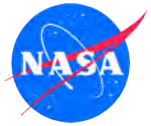




ORACLES Forecast Briefing

Aerosols

Tuesday, 29 August 2017



The Aerosol Week

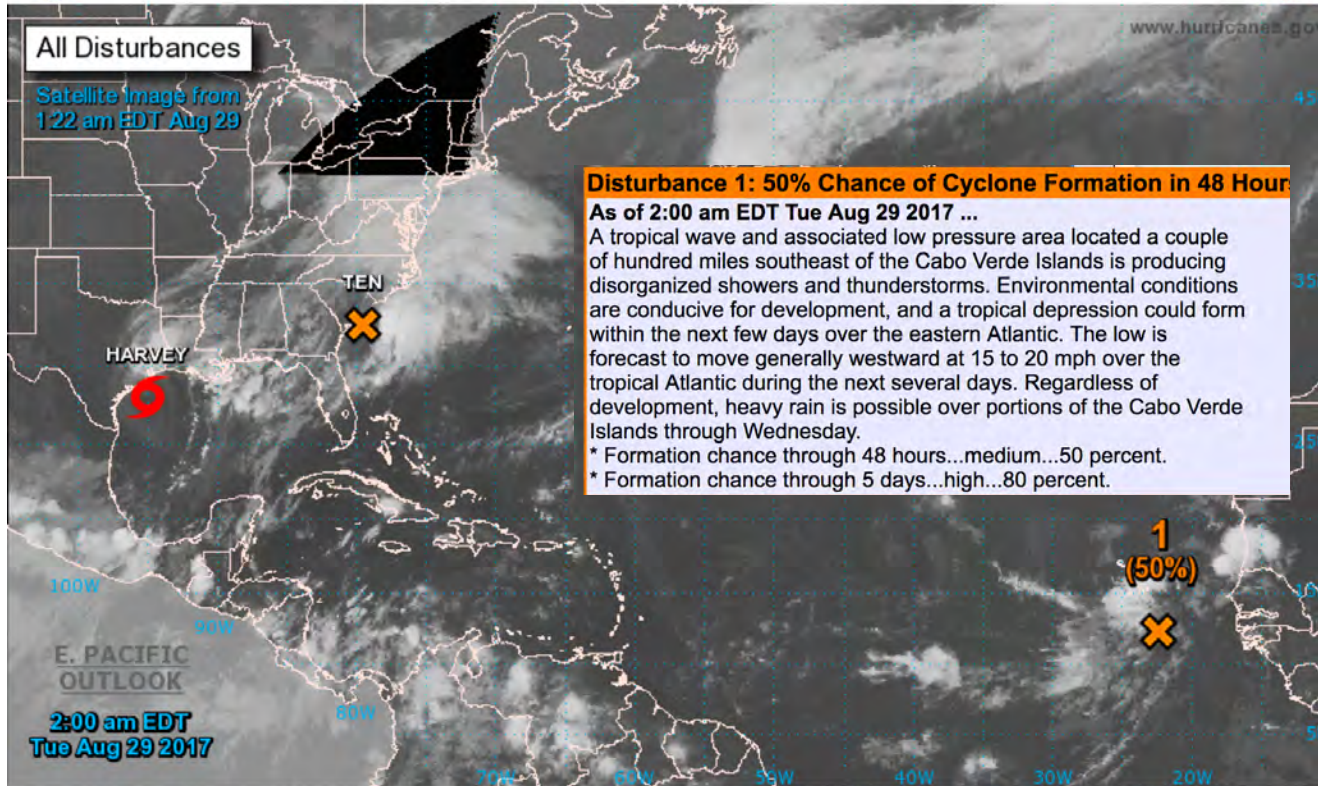


Slide Intentionally Left Blank



Two-Day Graphical Tropical Weather Outlook

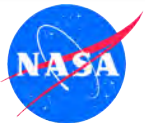
National Hurricane Center Miami, Florida



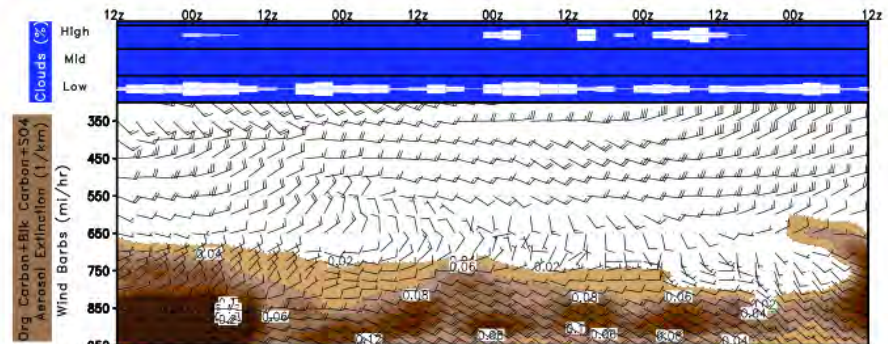
Current Disturbances and Two-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

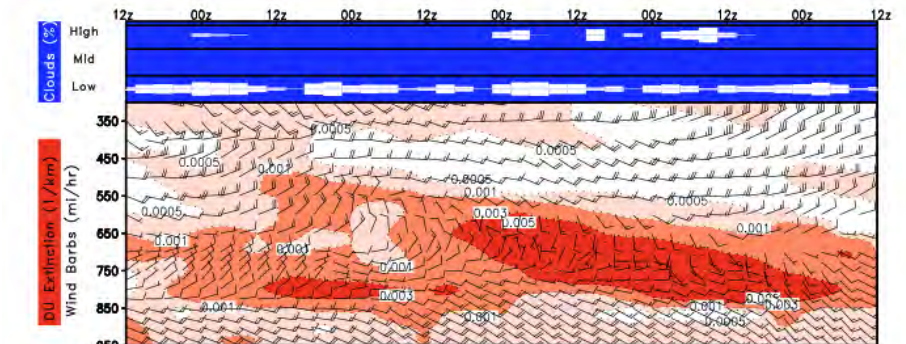
Post-Tropical Cyclone Remnants



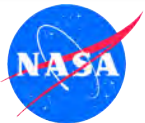
Ascension (OC+BC+SO4 & Dust)



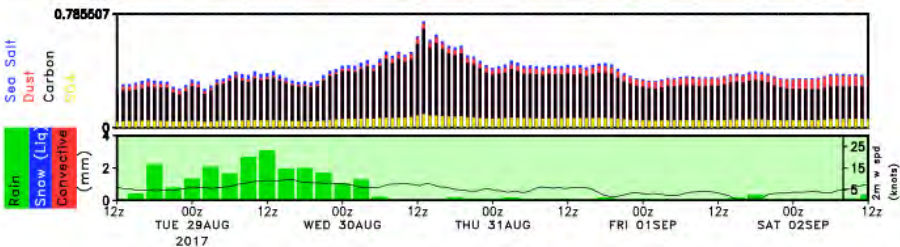
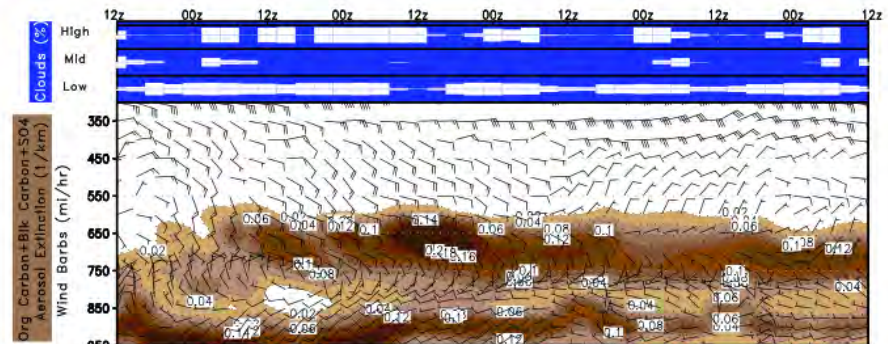
LAT = -8.0 , LON = -14.4, Location = ORACLES_Ascension_Island, Fcst_init = 20170828



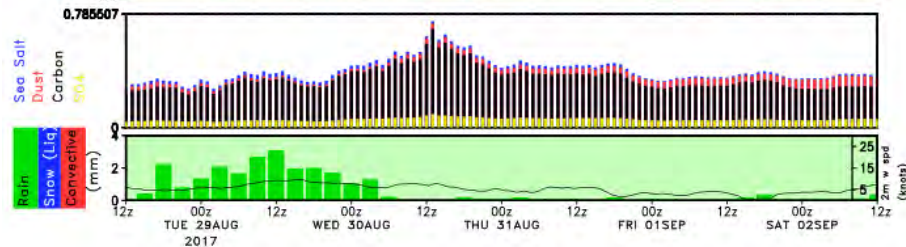
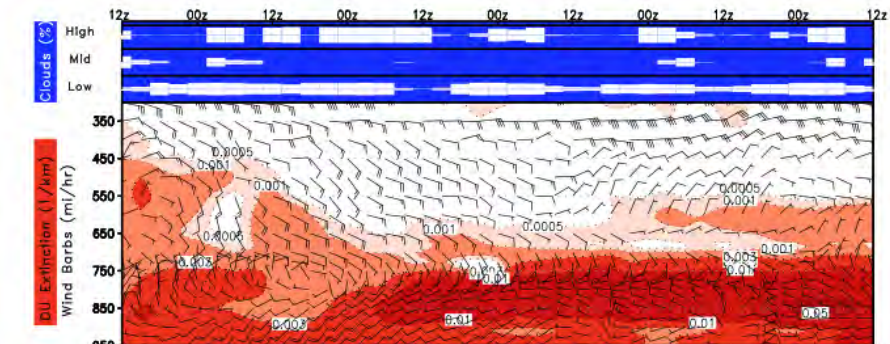
LAT = -8.0 , LON = -14.4, Location = ORACLES_Ascension_Island, Fcst_init = 20170828



São Tomé (OC+BC+SO4 & Dust)



LAT = 0.3 , LON = 6.6, Location = ORACLES_Sao_Tome_e_Principe, Fcst_init = 20170828

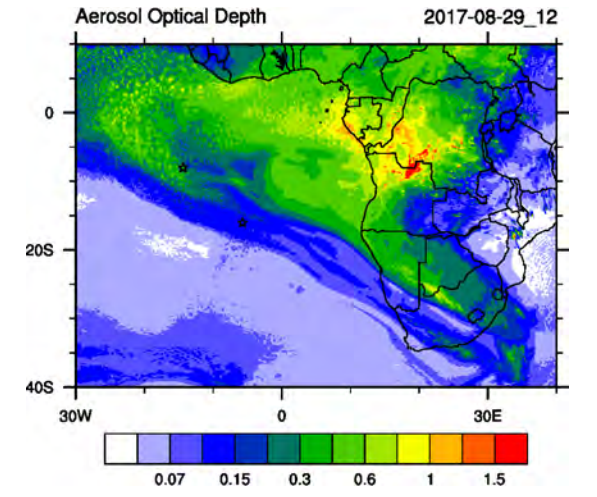
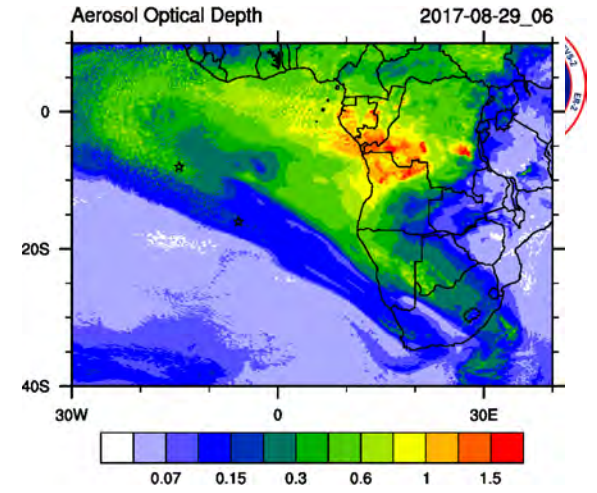
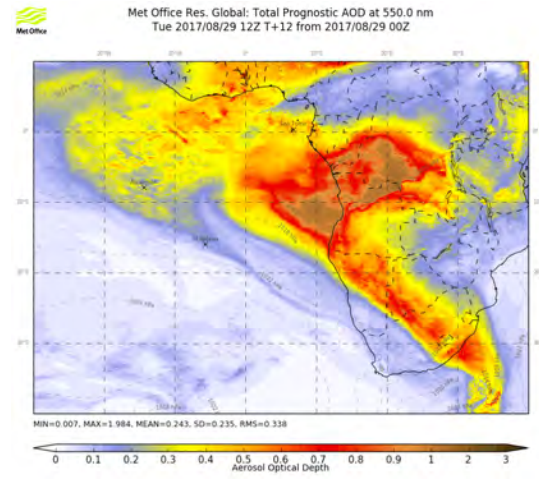
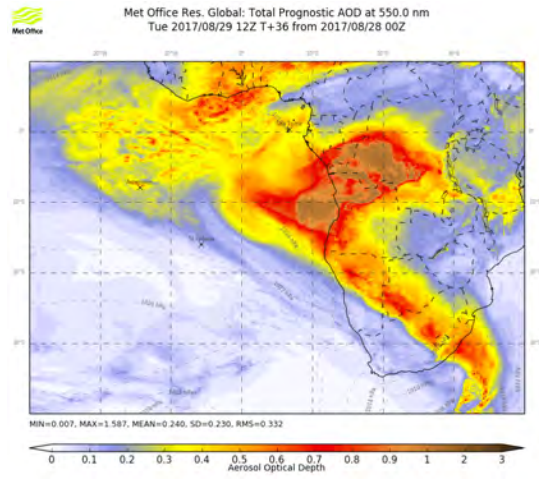
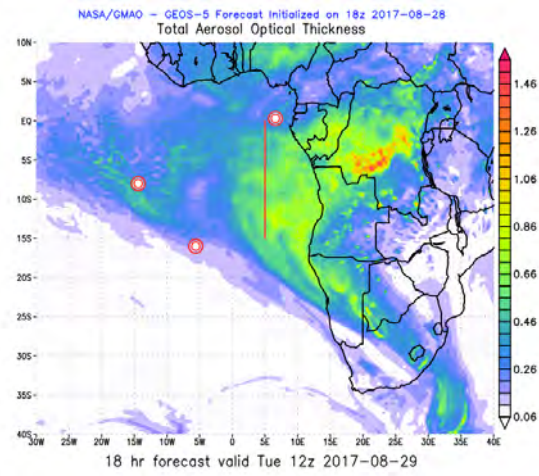
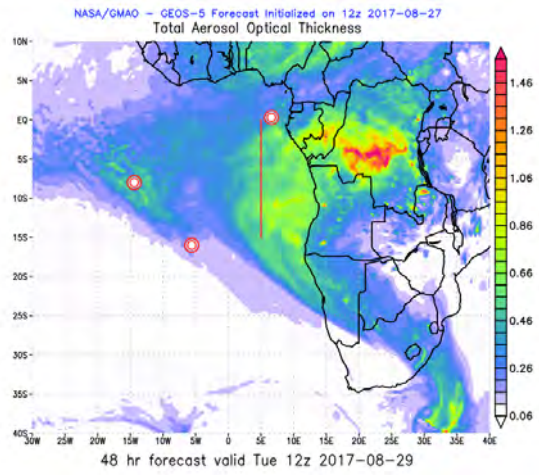


LAT = 0.3 , LON = 6.6, Location = ORACLES_Sao_Tome_e_Principe, Fcst_init = 20170828



Now a No Fly Day

TUESDAY, 29 AUGUST 2017

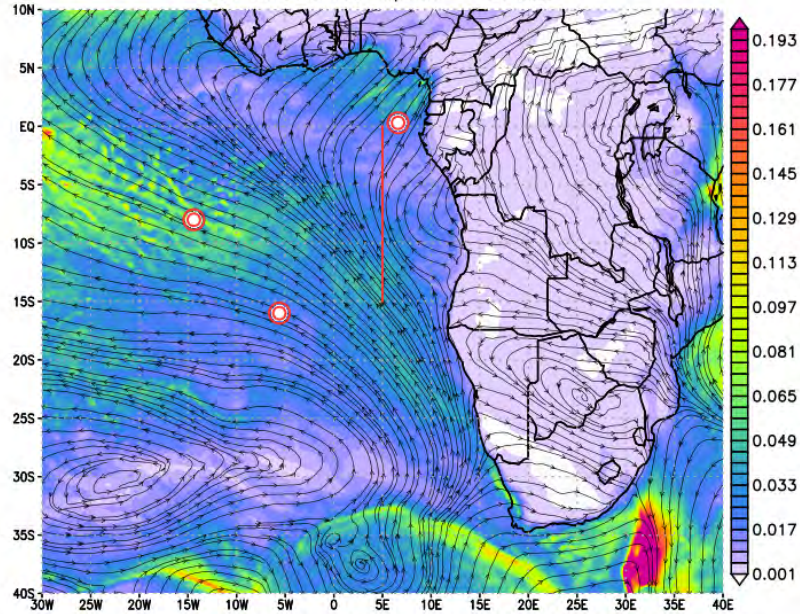




Tuesday 29 August 2017 12Z

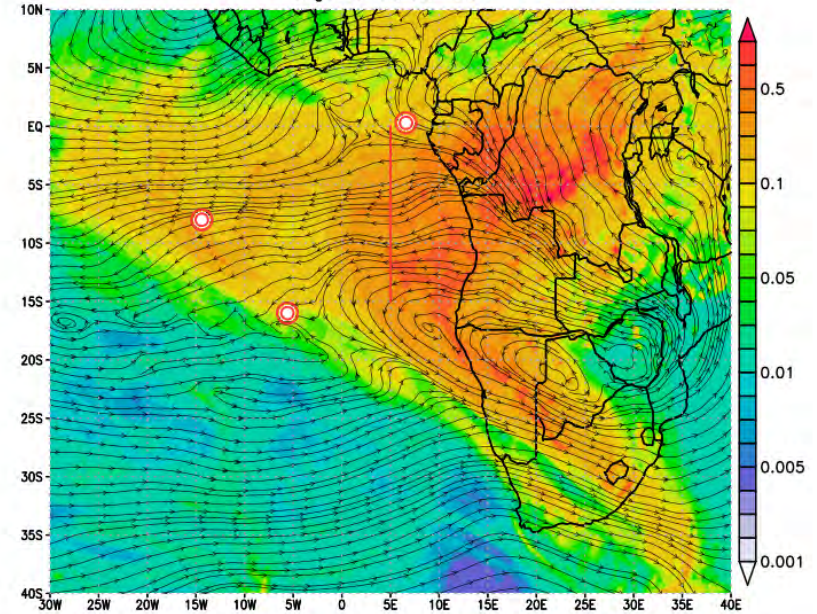


NASA/GMAO - GEOS-5 Forecast Initialized on 18z 2017-08-28
Sea Salt Aerosol Optical Thickness



18 hr forecast valid Tue 12z 2017-08-29

NASA/GMAO - GEOS-5 Forecast Initialized on 18z 2017-08-28
Organic Carbon AOT



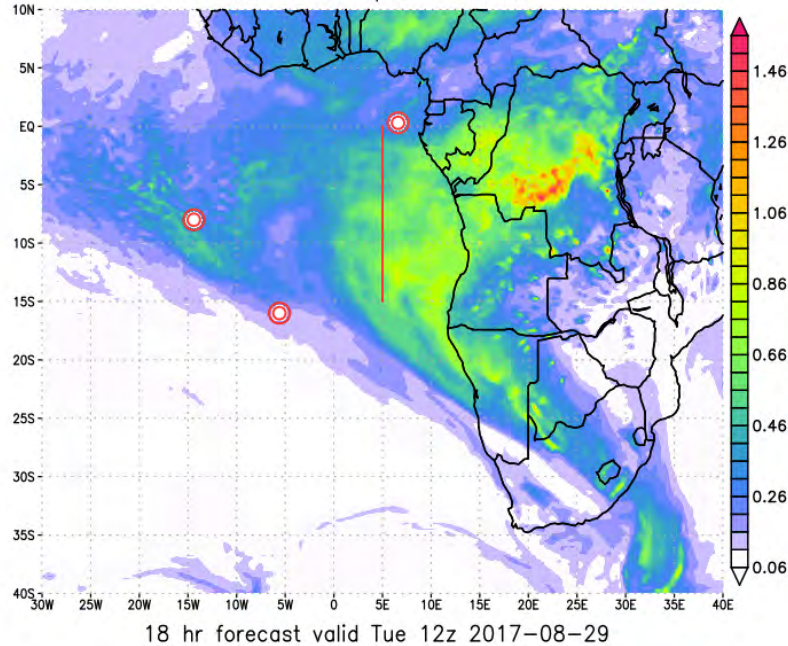
18 hr forecast valid Tue 12z 2017-08-29



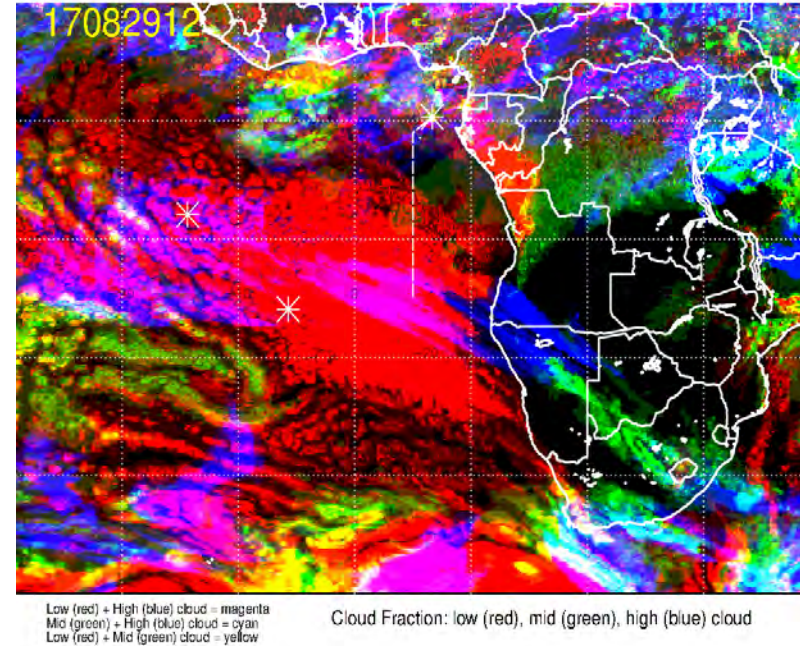
Tuesday 29 August 2017 12Z



NASA/GMAO - GEOS-5 Forecast Initialized on 18z 2017-08-28
Total Aerosol Optical Thickness

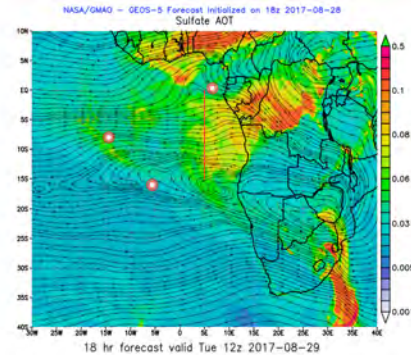
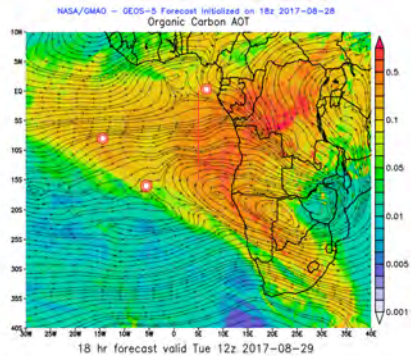
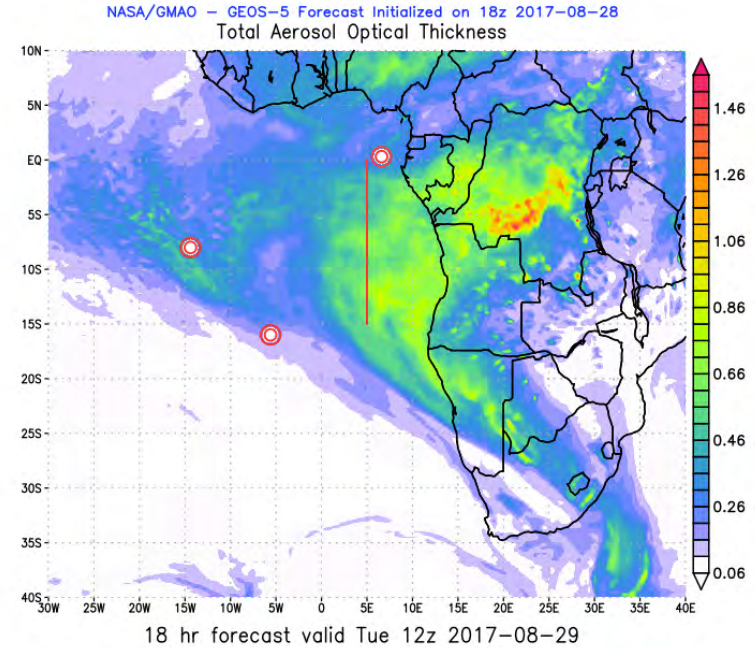
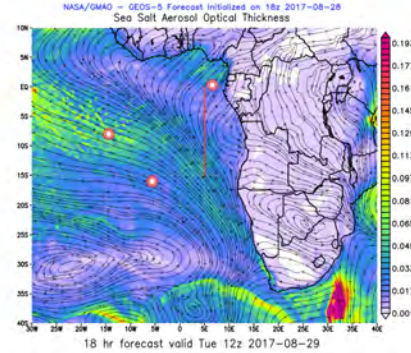
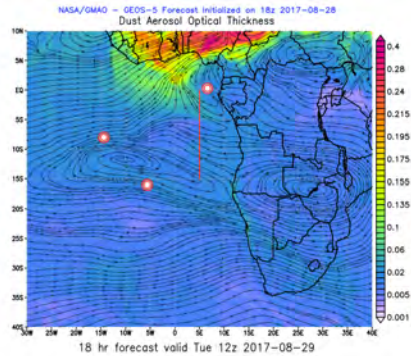


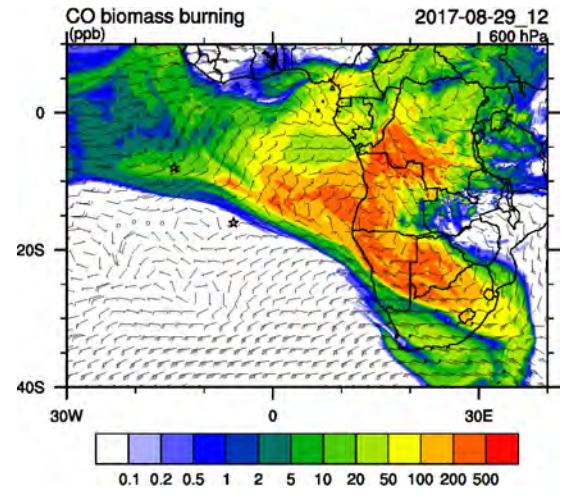
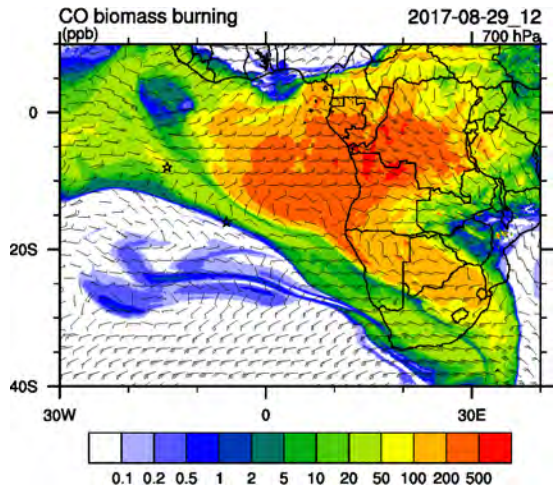
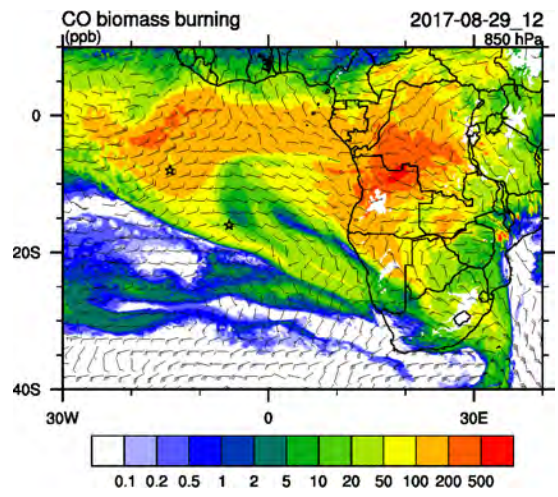
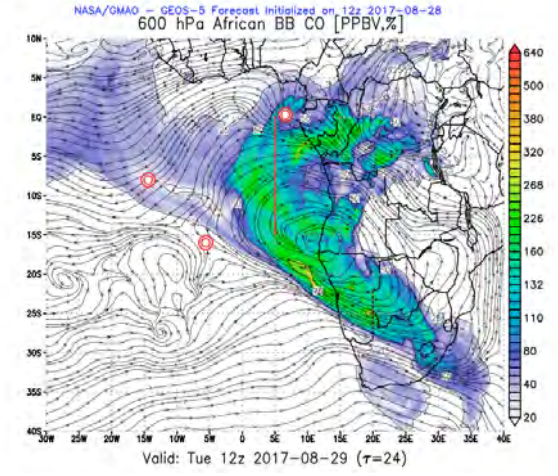
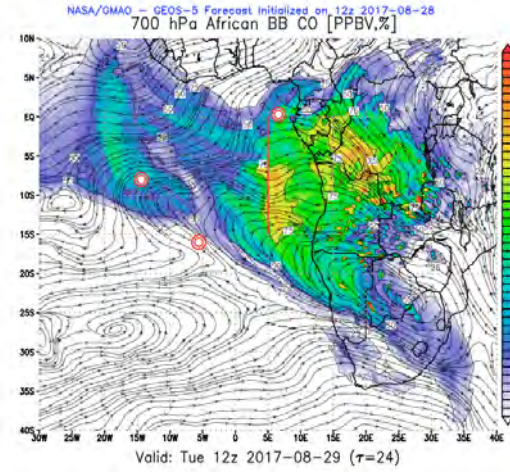
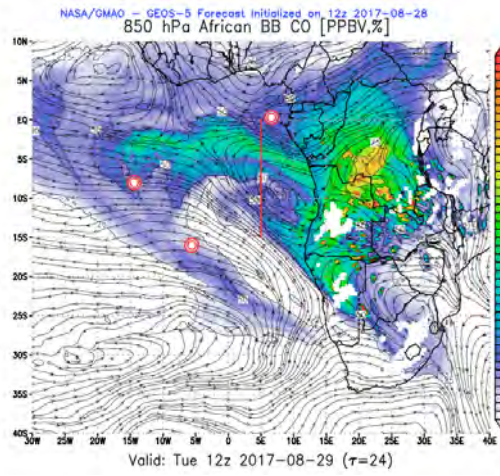
17082912, 024 hour forecast for Cloud Fraction (low, mid, and high cloud) -- ECMWF

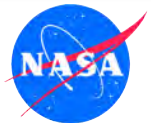




Tuesday 29 August 2017 12Z

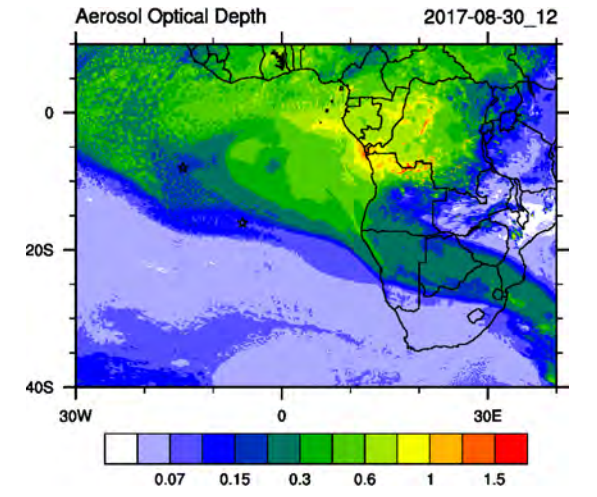
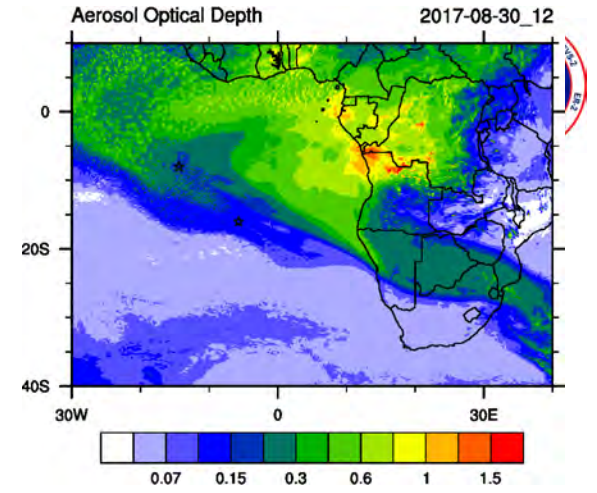
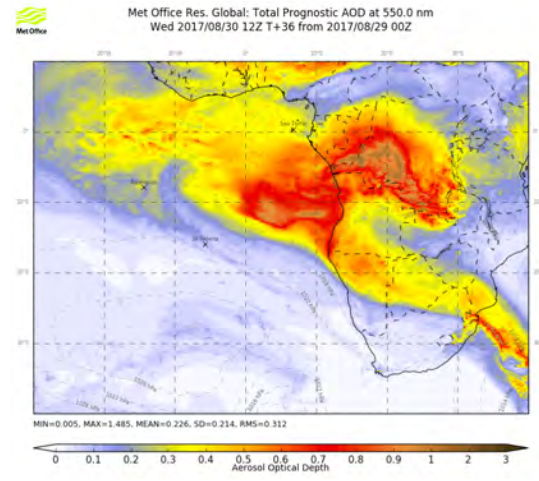
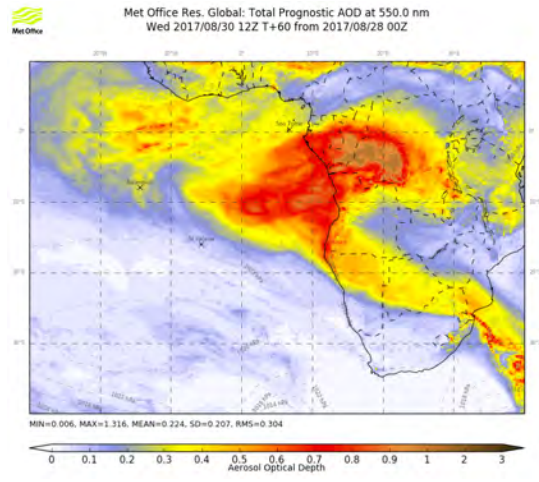
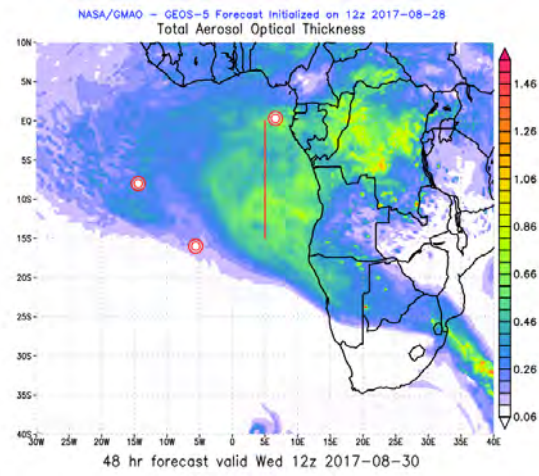
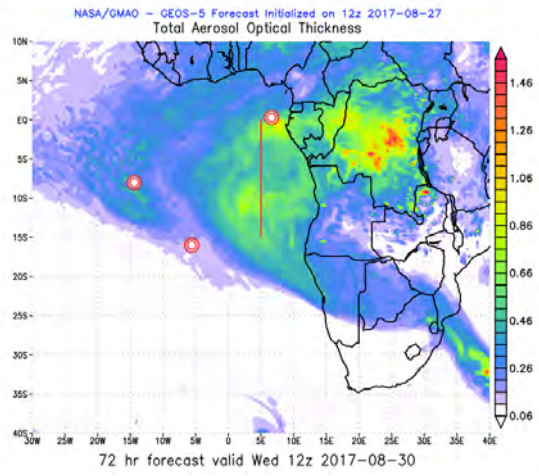


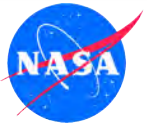




Fly Day (TBD)

WEDNESDAY, 30 AUGUST 2017

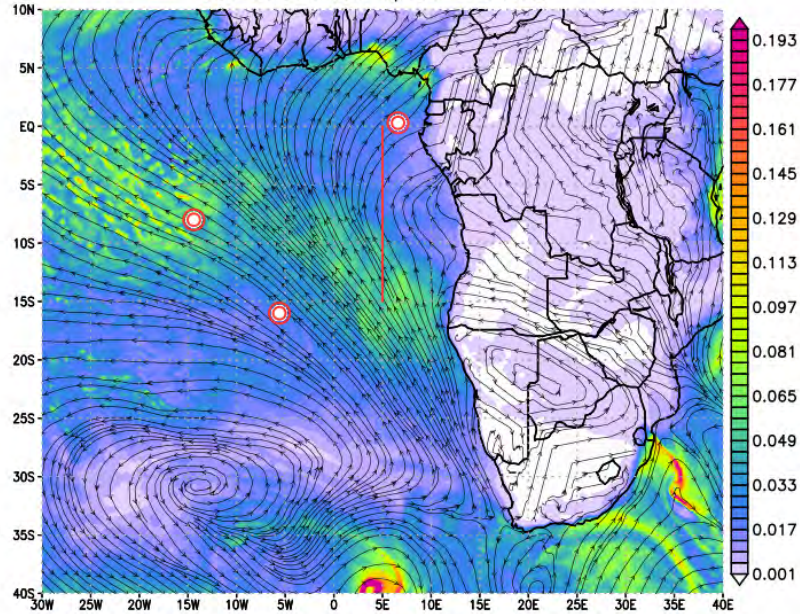




Wed 30 August 2017 12Z

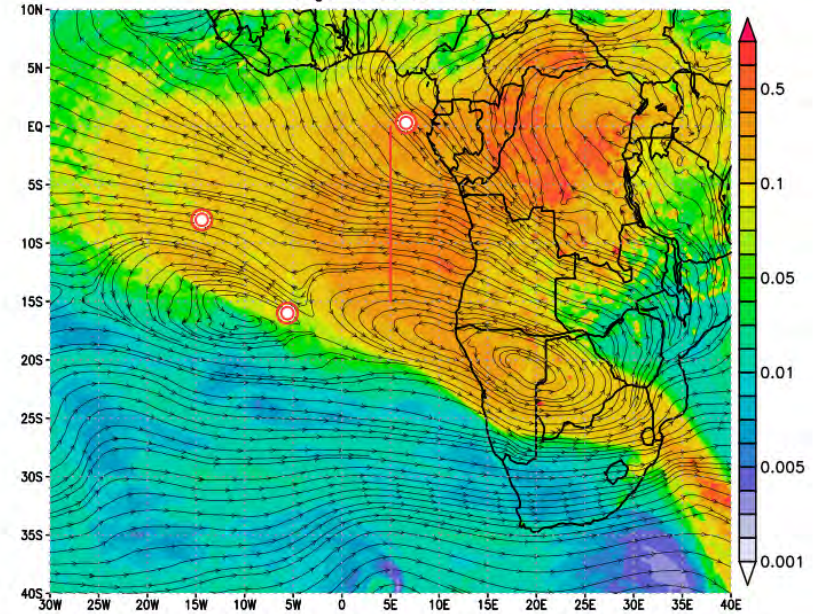


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Sea Salt Aerosol Optical Thickness

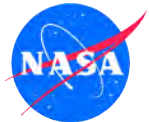


48 hr forecast valid Wed 12z 2017-08-30

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Organic Carbon AOT



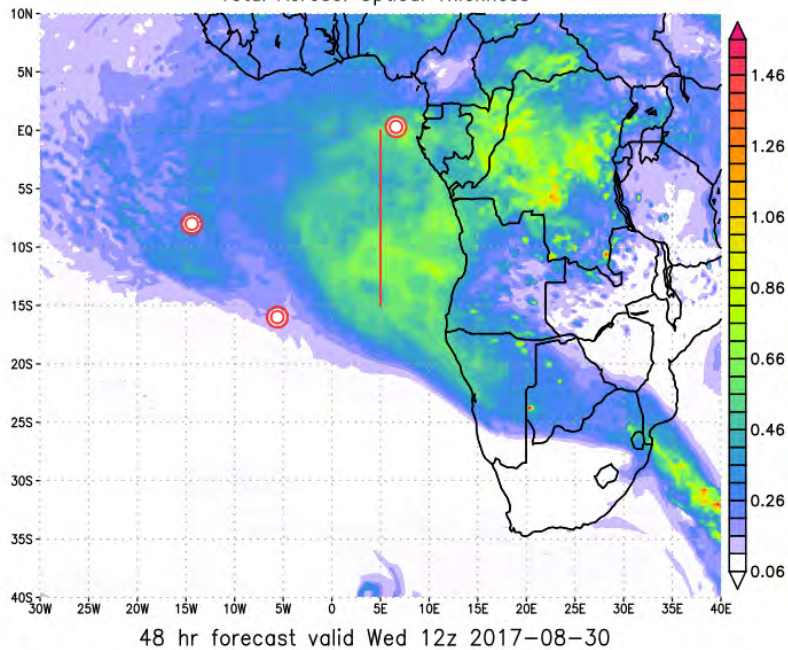
48 hr forecast valid Wed 12z 2017-08-30



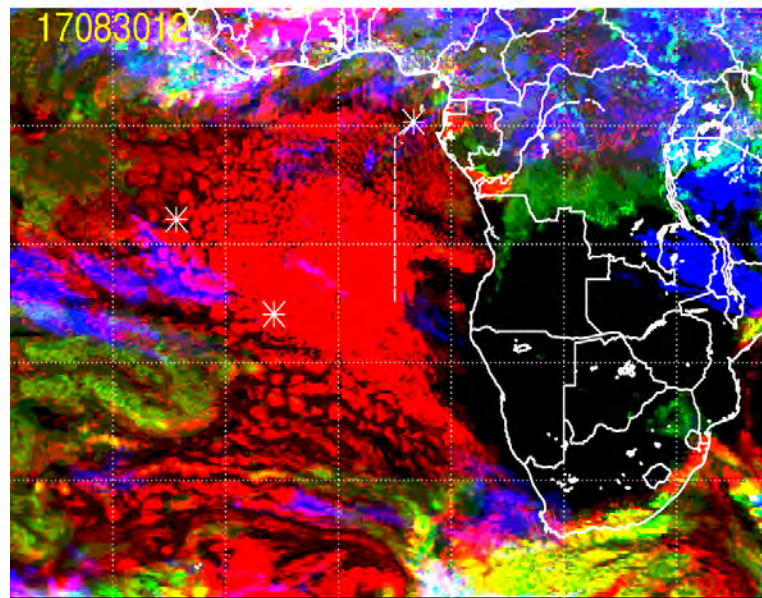
Wed 30 August 2017 12Z



NASA/GMAO - GEOS-5 Forecast Initialized on 12z 2017-08-28
Total Aerosol Optical Thickness

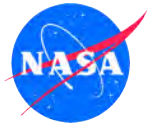


17083012, 048 hour forecast for Cloud Fraction (low, mid, and high cloud) -- ECMWF

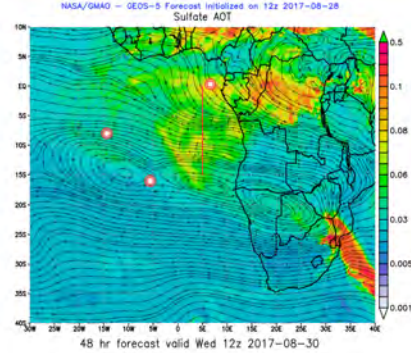
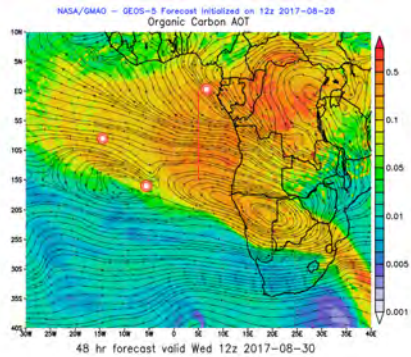
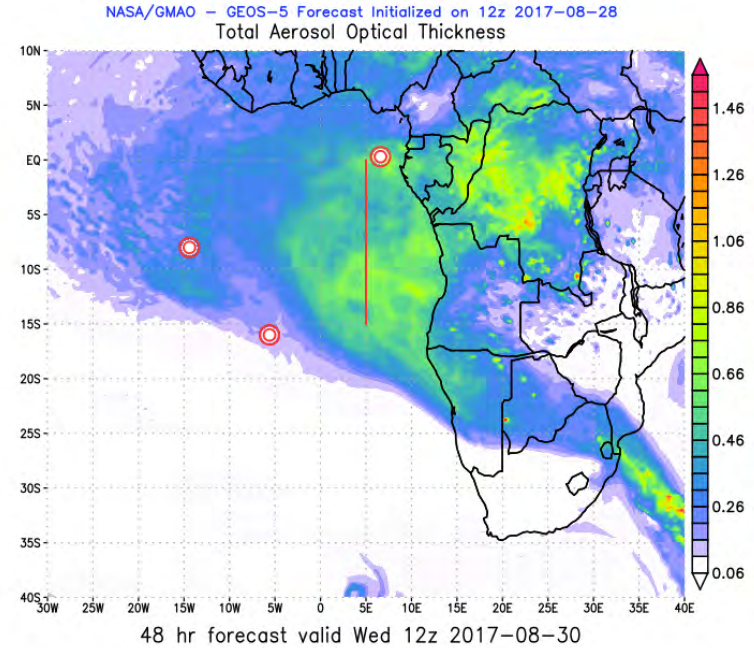
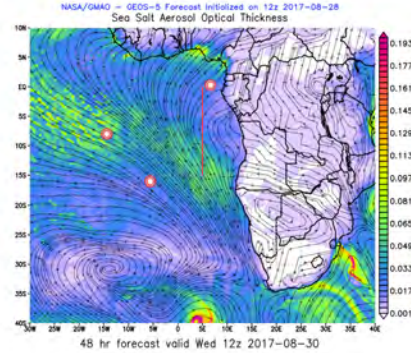
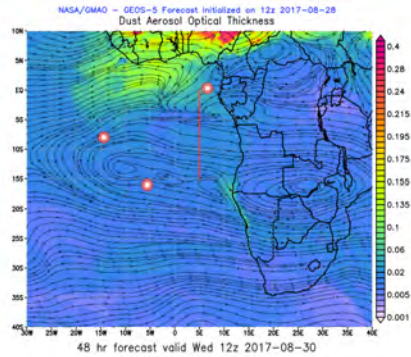


Low (red) + High (blue) cloud = magenta
Mid (green) + High (blue) cloud = cyan
Low (red) + Mid (green) cloud = yellow

Cloud Fraction: low (red), mid (green), high (blue) cloud

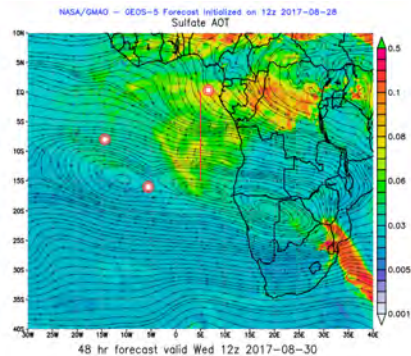
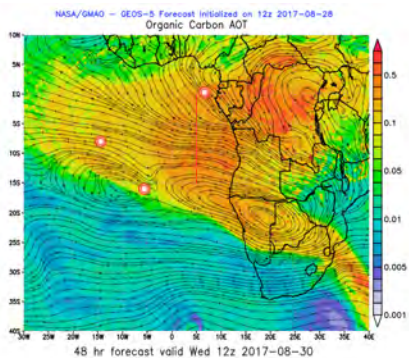
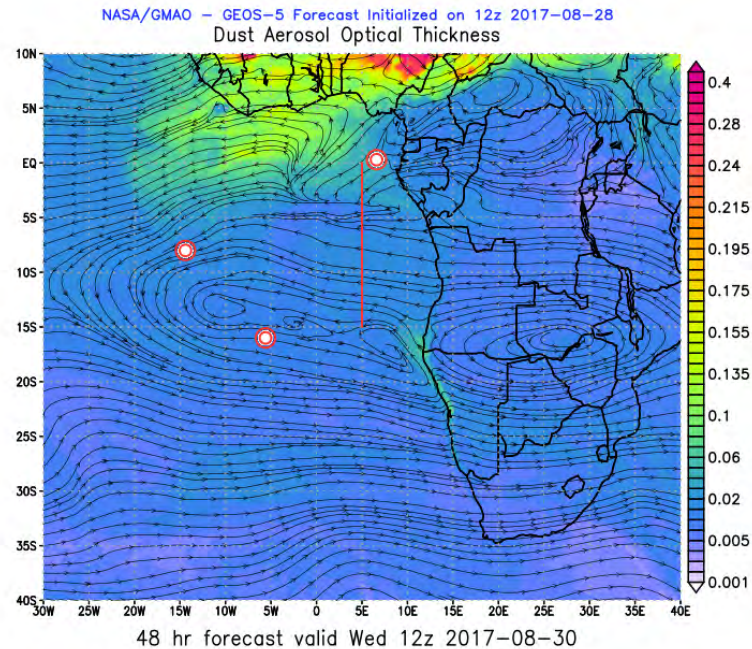
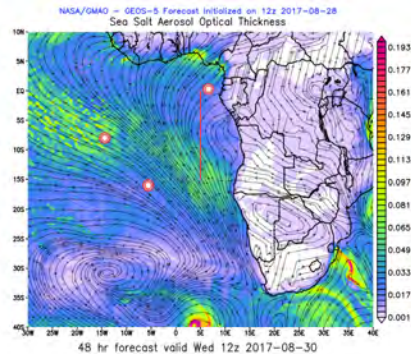
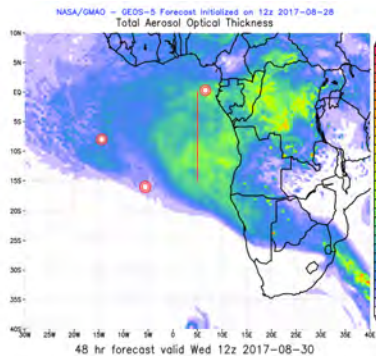


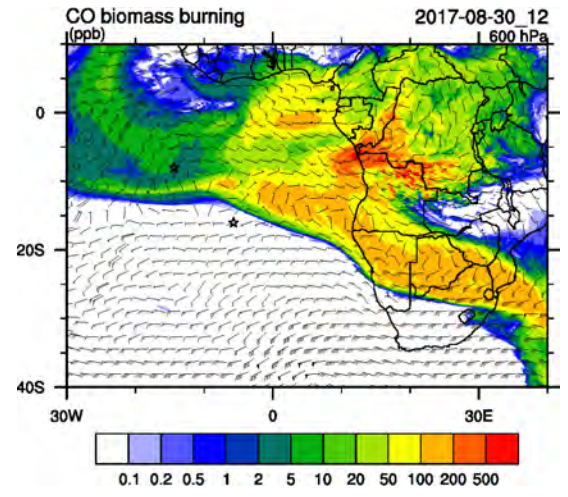
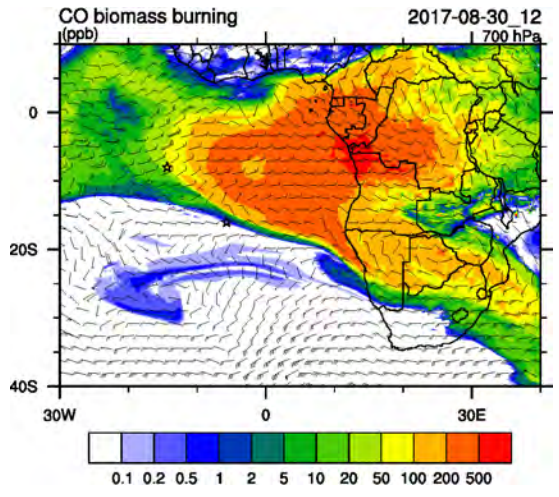
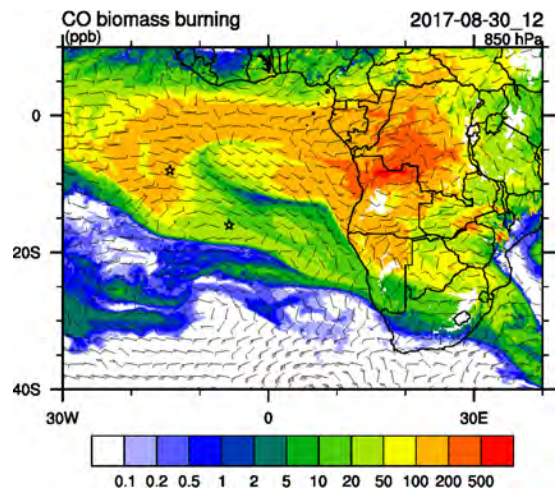
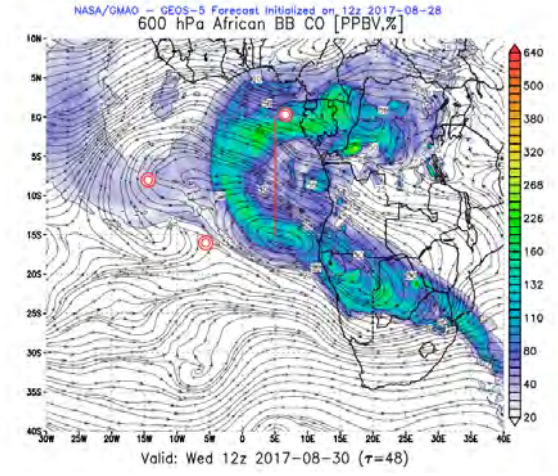
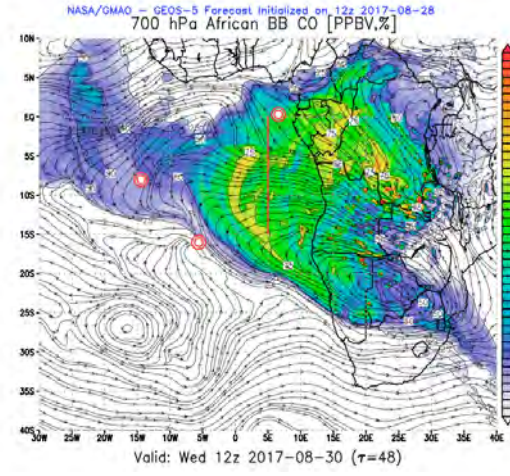
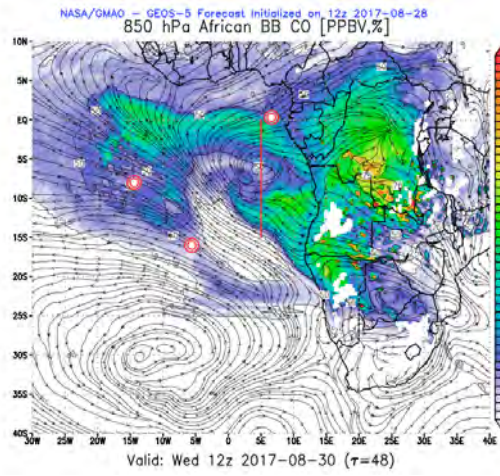
Wed 30 August 2017 12Z

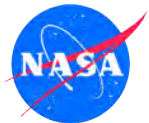




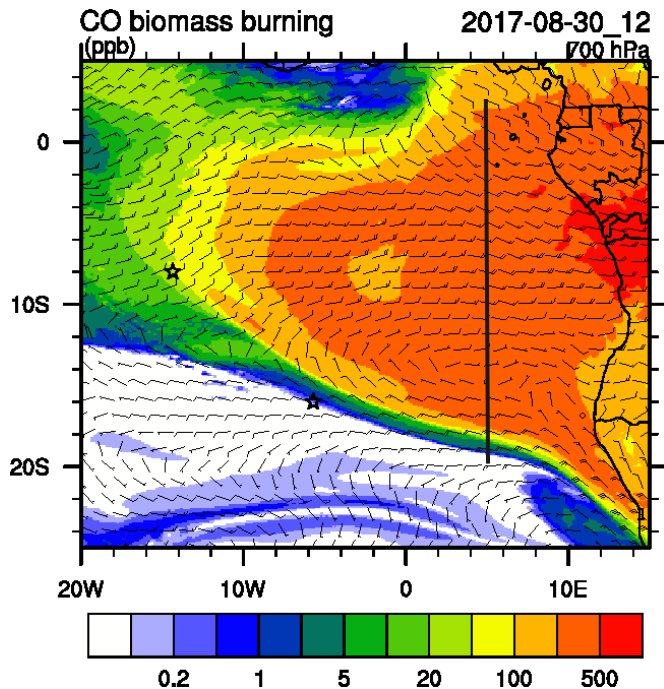
Wed 30 August 2017 12Z





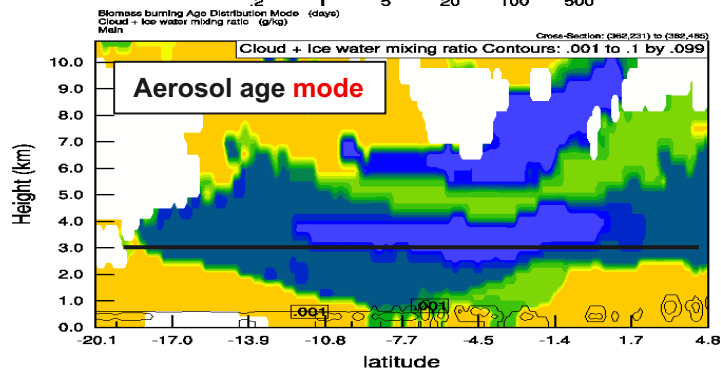
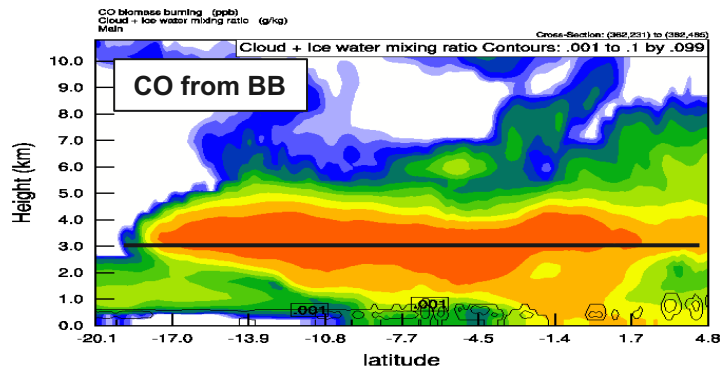


Cross sections at **5 E** Wed 30 Aug 12 Z



S-N at 5E

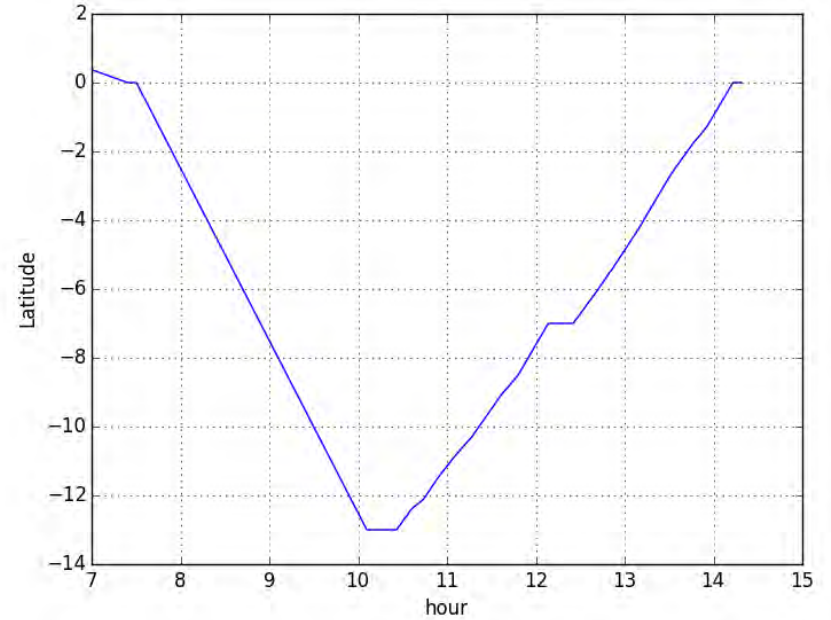
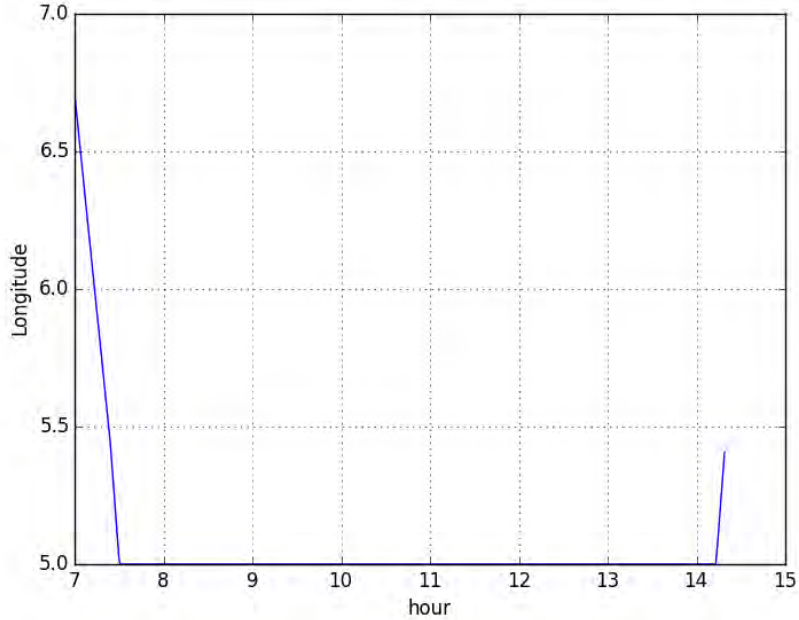
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Valid: 2017-08-30_12:00:00

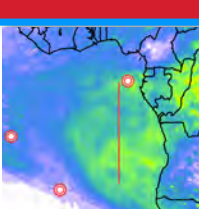




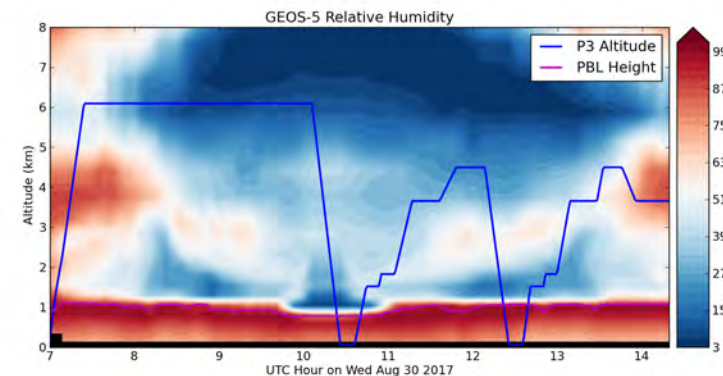
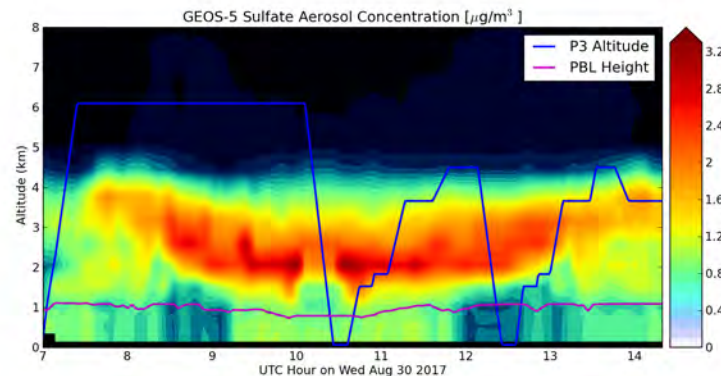
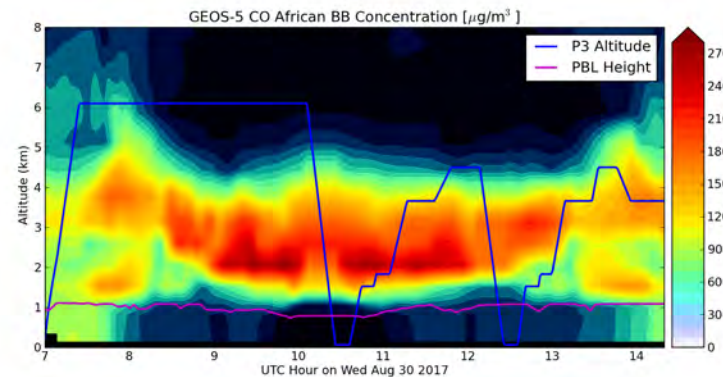
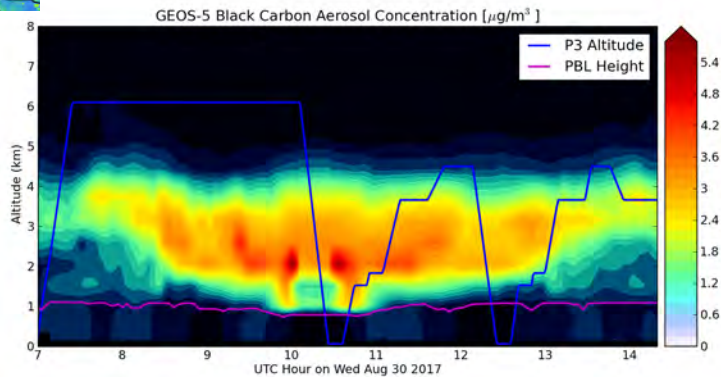
Wed 30 August 2017

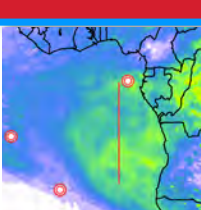
Routine Flight?



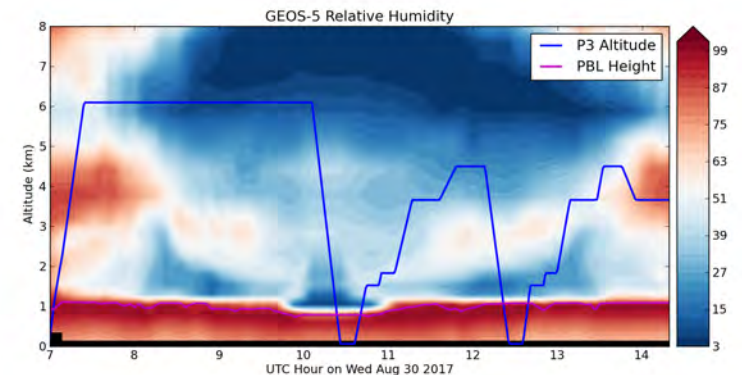
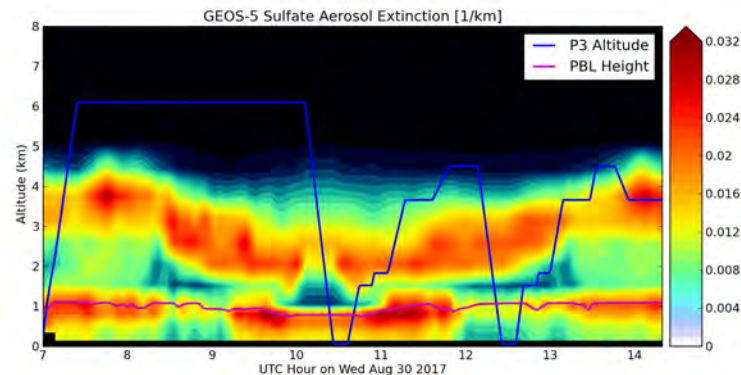
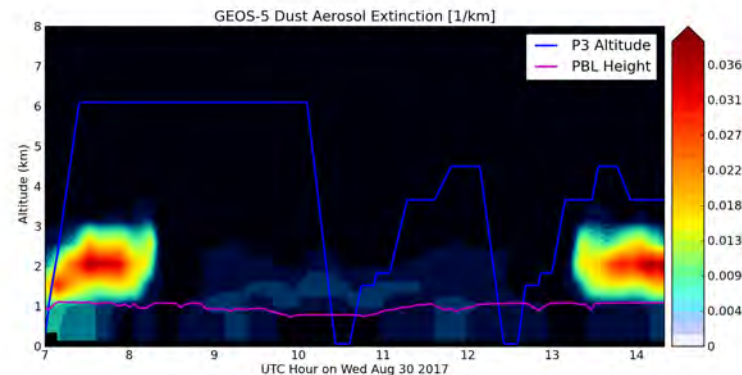
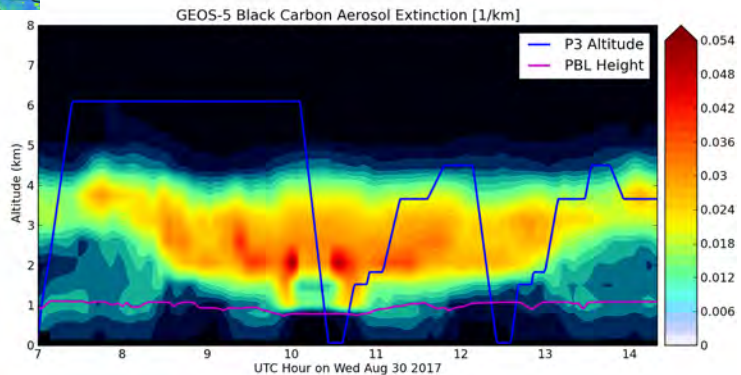


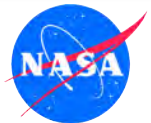
Wed 30 August 2017





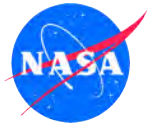
Wed 30 August 2017





Last Fly Day (TBD)

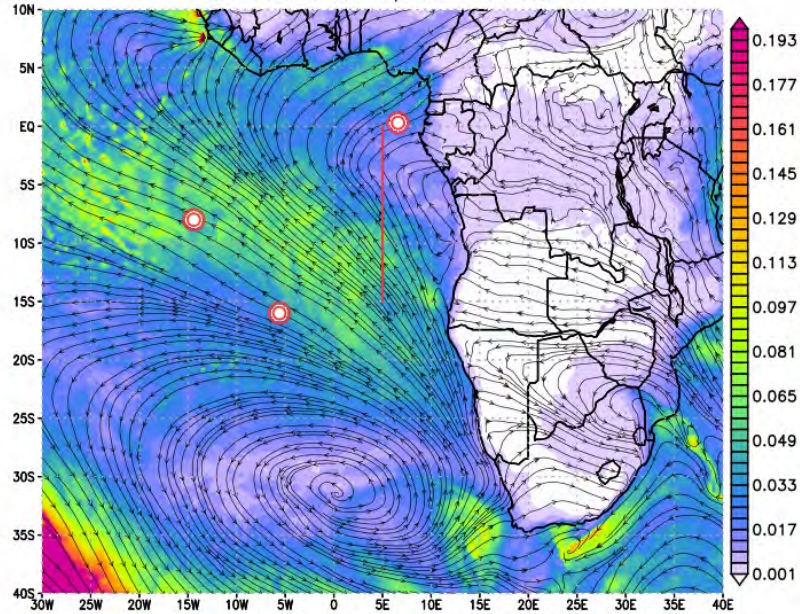
THURSDAY, 31 AUGUST 2017



Thu 31 August 2017 12Z

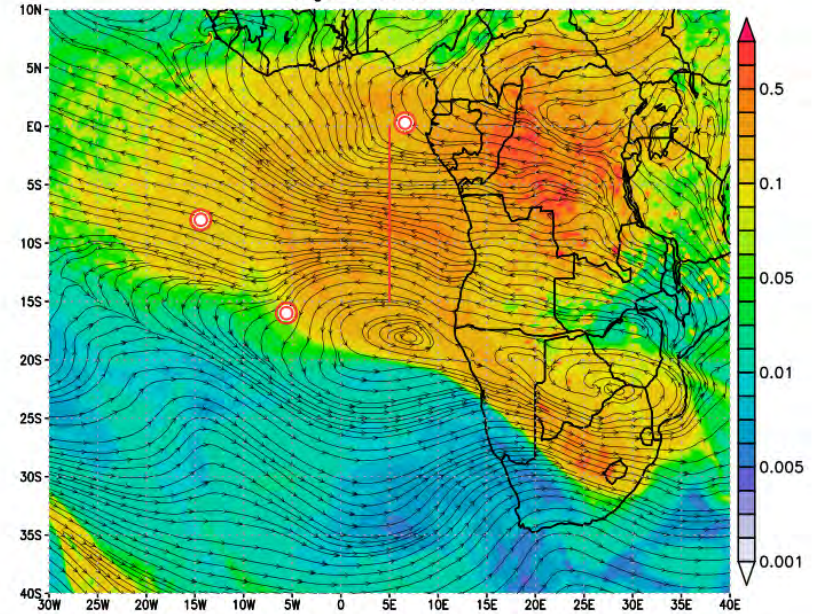


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Sea Salt Aerosol Optical Thickness

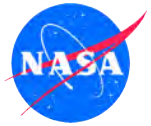


72 hr forecast valid Thu 12z 2017-08-31

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Organic Carbon AOT



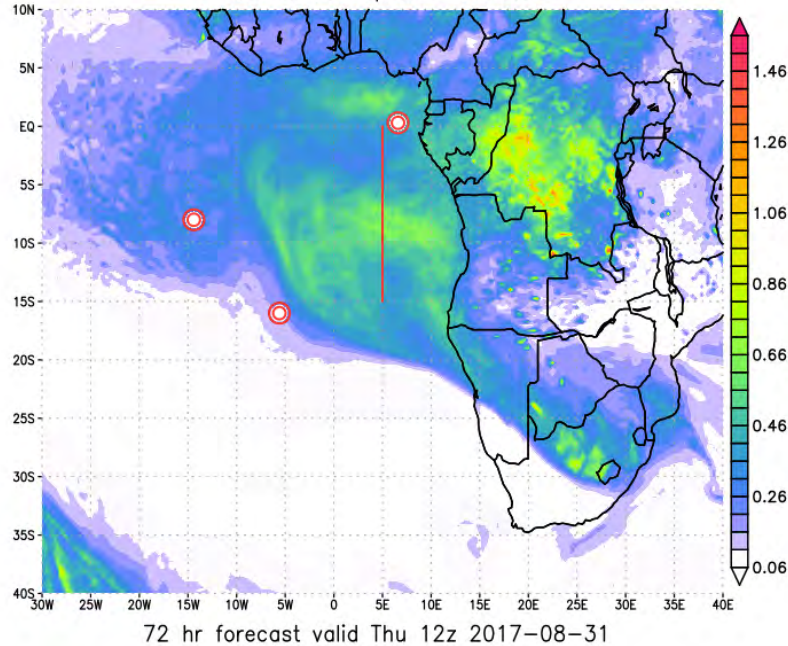
72 hr forecast valid Thu 12z 2017-08-31



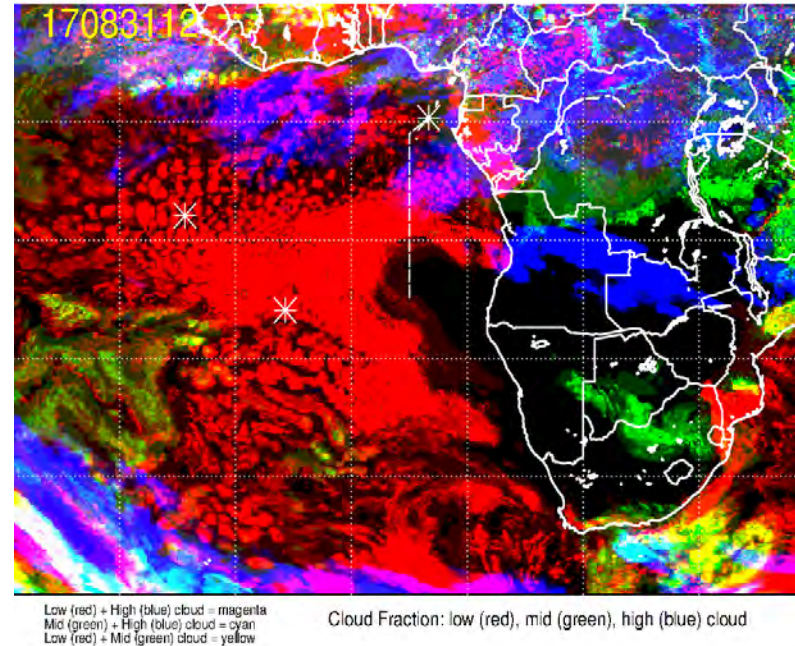
Thu 31 August 2017 12Z



NASA/GMAO - GEOS-5 Forecast Initialized on 12z 2017-08-28
Total Aerosol Optical Thickness

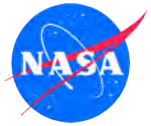


17083112, 072 hour forecast for Cloud Fraction (low, mid, and high cloud) -- ECMWF

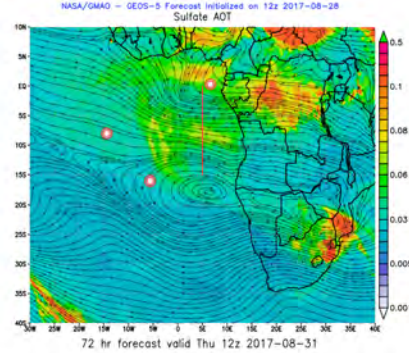
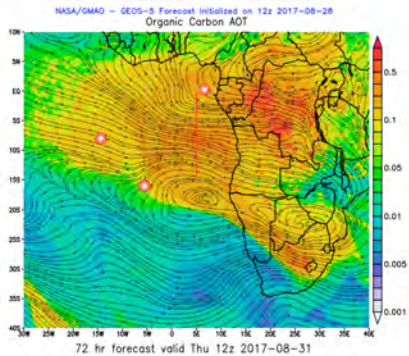
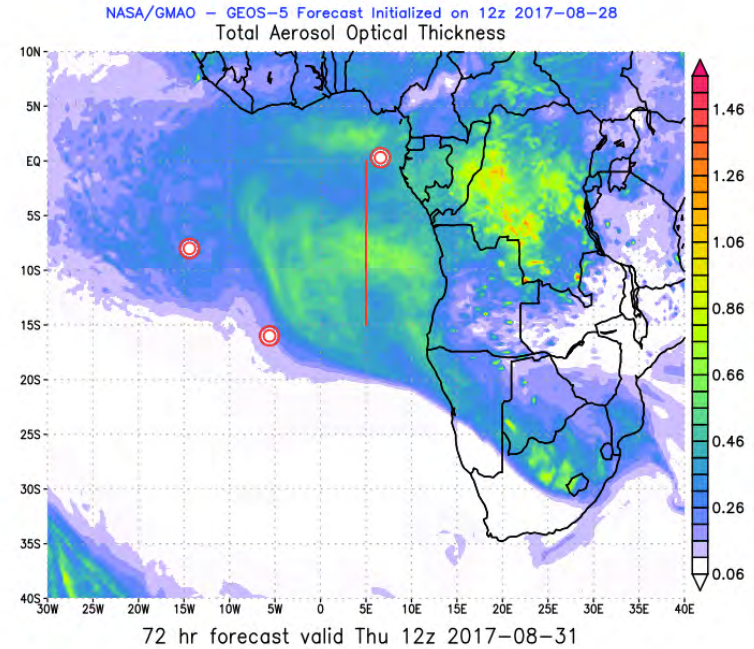
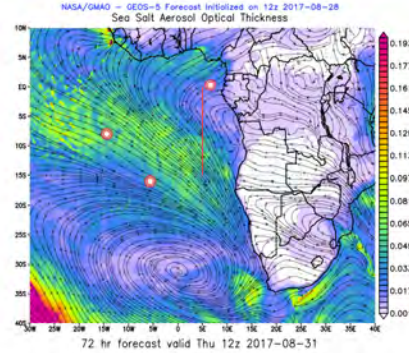
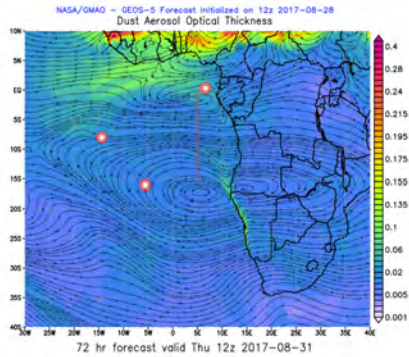


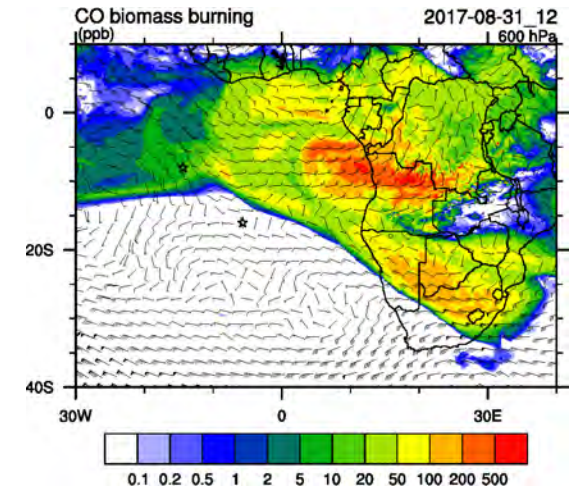
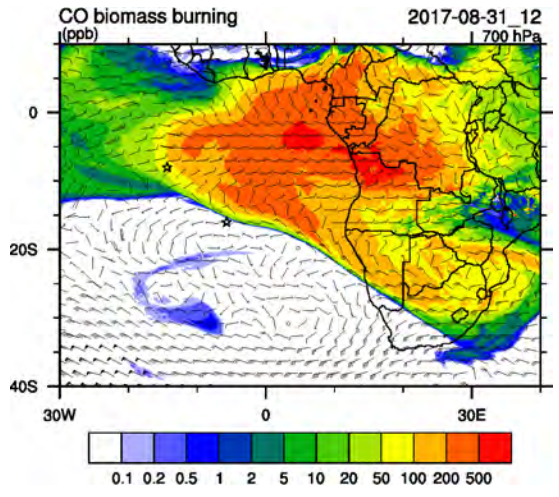
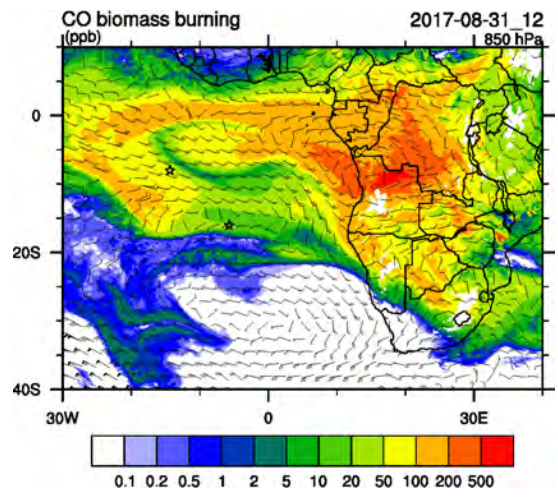
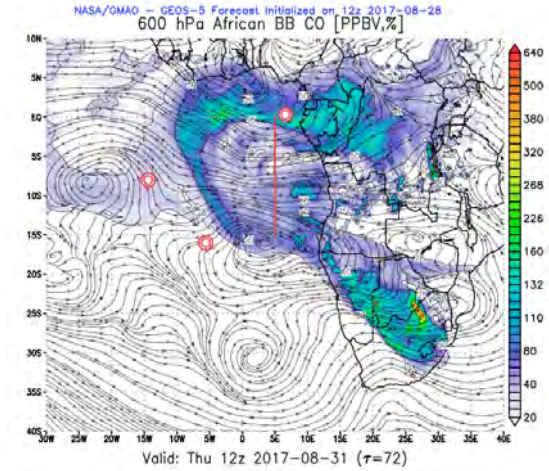
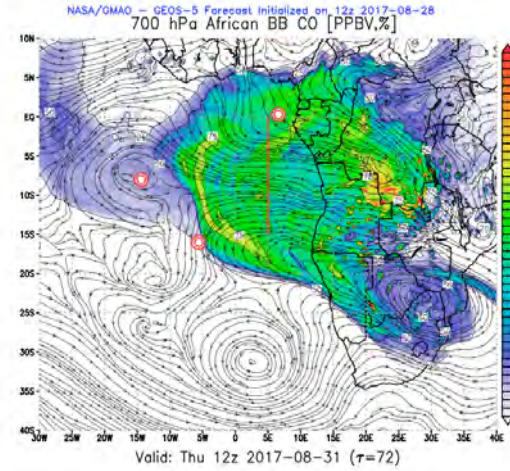
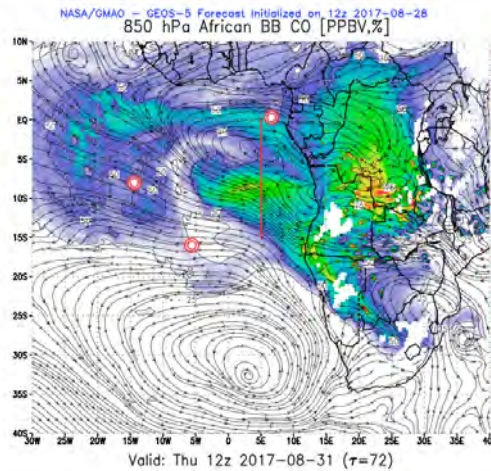
Low (red) + High (blue) cloud = magenta
Mid (green) + High (blue) cloud = cyan
Low (red) + Mid (green) cloud = yellow

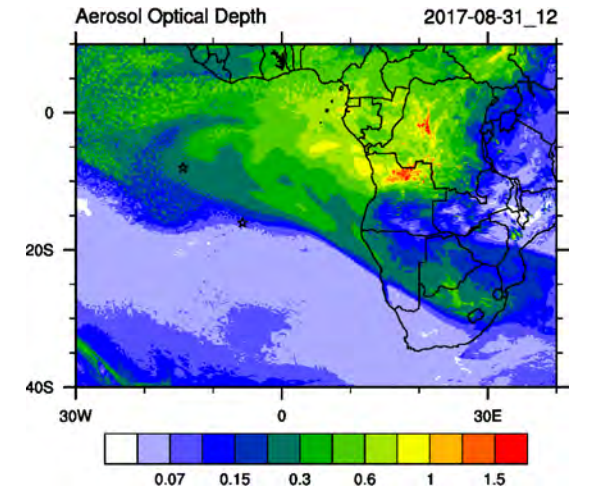
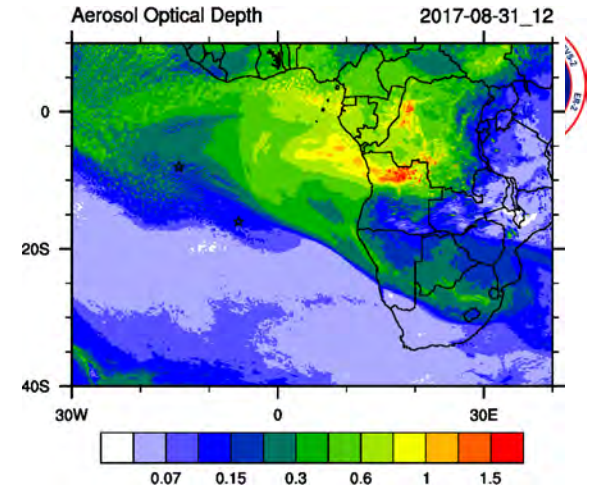
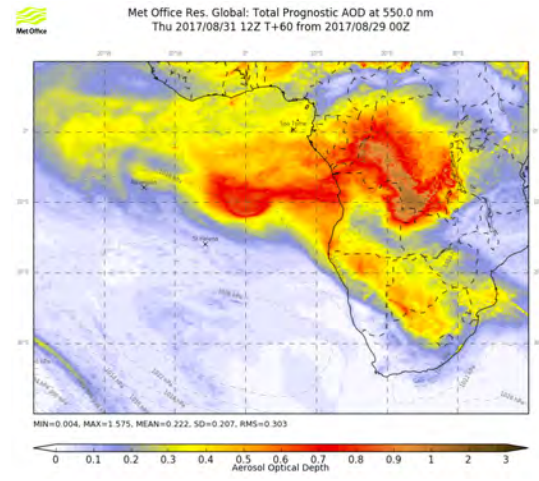
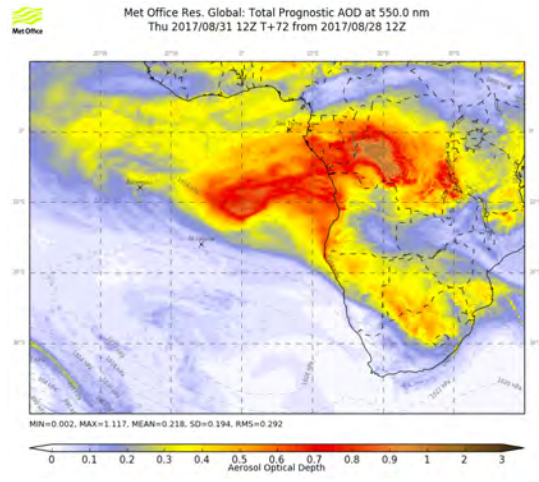
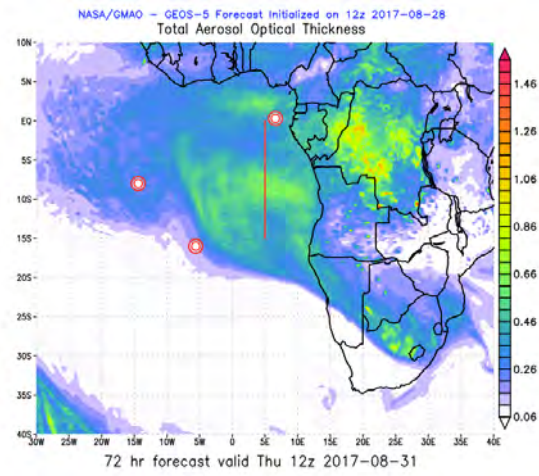
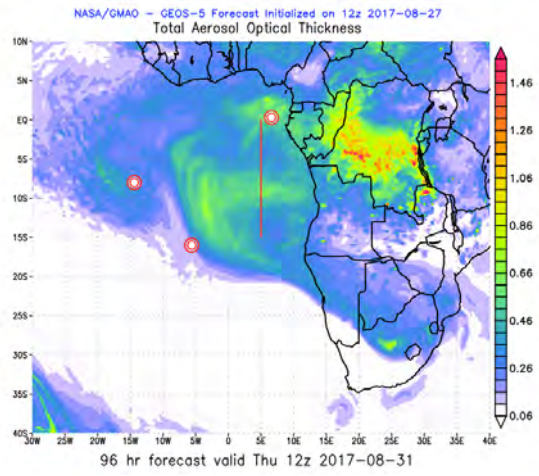
Cloud Fraction: low (red), mid (green), high (blue) cloud

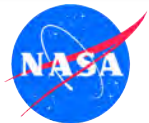


Thu 31 August 2017 12Z

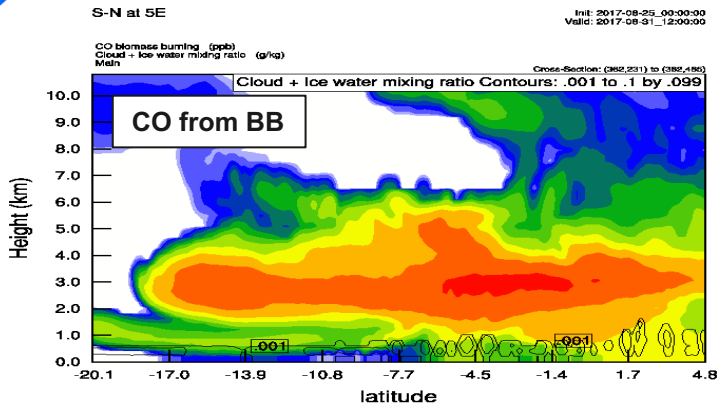




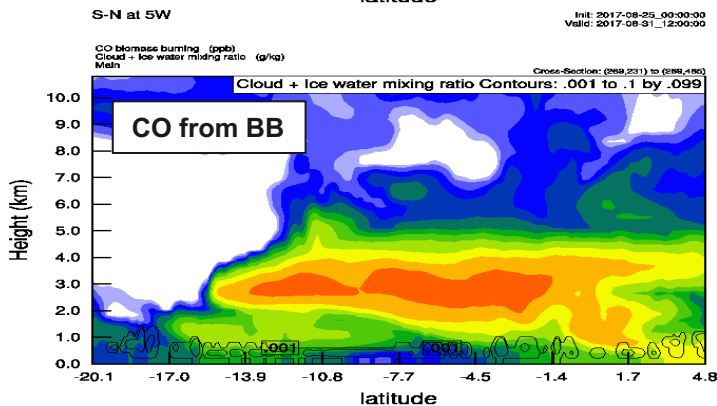
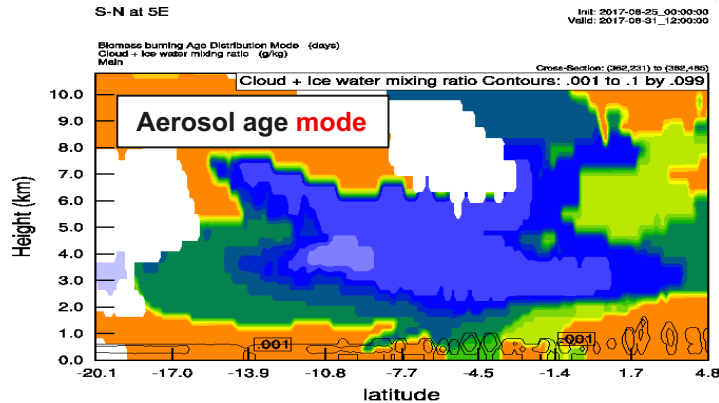




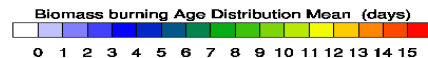
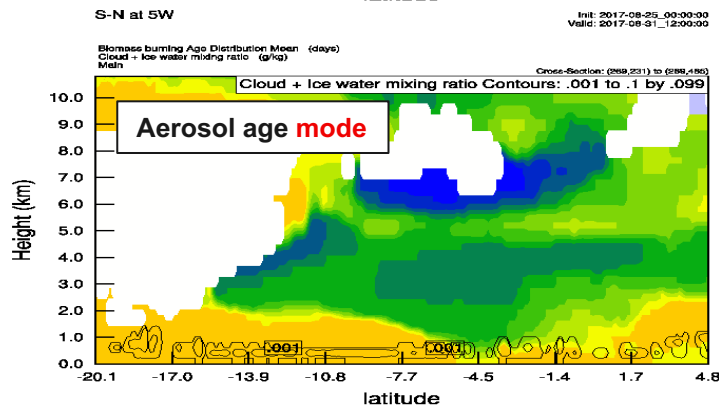
Cross sections at 5 E and 8 S – Thu 31 Aug 12 Z



5 E

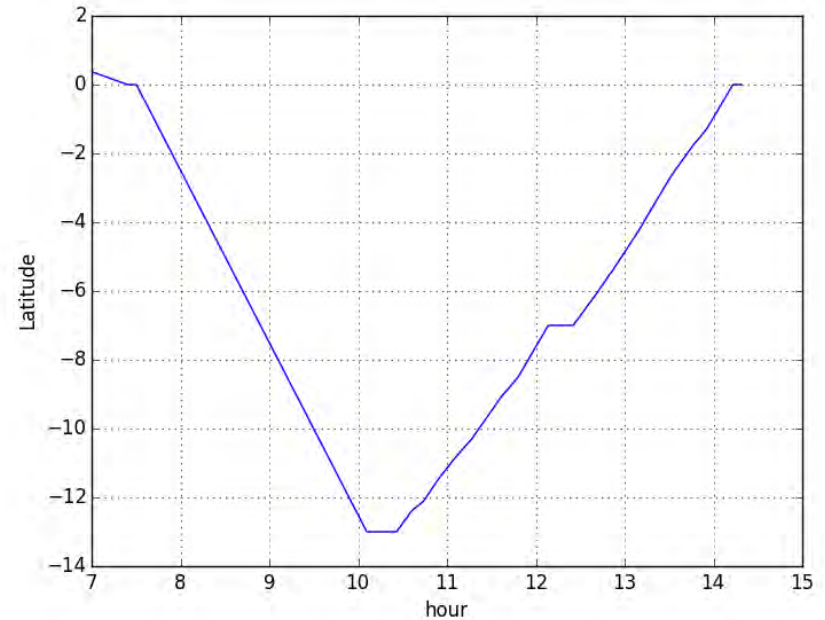
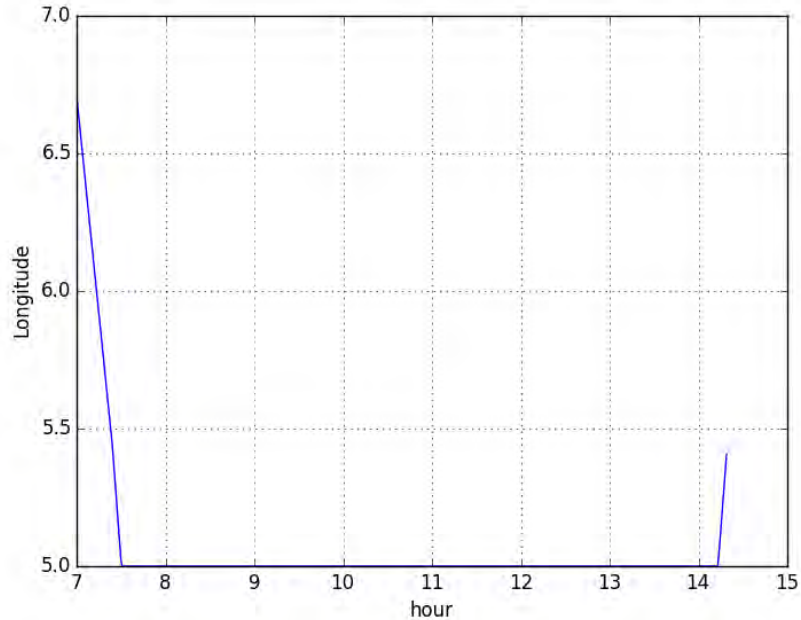
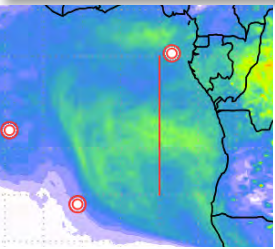


5 W

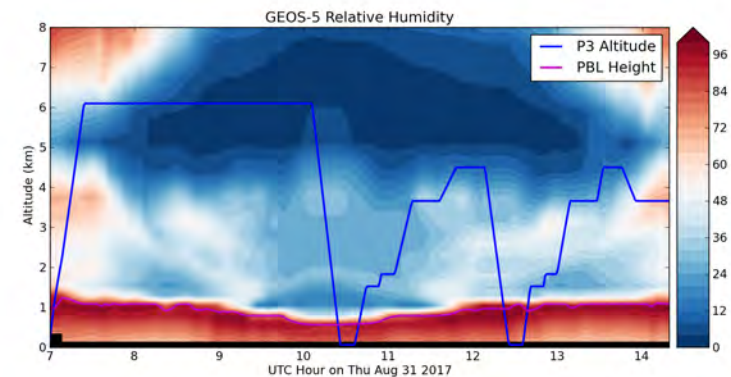
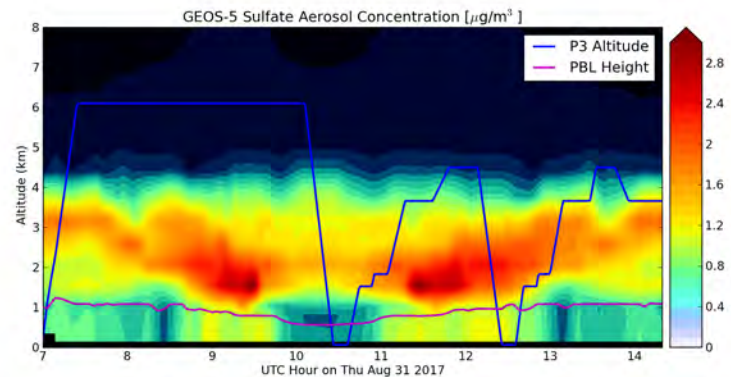
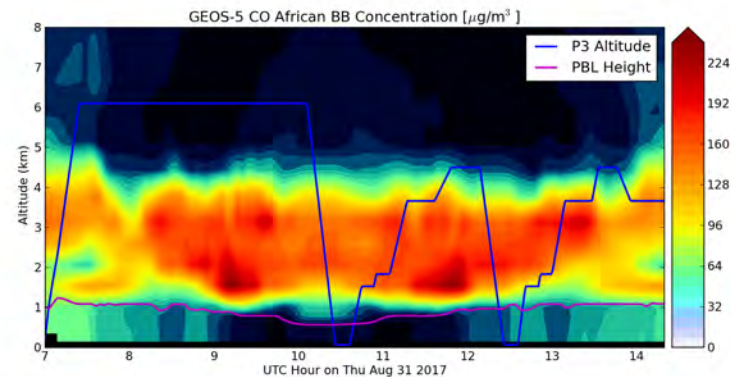
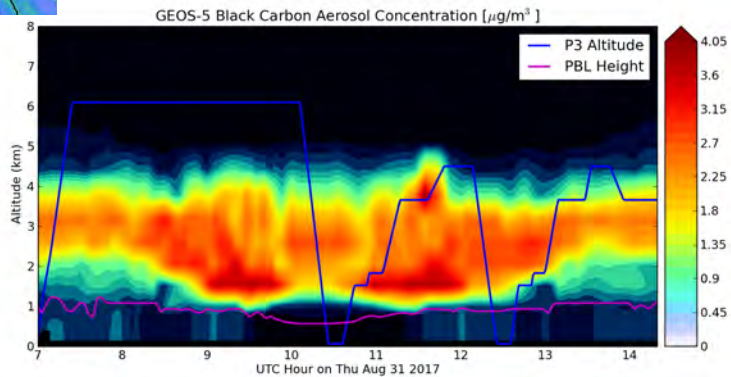
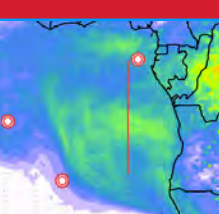


Thursday 31 August 2017

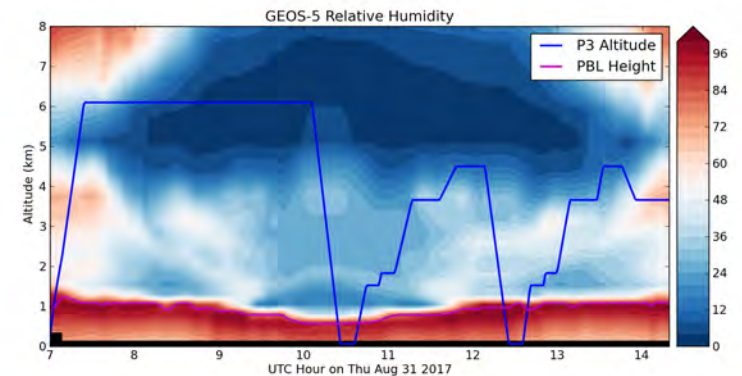
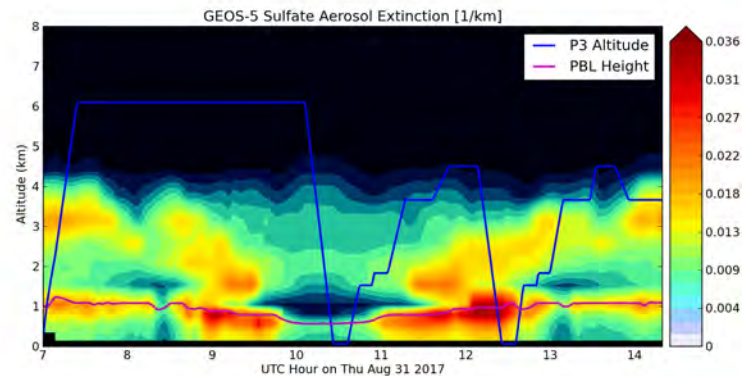
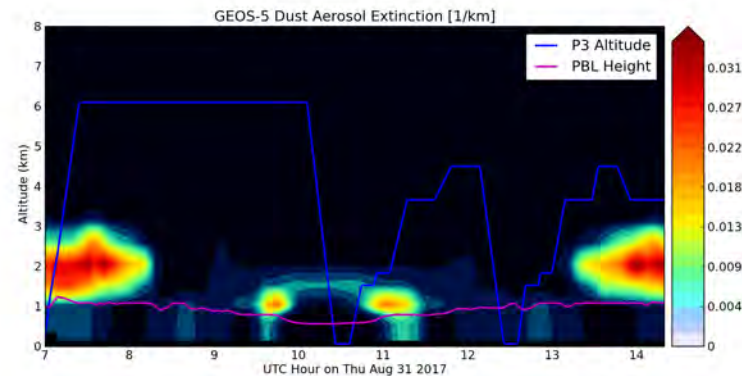
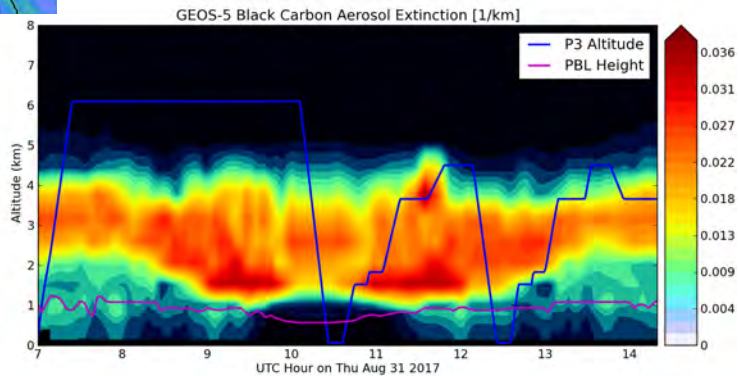
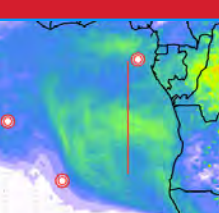
Routine Flight?

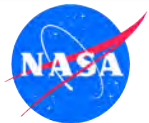


Thu 31 August 2017



Thu 31 August 2017





Following aerosols...

Thu 31 Aug 12 Z

