## **Forecast Precipitation**

Forecast Precipitation provides total of forecasted precipitation using available Numerical Weather Prediction (NWP) models.

1-hour, 3-hour, 6-hour and 24-hour precipitation products are generated and updated every hour. A robust precipitation forecast is the key for the estimation of Forecast Flash Flood Threat (FFFT) and Flash Flood Risk (FFR) and is a useful tool for forecasters to issue flash flood watches and warnings taking into consideration existing and forecasted weather conditions.

In the figures below, examples of Forecast Precipitation from different FFGS with different resolution and geographical coverage are shown.



a) MyanmarFFGS, WRF model (3 km); b) MRCFFGS, WRF model (4 km); c) SARFFGS, Unified model (4 km); d) SAOFFGS WRF model (3 km).



a) SARFFGS, Unified model (4 km); b) BSMEFFGS, WRF model (3 km); c) CARFFGS, WRF model (2,5 km).

FFGS has a possibility for implementation up to 5 NWP different models. This allows to forecaster to choose whichever NWP model in his/her opinion is the best for the current time and place.

In figure below Forecast Precipitation, FMAP and FFFT products from 4 different NWP models for the region of SEEFFGS are shown.



a) ALADIN model, (4 km); b) IFS model (10 km); c) WRF model (3 km); ALADIN model, (4 km).

This document was prepared by WMO-FFGS team using South East Europe Flash Flood Guidance System Forecaster Guide<sup>1</sup> and FFGS Operational Output Product Descriptions available in the FFGS Real-Time Product Console developed by Hydrologic Research Center.

<sup>&</sup>lt;sup>1</sup> <u>https://www.wmo.int/pages/prog/hwrp/flood/ffgs/documents/SEEFFGS\_Forecaster\_Guide-Final\_ES\_TM-AS-</u> PM.pdf