

GloFAS available data

Here is a brief overview of the GloFAS data made available to the public. For a full overview of the GloFAS system, please go to the dedicated pages on the GloFAS web site <http://www.globalfloods.eu/>. You will find information on the latest releases here: [GloFAS operational system](#). Note GloFAS 30-day real-time forecasts over the European domain are currently not publicly available.

GloFAS variables

GloFAS variables (called 'parameters' in ECMWF MARS) are the hydrological entities calculated by the modelling chain. For GloFAS only river discharge is made available. A short description is given below in table 1 along metadata information associated.

Table 1. Available GloFAS variables

GLOFAS Short Description	Unit	GRIB parameter ID	GRIB Short name	GRIB Name	Comment	GRIB description
River discharge	m3/s	240024	dis24	Mean discharge in the last 24 hours	Average	Upstream area for each river pixel, expressed in m ² . Upstream area is defined as the catchment area for each river segment, in other words including area that contributes with water to the river at the specific grid segment. The upstream area always includes the area of the pixel. You can download the upstream area file as NetCDF file here: upArea.nc (last update: 28/03/2022)

River discharge

GloFAS variable discharge (dis) is stored as **average** over the time step of the model (6-hourly or 24-hourly), with time stamp (date and time of end of averaging period) explicit in the GRIB short name.

It is hence **essential** that when extracting river discharge data, the user also checks the upstream area of the grid box of interest.

GloFAS upstream area

In order to interpret the GloFAS output in a correct way, you will need static data that describes the model setup. This file denotes the total upstream area for each river pixel, expressed in m². Upstream area is defined as the catchment area for each river segment, in other words including area that contributes with water to the river at the specific grid segment. The upstream area always includes the area of the pixel. You can download the upstream area file as NetCDF file here: upArea.nc (last update: 28/03/2022)

GloFAS-ERA5

Table 1: Available river discharge reanalysis simulation

Forcing	Data set	Period	Lead time	Frequency
ERA5	Reanalysis	1 Jan 1979 - near real-time	24 h	Daily

GloFAS 30-day

Table 2: Available GloFAS 30-day river discharge simulations

Forcing	Ensemble members	Data set	Period	Lead time	Frequency
ECMWF-ENS	Real-time forecasts		2 Dec 2020 - real-time	30 days	Daily
ECMWF-ENS	Reforecasts		Jan 1999 - Dec 2018	30 days	Twice weekly
			1 Jan 2019 - 30 Jun 2019	30 days	Twice weekly
			1 July 2019 - 1 Dec 2020	30 days	Daily

GloFAS Seasonal

Table 3: Available GloFAS Seasonal river discharge forecasts and reforecasts

Forcing	Ensemble members	Data set	Period	Lead time	Freq
ECMWF SEAS5 seasonal forecast	51	Real-time forecasts	Dec 2020 - real-time	123 days	Month
	11	Reforecasts	Jan 1981 - Dec 2017	123 days	Month
			Jan 2018 - Nov 2020	123 days	Month