

Interactive  
Comment

## ***Interactive comment on “High resolution satellite turbidity and sea surface temperature observations of river plume interactions during a significant flood event” by V. E. Brando et al.***

**V. E. Brando et al.**

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Dear Prof Kantha, Please find the revised version of the manuscript OS-12-1669 by Brando et al.

All general and specific comments by the reviewers were addressed. Please find enclosed to the letter a table with a point-to-point response to the reviewer’s comments, and a track-change version of the manuscript. The manuscript has been carefully edited.

Following the reviewers comments, more details were added throughout the manuscript: • Three new paragraphs were added to the introduction: o One to detail

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the Horner -Devine et al (2015) plume dynamical regions o One to describe the main circulation patterns in NAS and the role of wind- and wave-driven resuspension on the turbidity dynamics in NAS o One to describe the manuscript structure â€” A new figure (Figure 3) detailing the circulation patterns prior to and at the acquisition date of the Landsat-8 image was added with corresponding text to strengthen sections 3.1. â€” Figures 4 and 5 (now 5 and 6) were redrawn to improve readability. â€” In Sections 3.3 and 3.4 the SST and T fields were commented in relation to published literature for NAS. â€” Figure 5c (now Figure 7) was improved by including also SSS. â€” A new section was added (3.5) to describe the relations between SST, T and SSS in Figures 5,6 and 7. â€” In section 3.6 (previously 3.5) a paragraph was added referring to the broad classification of the plumes carried out by Syvitski et al. (2005). During the revision of the manuscript we decided to not add another Landsat 8 image from a “normal” condition. To select a “normal condition” we briefly analyzed all L8 images of NAS, but they all show different patterns, depending on wind, wave and flow regimes. This work will be described separately in a separate manuscript. In our view, adding a new figure, as suggested by both reviewers, would entail justifying the selection of an appropriate date for the comparison and then describing all associated meteo-marine conditions. This would lengthen considerably the manuscript and change its focus.

We wish to thank reviewers for the insightful comments. Regards, Vittorio Brando

Please also note the supplement to this comment:

<http://www.ocean-sci-discuss.net/12/C994/2015/osd-12-C994-2015-supplement.pdf>

Interactive comment on Ocean Sci. Discuss., 12, 1669, 2015.

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