



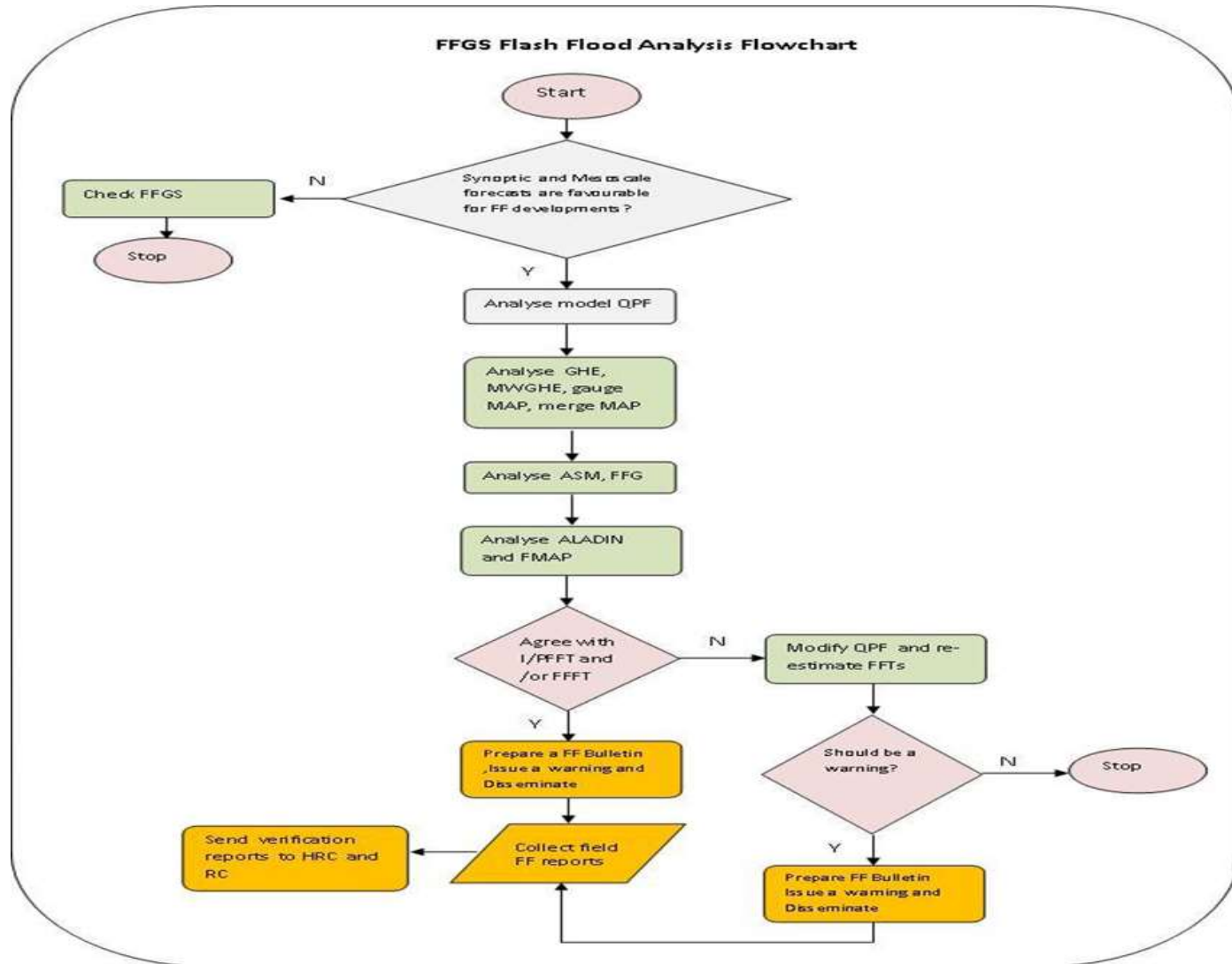
World Meteorological Organization

Weather • Climate • Water

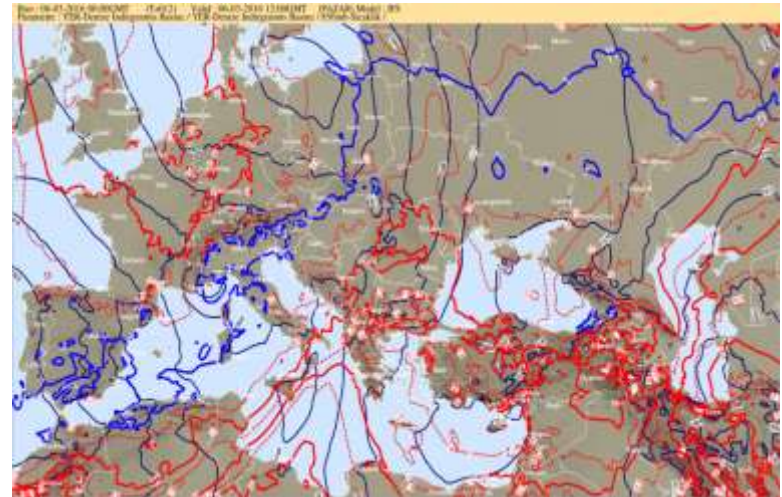
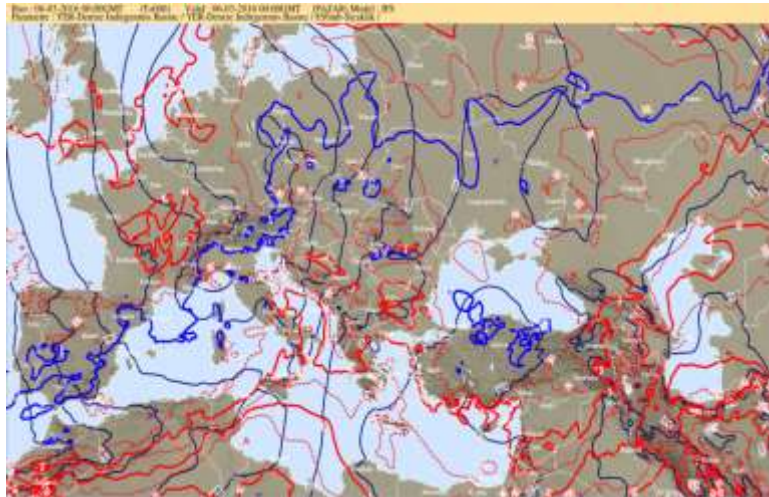
South East Europe Flash Flood Guidance (SEEFFG) System A Case Study: 6-8 March 2016 Flash Flood Events



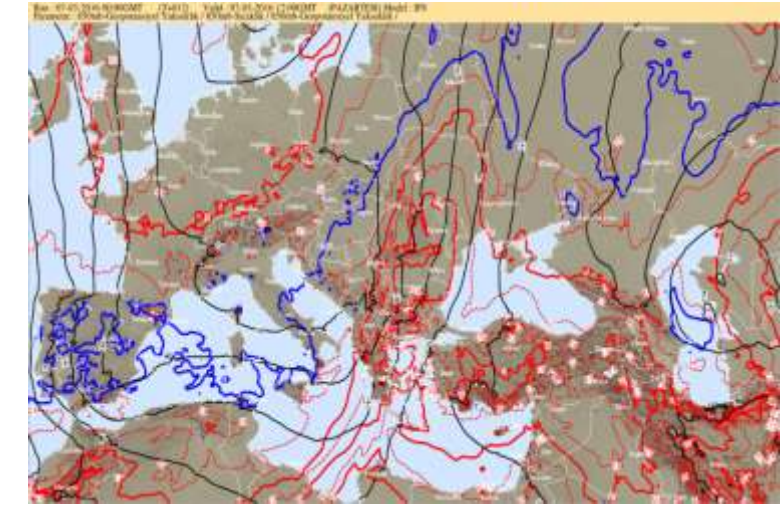
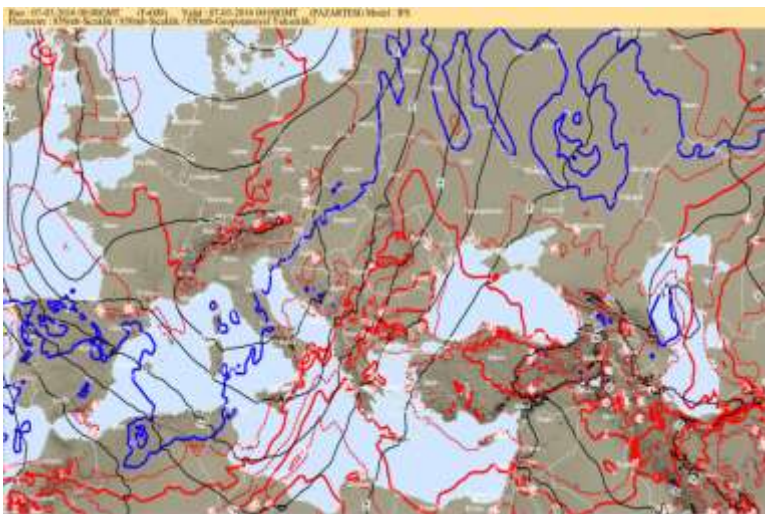
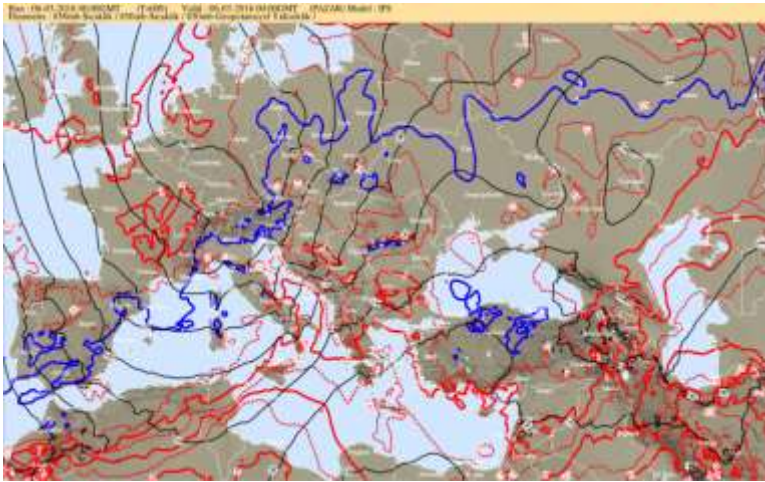
Flash Flood Warning Flow Chart



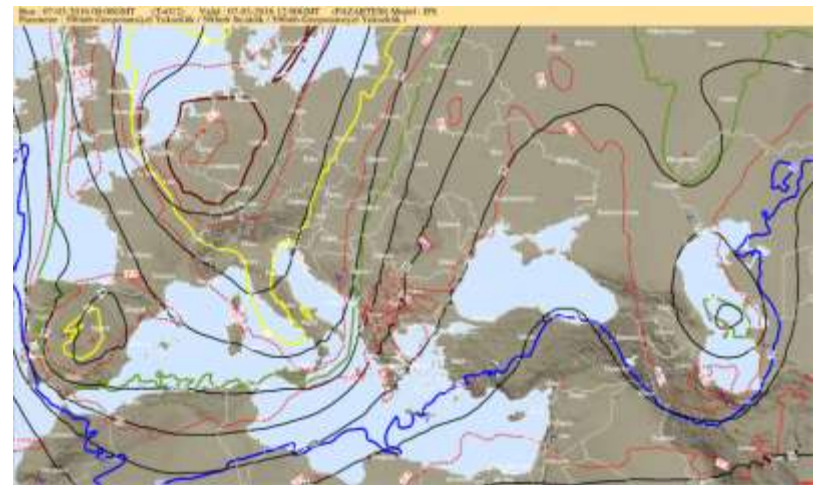
ECMWF Surface Pressure + 850 hPa Temperature 6-7 March 2016 00 and 12 UCT



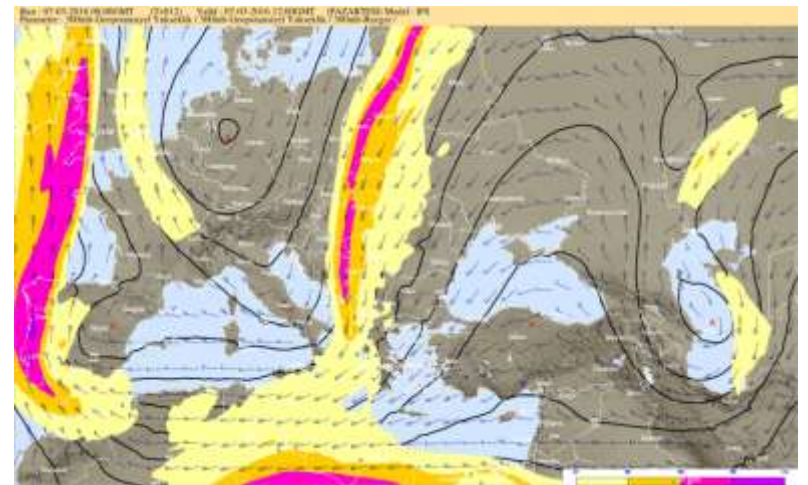
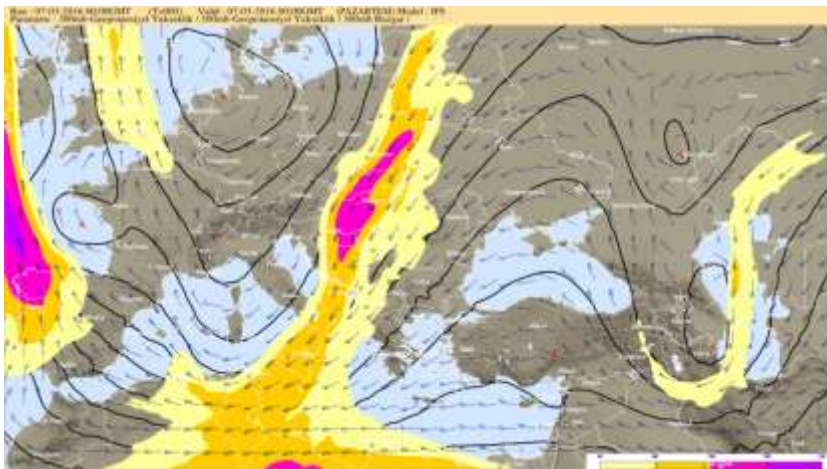
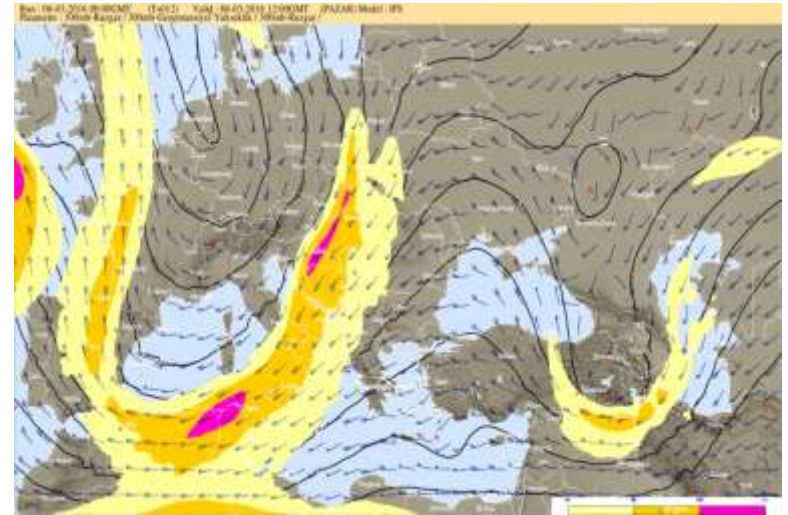
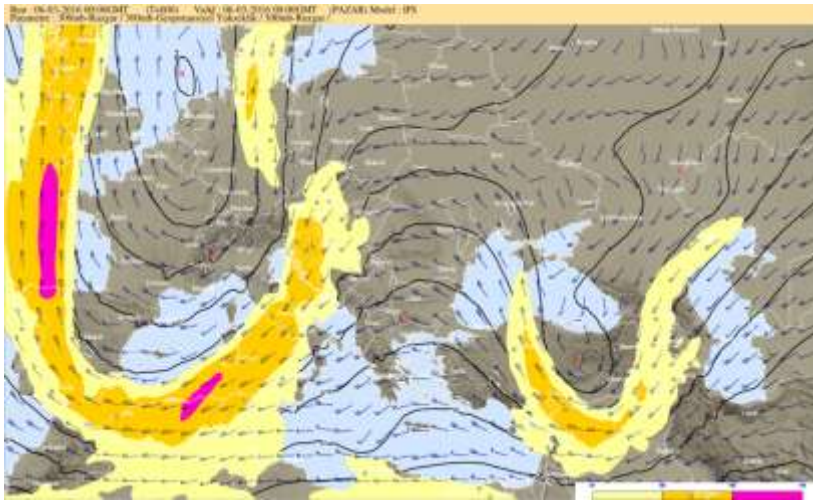
ECMWF 850 hPa Charts 6-7 March 2016 00 and 12 UCT



ECMWF 500 hPa Charts 6-7 March 2016 00 and 12 UCT



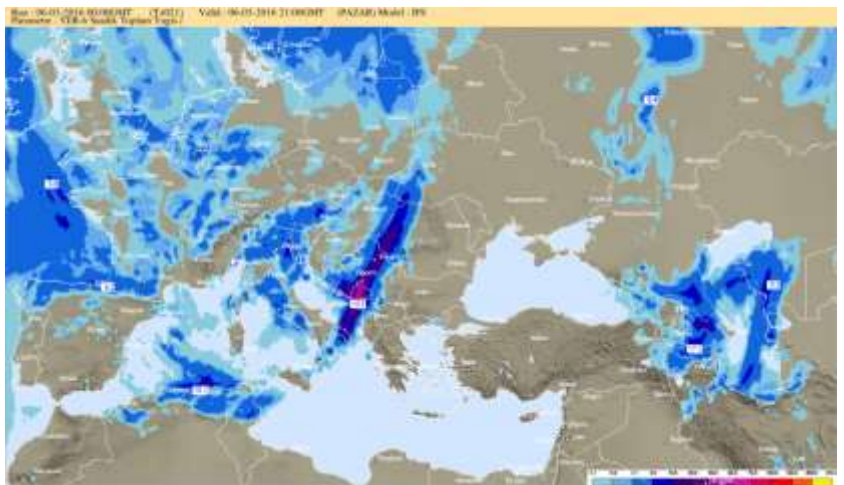
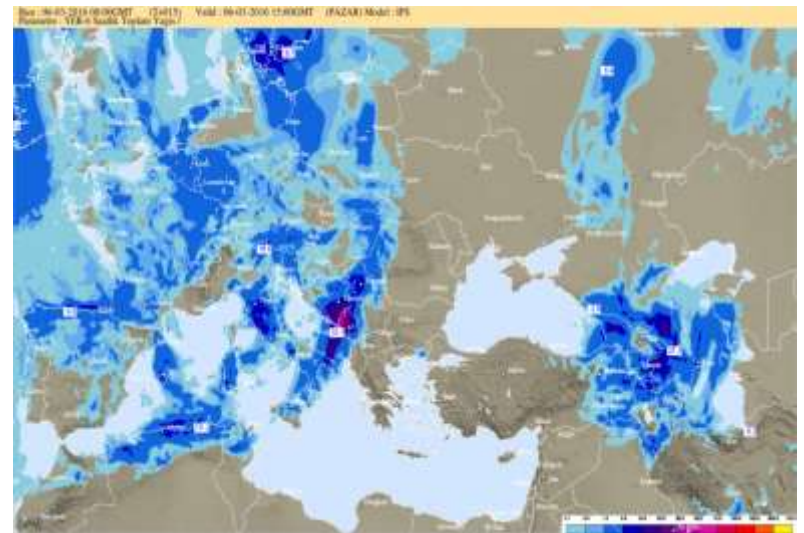
ECMWF Jet 6-7 March 2016 00 and 12 UCT



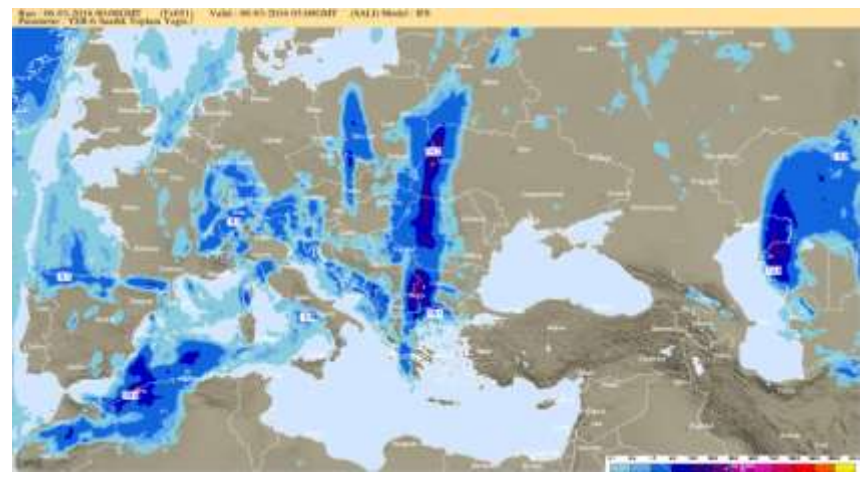
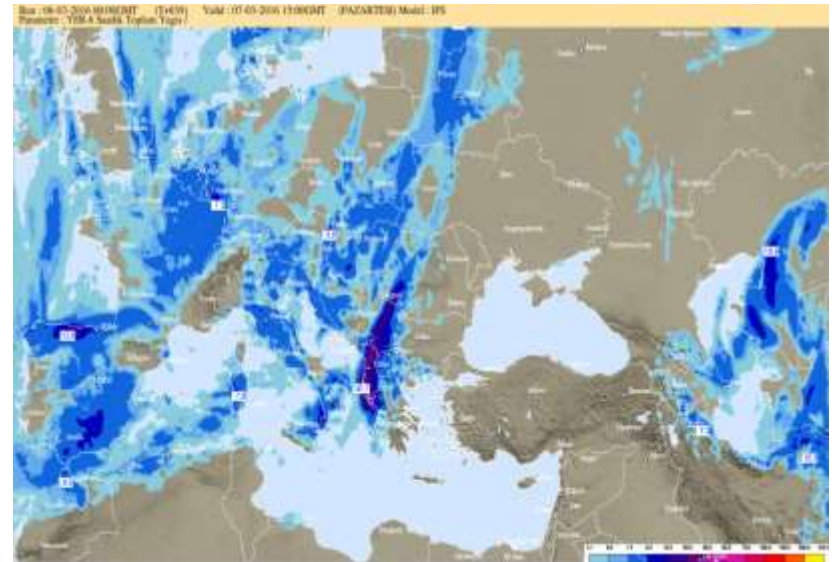
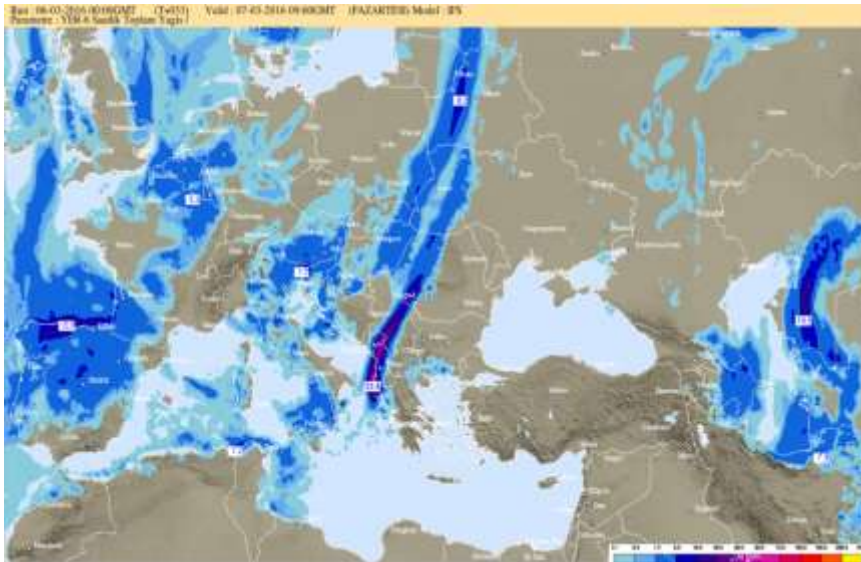
ECMWF Instability 6-7 March 2016 00 and 12 UCT



ECMWF 00+6-hr Precipitation 6 March 2016



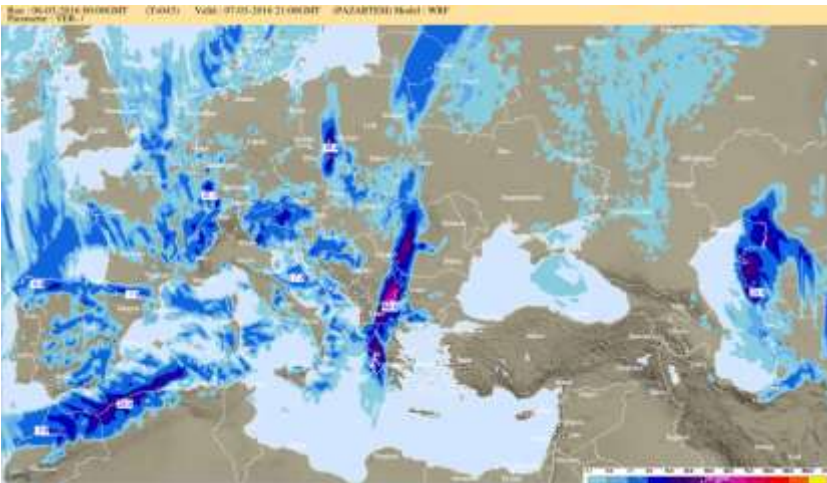
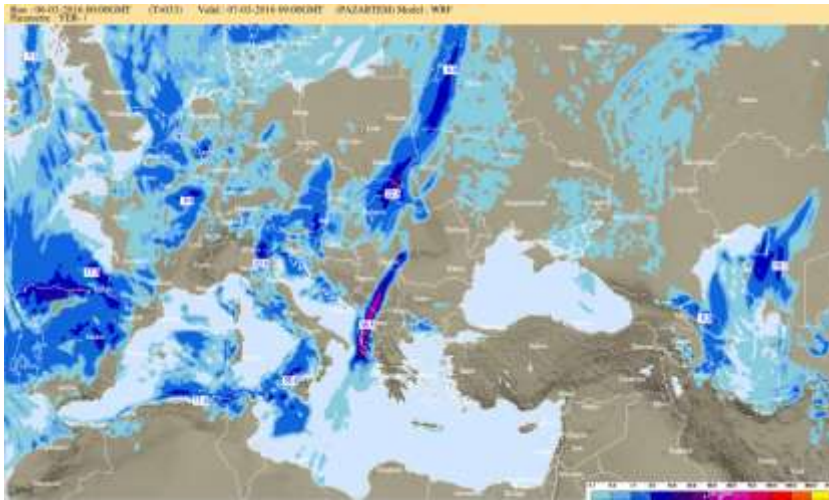
ECMWF 00+6-hr Precipitation 6 March 2016



WRF 00+6-hr Precipitation 6 March 2016



WRF 00+6-hr Precipitation 6 March 2016



Comparison of ECMWF and WRF Precipitation Forecasts

Date & Time 06032016 00 +6 hr interval	ECMWF Precipitation Forecast (mm)	WRF Precipitation Forecast (mm)
00 UCC	32.7	36.9
06UTC	46.4	68.3
12 UTC	44.1	92.3
18 UTC	39.9	90.6
00 UTC	53.4	54.4
06 UTC	41.1	34.4
12 UTC	29.8	49.4
18 UTC	16.1	33.1



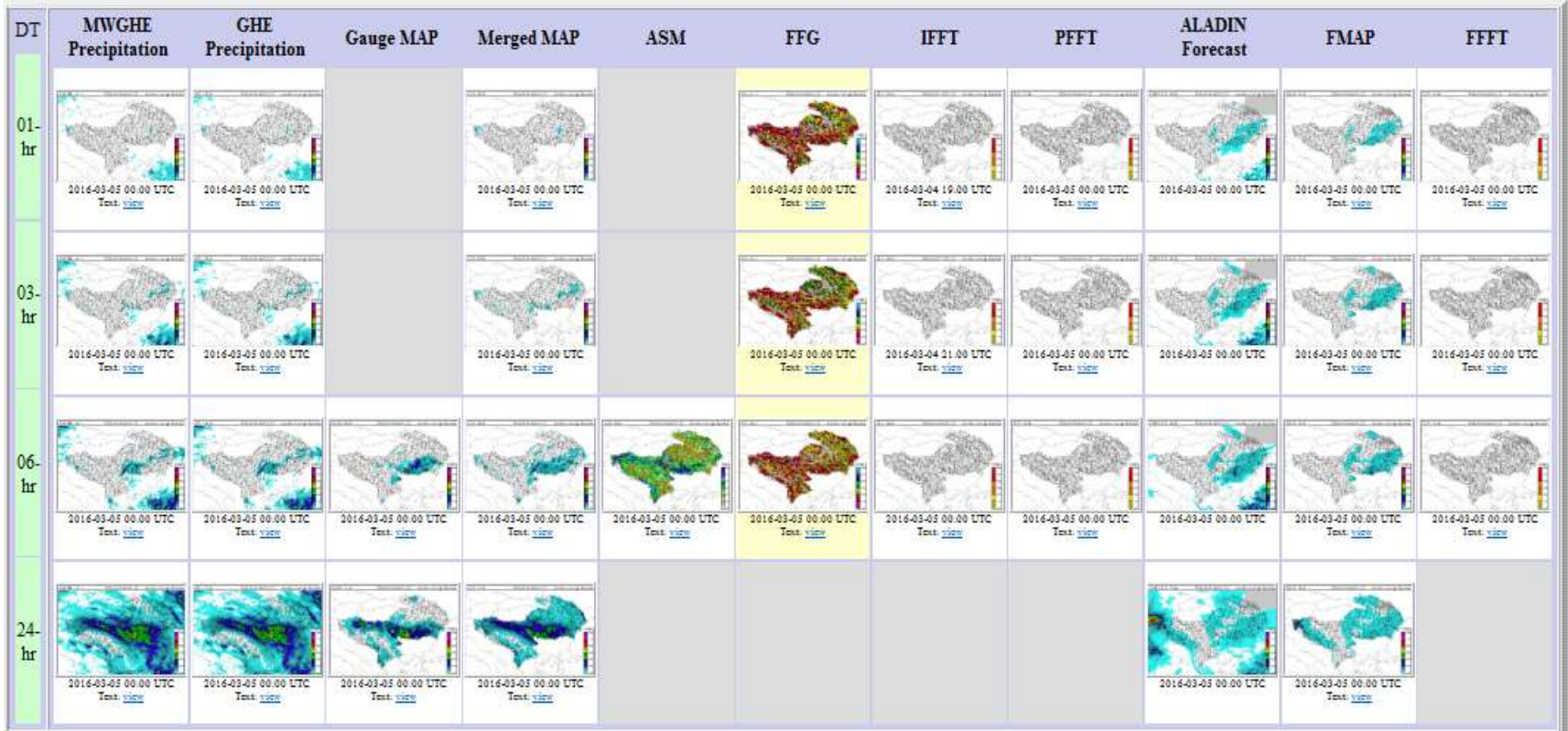
SEEFFG Products:05032016 00UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

Current Date: 2016-07-11 11:41 UTC

Nav Date: 2016-03-05 00:00 UTC

Year: 2016 Month: 03 Day: 05 Hour: 00 REGION: Southeast Europe Regional



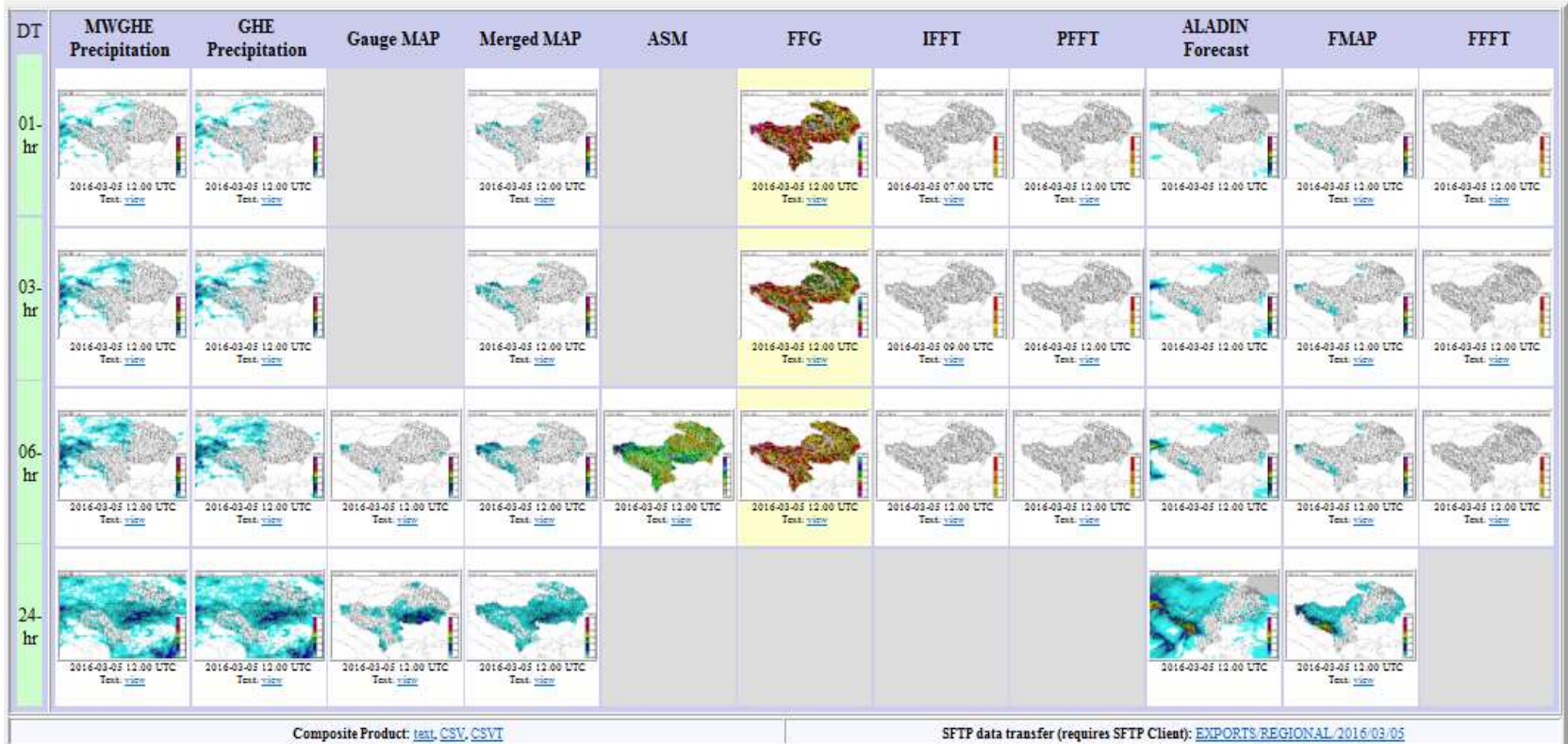
SEEFFG Products:05032016 12UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

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Nav Date: 2016-03-05 12:00 UTC

Year: 2016 Month: 03 Day: 05 Hour: 12 REGION: Southeast Europe Regional



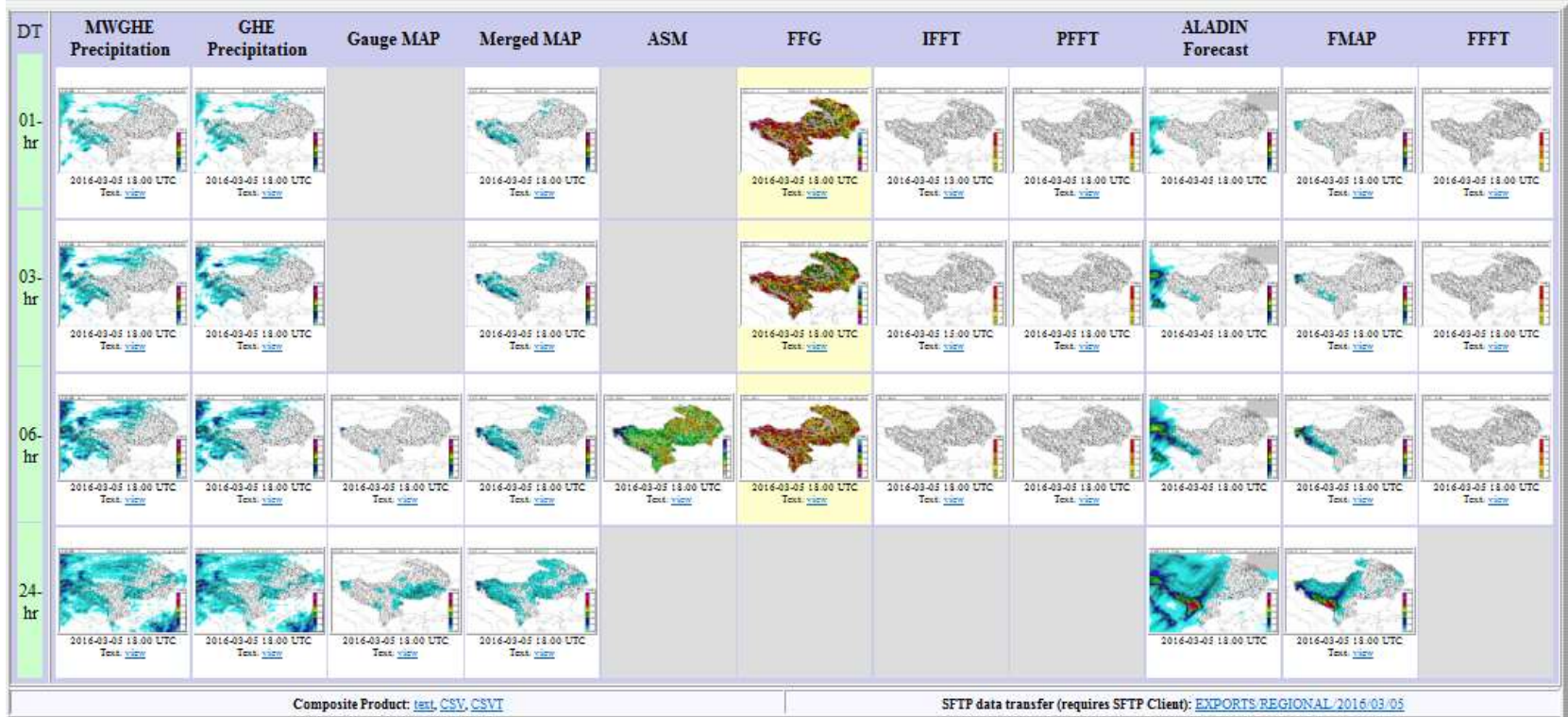
SEEFFG Products:05032016 18UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

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Nav Date: 2016-03-05 18:00 UTC

Year: 2016 Month: 03 Day: 05 Hour: 18 REGION: Southeast Europe Regional



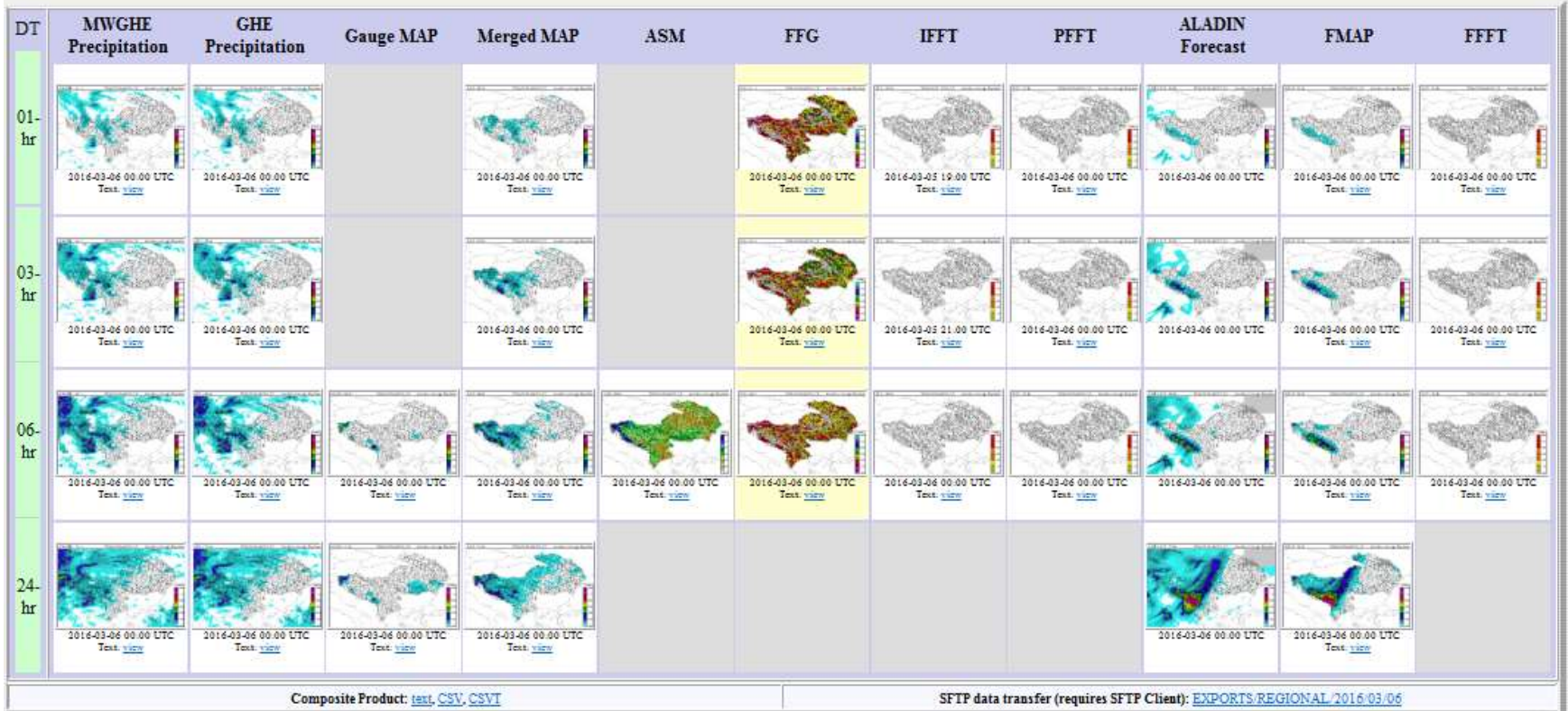
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SEEFFG - Southeast Europe Flash Flood Guidance System

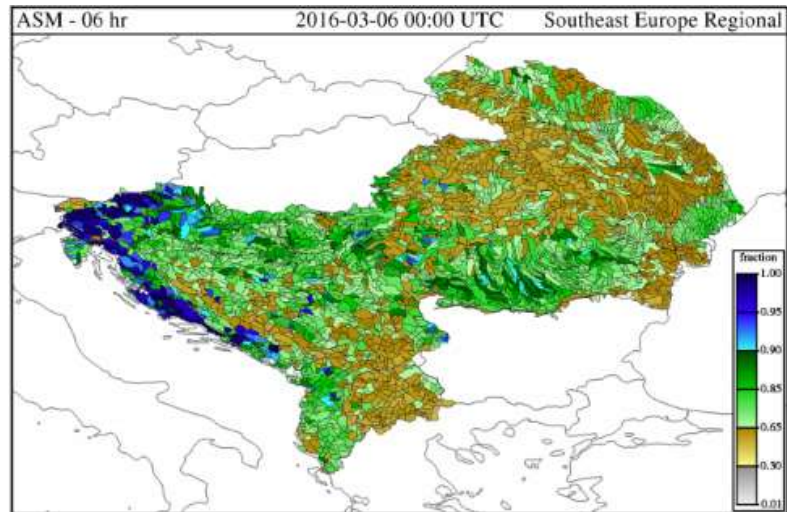
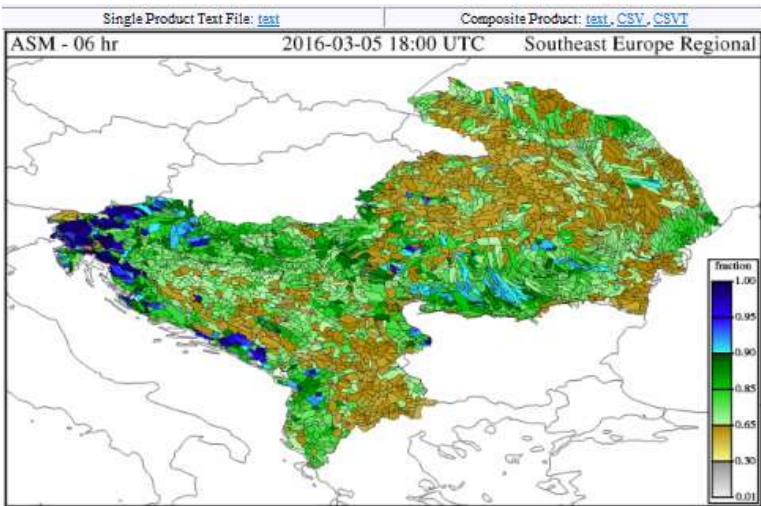
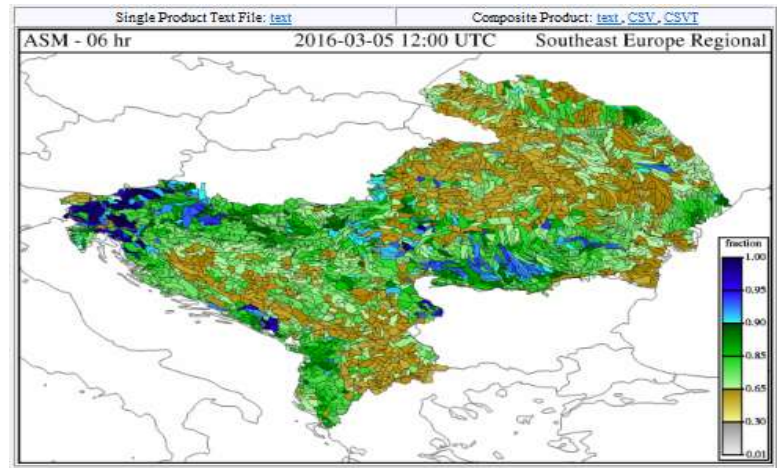
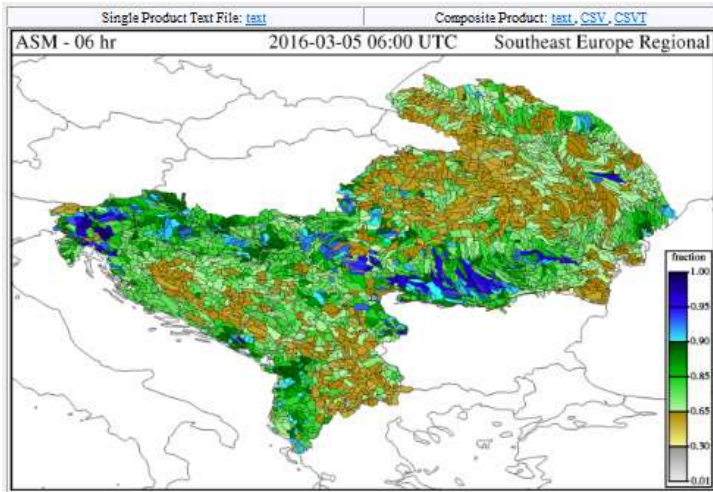
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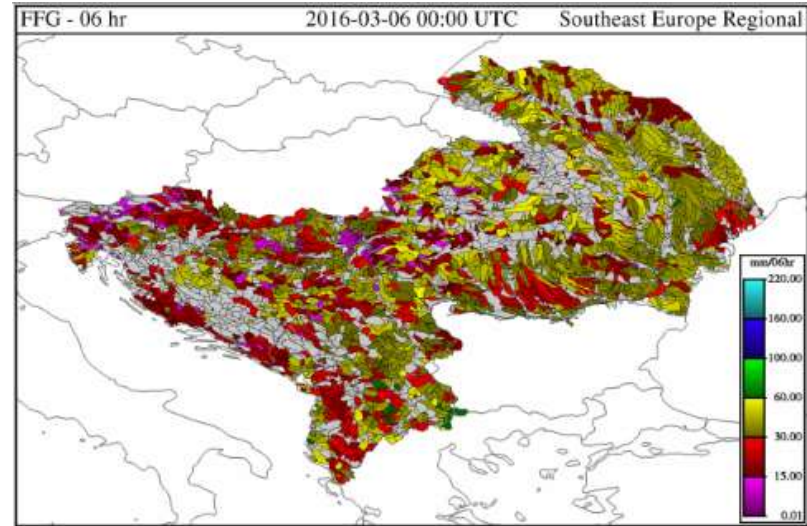
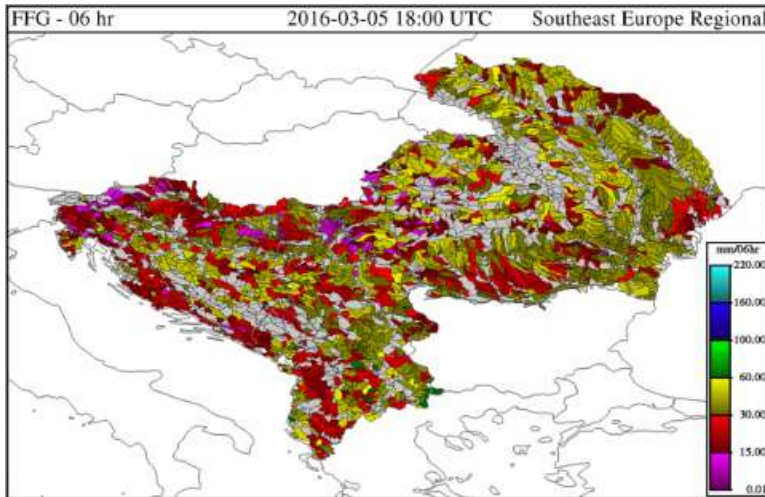
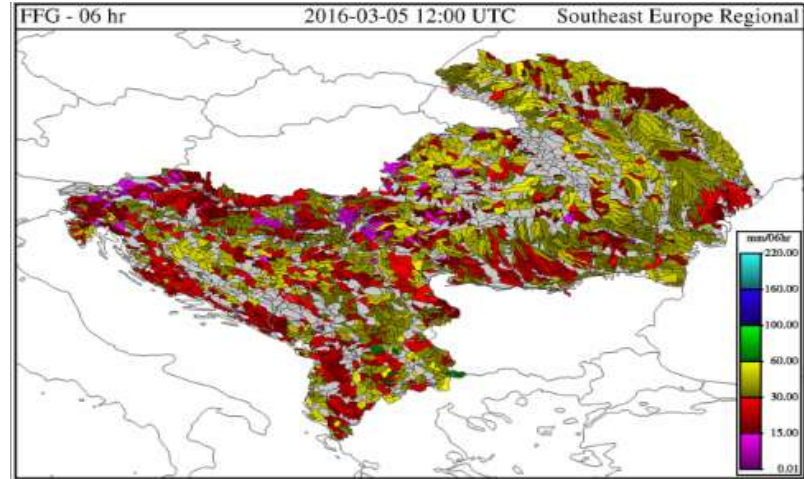
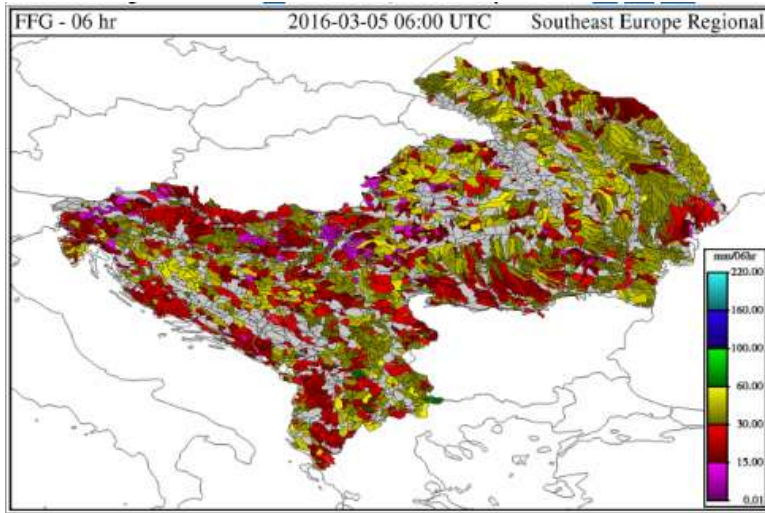
Year: 2016 Month: 03 Day: 06 Hour: 00 REGION: Southeast Europe Regional



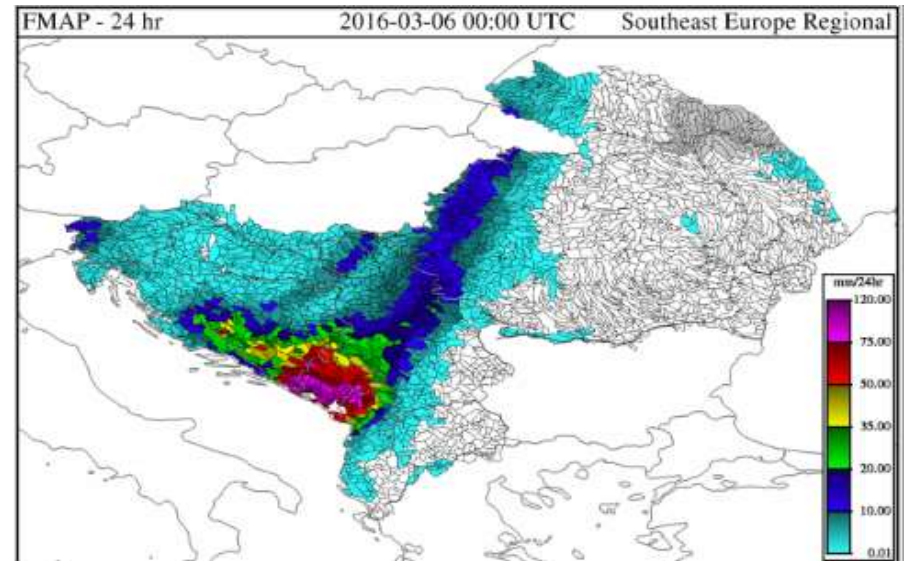
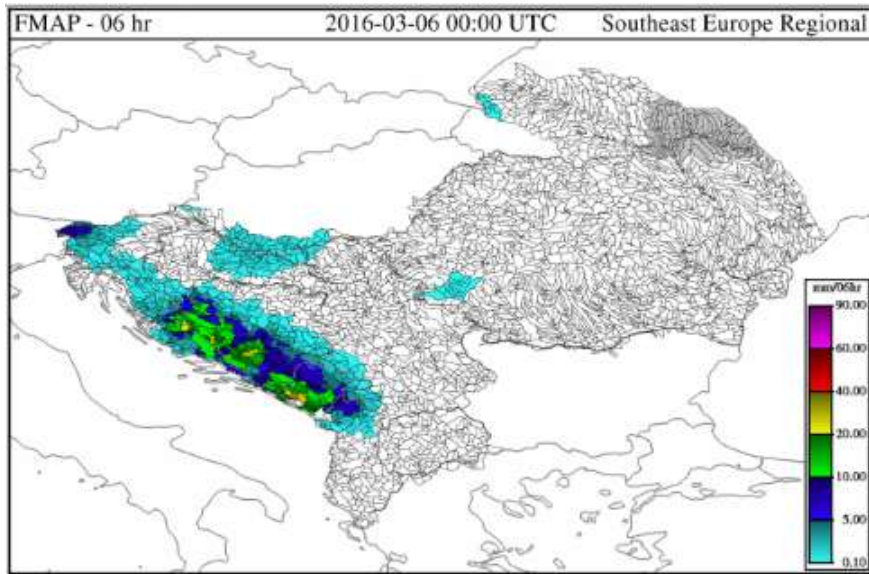
SEEFFG Products: ASM 6-hr 05-06032016



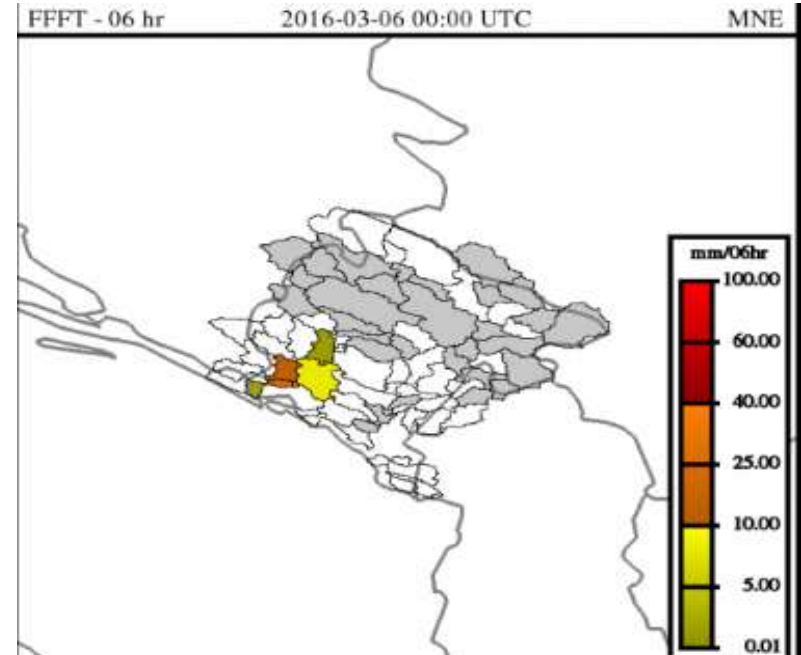
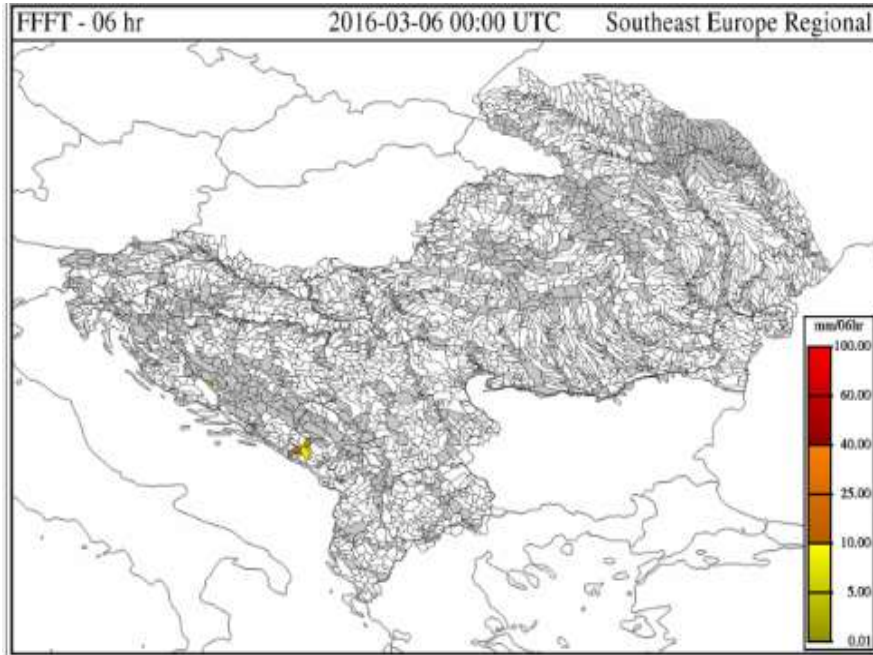
SEEFFG Products: FFG 6-hr 05-06032016



SEEFFG Products: FMAP 6 & 24-hr 06032016 00UTC



SEEFFG Products: FFFT 6-hr 06032016 00UTC



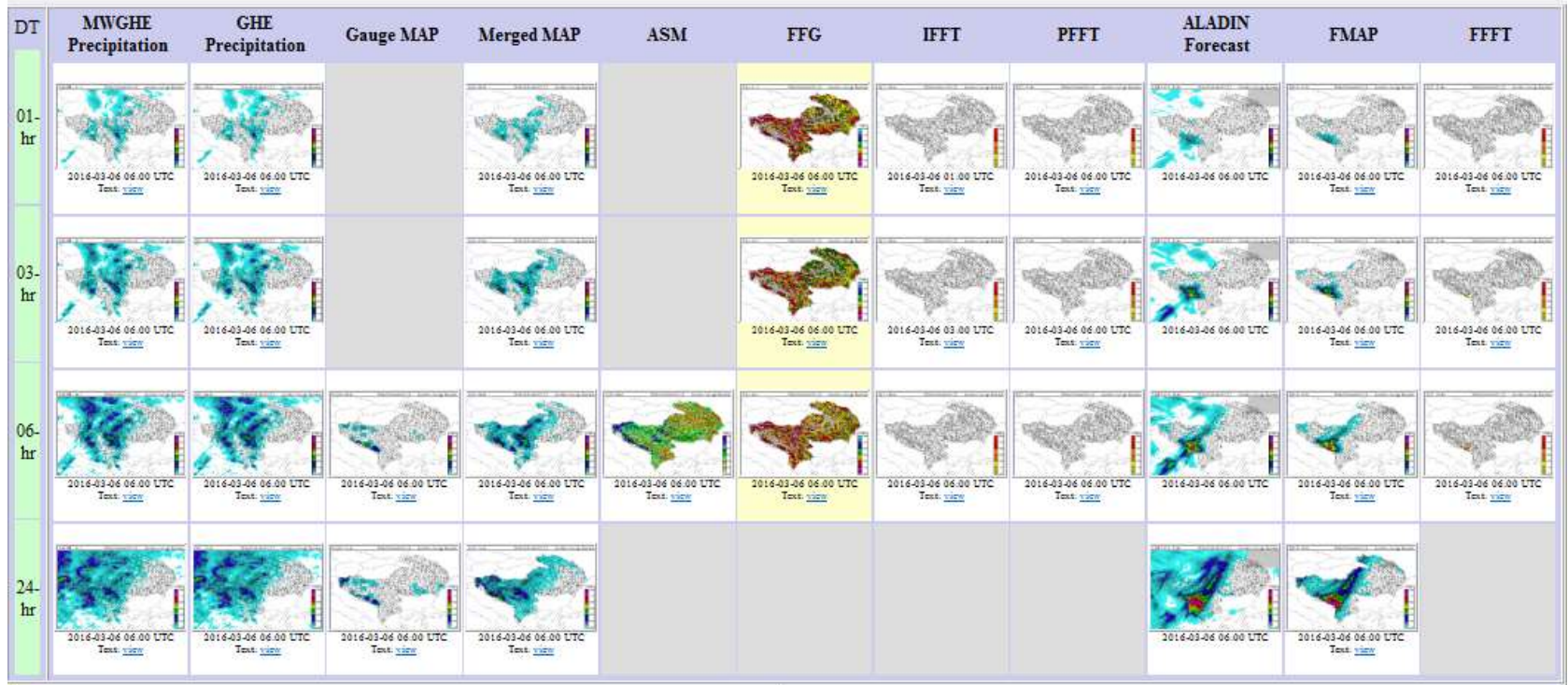
SEEFFG Products: 06032016 06UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

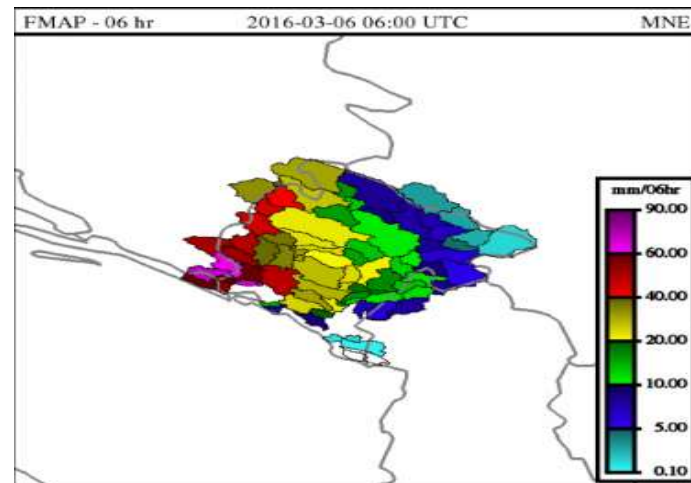
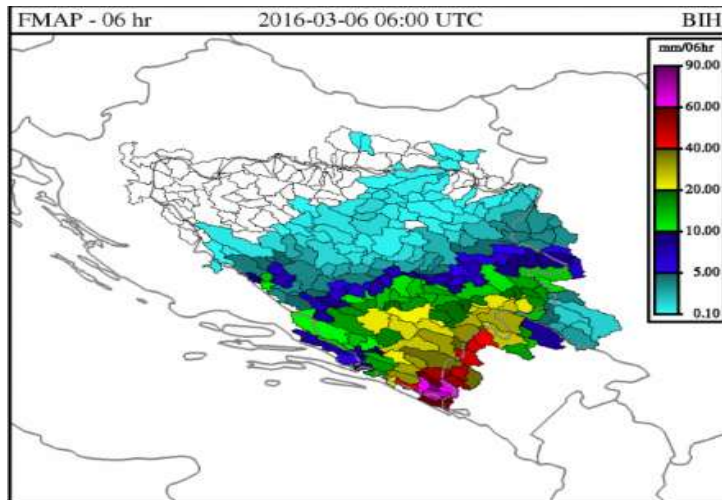
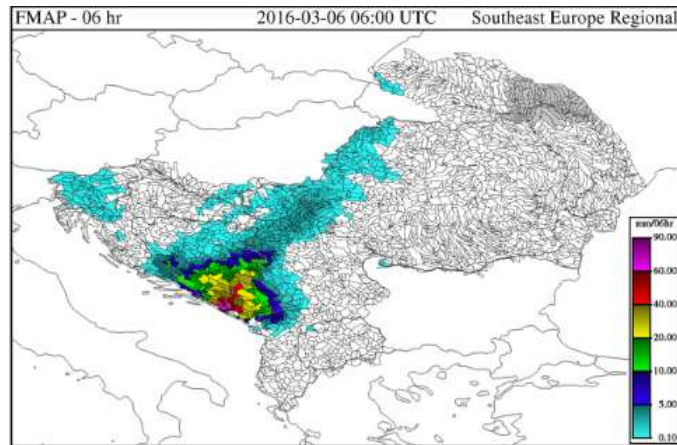
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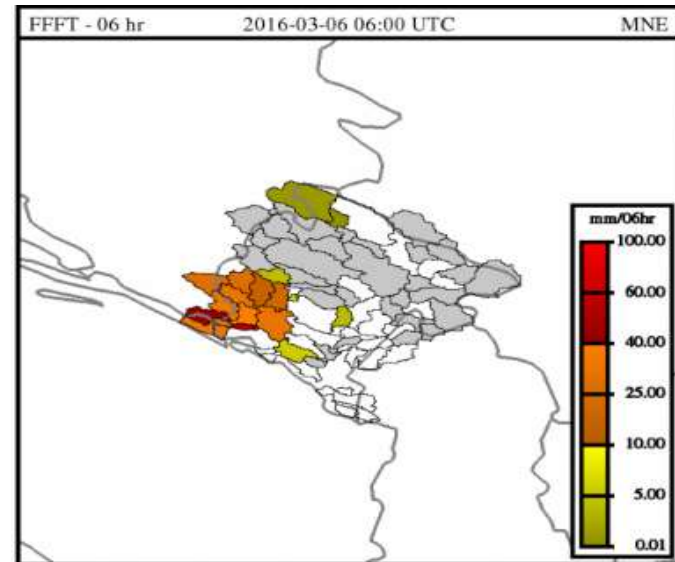
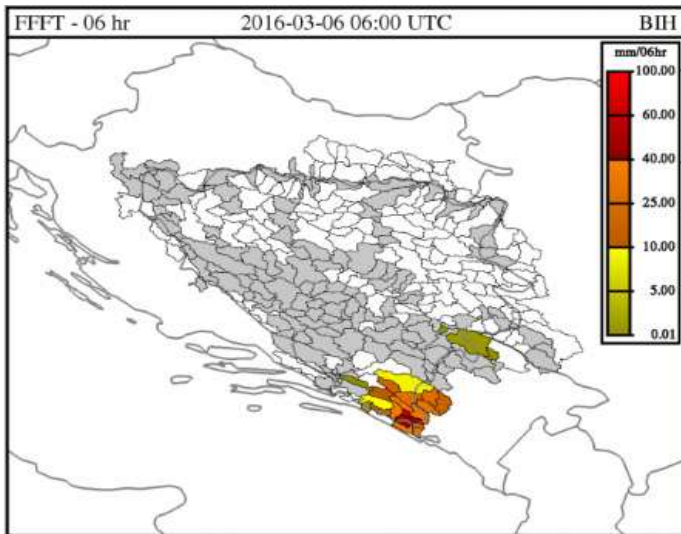
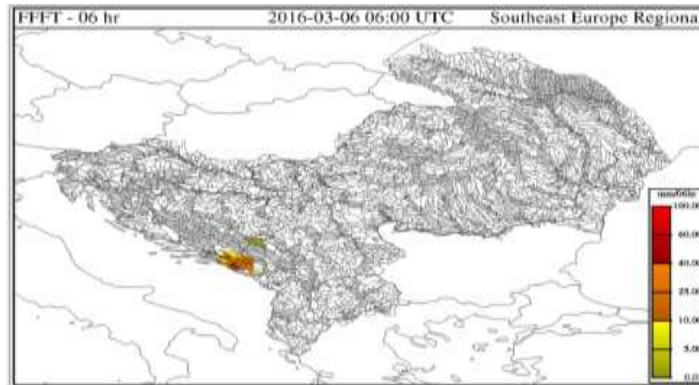
Year: 2016 Month: 03 Day: 06 Hour: 06 REGION: Southeast Europe Regional



SEEFFG Products: FMAP 06032016 06UTC



SEEFFG Products: FFFT-6 hr 06032016 06UTC



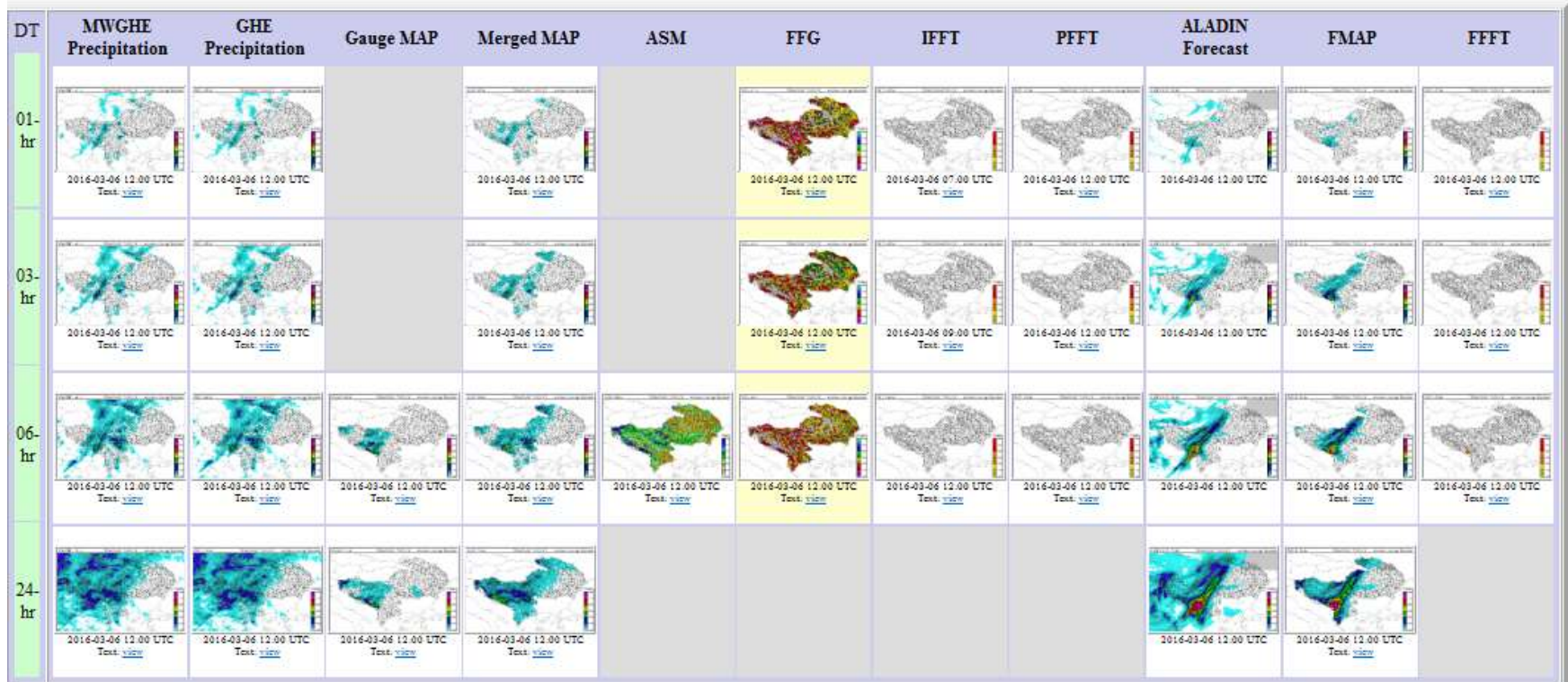
SEEFFG Products: FFFT-6 hr 06032016 12UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

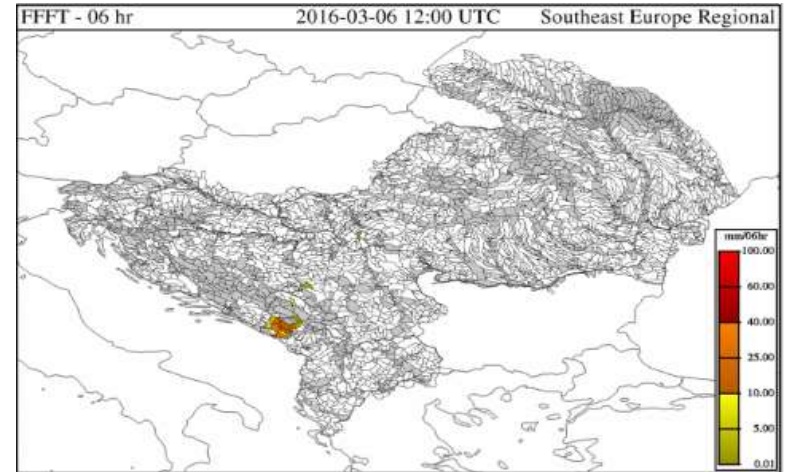
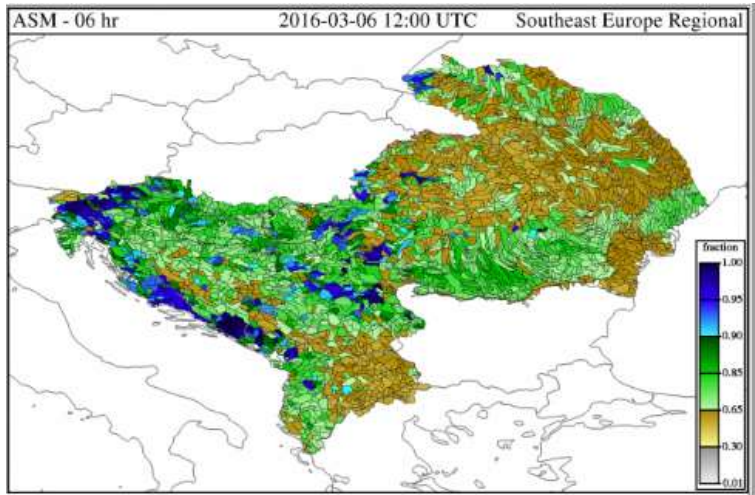
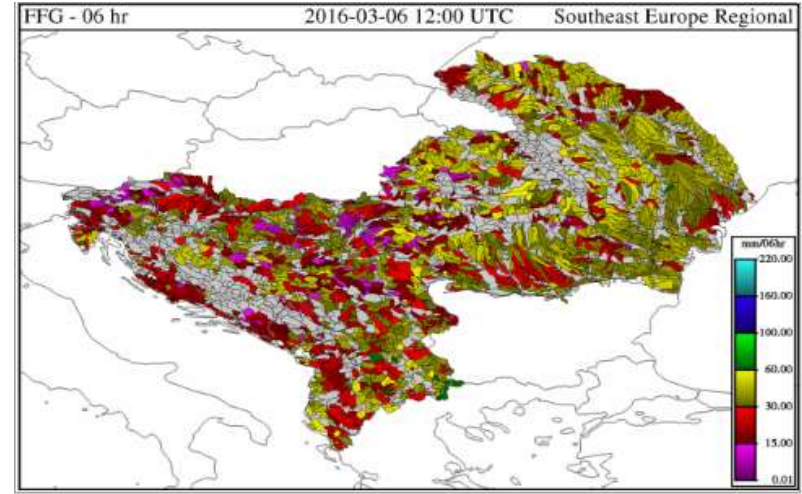
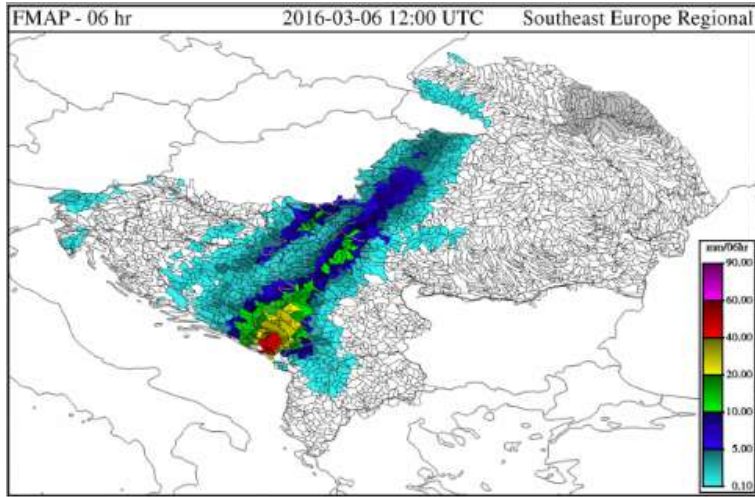
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Year: 2016 Month: 03 Day: 06 Hour: 12 REGION: Southeast Europe Regional



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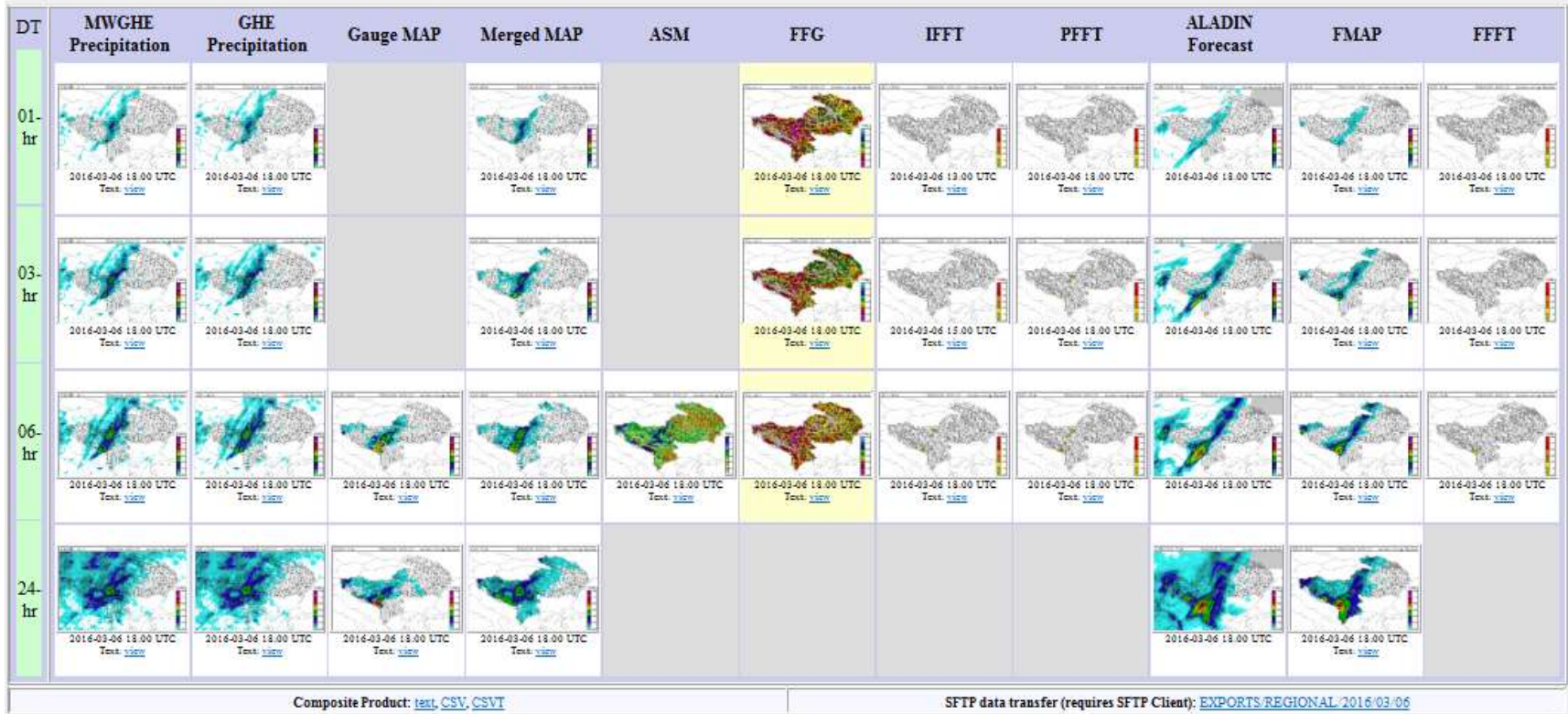
SEEFFG Products: 06032016 18UTC

SEEFFG - Southeast Europe Flash Flood Guidance System

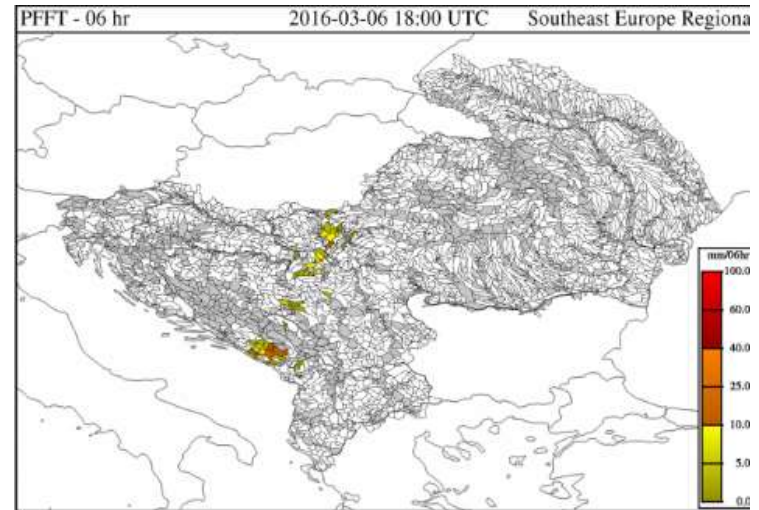
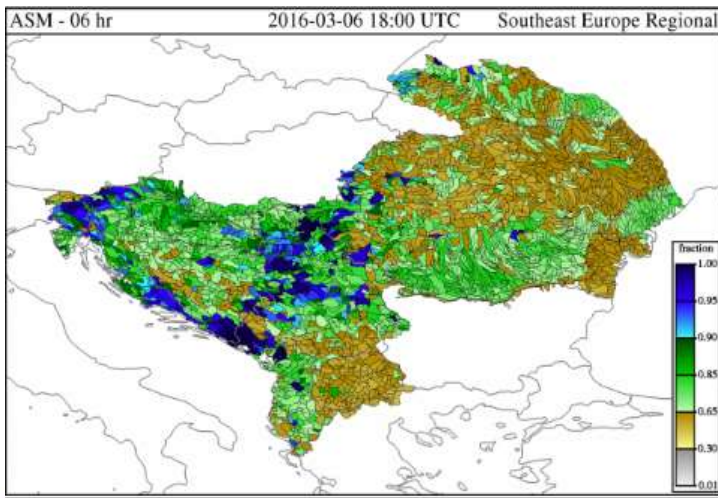
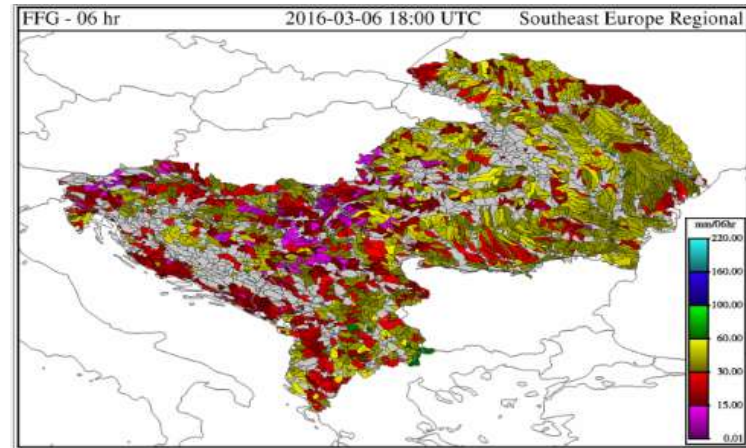
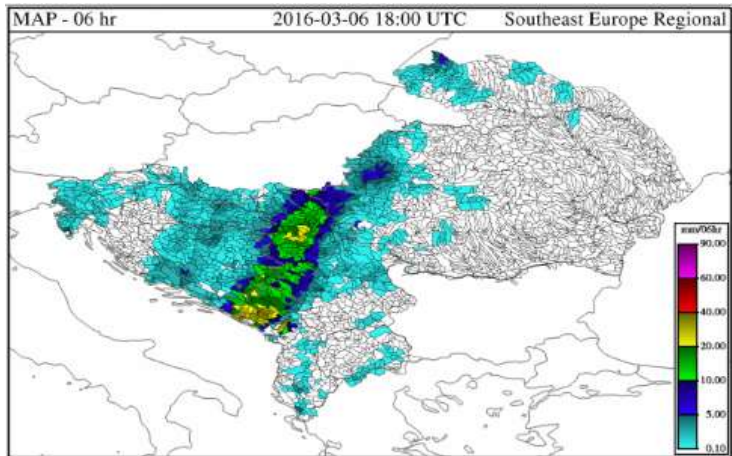
Current Date: 2016-05-07 16:25 UTC

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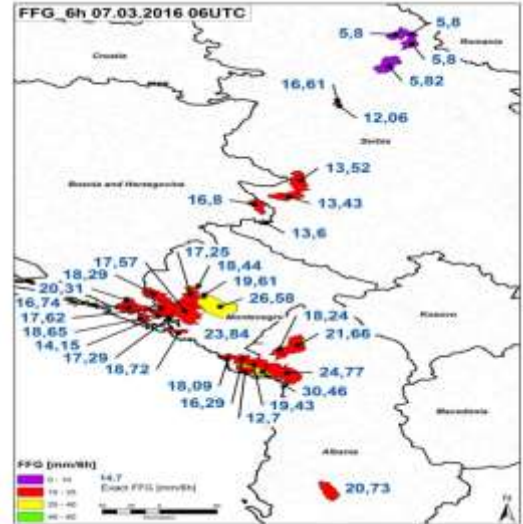
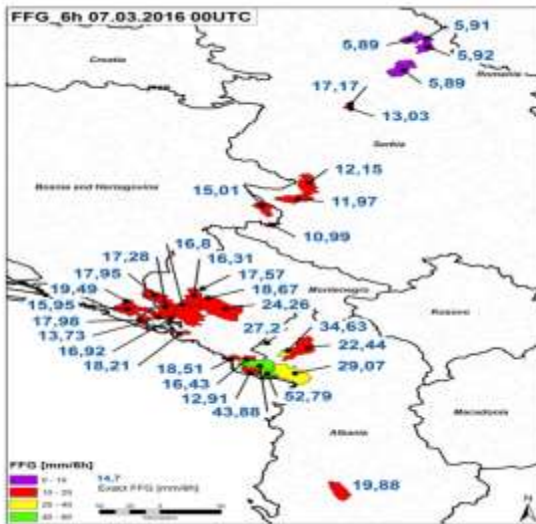
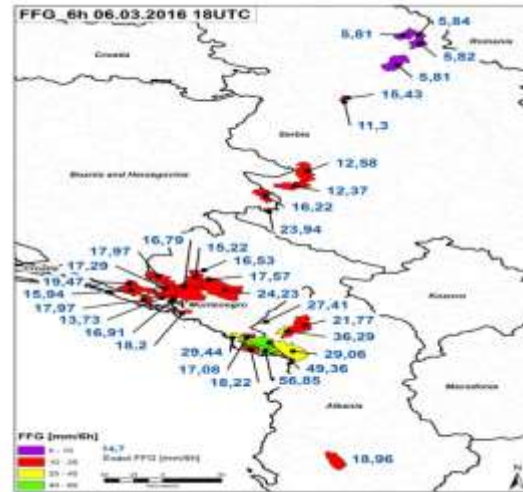
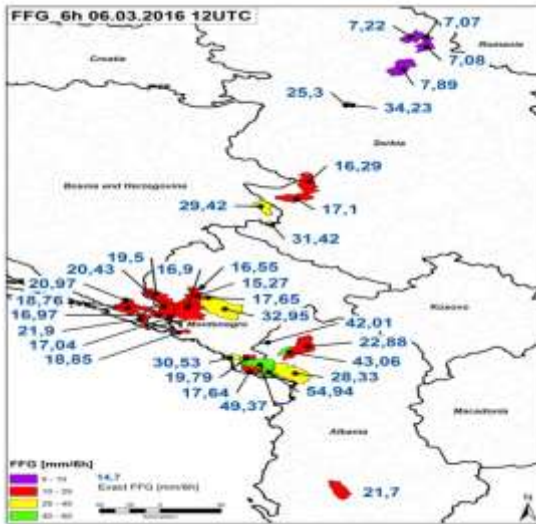
Year: 2016 Month: 03 Day: 06 Hour: 18 REGION: Southeast Europe Regional



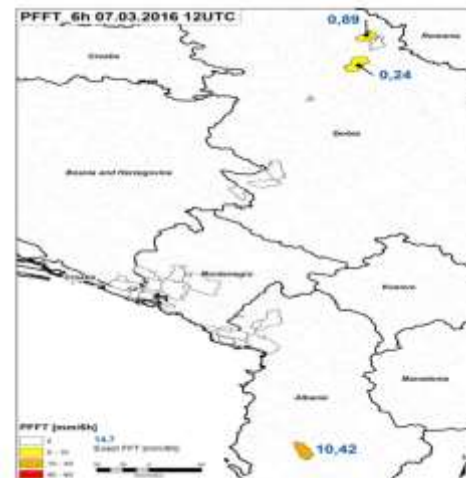
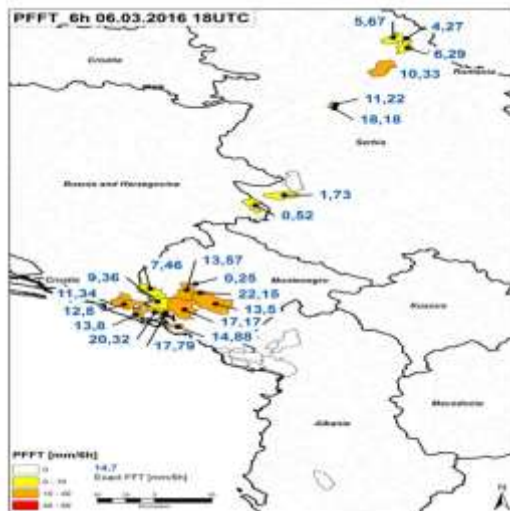
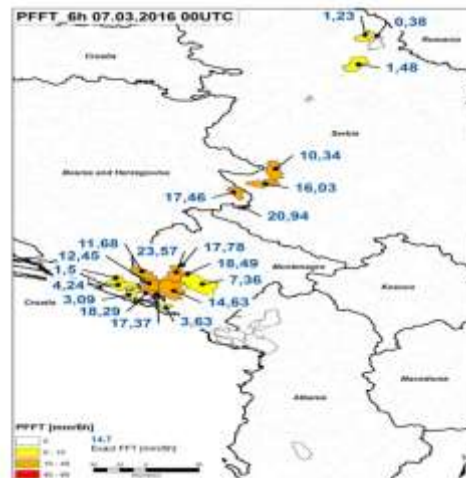
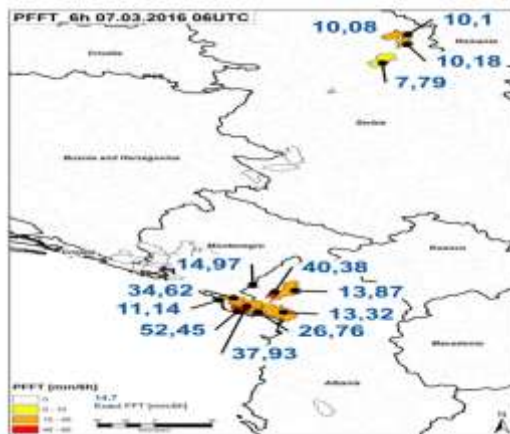
SEEFFG Products: 06032016 18UTC



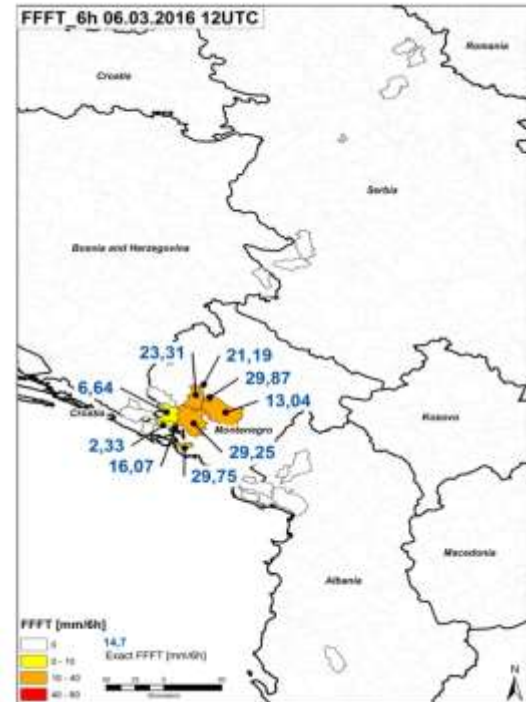
FFG 6-hr 06.03.2016 12UTC+6 hr



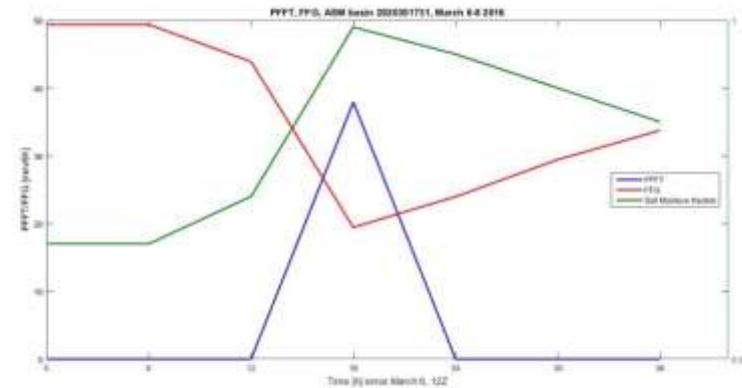
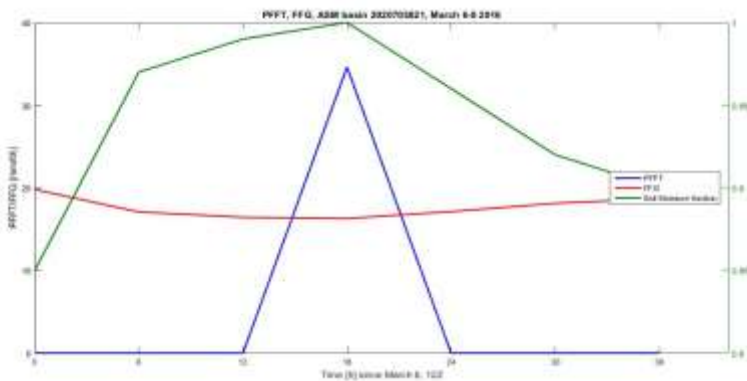
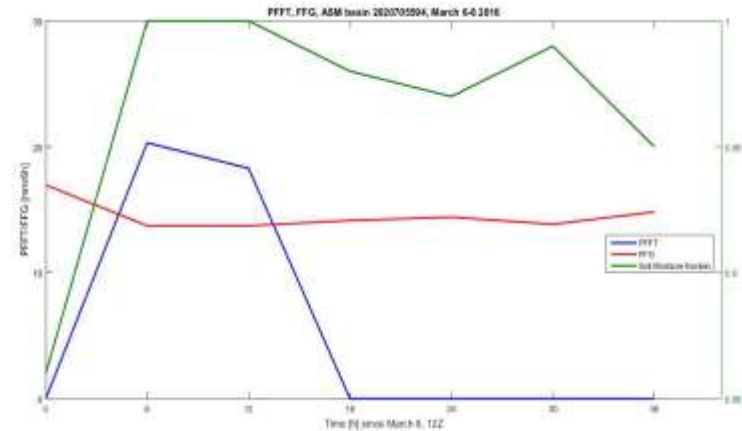
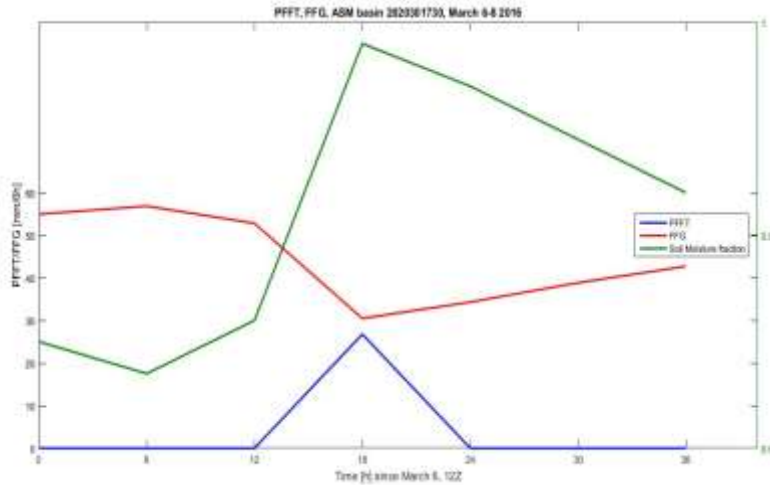
PFFT 6-hr 06032016 18UTC (top left) 07032016 00UTC, 06UTC, 12UTC



FFFT 6-hr 06032016 00UTC +6-hr



Comparison of FFG&PFFT and ASM For Selected Catchments



Flash Flood Warning

Flash Flood Warnings	
Issued:	6 March 2016 at 00 UTC
Valid	06 UTC
Warning	Flash floods are expected for regions and towns and villages due to heavy rainfall associated with north Pacific depression.



Verification

Serbia – Emergency Declared after Floods Force Hundreds to Evacuate

7 MARCH 2016 10:00 AM GMT+01:00



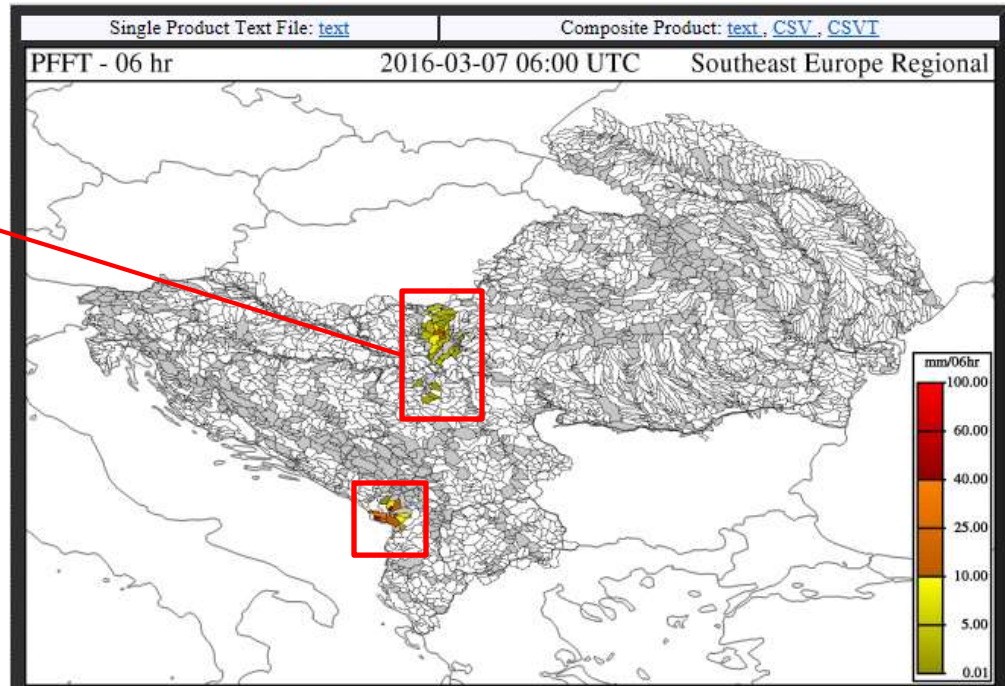
The Serbian Interior Ministry declared an emergency situation on Monday 7 March 2016, after floods hit the municipalities of Čačak, Lucani and Arilje in central and eastern Serbia.

Areas of the country recorded heavy rainfall that began late on Sunday. The Zmornica river broke its bank early on 07 March and flooded around 600 houses in the villages of Korajevci and Prejina. The Serbian government said that 430 people were evacuated.

Serbian Prime Minister Aleksandar Vucic visited Prejina in Čačak, one of the worst hit areas, earlier today.

The heavy rain also caused a landslide in the Bajina Basta municipality, damaging homes and roads in the area.

Local and national government authorities will start making assessments of the damage and sending aid tomorrow.





**World
Meteorological
Organization**

Weather • Climate • Water

Thank you for your attention

Ayhan Sayin
asayin@wmo.int