

Weather and Wind Warnings

Overview

Objectives: Students will be able to:

1. List five visual indicators preceding a wind event
2. Describe how situational awareness and safety are interconnected with weather observations and weather forecasts.

Purpose: To emphasize that firefighters must assume personal responsibility for safety through attentiveness to predicted wind events and changing conditions.

Method: Students will watch a video and participate in a group exercise.

Content: Weather discussion featuring Heath Hockenberry, National Fire Weather Program Manager





Facilitator Quick Checklist




The following are the most important tasks that should be considered before implementing this module:





- ✓ **Preview the Weather Module on the DVD**
- ✓ **Preview questions and answers to Assignments #1 & #2**






Weather and Wind Warnings

Time	Facilitator Tasks	Refer To
1 min	<ul style="list-style-type: none">  Introduce objectives and method (optional) listed above. 	
13 min	<ul style="list-style-type: none">  Play DVD Module : <u>Weather and Wind Warnings</u> 	DVD
7 min	<ul style="list-style-type: none">  Ask students look read instructions and do Assignment #1 from the student worksheet. <p style="text-align: center;">INSTRUCTIONS (from student worksheet)</p> <div style="border: 2px solid black; padding: 10px;"> <p>The following are some pictures of cloud formations. For Assignment #1, below each picture, describe what future weather patterns the clouds could indicate. In addition, predict the type of fire behavior that could be expected from the possible resulting wind event from each cloud formation. Answer the question for Assignment #2 if suggested by your facilitator.</p> <p style="text-align: center;"><u>EXAMPLE</u></p> <div style="display: flex; align-items: center;">  <div style="border: 1px solid black; padding: 5px; width: 300px;"> <p style="text-align: center;">Indicates cool air aloft, possibly instability, could lead to active fire behavior</p> </div> </div> </div>	SW

Time	Facilitator Tasks	Refer To
5 min	<ul style="list-style-type: none"> <li data-bbox="397 367 1299 651">  The following are suggested answers for each cloud formation. When the students have finished their answers in groups, discuss each by asking for volunteers or choosing different groups for each picture. <p data-bbox="548 693 1101 735" style="text-align: center;">Assignment #1 Suggested Answers</p> <div data-bbox="349 781 1307 1375" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <div style="display: flex; justify-content: space-around;"> <div data-bbox="425 833 781 1134">  </div> <div data-bbox="854 833 1227 1134">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div data-bbox="418 1150 773 1327" style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center;">No significant weather or fire behavior expected</p> </div> <div data-bbox="850 1150 1284 1375" style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center;">Atmosphere unstable, monitor for further development and increased fire activity</p> </div> </div> </div> <p data-bbox="630 1560 1023 1602" style="text-align: center;">Continued on Next Page</p> <p data-bbox="816 1730 852 1768" style="text-align: center;">→</p>	SW

Time	Facilitator Tasks	Refer To
	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%; text-align: center;">  <p data-bbox="402 718 795 873">Afternoon or evening thunderstorms, drastic increase in fire behavior</p> </div> <div style="width: 50%; text-align: center;">  <p data-bbox="849 718 1242 1054">Strong downdraft winds, lightning, heavy rain, possible hail. Distant terrain channeled winds, dramatic increase in fire behavior, or decrease with enough rain</p> </div> <div style="width: 50%; text-align: center;">  <p data-bbox="380 1415 773 1667">Indicates leading edge of strong winds in advance of thunderstorm, expect strong winds and increased fire behavior</p> </div> <div style="width: 50%; text-align: center;">  <p data-bbox="849 1415 1242 1701">Weak instability, possible virga with gusty winds. Cloud density usually inhibits further convection, could see increased fire behavior</p> </div> </div>	<p data-bbox="1360 373 1419 407">SW</p>

Time	Facilitator Tasks	Refer To
3 min	<ul style="list-style-type: none">  Assignment #2 is a question reflecting on the video and personal experience. Use this question for a group assignment or just a discussion topic among the class as a whole. 	SW
<p>3 min</p> <p><i>Estimate Total Time:</i> 32 min</p>	<p style="text-align: center;">Assignment #2 Suggested Answers</p> <div style="border: 2px solid black; padding: 5px; margin: 10px 0;"> <p>Cloud formations are very good indicators for predicting changes in weather and wind. What other types of indicators can you notice while in the field that would precede a wind event?</p> </div> <p><u>Swaying tree tops, smoke movement (horizontal vs. vertical), direction of floating or blowing embers, leaves and grasses blowing, blowing dust or dust devils, fire whirls, blowing ash</u></p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="text-align: center; margin-top: 20px;">  </div>	SW

