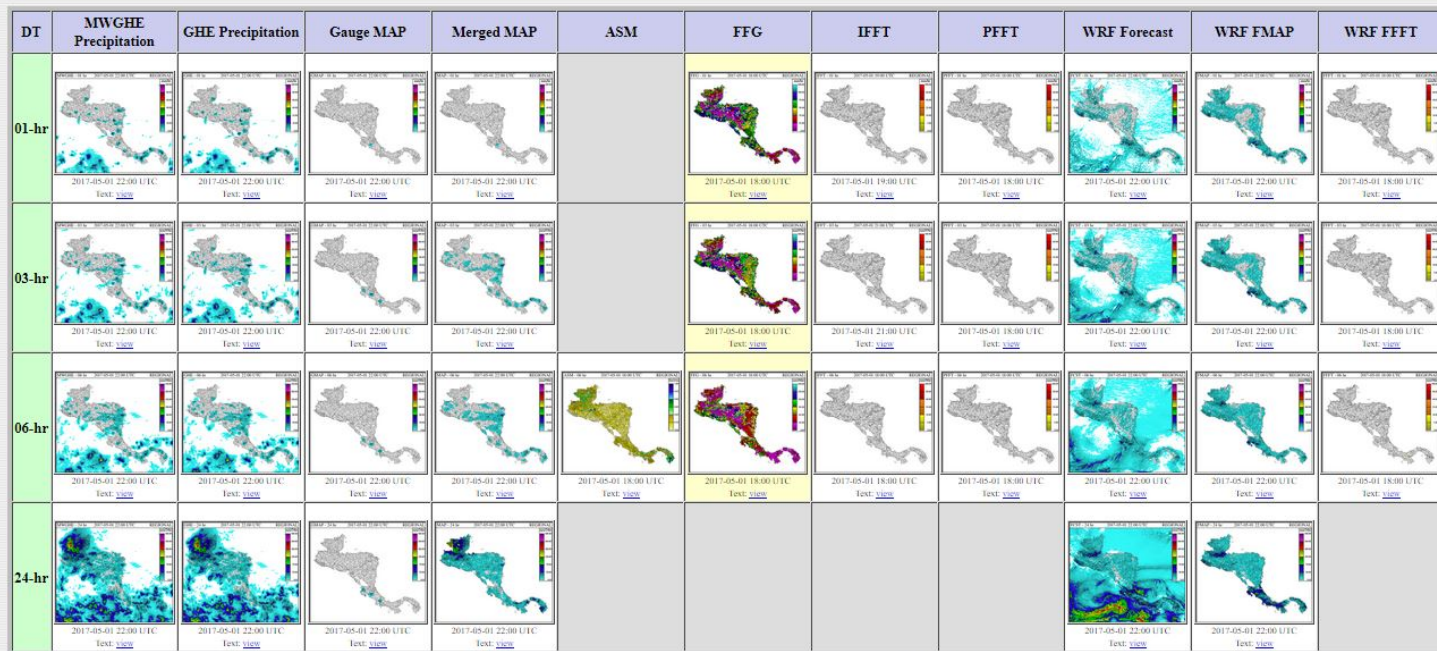
Green is good;
Red is concern.

CAFFG Product Console

Provides relevant information for operational forecasters to assess the potential for flash flooding.

CAFFG - Central America Flash Flood Guidance System

Current Date: **2017-05-01 23:23 UTC** Nav Date: **2017-05-01 22:00 UTC**
 Year: Month: Day: Hour: REGION: OPTION:



Composite Product: [text](#) [CSV](#) [CSV](#)

SFTP data transfer (requires SFTP Client): [EXPORTS REGIONAL/2017-05-01](#)

Surfnet Gauge Observations at 2017-05-01 22:00 UTC

Station Identifier	Station Name	Accumulated Precipitation (mm-91hr)	Average Temperature (C)	Region	Latitude	Longitude	Elevation	Enable Precipitation Flag	Enable Temperature Flag
40629	Upala	0.00	No Report	COSTARICA	10.87	-85.87	60	Enabled	Disabled
69727	Adfort La Fortuna San Carlos	0.00	No Report	COSTARICA	10.47	-84.65	266	Enabled	Disabled
72149	San Jose Pinilla	0.00	No Report	COSTARICA	10.26	-85.83	15	Enabled	Disabled
72159	Paquera	0.00	No Report	COSTARICA	9.82	-84.93	10	Enabled	Disabled
72163	Santa Rosa CC	0.00	No Report	COSTARICA	10.84	-85.62	315	Enabled	Disabled
73123	IFCR Cartago	0.00	No Report	COSTARICA	9.85	-83.9	1360	Enabled	Disabled
73127	Medina Azupard	0.00	No Report	COSTARICA	9.07	-83.43	1000	Enabled	Disabled

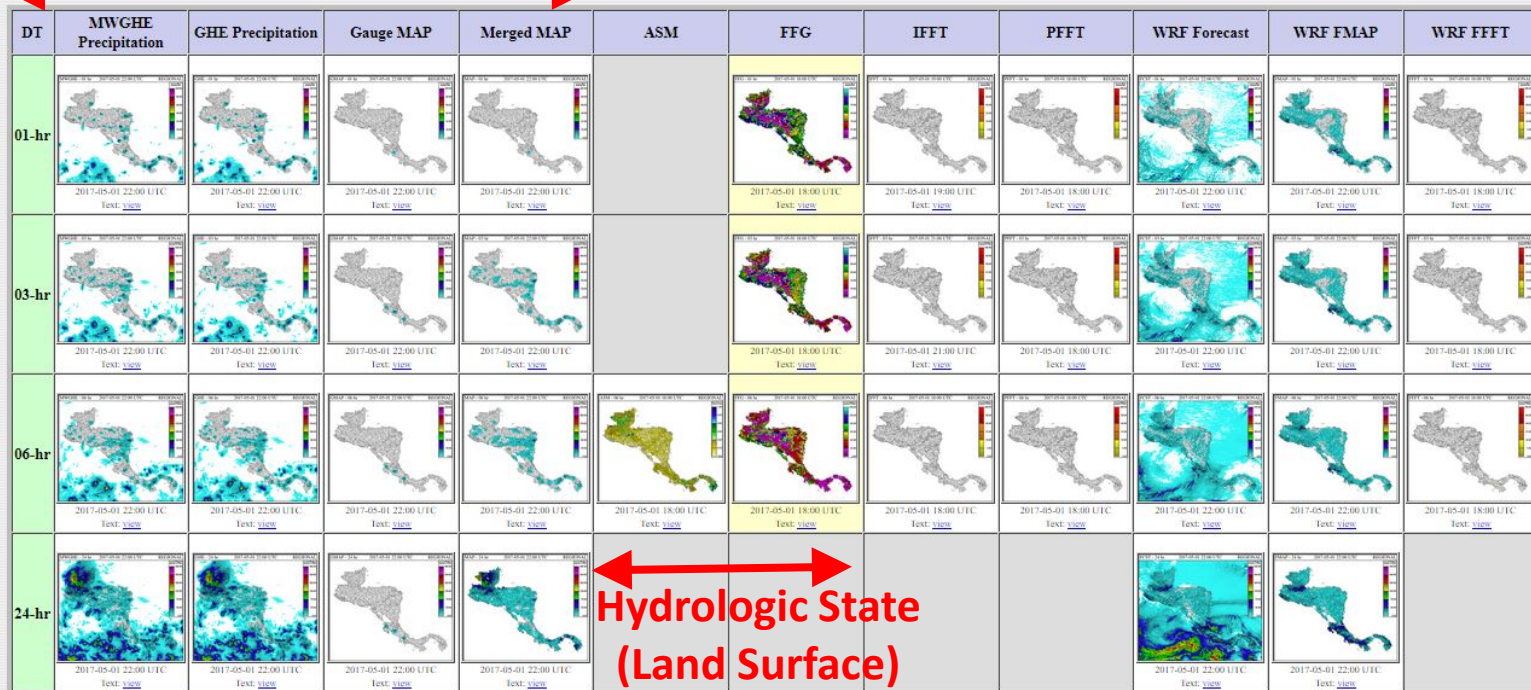
CAFFG Product Console

Provides relevant information for operational forecasters to assess the potential for flash flooding.

**Precipitation
(Observed)**

CAFFG - Central America Flash Flood Guidance System

Current Date: 2017-05-01 23:23 UTC Nav Date: 2017-05-01 22:00 UTC
 Year: 2017 Month: 05 Day: 01 Hour: 22 REGION: REGIONAL OPTION: MEDIAN Submit
 -1 Month -1 Day -6 Hours -1 Hour +1 Hour +6 Hours +1 Day +1 Month
 Prev 6-hr Interval (18 UTC) Reset to Current Next 6-hr Interval (00 UTC)



Composite Product: [text](#) [CSV](#) [CSV2](#)

SFTP data transfer (requires SFTP Client): [EXPORTS/REGIONAL/2017/05/01](#)

Surfnet Gauge Observations at 2017-05-01 22:00 UTC

Station Identifier	Station Name	Accumulated Precipitation (mm @1hr)	Average Temperature (C)	Region	Latitude	Longitude	Elevation	Enable Precipitation Flag	Enable Temperature Flag
00679	Upala	0.00	No Report	COSTARICA	10.87	-85.07	60	Enabled	Disabled
09727	Adfroit La Fortuna San Carlos	0.00	No Report	COSTARICA	10.47	-84.65	266	Enabled	Disabled
72149	San Jose Pinilla	0.00	No Report	COSTARICA	10.26	-85.83	15	Enabled	Disabled
72159	Paqueta	0.00	No Report	COSTARICA	9.82	-84.93	10	Enabled	Disabled
72163	Santa Rosa CC	0.00	No Report	COSTARICA	10.84	-85.62	315	Enabled	Disabled
73124	ITCR Cartago	0.00	No Report	COSTARICA	9.85	-83.9	1360	Enabled	Disabled
73127	Volcanes Barva	0.00	No Report	COSTARICA	0.07	-83.83	2960	Enabled	Disabled

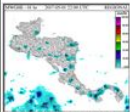
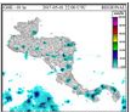


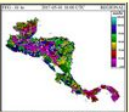

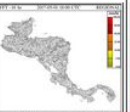
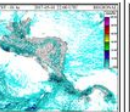
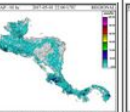
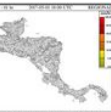
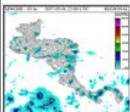
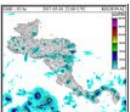
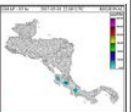
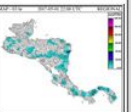
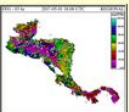
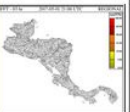
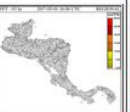
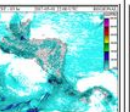
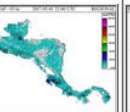
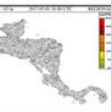
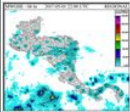
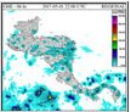

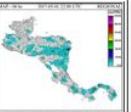

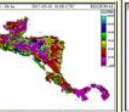
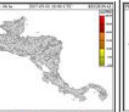
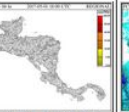
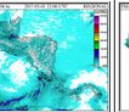
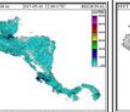
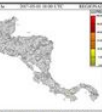
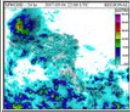
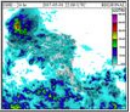


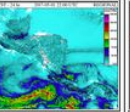
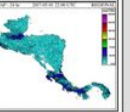
CAFFG Product Console

2) Product Table

CAFFG - Central America Flash Flood Guidance System

Current Date: 2017-05-01 23:23 UTC Nav Date: 2017-05-01 22:00 UTC
 Year: 2017 Month: 05 Day: 01 Hour: 22 REGION: REGIONAL OPTION: MEDIAN Submit
 -1 Month -1 Day -6 Hours -1 Hour +1 Hour +6 Hours +1 Day +1 Month
 Prev 8-hr Interval (18 UTC) Reset to Current Next 8-hr Interval (00 UTC)

1) Navigation

DT	MWGHE Precipitation	GHE Precipitation	Gauge MAP	Merged MAP	ASM	FFG	IFFT	PFFT	WRF Forecast	WRF FMAP	WRF FFFT
01-hr	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view		 2017-05-01 18:00 UTC Text: view	 2017-05-01 19:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view
03-hr	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view		 2017-05-01 18:00 UTC Text: view	 2017-05-01 21:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view
06-hr	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 18:00 UTC Text: view
24-hr	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view					 2017-05-01 22:00 UTC Text: view	 2017-05-01 22:00 UTC Text: view	

3) Text Downloads

Composite Product: [text](#) [CSV](#) [CSV](#)

SFTP data transfer (requires SFTP Client): [EXPORTS REGIONAL/2017/05/01](#)

Surfnet Gauge Observations at 2017-05-01 22:00 UTC

Station Identifier	Station Name	Accumulated Precipitation (mm/24hr)	Average Temperature (C)	Region	Latitude	Longitude	Elevation	Enable Precipitation Flag	Enable Temperature Flag
406279	Upala	0.00	No Report	COSTARICA	10.87	-85.07	60	Enabled	Disabled
402222	Adfort La Fortuna San Carlos	0.00	No Report	COSTARICA	10.47	-84.65	266	Enabled	Disabled
221249	San Jose Pinilla	0.00	No Report	COSTARICA	10.26	-85.83	15	Enabled	Disabled
221250	Paquera	0.00	No Report	COSTARICA	9.82	-84.91	10	Enabled	Disabled
221023	Santa Rosa CC	0.00	No Report	COSTARICA	10.84	-85.62	315	Enabled	Disabled
221225	IJCR Cartago	0.00	No Report	COSTARICA	9.85	-83.9	1360	Enabled	Disabled
931127	Medanos, Occidente	6.66	No Report	COSTARICA	9.07	93.93	2960	Disabled	Disabled

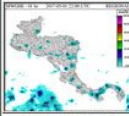
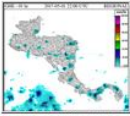
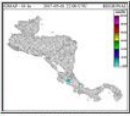

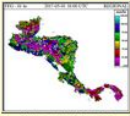
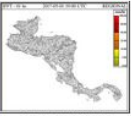

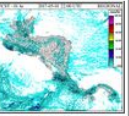
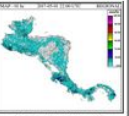
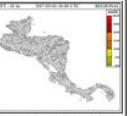
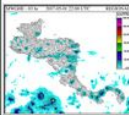
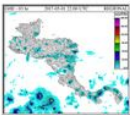
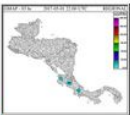
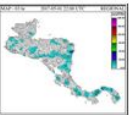
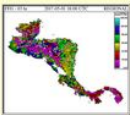
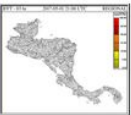
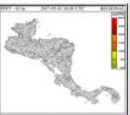
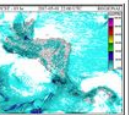
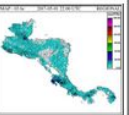
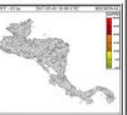
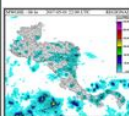
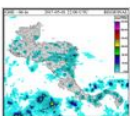
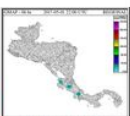
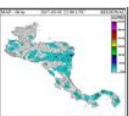
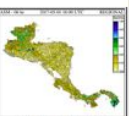

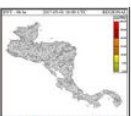
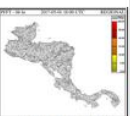
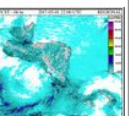
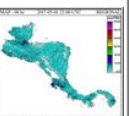

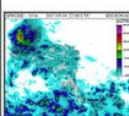
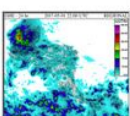
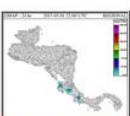
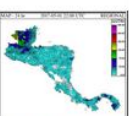
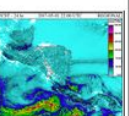
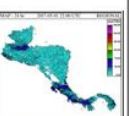
CAFFG Product Console

CAFFG - Central America Flash Flood Guidance System

Current Date: 2017-05-01 23:23 UTC Nav Date: 2017-05-01 22:00 UTC
 Year: 2017 Month: 05 Day: 01 Hour: 22 REGION: REGIONAL OPTION: MEDIAN Submit
 -1 Month -1 Day -6 Hours -1 Hour +1 Hour +6 Hours +1 Day +1 Month
 Prev 6-hr Interval (18 UTC) Reset to Current Next 6-hr Interval (00 UTC)

Hi/Lo Option

Duration

DT	MWGEH Precipitation	GHE Precipitation	Gauge MAP	Merged MAP	ASM	FFG	IFFT	PFFT	WRF Forecast	WRF FMAP	WRF FFFT
01-hr	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View		 2017-05-01 18:00 UTC Text: View	 2017-05-01 19:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View
03-hr	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View		 2017-05-01 18:00 UTC Text: View	 2017-05-01 21:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View
06-hr	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 18:00 UTC Text: View
24-hr	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View					 2017-05-01 22:00 UTC Text: View	 2017-05-01 22:00 UTC Text: View	

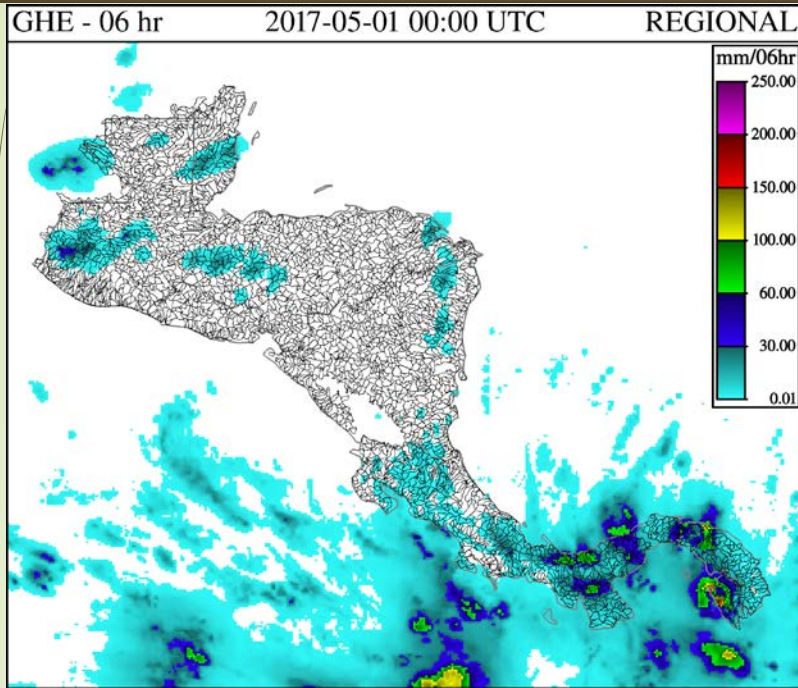
Composite Product: [text](#) [CSV](#) [CSV2](#)

SFTP data transfer (requires SFTP Client): [EXPORTS REGIONAL 2017/05/01](#)

Surfnet Gauge Observations at 2017-05-01 22:00 UTC

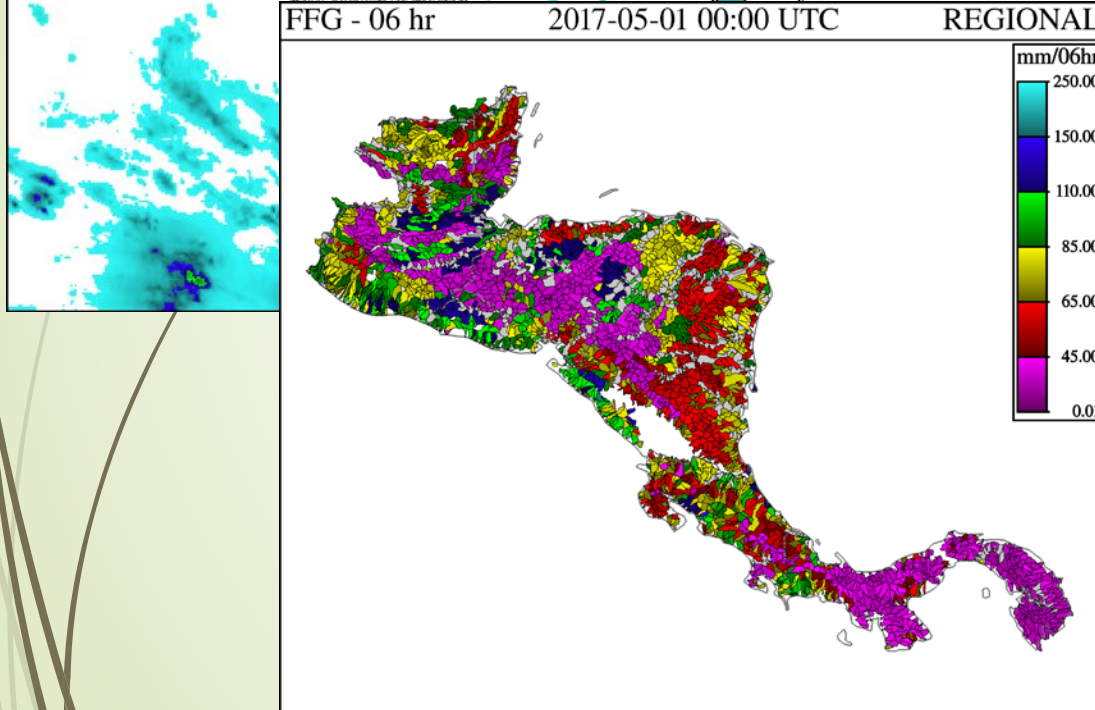
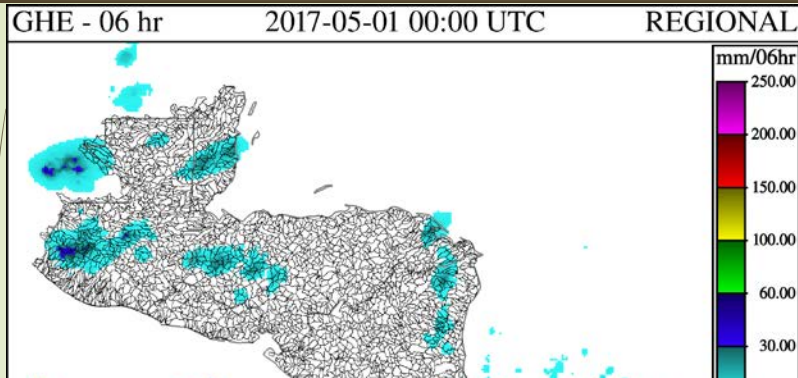
Station Identifier	Station Name	Accumulated Precipitation (mm/Day)	Average Temperature (C)	Region	Latitude	Longitude	Elevation	Enable Precipitation Flag	Enable Temperature Flag
69629	Upala	0.00	No Report	COSTARICA	10.87	-85.07	60	Enabled	Disabled
69722	Adfort La Fortuna San Carlos	0.00	No Report	COSTARICA	10.47	-84.65	266	Enabled	Disabled
72149	San Jose Pinilla	0.00	No Report	COSTARICA	10.26	-85.83	15	Enabled	Disabled
72159	Paquera	0.00	No Report	COSTARICA	9.82	-84.93	10	Enabled	Disabled
72163	Santa Rosa CC	0.00	No Report	COSTARICA	10.84	-85.62	315	Enabled	Disabled
73123	ITCR Cartago	0.00	No Report	COSTARICA	9.85	-83.9	1360	Enabled	Disabled
73137	Medina Torres	0.00	No Report	COSTA RICA	9.97	-83.93	3000	Disabled	Disabled

CAFFG Product Console – Examples of Individual Products



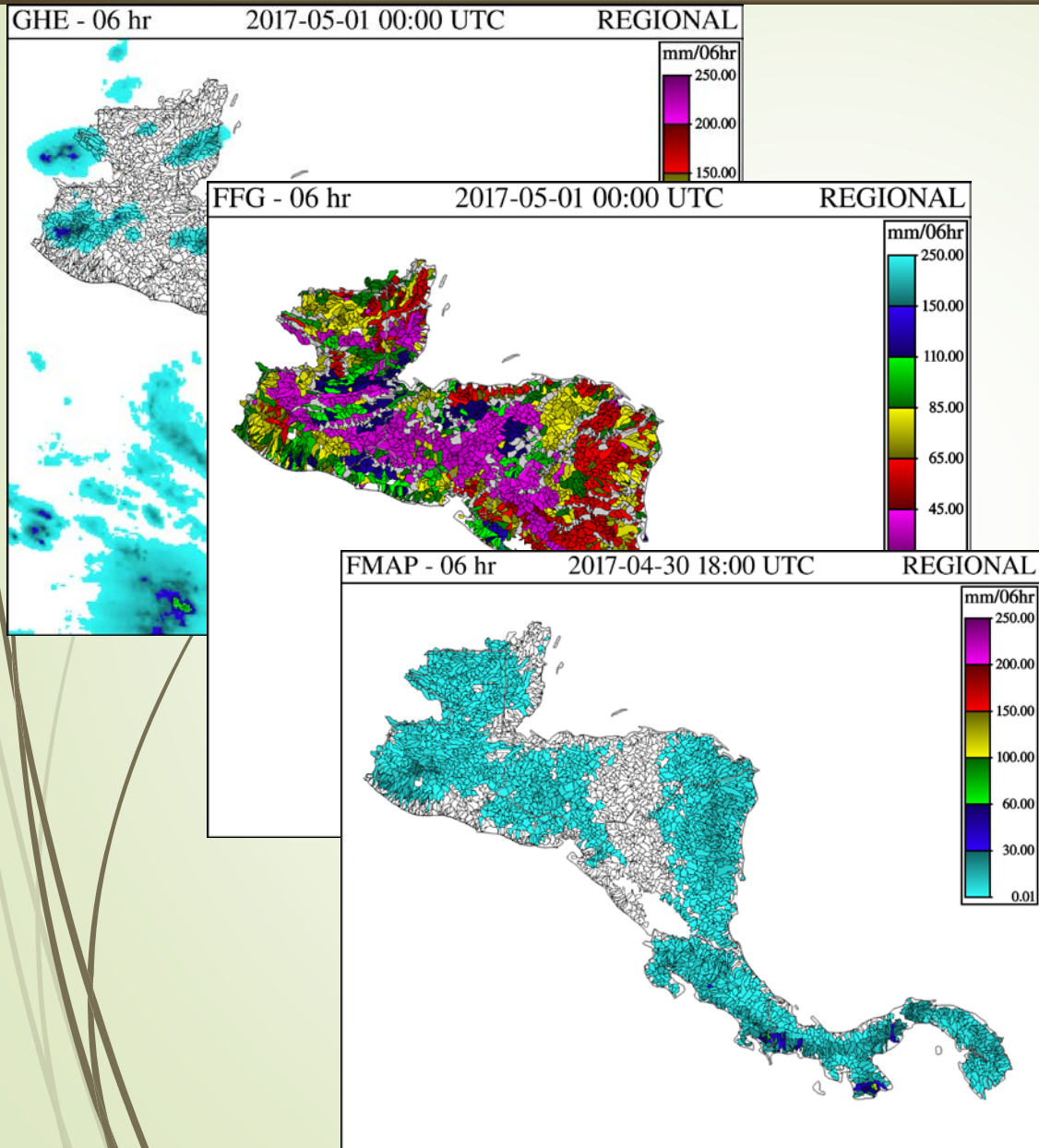
GHE – 06 hr: gridded satellite estimate of observed precipitation for the 6-hr accumulated precipitation ending on 2017-05-01 00:00UTC

CAFFG Product Console – Examples of Individual Products



FFG – 06 hr: Flash flood guidance
Amount of rainfall over basin in
the next 6 hours necessary to
produce bankfull conditions in the
stream at the watershed outlet.
Valid for 2017-05-01 00:00UTC

CAFFG Product Console – Examples of Individual Products



FMAP – 06 hr: Forecast mean area precipitation over each watershed for the next 6 hours beginning 2017-04-30 18:00UTC

CAWRF

- Nested design

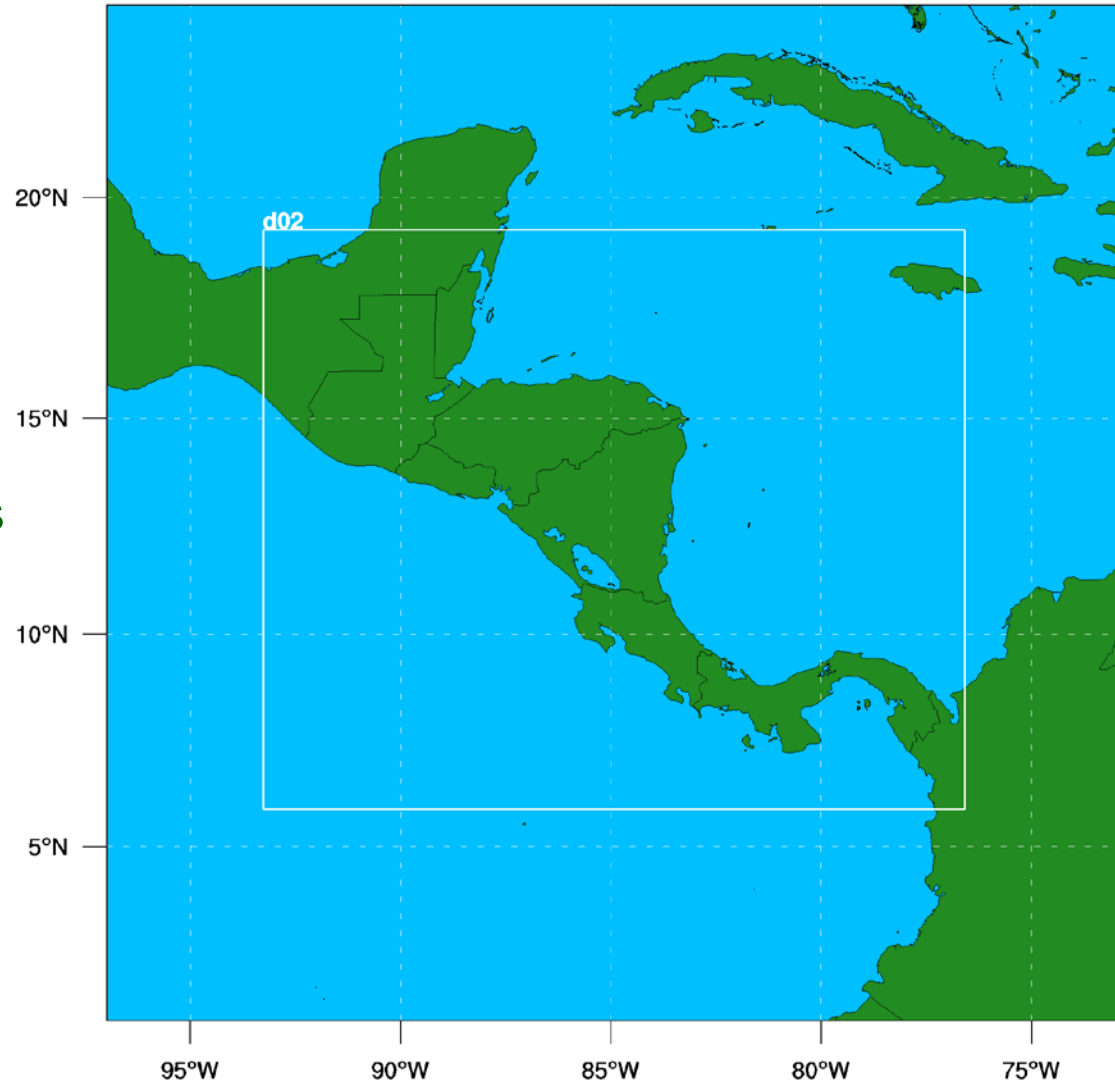
 - Outer Grid: 150 x 150
18km resolution

 - Inner Grid: 310 x 256,
6km resolution

- Forecast lead time of 48-hours

- 2 Forecasts per day

- Forcing from NCEP's GFS
(0.5° resolution)



CAFFG Product Console

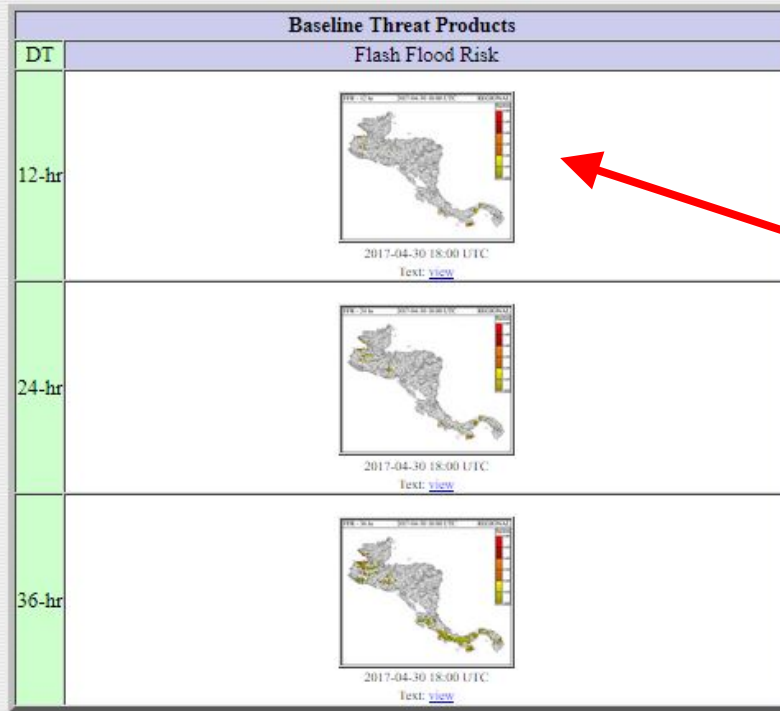
2017-04-30 18:00 UTC [Text: view](#) 2017-04-30 18:00 UTC [Text: view](#) 2017-04-30 18:00 UTC [Text: view](#) 2017-04-30 18:00 UTC [Text: view](#) 2017-04-30 18:00 UTC [Text: view](#) 2017-04-30 18:00 UTC [Text: view](#)

Composite Product: [Text: CSV](#) [CSV](#) [CSV](#) SFTP data transfer (requires SFTP Client): [EXPORTS_REGIONAL_2017_04_30](#)

Surfmet Gauge Observations at 2017-04-30 18:00 UTC

Station Identifier	Station Name	Accumulated Precipitation (mm 01hr)	Average Temperature (C)	Region	Latitude	Longitude	Elevation	Enable Precipitation Flag	Enable Temperature Flag
696759	Upala	0.00	No Report	COSTARICA	10.87	-85.07	60	Enabled	Disabled
69727	Adifort La Fortuna San Carlos	0.00	No Report	COSTARICA	10.47	-84.65	266	Enabled	Disabled
73149	San Jose Pinilla	0.00	No Report	COSTARICA	10.26	-85.83	15	Enabled	Disabled
73159	Paquera	0.00	No Report	COSTARICA	9.82	-84.93	10	Enabled	Disabled
73163	Santa Rosa CC	0.00	No Report	COSTARICA	10.84	-85.62	315	Enabled	Disabled
73123	ITCR Cartago	0.00	No Report	COSTARICA	9.85	-83.9	1360	Enabled	Disabled
73137	Atitlan Turrubia	0.00	No Report	COSTARICA	9.97	-83.93	3060	Enabled	Disabled

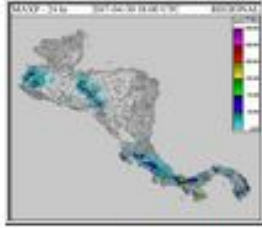
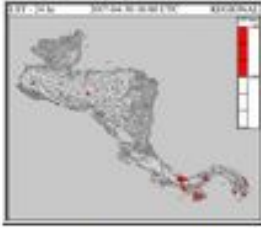
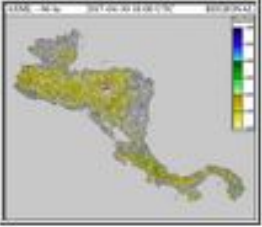
4) Real-time Gauge Information



5) Chance of Flash Floods Product

CAFFG Product Console

6) Landslide Products

Landslide Hazard Assessment Products			
DT	4-Day Average Lower SM	Max Precipitation	Landslide Threat Index
24-hr		 2017-04-30 18:00 UTC Text: view	 2017-04-30 18:00 UTC Text: view
4-day	 2017-04-30 18:00 UTC Text: view		

8) Links

[HOME](#) | [About CAFFG Real-Time Product Console](#) | [Product Descriptions](#) | [Processing Logs](#) | [Server Monitor](#) | [Static Resources](#) | [Dashboard](#)

CAFFG Real-Time Product Console v.3.0, Release Date: December 2016

Copyright © 2007 [Hydrologic Research Center](#) (HRC)

Introduction to the CAFFG System User Interfaces



THANK YOU
for your kind attention