

## Highlights

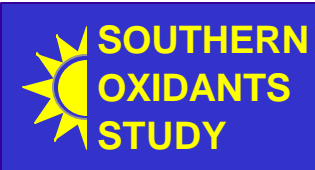
- Unsettled weather today , could clear tomorrow.
- SOS Airforce down today. P-3 and Caribou fly Sunday.
- TVA helicopter home for the weekend.

## Inside

- Tennessee Pollution Prevention Roundtable.
- Picture of our Congressional Guests!
- 1999 SOS Field Study T-shirts. Want one, see Bill.

# The Daily Plan-it

*The SOS Field Study  
Newsletter  
Issue 22  
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## News to use from around the SOS world

### Weather Update



Today's unsettled weather may start to settle down tomorrow morning—if the front keeps moving, that is. Earlier, the weather team believed there was a reasonable expectation of clearing on Sunday afternoon, but more recent forecasts indicate that the cold front may stall out over or just to the south of Nashville as the high pressure system slips off more to the east than southeast. If this happens, then all clearing bets are off for tomorrow. Over a bit longer term, say 36 to 48 hours, things look to be improving once again.

### SOS Airforce Schedule

With the hopefully improving weather, Both the **P-3** and **Caribou** are planning to take to the air on Sunday, July 11<sup>th</sup>.

The **WP-3D Orion** will depart BNA at about 11:00 AM CDT for a 7-hour flight entailing a series of power plant characterization studies looking—potentially—at the emissions of the Clifty, Gibson, Paradise, Johnsonville and Cumberland power plant plumes. The targets of choice are the Gibson and Paradise plants with the others representing potential “fall back” options. All of these plume studies will be flown at about 1500 ft AGL with en route calibrations from 10000 to 20000 ft. Each study will entail a series of progressively longer crosswind transects downwind of these plants following one or two upwind transects to characterize background conditions.

The **Caribou** plans a middle Tennessee flight west of Nashville. It will depart John Tune Airport at approximately 12:00 noon CDT for a 4 hour power plant plume characterization flight. The flight pattern will consist of a sequence of 30 to 50 nautical mile (n mi.) long crosswind transects following the TVA Cumberland and Johnsonville power plant plumes, at a separation of about 9 n mi. The first crosswind leg will be flown ~3 n mi. upwind of Cumberland Plant. The current forecast is for northerly transport winds. Precise pattern orientation will

depend on wind direction. The flight will be flown at 10500 ft MSL.

### TVA Helicopter Home

The ride was getting even bumpier than usual, so the TVA helicopter flew back to Muscle Shoals this weekend for a little dynamic wing balancing. The helicopter crew is standing down this weekend and with any luck at all, they'll be back on Monday morning with the improving weather.

### TN Pollution Prevention Roundtable

On the morning of July 8<sup>th</sup>, while many of us were entertaining the Congressional Staffers, Bill Parkhurst made a presentation on the 1999 SOS Field Study to the Tennessee Pollution Prevention Roundtable. Invited by Janice Nolen of the American Lung Association, Bill was asked to describe the SOS field study in broad and simplistic terms—which, as Jim would say, is good since Bill is both broad and simplistic.

In any case, it was a privilege to speak to this fine organization. The TN Pollution Prevention Roundtable is made up of a mix of representatives from industry, state and local environmental regulatory groups, and

various national health and environmental advocacy groups.

After discussing some of the 1995 results—particularly those pertaining to (1) relative source-related ozone production efficiencies, (2) VOC-limited vs. NO<sub>x</sub>-limited ozone production, (3) the role of biogenic VOCs, and (4) the “home grown” July 12, 1995 ozone episode—I enumerated the three 1999 study themes of better characterizing (1) local vs. regional contrasts & similarities, (2) ozone and PM formation in urban and point-source plumes, and (3) diurnal cycles in chemistry and meteorology.

I attempted to place our technically complex scientific work in the larger context of the development and refinement of regulatory management tools (i.e., models) and the recent revisions to the National Ambient Air Quality Standards for ozone and fine particulates.

The group certainly took particular notice after I suggested that—based on the past 3 years of Tennessee ozone data (from 20 state monitoring stations) and 2 years of PM<sub>2.5</sub>

and monitoring data (from the TVA/Tennessee Valley Regulatory Group prototype monitoring



network)—that most Tennessee cities and possibly some rural areas, as well, would be considerably challenged by the new stringent standards.

All in all, a most rewarding and interesting meeting.

### '99 SOS T-Shirts Available

Please see Bill Parkhurst to receive your very own 1999 SOS Nashville Air Quality Field Study T-Shirt. We have them in M, L, XL, XXL, and even a few XXXL's. All Bill needs are your proper name, e-mail address, and phone & FAX numbers.

### Thoughts for the Day

**“There is one thing even more vital to science than intelligent methods; and that is, the sincere desire to find out the truth, whatever it may be.”**

- Charles Sanders Pierce

**“The great tragedy of science—the slaying of a beautiful hypothesis by an ugly fact.”**

- Aldous Huxley

**“We've got to pause and ask ourselves: How much clean air do we need?”**

- Lee Iacocca

**“Caution: Cape does not enable user to fly.”**

- Batman costume warning label