

FRD Video Introduction Text
ARL Lab Review
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Howdy and welcome to the NOAA Air Resources Laboratory Field Research Division. As our name implies, we conduct a wide range of meteorological research with a focus on the specialty of atmospheric dispersion. We're a "can do" group that enjoys working together to improve our understanding of the world we live in.

The division staff is comprised of highly talented meteorologists, physicists, engineers, and technicians. Current and former employees have helped to make the division what it is today. Among the accolades we have received are U.S. Dept. of Commerce gold, silver, and bronze metals. [Some field projects require more hands than the full-time staff can provide, and this provides employment and learning opportunities for student interns from the local universities.]

The Field Research Division is located in southeastern Idaho, in the city of Idaho Falls. It's a great place to live with a multitude of outdoor activities available year-round. We're within a "stone's throw" of some of America's most famous national parks: Yellowstone and Grand Teton. Hiking in nearby Grand Teton National Park and surrounding areas in the summer, and alpine and nordic skiing at adjacent resorts or state parks in the winter are among our favorite pastimes. A day-drive into Yellowstone National Park is often enjoyed by our families.

Idaho Falls is also the headquarters of the U.S. Dept. of Energy's Idaho National Laboratory. Both the INL and the Field Research Division came into being in 1949 as the U.S. began to focus on developing peaceful uses of the atom. The INL is where the world's first electricity was produced from nuclear power. The staff of the Field Research Division were there to provide meteorological support and expert atmospheric dispersion advice.

Today, the division continues its close collaboration with the INL, focusing on toxic and radiological material dispersion into the atmosphere. The expertise of the division's dispersion meteorologists is an integral part of the INL's emergency response organization. A 34-station mesonet operated by the division, covers 10,000 square miles and forms the backbone of the division's dispersion modeling and climate monitoring efforts. The division also relies on an adapted version of ARL's HYSPLIT dispersion model for timely initial consequence assessments should a radioactive release to the atmosphere accidentally occur at the INL.

Our dispersion expertise is even known in international circles. Years ago, we designed and built from scratch an atmospheric tracer field research capability to produce data for the testing and improvement of dispersion models. Now our world-class test capability includes tracer dissemination, {pause} tracer collection, {pause} real-time tracer measurement, {pause} and tracer analysis equipment. Our work has resulted in a number of dispersion model improvements and recommendations, including first responder guidelines for responding to toxic plumes.

We also design and build instrumentation by integrating both software and hardware systems. One example is the Extreme Turbulence Probe, or ET Probe as it is affectionately known. We

designed and built the ET Probe for deployment in hurricanes making landfall to help improve hurricane forecast models. In one of our field deployments of the ET Probe on the Florida coast, Hurricane Ivan crossed almost directly over the probe and we successfully measured peak winds and associated turbulence in excess of 110 miles per hour!

In recent years, we have begun to apply our knowledge and expertise to the study of broader topics in boundary layer research. For example, we are studying mountain/valley wind flows that are important to wildfire modeling for the protection of wildland fire fighters and structures. We are helping to improve wind forecast models for more efficient wind energy production.

Maintaining a division with field research capabilities requires good infrastructure. The division headquarters, located next to Interstate 15, provides ample office space for our current staff of 11 employees. We also have a high-bay work area, {pause} electronic equipment repair and construction facilities, {pause} laboratory space, {pause} metal shop, {pause} and storage facilities.

The division participates in a variety of outreach activities. In collaboration with the INL and the State of Idaho we provide real-time meteorological data and information in 4 kiosks that are located in high-use public areas such as at the Shoshone-Bannock Tribes Fort Hall Emergency Operations Center and the John's Hole boat dock and forebay in Idaho Falls. We have hosted several Boy Scout troops after hours to help them earn their Weather merit badge. And on a personal level, for the last 8 out of 10 years, the division has received the Intermountain Combined Federal Campaign's award for the highest participation rate among all small agencies in the state of Idaho. The CFC is the means for federal employees to contribute to local, national, and international charities.

That's it for now. Stop by the office any time you are in the area and meet the friendly staff at the Field Research Division!