

Allan W. Geery

Norfolk Elementary School

Norfolk, Arkansas 72658

# About Us

- Small, rural school bounded by a national forest to the west and a Lake Norfolk to the NE
- Town located at the confluence of the White River and the North Fork of the White River
- About 230 students, K-6, a little over 400 total
- Departmentalized science taught in grades 4 - 6

# Our Science Experience

Ten years and over 260,000  
GLOBE measurements

DataStreme

Water in the Earth's System

ESIC - GIS 2003

Exploratorium Teacher Institute

TSGC Lift-Off 2009

# Reflectometer Project

- Measure near IR and broadband incident/direct and surface reflected sunlight
- Compare local data to BalloonSat data made with our instrument package



# ABS-018 Flight

- 31 July 2010
- Launched 0918 CDT
- Alt 83,856 feet
- Landed 13.5 miles downrange

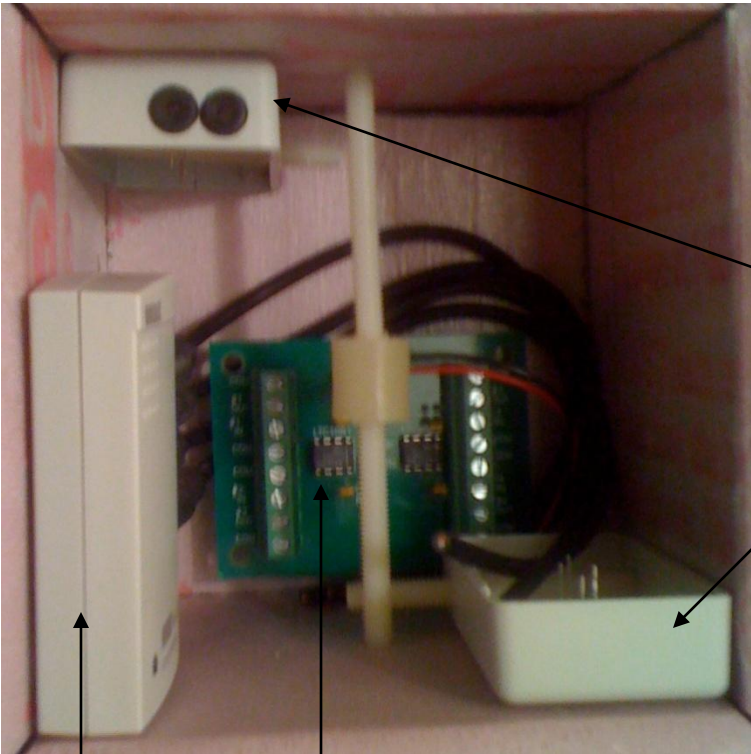


# Prototype Instrument Package

- 1 Upward and 1 Downward facing reflectometer
- a 4 channel amplifier w/ 3-AAA batteries
- a U12-006 HOBO 4 channel datalogger
- 275 gram estimated instrument package weight



# Interior View



Datalogger

Amplifier

Reflectometers

Battery pack  
(not shown)

# Climate Research ?

- Students can relate to local data from reflectometers
- Simplify analysis by comparing data
- Relatively inexpensive
- Serves to excite student interest
- Provides ownership of their data
- Collaboration possibilities abound