



# Aware

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March 2018

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## New Videos Aim to Reduce Rip Fatalities

By [Greg Dusek](#), Chief Scientist, NOS COOP; [Deborah Jones](#), NWS Rip Currents/Beach Hazards Program

Rip currents are the greatest public safety risk at the beach and cause an estimated 100 drownings each year in the United States alone. Since 2004, NOAA, Sea Grant Colleges and the U.S. Lifesaving Association have worked in a dynamic partnership to address this serious threat. Most recently, NWS collaborated with the National Ocean Service (NOS) to produce a series of [four rip current videos](#) based on social and physical science research.

Surveys indicate that the well-known “*Break the Grip of the Rip!*” campaign has raised the public’s awareness of rip currents by demonstrating how to escape if caught in a rip. The purpose of these new videos, “*Rip Current Survival Guide*” is to educate beach goers before they leave home. We want the public to know what actions to take before entering the water so they have a safe and enjoyable day at the beach.

The videos use a group of diverse youth to role model the Program’s “*Know Before You Go*” safety message and demonstrate what to do if caught in a dangerous rip current. The videos identify rip currents using high definition aerial photography and green dye that highlights rip current formation and flow.

The “*Know before You Go*” rip current preparedness goal for the videos already has a proven track record measured in the number of views. The programs are online on the Ocean Today YouTube channel and through social media. As of October 2017, the videos had received 23.4 million views across all platforms, with a majority of views on Facebook and more than 300,000 shares. NOS Ocean Today developed and produced the video, which were funded in part through the NOS Coastal Storms Program.



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## Wildfire Exercise Tests Regional Capabilities

By [Stephen W. Bieda III, Ph.D.](#), Science & Operations Officer, NWS Amarillo, TX

Last year, partners in the Texas-Oklahoma area requested an exercise to simulate a worst case wildfire outbreak. NWS Amarillo, TX, on behalf of area NWS offices, formed a committee made up of four state, regional, and local jurisdictions. The committee organized exercises that included Incident Command Post (ICP) in-person forecaster briefings about simulated weather conditions, a real-time simulation of events with Hot Spot Notifications for wildfire starts, and a debrief to determine best practices to support wildland fire fighting efforts.

In February, NWS Amarillo, Lubbock and Midland, TX, and Norman, OK, and the NWS Southern Region Regional Operations Center in Fort Worth hosted a wildfire tabletop exercise, with an ICP in Amarillo. The exercise included such diverse participants as the Department of Energy’s Pantex Plant, seven state agencies from Texas and Oklahoma, the Panhandle Regional Planning Commission (PRPC), numerous local EMs, first responders, school districts and the American Red Cross.



*Mayors, Fire Chiefs and EMs discuss a simulated evacuation.*

“[This exercise] is one of the best ones I’ve been a part of in years...your office [NWS Amarillo] is our greatest partner in the Texas Panhandle,” said Randall County Fire Department Chief James Amerson. “NWS hot spot notifications are one of the five greatest developments in my career, right up there with the Jaws of Life,” added Chief Amerson.

“This exercise provided an excellent venue for local, regional, state and federal agencies to work together for the sole purpose of saving life and property,” said PRPC Regional Preparedness Planner Emily Nolte. “The reason the exercise was successful is because it presented realistic scenarios and got everyone in the room to discuss fire situations that are likely to happen,” said Chip Orton, Amarillo Area OEM.

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## WRN Ambassador Expands School Outreach

By [Dan Noah](#), WCM, NWS Tampa, FL

Joshua Paczynski is a science teacher at a middle school in Tampa which is a Weather-Ready Nation Ambassador. He uses Ambassador resources as part of his curriculum to help fellow teachers, staff and students prepare for hazardous weather.

To take his program one step further, he now offers his 6<sup>th</sup> grade students interested in weather the chance to take online [Spotter Network’s SKYWARN Storm Spotter Training](#). Students must receive a 90 percent or better grade on the online test to receive a Certificate of Completion from NWS Tampa Bay.

Joshua writes, “Here at school we work on teaching our students the weather threats that can affect their lives in Florida through discussions, and giving examples of how we can protect our lives and properties from these threats. Students are engaged in Severe Weather Awareness Week and tornado drills, as well as learning the catchy safety phrases at all grade levels. In 6<sup>th</sup> grade we work on the spotter network course given at the appropriate grade level. Middle school students also take rain gauge measurements daily and give weather observations.”



*Middle school teacher encourages weather safety through WRN Ambassador program.”*

Become a Weather-Ready Nation Ambassador today at <http://weather.gov/wrn>. Building a Weather-Ready Nation requires action from other government agencies at the national, state, and local levels, America’s Weather Industry, emergency managers, researchers, the media, nonprofits and businesses. Any organization committed to serving as an example and engaging their stakeholders to make this country ready, responsive, and resilient can

be an Ambassador.

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## NWS Helps Ensures School Safety with Tornado Plan Test

By [Andrew White](#), Meteorologist, NWS Indianapolis

School safety involves many kinds of threats; weather is one for which schools can take easy steps to prepare. In February, NWS Indianapolis, IN, helped facilitate and evaluate a tabletop exercise compliant with the Homeland Security Exercise and Evaluation Program (HSEEP) program for a local high school.

NWS Indianapolis worked with two local high school students, Fountain County Emergency Management, and the Indiana Department of Homeland Security to develop the exercise, which was part of the students' Emergency Management Course requirement.

The scenario included a tornado approaching the high school complex during an evening sporting event. School officials, local law enforcement and responders were players in the exercise and discussed how they would manage the incident and safely evacuate the area. The After Action Report discussions revealed areas for improvement as well as an opportunity for communication between school officials and law enforcement.

NWS Indianapolis staff members evaluated the exercise and provided input to the After Action Report sent to local school officials.

As we continue to create a Weather-Ready Nation, activities like these become increasingly important because we learn how to better engage with our local emergency planners and improve safety plans. To build on this success, NWS Indianapolis is promoting the Weather Watcher program developed by NWS Chicago. This program involves training local officials and event decision-makers to become more weather-aware and provides them the resources to make the best decision possible. The Indianapolis office advertises this program with local partners and is developing additional exercises for partners.



*NWS works with EMs, school officials and local enforcement to help improve school in the event of a tornado.*

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## How to Better Reach Isolated Rural Communities Subject to Flooding

By [Scott Whittier](#), WCM, NWS Burlington, VT

Responding to unprecedented spring flooding in 2011, due to near record snowfalls and record rainfall, Vermont's Emergency Management (VEM) launched a series of annual winter-spring flood workshops to help local towns prepare, respond and recover from annual late winter-early spring flooding.

Vermont has no county government structure, including emergency management, thus the state has to reach out to volunteer, part-time local emergency managers. Holding five workshops across different regions of the state has proven an effective outreach tool.

Workshops presenters include VEM, state and federal agencies, including the NWS offices in Burlington and in Albany, NY. Besides presentations about recent spring flood history, NWS provides a review of the current winter season antecedent conditions, including a detailed look at snow pack (depth, water equivalent), river ice and weather outlooks. The NWS offices collaborate with the U.S. Army Cold Regions Research and Engineering Laboratory to



present the science of ice jams and its climatology. In addition, these workshops talk about mitigation efforts.

In mid-January, there was a significant mid-winter thaw with heavy rains that resulted in largely ice-jam related flooding. On the immediate heels of this thaw, a flash freeze of sub-zero temperatures for several days led to new ice jams, freezing and locking them in place. This change presented a two-fold problem: prolonged river flooding and locked in jams that could lead to future winter/spring flooding.

During and after the ice jam flooding, NWS Burlington worked closely with VEM and local EMs in ice jam threatened communities, keeping them abreast of any potential ice movement and assisting these communities with planned mitigation efforts.

These workshops have proven beneficial for town and state decision makers as well as NWS Burlington by building new partnerships and trust and increasing the two-way flow of information and situational awareness.



*Ice jam flooding in Johnson, VT, along the Lamoille River on January 13, 2018*

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## Learn More About NOAA's Education Accomplishments

By [Mary Fairbanks](#), NWS Communications Office, Silver Spring, MD

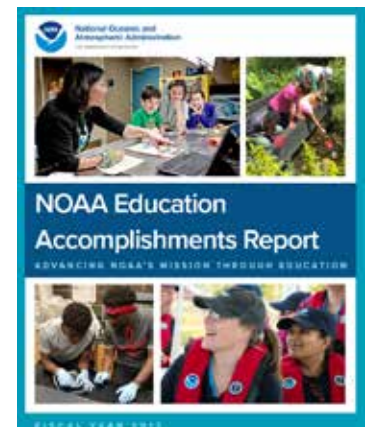
Education plays a key role in NWS' mission to protect lives and property. Released in February, the [NOAA Education Accomplishments Report](#) showcases NOAA's role in helping our nation prepare for and respond to environmental hazards. In fiscal year 2017, NOAA's education programs reached more than 2.5 million youth and adults and over 4,400 post-secondary students received training in NOAA-related fields.

NOAA's educational focus is developing a more versatile and science literate workforce, while further addressing the agency's unique role in conservation, stewardship, safety and preparedness. The accomplishments are linked directly to NOAA's five main education goals:

- ◆ Ensuring a Science-Informed Society
- ◆ Conserving and Managing Vital Resources
- ◆ Improving Safety and Preparedness
- ◆ Developing the Workforce of the Future
- ◆ Working Toward Organizational Excellence

NOAA's Education mission is improve ocean and coastal stewardship, increasing safety and resilience to weather and other environmental hazards. NOAA also is committed to preparing a future workforce to support its mission. The work NOAA is doing is clearly seen in the many accomplishments highlighted throughout this report.

With access to ships, labs, aircraft, satellites, information and scientists, NOAA is in an excellent position to inspire the current and next generation of student innovators and problem solvers.



**Aware**

NOAA's National Weather Service, Analyze, Forecast and Support Office  
Managing Editor: [Melody Magnus](#), Editor: [Donna Franklin](#)  
Aware online: [www.weather.gov/publications/aware](http://www.weather.gov/publications/aware) ISSN 1936-8178  
Subscribe/Unsubscribe: [melody.magnus@noaa.gov](mailto:melody.magnus@noaa.gov)