



A new C3S Global Shipping Service

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The main objective of the C3S Global Shipping Service is to provide a highly valuable service to the maritime sector and commercial shipping industry, derived from available climate data within the Copernicus Climate Data Store. The innovative element of the service is the integration of high quality climate data in the context of global shipping business, to aid the decision-making process and to support long-term planning. A strong interaction with the users allows to provide a service which facilitates the operational decision making process of shipping, increases operational efficiency and operational safety, facilitates fleet management and allows for longer term planning on company level actions.

The timescales of interest range from the subseasonal to seasonal to multi-decadal ones and products are defined on huge variety of data (new reanalyses, seasonal forecasts and climate projections) and therefore one of the major challenges of the service is to define tailored indicators and use the same indicator ("same" from the user perspective) at those different timescales. We will show first results, focusing on specific indicators, such as:

- Icebergs distribution, used to evaluate the risk coming from drifting icebergs for the navigation in the northern seas and oceans, also establishing an indicator that encompasses drifting iceberg distribution, frequency, their characteristic spatio-temporal scales, limiting latitudes, and so on..
- sea-ice opening/closing routes, indicator expected to provide valuable information for future Arctic sea routes.
- extremes in atmospheric and oceanic conditions, such as waves and surface winds in specific basins and along commercial ship routes.
- other derived operational indicators.