We thank Reviewer 1 for his/her comments and suggestions, which helped to improve the manuscript and to remove ambiguities/misunderstandings. Below we provide point-by-point responses to each comment.

Minor changes:

Line 61: Change “sup-polar”
Line 84: Change “to analyze of the spatial distribution” to “to analyze the spatial distribution”

Answer: We thank the reviewer for suggesting these improvements. We will change accordingly in the revised manuscript.

Figure 3: Improve readability. I cannot see “the thin green line inside…”. Additionally, it is not necessary to place a black contour around the highest IVT values. If retaining them, briefly explain what C1, C2 and AR0 are in the caption. What does the blue color over the ocean mean? If possible, live open ocean white to improve figure clarity.

Answer: The AR axis (thin green line) contour will be expanded in the revised manuscript and, in addition the inflow/ascent phase of the warm conveyor belt will be changed from red/green to a light blue/magenta color to enhance clarity. The black contour around the highest IVT values represents the detected AR by our methodology. As the clear representation of this AR represents one of the main focuses of the paper, we opted to maintain the black contour for the AR.

The meaning of acronyms C1, C2, and AR0 are explained throughout the text, but we agree that they need to be explained in the figure caption. C1 is the main extratropical cyclone, associated with the AR that led to the precipitation record; C2 is a small secondary low-pressure system that transported moisture from the Gulf Stream towards central North Atlantic before merging with C1 and developing the AR; and AR0 is an Atmospheric River (AR) that occurred prior to the main AR but lost its AR characteristics before making landfall. This will be added to the figure caption.

The thin blue/red contours over the ocean represent the SLP data below/above 1013 hPa, that will be changed to black in the revised version removing the difference between high and low pressures (see below the new version of the Figure).

We agree with the reviewer that there’s no need to include the blue ocean color and therefore, this will be removed in the revised version of this figure. An updated version of Figure R1 below).

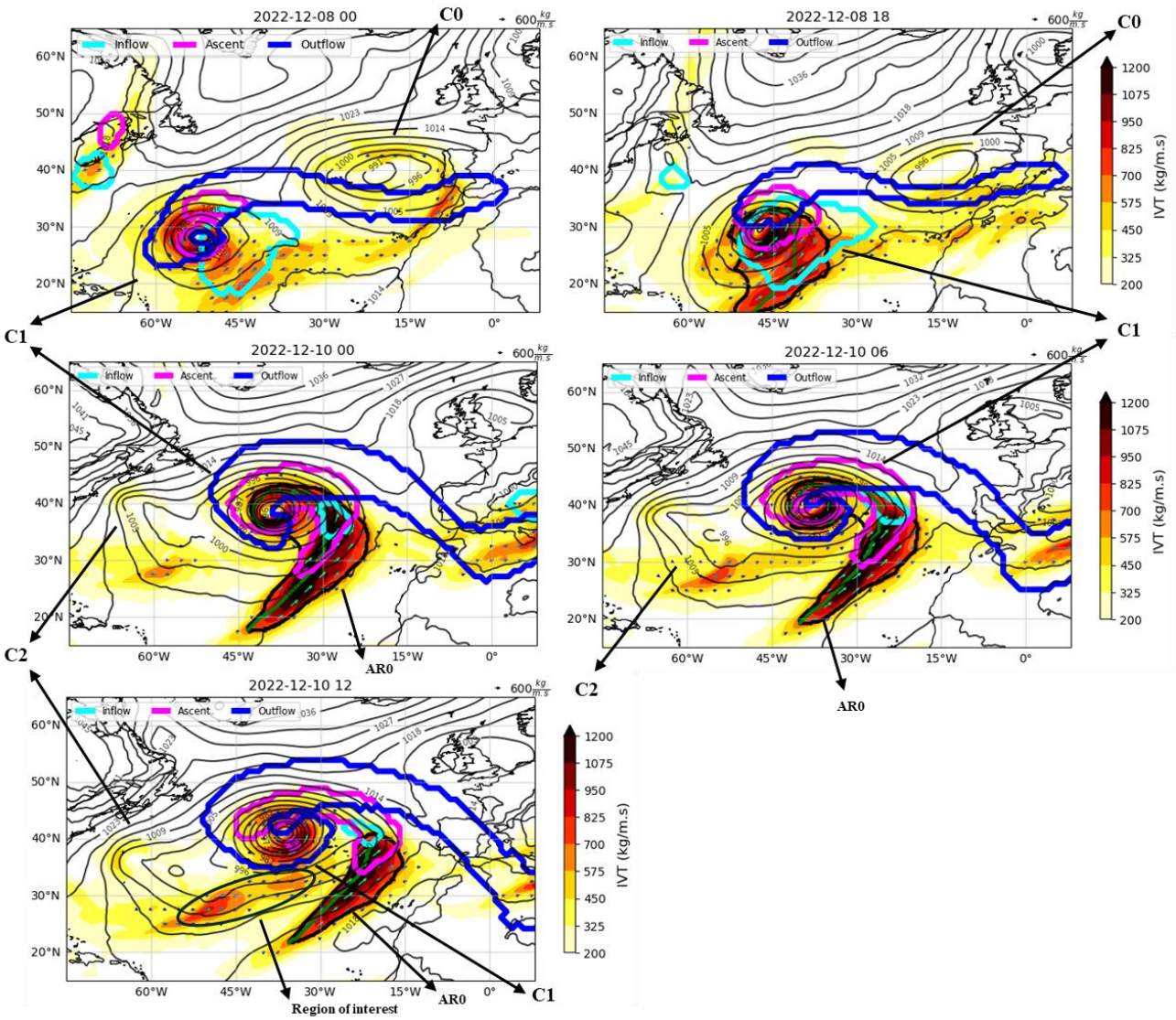

Figure R1 - Spatial patterns of the vertically integrated water vapor transport (IVT, shaded colors) and IVT vectors. The corresponding SLP fields are represented with black contour lines. The AR limits are represented with the bold black contour around the highest values of IVT while the green line inside identifies its axis. Additionally, the WCB data is added, with the bolder contour lines representing inflow (light blue contour), ascent (pink contour), and outflow (blue contour). C1 is the main extratropical cyclone, associated with the AR that led to the precipitation record; C2 is a small secondary low-pressure system that transported moisture from the Gulf Stream towards central North Atlantic before merging with C1 and developing the AR; and AR0 is an AR that occurred prior to the main AR but lost its AR characteristics before making landfall.

Lines 234-236: I assume that panels description refer to those in figures 4 and 5, please carefully state this in text if correct.

Answer: Yes, the explanation of showing just 4 time-steps is extensive to Figures 4, 5 and 6. It should be noted that on Figure 6 we are representing two different patterns in each column, meaning that the 4 time-steps representing 250 hPa wind speed and high level divergence pattern corresponds to figure 6a, 6c, 6e, and 6g (left panels) and the DWD weather charts correspond to figure 6b, 6d, 6f, and 6h (right panels). This information will be explicitly mentioned in the new version of the manuscript.

Figure 4: Please improve clarity as in figure 3. I cannot see the red contour ("small inflow area") in panel 4a, maybe masked by the IVT shaded area. Had to go big zoom to find something resembling a red contour. Can not see the inflow area (red contour) in the maximum IVT area

Answer: The answer to this issue is related to a previous answer. As explained when answering Figure 3's question raised above, we will change in the revised version of the manuscript the color of the WCB inflow from red to light blue and the color of the ascent phase, as stated before, from green to magenta. The result can be found below in Fig R2.

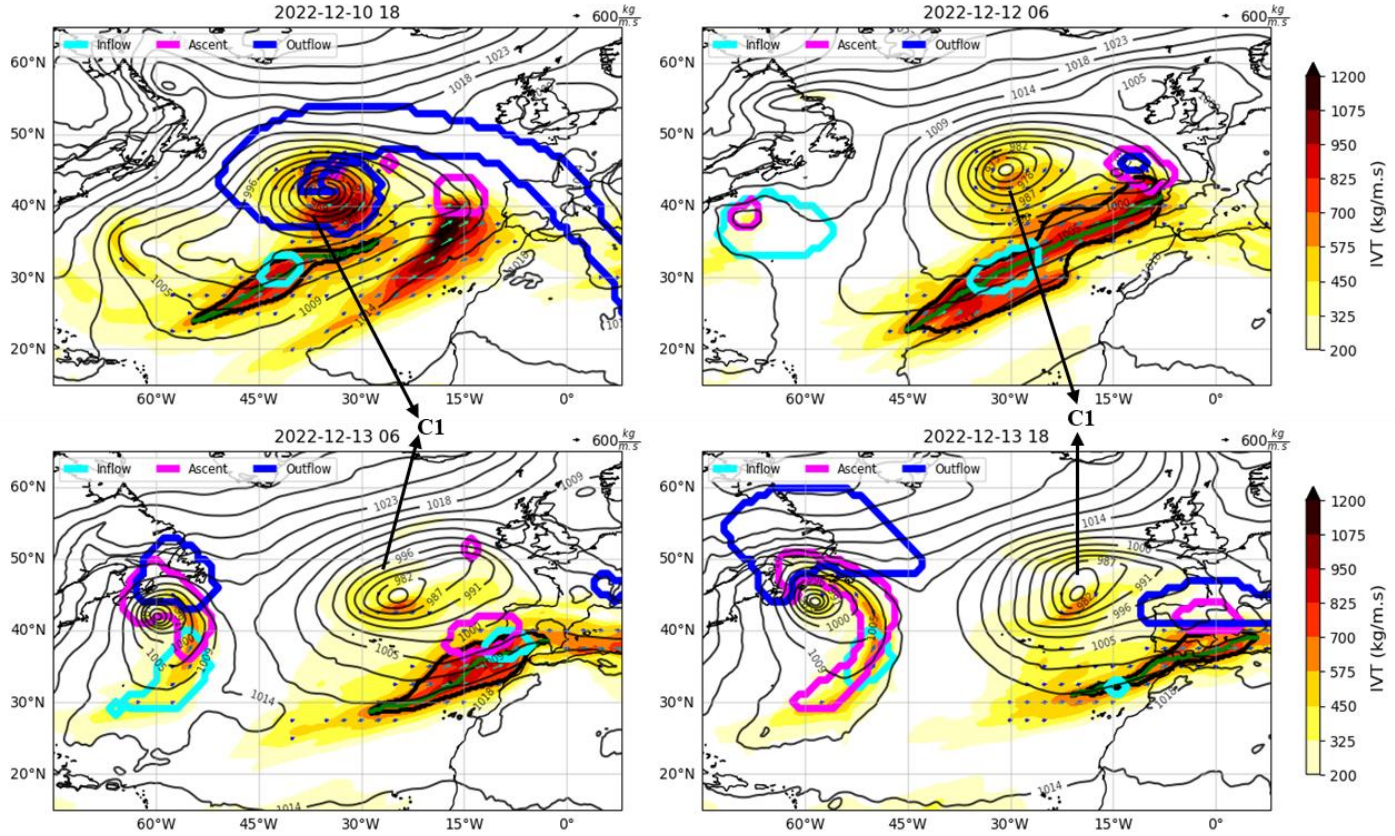

Figure R2 - Spatial patterns of the vertically integrated water vapor transport (IVT, shaded colors) and IVT vectors. The corresponding SLP fields are represented with black contour lines. The AR limits are represented with the bold black contour around the highest values of IVT while the green line inside identifies its axis. Additionally, the WCB data is added, with the bolder contour lines representing inflow (light blue contour), ascent (pink contour), and outflow (blue contour). C1 is the main extratropical cyclone, associated with the AR that led to the precipitation record.

Lines 329-330: Change “This sequence of events can be appreciated in our results where we observe that the C1 system, to which the AR was associated following the C0 system’s path.” I cannot understand the meaning of this sentence.

Answer: We agree with the reviewer that the above-mentioned sentence could be misleading. In Dacre et al 2015, the authors stated that a secondary cyclone that follows the same mean path of a previous cyclone may incorporate moisture left behind by the first one. Here we assume that, since the two cyclones followed the same overall path through the North Atlantic, the second cyclone may have made use of the moisture available on the atmosphere to intensify. This hypothesis is supported by the intensification and increase of spatial extent of the AR and the convergence pattern through its life cycle. We add this information to the manuscript in order to make our statement understandable.

Lines 338-339: Rewrite, the sentence does not seem complete

Answer: We thank the reviewer for the comment. We agree that there was a lack of connection between the two phrases. In the revised manuscript we will point to the relationship between the warm conveyor belt inflow phase and the intensification of the AR moisture content and its area. Therefore, the sentence will be changed to: ‘Regarding the second research question, related to what mechanisms can be associated with the AR movement and rainfall occurrence, as it made landfall on the western coast of the Iberian Peninsula, it was found that throughout its entire life cycle an inflow of moisture occurred within the AR’s area, associated with the inflow of the WCB of the ETC.’