

Highlights

- Two up/two down - Twin Otter & G-1 Up Today
- Weather continues hot & humid with ozone alert
- Upcoming Events

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The Daily Plan-it

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The fun never ends - high levels of ozone inland!

Today's Weather

According to the weather forecasters, the weather today will be much the same as yesterday - very hot (100 degrees F) and humid with light west-southwest wind this morning backing around to the southeast by late morning/early afternoon. Ozone hot spots under these conditions should be north and east of the ship channel. It was speculated - given the entrenched larger scale circulation pattern - that today's Houston-Galveston plume would be heading towards the Tyler-Longview-Marshall area. Macroscale transport continues to be dominated by a high pressure system over southern Louisiana.

A continental "cool" front continues south and a bit east and has progressed to central Alabama & Georgia but is not expected to influence our weather. With the mid south getting a break from ozone, the new "hot spots" for today - according to the EPA AIRNOW - are Houston and the FL/AL Gulf Coast

Electra N308D



The NOAA/NCAR Electra is experiencing a "hard" down day today but is tentatively planning a Sunday flight.

Friday's flight began at 12:45 PM and lasted for about 4.5 hours. Among the more interesting scientific tidbits were the following. The mixed layer over the Gulf was about 2000 feet and exhibited about 60 ppb ozone. In contrast, the mixed layer over land northeast of Houston was about 6100 feet with a background ozone concentration of about 90 ppb. The maximum ozone level encountered - northeast of the city & north of the ship channel - was 128 ppb. Peak carbon monoxide readings were about 350 ppb in the Houston plume. The Electra accomplished a "missed approach" at La Porte before returning to Ellington.

Tomorrow's possible flights include a south to north "ladder" progression - with east/west "rung" to characterize chemistry upwind, over and downwind of Houston from the Gulf to well to the north of downtown or a day-into-night tracking of the Houston plume ostensibly to the north and east of the Houston area. The final flight selection will be made following tomorrow's 7:30 AM briefing.

G-1 N701BN



The DOE G-1 left Ellington Field yesterday at about 9:20 AM this morning for an 2 hour flight over Galveston Bay and the Gulf. Flight

plans called for boundary layer traverses around the ship channel to encounter polluted air as well as a vertical profile taking us above the boundary layer into cleaner air. The 1500 foot msl transect - well within the mixed layer - revealed background ozone to be about 80 ppb with "very high" peroxide levels of 10 ppb. The 7500 foot msl transect found background ozone of about 40 ppb.

The G-1 is planning a "hard" down day on Sunday.

DC-3 N56KS



On Friday, August 18 the DC-3 flew a criss-cross pattern over the Houston metro area starting in the east over Baytown and progressing westward towards downtown Houston. The pattern was repeated twice and consisted of multiple N-S flight legs of varying length. During the second pass the flight legs were extended to about 40 nautical miles north of Houston to sample the leading edge of the urban plume. At various locations north of Houston, mixed layer ozone concentrations of more than 100 ppbv were found with peak values around 130 ppbv. Mixed layer heights as high as 7400 feet were encountered. Background values in the lower free troposphere were around 60 ppbv.

For Sunday, another urban plume mission is planned for the DC-3. The flight pattern consists of multiple E-W transects starting about 20 nautical miles south of Houston and the ship channel and extending well to the north of the Houston metro area. The pattern will be flown twice. During the repeat, the pattern will be shifted north to account for the drift of the urban plume. The flight level will be 10500'. Projected takeoff is 12 PM and the duration of the flight will be 5-6 hours.

Twin Otter Flight



The TNRCC/Baylor Twin Otter departed at 1430

yesterday afternoon to conduct a test run of the Bay breeze characterization flight plan (see the web). The bay breeze occurs when the synoptic conditions are weak relative to local forcing and typically begins between 1000 and 1400 when the land becomes warmer than the water in Galveston Bay and air starts to flow toward the warmer land. This flow continues until - at least - an hour after nightfall. The 2.5 hour flight included a vertical box climb over Galveston Bay to 10,000 feet to provide vertical profile information about the over-water mixed layer and above. The plane then traversed the coastline, 10 miles inland at 5 mile increments, from a point East of Baytown to Texas City in search of the Land-Bay Breeze convergence boundary. If the flow reversal zone is located, canisters for volatile organic compound (VOC) analysis are taken on either side of the boundary. The flight continued to the West side of Houston over the Bayland Park ground monitoring site and traversed northward to I-10, passing close to the Williams Tower monitoring site. Turning East the plane traversed the Houston I-10

corridor to collect a series of canister samples for VOC analysis at predefined points that represent the urban emissions and ship channel emissions. The plane then proceeded to LaPorte airport to conduct a low level pass and return to Ellington Field.

Upcoming Events

Aerosol Group Meeting - Every Tuesday at 2:00 PM (Ellington, CapRock Building)

LaPorte Team Meeting - Every Tuesday at 3:00 PM (Ellington, CapRock Building)

Science Overview Meeting - Tuesday, **August 22nd** - 8:00 PM (Ellington, CapRock Building)

Media Day - Thursday, **August 24th** - 2:00 PM (Ellington, Southwest Services)

VIP Day - Wednesday, **August 30th** (Ellington, Southwest Services)

The Garrulous Gourmet - Mogul Indian Restaurant

By Elizabeth Neilsen-Gammon
The Mogul Indian Restaurant (2416-A Bay Area Boulevard, 281 480-3097) is well worth a try. Lunch is M-F 11A-2P, Sat. & Sun. Noon-3P and dinner is M-Sat. 5-10P. John & I had a wonderful meal there on 8/17/00. The appetizers include both vegetarian and non-vegetarian fare. We had the Chole Aloo ki Tikki (potato patty served with spicy chickpeas). Both John and I thought this was divine, and when the garlic naan arrived the smell was truly heavenly.

The restaurant has a tandoori oven & serves the traditional tandoori dishes - beryani, chicken, lamb, seafood and vegetables. We shared the lamb Hyderbadi (spicy, hot lamb curry with a blend of ground peppers and cilantro - this is not your typical yellow curry - and the Bagara baigan (whole baby eggplants stuffed and sauted). I preferred the lamb and John preferred the eggplant. The only problem with

the lamb was that it was not as hot & spicy as I like! Most people should be able to find something enticing to their palate. For dessert John chose Saeb hi kheer (a creamy and aromatic saffron and cardamom apple dessert) which he thought was very good. I had the pistachio kulfi - a saffron flavored pistachio ice cream. This dessert is reserved for special occasions. I love this dessert and this was one of the very best versions I have ever tasted.

Service was quick and efficient and the staff were very nice. The surroundings are pleasant and clean. Inexpensive to moderate prices. Three and one half stars. ★★½

Trooper of the Day



Bill "Conscientious" Kuster

The Trooper of the Day award is presented to that TexAQS participant that has gone above and beyond the call of duty. In this case, Bill was kind enough to help out the FedEx guy by delivering a very large & heavy package to Elliot Atlas at the NASA hangar this morning. Many hands make light work! Please submit your nominations for TOTD awards to Bill Parkhurst at 281 929-1104.

Thoughts for the Day

I may not have a lot, but I would give it all up for just a little more.
-Montgomery Burns
Somewhere on this globe, every ten seconds, there is a woman giving birth to a child. She must be found and stopped.
-Sam Levenson