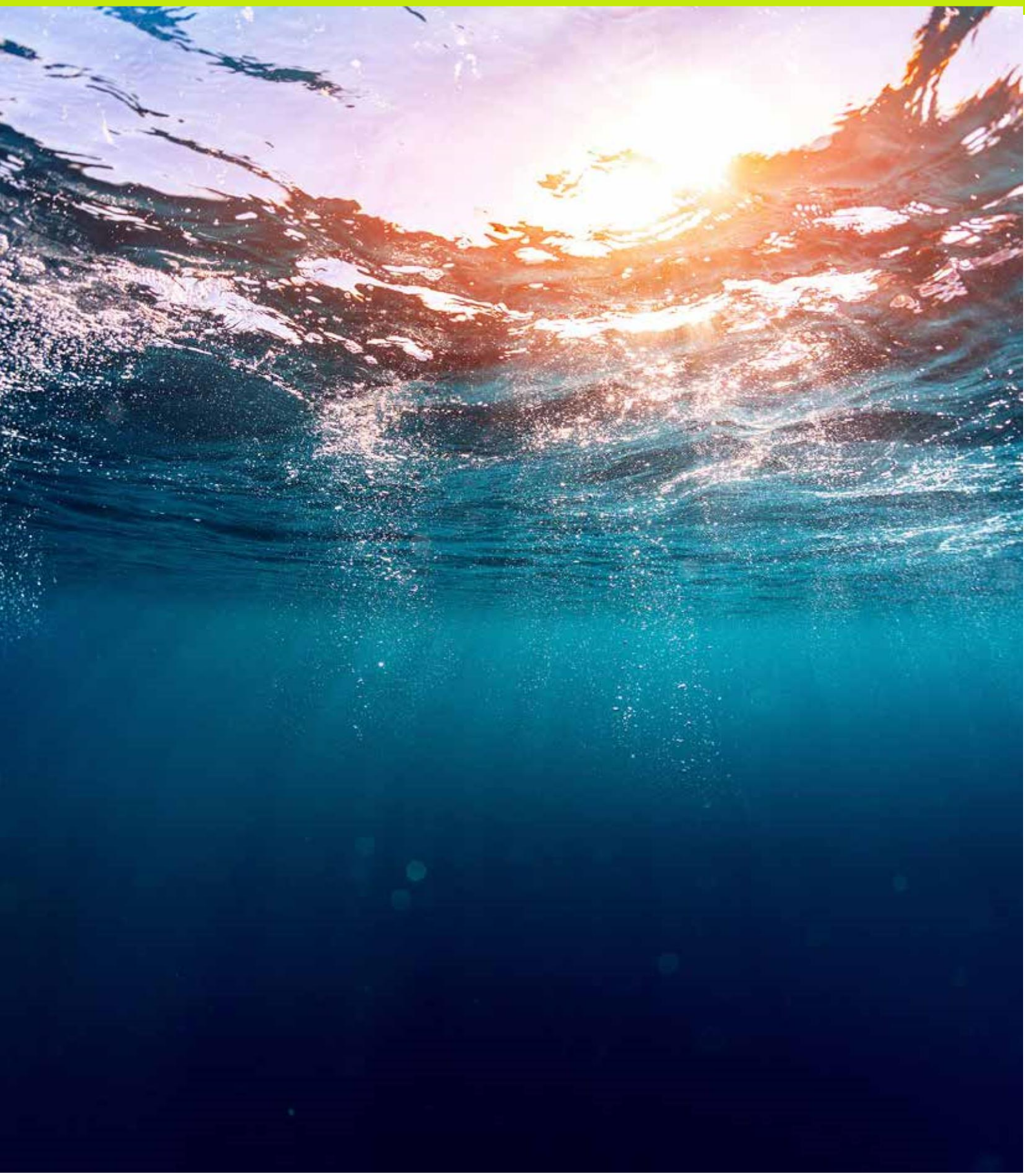
Met Office

NWS-Ocean

Science configuration referred to as FOAM-NWSO and **AMM15**
(Atlantic Margin Model 1.5km)



North-West European shelf ocean analysis and 7-day forecast

Technical product details

Source

Numerical models

Spatial extent

Atlantic North-West European Shelf. Lat 46° to 62.74°. Lon –16° to 13°

Grid resolution

Regular grid, 1.5 km grid cells, 0.014° x 0.03°

Temporal resolution

Sub-hourly. Hourly. Daily

Elevation (depth) levels

33 levels:
0, 3, 5, 10, 15, 20, 25, 30, 40, 50, 60, 75, 100, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 550, 600, 750, 1000, 1500, 2000, 3000, 4000, 5000m

Variables

bottomT = sea_water_potential_temperature_at_sea_floor
mlotst = ocean_mixed_layer_thickness_defined_by_sigma_theta
so = sea_water_salinity
thetao = sea_water_potential_temperature
uo = eastward_seawater_velocity
vo = northward_seawater_velocity
wo = upward_seawater_velocity
ubar = barotropic_eastward_seawater_velocity
vbar = barotropic_northward_seawater_velocity
zos = sea_surface_height_above_geoid

More information in table below

Filenames

metoffice_foam1_amm15_NWS_${VARIABLE}_b${BULLETIN_DATE}_${FREQ}${VALIDITY_DATE}.nc

where

${VARIABLE} is one of BED, CUR, MLD, SAL, SSC, SSH, SSS, SST, TEM;

${FREQ} is one of dm (daily mean), hi (hourly instant), qh (quarter hourly);

${BULLETIN_DATE} is the date the forecast was produced;

${VALIDITY_DATE} is the date the field is valid.

More information in table below

Typical data delivery time

Daily ~0830 UTC

Delivery Methods Available

SFTP pull, FTP pull

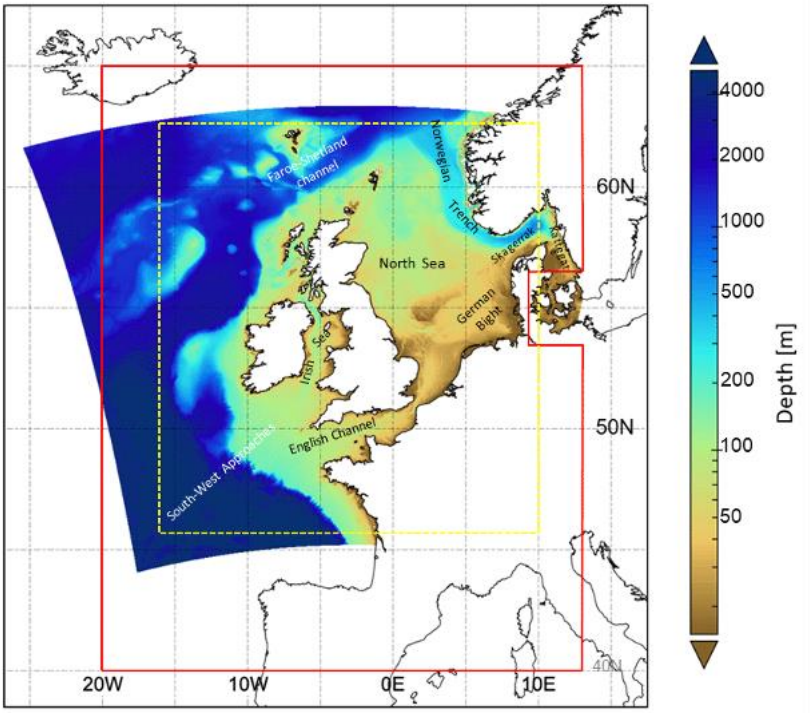
File formats for delivery

NetCDF-4

Frequency of delivery

Daily to FTP server for collection by customer

Further Information



Bathymetry of the AMM15 model domain. The red line defines the low-resolution AMM7 model domain. **The yellow dotted box is the domain covered by the AMM15 products** delivered on a regular grid to UKMCAS users. (Figure from Tonani et al. 2019)

Filetype	Variables(s)	Description	Averaging	Freq.	Level(s)	Leadtimes
TEM*dm	Thetao	potential temperature	25h-mean	daily	33	T-36 -> T+156
SAL*dm	So	salinity	25h-mean	daily	33	T-36 -> T+156
CUR*dm	uo, vo, wo, ubar, vbar	u-, v- and w-current, u- and v-barotropic current	25h-mean	daily	33	T-36 -> T+156
BED*dm	bottomT	bottom potential temperature	25h-mean	daily	bottom	T-36 -> T+156
MLD*dm	Mlotst	mixed-layer depth	25h-mean	daily	1	T-36 -> T+156
TEM*hi	Thetao	potential temperature	instant	hourly	33	T-47 -> T+168
SST*hi	Thetao	potential temperature	instant	hourly	surface	T-47 -> T+168
BED*hi	Thetao	potential temperature	instant	hourly	bottom	T-47 -> T+168
SAL*hi	So	Salinity	instant	hourly	33	T-47 -> T+168
SSS*hi	So	Salinity	instant	hourly	surface	T-47 -> T+168
CUR*hi	uo, vo, wo, ubar, vbar	u-, v- and w-current, u- and v-barotropic current	instant	hourly	33	T-47 -> T+168
SSC*hi	uo, vo	u- and v-current	instant	hourly	surface	T-47 -> T+168
SSH*hi	zos	sea surface height	instant	hourly	surface	T-47 -> T+168
MLD*hi	mlotst	mixed layer depth	instant	hourly	1	T-47 -> T+168
SSC*hi	uo, vo	u- and v-current	instant	15min	surface	T-47 -> T+168.75
SSH*hi	zos	sea surface height	instant	15min	surface	T-47 -> T+168.75

Table: AMM15 netCDF products sent to UKMCAS via ftp by the Operational Marine Post-Processing Shelf-Seas Suite (MaPP-SS).