

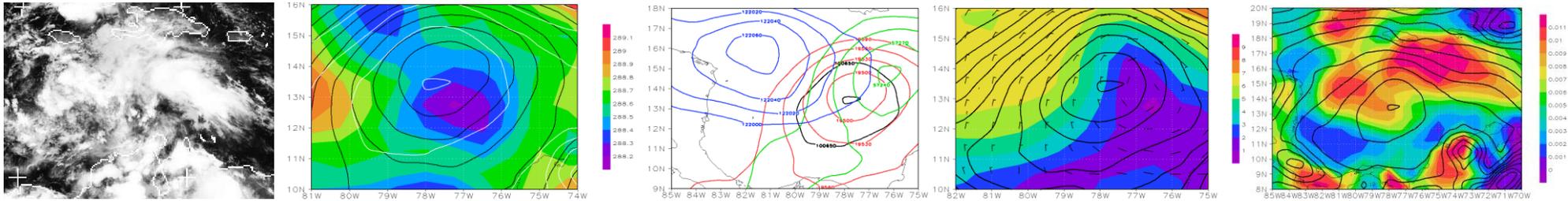
## **External Appendix** for the report *Sandy- According to ERA-Interim*.

In this *External Appendix* for the thesis *Sandy- According to ERA-Interim* the most important plots can be found, which was used while creating the *Case Study*. Every row represents a specific time step and the whole time period ranges from 00UTC the 22<sup>th</sup> to 180UTC the 31<sup>th</sup> October (2012) in a 6 hourly interval.

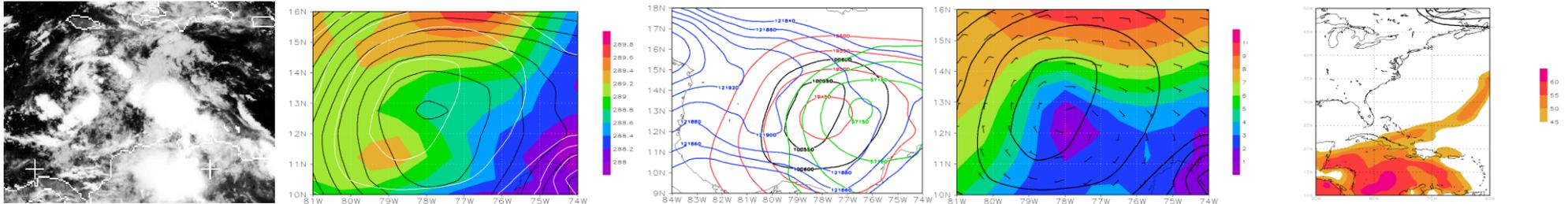
The rows contain five different figures. The first one is a satellite image. The second one on the left hand side is a plot of geopotential height (black contours) and temperature (shaded in rainbow colours) at the 800 hPa pressure level together with MSLP (white contours). The third plot contains MSLP (black contours), and the geopotential heights at the 800- (red contours), 500- (green contours) and 200 hPa (blue contours) surfaces, which is used as an indicator of whether the system experiences baroclinic or barotropic dynamics. The fourth plot is based on data of the 10m wind (shaded) and the vertical integral of kinetic energy with a minimum value (white contours), the choose minimum value depends on the situation, and MSLP (black contours) and wind barbs (black). The last one either contains the accumulated precipitation (shaded) for the last twelve hours (00UTC and 12UTC) and MSLP (black contours) or the total column of water vapor, with a maximum value according to the situation (shaded) (06UTC and 18UTC) and MSLP (black contours).

At the end of this sequence when Sandy has undergone the extratropical transition and thus have become an extratropical cyclone, fronts are drawn at the satellite imagery to illustrate this phenomenon. However, this is done without any other help than the clouds, which means that the fronts cannot be drawn correctly, e.g. it is impossible to find the correct point of occlusion without any other data.

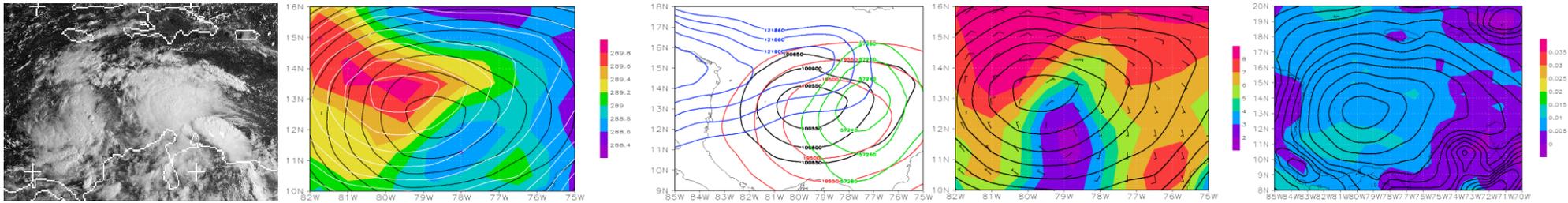
2012-10-22 00UTC



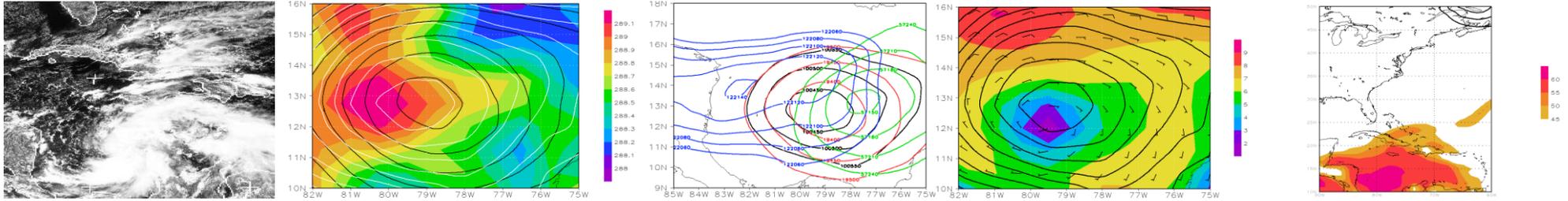
2012-10-22 06UTC



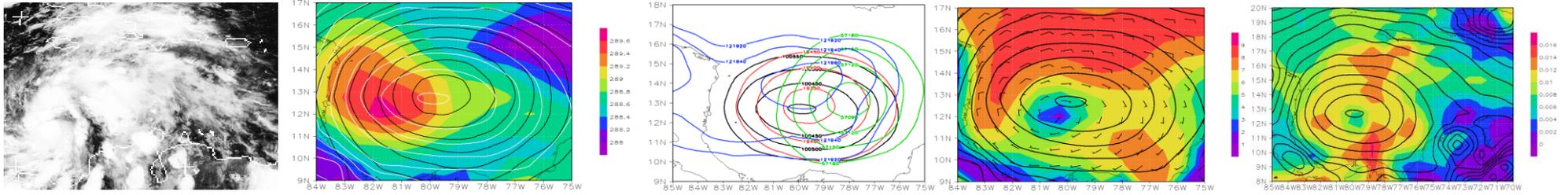
2012-10-22 12UTC



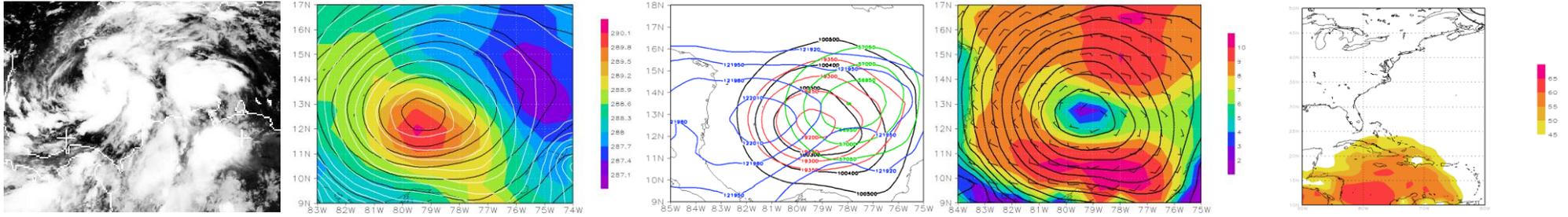
2012-10-22 18UTC



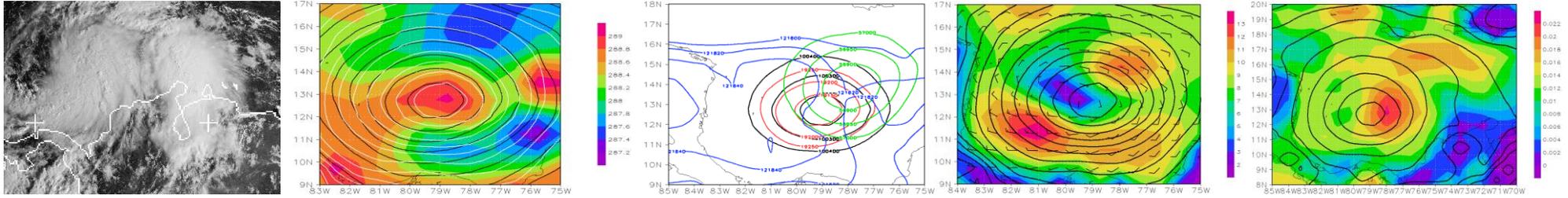
2012-10-23 00UTC



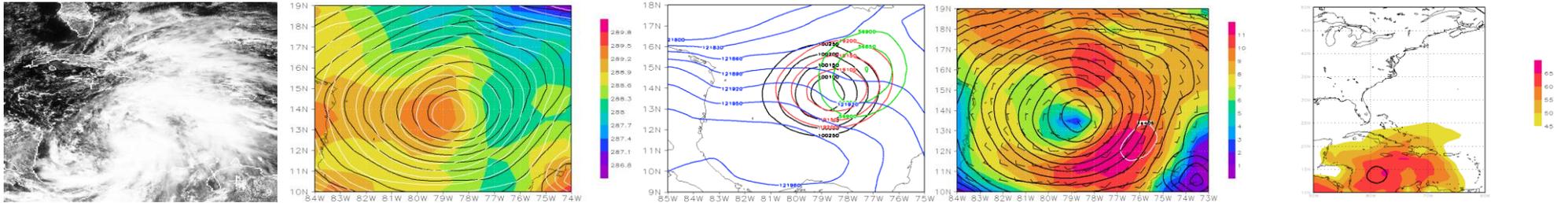
2012-10-23 06UTC



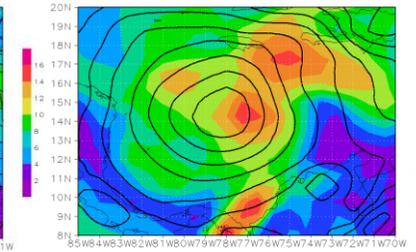
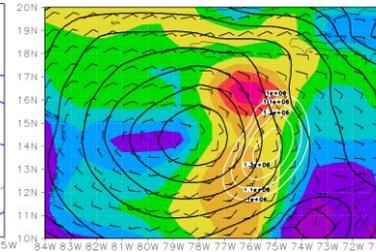
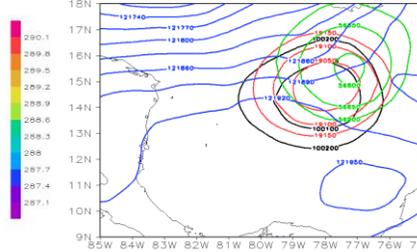
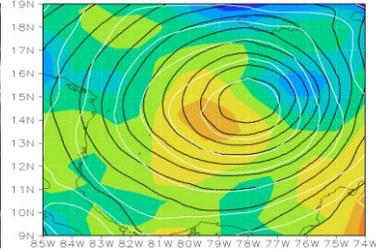
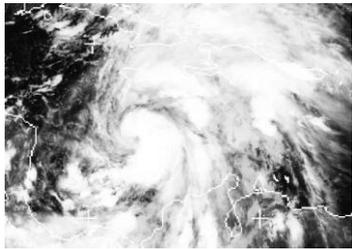
2012-10-23 12UTC



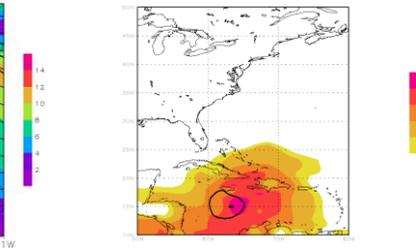
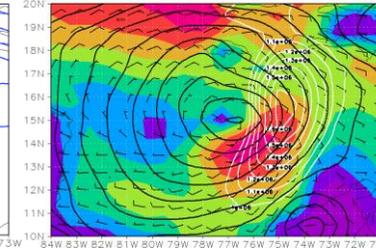
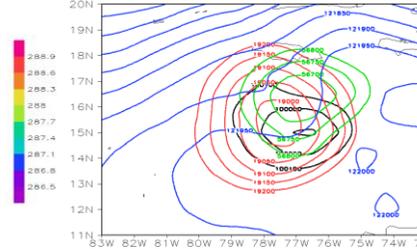
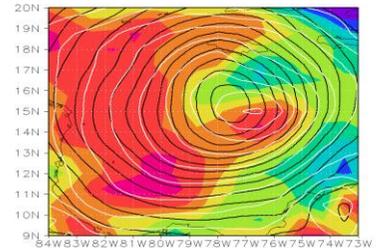
2012-10-23 18UTC



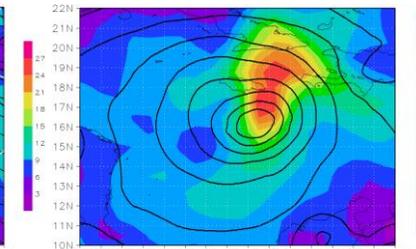
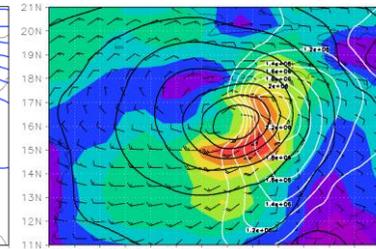
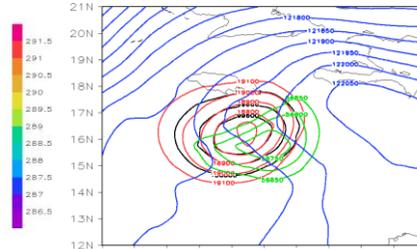
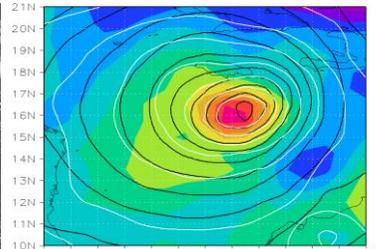
2012-10-24 00UTC



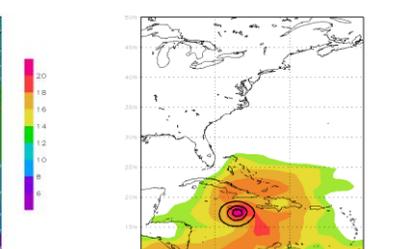
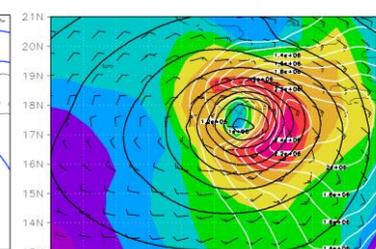
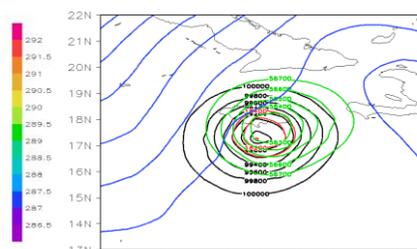
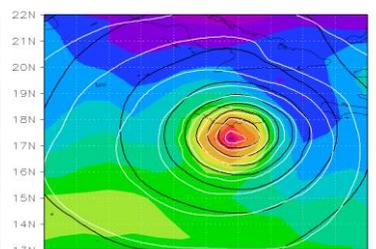
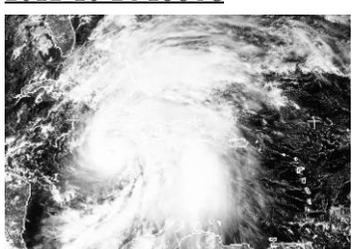
2012-10-24 06UTC



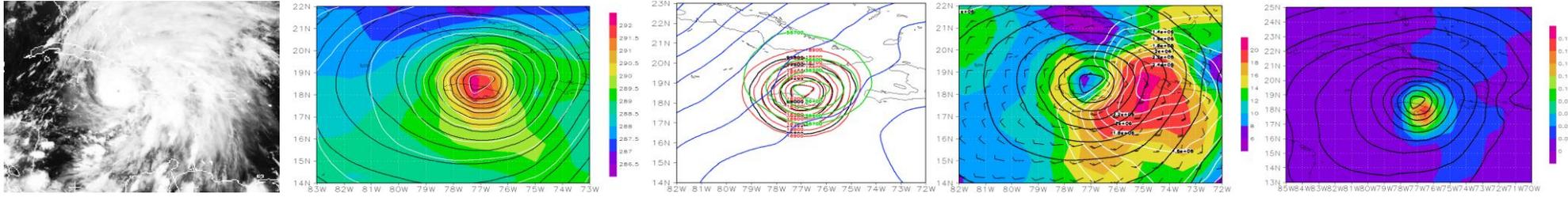
2012-10-24 12UTC



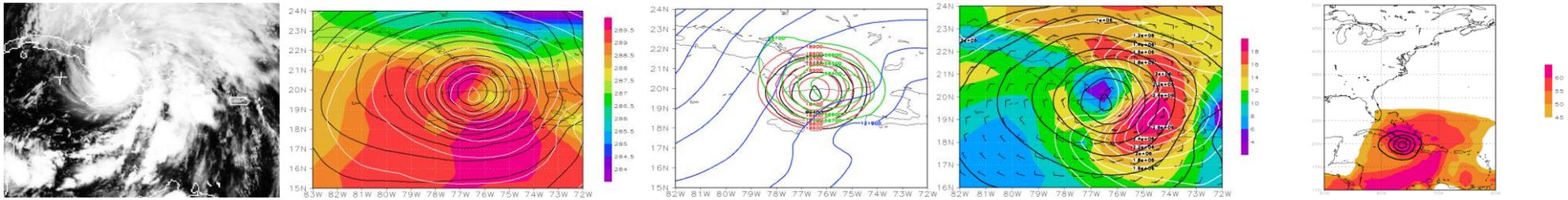
2012-10-24 18UTC



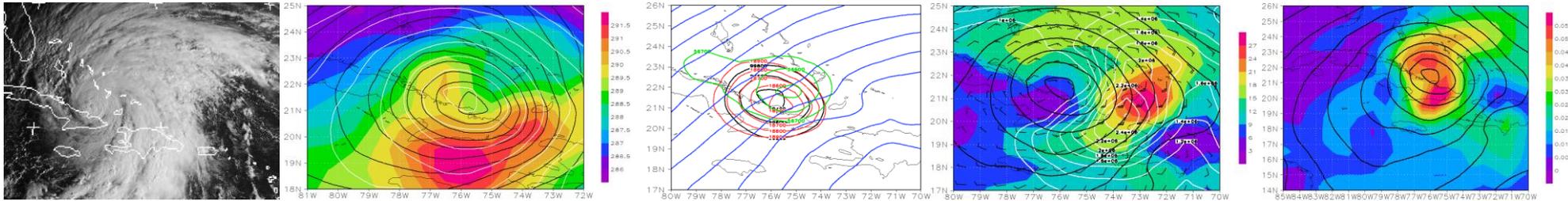
2012-10-25 00UTC



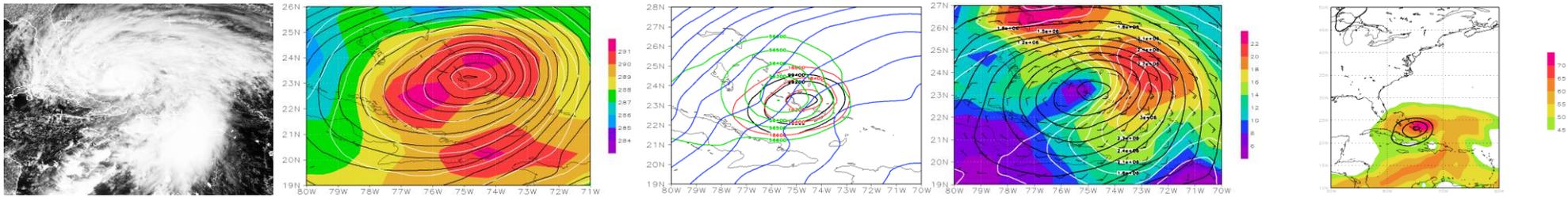
2012-10-25 06UTC



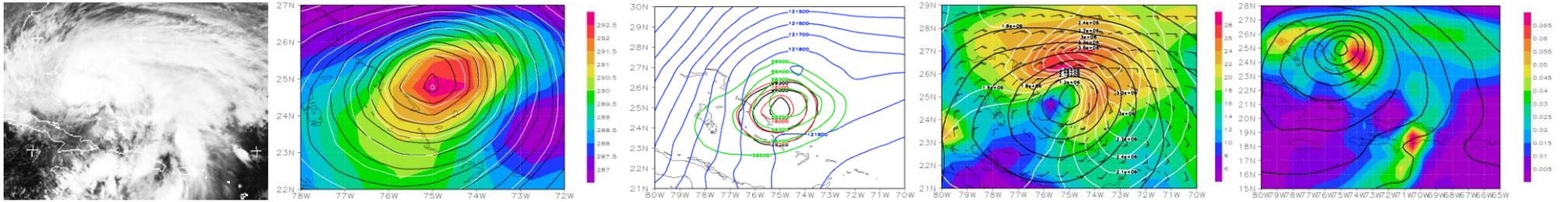
2012-10-25 12UTC



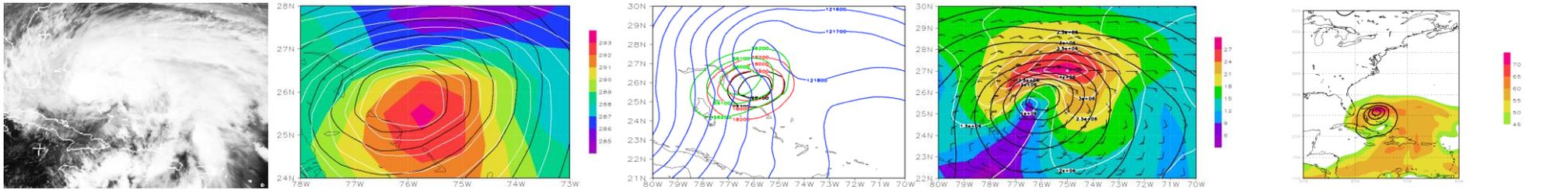
2012-10-25 18UTC



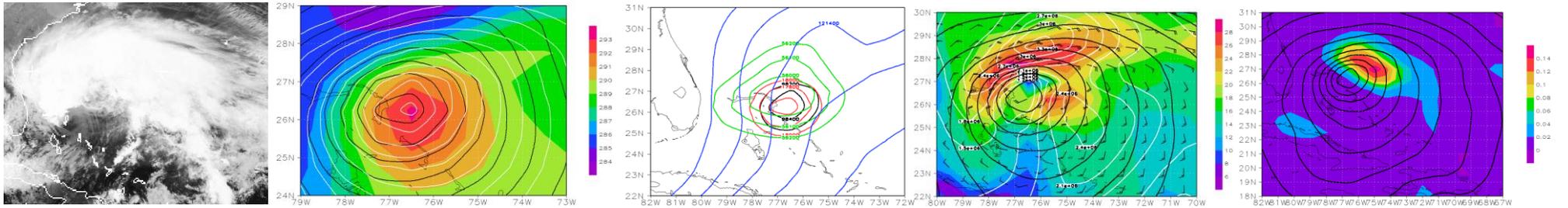
**2012-10-26 00UTC**



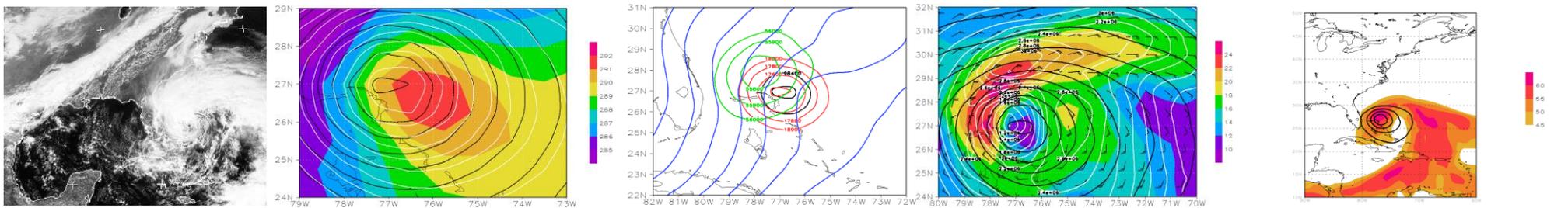
**2012-10-26 06UTC**



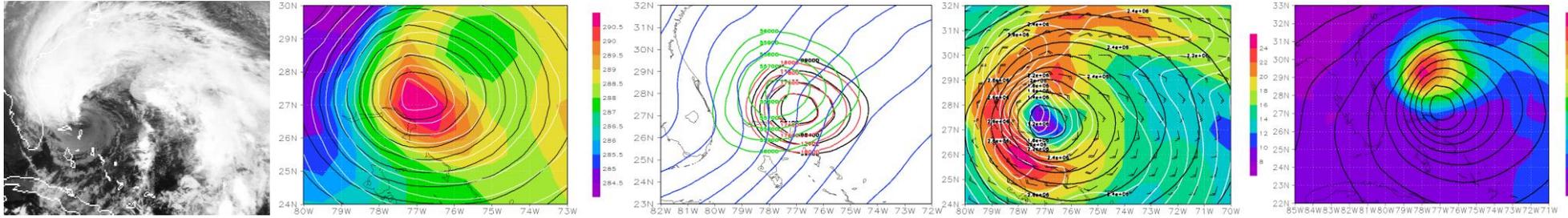
**2012-10-26 12UTC**



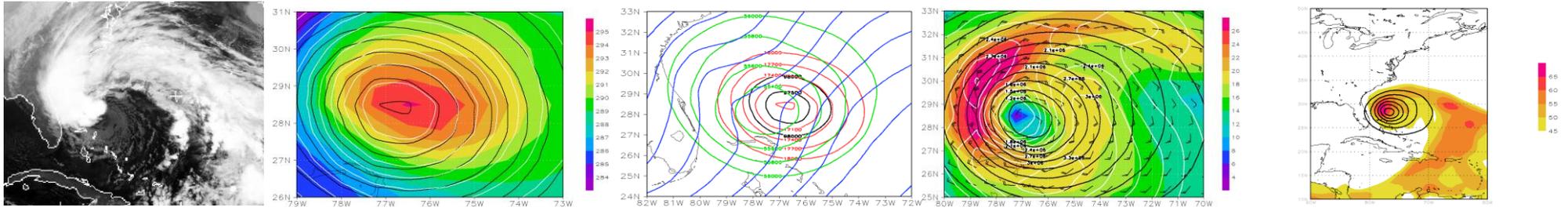
**2012-10-26 18UTC**



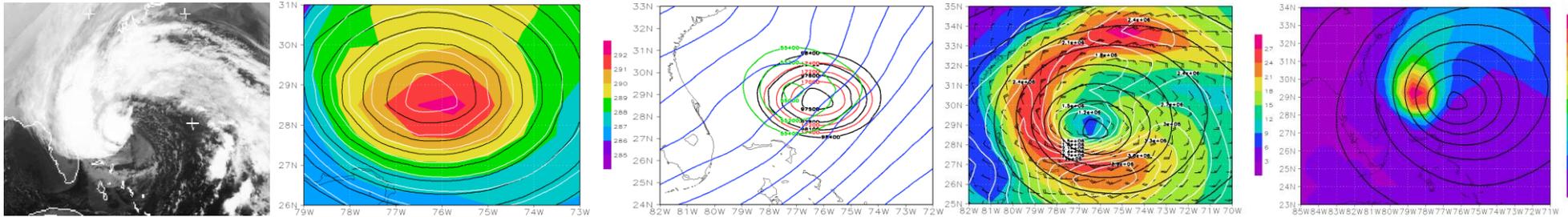
2012-10-27 00UTC



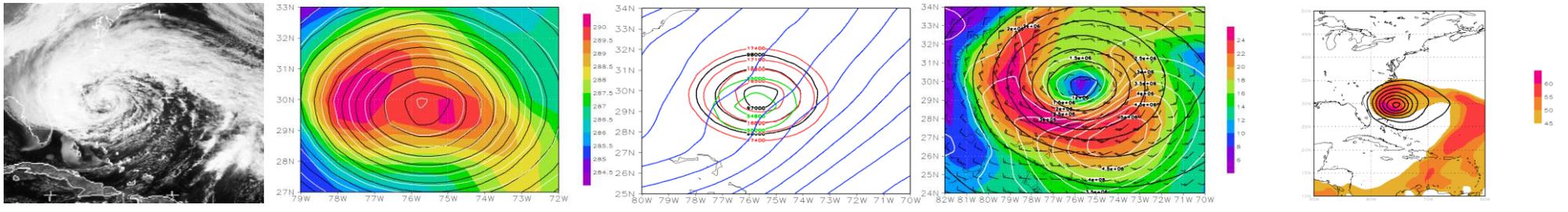
2012-10-27 06UTC



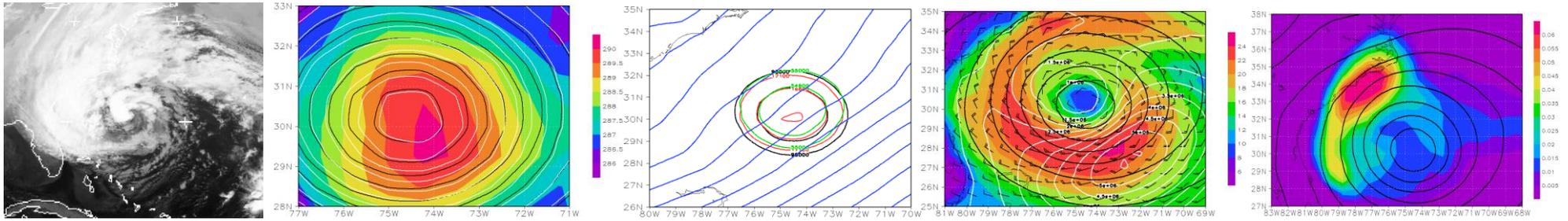
2012-10-27 12UTC



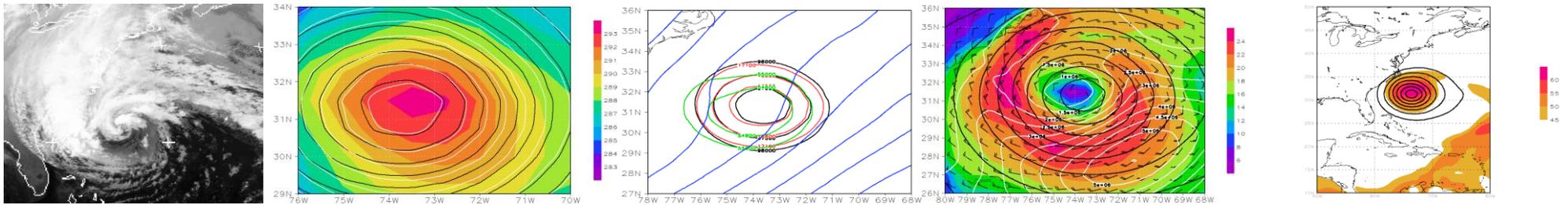
2012-10-27 18UTC



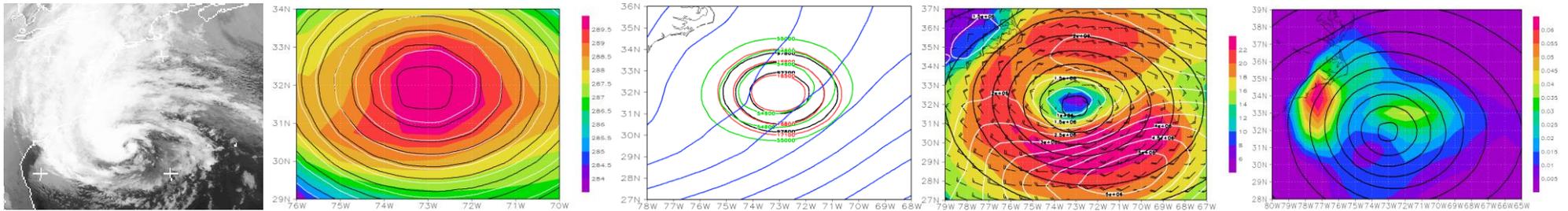
**2012-10-28 00UTC**



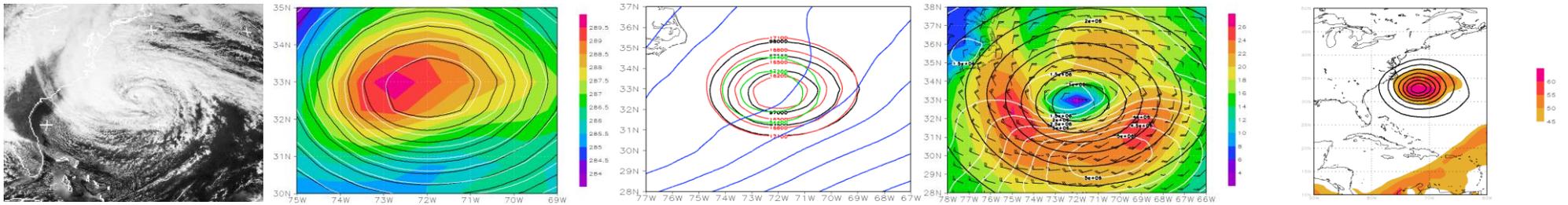
**2012-10-28 06UTC**



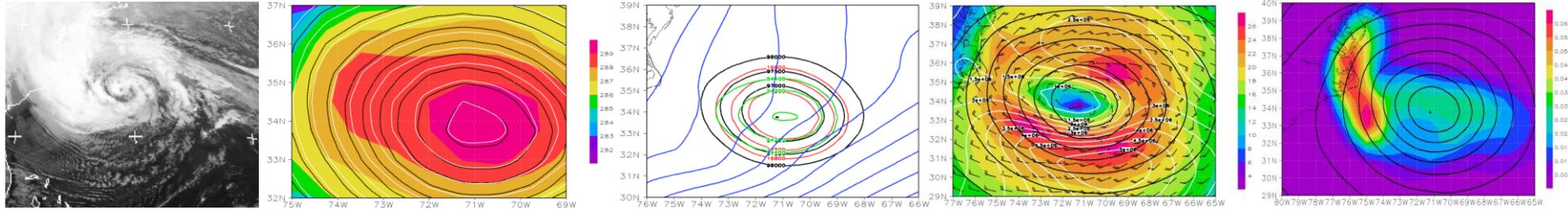
**2012-10-28 12UTC**



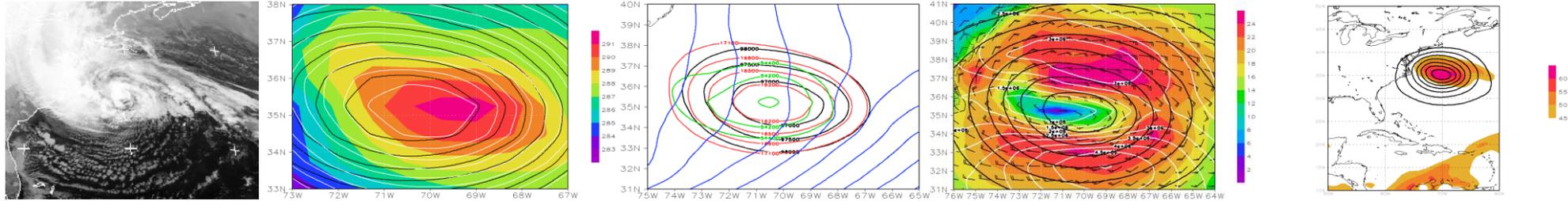
**2012-10-28 18UTC**



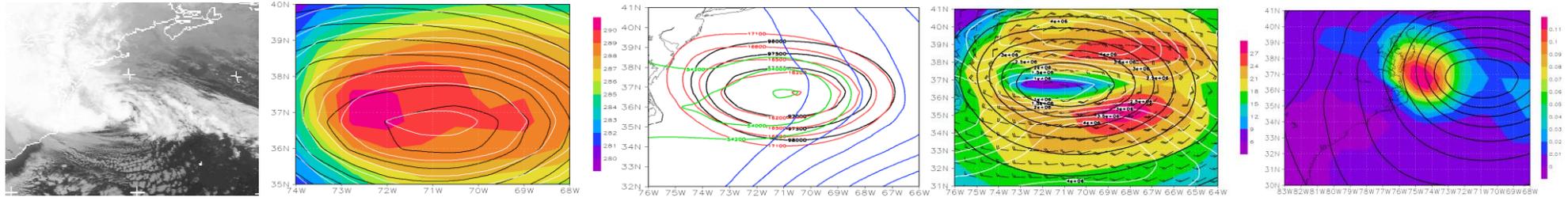
2012-10-29 00UTC



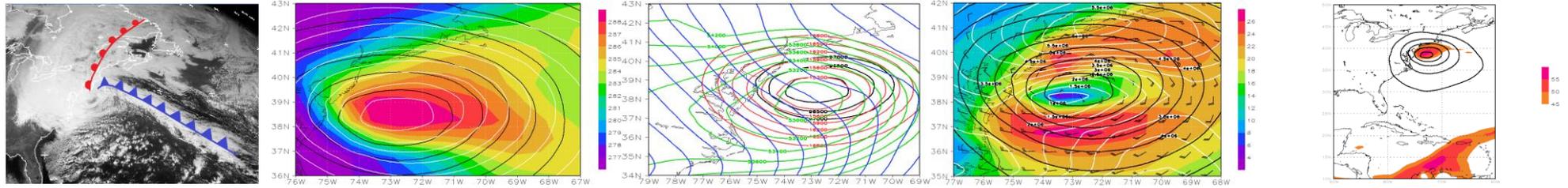
2012-10-29 06UTC



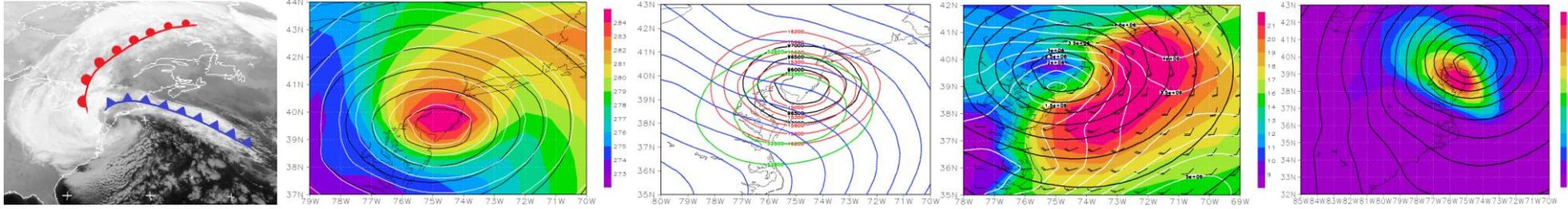
2012-10-29 12UTC



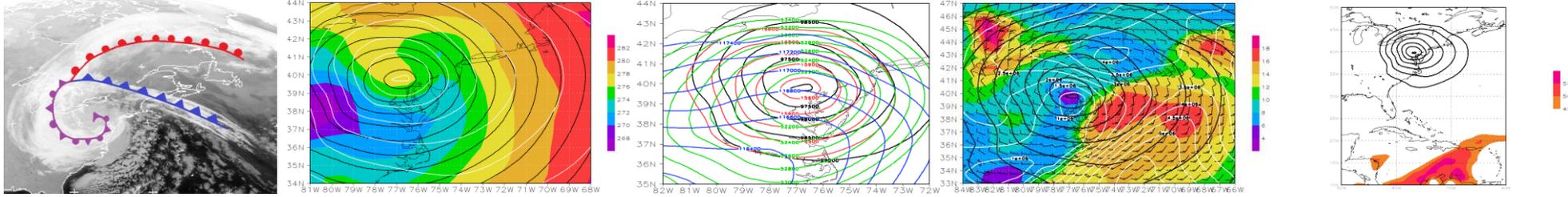
2012-10-29 18UTC



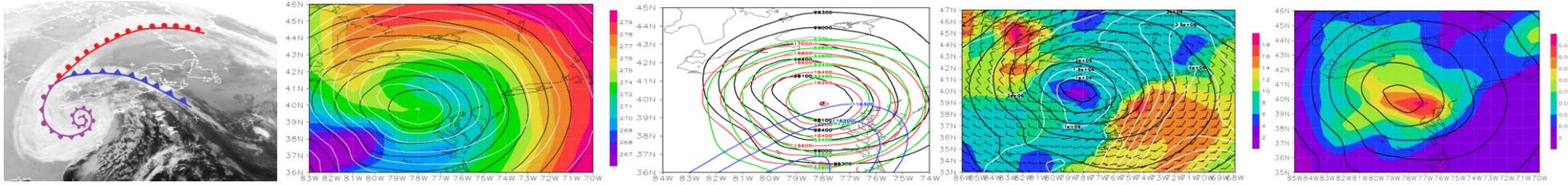
2012-10-30 00UTC



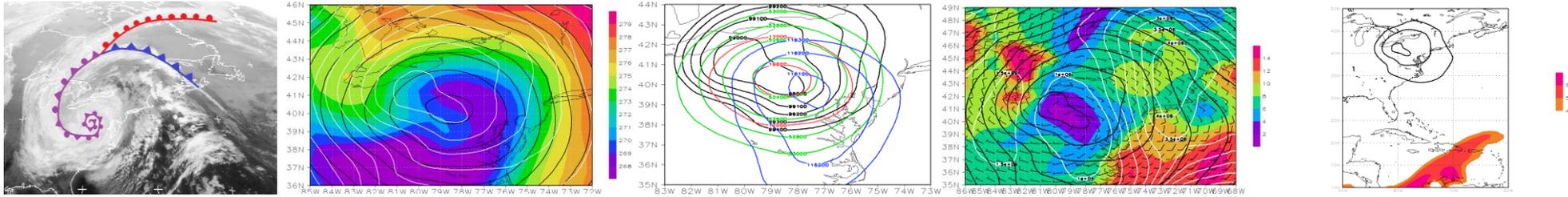
2012-10-30 06UTC



2012-10-30 12UTC



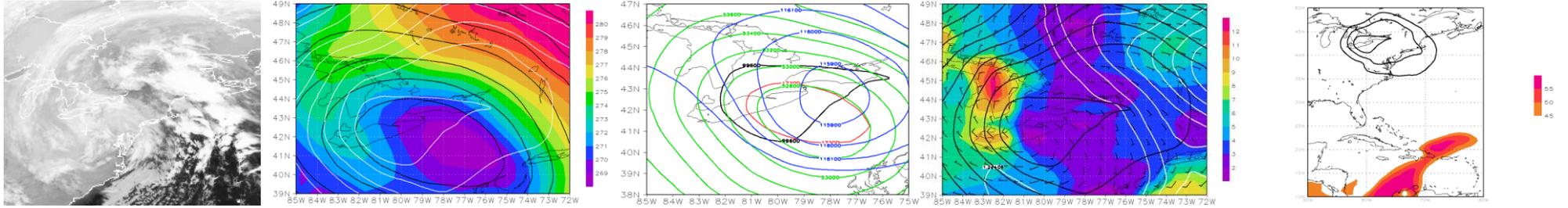
2012-10-30 18UTC



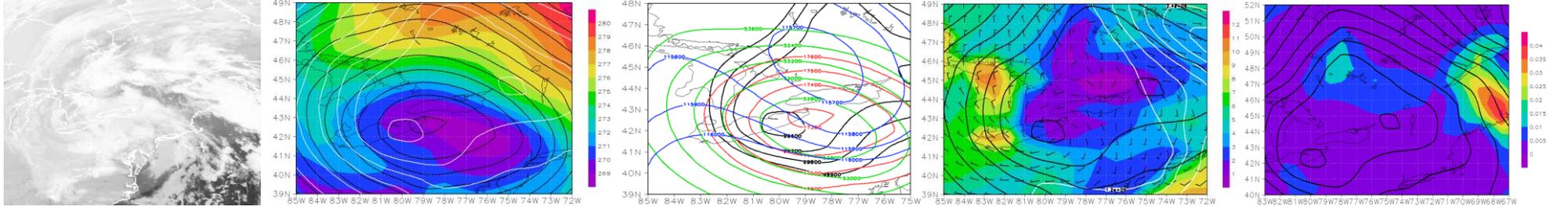
**2012-10-31 00UTC**



**2012-10-31 06UTC**



**2012-10-31 12UTC**



**2012-10-31 18UTC**

