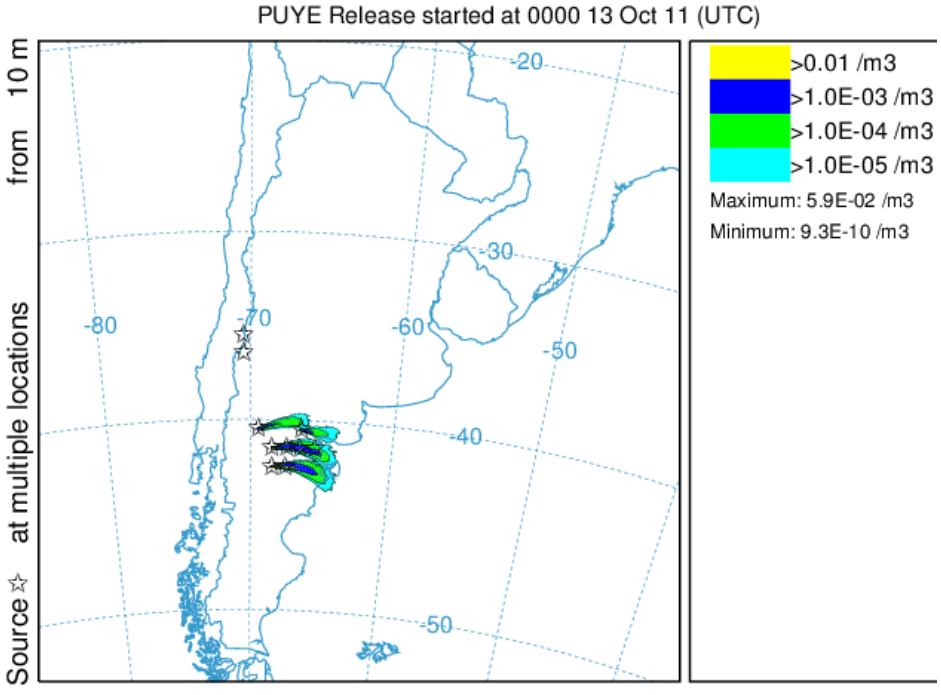
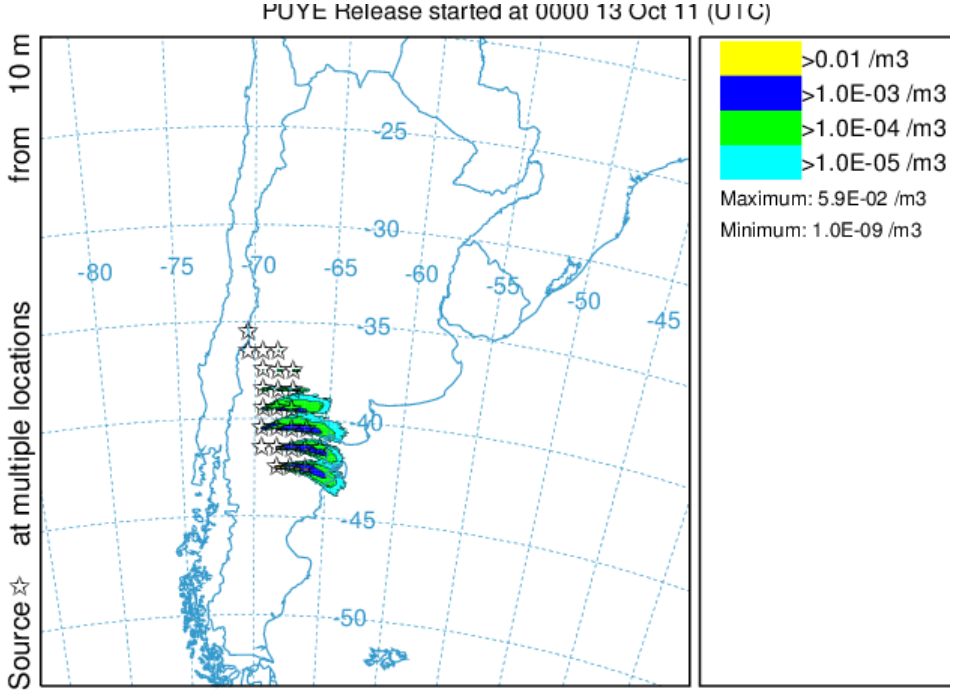
PRELIMINARY HYSPLIT RUN RESULTS
AFTER 6HOURS OF RELEASE
METEOROLOGICAL INPUT: NCEP REANALYSIS

Dust concentration (default land-use file)



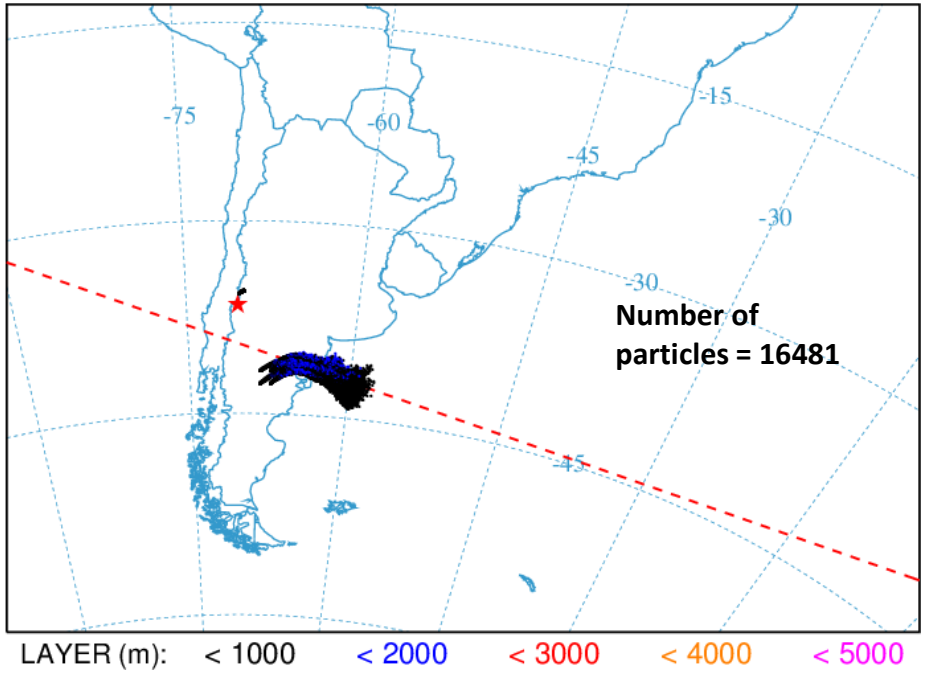
Dust concentration (modified land-use file)



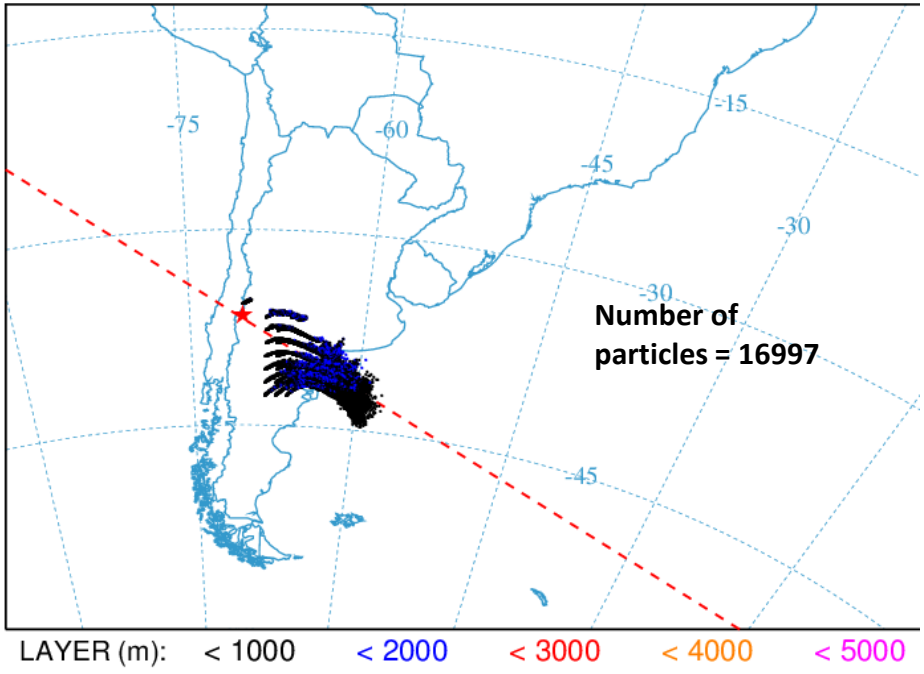
Comparison of HYSPLIT Dust Storm Runs with:
Original Land/Use File (left column) and Modified File (right column)

10/14/11
18 UTC

Original File

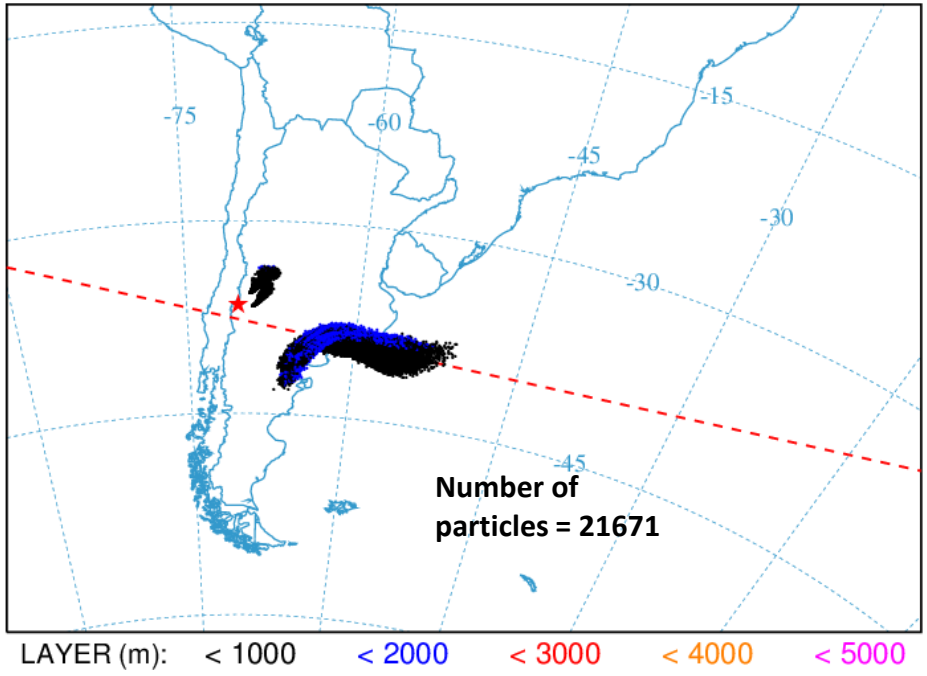


Modified File

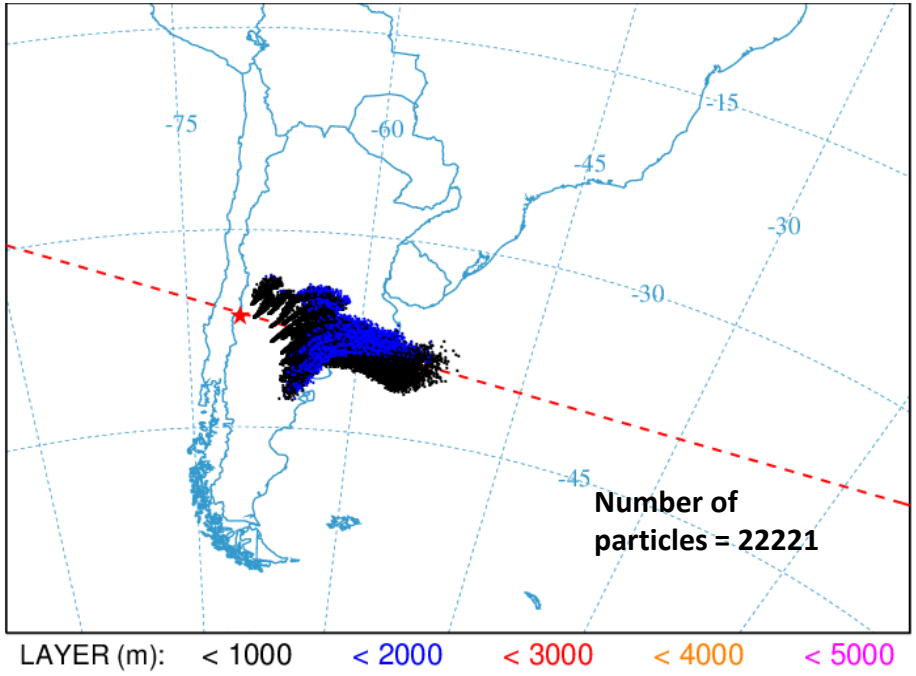


10/15/11
06 UTC

Original File

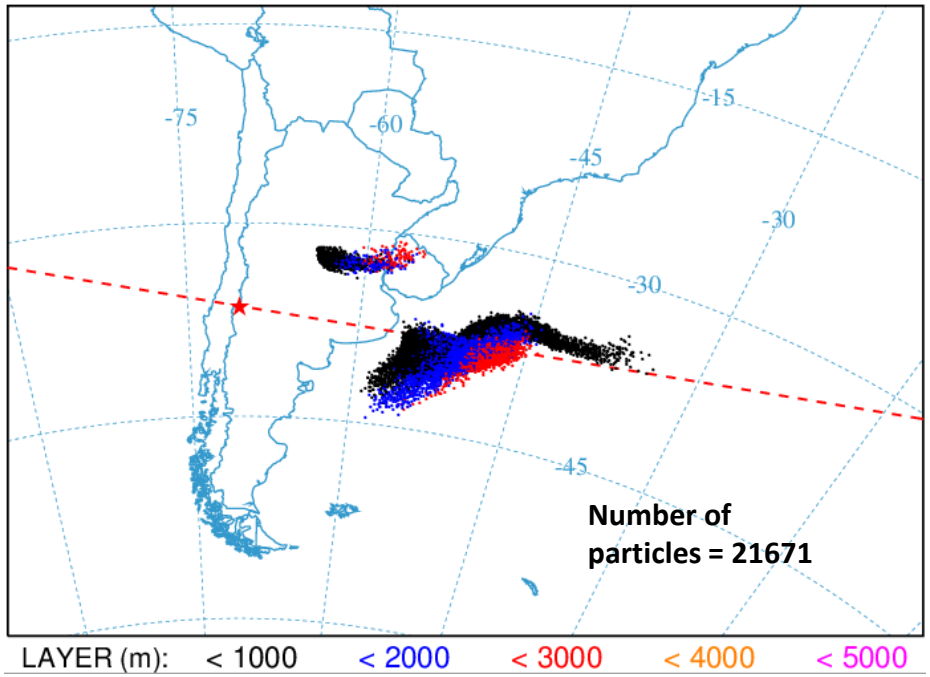


Modified File

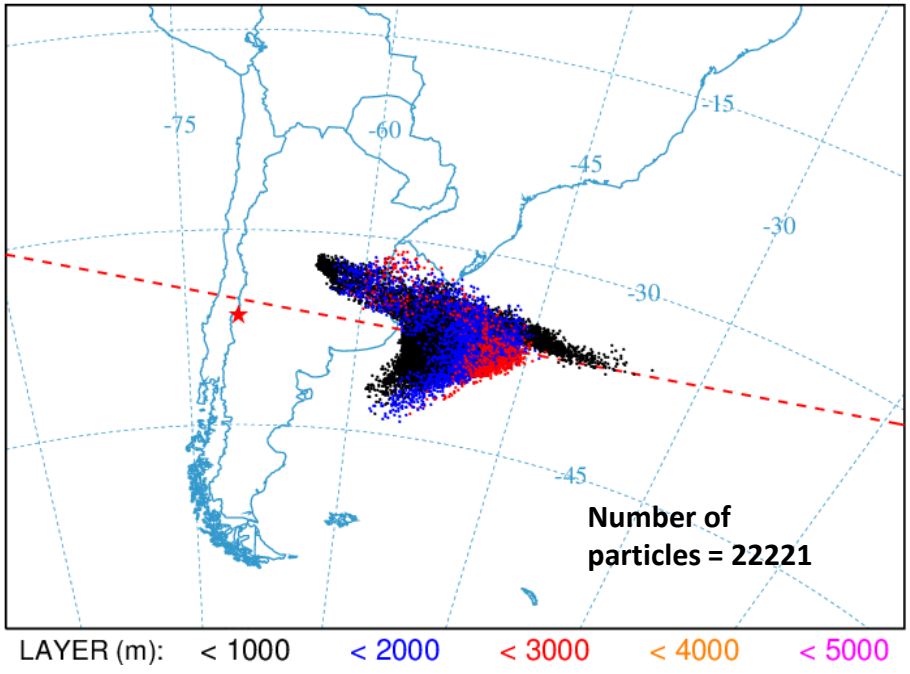


10/16/11
18 UTC

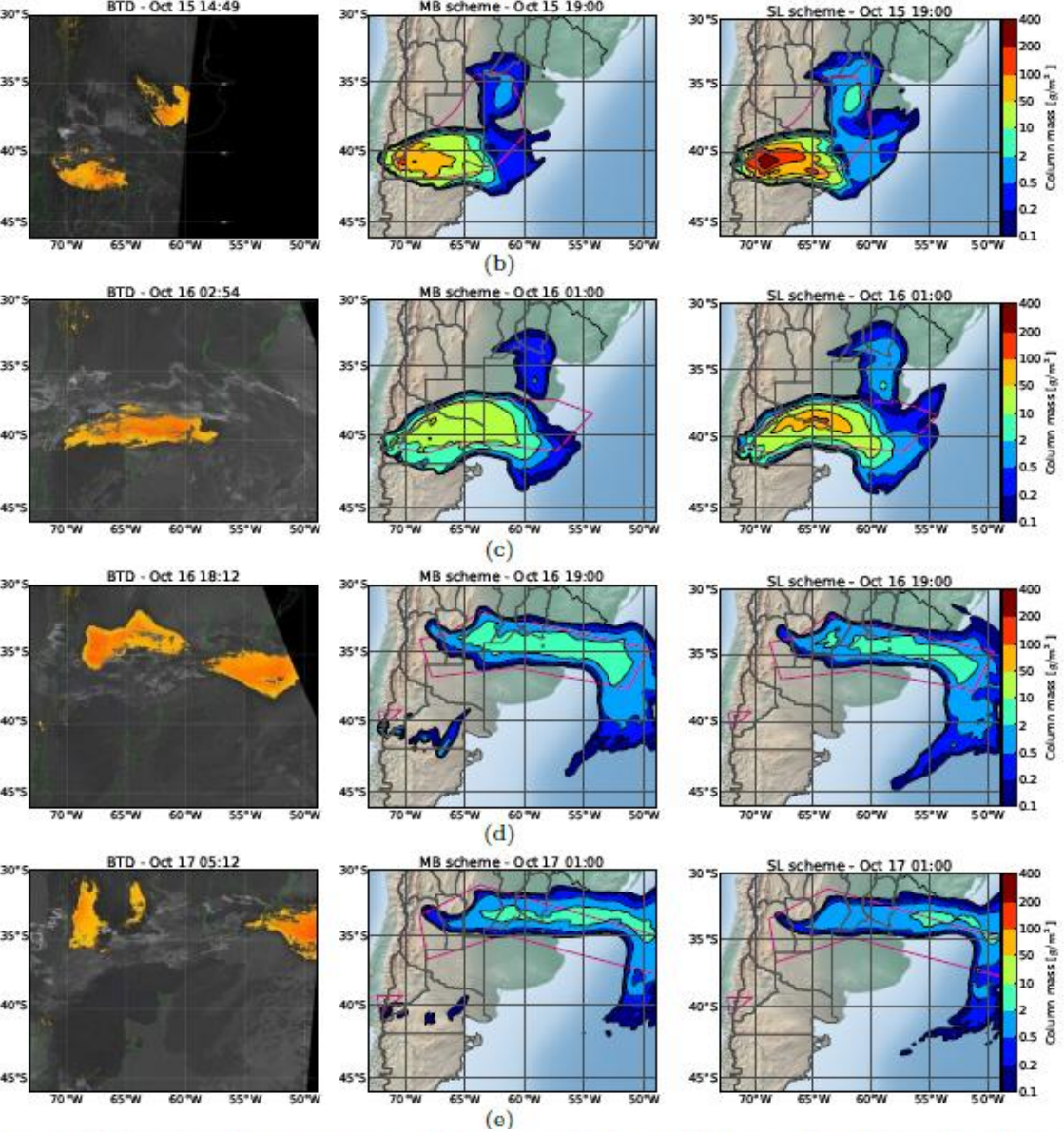
Original File



Modified File



Comparison of HYSPLIT Dust Storm Runs with runs performed by Folch et. al., 2014 with FALL 3-D



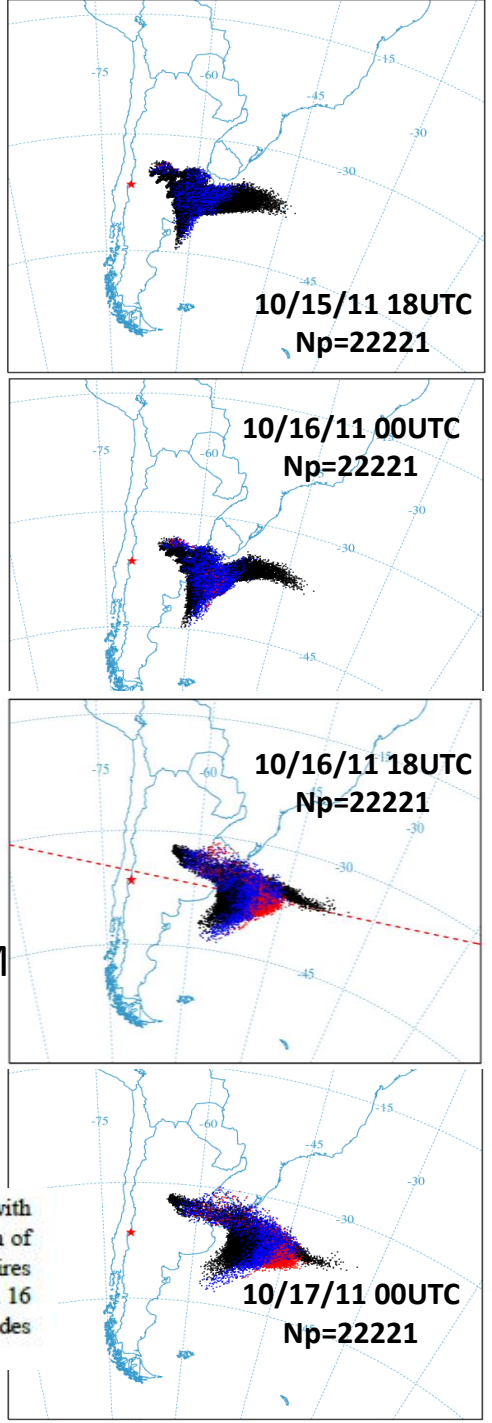


Fig. 7. Comparison between remote sensing observations and simulation results. The first column shows the MODIS images processed with the BTD algorithm. The second and third columns show FALL3D-7.0 results for the total cloud mass per unit area (vertical integration of concentration) using the MB and SH emission schemes respectively. On these pictures, the polygons of the VAG issued by the Buenos Aires VAAC are superimposed for reference. The VAG times in UTC are (a) 19:28 on 14 October, (b) 19:28 on 15 October, (c) 01:28 on 16 October, (d) 19:28 on 16 October and (e) 01:15 on 17 October. Note how the presence of a band of middle and high altitude clouds impedes the complete visualization of the cloud by the satellite.