

## TM5-MP - Feature #11771

### Windspeed as new met field

09/26/2018 01:04 PM - Philippe Le Sager

<b>Status:</b>	Closed	<b>Start date:</b>	09/26/2018
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	10%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>Spent time:</b>	0.00 hour
<b>Description</b>			
When the code requires the wind speed, we compute it at 1x1 from the u10m and v10m fields. We wonder how different it is from the wind speed calculated from the ERA-Interim native resolution. This issue is to investigate that difference. In other words, what is the difference between the average of the wind speed and the wind speed of the average wind ("average" meaning the remapping from ERA-I native resolution and the 1x1 grid used in TM5).			

### History

#### #1 - 09/28/2018 09:37 AM - Twan van Noije

Processes that will be affected are:

- ocean DMS source
- sea spray source
- dry deposition
- boundary layer height over land and associated diffusion  
The latter is part of the base (diffusion.F90)!

The 10 m wind components are only used for calculating the 10 m wind speed. The only reason to keep the separate wind components as input fields would be to able to keep on running the current model.

#### #2 - 10/05/2018 03:35 PM - Philippe Le Sager

- File *histo-diff-windpseed.png* added

- File *wind\_speed\_diff.png* added

- Status changed from *New* to *In Progress*

- % Done changed from 0 to 10

Attached plots are:

- the comparison for one time step

- the histogram of the differences over one month of the 6-hourly subset over the all globe.

They are only a couple of points in the all dataset were the difference becomes large (~9 m/s). Most of it is pretty small. More stats over one month and all grid points:

mean difference: -0.02725006267428398

max difference: 4.0869646072387695

min difference: -9.80855941772461

wind\_speed\_diff.png

histo-diff-windpseed.png

**#3 - 05/31/2022 01:34 PM - Twan van Noije**

- Status changed from *In Progress* to *Closed*

Closing the issue.

**Files**

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histo-diff-windpseed.png	14.1 KB	10/05/2018	Philippe Le Sager
wind_speed_diff.png	379 KB	10/05/2018	Philippe Le Sager