MyOcean Level 3 Global Wind product
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1. Introduction
Within the context of the FP7 funded MyOcean project, KNMI has developed the L3 Global Wind product to facilitate oceanographic and climate users with daily scatterometer data on a regular lat-lon grid, in NetCDF format following the CF conventions. The product is distributed by Ifremer and available at http://www.myocean.eu.

2. Specifications
- Scatterometer wind speed and direction ("to", following oceanographic convention) and u and v components, on regular lat-lon grid;
- Does not lose or increase swath coverage when interpolating to L3 grid;
- L3 grid domain: lat [-90°, 90°] and lon [0,360°);
- Grid spacing 0.25 deg (from 25 km ASCAT product), and 0.125 deg (ASCAT coastal product, 12.5 km) supporting resp. 50 km and 25 km resolution (Nyquist);
- Also includes interpolated background ECMWF wind, retrieved exactly the same way.

3. Gridding technique
- Bilinear interpolation within triangles, using Gouraud shading.

4. Gridding examples
4.1 Ike
Figure A. Tropical cyclone Ike: L2 ASCAT 25km wind vectors in blue (good measurements) and green (KNMI Quality Control flag set), L3 wind vectors in magenta.

4.2 Overlapping passes
Figure B. 23 October 2010, 60º North -28º West top: L2 at 21h12 in green, L3 in magenta down: L2 at 22h54 in green, L3 in magenta

5. Calibration and Validation
The L3 Wind product is purely based on the extensively calibrated and validated L2 ASCAT Wind products produced by KNMI in the context of the Ocean and Sea-Ice SAF of EUMETSAT. The L3 Wind product is validated by comparing the results of the L3 - buoy collocations with the results of L2 - buoy collocations for one year of data.

Figure C. Buoy collocation results of L2 and L3 for 25 km product for 2009: Average bias
Figure D. Buoy collocation results of L2 and L3 for 25 km product for 2009: Standard deviation

A direct collocation comparison between L2 and L3 winds for one day shows that the interpolation performance is high.

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