

GSFC Met Group Status Report

Leslie Lait & Paul Newman

- ***1. Met/chemical data***
- ***2. Flight planner software***

1. Met/Chem Data

- *Context – what was the wider picture?*
- *History – what happens before and after?*
- *Comparison – measurements/analysis*

- *1a. Web site plots*
- *1b. Langley Archive data files*

<https://acd-ext.gsfc.nasa.gov/Missions/DCOTSS/Fcst/>

Future products
Current products
Past products
Animations
Product Name

GSFC Meteorological Plots for DCOTSS

GMAO GEOS5 products

Last Updated: 2021-11-09T18:44 UTC

(Click on an element of the table to see the corresponding plot.)

Plot	Animation	Sunday				Monday				Tuesday				Wednesday				Thursday				Friday				Saturday				Sunday				Monday							
		2021-11-07				2021-11-08				2021-11-09				2021-11-10				2021-11-11				2021-11-12				2021-11-13				2021-11-14				2021-11-15							
		00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18	00	06	12	18
CAPE	@	A	F6	A	F6	A	F6	A	F6	F12	F18	F24	F30	F36	F42	F48	F54	F60	F66	F72	F78	F84	F90	F96	F102	F108	F114	F120	F138	F144	F150	F156	F162	F168	F174	F180	F				
RH @ 200 mb	@	A	A	A	A	A	A	A	A	F6	F12	F18	F24	F30	F42	F48	F54	F60	F66	F72	F78	F84	F90	F96	F102	F108	F114	F120	F138	F144	F150	F156	F162	F168	F174	F180	F				
RH @ 500 mb	@	A	A	A	A	A	A	A	A	F6	F12	F18	F24	F30	F42	F48	F54	F60	F66	F72	F78	F84	F90	F96	F102	F108	F114	F120	F138	F144	F150	F156	F162	F168	F174	F180	F				

Near the bottom of the page, follow this “longer-term” link to the July-August 2021 plots

DCOTSS Links

- *Longer-term GMAO analysis met plots*
- *Main GMAO ATom met plots page*
- *NASA GMAO Forecast maps*
- *NASA Goddard Global Modeling and Assimilation Office (GMAO)*

Plans: Web Plots:

- *Dedicated pages for DCOTSS periods*
- *Animations on longer-term plots*
- *Flight tracks on maps?*

Langley Archive Data:

- *GEOS FP products interpolated in time and space to MMS flight track*
- *Netcdf format*

Download	Filename	Recv'd/Updated	Size (KB)
<input type="checkbox"/>	DCOTSS-DPOPS-AerMP_ER2_20210726_RA.ict	20210726	902.2
<input type="checkbox"/>	DCOTSS-DPOPS-AerMP_ER2_20210720_RA.ict	20210724	1063.5
<input type="checkbox"/>	DCOTSS-DPOPS-AerMP_ER2_20210723_RA.ict	20210724	978.2
<input type="checkbox"/>	DCOTSS-DPOPS-AerMP_ER2_20210716_RA.ict	20210722	1150.0
NEWMAN.PAUL/			
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210819_RB.nc	20210909	66426.2
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210823_RB.nc	20210909	31734.5
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-track_ER2_20210819_RB.nc	20210909	4132.2
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-track_ER2_20210823_RB.nc	20210909	1993.3
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210817_RA.nc	20210825	63584.4
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-track_ER2_20210817_RA.nc	20210825	3957.0
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210814_RA.nc	20210817	65615.8
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-track_ER2_20210814_RA.nc	20210817	4082.2
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210810_RA.nc	20210812	71829.4
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-track_ER2_20210810_RA.nc	20210812	4465.3
<input type="checkbox"/>	DCOTSS-GSFC-GEOS-curtain_ER2_20210806_RA.nc	20210810	52822.3

- DCOTSS-GSFC-GEOS
- “track” files: q(time)
- “curtain” files: q(time, pressure)
- All prelim data submitted

Plans: Langley Archive Data:

- *Public versions after MMS public versions appear*
- *Need Langley-standard names for some quantities*
- *MERRA2 data if desired*

2. Flight Planner

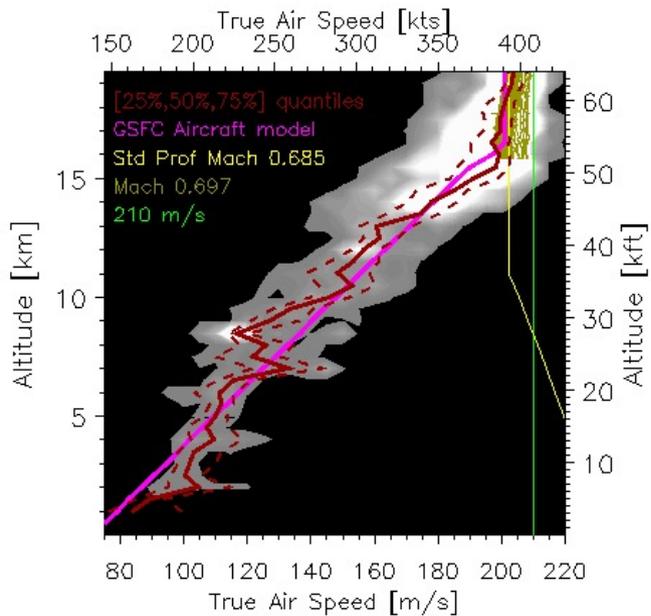
Software, instructions, video tutorials at:

https://acd-ext.gsfc.nasa.gov/People/Lait/Missions/flight_planner/

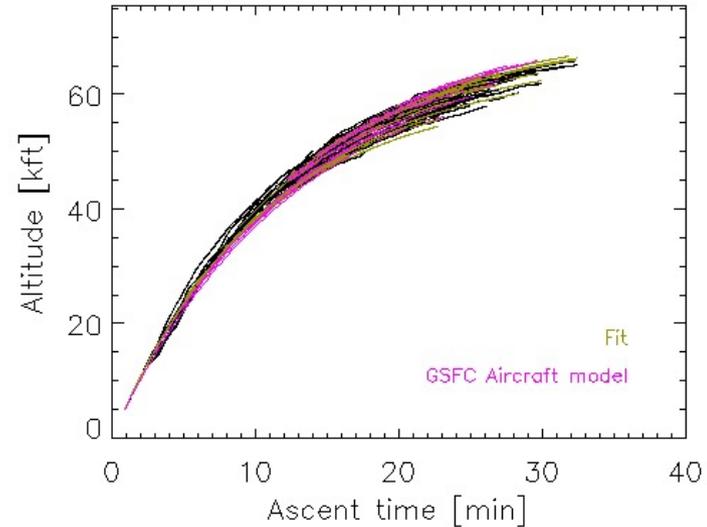
- *TAS and Ascents calibrated against NASA809 w/ DCOTSS payload*
- *Trajectory parcel density plots*
- *New Tropical Tidbits displays, w/ labels*

Flight Planner

Rel. Population of ER-2 Air Speeds



ER-2 Ascents (all flights)



Plans: Flight Planner

- *Internal improvements*
- *Enhancements to plan editing*
- *Suggestions???*