

Interactive comment on “The concurrence of Atmospheric Rivers and explosive cyclogenesis in the North Atlantic and North Pacific basins” by Jorge Eiras-Barca et al.

Anonymous Referee #2

Received and published: 21 September 2017

The paper is well written and easy to follow, and the subject is relevant. The paper should be published with minor corrections. Minor points follow.

Beginning of page 4: the “historical” flood of Florence in 1966 was also a consequence of an atmospheric river (Malguzzi P., G. Grossi, A. Buzzi, R. Ranzi, R. Buizza: The 1966 “century” flood in Italy: A meteorological and hydrological revisit. *Journal of Geophysical Research: Atmospheres* 111, D24, DOI: 10.1029/2006JD007111, 2006)

Page 4 line 20: the formula has a misprint (/ instead of =).

Page 4 line 26: for instead of For.

C1

Page 6 line 7: delete has.

Page 6 line 12: ...to detect ARs ...can broadly be divided into...

Page 7 line 7: word should be world.

Page 8 line 12: graphs b) and d) are too flat to identify a minimum.

Page 9 lines 5-8: are you referring to the general trend of NEC cases from -36h to 36h? Please clarify.

Page 9 line 12: ...methodologies. However,...

Page 9 line 20: ...moisture flux near the cyclones...

Page 10: figures S3 and S4 are really not needed.

Page 10, last paragraph of section 4: hypothesis instead of hypothesized. The evidence that the AR is already present at MPD-36h for EC may be a strong argument to support the conclusion, since it may be considered as a precursor.

Page 11 line 3: of the is repeated.

Page 11, line 18: the sentence “This insight can be potentially helpful to enhance the predictability...” is too vague and difficult to be sustained given these results (in my opinion). Please try to be more specific.

Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2017-76>, 2017.

C2