USE OF OSI SAF WIND DATA IN WIND/WAVE CLIMATE DATA SERVICES

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ABSTRACT

ARGOSS is a small service company providing oceanographic and meteorological information and related advisory. Wind and wave climate analysis for various purposes is a major activity of the company. For this purpose, dedicated data analysis tools have been developed which are applied to datasets from earth observation (EO) satellites and from in-situ sensors, as well as on hindcast data generated using numerical models. Models applied in-house include global/regional and coastal surface wave prediction models and global/regional tidal models. To ensure high quality of the climatology, considerable effort is spent on validation, intercomparison and cross-calibration of data from various sources.

Wind scatterometer data are an important source of information about the wind climate. We will show that they are particularly useful at some distance from the shore. There, the scatterometer data generally agree well with in-situ data and wind speed data obtained from radar altimeter. OSI-SAF SeaWinds data processed by KNMI to a 100 km resolution product are found to be more accurate than the scatterometer data from ERS in our archive. In small basins and closer to the shore, the spatial resolution of current scatterometer data products limits the use of these data for detailed assessment of the wind and wave climate, as can be expected. Examples of data and climate comparisons at various types of sites and of applications of EO wind data in wave and wind climate assessment and numerical wave hindcasting are given in the presentation.