

Scottish Wave Buoys

New wave buoys, which will monitor wave activity around Scotland's coastline, were deployed this week on the east coast of Scotland. The project, which is part-funded by the Scottish Government, is part of the ongoing UK-wide development of the Storm Tide Forecasting Service (STFS) to extend the existing UK WaveNet network of buoys into Scottish waters.

The type of wave buoys being deployed are 'Directional Wave Riders' which measure wave height, period and direction, along with sea temperature. The information is transmitted via satellites direct to CEFAS (Centre of Environment, Fisheries and Aquaculture Science) who manage WaveNet and takes about 30 minutes to be received. The data recorded will also build historical records of the wave climate in Scotland.

The information collected from the buoys will be used by the Met Office to calibrate their wave models to improve the quality of their forecasts, and by the Scottish Environment Protection Agency (SEPA) in its development of coastal flood forecasting and warning.

It is thought that storms in Scotland may get more severe and more frequent which will have consequences on the impact of waves and for coastal flooding. Currently, significant wave data gaps exist around the Scottish coastline and the availability of data from key locations will be beneficial to many potential users.

Minister for Environment, Michael Russell, said "Climate change has seen flooding become an increasingly regular threat to communities around Scotland. The Scottish Government is committed to making our flood risk systems fit for the 21st century so that we can better protect our vulnerable communities.

Claire Harley, SEPA Hydrologist, said "The wave buoy expansion project is a great opportunity to acquire new information about the wave climate in Scotland. This week sees the launch of two buoys on the east coast of Scotland, and will be followed by two more on the west coast in the near future. This new data will build our knowledge in SEPA and help flood managers develop and improve our coastal flood warning services, which will benefit coastal communities affected by flooding.

"There are estimated to be around 27,000 properties at risk from coastal flooding in Scotland, and accurate and timely flood warnings can help to reduce the impact of flooding. The wave data will also be of interest to other marine users such as surfers, sailors and the fishing and renewable energy industries. The data is available in near real time, and can be viewed by the public at the WaveNet website."