

Transcript.

-Video-

Good Morning, and welcome to the ARL Review. I am Walt Schalk, Director of the Special Operations and Research Division or SORD for short. This video will introduce you to SORD's history, location, capabilities, and people. I hope you enjoy learning about all of our Divisions today, and welcome to SORD.

SORD is located in Southern Nevada and has two locations. The main administrative and research office is located in Las Vegas and the field location is about 70 miles northwest of town. The field site known as the Nevada National Security Site, NNSS or Test Site is a 1375 square mile area, roughly the size of the state of Rhode Island. It is located in the extreme southern Great Basin region of the desert Southwest.

The terrain of the test site varies from flat dry lake beds to mountains and mesas with elevations ranging from 2700 to 7700 feet, and as you can see the climate is arid with limited precipitation, low humidity, intense sunlight, and large daily temperature ranges. Annual temperatures range from -20 degrees Fahrenheit to 115 degrees Fahrenheit.

To really understand what SORD is all about, we need to go back to the beginning, and it started with a Big Bang.

<<BOOM – explosion sound >>

With the advancement of national security research and testing in the 50's and 60's, it became abundantly clear that there was an urgent need to understand and predict where radioactive plume clouds would or could go. It was then that ARL and SORD ancestry began atmospheric dispersion work with the Atomic Energy Commission, which is now the Department of Energy.

Today, SORD provides atmospheric science expertise, high quality data, and applied research in the areas of dispersion meteorology, consequence assessment, climatology, and meso-scale weather forecast modeling.

The data collected are analyzed and then used to support special experiments for national security; fire weather activities on the NNSS; environmental studies, reports, and compliance reporting; climatology studies and reports; and worker safety.

SORD accomplishes this work using facilities in Las Vegas and at the NNSS, a 22 station weather tower network, or mesonet, two precipitation stations, a high resolution lightning detection system, a mobile radiosonde balloon launch capability, a SODAR, and a staff of 6 scientists, technicians, IT, and administration.

In addition, SORD plays host to sensors and weather stations for other OAR and NOAA organizations, including;

- A U.S. Climate Reference Network station for NOAA's National Centers for Environmental Information
- A Surface Radiation Network, or SURFRAD, station for the Earth System Research Laboratory,
- A Ground-Based GPS Integrated Precipitable Water Vapor Network Station for the Earth System Research Laboratory,

- And, an Automated Surface Observing Station, or ASOS, in cooperation with the Las Vegas Weather Forecast Office.

On behalf of the entire SORD Team, I would like to thank you for time and attention and for taking the SORD tour.

<<Music starts – Star Wars Theme, Composed by John Williams, and performed by the London Symphony Orchestra>>