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National Severe Storms Laboratory

2021 NSSL Science Review

Observations and Understanding
Deployable Instrumentation used to collect observations

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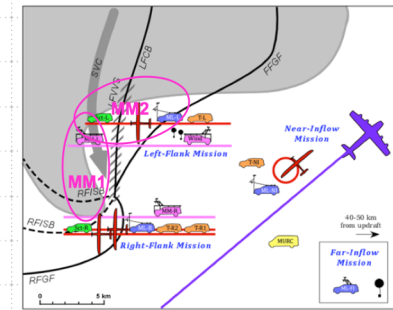
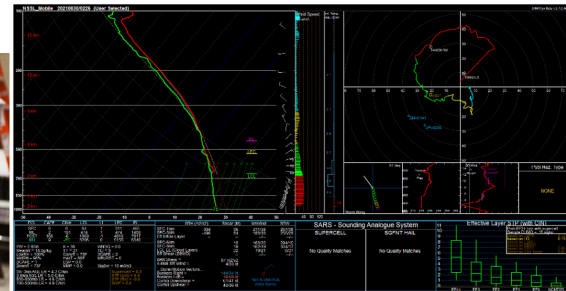
NSSL Instrumentation – Driving observations

FOFS – Field Observing Facilities Support Division

- Support the *entire* Lab’s observational needs
- Develop and deploy innovative technologies
 - Goal 3 of the 2015 NSSL Strategic Plan
 - Goal 1 of the 2021 NSSL Strategic Plan

This is a main charge for NSSL – to observe severe-weather phenomena

Collecting high quality scientific observations is challenging

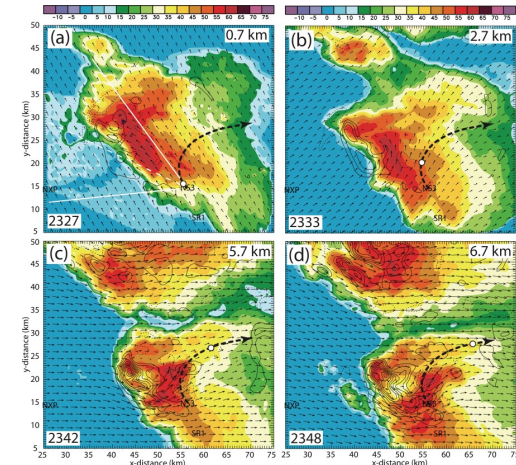


NSSL Instrumentation – Relevance

- To understand severe weather, we must observe it
- New platforms, sensors, locations, strategies
 - NSSL has and will continue to help lead/carry out field programs
 - Understanding processes critical to the production of high-impact weather

- We push observations into regions difficult to sample
- Observing processes in the boundary layer as it relates to severe convection (2021 Strategic plan Goal 1.3)
 - High resolution lightning mapping in fully mobile regions (2021 Strategic plan Goal 1.4)

These observations enhance our understanding and lead to improvements for real-time capabilities (GSC 2, 2015 NSSL Strategic Plan)

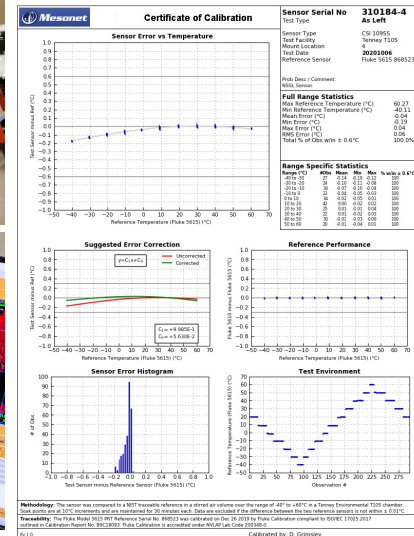
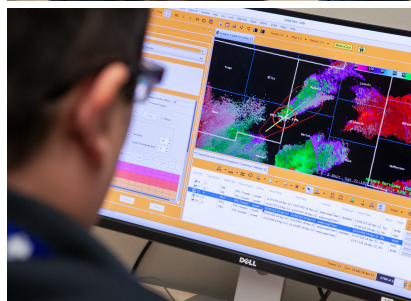
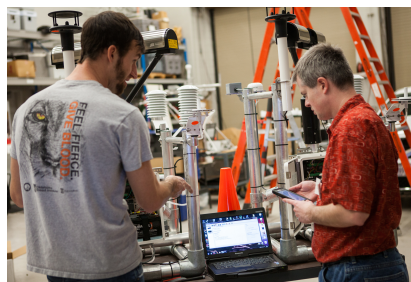


NSSL Instrumentation – Performance



To ensure that our observations are accurate and representative, calibrations are regularly performed on all instruments

- Self-calibration
- Oklahoma Climate Survey (OCS)
- Instrument repair



NSSL Instrumentation – Collaborators

Field programs can be extensive, partnering with outside organizations increases effectiveness and knowledge gained. (2021 NSSL Strategic Plan Goal 1.4)

These partnerships are invaluable to our mission and to the larger scientific objectives.





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Questions for the Instruments panel?

