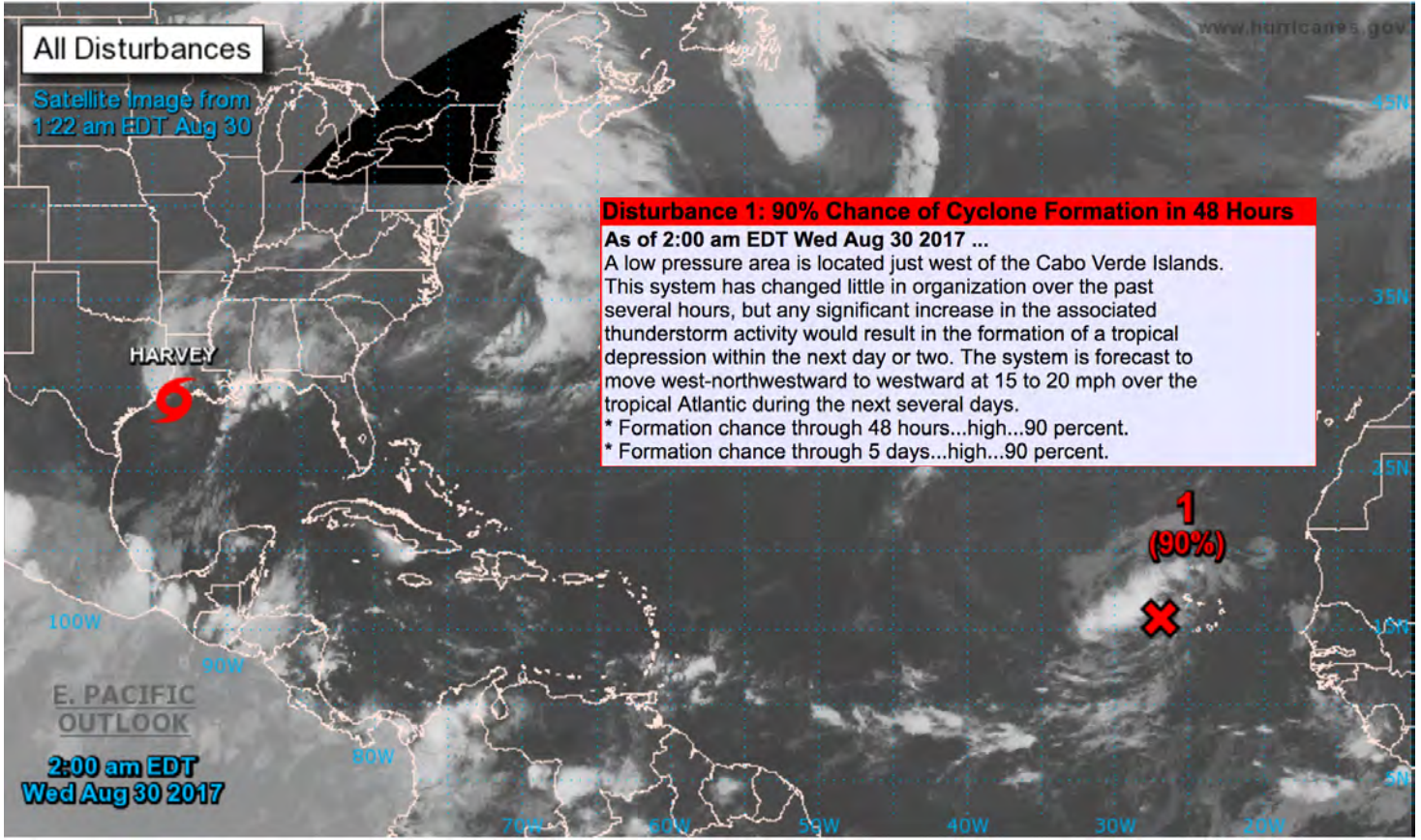
ORACLES Forecast Briefing

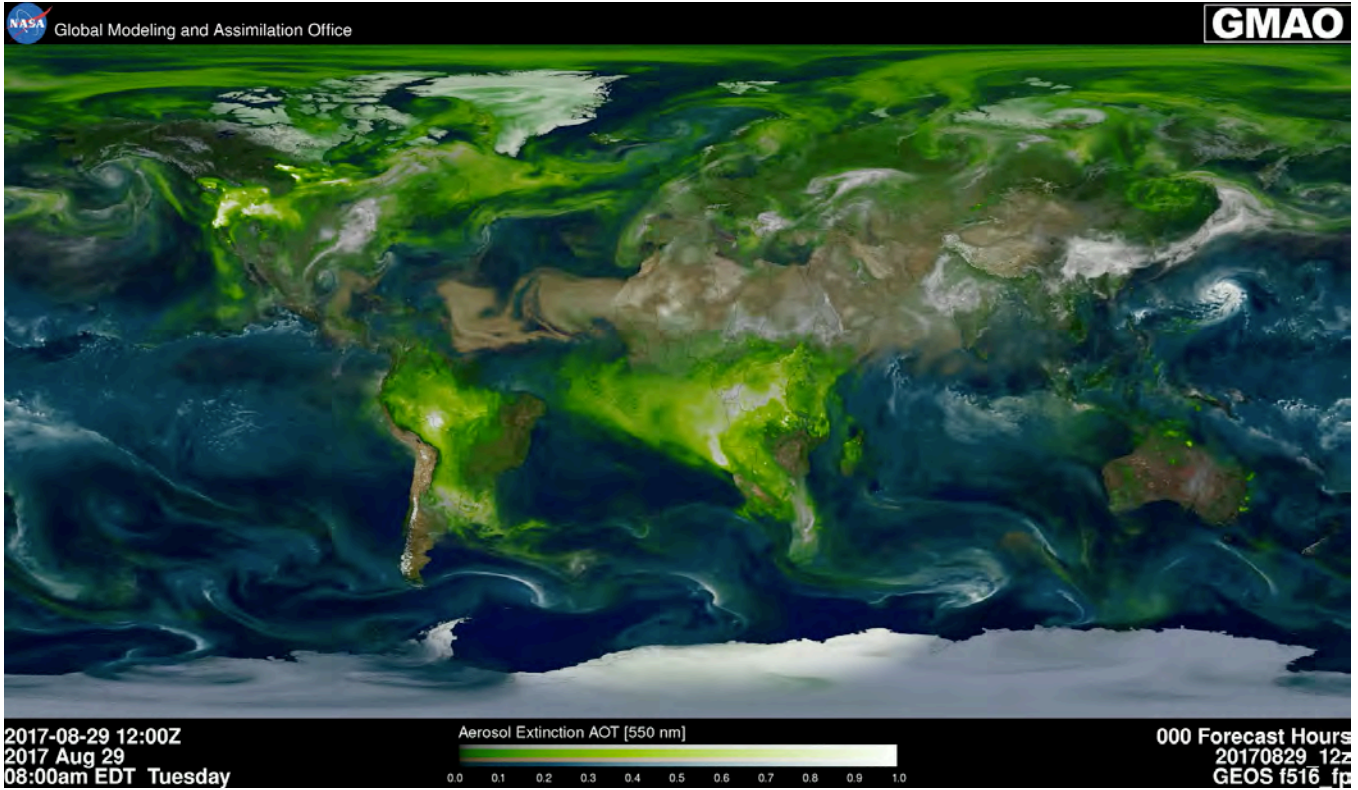
Aerosols
Wednesday, 30 August 2017

Two-Day Graphical Tropical Weather Outlook

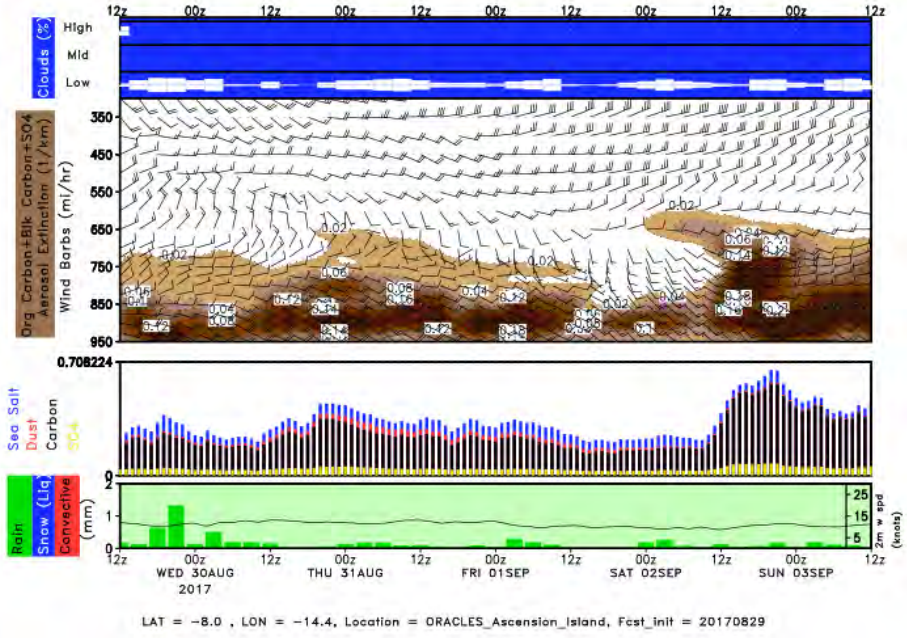
National Hurricane Center Miami, Florida

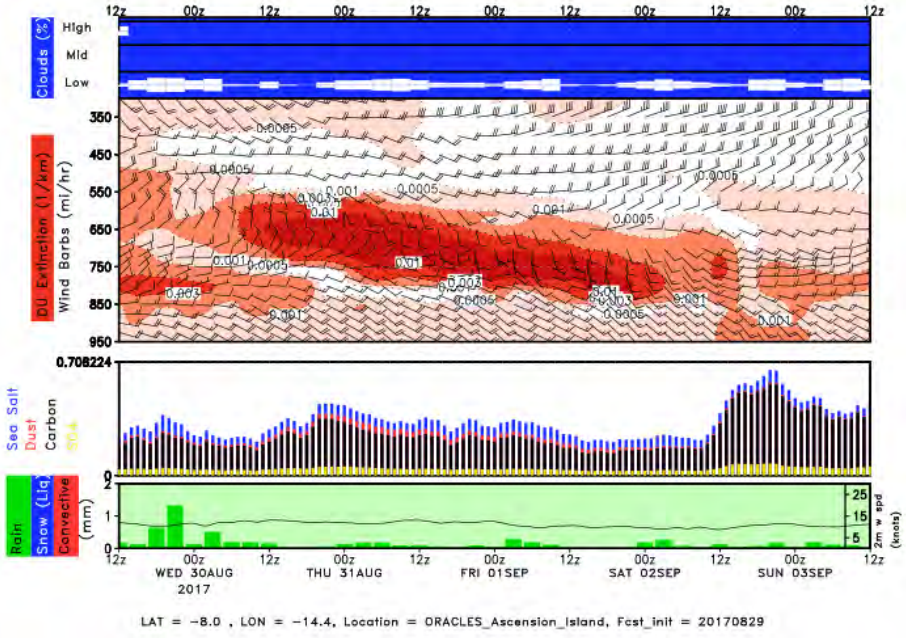


The Aerosol Week

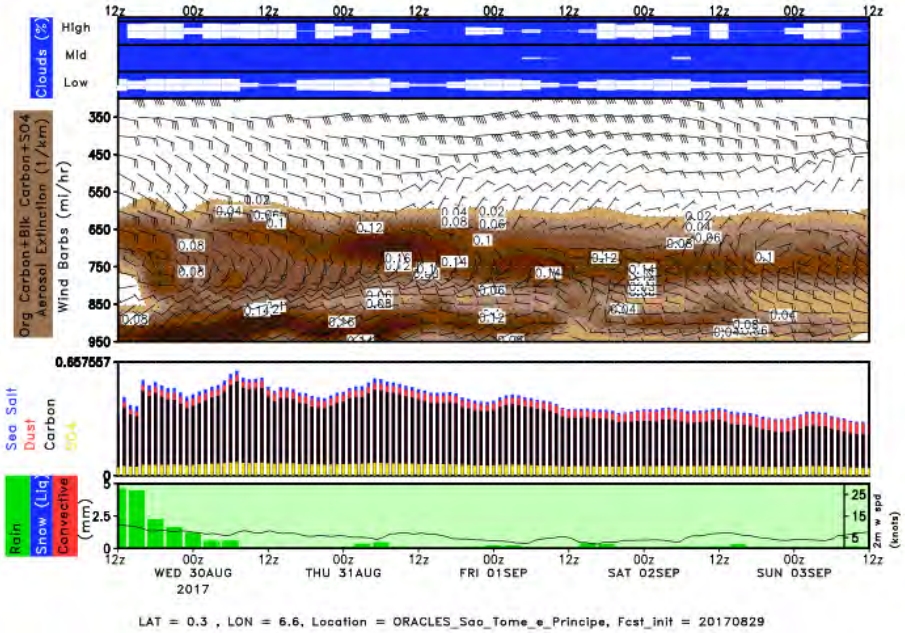


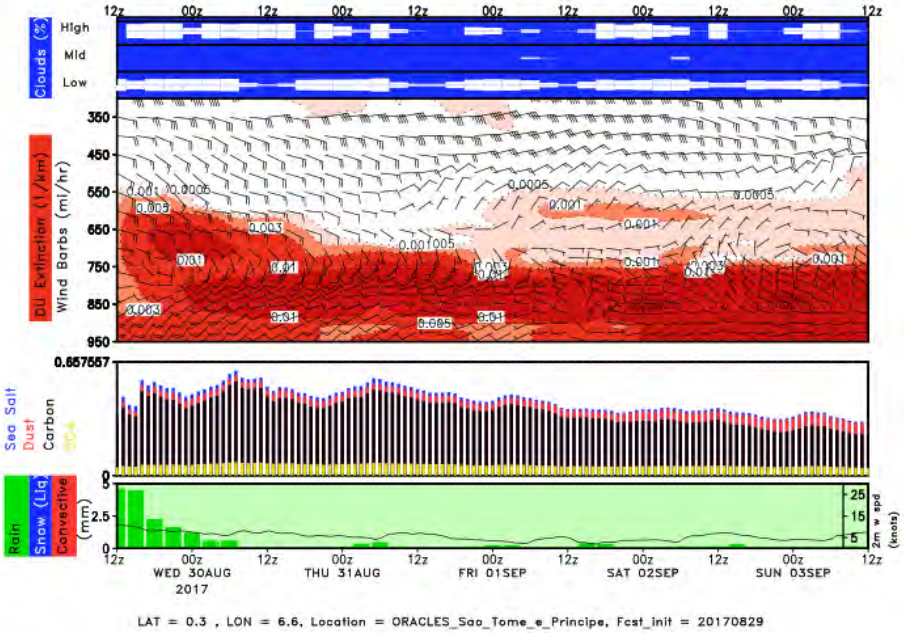
Ascension (OC+BC+SO4 & Dust)

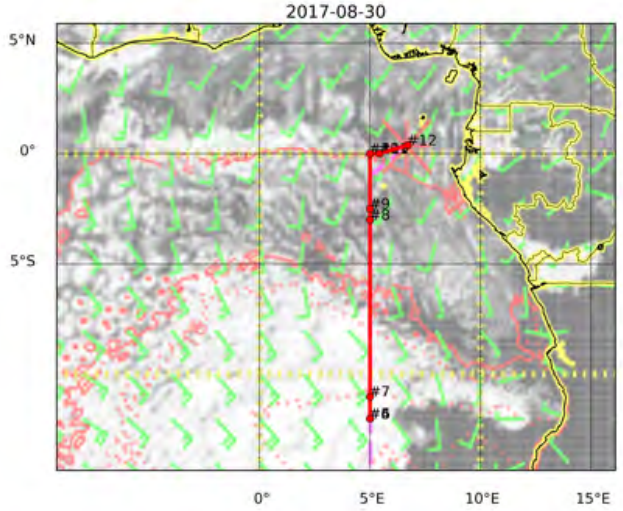


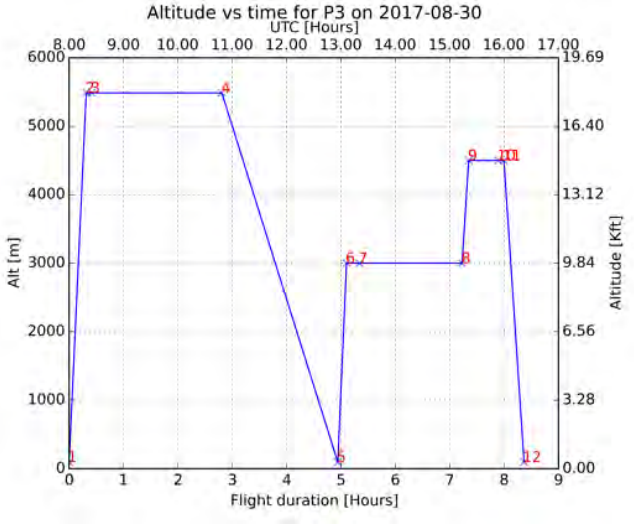


São Tomé (OC+BC+SO4 & Dust)



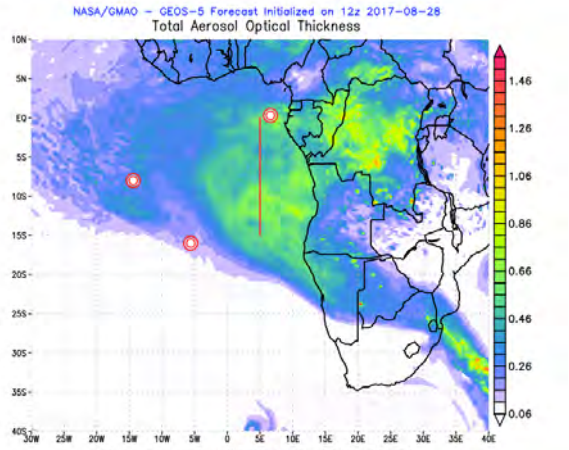


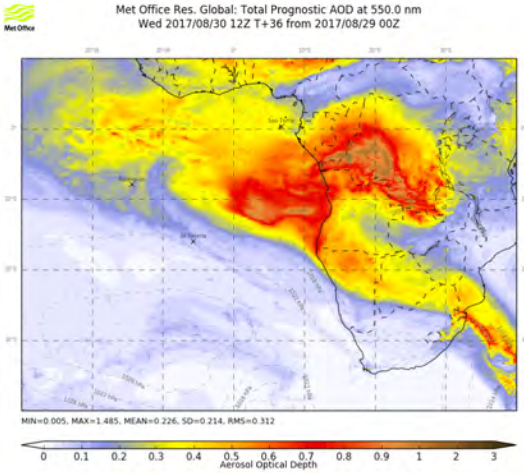


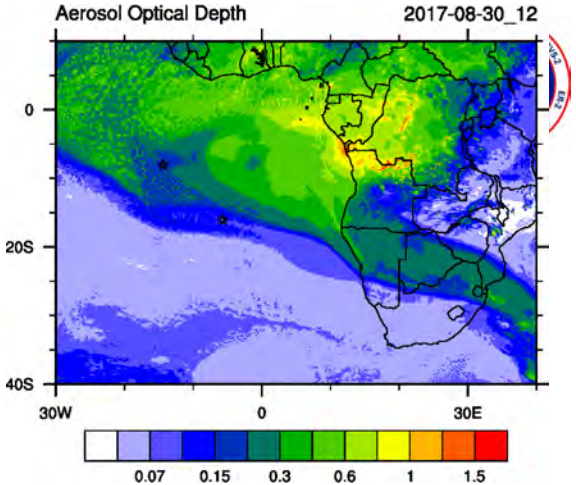


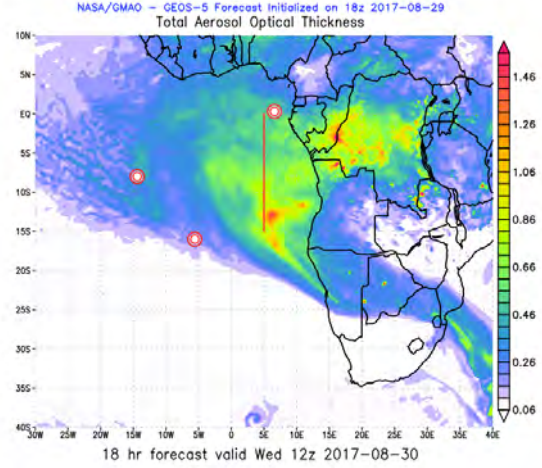
Today is a Fly Day

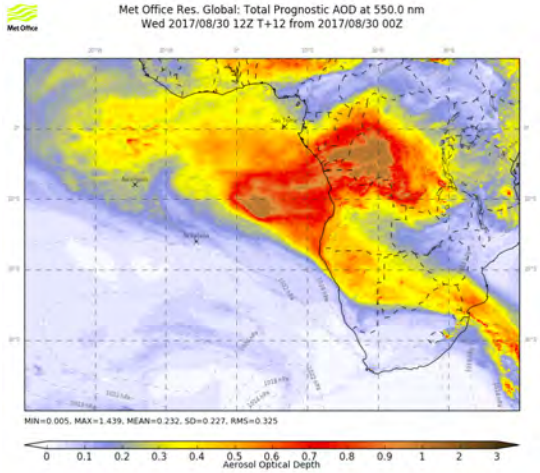
WEDNESDAY, 30 AUGUST 2017

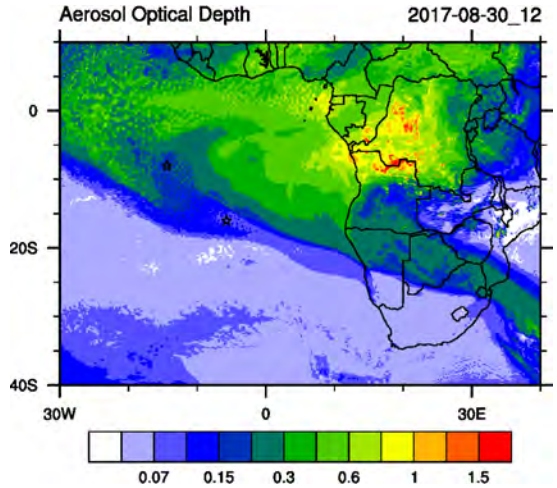

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Total Aerosol Optical Thickness
1.46
1.26
1.06
0.86
0.66
0.46
0.26
0.06
48 hr forecast valid Wed 12z 2017-08-30


Met Office Res. Global: Total Prognostic AOD at 550.0 nm
Wed 2017/08/30 12Z T+36 from 2017/08/29 00Z
MIN=0.005, MAX=1.485, MEAN=0.226, SD=0.214, RMS=0.312
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 2 3
Aerosol Optical Depth

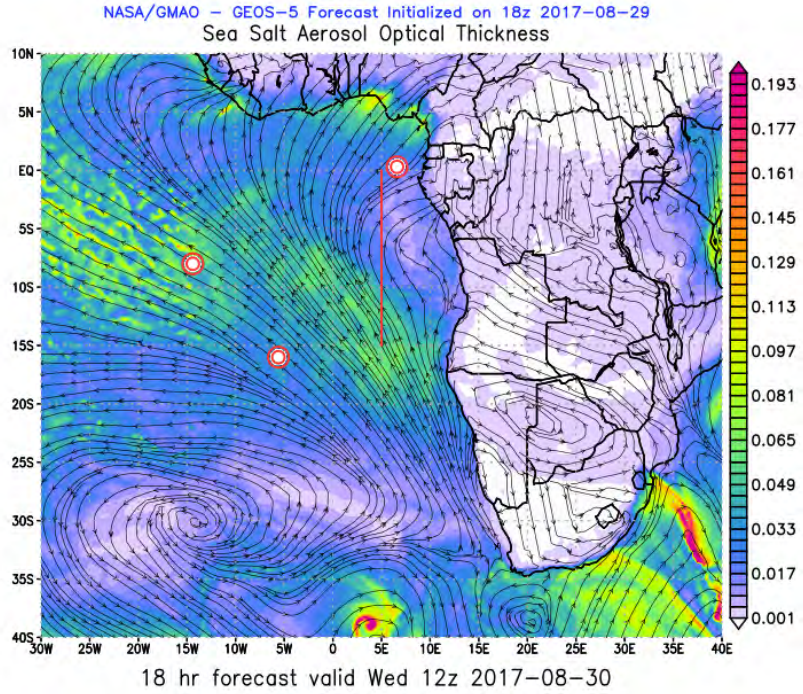

Aerosol Optical Depth
2017-08-30_12
0
20S
40S
30W
0
30E
0.07 0.15 0.3 0.6 1 1.5

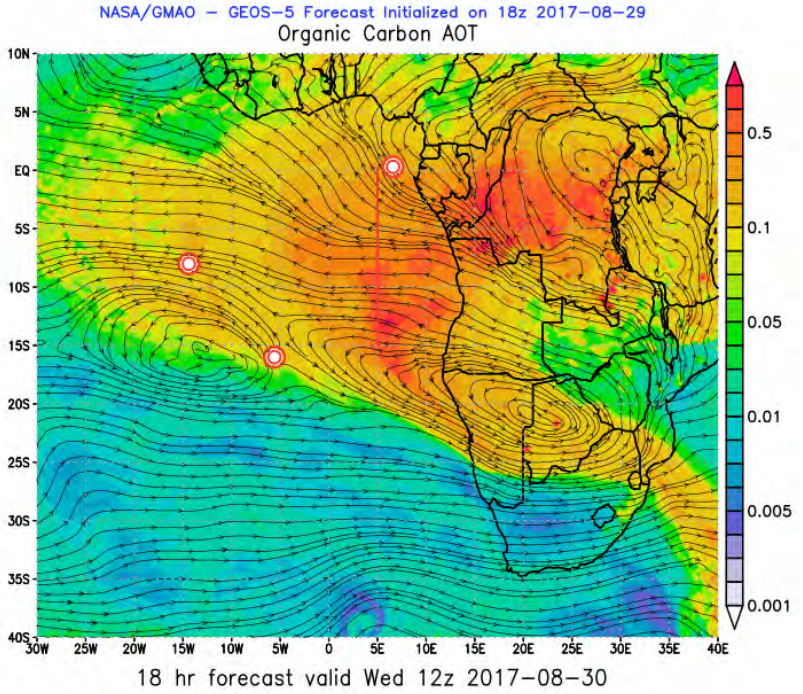

NASA/GMAO – GEOS-5 Forecast Initialized on 18z 2017-08-29
Total Aerosol Optical Thickness
1.46
1.26
1.06
0.86
0.66
0.46
0.26
0.06
18 hr forecast valid Wed 12z 2017-08-30


Met Office Res. Global: Total Prognostic AOD at 550.0 nm
Wed 2017/08/30 12Z T+12 from 2017/08/30 00Z
MIN=0.005, MAX=1.439, MEAN=0.232, SD=0.227, RMS=0.325
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 2 3
Aerosol Optical Depth

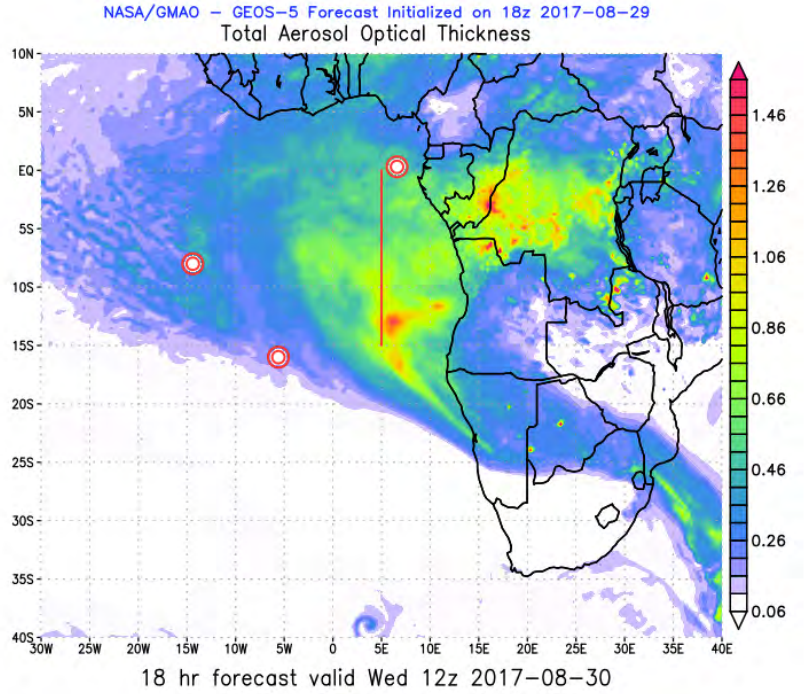

Aerosol Optical Depth
2017-08-30_12
0
20S
40S
30W
0
30E
0.07 0.15 0.3 0.6 1 1.5

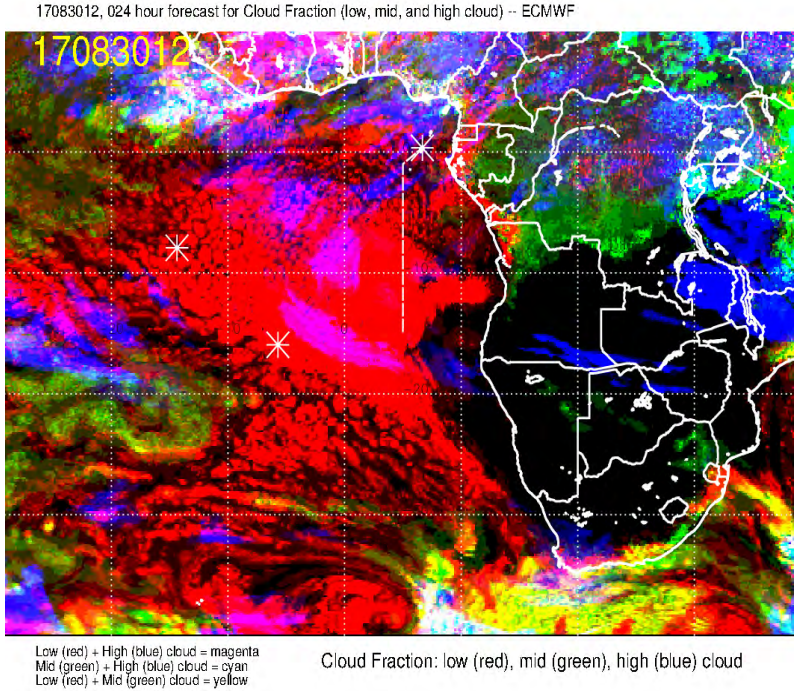
Wed 30 August 2017 12Z



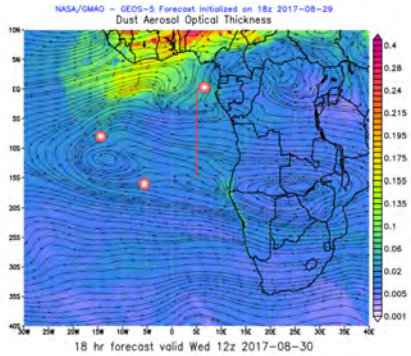


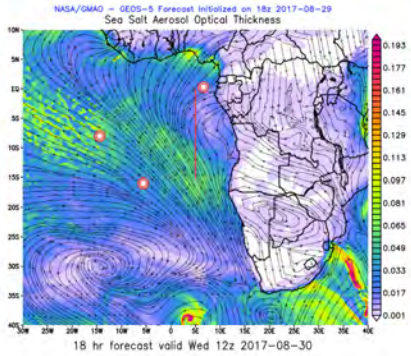
Wed 30 August 2017 12Z

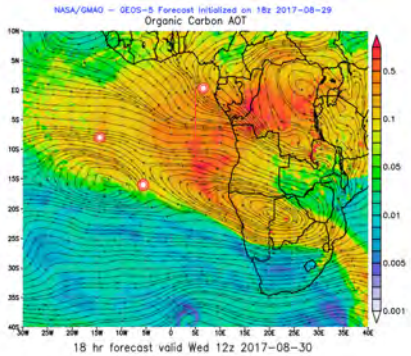


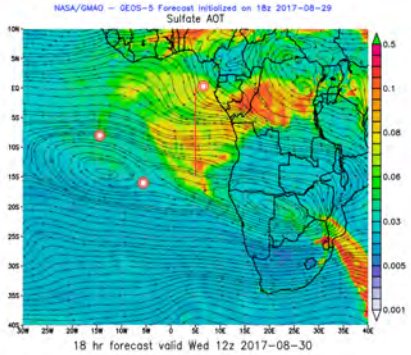


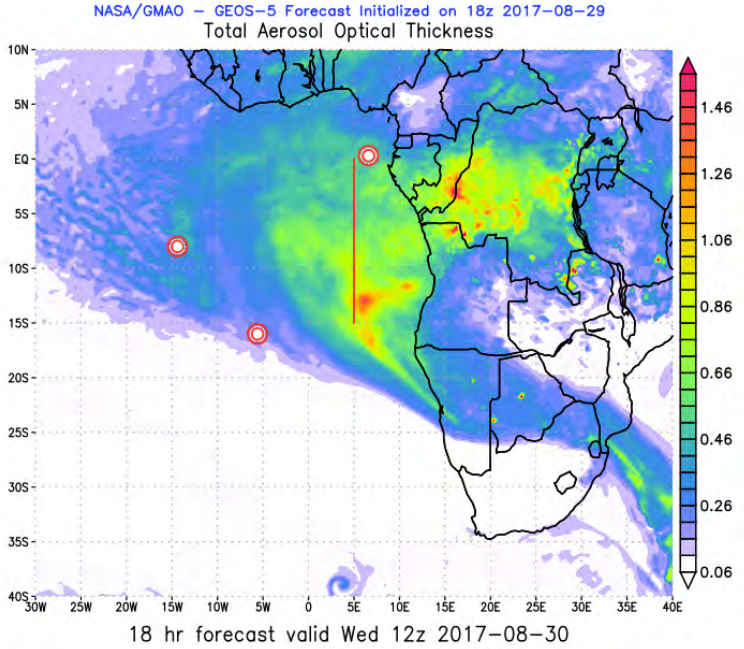
Wed 30 August 2017 12Z

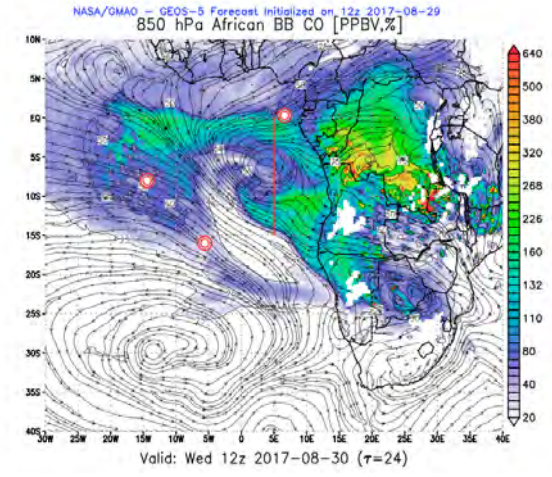


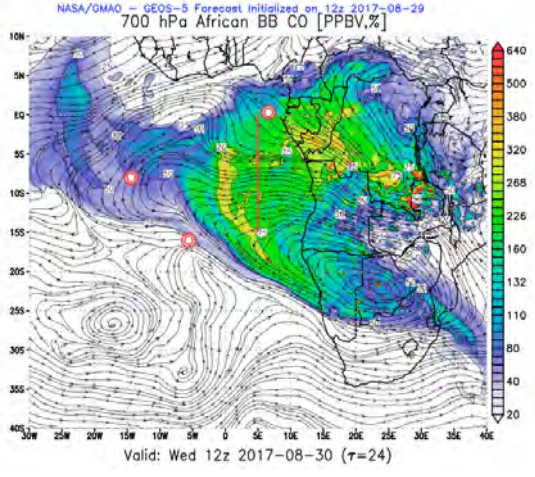


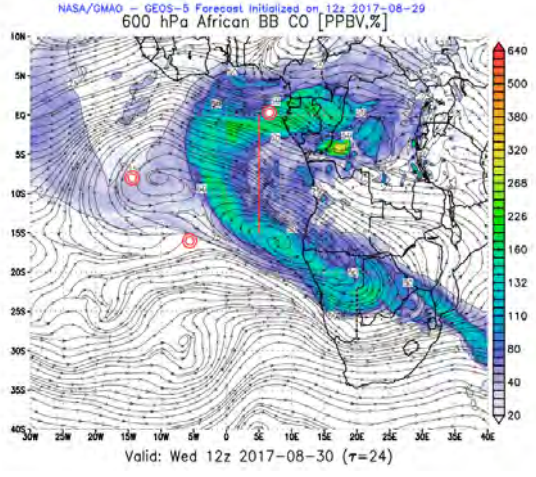


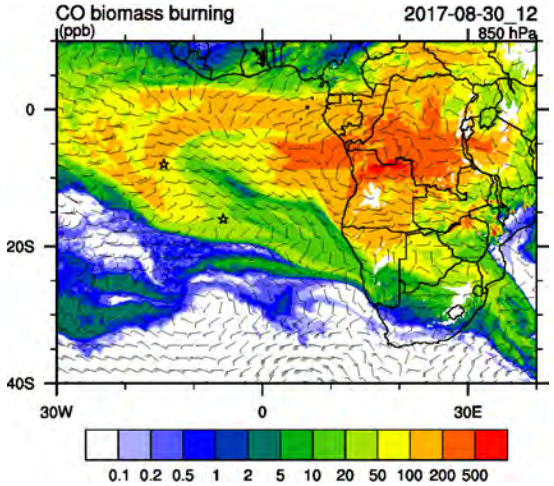


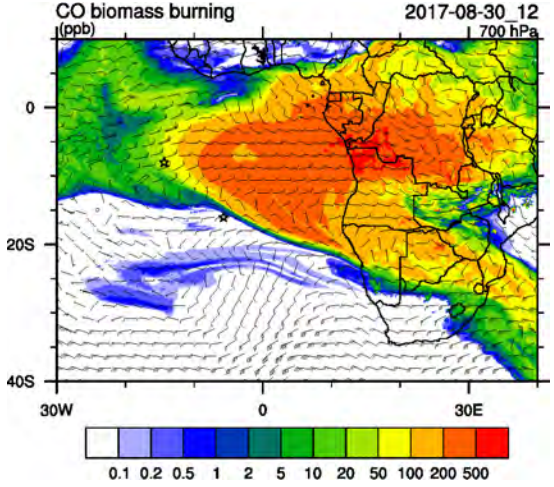


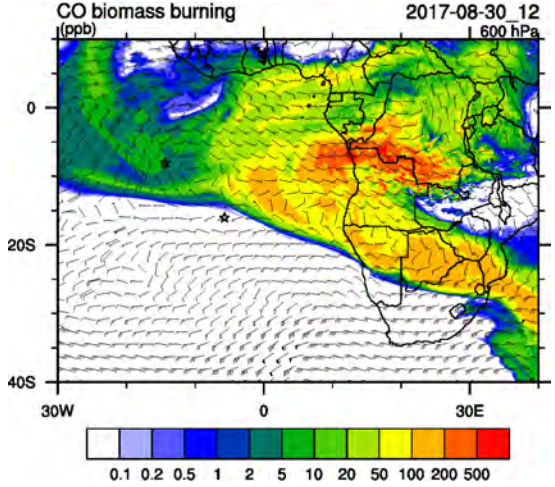

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
850 hPa African BB CO [PPBV,%]
Valid: Wed 12z 2017-08-30 (τ=24)


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
700 hPa African BB CO [PPBV,%]
Valid: Wed 12z 2017-08-30 (τ=24)

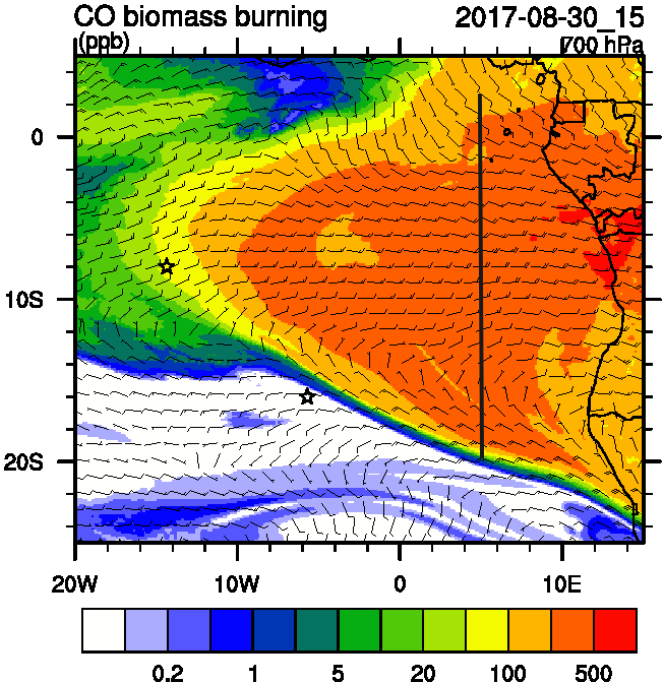

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
600 hPa African BB CO [PPBV,%]
Valid: Wed 12z 2017-08-30 (τ=24)

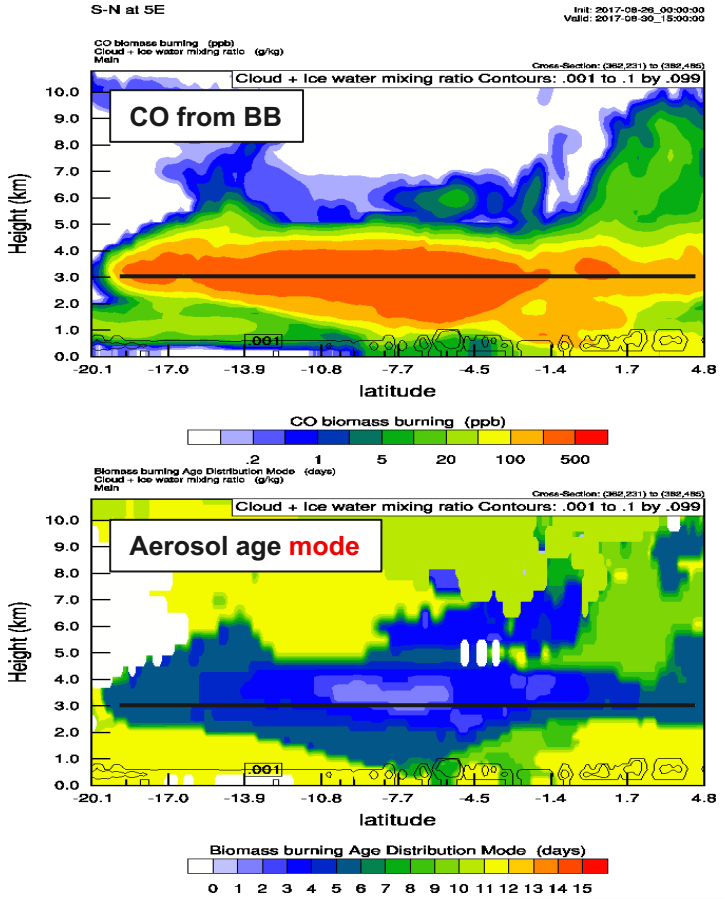

CO biomass burning
(ppb)
2017-08-30_12
850 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500


CO biomass burning
(ppb)
2017-08-30_12
700 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

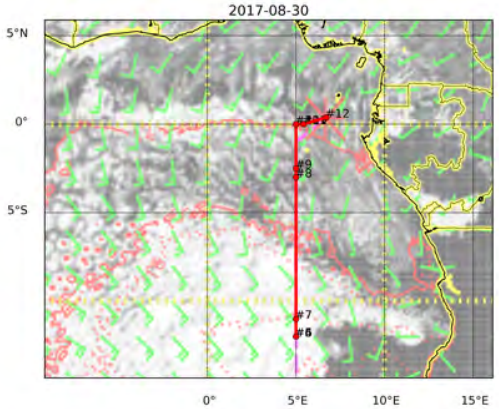

CO biomass burning
(ppb)
2017-08-30_12
600 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

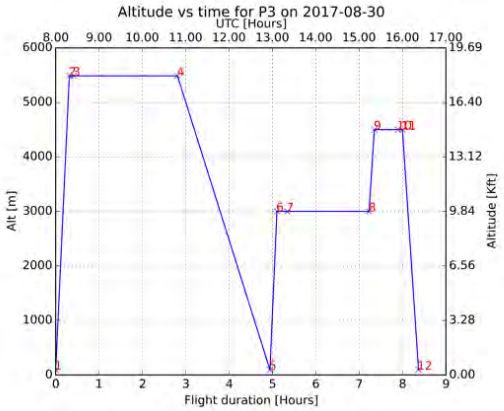
Cross sections at 5 E Wed 30 Aug 15 Z

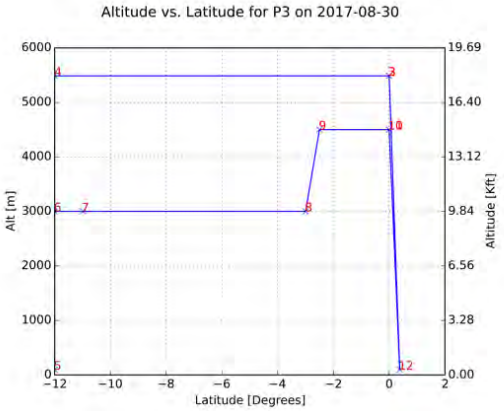


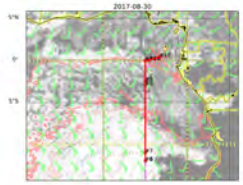


Wed 30 August 2017
Routine Flight

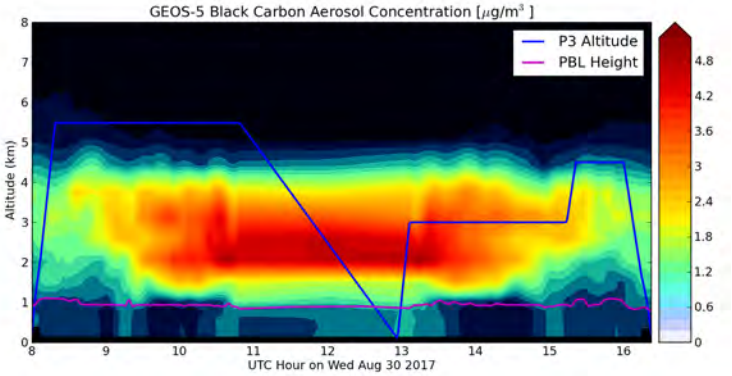


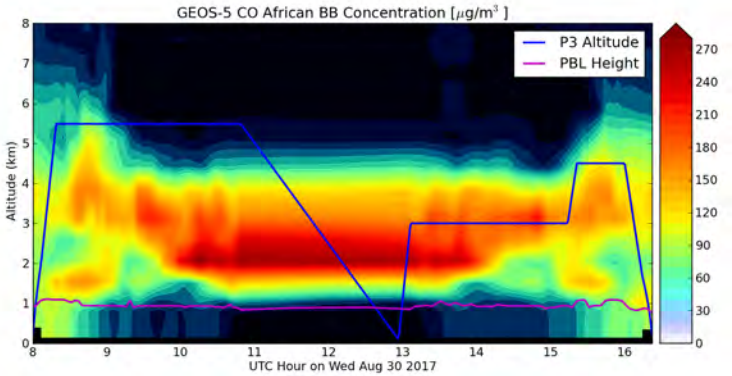


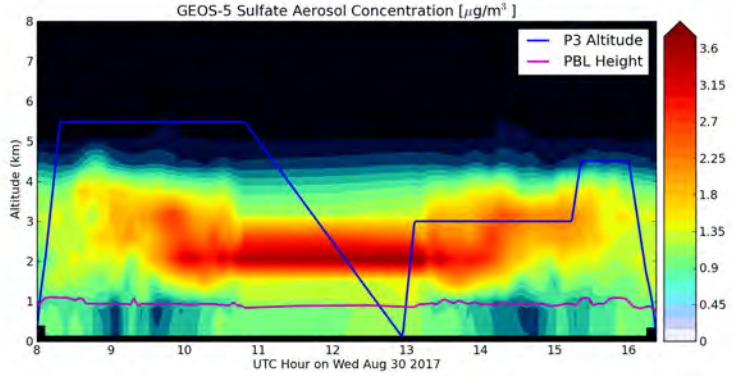


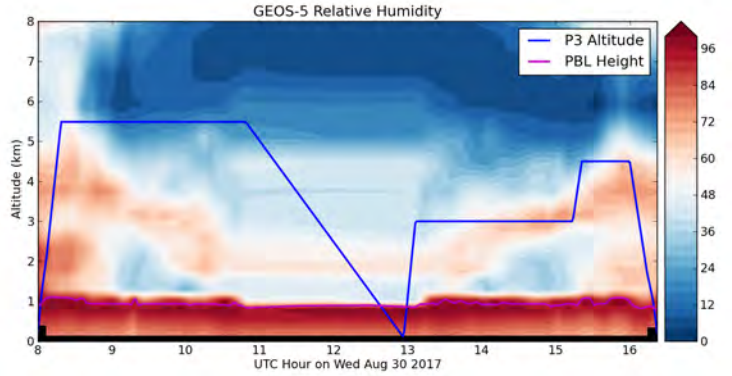


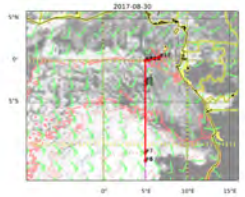
Wed 30 August 2017



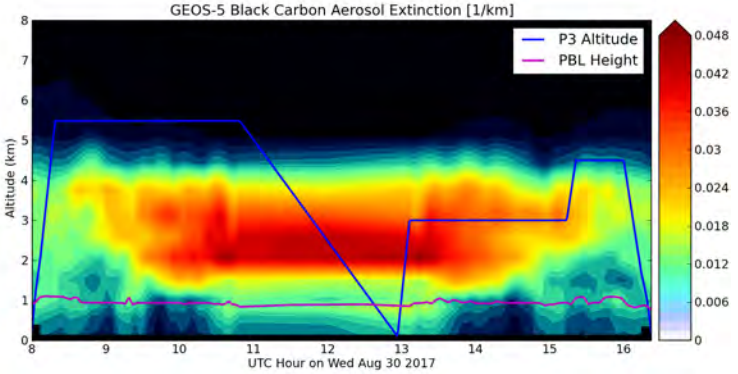


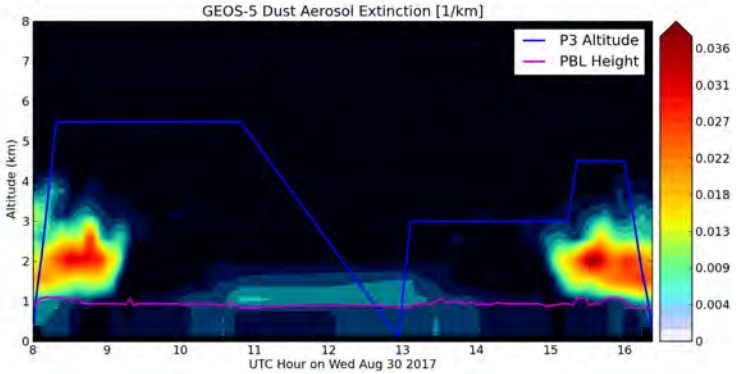


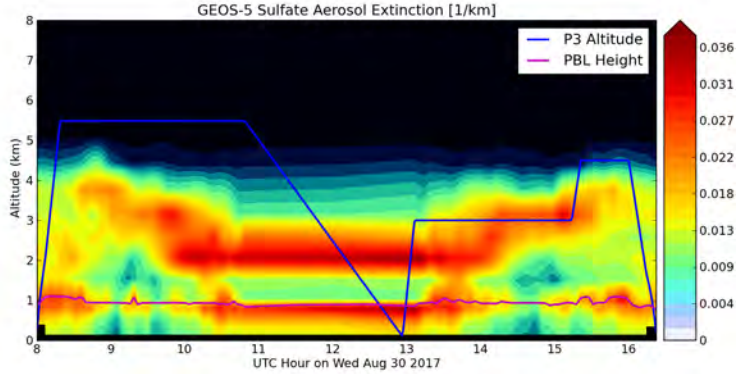


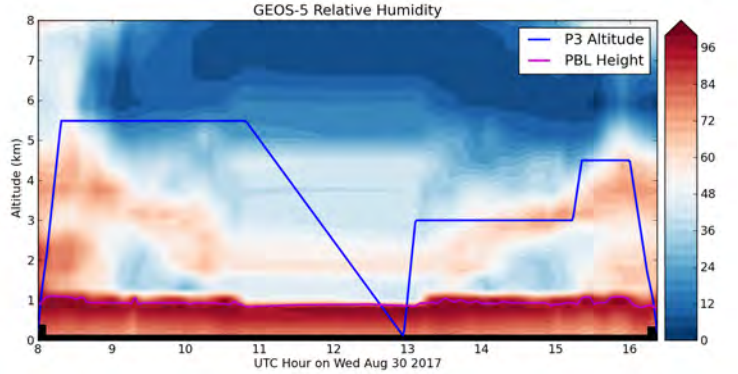


Wed 30 August 2017

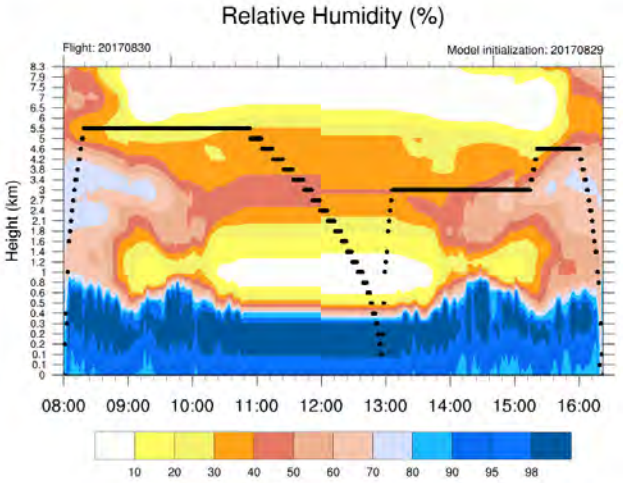


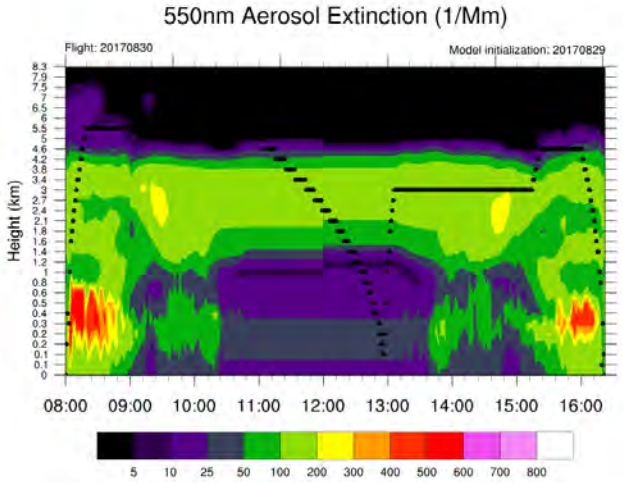


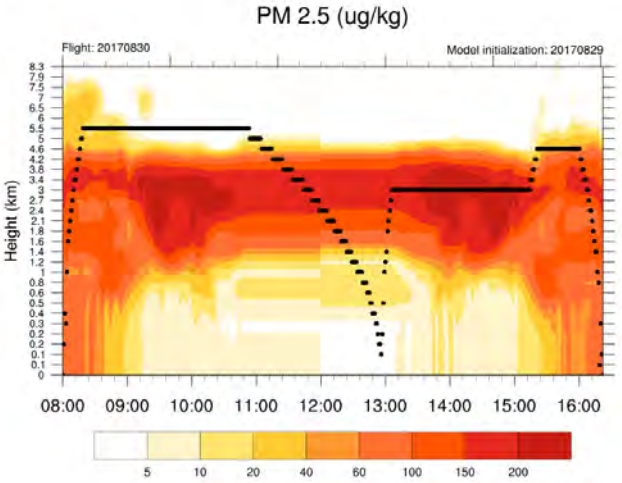


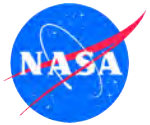


Wednesday 30 August 2017



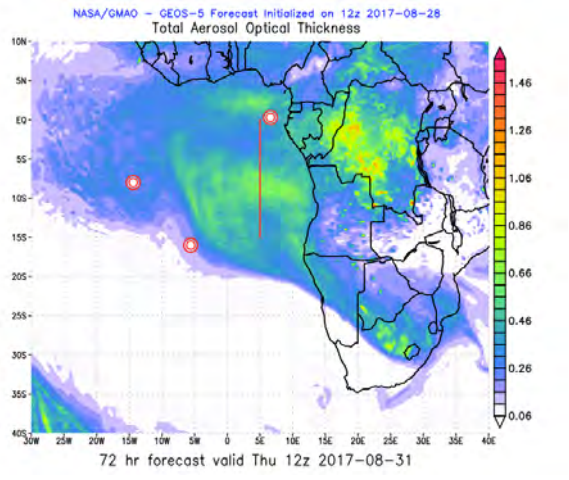


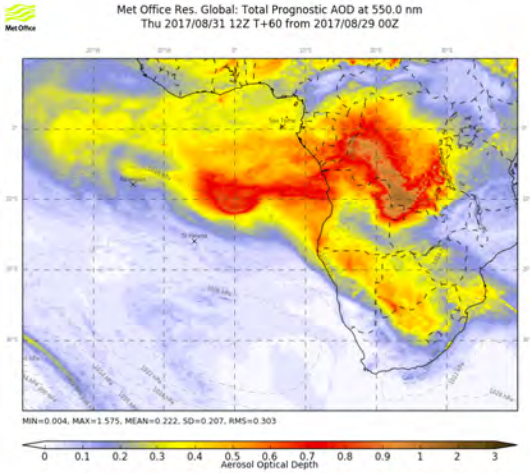


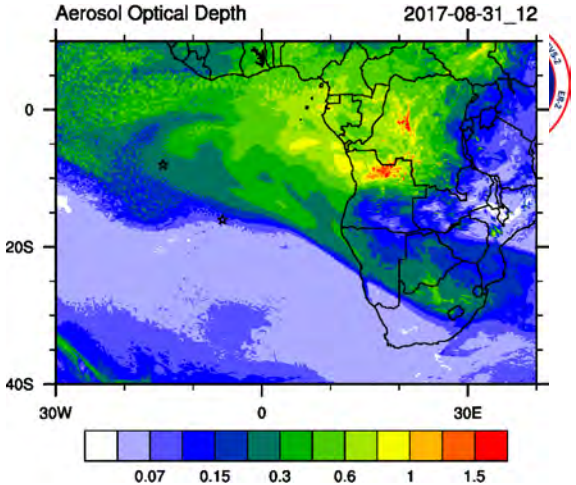


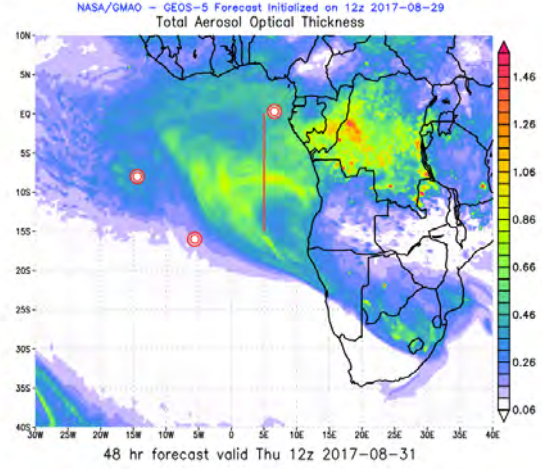
Last Fly Day (Lagrangian)

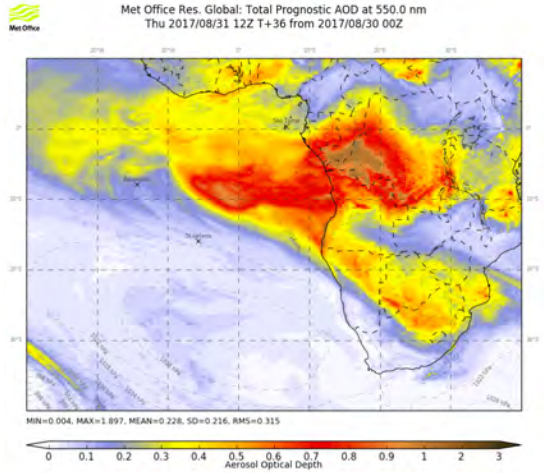
THURSDAY, 31 AUGUST 2017

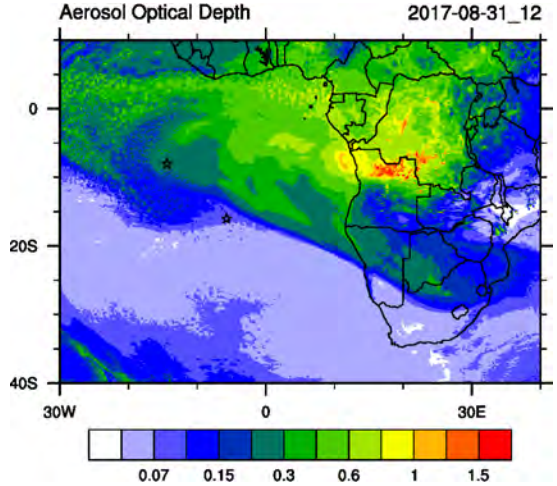

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-28
Total Aerosol Optical Thickness
72 hr forecast valid Thu 12z 2017-08-31


Met Office Res. Global: Total Prognostic AOD at 550.0 nm
Thu 2017/08/31 12Z T+60 from 2017/08/29 00Z
Aerosol Optical Depth

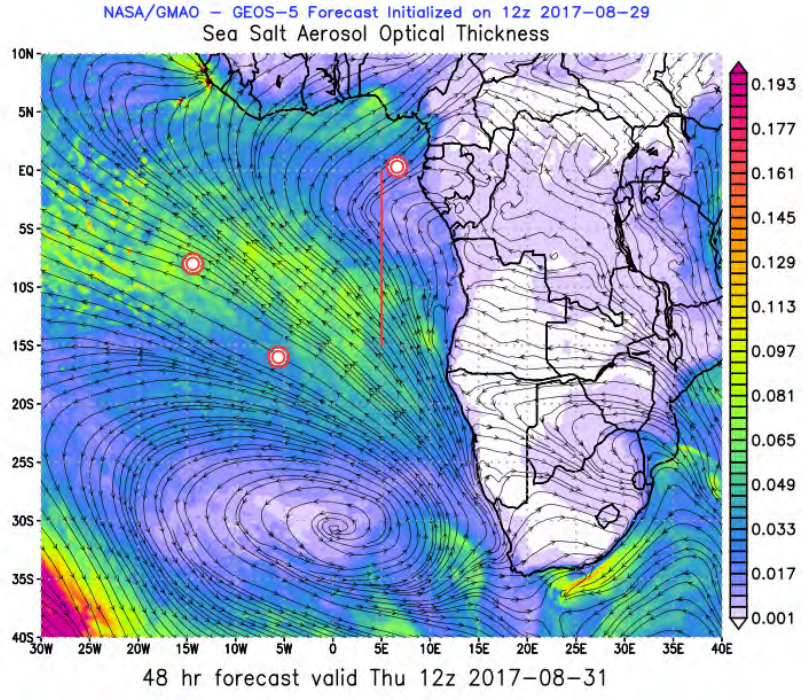

Aerosol Optical Depth
2017-08-31_12

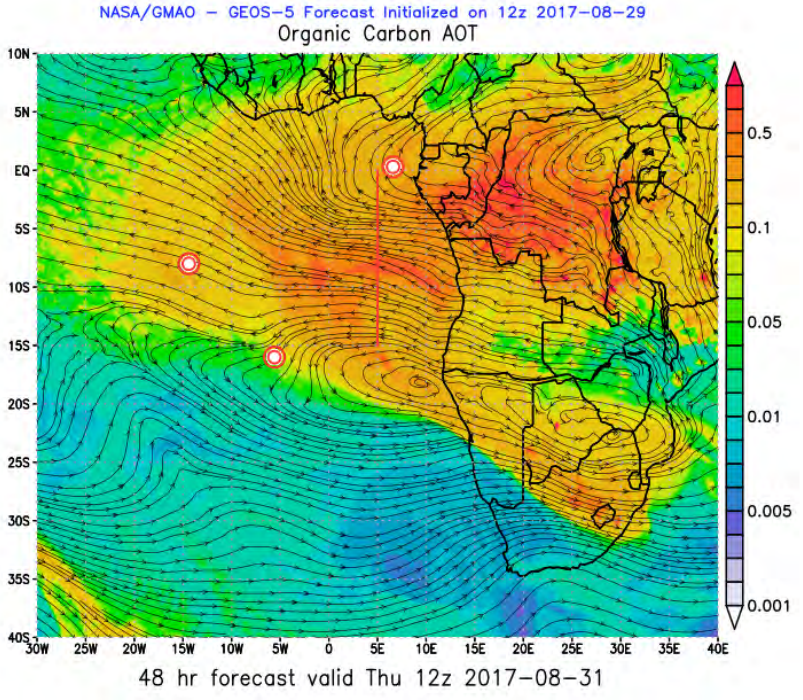

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
Total Aerosol Optical Thickness
48 hr forecast valid Thu 12z 2017-08-31


Met Office Res. Global: Total Prognostic AOD at 550.0 nm
Thu 2017/08/31 12Z T+36 from 2017/08/30 00Z
Aerosol Optical Depth

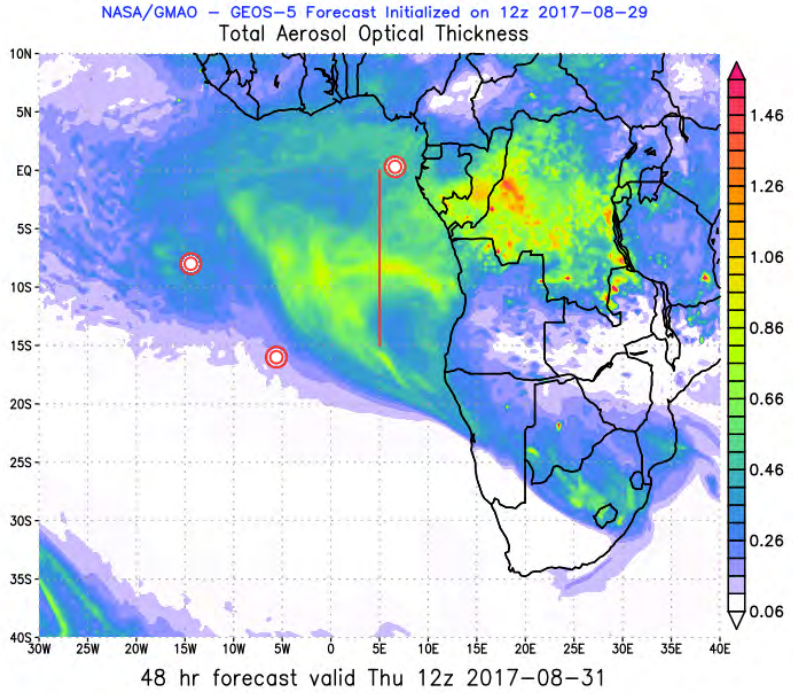

Aerosol Optical Depth
2017-08-31_12

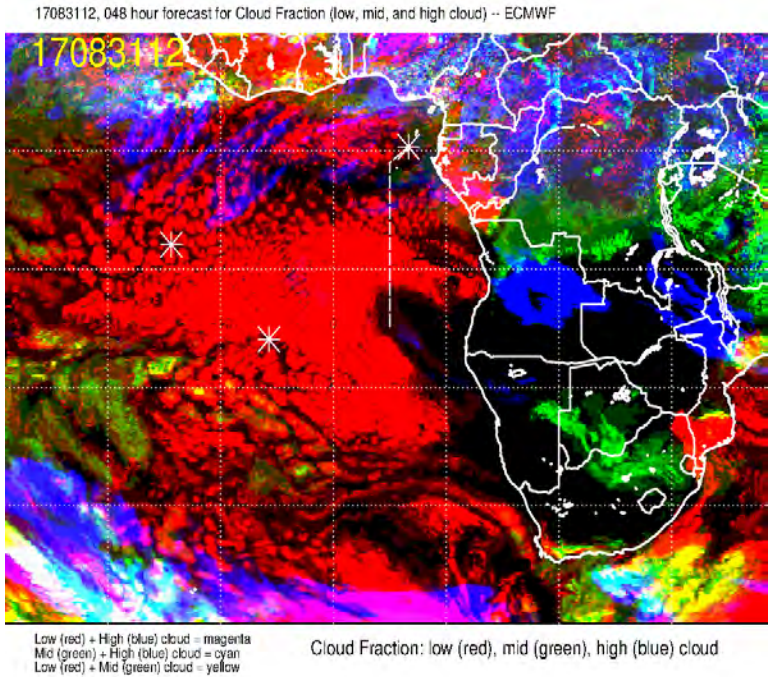
Thu 31 August 2017 12Z



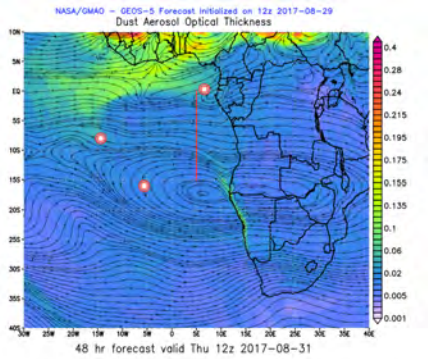


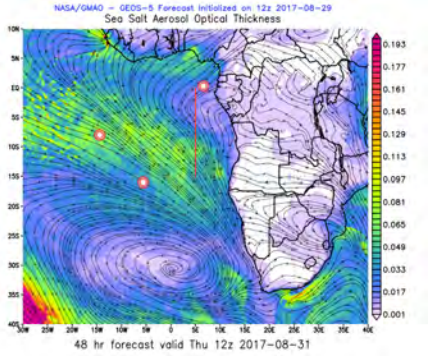
Thu 31 August 2017 12Z

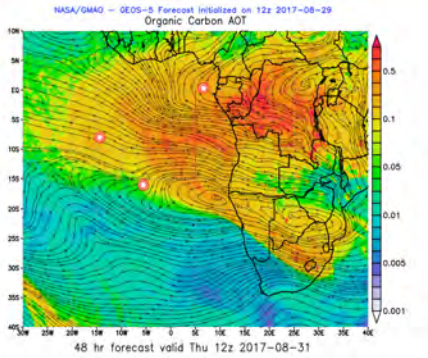


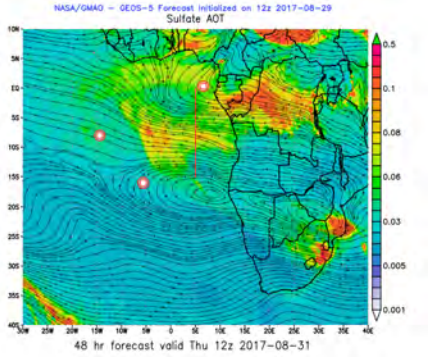


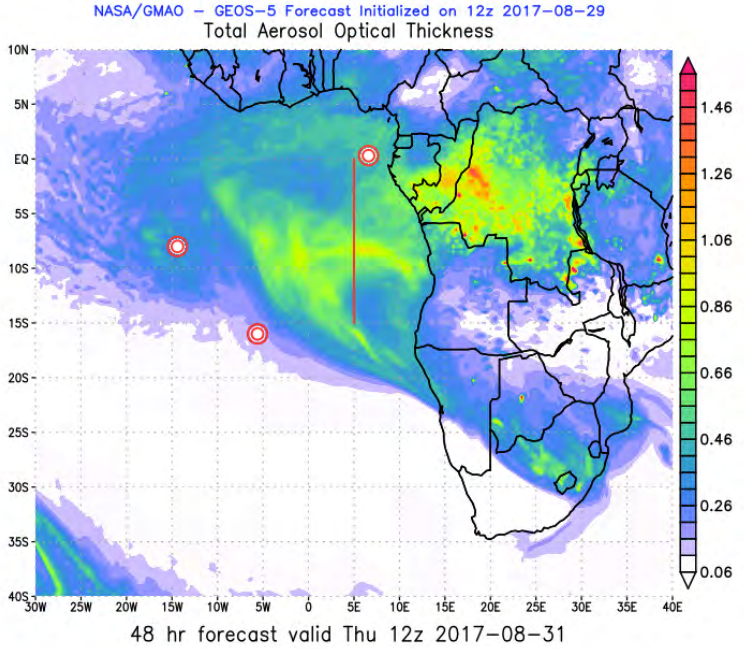
Thu 31 August 2017 12Z

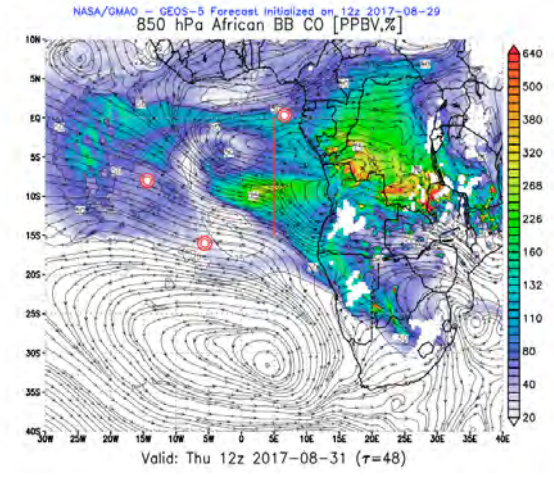


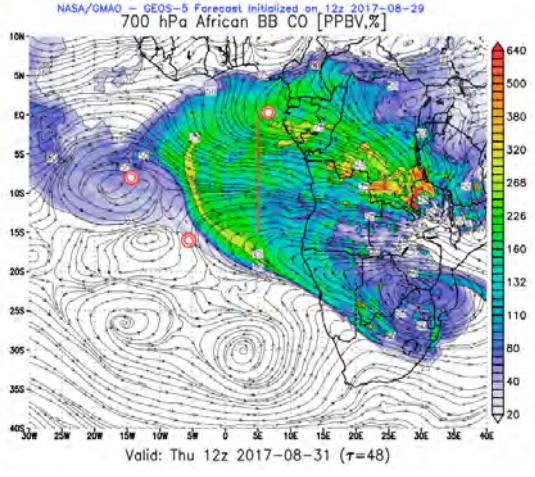


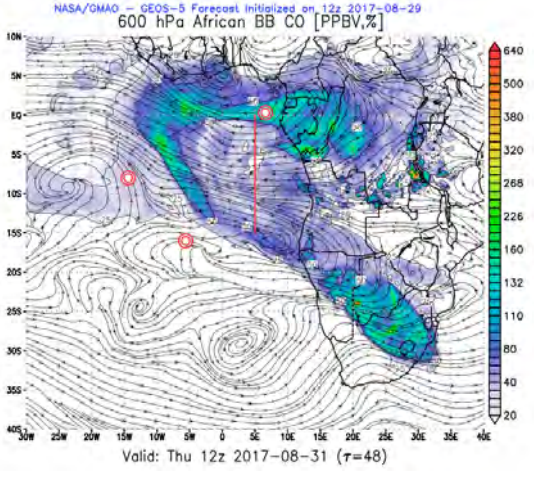


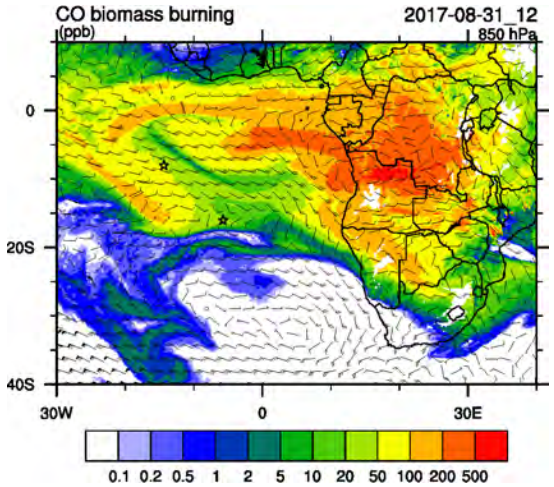


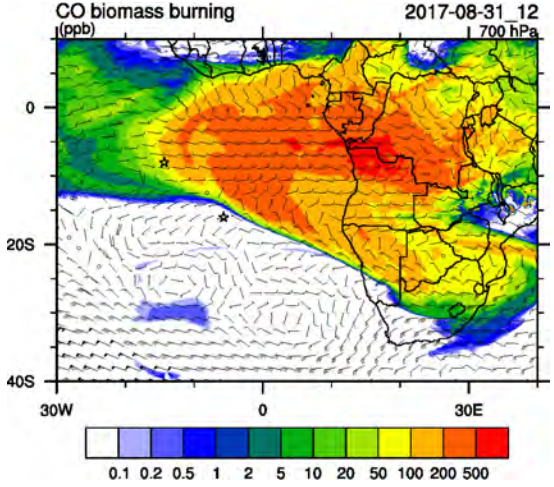


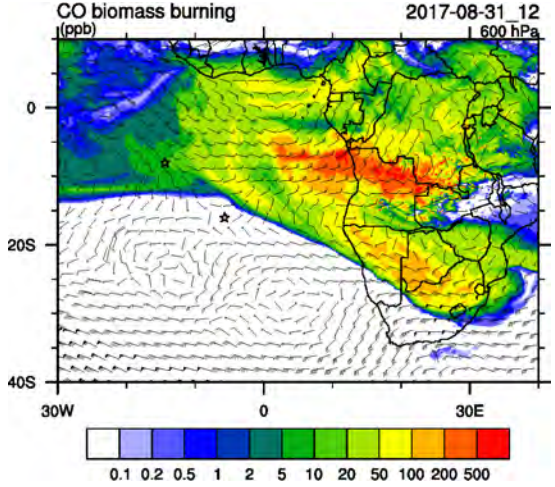

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
850 hPa African BB CO [PPBV,%]
Valid: Thu 12z 2017-08-31 (τ=48)


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
700 hPa African BB CO [PPBV,%]
Valid: Thu 12z 2017-08-31 (τ=48)

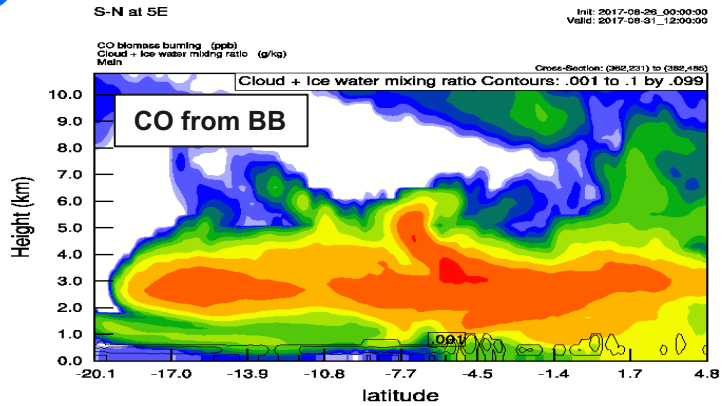

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
600 hPa African BB CO [PPBV,%]
Valid: Thu 12z 2017-08-31 (τ=48)


CO biomass burning
(ppb)
2017-08-31_12
850 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

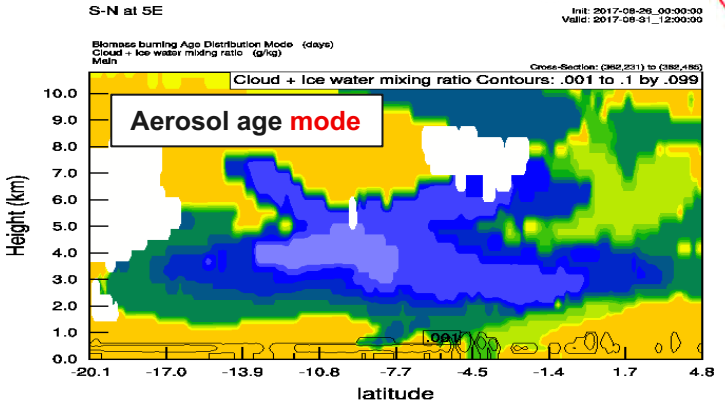

CO biomass burning
(ppb)
2017-08-31_12
700 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

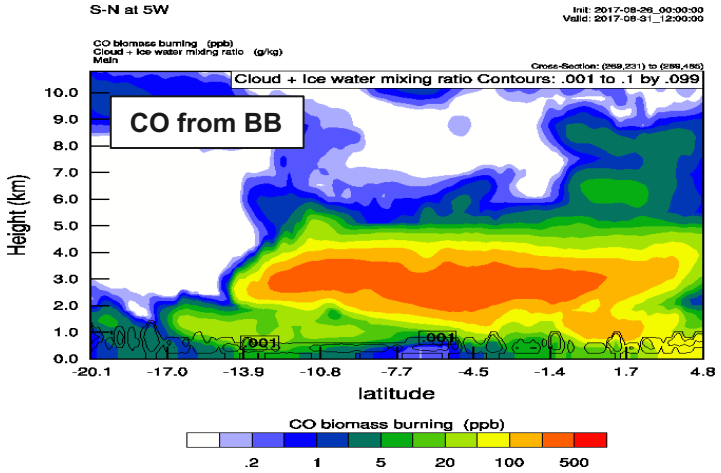

CO biomass burning
(ppb)
2017-08-31_12
600 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

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

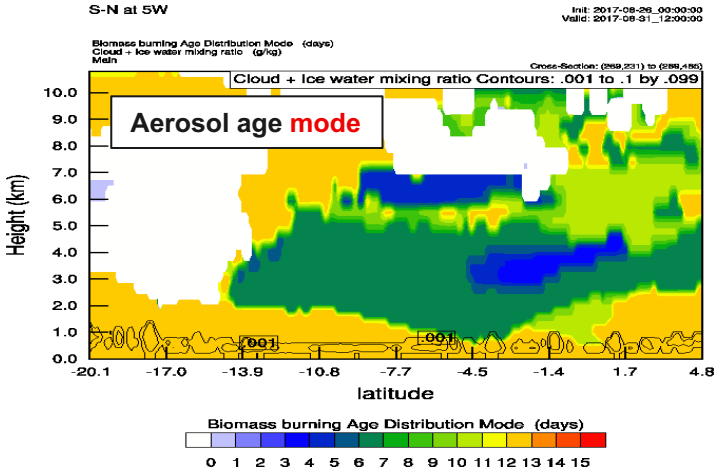


5 E

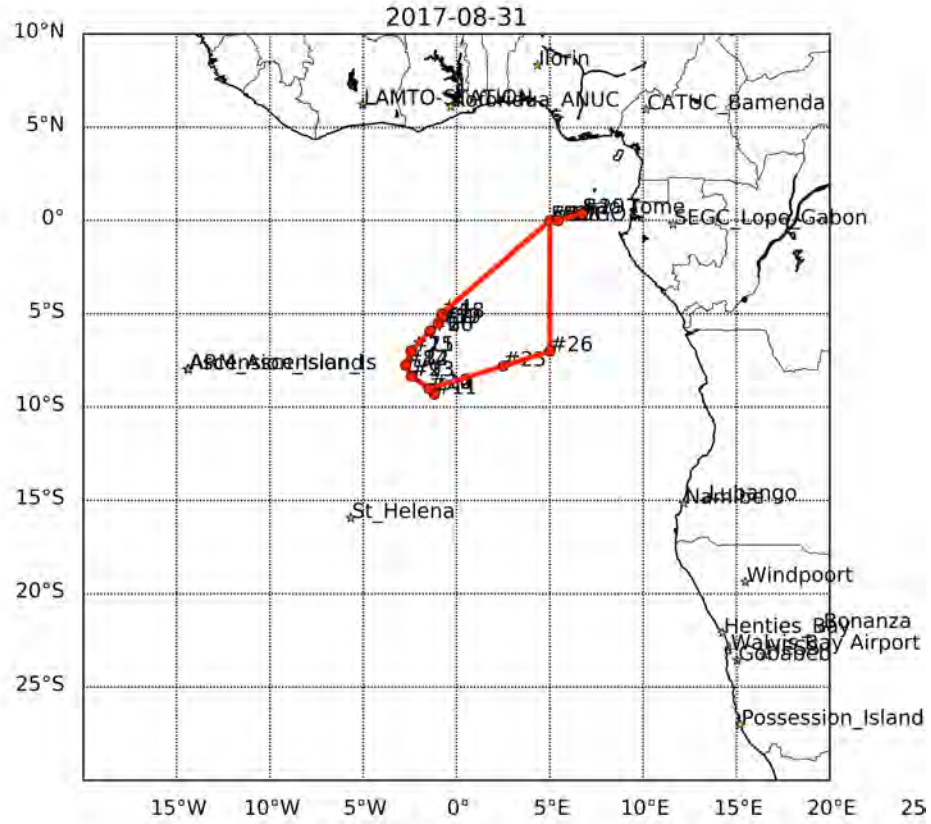


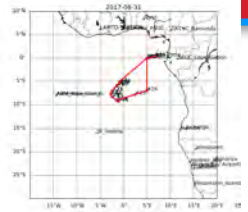


5 W

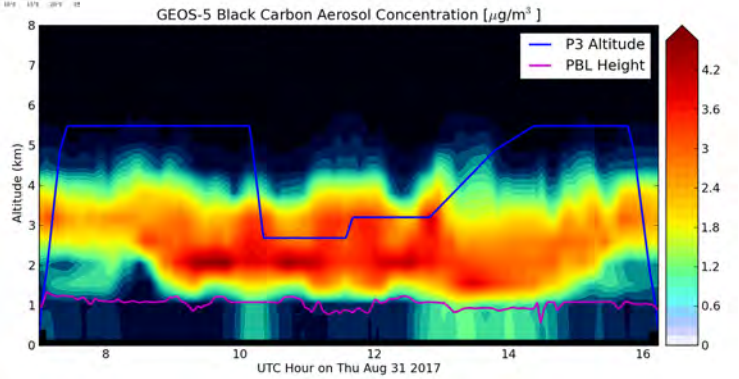


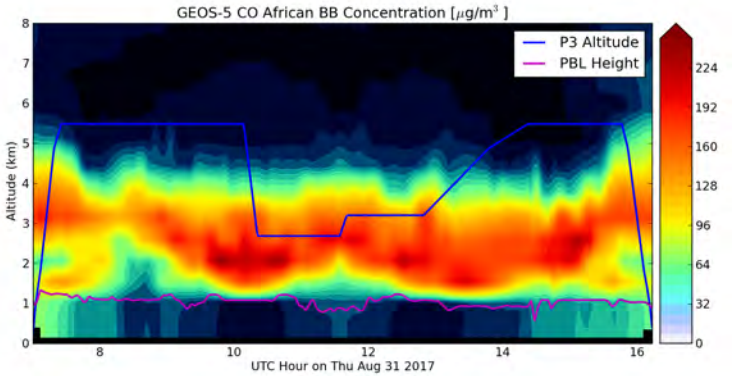
Thursday 31 August 2017
Lagrangian Flight

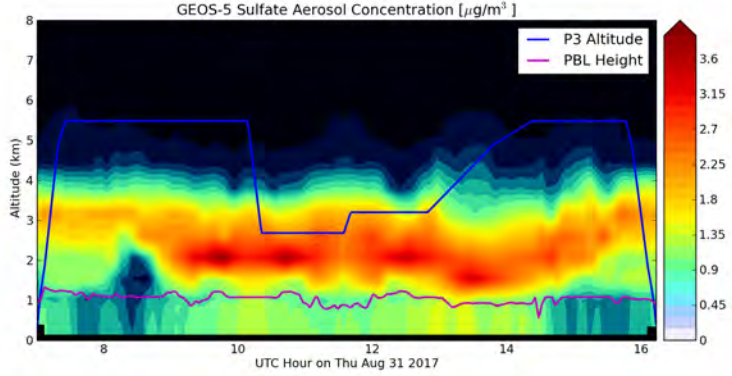


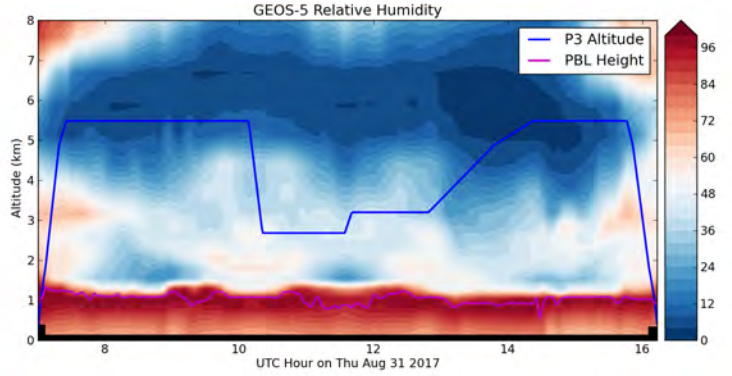


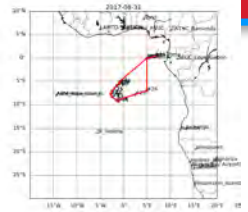
Thu 31 August 2017



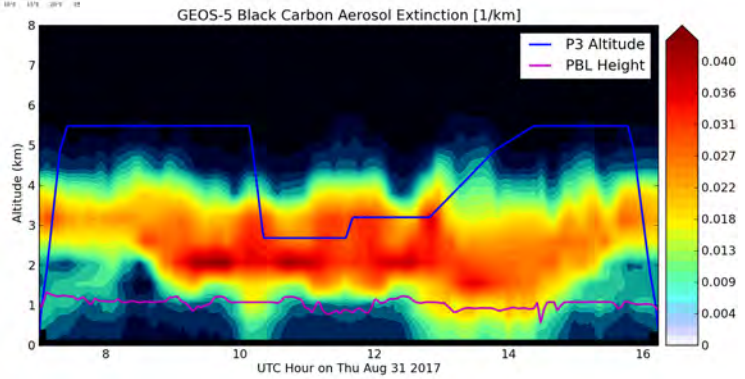


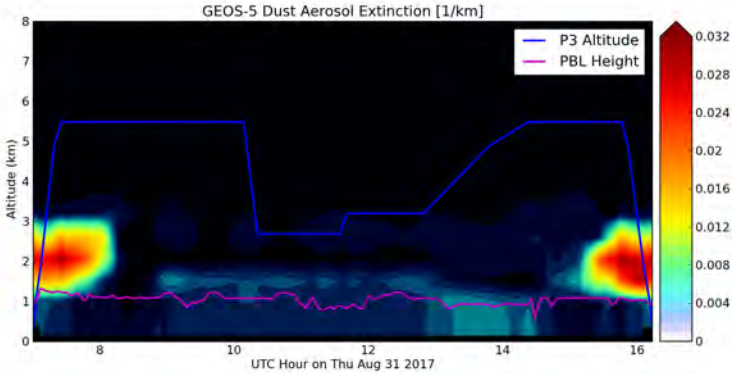


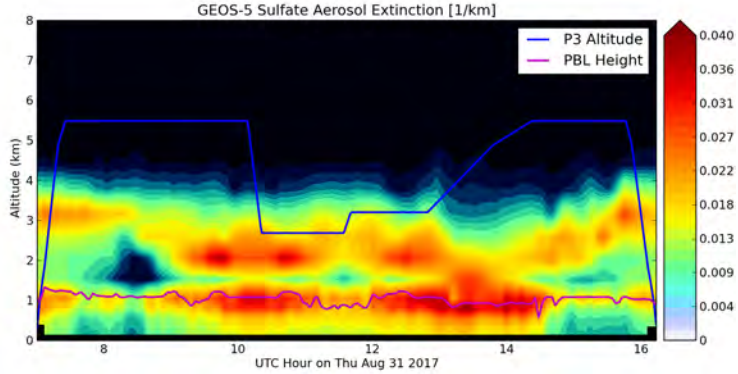


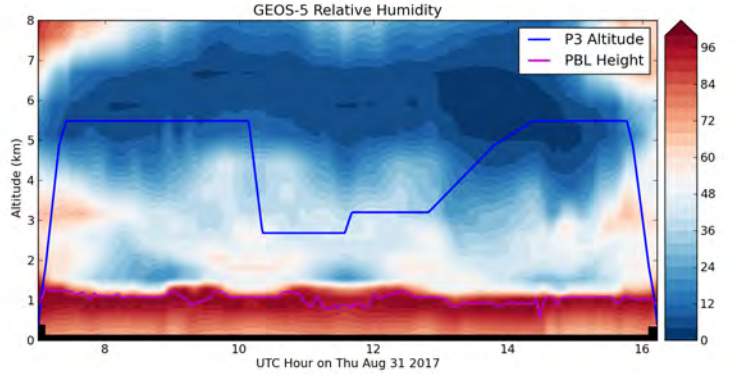


Thu 31 August 2017

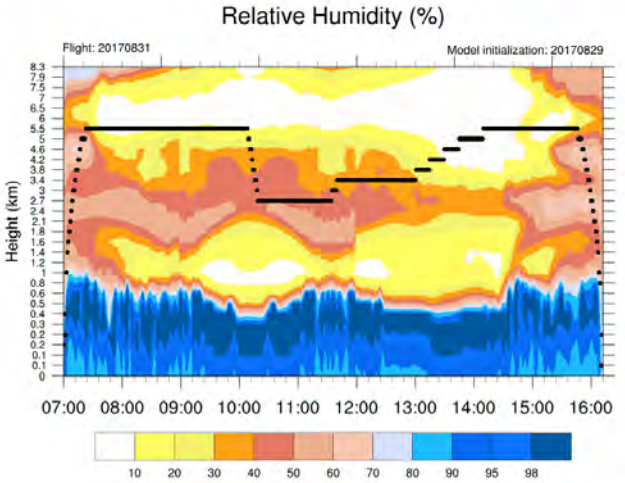


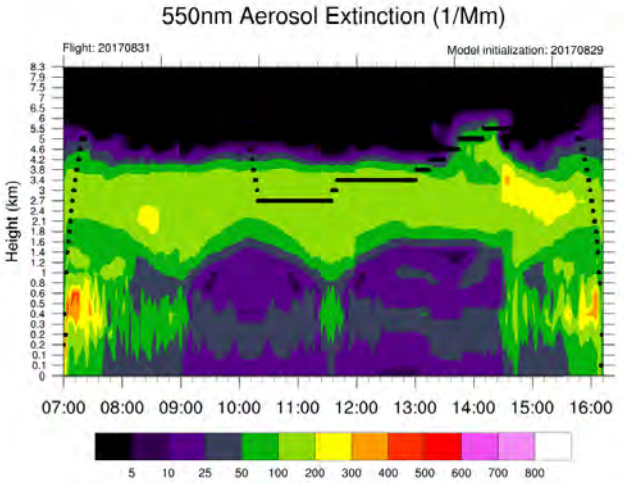


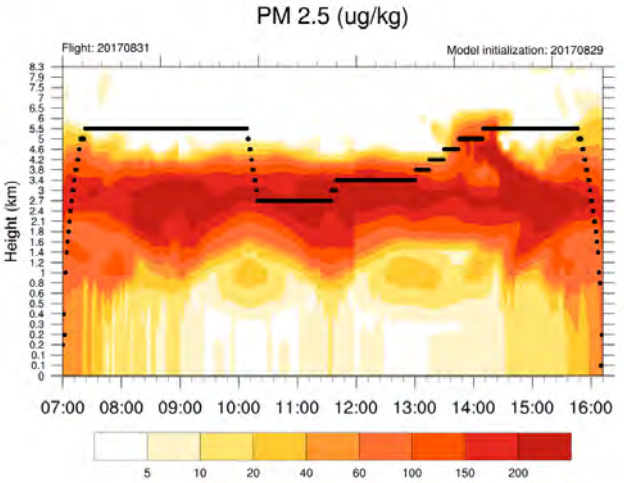




Thursday 31 August 2017



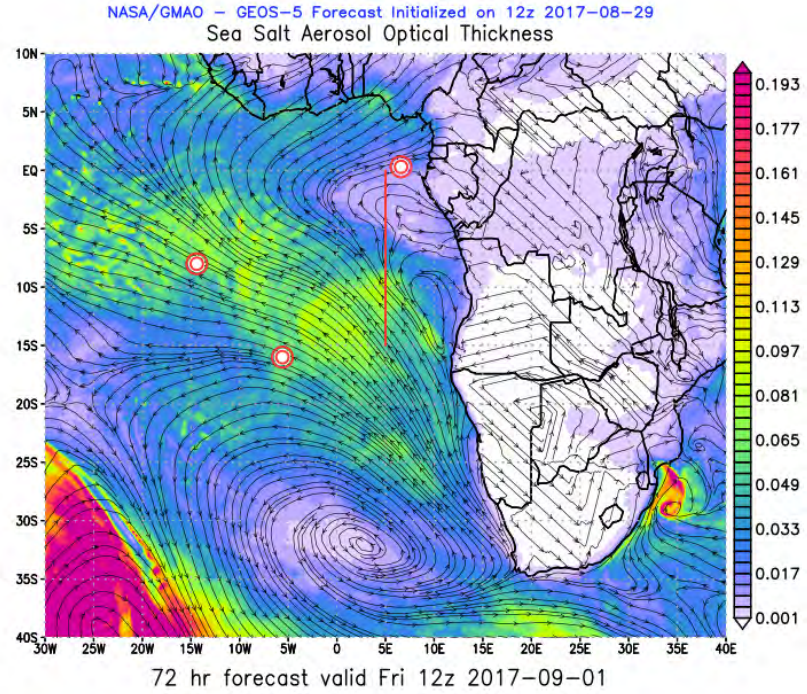


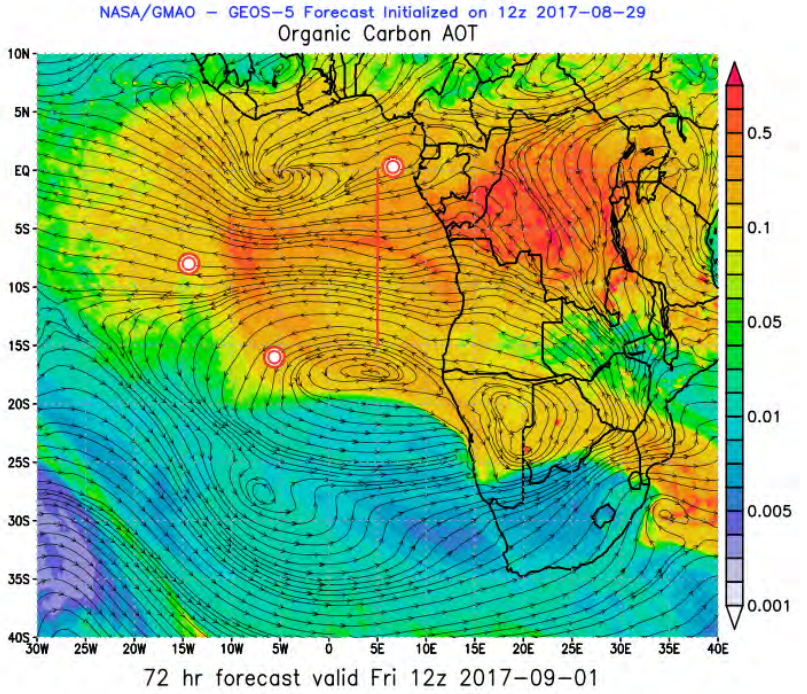


Packing Day

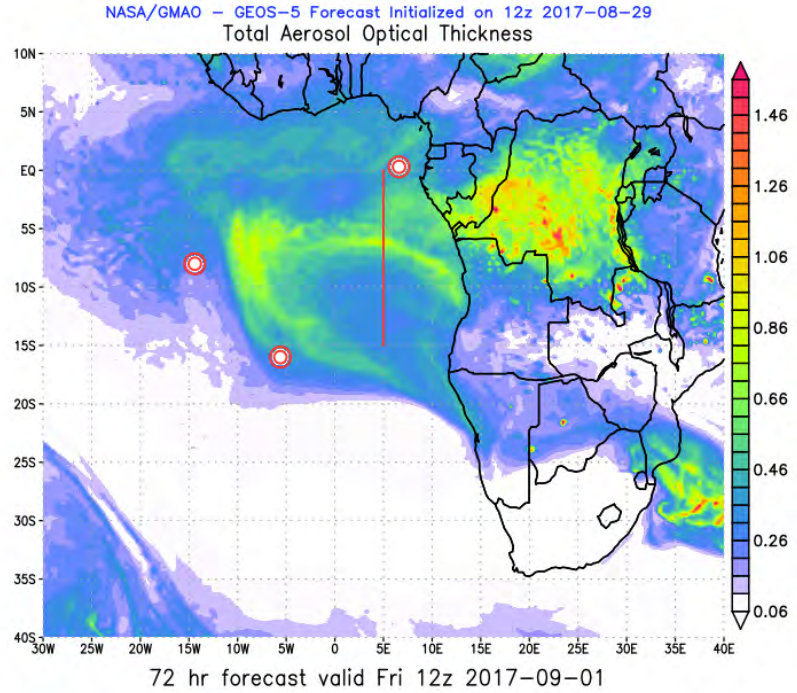
FRIDAY, 1 SEPTEMBER 2017

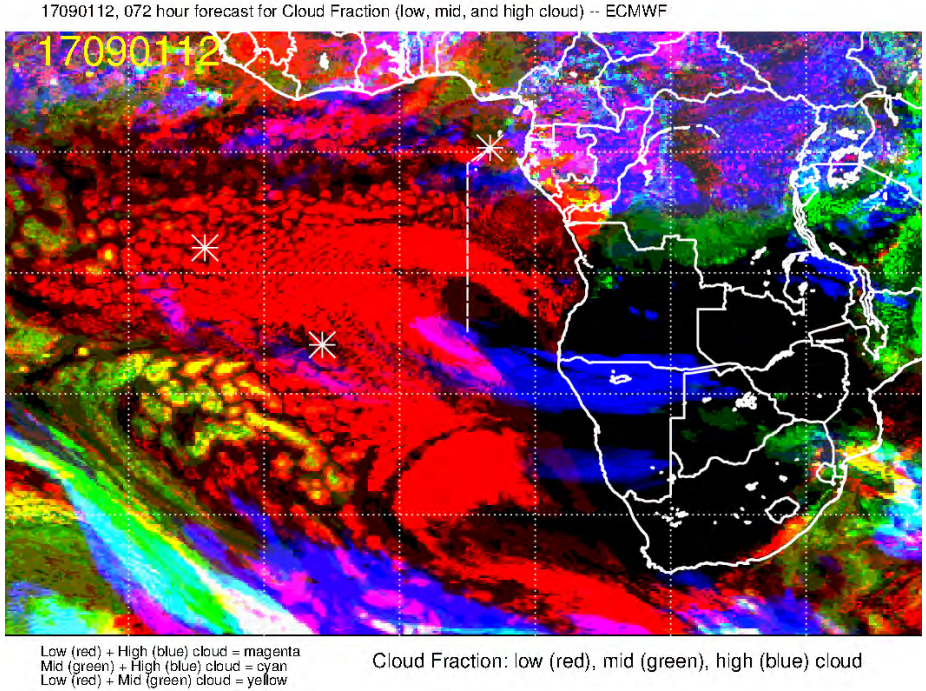
Friday, 1 September 2017 12Z



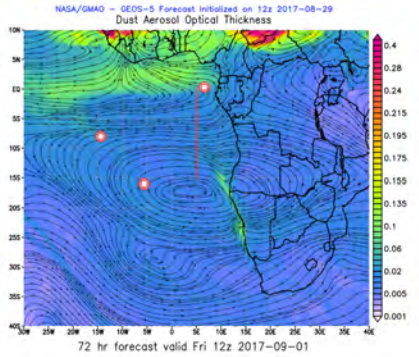


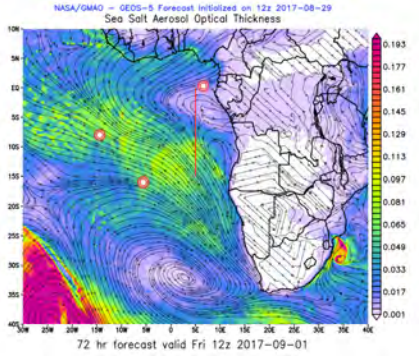
Friday, 1 September 2017 12Z

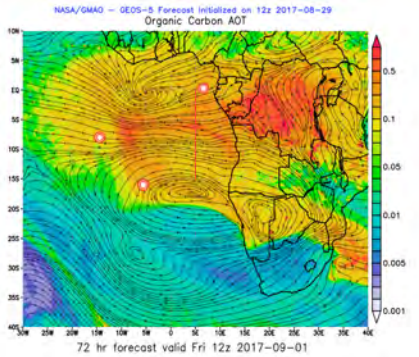


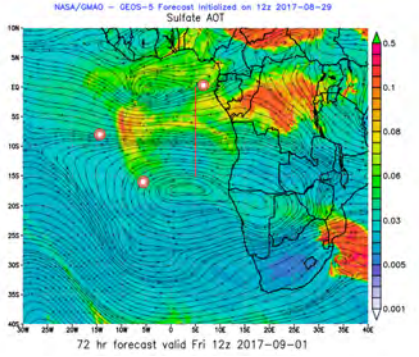


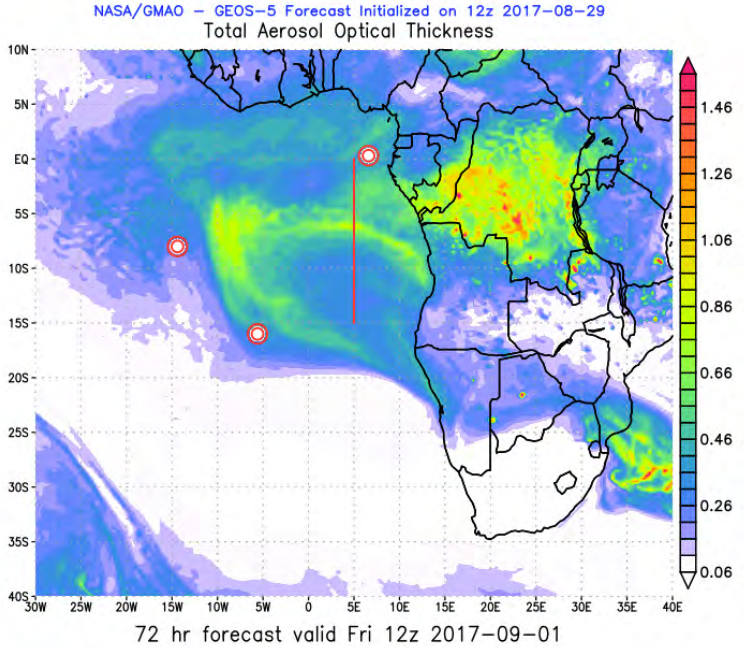
Friday, 1 September 2017 12Z

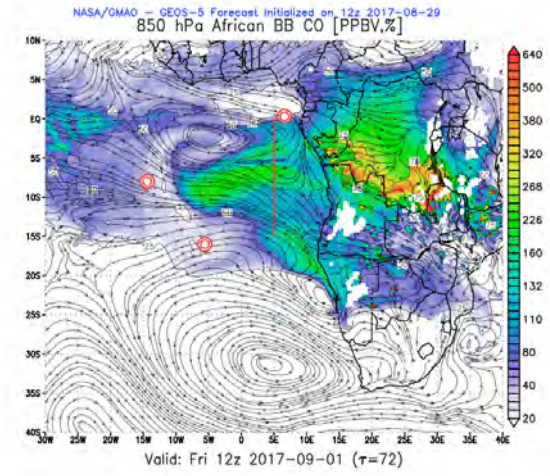


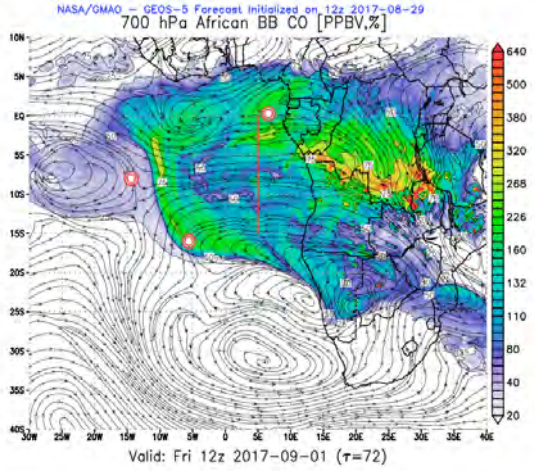


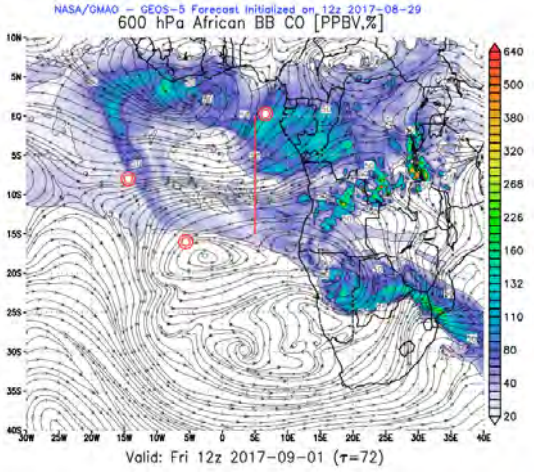


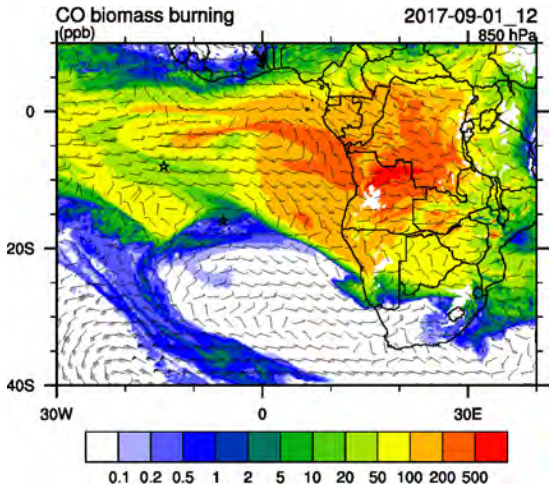


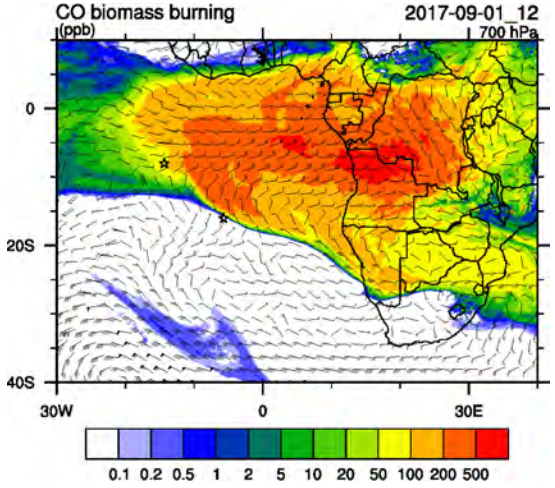


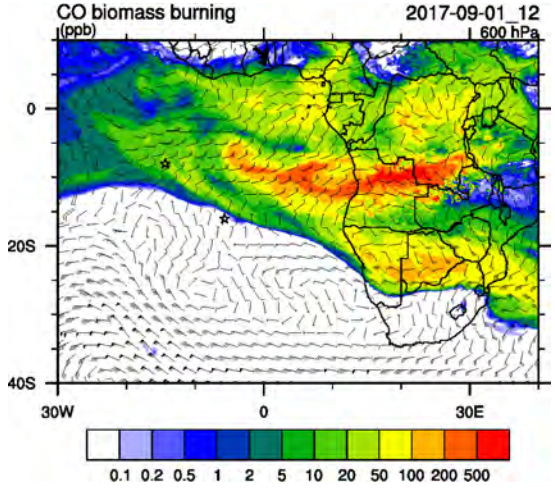

NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
850 hPa African BB CO [PPBV,%]
Valid: Fri 12z 2017-09-01 (τ=72)


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
700 hPa African BB CO [PPBV,%]
Valid: Fri 12z 2017-09-01 (τ=72)


NASA/GMAO – GEOS-5 Forecast Initialized on 12z 2017-08-29
600 hPa African BB CO [PPBV,%]
Valid: Fri 12z 2017-09-01 (τ=72)


CO biomass burning
(ppb)
2017-09-01_12
850 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

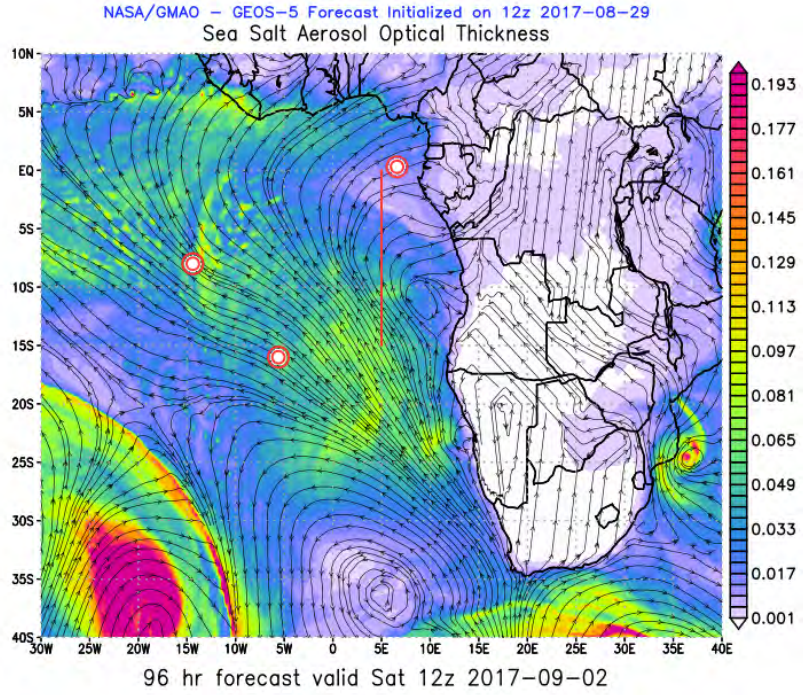

CO biomass burning
(ppb)
2017-09-01_12
700 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

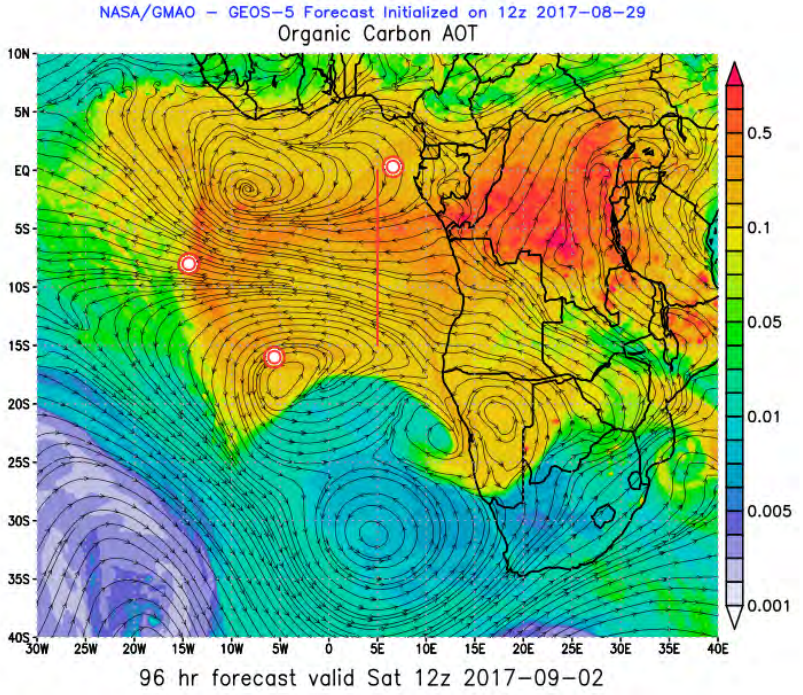

CO biomass burning
(ppb)
2017-09-01_12
600 hPa
0
20S
40S
30W
0
30E
0.1 0.2 0.5 1 2 5 10 20 50 100 200 500

Fly Day (Transit to Ascension)

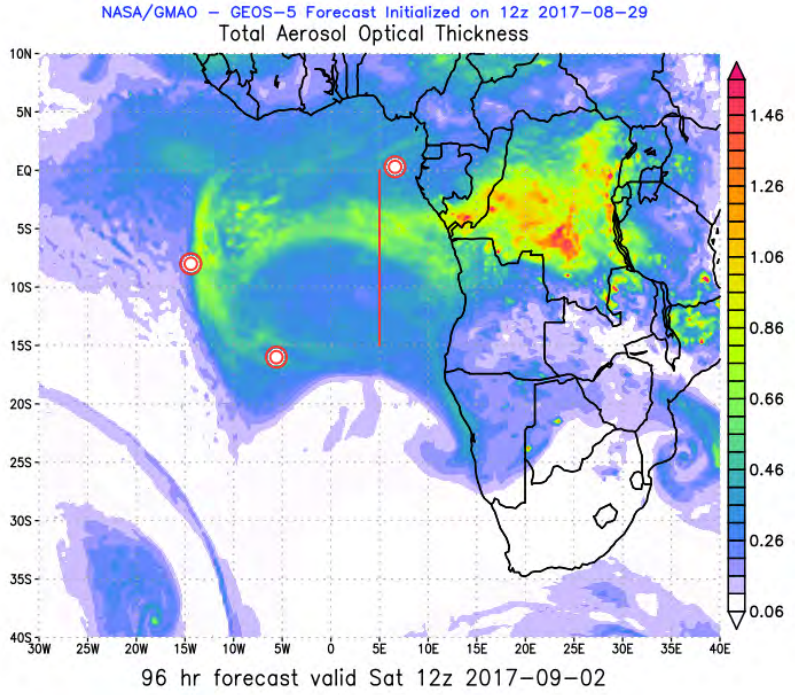
SATURDAY, 2 SEPTEMBER 2017

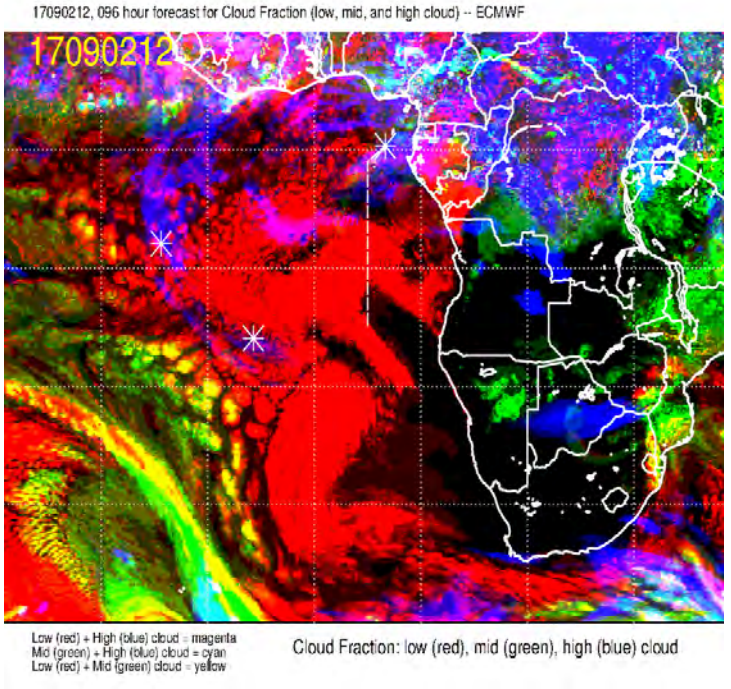
Saturday, 2 September 2017 12Z



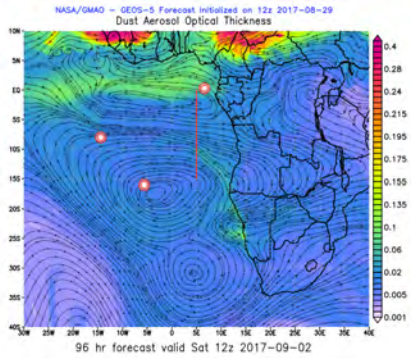


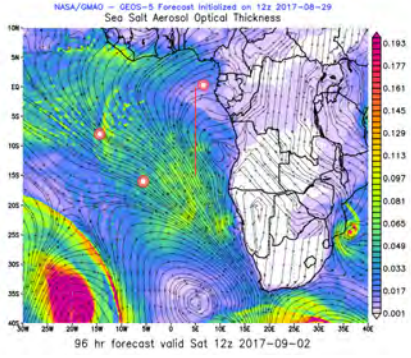
Saturday, 2 September 2017 12Z

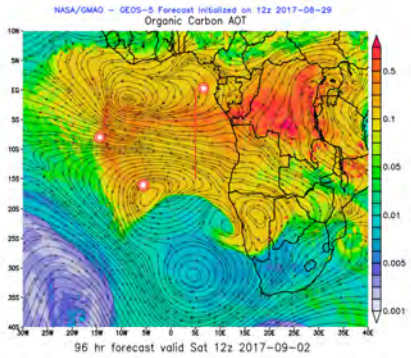


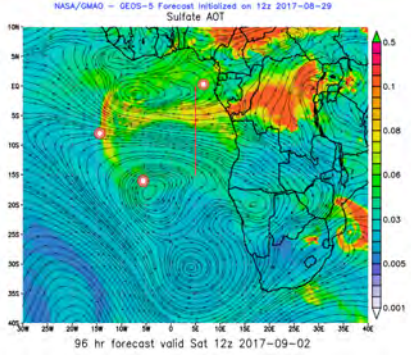


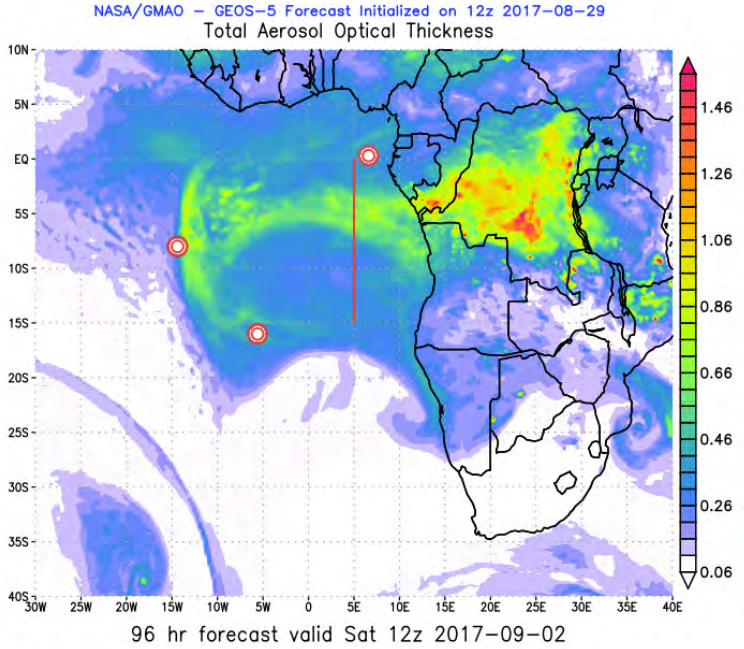
Saturday, 2 September 2017 12Z







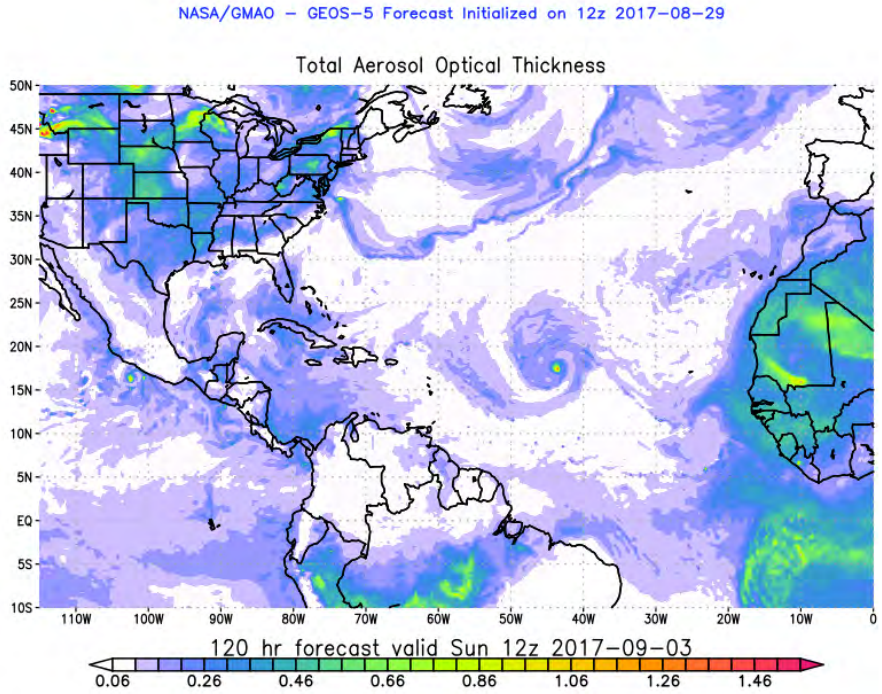


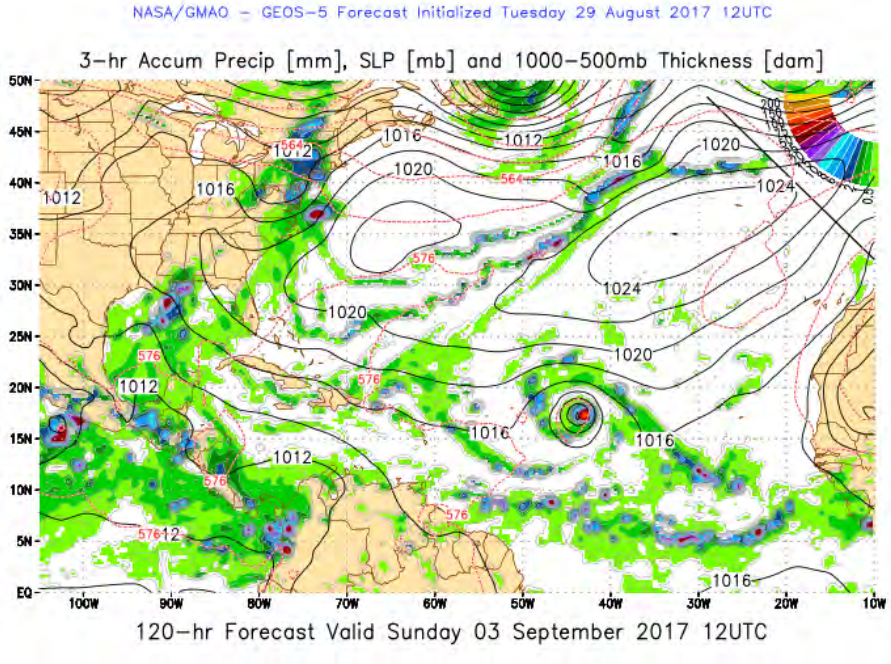


Fly Day (Transit to Barbados)

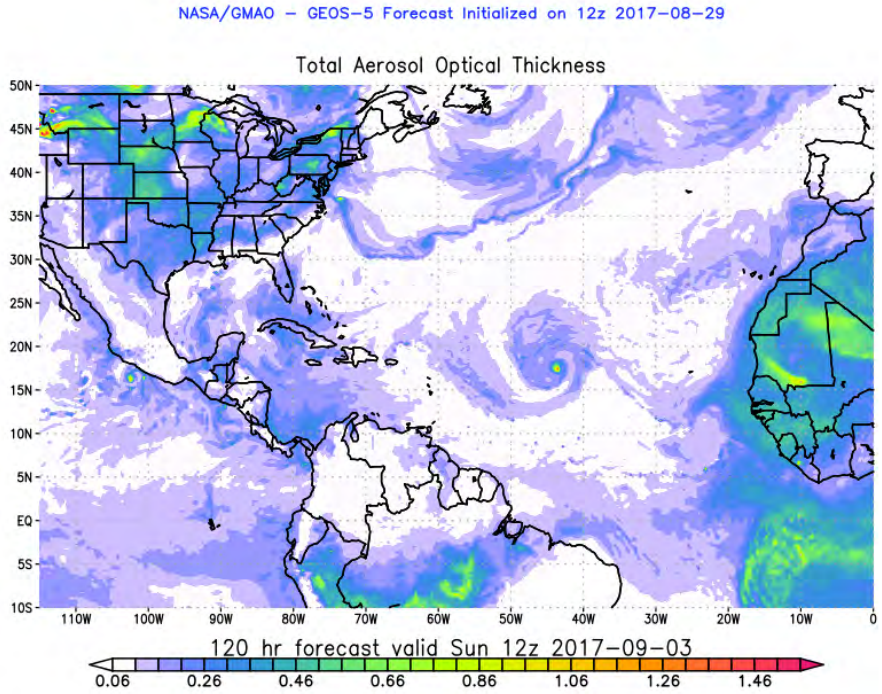
SUNDAY, 2 SEPTEMBER 2017

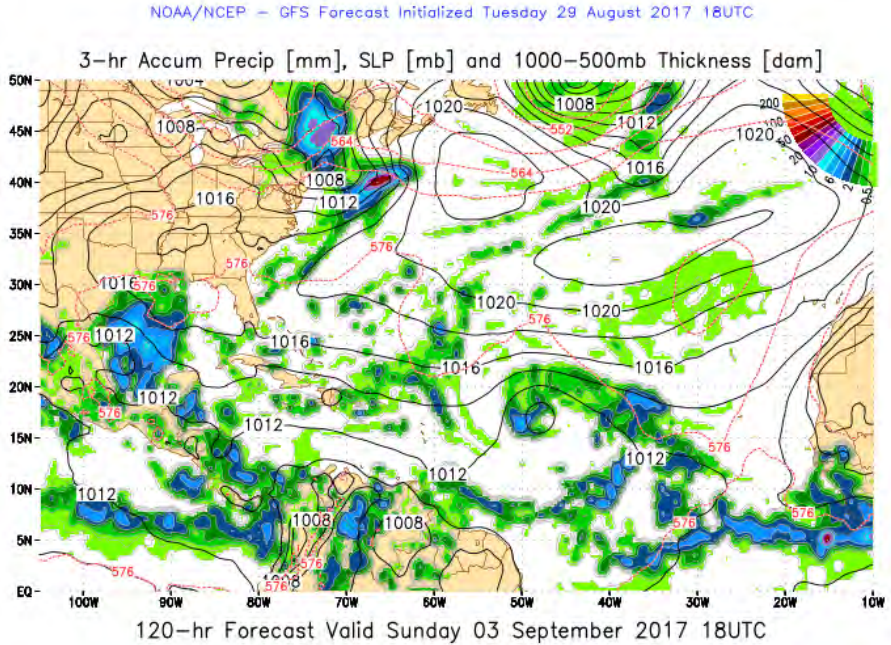
Saturday, 2 September 2017 12Z



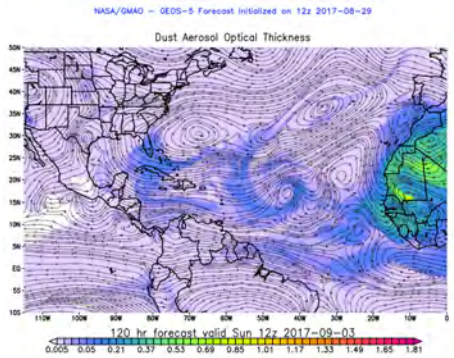


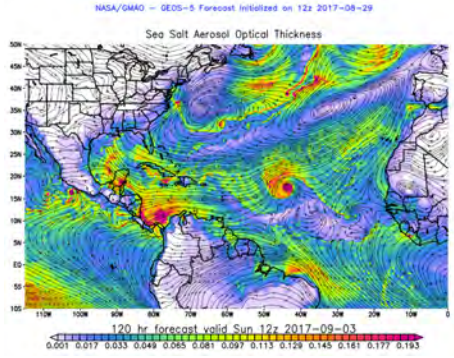
Saturday, 2 September 2017 12Z

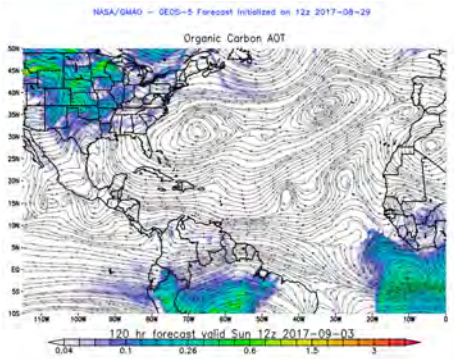


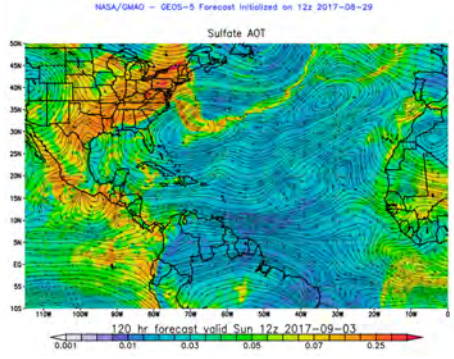


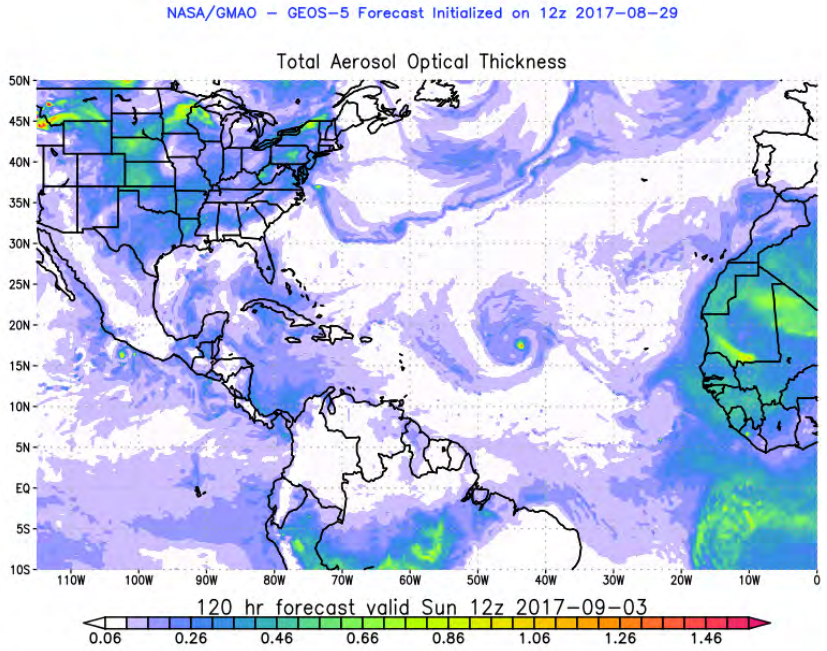
Sunday, 2 September 2017 12Z











Fly Day (Transit to Wallops)

MONDAY, 3 SEPTEMBER 2017

Monday, 2 September 2017 12Z

Monday, 3 September 2017 12Z

Saturday, 2 September 2017 12Z