When Nature Strikes – Tornadoes

Activity 1 – What Do You See as a Tornado Approaches?

On October 24, 2010, an EF-2 tornado created widespread damage in Rice, a small town in eastern Texas near Dallas. Houses, schools, and other structures were damaged, but fortunately only four people suffered minor injuries. Passage of the tornado was captured on videotape by several observers and are available on YouTube; here is an example of <u>one news story about this event</u>.

Part A. Sequencing images from the Rice Tornado

What could it look like as a tornado comes toward you?

One important skill that scientists often use to understand our Planet's processes is "sequencing." This means putting things in order. In this activity, you will use images taken by photographers at various locations as this storm moved towards Rice.

The images are provided below and as a <u>powerpoint</u>. They are in a random order with letters next to each. Try to figure out the correct sequence from beginning to end. Write the letters in the box on the left and give your reason why it belongs in this place in the sequence.

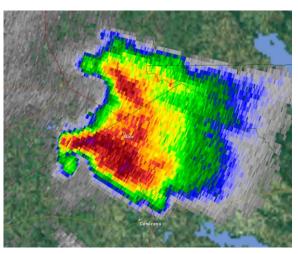
Letter	Reason for this place in the sequence

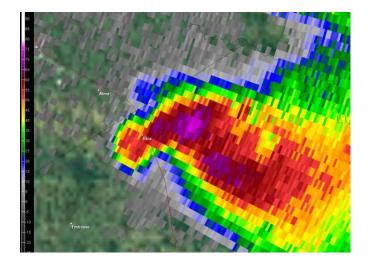
When you are done, you can check your work by viewing the <u>slideshow provided by the NWS</u> <u>Dallas/Fort Worth Office</u>. This slideshow also provides the radar image at the time the photograph was taken and discussion notes used for training meteorologists how to improve future forecasts..

Part B. Interpreting Radar Images from the 2010 Rice Tornado

The Dallas/Fort Worth NWS Forecast Office website also provides <u>radar and other images of</u> <u>this event</u>. Three of these images are shown below. You can see the 'hook echo' appear on the "Reflectivity Image Loop," which is made by combining separate radar images taken over almost an hour.







NWS forecasters monitoring potential tornado development look carefully at such radar images before alerting emergency responders, local TV and radio stations, and the general public.

Explain in the spaces below what you and your classmates should do when the NWS issues a:

Tonado advisory	
Tornado watch	
Tornado warning	

Remember: Tornadoes can occur almost anywhere when strong thunderstorms move through an area. They can come and go quickly, leaving complete devastation in one place and nearby locations untouched.

Challenge: What can you do to help develop emergency preparedness plans for your family, school, and community?



Image K



Image W







Image Y



Image P



Image B



Image L

Image T

Acknowledgement: Dennis Cain (National Weather Service Dallas/Fort Worth Office) provided links to the images of the 24 Oct 2010 Rice Tornado used in this activity.