

Highlights

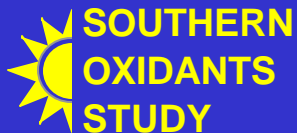
- SOS weather wizards right more than 90% of time!
- Special thanks to the Tennessee Department of Health.
- Airforce to check out power plant plumes today.

Inside

- Get your FREE T-shirt soon to avoid last minute rush.
- Jack's Ramblings to Franklin and Stones River.
- Thoughts for the day.

The Daily Plan-it

*The SOS Field Study
Newsletter
Issue 24
July 12, 1999*



Valuable information from around the SOS world

100 percent right most of the time!

Like Rush Limbaugh, Dick McNider has achieved an enviable forecast record during the 1999 SOS Nashville field study. Also being a good mathematician, Dick, unlike Rush, knows enough to couch his answers in a probabilistic fashion. In this manner he can take credit for good results and "punt" the bad ones to the vagaries of statistics. Dick, forecaster extraordinaire and all around great guy leaves us today for a trip to Colorado, Wyoming, and the Grand Teton National Monument.

Benjie Norris is now officially in charge of the SOS weather team. And, as Benjie says, "I sure hope we get a forecaster." With any luck, the **Norris-Coleman-Myers UAH Weather Team** will be up and running tomorrow morning. Tomorrow's weather appears to be an almost mirror image of today's with perhaps somewhat lighter winds from the north-northeast.

SOS Thanks to...



Tennessee Department of Health

During the last few days of the 1999 SOS Field Study we will take a few lines to mention a few of those largely unknown and unheralded people who have done so much to make the 1999 SOS Field Study a success.

During the study, the Department of Health has: (1) "hosted" several of our hydrocarbon scientists in the State Laboratory on Hart Lane, (2) provided a home for the Heidelberg DOAS system, and (3) provided performance audits for the Dickson, Downtown, and TVA helicopter gas measurement systems. Special thanks

go out to **Robert Worthington, Gloria Mickle, Charlie Mickle, Radford Strong, and Cass Satterfield.** We most certainly could not have done this without you and shall forever remain indebted to you.

SOS Airforce Schedule

All SOS aircraft will be up tomorrow, July 13, 1999.

Today, the **P-3** will depart BNA at about 12:00 noon CDT and head west at 10000 ft AGL while performing initial instrument calibrations. Descending to 1500 ft AGL the **P-3** will fly progressively longer crosswind transects—separated by 15 km—upwind and downwind of the TVA Cumberland steam plant extending to the Tennessee-Alabama state line. At various times during this mission the **P-3** will ascend to above the PBL. Depending on time remaining, the **P-3** will repeat every other leg beginning at about 5:00 PM and returning to BNA at approximately 7:30 PM CDT.

Tomorrow's **P-3** flight plan calls for another Cumberland/Johnsonville plume study and a Nashville urban

plume characterization. The **P-3** will depart BNA at about 12:00 noon CDT and head west at 10000 ft AGL while performing initial instrument calibrations. Descending to 1500 ft AGL the **P-3** will fly progressively longer crosswind transects—separated by 15 km—downwind of the TVA Cumberland steam plant extending to the Tennessee-Alabama state line. At various times during this mission the **P-3** will ascend to above the PBL. Finishing the power plant plume study, the **P-3** will then head to Nashville for an urban characterization study between 5:00 and 6:20 PM CDT before returning to BNA at approximately 6:30 PM CDT.

Tomorrow's **Caribou** flight plan—a mirror image of today's—calls for a sequence of ever-lengthening crosswind transects following the TVA Cumberland and Johnsonville Power Plant plumes, at a separation of about 8 nautical miles (n mi.). Crosswind transect legs will vary from 30 to 50 n mi.. long with the first crosswind leg to be flown ~4 n mi. upwind of Cumberland. As always, precise pattern orientation will depend on wind direction. The anticipated 4-hour flight will begin at 1:00 PM LDT and conclude at 5:00 PM. Nominal altitude during the flight will be 10500 ft MSL.

The **Bell 205** helicopter will plan to depart Dickson Municipal Airport at about 12:00 noon CDT for a flight to study the evolution of the TVA Cumberland power plant plume under

moderate but decreasing wind velocity, low-wind, northwest-to-southeast transport conditions. The helicopter will conduct a series of multiple crosswind traverses of the plume at 10, 30, and 55 mi. downwind of the plant. Flight altitudes will be between 1500 and 3000 ft MSL. The helicopter will refuel in Dickson between the second and third transect distances, and the mission will conclude with a return to Dickson at about 7:00 PM CDT.

SOS T-shirts

See Bill as soon as for your **free** SOS T-shirt. All Bill needs are your name, e-mail address, and phone & FAX numbers. Don't delay!

Jack's Ramblings

By Jack Parrish

Since we can't stray too far, even on down days, here's what my family's been up to lately. One late afternoon last week, we drove into Franklin, as my wife had heard there was a good quilt shop in town. It's called the Patchwork Palace, just south of the town square on Main Street, and my better half Jeanine was happy to spend a couple of hours amusing herself with scads of material while I wandered the town entertaining the kids. Franklin is a beautiful old southern town, with perfectly restored homes, and some super antique and craft shops. Nice looking in-town restaurants, too. Just head south on I-65 and go west a couple of miles on Highway 96.

Going the other way on Highway 96, take that exit east off I-24 into Murfreesboro, then north on US 231 to Stones River National Battlefield. While not as famous of a Civil War site as Shiloh or Vicksburg, there were about 10,000 casualties on each side, and it is a fascinating example of a Union victory where all of the ground taken was done so by the Confederates.

We visited on a weekday morning, when there may have been a total of about 30 visitors, and had one of the rangers to ourselves for about an hour.

Standing in an open field where the charging rebels were finally halted by superior artillery, our guide described the types of ammunition used for different purposes and the awesome sight the south encountered as they reached the river and a line of about 65 Union big guns. This one's free, and well worth the short ride from Nashville.

Thoughts for the Day

“The whole problem with the world is that fools and fanatics are always so certain of themselves, but wiser people so full of doubts.”

-Bertrand Russel

“Real knowledge is to know the extent of one's ignorance.”

- Confucius.