

Highlights

- Possible Flow Reversal - Precipitation Chances Rise
- Twin Otter & G-1 flying today. All up tomorrow.
- VOC Intercomparison Study

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- Upcoming Events
- Restaurant Review - Bay Area Blvd. Gumbo
- Thoughts for the day

The Daily Plan-it

*The TexAQs 2000
Field Study Newsletter
Issue 7
August 21, 2000*



Chinese Proverb - May You Live in Interesting Times

Late Breaking News Flash

Telephones at the SWS Hangar!!!
Praise be to TNRCC's money and
Cathy Burgdorf's persistence!

- DOE G-1 - 281 922-5064
- Baylor Twin Otter - 281 922-4678
- Fax - 281 922-4723

Weather Wizards

Texas A&M University students Karl Schulze, and Stephanie Naumann provided the weather forecasts today. Evidently, today's anticipated land breeze was disappointingly weak to nonexistent overnight. The good news is that precipitation chances remain relatively low (probabilities in the teens this late PM) as the air continues to be relatively dry aloft. The light south-southeasterly winds this AM should enhance the afternoon bay breeze this afternoon.

Dick McNider did the ozone forecast this afternoon - a frightening concept in and of itself - which suggested that ozone would peak downtown and the near north side of the city. Based on the 3 to 4 PM ozone readings, it appears that ozone was highest (140-150 ppbv) just southeast of downtown and over the western part of the ship channel. One hour later (4 to 5 PM), the ozone

appeared to have moved further west with the downtown ozone being titrated by fresh NO.

According to the afternoon met update, tomorrow should be much the same as today with - perhaps - a greater likelihood of the land breeze/bay breeze one-two punch.



**What a difference a day makes!
Downtown Houston from the west**

There is an increased probability of precipitation this evening and then again tomorrow evening.

The macroscale circulation pattern - providing a south-southeast flow above the boundary layer - is still dominated by a high-pressure ridge running from the Carolinas through central Louisiana.

Electra N308D

Following the day-into-night flight yesterday evening, the NOAA/NCAR Electra did not fly today but is planning for a land to sea breeze characterization flight tomorrow (Tuesday, August 22) beginning at about 12 noon and lasting for about 6 hours. The preliminary flight plans call for a series of east-west oriented legs beginning south of Houston along the Gulf and proceeding northward across Houston and the ship channel and then to the north of Houston. All flights will be in the mixed layer at altitudes of 2, 3.5, and 5k feet msl. Best news of all, for many, is that the air conditioning is fixed!

G-1 N701BN

A morning flight is planned for the G-1 on Tuesday, August, 22. The flight will have a 9:30 AM takeoff with sampling concentrated to the south and west of Ellington including several

traverses over Galveston Bay and the ship channel. The G-1 will also pass by the Williams Tower and cross the I-10 corridor. Profiles will be done over the Bay and over land. The expected flight duration is 2:45 hours.

DC-3 N56KS

Following yesterday's 5.5 hour flight over Houston and to the east - evidently all the way to western Louisiana - the DC-3 will not fly today. The maximum reported ozone was approximately 150 ppbv over the Baytown area. Christoph Senff reported a "very polluted, hazy layer of air" over southeast Texas. Christoph also reported that their flying time is limited not by the plane - which can fly for 9 to 10 hours at 130 knots - but by the laser which can only operate at spec for 5 to 6 hours at most. This laser efficiency, however, represents, a substantial improvement over last year's Nashville missions which were restricted to 3 to 4 hours.

Highlights from previous day's flight - On Sunday, August 20th the DC-3 flew a criss-cross pattern over and north of the Houston metro area. The pattern consisted of multiple E-W flight legs of varying length. The southernmost flight leg was located just a few miles south of Ellington Field, while the northernmost transect was about 30 nautical miles north of Houston. The highest ozone concentrations of around 150 ppbv were found approx. 15 nautical miles NE of Baytown in the same general area where the G-1 had encountered very high ozone values the day before. The mixed layer was up to 2500 m deep.

Tentative flight plan for Tuesday - For Tuesday, August 22nd a mission to study pollution levels near the sea breeze front is planned. We will fly a couple of small box patterns perpendicular to the sea breeze front. Each pattern will be repeated a few

times. As the sea breeze migrates inland we will change the location and orientation of our flight patterns accordingly. The flight will be at 10,500 feet msl. Projected takeoff is 11:30 AM and the duration of the flight will be about 4 hours.

Twin Otter N153BU

Tomorrow, conditions willing, the Twin Otter will fly two bay breeze characterization flights - one in the early morning to characterize inflow and one in the afternoon to characterize flow reversal conditions.

VOC Intercomparison

A number of investigators are attempting to characterize the complex mix of volatile organic compounds (VOCs) that are present in the Houston air. Several groups will be collecting canister samples for analysis by either GC/FID or GC/MS:

- Bill Lonneman, EPA - Baylor/TNRCC Twin Otter, ambient and source samples
- Paul Doskey, Argonne National Lab - Williams Tower
- Jochen Rudolph, York University - DOE G-1
- Elliot Atlas, NCAR/NOAA Electra
- TNRCC/Austin - PAMS sites
- University of Texas - SuperSites,
- STL (Sevren Trent Labs) - HRM sites.
- In addition there are several groups conducting *in-situ* VOC analyses using a variety of techniques:
 - Paul Golden, NCAR/NOAA Electra
 - Armin Hansel, University of Innsbruck & NCAR/NOAA Electra
 - Bill Kuster, NOAA - La Porte
 - Tom Jobson, NOAA - LaPorte
 - Thomas Karl, University of Innsbruck - La Porte
 - TNRCC PAMS sites

•Dan Reimer, University of Miami - La Porte

A series of parallel analyses are planned for the TexAQS to evaluate the comparability of the data analyzed by the various techniques being employed. Eric Apel of NCAR and Dan Reimer of the University of Miami have circulated a series of standards and whole-air samples among this group prior to the beginning of the study. In addition, canister samples will be collected at La Porte every second day during the study, beginning this Wednesday, and circulated for analysis among the various groups listed above. A total of ten such comparisons are planned.

This group will be meeting weekly at the study headquarters at Ellington to discuss early results. The next meeting is scheduled for next Tuesday, August 29 at 3:00 PM. The VOC comparison is being coordinated by Eric Apel of NCAR, Dan Reimer of the University of Miami, and Jim Meagher of NOAA.

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 - Bay Area Gumbo

Numerous local recommendations by Ken Rozacky's cousin, Dianne

Heitmann. Here is a compendium, a veritable plethora, of dining possibilities in the Southeast Houston/Clear Lake area.

Peny's Grill (487 Bay Area Boulevard). Great for steak and a world famous "mile high" pork chop - the pork chop from hell.

Tommy's Patio Café (2555 Bay Area Boulevard). Seafood just like New Orleans. Known for best crab cakes in town and a "to-die-for" bread pudding. There's even Cajun music on Wednesday and Saturday evenings.

La Familia (NASA One). Wonderful Tex-Mex & good margarita's. All entrees under \$10.

Italian Café (4622 NASA One - Next to Arlan's). Bring your own beverage (he has the corkscrew and glasses) and let Frank prepare a gourmet meal. Chicken Picatta & Eggplant Parmigan are great.

Franco's (1101 E. NASA One). Great pizza and a wonderful buffet salad bar.

Laura's Tea Room (2339 Bay Area Blvd. next to the TLC Shop). For the more refined amongst us, has wonderful salads, quick lunches & desserts.

T-Bone Tom's Meat Market Steakhouse Restaurant (707 Highway 146). Good bar-be-que and has awesome chicken fried steak - you can almost feel your arteries closing off as you eat!

Miller's Café (2403 Bay Area Blvd. Near Kroger). Has the worlds best & greasiest hamburgers, fries, and onion rings. They will make you sweat.

Ashley's Donuts (2160 Bay Area Blvd.) Best donuts in town and they even have beignets.

And finally, the *piece de resistance* (to be spoken with a snooty French accent)... **Mother's Laundry Room**

(3146 E. NASA One). It's unique. Wash & dry to classical music, sip your wine (that you bought next door at Spec's) and watch the news or play pool & video games. The proprietor (Larry) will also do your wash and have your dry cleaning done.

Thoughts for the Day

For Dick McNider

"I've got a Caribbean soul I can barely control and some Texas hidden here in my heart..."

-Jimmy Buffett

"For a moment, nothing happened. Then, after a second or so, nothing continued to happen."

"(His) study was a total mess, like the results of an explosion in a public library."

-Douglas Adams