STAR-NWP™

Science and Technology in Atmospheric Research

A Trusted Platform

- STAR-NWP™ is a powerful Numerical Weather Prediction system that enables users to setup and run their own custom forecasts anywhere on the globe
- Runs forecasts 24x7 for the Thailand Meteorology Department, and was selected as the backup forecast system for another country in SE Asia
- Used by the US DoD and Intelligence Community for mission-critical atmospheric modeling
- Runs 24x7 for a major DoD organization as the primary forecast system used by first responders

WHY A CUSTOM FORECAST SYSTEM

STAR-NWP™ was developed to provide government agencies and private industry with their own localized and custom weather forecast systems. It has been adapted for use by even novice weather users and is also used as a training and teaching tool for forecasters, universities, military personnel, and private industry.

STAR-NWP™ is a software program that can be customized to meet a wide range of applications. It was designed to provide an extensible framework that is easily adapted to ingest local observations and integrate with other applications.

Our typical clients require a secure weather forecast platform that assimilates special surface and upper air observations in short cycling intervals and is capable of being quickly modified to cover multiple or fixed regions of interest.

FEATURES

- Launch a forecast anywhere on the globe in minutes
- Custom data assimilation for local observations
- Runs on cloud or on-premises HPCs
- Extensible software for easy addition of customized applications
- 30-year high-resolution climatology mode

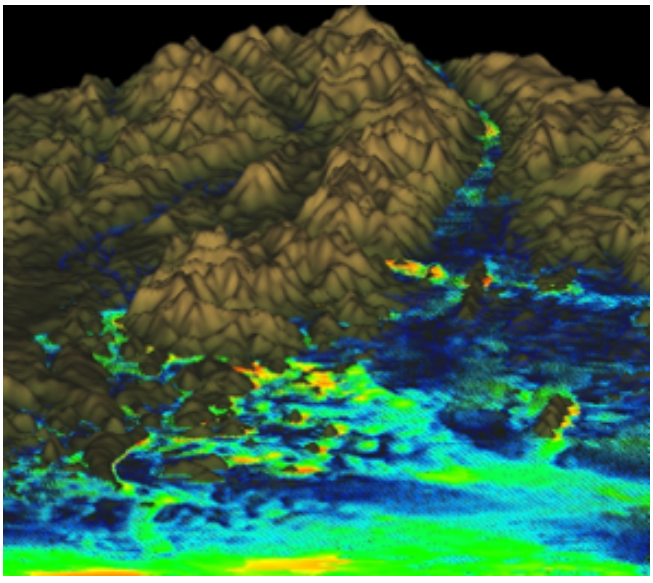
info@llcstar.com

MEETING GLOBAL WEATHER NEEDS

STAR is located in Boulder, Colorado, the U.S. nerve center for atmospheric research and provides science and engineering services to US government agencies, foreign governments, and private industry. STAR's roots are in the U.S. defense, homeland security, and intelligence sectors, specializing in deploying systems to protect high-profile buildings and personnel, cities, and military bases from terrorism involving airborne releases of toxic agents.

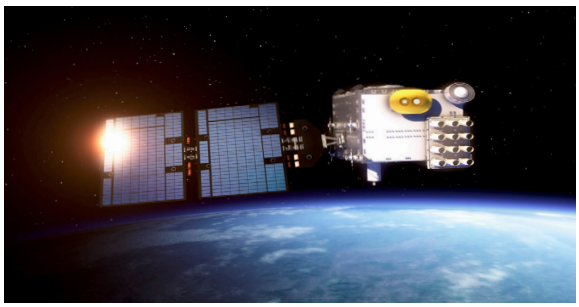
Through developing numerous weather forecasting systems for various clients, STAR recognized the gap between products that a national weather service provides and the specific needs of end-users, which often require custom capabilities that are difficult to derive from publicly available sources. STAR-NWP™ fills that gap by providing a framework capable of assimilating special observations every few minutes, including emerging satellite platforms that produce thousands of GPS radio occultation-based profiles daily.

STAR-NWP™ was built to allow end-users to customize a forecast with a simple user interface, on the cloud or with their own HPC resources. We recently deployed a system for the that fulfills an important role for US national security and runs operationally on the Amazon Web Services GovCloud, a first of its kind for this agency.



STAR-NWP™ operates at resolutions that capture terrain effects on weather

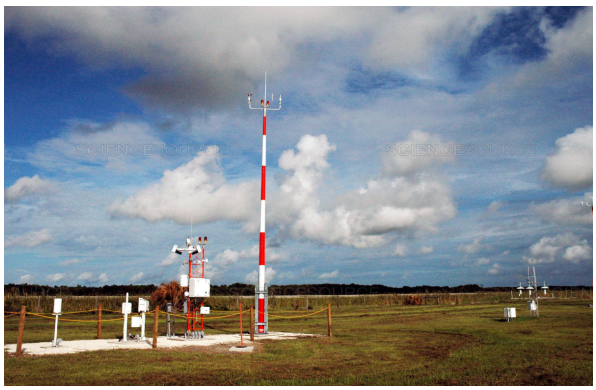
ASSIMILATES MANY TYPES OF DATA



GPS radio occultation profiles

Scanning Doppler LIDAR and RADAR

Wind and thermodynamic profiling



Surface weather stations