



## Global Wave Model



Wave forecast data

# Met Office Wave Modelling

The Met Office runs global and regional wave forecast models to support marine safety and operational decision making. Met Office configurations are developed to be run using the community wave model WAVEWATCH III™.

The global wave configuration is designed to generate accurate forecasts for open waters of the world's oceans and larger seas, whilst regional configurations are run in order to improve accuracy closer to the coast.

The Met Office wave models are forced using wind data from the Met Office Global Atmospheric Hi-Res Model and, where appropriate in regional configurations, currents from the Met Office shelf seas model.

## Met Office Global Wave Model

The global wave model is run to provide a five day outlook for wave characteristics defining height, period and direction of waves within a given sea-state.

The model uses a refined grid system in order to better represent fetch in constrained sea areas and blocking effects of islands and headlands. Data are released at the model's base resolution of 0.352 degrees longitude by 0.234 degrees latitude (approximately 25km at 50 degrees north).

Sea Level Parameters	Units
1. Significant wave height of combined wind-sea and swells	metres
2. Peak wave energy period	seconds
3. Mean zero-upcrossing period of combined wind-sea and swells	seconds
4. Mean direction (from) of combined wind-sea and swells	degrees true
5. Significant wave height of wind-sea	metres
6. Peak wave energy period of wind-sea	seconds
7. Mean direction (from) of wind-sea	degrees true
8. Directional spread of wind-sea	degrees
9. Significant wave height of primary swell waves	metres
10. Peak wave energy period of primary swell waves	seconds
11. Mean direction (from) of primary swell waves	degrees true
12. Directional spread of primary swell waves	degrees
13. Significant wave height of secondary swell waves	metres
14. Peak wave energy period of secondary swell waves	seconds
15. Mean direction (from) of secondary swell waves	degrees true
16. Directional spread of secondary swell waves	degrees
17. Significant wave height of tertiary swell waves	metres
18. Peak wave energy period of tertiary swell waves	seconds
19. Mean direction (from) of tertiary swell waves	degrees true
20. Directional spread of tertiary swell waves	degrees



## Time steps

Hourly to T+48, 12 UTC runs are extended at a 3-hourly interval to T+120



## Model run times

00 UTC & 12 UTC to T+120  
06 UTC & 18 UTC to T+48



## Resolution

Data are released at the model's base resolution of 0.352° E/W by 0.234° N/S (approximately 25km at 50 degrees north).



## Format

GRIB2



## Domain

Northern Hemisphere

Area A: Latitude 89.9° to 0.3°N,	Longitude 45.00°W to 45.00°E
Area B: Latitude 89.9° to 0.3°N,	Longitude 45.00°E to 135.00°E
Area C: Latitude 89.9° to 0.3°N,	Longitude 135.00°E to 135.00°W
Area D: Latitude 89.9° to 0.3°N,	Longitude 135.00°W to 45.00°W

Southern Hemisphere

Area E: Latitude 0.3° to 89.9°S,	Longitude 45.00°W to 45.00°E
Area F: Latitude 0.3° to 89.9°S,	Longitude 45.00°E to 135.00°E
Area G: Latitude 0.3° to 89.9°S,	Longitude 135.00°E to 135.00°W
Area H: Latitude 0.3° to 89.9°S,	Longitude 135.00°W to 45.00°W

(Sub domain areas are not currently available)



## Delivery

File transfer protocol (FTP)