

Interactive comment on “X-Band Radar for the Monitoring of Sea Waves and Currents: A Comparison between Medium and Short Radar Pulses” by Giovanni Ludeno et al.

Anonymous Referee #1

Received and published: 11 January 2017

The authors presented a comparison of current and wave measurements using an X-band radar with medium and short pulses. I suggest the authors consider the following problems before the manuscript is published:

1. The writing in English needs to be comprehensively polished.
2. Title: Remove “the” and “of”.
3. Abstract:
 - 1) “This letter” should be changed.
 - 2) The contribution should be highlighted and clearly presented.

[Printer-friendly version](#)

[Discussion paper](#)



4. Section 1:

The meaning of “Local method” may not be clear to some readers. Please replace it with specific algorithm (NSP...)

5. Section 2:

- 1) Table 1, the resolution is 5 m, but it doesn't correspond to the resolutions provided by the two pulses. Please explain how the resolution of 5 m is obtained.
- 2) The 1st sentence below Table 1, “extract the sea energy from the background noise” doesn't make sense, please reword.
- 3) The MTF obtained from the data collected in other area was used, explain whether this is ok if the radar system is the same.

6. Section 3:

- 1) Whether the claim on the 8-9th lines is appropriate or not should be double checked.
- 2) Fig. 2, explain the reason why the clutter at the near ranges are so different in the two images.
- 3) Only the comparison between the results from two radar pulses mode was conducted. It is better to add ADCP and buoy results to Figs. 3-7 and investigate error statistics.
- 4) What are the RMS differences of peak wave direction and period and wave height?
- 5) Are the MTFs used for wave analysis the same for both short and medium pulse data?
- 6) How the calibration parameter for correcting the wave height results obtained by short and medium pulse modes should be explained in more details. In reality, if we want to use a radar in medium pulse mode, do we always need to determine such a factor using short pulse data?

[Printer-friendly version](#)[Discussion paper](#)

7) The data length is only about 1 and a half hours during which current and wave may not change too much, it may be better to augment the data length.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2016-42, 2017.

GID

[Interactive
comment](#)

[Printer-friendly version](#)

[Discussion paper](#)

