## Highlights

- Weather Report - Continuing Chance of PM showers
- Texas/Louisiana Wildfires - September 4th & 5th
- TexAQS Airforce - G-1 to Fly Today

## Inside

- End o' Study Barbeque - Nassau Bay City Park Tonight
- Trooper of the Day - Gerd Hübler
- Thoughts for the Day

# The Daily Plan-It

*The TexAQS 2000*
*Field Study Newsletter*
*Issue 27*
*September 11, 2000*

2000 The Texas Air Quality Study

## "As the days dwindle down to a precious few..."

### Weather Forecast

John Nielsen-Gammon provided this morning's weather forecast. Background ozone levels in the greater Houston area are quite low today. The 6 to 7 AM hourly average is highest at LaPorte (20 ppbv) and Clute (14 ppbv) with single digits most everywhere else.

Under southerly flow, yesterday's maximum surface levels of hourly ozone occurred north of downtown Houston - at Conroe (83 ppbv) from 4 to 5 PM and Aldine (71 ppbv) from 1 to 2 PM. For the fourth consecutive day, no Houston area monitoring recorded a preliminary hourly average in excess of 120 ppbv.

With the exception of somewhat lighter winds, southerly flow should continue to bring moisture, clouds and a substantial chance of isolated thundershowers to the Houston area - 20 to 30% - this afternoon.

Tomorrow's rain chances are similar to today. The precipitable water content of the atmosphere remains elevated. The winds will continue to be from the south and should remain light. Consequently, there is a 50/50 chance of a land breeze/sea breeze recirculation pattern for Tuesday.

The next meteorology/aircraft planning briefing will be 7:30 AM tomorrow (Tuesday, August 12).

### Where there's smoke...

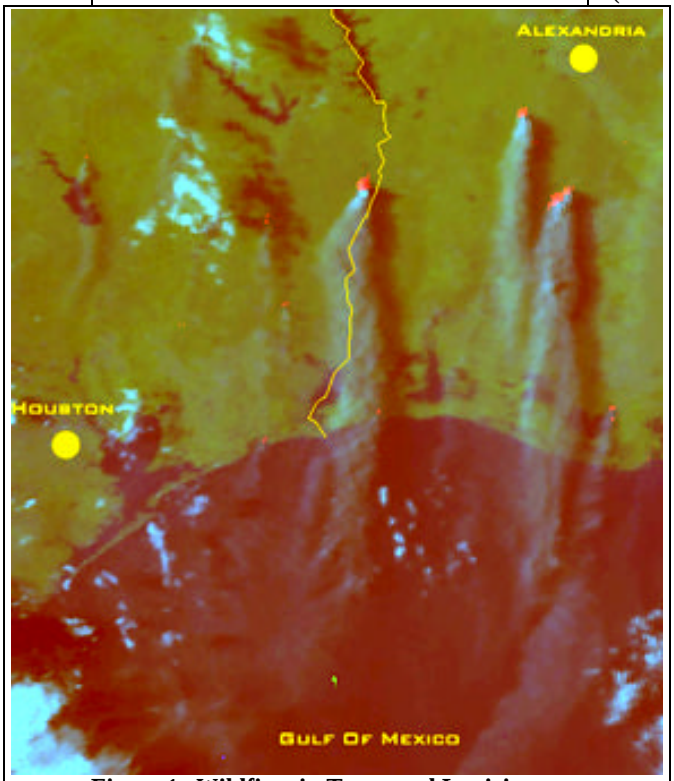



**Figure 1. Wildfires in Texas and Louisiana on the afternoon of September 5, 2000 Courtesy of NOAA**

Although recent rains have largely quenched regional wildfires, the events of this past week will provide some more scientific grist for the TexAQS 2000 participants to ponder as they begin to assemble - and interpret - the massive database.

**Figures 1 & 2** are courtesy of NOAA imagery system on one of the NASA GOES satellites (Geosynchronous Operational Environmental Satellite).

The first-person story below is courtesy of Jeanne Waters' brother-in-law, Cyril LeJeune, who works with the Louisiana Forest Service.

"The fires south of Alexandria burned 30,000 acres of timberland in about 12 hours. Nothing we did could stop it until late at night when wind slowed and humidity rose. Amazingly, only about 3 people lost their homes in this fire. It stretched to almost 8 miles long and 5 miles wide.

NOAA's picture [**Figure 1**] is amazing. Those smoke plumes are over 100 miles long. Ask TexAQS to print one of these on glossy poster paper to commemorate the daring firefighters who literally risked their lives to fight this one.

Louisiana's ten-year average for wildfire losses is about 37,000 acres per year. This one fire burned 30,000 acres in one day. Since August 31, we have lost about 50,000 acres. I've manned our command post all night the last 2 nights. We have used hundreds of firefighters, National Guard ground troops, water dropping helicopters, DC-7 air tankers and anything else we can find on standby to get these things stopped.

The fire on the left forced evacuation of much of Newton, Texas and burned 12,000 acres."

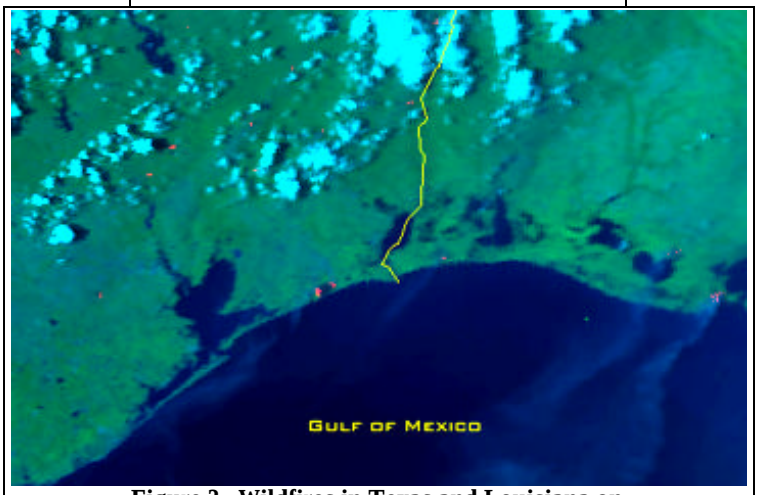



**Figure 2. Wildfires in Texas and Louisiana on September 4, 2000. Note the marsh fires between Houston and Beaumont/Port Arthur. Courtesy of NOAA**

**Figure 2**, taken the previous afternoon (September 4th) shows the marsh fires in Louisiana & Texas.

## Electra N308D

Yesterday, the Electra conducted a power plant plume characterization study flight over east-central Texas. The Electra flew a series of parallel east-to-west oriented transects upwind (south), over and downwind (north) of several power plants between Austin and Dallas.

Under less-than-ideal photochemical production conditions, the power plant plumes produced ozone about 10 ppbv over background levels. The highest ozone concentrations encountered (80 ppbv) by the Electra were above the boundary layer and, possibly due to a stratospheric intrusion. Associated carbon monoxide levels were quite low indeed (60 ppbv).

With the exception of it's final flight home to Boulder, CO, this was the Electra's final flight for TexAQS 2000.

## G-1 N701BN

The G-1 flew north of the Houston area to study emissions from the Alcoa aluminum plant - and nearby power plants - northwest of College Station. The G-1 left Ellington at 2:30 PM. Following the Alcoa flight, the G-1 returned through the Houston I-10 corridor. Thanks to the late afternoon thunderstorms, **Birthday-Boy** Larry Kleinman said it was the "cleanest Houston air he's even seen."

Today, the G-1 will conduct an aerosol physics & chemistry flight over the Gulf to examine sea salt aerosols and north of Houston to examine overland aerosol production above and within the boundary layer. The G-1 will leave Ellington at 9:30 AM. Total flight time should be 3 hours with the G-1 returning to Ellington at 12:30 PM. Following today's flight, it is my understanding that the G-1 will have only one research flight remaining.

There is considerable interest in pairing the G-1 and Twin Otter for a final intercomparison flight. While there is the potential for a G-1 flight tomorrow, as of this writing, no specific plans have been made.

## DC-3 N56KS

The DC-3 will not fly today but will be ready on Tuesday, weather permitting. The DC-3 has one more research flight remaining before returning to Virginia.

## Twin Otter N153BU

The Twin Otter did not fly today.

The Twin Otter is available tomorrow, if weather permits.

Preliminary plans are to conduct two flights tomorrow. The morning flight - from 7 to 9:30 AM - will characterize land breeze conditions and make multiple passes over the LaPorte surface site. The afternoon flight - from 1 to 3:30 PM - will characterize the bay/sea breeze conditions plus ship channel source emissions. The afternoon flight will also include multiple passes over LaPorte.

The Twin Otter is also hoping to get another intercomparison flight with the G-1.

## Upcoming Events

**End o' Study Barbecue** - **Today** (Monday, September 11th) from 5 to 10:30 PM at Nassau Bay City Park. Hot grills, plates, cups & utensils will be provided but you will need to bring your own food & drink. Spirits are permitted - assuming you're of legal age - but **no glass** is allowed in the park. Stop by the CapRock for directions.

**Computer Network Termination** - Monday, September 18th. The offices at LaPorte and Ellington Field will have internet and printing access

through the 18th. After that, Cathy's packing it up and going home!

**Daily Meteorological and Aircraft Planning Meetings** - 7:30 AM and 1:00 PM (Ellington CapRock Building, Conference Room).

**Dr. Peter Daum** - Speaks at the University of Houston-Clear Lake at Noon on Wednesday, September 13th, in Room1438 of the Bayou Building.

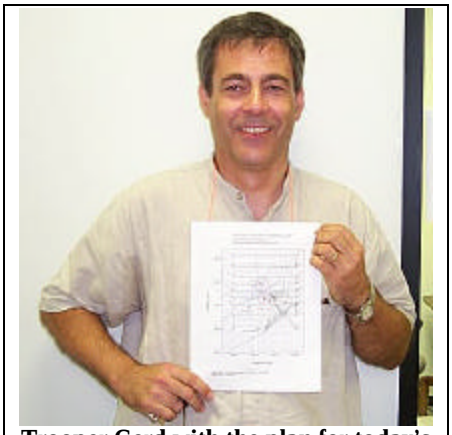
**Aerosol Group Meeting** - 1:00 PM at the University of Houston-Clear Lake on Wednesday, September 13th, in Room1438 of the Bayou Building.

**LaPorte Team Meeting** - 2:00 PM at the University of Houston-Clear Lake on Wednesday, September 13th, in Room1438 of the Bayou Building.

## Trooper of the Day

Gerd Hübler - nominated by Eric Williams - is today's Trooper of the Day. As Eric so eloquently puts it - "(I)n my opinion, if it weren't for Gerd's hard work and perseverance, the Aeronomy Lab wouldn't have had a plane here in Houston."

Gerd, once again, has fought the good fight and his ebullient sense of humor, wit and wisdom are universally recognized and appreciated by all TexAQS participants. Now, if he could only hang on to those pointers…



**Trooper Gerd with the plan for today's "flight that was not to be."**

## Thoughts for the Day

It is good to have an end to journey toward; but it is the journey that matters, in the end.

–Ursula K. Le Guin

Out of clutter, find **Simplicity**.
From discord, find **Harmony**.
In the middle of difficulty lies **Opportunit**y.

–Albert Einstein

"Nothing great was ever achieved without enthusiasm."

–Ralph Waldo Emerson

"Do all the good you can, by all the means you can, in all the ways you can, as long as ever you can."

–John Wesley

"Do what you feel in your heart to be right - for you'll be criticized anyway. You'll be damned if you do and damned if you don't."

–Eleanor Roosevelt