Roanoke Valley STEM Teacher Roundtable
April 26th, 2017

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National Weather Service
Blacksburg, VA
Building a Weather-Ready Nation

U.S. Government
Dept. Of Commerce
NOAA
National Weather Service

NESDIS
NOAA Research
Ocean Service
Fisheries
Marine and Aviation Operations
Who is the National Weather Service?

- Hourly Weather Forecasts through 7 days for 40 counties in 3 states.
- Open 24/7
- Warnings and Advisories
- River Forecasts and Summaries
- Climate Summaries
- Fire Weather Forecasts
- Aviation Forecasts
Building a Weather-Ready Nation
Tornadoes rip Kentucky, Indiana; 112 killed, damage in the millions

To pay $165,000

Nixon agrees to heed IRS tax ruling

LOUISVILLE: At least 10 persons killed

KENTUCKY: At least 69 are dead after series of tornadoes strike
Dan Wells, Air Force Association state president, joins Col. Bill Leslie, commander of the 123rd Airlift Wing, in presenting a $500 prize to local high school teacher Dewey Beadle during the AFA’s awards program in November. Beadle, a physics instructor at Louisville’s Seneca High School, was named AFA Teacher of the Year for the Great Lakes Region.
Education Outreach

- VAST (Virginia Association of Science Teachers)
- School Presentations (6th grade and older)
- Office Tours (6th grade and older)
- Virginia Tech Science Festival
Online Resources

- www.weather.gov/owlie
- www.noaa.gov/opporutnities/opportunities-for-students
- www.srh.noaa.gov/jetstream (online school for weather)
- NOAA Office of Education www.noaa.gov/office-education
OPERATIONAL STAFF

- 5 Senior Forecasters
- 5 Journeyman Forecasters
- 3 Meteorologist Interns
- 1 ITO
- 1 Hydrologist
- 3 Electronic Technicians
- 5 Support & Management positions
- Total number of employees = 23
How Can I Become A Meteorologist?

- In 2014, 72% of newly hired employees in the NWS had at least a Masters Degree.

- 24 Semester Hours of credit in Atmospheric science including a minimum of:
  - 6 Hours Dynamics/Thermodynamics
  - 3 Hours Physical Meteorology
  - 6 hours of Analysis and Prediction
  - 2 Hours of Remote Sensing or Instrumentation
  - 6 Hours of Physics, 3 Hours of Differential Equations
  - 9 Hours of Course Work Appropriate for Physical Science

- *** There is a Prerequisite of Calculus for Course Work in Atmospheric Dynamics/Thermodynamics, Physics, and Differential Eq.
Education...courses

- Math based profession that requires excellent understanding of math and physics
- Computer science is also very important
- Should complete pre-calculus before entering college
- English
- Social Sciences
- Public Speaking
Advice for Students

• A passion for weather and excellent forecasting skills are not enough. Skills in programming, social sciences, GIS, public speaking, and interpersonal skills are highly valued.

• Take as many math courses as possible before college

• Introduce yourself to meteorologists in your area, ask for tours of the NWS and local TV stations

• Be involved! Become a Citizen Scientist.