



## S-131 Unit 5: Decision-Making

### Summary:

This unit is used to guide students through the decision-making process. Instructors will discuss risk management, resource capabilities and planning through lecture and discussion. Exercises will be used to engage the students in tactical procedures.

### Incident Position Description (IPD) Alignment:

This unit aligns with the following FFT1 and ICT5 specific duties:

(<https://www.nwcg.gov/positions/fft1/position-ipd>)

(<https://www.nwcg.gov/positions/ict5/position-ipd>)

- Apply the Risk Management Process as stated in the IRPG.
- Set measurable objectives that minimizes the level of risk while achieving the highest probability of success.
- Identify and anticipate operational needs and request additional resources and/or replacements as needed.
- Organize and deploy assigned resources based on established objectives and resource capabilities.
- Identify, analyze, and use relevant situational information to make more informed decisions and take appropriate actions.

Adjust actions based on changing information and evolving situation awareness. Develop and implement contingency plans.

### Unit Objectives:

Students will be able to:

- Demonstrate the ability to apply the Risk Management Process in a changing environment.
- Demonstrate the ability to assess resource capabilities.
- Demonstrate the ability to develop tactical and logistical plans.
- Demonstrate the ability to engage tactically through sand table exercises, locally based sand table exercises (STEX), do a staff ride, or do a paper-based exercise of choice.

## Unit 5: Decision-Making

### Unit at a Glance:

Topics	Method	Duration
The Risk Management Process	Presentation	40 Minutes
Resource Capabilities and Considerations	Presentation	20 Minutes
Tactical and Logistical Planning	Presentation	20 Minutes
Tactical Decision Exercises	Video and Group Activity	2 Hours 30 Minutes
Objectives Review	Discussion	10 Minutes
<b>Total Unit Duration</b>		<b>4 Hours</b>

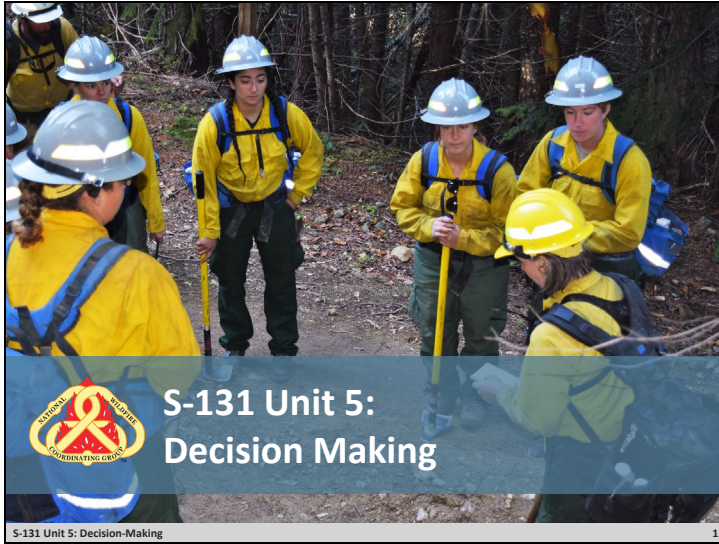
### Materials:

- *Incident Commander's Organizer*, PMS 206 <https://www.nwcg.gov/publications/206>.
- *Response Pocket Guide (IRPG)*, PMS 461, <https://www.nwcg.gov/publications/461>.
- *Design and Delivery of Tactical Decision Games*, PMS 468-1 <https://www.nwcg.gov/publications/468-1>.
- *NWCG Standards for Wildland Fire Resource Typing*, PMS 200, <https://www.nwcg.gov/publications/pms200>.
- Ability to display images and video on large screen.
- There are a series of Tactical Decision Exercises in this unit. These will require preparation prior to delivery.
  - It is recommended that the facilitators become familiar with the content of *Design and Delivery of Tactical Decision Games*, PMS 468-1 <https://www.nwcg.gov/publications/468-1>
  - The students will be broken out into smaller groups for the exercises. There should be a printed copy of the Exercise Evaluation Forms for each group. The forms can be downloaded from the S-131 Course Materials page <https://www.nwcg.gov/publications/training-courses/s-131/course-materials>.
  - A sand table with props, or print outs of the topographic maps from the Instructor Guide should be available for the exercises, if possible.
  - Cadre may choose to develop alternate scenarios for the Tactical Decision Exercises, based on local conditions. There is a generic evaluation form provided for use in this case.

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- White board or easel access.
- The Final Examination is given at the conclusion of the Objectives Review in this unit. A copy of the exam will be needed for each student. Contact your course coordinator or email [blm\\_fa\\_nwcg\\_training@blm.gov](mailto:blm_fa_nwcg_training@blm.gov) for access to the final exam and the final exam answer key.

## Slide 1



### Slide 2

#### Objectives

Students will be able to:

- Demonstrate the ability to apply the Risk Management Process in a changing environment.
- Demonstrate the ability to assess resource capabilities.
- Demonstrate the ability to develop tactical and logistical plans.
- Demonstrate the ability to locate and apply standard wildland fire operating procedures found in the *Incident Response Pocket Guide* (IRPG) and other identified fireline references.

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☐ Review unit objectives.

- *Incident Response Pocket Guide* (IRPG), PMS 461, <https://www.nwcg.gov/publications/461>

### Slide 3

#### Risk Management Process

**The Risk Management Process (RMP) helps firefighters organize their decision-making processes.**



### Slide 4

#### Risk Management Process

- Your decisions are only as good as your perception of reality.
- Situation Awareness (SA) for firefighters is a term used to describe awareness of the total working environment.
- Continuous updating and maintaining of Situation Awareness is essential to incident management.
- The total working environment, including tactical and logistical information, can overwhelm effective decision making.

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- Situation Awareness (SA) combines analytical information and intuitive knowledge.
- Intuitive decision-making is a process of combining information gained through experience and analytical knowledge that allows you to make intuitive decisions.

### Slide 5

#### Risk Management Process

- RMP is a critical decision-making tool that every firefighter should be familiar with and use.

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The RMP is in the IRPG for a reason—it is a critical decision-making tool that every firefighter should be familiar with and use.

- ❑ Have the students locate the Risk Management section in their IRPG. Discuss reference material in the IRPG and other locations (such as the *Wildland Fire Incident Management Field Guide*, PMS 210, <https://www.nwcg.gov/publications/210>) which can assist in identifying the elements of the Risk Management Process.
  - IRPG, PMS 461, <https://www.nwcg.gov/publications/461>



### Slide 6

#### Risk Management Process

- You will need to develop the ability to discern between essential and non-essential information.



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- Continuous updating and maintaining of Situation Awareness is essential to incident management.
- The total working environment, including tactical and logistical information, can overwhelm effective decision-making.

### Slide 7

#### Risk Management Process

- In a changing environment, this is a continuous cycle of assessment and evaluation.
- Firefighters need to have an organized decision-making process that ensures the Standard Firefighting Orders are being followed and contingencies are being considered.

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- Tactical plans cannot be made without ensuring that the Standard Firefighting Orders are followed.
- In relatively low complexity assignments, this can be done intuitively based on experience.
- In more complex situations, firefighters need to have an organized decision-making process that ensures the Standard Firefighting Orders are being followed and contingencies are being considered.

### Slide 8

#### Risk Management Process

##### Identify Hazards (Situation Awareness)

- Objective(s)
- Communication
- Who's in charge?
- Scout the fire
- Previous fire behavior
- Weather forecast
- Local factors



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- ☐ Review the importance of understanding the leader's intent or incident objectives.
- ☐ Discuss sources for this information and share personal stories that have been positive or negative.
  - Objective(s)
    - Knowing the objectives is critical. If you know what the result needs to be, you are in a position of developing and altering strategies and tactics to achieve the desired result
  - Communication
    - Communication is vital for implementing the Risk Management Process.
  - Who is in charge?
    - This is usually evident when assigned to a module or crew.
    - However, crews may be used independently for initial attack or special assignment purposes. This may require them to report to someone other than their immediate supervisor.
  - Scout the fire
    - Know what your fire is doing. You cannot develop a plan without knowing what the current situation is.
  - Previous fire behavior
    - Gives valuable insight as to what to expect. Also helps establish trigger points based on conditions.
  - Weather forecast
    - Mandatory information: your actions must be based on current and forecasted weather.

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- Local factors
  - Many areas have unique local weather factors. Ask questions about such factors and share information with appropriate personnel.
  - Ask students if there are other sources of information that will enhance situation awareness (e.g., pocket cards, drought index, unit preparedness level, and fuel advisories).

### Slide 9

**Risk Management Process**

**Assess Hazards**

- Estimate potential fire behavior hazards.
- Identify tactical hazards.
- As conditions change, what other safety hazards are likely to exist?
- Consider probability versus severity?

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- ☐ Have the students provide examples of hazards (e.g., look up and look down indicators and watch out situations).
- ☐ Discuss this example:

A fire along a major highway at noon may be different than a fire at rush hour. The probability of an unintended outcome such as a traffic accident would be higher, but the severity would essentially be the same.

### Slide 10

#### Risk Management Process

**Develop Controls and Make Risk Decisions**

- Develop control measures that reduce risk.
- Are controls in place to mitigate risk?



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☐ Discuss with students:

- How much information is needed before you come to a decision point?
- You may never run out of options; you just run out of time. Since the wildland fire environment is dynamic, decisions are time critical. Rarely will you ever have all the situation awareness that you desire, but at some point, decisions need to be made and actions taken within the risk management process. You can always reevaluate your actions and change them if needed. It is better to be proactive than reactive.
- A good decision now may be better than the perfect plan later. However, the decision not to engage may be appropriate if further assessment is warranted.

### Slide 11

**Risk Management Process**

**Develop Controls and Make Risk Decisions**

- Are selected tactics based on expected fire behavior?
- Have instructions been given and understood?
- Consider risk versus gain.

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- ☐ Discuss the concept of using trigger points. Share how you have used them and what they were based on. Who establishes them?
- ☐ Emphasize that the leader's first responsibility to their assigned personnel will always be their safety. Often, you must ask yourself whether the risks involved are worth the benefit. There are differences between accepting risk for yourself and accepting risk to your personnel.

Consider risk versus gain.

- Is the assignment operationally feasible?
- Is the identified risk regardless of the source worth the tactical, logistical, physical, or resource benefit?
- Can your risk be controlled or mitigated?
- Be aware of different perspectives of acceptable risk. As a leader, someone may be willing to take on risks that you are uncomfortable with.

### Slide 12

#### Risk Management Process

##### Implement Controls

- Ensure controls are in place and being implemented by personnel.
- Ensure controls are integrated into the operational plan and understood at all levels.




### Slide 13

#### Risk Management Process

**Supervise and Evaluate**

- Are controls adequately mitigating the hazards?



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- ❑ Stress that oversight is part of maintaining situation awareness, thus making the Risk Management Process a continuous cycle of assessment and evaluation.
  - Sometimes things do not go according to plan. If the outcome or the result did not meet your intent, then continue through the Risk Management Process. It is important to be flexible and adaptable to the situation.

### Slide 14

**Resource Capabilities and Considerations**

**Indicators of Incident Complexity**

- Location (area involved)
- Threat to life, environment, and property
- Political sensitivity
- Organizational complexity
- Jurisdictional boundaries
- Values at risk
- Weather

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- ☐ Refer the students to the Indicators of Incident Complexity and the Sizeup Report sections in the IRPG (<https://www.nwcg.gov/publications/461>) and Incident Commander's Organizer.
  - Like the Risk Management Process of evaluating risk, the complexity of your situation also needs to be evaluated. Some common indicators of complexity are shown on the slide.
- ☐ Emphasize that if complexity is higher than your abilities and qualifications, order the next level of the chain of command and assess your needs.

### Slide 15

#### Resource Capabilities and Considerations

##### Resource Needs

- Order what you think you need, for today and tomorrow, based on your assessment of the situation.
- Match the right tool for the job. Right place, right form, right amount.



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- ❑ Explain that as a Firefighter Type 1 (FFT1) or Incident Commander Type 5 (ICT5), you need to gain knowledge of what tools are available to you and their capabilities and limitations.
- ❑ Discuss what references can help you determine resource capabilities and limitations.
  - IRPG, PMS 461, <https://www.nwcg.gov/publications/461>
  - NWCG Standards for Wildland Fire Resource Typing, PMS 200, <https://www.nwcg.gov/publications/200>
  - Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 14 [https://www.nifc.gov/policies/pol\\_ref\\_redbook.html](https://www.nifc.gov/policies/pol_ref_redbook.html)

### Slide 16

#### Resource Capabilities and Considerations

##### Resource Ordering

- Be specific.
- Be timely.
- Use the proper chain of command and local protocol.

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- ☐ Discuss resource ordering considerations that are significant in the local area.

### Slide 17

#### Tactical and Logistical Planning

##### Operational Planning Factors to Consider

- Contingency planning is a necessity. Quick transitions to alternative plans are essential.
- Base plans on resource capability and availability.
- Ensure lines of communication are effective.
- Evaluate human factor elements.
- Consider jurisdictional and political issues.

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- Contingency planning is a necessity.
  - Backup plans need to be solidified and discussed before the need to implement them. All firefighters need to understand the fallback plan when the primary plan is no longer valid. Quick transitions to alternative plans are essential.
- Base plans on resource capability and availability.
- Ensure lines of communication are effective
  - Examples are radio frequency availability, incompatible systems, and lack of repeater coverage.
- Evaluate human factor elements
  - Examples are mental and/or physical condition of the resources, qualifications and experience, crew cohesion, personality conflicts, and hazardous attitudes.
- Consider jurisdictional and political issues
  - Examples are landownership, wilderness restrictions, rural fire boundaries, and urban interface.

☐ Discuss with students any local operational planning concerns.

### Slide 18

#### Tactical and Logistical Planning

##### Logistical Planning Factors to Consider

- Tactics can be limited when logistical considerations are overlooked.
- It's important to stay ahead of the power curve.
- Ground support versus air support; consider accessibility, travel times, and routes.
- Gain local knowledge of what resources are available.

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- ☐ Discuss with students the indications that logistical support will be needed (e.g., food, water, and camping gear).
- ☐ Discuss how logistical needs are handled in the local area.

### Slide 19



#### **EXERCISE: Tactical Decision Games (TDGS)**

**Purpose:** To give students experience in a variety of decision-making scenarios.

**Time:** 2 hours

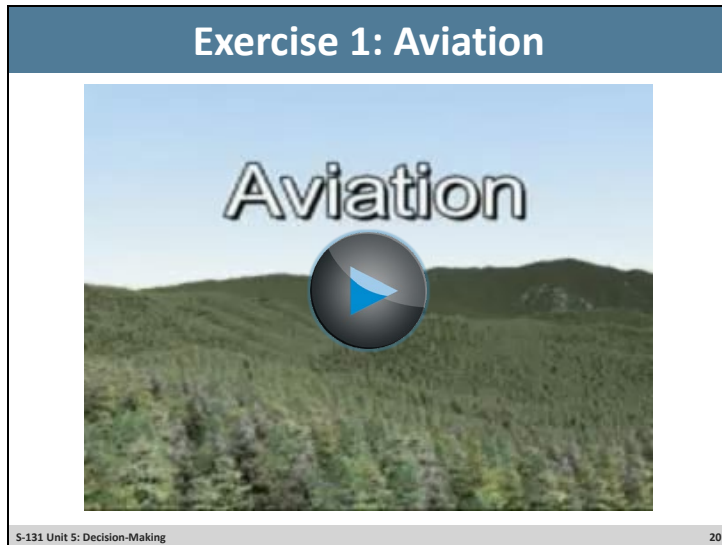
#### **Exercise Preparation:**

Instructors may choose the included sand table exercises, create other locally based sand table exercises (STEX), do a staff ride, or do a paper-based exercise of choice. The following exercises are designed to be delivered on a sand table, as described in *Design and Delivery of Tactical Decision Games*, PMS 468-1, <https://www.nwcg.gov/publications/468-1>. The exercise slides in the electronic presentation are intended to supplement the sand table, to provide enhanced visual cues for each scenario. If a sand table is not available, the instructors may improvise an alternate platform, such as using a classroom floor or whiteboard as a table.

#### **Exercise Instructions:**

The exercises are designed to bring together concepts from the preceding units with emphasis on tactical decision-making using the IRPG, <https://www.nwcg.gov/publications/461>. All exercises are written to target individuals at the FFT1 or ICT5 level. If the student body does not have experience participating in TGD/STEX, facilitators should consider orienting the students to this type of instructional format to better prepare them for the following exercises. Instructors may want to demonstrate a STEX exercise to inexperienced STEX players. Have students work in teams of 4 to 6 with one facilitator per team. Select a student to be the leader. All students are encouraged to use their reference material. The use of a flip chart or something equivalent is recommended for each team during the exercises. Instructors are to document, on the exercise evaluation forms, the team's performance concerning standard operating procedures. For students to understand what their team will be evaluated on, copies of the evaluation forms should be reviewed or provided. Exercises can and should be modified to address local area relevance if the unit objectives are met. Allow approximately 30 minutes to complete each exercise including the sand table setup and the after action reviews (AAR). Conducting an AAR is useful in terms of reviewing the exercise and developing good operational habits.

### Slide 20

**Objective:**

Students must decide how to utilize the proper procedures and tactics when an assignment involves directing helicopter bucket drops to support ground resources.

☐ Play video

**Title** Aviation

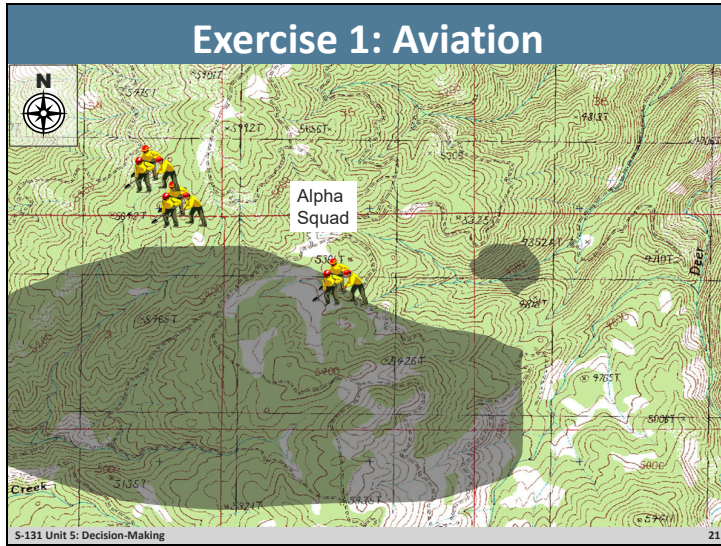
**Summary** Aerial overview of the fire.

**Time** (00:23.26)

**Audio**



### Slide 21



- ☐ Hand out Exercise 1: Aviation map to students.

### Slide 22

#### Exercise 1: Aviation

##### Scenario

- It is July 14 at 0900 hours, and you are a squad boss on a Type 2 hand crew assigned to the Meadow Fire. It is your second shift on the fire. Your crew has been using direct attack handline with occasional helicopter bucket support.
- The Meadow Fire is actively burning in timber and has a heavy fuel load of downed timber.
- A helicopter has been requested to assist your crew to control a spot fire. It is starting to show more smoke and has the potential to escape containment lines and move toward some ladder fuels near a tight timber canopy.
- You can hear the helicopter in the distance, but you cannot see it. A minute later you can see the helicopter dropping water and going directly away from you.

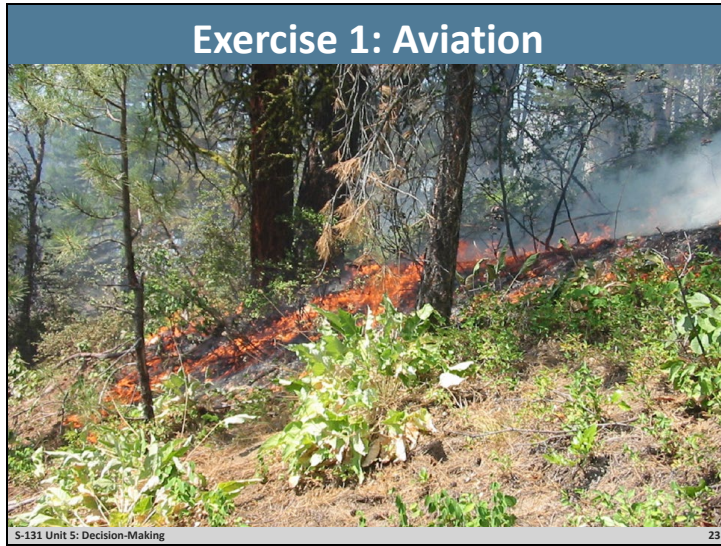
What do you do now?

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- ☐ Review scenario with students and facilitate exercise.

### Slide 23



### Slide 24

#### Exercise 1: Aviation

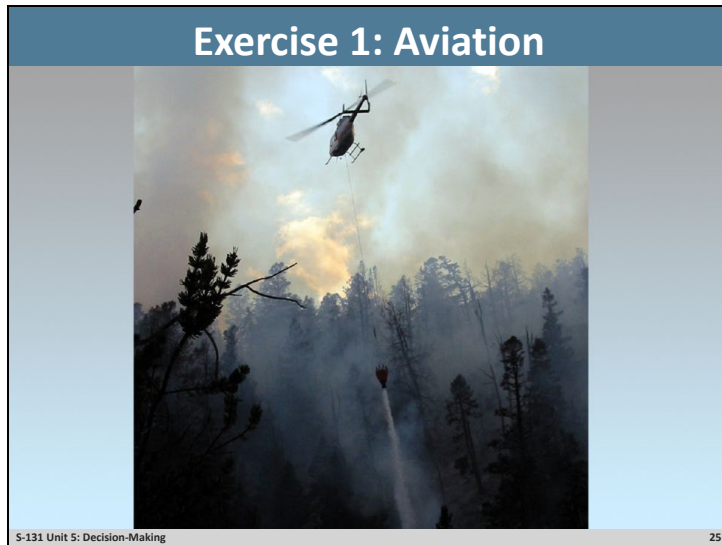
- **Fire Size:** Spot fire approximately 1 acre.
- **Fuel Type:** Timber
- **Fire Behavior:** Creeping and smoldering. Maximum flame lengths of 2 feet. Rate of spread of 3 chains per hour.
- **Assignment:** Your crew boss assigns you to control a spot that was previously contained by handline. You have directed your squad to reinforce the handline and to reduce the ladder fuels in key areas.
- **Resources Assigned:** You and your squad crew of five firefighters have two radios and one Type 2 helicopter; the call sign is 912KW.
- **Hazards:** Fire behavior (potential torching and subsequent spotting), snags, air operations, and working on a large spot fire away from the main fire.
- **Communication:** Tactical 168.200, air to ground 170.000

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- ☐ Review fire information and assignment with students.

### Slide 25

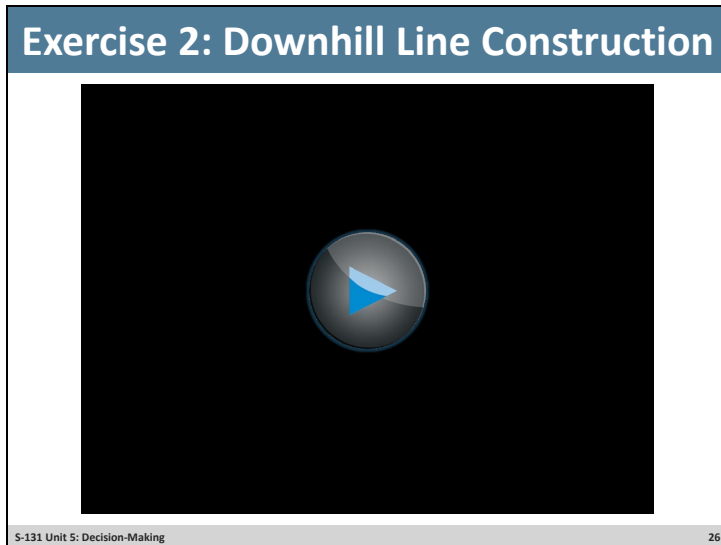


#### Exercise Execution:

- Allow a minute for the students to decide on their course of action.
- The instructor should be looking for communication skills and passing pertinent information that can be found in the Directing Retardant and Bucket Drops (IRPG) and the Aviation Watch Out Situations (IRPG, <https://www.nwcg.gov/publications/461>).
- The “Murphy’s Law Suggestions” listed below (or use one of your own) can be added as “what ifs” at any time during the exercise to raise the stress level of the leader.
  - Late in the helicopter fuel cycle.
  - Another crew requests your helicopter.
  - Rotor wash increases fire behavior.
  - Pilot cannot find you due to smoke, etc.
  - Variable crosswinds complicate flight paths.
  - No communication with the pilot; dropping blindly.
  - People not clearing the drop site; pilot concerned.

☐ The instructor conducts an AAR.

### Slide 26



#### **Objective:**

Students must assess a downhill line construction assignment and determine how to proceed. Then they must communicate their decisions to the appropriate individuals.

☐ Play video

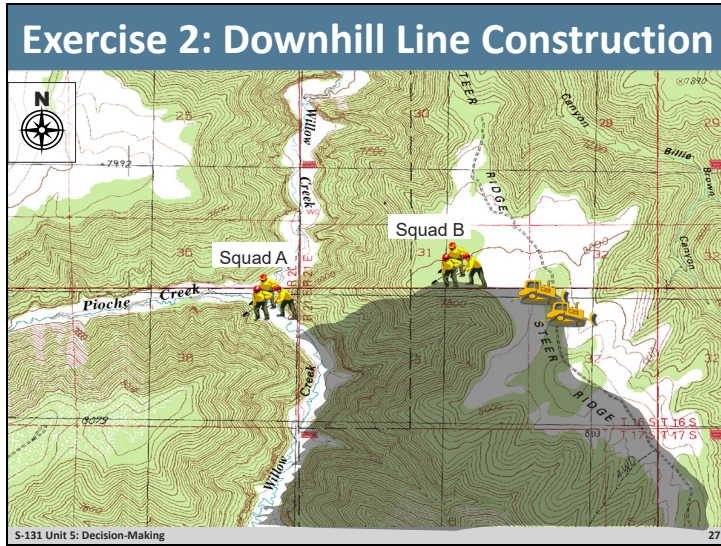
**Title** Downhill Line Construction

**Summary** Aerial overview of the fire.

**Time** (00:29.97)

**Audio**

### Slide 27



- ☐ Hand out Exercise 2: Downhill Line Construction map to students.

### Slide 28

#### Exercise 2: Downhill Line Construction

##### Scenario

- It is August 2 at 0800 and you are a squad boss with the Rush Valley Regulars, a Type 2 crew assigned to the Willow Creek Fire which is being managed by a Type 2 incident management team. Your identifier is Squad B.
- Your crew boss wanted to have the entire crew start at the bottom near the confluence of Pioche and Willow Creeks and work uphill going direct. However, due to local initial attack priorities, the helicopter was released after only shuttling Squad A and the crew boss to the bottom. Squad B was left on the plateau at the end of the dozer line. There is no road access to the confluence of Willow and Pioche Creeks.

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- ☐ Review scenario with students and facilitate exercise.



### Slide 29

#### Exercise 2: Downhill Line Construction

- **Fire Size:** Crew assigned to a segment of a 5,000-acre fire.
- **Fuel Type:** Primarily timber with a grass and brush mix.
- **Terrain:** Steep with extremely rocky ridges with numerous rock outcrops.
- **Fire Behavior:** Currently smoldering; however, yesterday during peak burning period, fire spread was 20 chains per hour and maximum flame lengths were 10 feet.
- **Observations:** Temperature 70 °F; Relative Humidity (RH) 25%; wind N/NW at 3–5 mi/h until mid-afternoon, at that time, forecasted to shift to the W/SW.
- **Assignment:** Hold the fire south of the main spur ridge between the confluence of Pioche and Willow Creeks and the end of the dozer line on the plateau. The crew boss now wants your squad to anchor at the dozer line on top and construct direct handline downhill as Squad A anchors at the bottom and works up.

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- ☐ Review fire information and assignment with students.

### Slide 30

#### Exercise 2: Downhill Line Construction



### Slide 31

#### Exercise 2: Downhill Line Construction

- **Resources Assigned:** You have three experienced firefighters and three rookie firefighters on your squad.
- **Hazards:** Downhill fireline, fire behavior, terrain.
- **Communication:** Tactical 168.050

Considering all information, how do you proceed?

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- ☐ Review fire assignment information with students.

### Slide 32

#### Exercise 2: Downhill Line Construction



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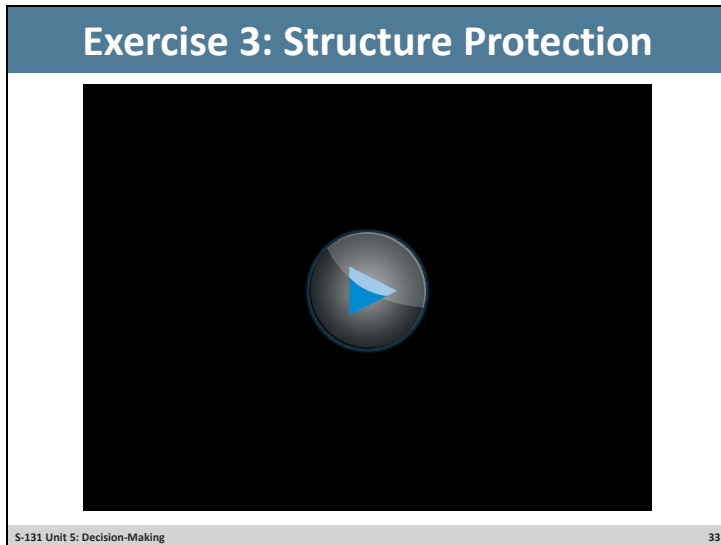
32

#### Exercise Execution:

- Allow 5 minutes for the students to decide on their course of action.
- The facilitator should be looking for an implementation of the Risk Management Process (IRPG) and utilization of the Downhill Line Checklist (IRPG, <https://www.nwcg.gov/publications/461>).
- The “Murphy’s Law Suggestions” listed below (or use one of your own) can be added as “what ifs” at any time during the exercise to raise the stress level of the leader.
  - You recognize a wind shift.
  - Lookout can no longer see you because of the smoke or position.
  - Slow going, too much work.
  - You start to encounter numerous spot fires.
  - Fingers with pockets of unburned fuel.

☐ The instructor conducts an AAR.

### Slide 33



#### **Objective:**

Students must assess a structure protection assignment and determine how to proceed. They must also communicate their decisions to the appropriate individuals.

☐ Play video

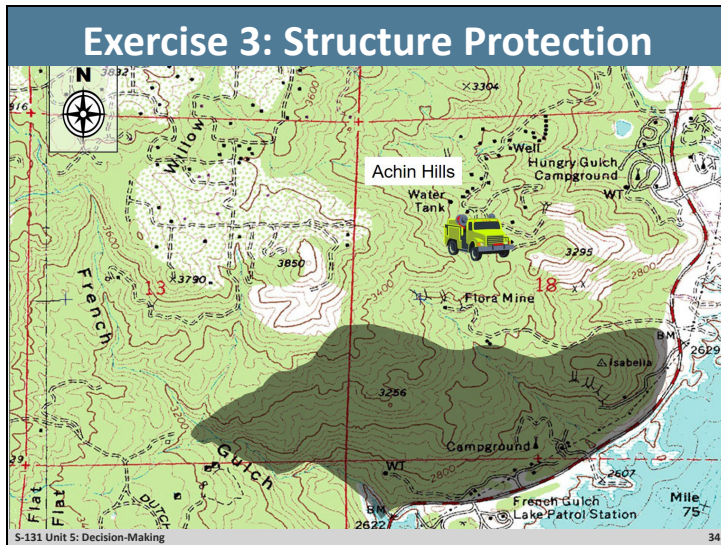
**Title** Structure Protection

**Summary** Aerial overview of the fire.

**Time** (00:23.83)

**Audio**

### Slide 34



- ☐ Hand out Exercise 3: Structure Protection map to students.

### Slide 35

#### Exercise 3: Structure Protection

##### Scenario

- It is September 7<sup>th</sup> at 0900 and you are the lead firefighter on Engine 76. Your engine is assigned to the Achin structure group on the Dutch Fire.
- The Dutch Fire started the previous day and burned actively all day, pushed by a south wind. However, during the night, it slowed considerably with minimal spread. At present, the Flores Mine Road is holding the fire on the north flank.
- The fire has good spread potential, as today's winds are expected to exceed 20 miles per hour (mph) out of the south. Typical wind conditions for this area are out of the west, blowing downhill at 10 mph. At lower elevations, the wind is typically cross-canyon, out of the south.
- Achin Hills is comprised of approximately 47 residences situated on about 60 acres. Of the residences, about 17 are occupied year-round, the remainder being vacation homes or vacant. All roads in this area are single-lane dirt roads. An extremely narrow substandard road with very few turnouts serves the area.

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- ☐ Review scenario with students and facilitate exercise.

### Slide 36

#### Exercise 3: Structure Protection



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### Slide 37

#### Exercise 3: Structure Protection



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### Slide 38

#### Exercise 3: Structure Protection

- **Fuel Type**: Brush and grass, with scattered pines and scrub oaks
- **Terrain**: Achin Hills sits between 2,900 and 3,200 feet in elevation on an eastern aspect with an average slope of about 20% in and around the structures, and over 30% in the adjacent hillsides. There are numerous drainages and gullies throughout the area.
- **Observations**: Temperature, 75 °F; RH, 20%; winds south, 2–3 mi/h.

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- ☐ Review fire information with students.

### Slide 39

#### Exercise 3: Structure Protection



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### Slide 40

#### Exercise 3: Structure Protection

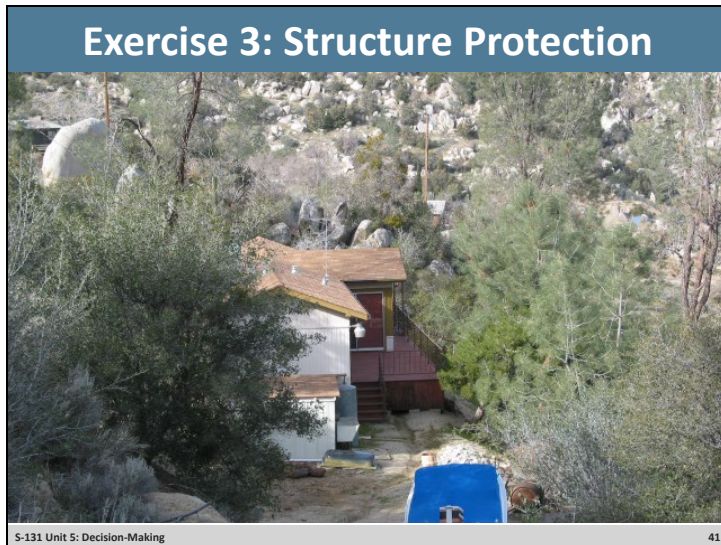
- **Assignment:** Your engine has been assigned to do structure protection along David Road. You are to check three structures and get back to your supervisor with your plan of action and, if agreed, to implement the plan.
- **Resources Assigned:** Engine 76 personnel include the engine boss, you (FFT1), an engine operator, and a rookie firefighter.
- **Hazards:** Structures, access, roads, possible evacuations, entrapment, hazardous materials.
- **Communication:** Tactical 168.050

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- ☐ Review fire assignment information with students.

### Slide 41

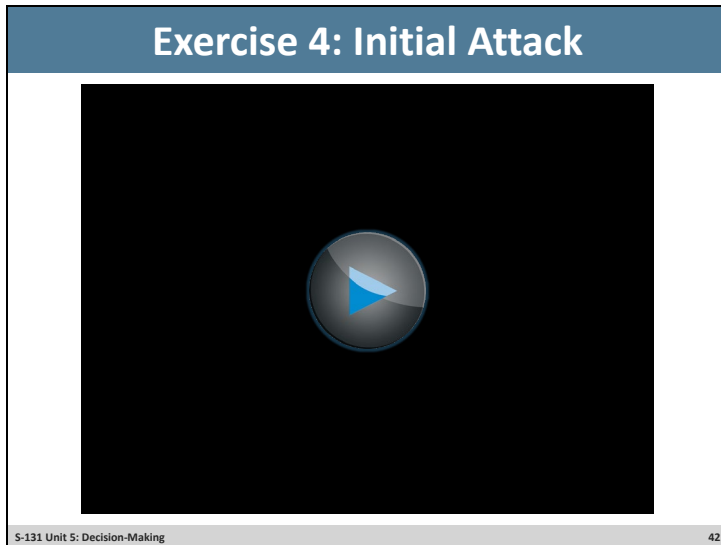


#### Exercise Execution:

- Allow 5 minutes for the students to decide on their course of action.
- The instructor should be looking for an implementation of the Risk Management Process (IRPG), and reference to Wildland Urban Interface Firefighting (IRPG, <https://www.nwcg.gov/publications/461>).
- The “Murphy’s Law Suggestions” listed below can be added as “what ifs” at any time during the exercise to raise the stress level of the leader or use one of your own:
  - The fire spots over the ridge and down below you.
  - A homeowner refuses to allow you on his property.
  - You cannot see the main fire over the ridge.
  - The wind starts to increase.
  - The water system goes out of service.
  - An unfriendly dog is in the assessment area.
  - Hazards exist near homes.

☐ The instructor conducts an AAR.

### Slide 42



#### **Objective:**

Students must assess an initial attack assignment and determine how to proceed. They must communicate their decisions to the appropriate personnel.

☐ Play video

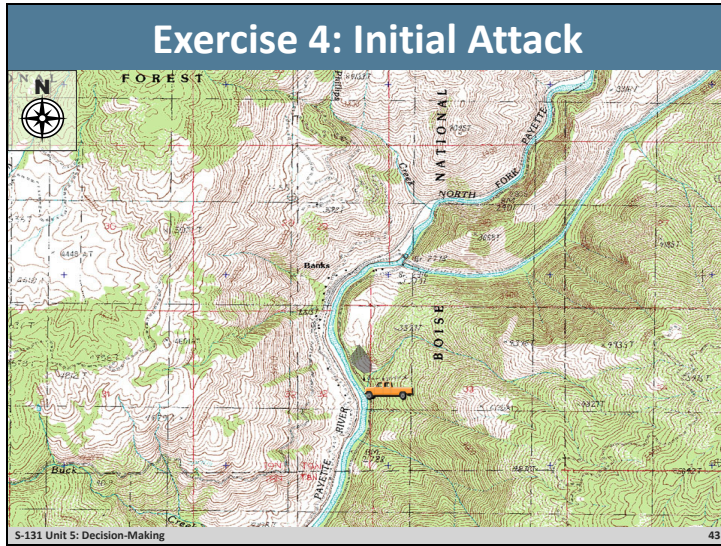
**Title** Initial Attack

**Summary** Aerial overview of the fire.

**Time** (00:27.20)

**Audio**

### Slide 43



- ☐ Hand out Exercise 4: Initial Attack map to students.

### Slide 44

#### Exercise 4: Initial Attack

##### Scenario

- It is August 2<sup>nd</sup> at 1730 hours, and your crew of five firefighters has put in a full day of falling hazard trees and hand-piling brush in Canyon Winds Campground. You report to dispatch that your crew is “returning to station.”
- Just a few miles northeast of the campground on Highway 55, the crew comes across a vehicle accident. A car has run off the road and hit a boulder. The car is fully engulfed in flames and has started a wildfire. You notice that two elderly people, probably occupants, are out of the car and appear to be uninjured. They are obviously quite concerned about the situation. Traffic is backed up on the highway just past the local rural grocery store.

S-131 Unit 5: Decision-Making

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- ☐ Review scenario with students and facilitate exercise.



### Slide 45

#### Exercise 4: Initial Attack

- **Fire Size:** ¼ acre.
- **Fuel Type:** Primarily timber with a grass and brush mix.
- **Terrain:** Slopes are steep, averaging 45% with valley-to-ridge elevation gains of 3,000 feet.
- **Fire Behavior:** Flame lengths of 1 to 2 feet, rate of spread of 5 chains an hour.
- **Observations:** Temperature 70 °F; RH 25%; wind W/SW at 5 mph.
- **Assignment:** Determine the type of initial attack and notify dispatch.
- **Resources Assigned:** You have five firefighters with hand tools and chain saws.
- **Hazards:** Snags, fire behavior, terrain, traffic, hazardous materials.

You are the only firefighters on the scene – what do you do?

S-131 Unit 5: Decision-Making

45

- ☐ Review fire information with students.

### Slide 46



#### Exercise Execution:

- Allow a minute for the students to decide on their course of action.
- The instructor should be looking for communication skills and the passing of pertinent information to dispatch that can be found in the Sizeup Report (IRPG), the Vehicle Accident Operations (IRPG, <https://www.nwcg.gov/publications/461>), and Initial Attack Safety Checklist (Wildland Fire Incident Management Field Guide, PMS 210, <https://www.nwcg.gov/publications/210>).
- The “Murphy’s Law Suggestions” listed below can be added as “what ifs” at any time during the exercise to raise the stress level of the leader or use one of your own:
  - The local volunteer fire department arrives on the scene.
  - One of the occupants complains of injury.
  - Fire is headed towards power lines.
  - Traffic driving through the scene.
  - Car is leaking fuel that is running into the creek.

☐ The instructor conducts an AAR.

### Slide 47



#### **Objective:**

Students must assess an initial attack assignment in unfamiliar territory and determine how to proceed. Then they must communicate their decisions to the appropriate individuals.

#### ☐ Play video

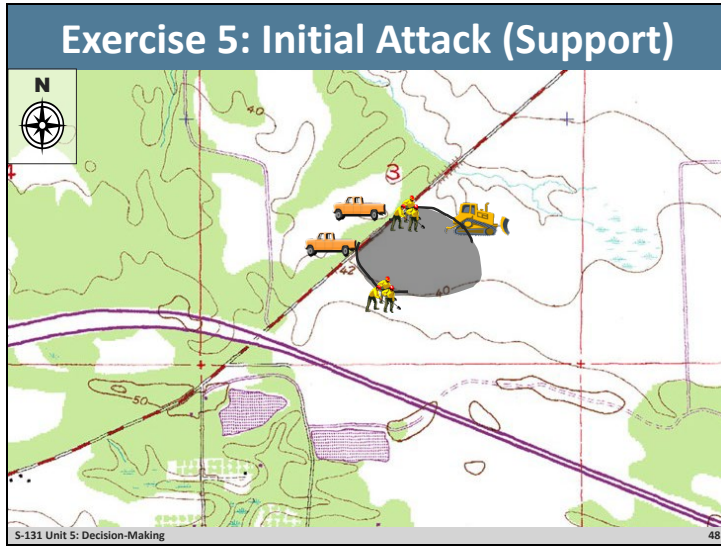
**Title** Initial Attack (Support)

**Summary** Aerial overview of the fire.

**Time** (00:26.90)

**No Audio**

### Slide 48



- ☐ Hand out Exercise 5: Initial Attack (Support) map to students.

### Slide 49

#### Exercise 5: Initial Attack (Support)

##### Scenario

- It is November 10<sup>th</sup> and you are a squad leader on a western Type 1 crew, which has recently arrived at the Coastal Heron Wildlife Sanctuary in southern Mississippi to support initial attack efforts. This is the first time the crew has been dispatched to the southeast, and the crew is excited to see the Gulf Coast.
- Your crew has been fighting fire all season in the Rockies, and the superintendent has commented that you have great leadership skills, a good working knowledge of fire, and he plans to count on you to perform more challenging tasks.
- Coastal Heron Wildlife Sanctuary is a 40,000-acre wildlife management area bordered by residences, businesses, and highways. The area is made up of mostly “heavy” southern rough fuel types with scattered hardwood drainages, bogs, and longleaf pine savannahs.

S-131 Unit 5: Decision-Making

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- ☐ Review scenario with students and facilitate exercise. Additional scenario information is on the next slide.

### Slide 50

#### Exercise 5: Initial Attack (Support)

##### Scenario (continued)

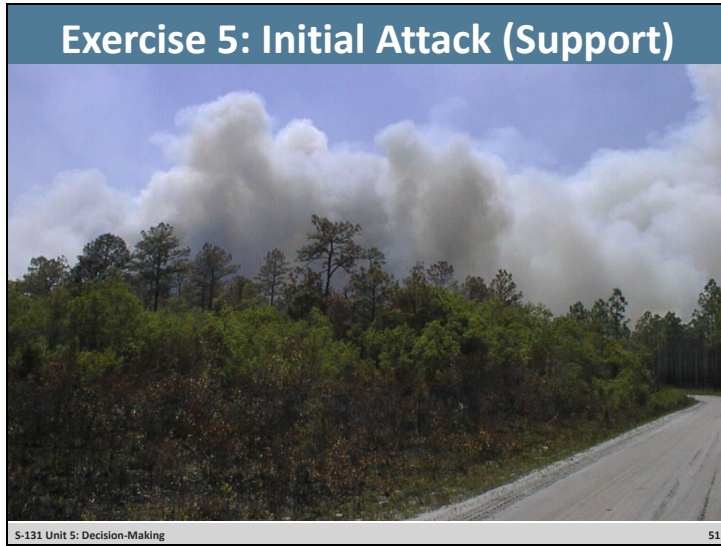
- The in-brief is given by the Fire Management Officer (FMO) on the crew's arrival details of the recent weather and fuel conditions. It is the peak fire season for the area. Temperatures have been in the low 70s, and the humidity has been averaging 33 percent.
- The Fire Management Officer points out that the sea breeze has started at around 1300 hours every day for the past week. He also mentions that the Keetch Byram Drought Index (KB DI) is almost 350; therefore, the drainages should be holding water. He mentions that your task force leader will give more specifics if you have questions.

S-131 Unit 5: Decision-Making

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- ☐ Review scenario with students and facilitate exercise.

### Slide 51



### Slide 52

#### Exercise 5: Initial Attack (Support)

- **Fire Size**: 25 acres
- **Fuel Type**: Heavy southern rough
- **Terrain**: Flat
- **Fire Behavior**: Flame lengths are 6–8 feet and occasional torching in the pines is observed. Spotting is a factor.
- **Observations**: Winds, northwest 5–7 mph, gusts to 10; RH 31%.

S-131 Unit 5: Decision-Making

52

- ☐ Review fire information with students.



### Slide 53

#### Exercise 5: Initial Attack (Support)



### Slide 54

#### Exercise 5: Initial Attack (Support)

- **Assignment:** You are informed that your crew will be divided, and each squad will be assigned to a separate task force. Your squad is on Task Force Bravo, which was dispatched to initial attack a fire 25 minutes ago, and the FMO wants your squad to assist them as soon as possible.

Upon arriving at the fire, you radio your task force leader for instructions. His response is "Glad you're here. We have most of our folks on the right flank trying to corral this thing. Why don't you assist the tractor plow unit on the left flank? Contact is Tractor 49. Oh, and heads up, this thing is walking the dog"

- **Resources Assigned:** Your squad, Tractor 49, Task Force Leader Bravo, other miscellaneous resources unknown.
- **Hazards:** Entrapment, traffic, erratic fire behavior, snags, fuel type, unfamiliar with tactics, unfamiliar with safety zones.

S-131 Unit 5: Decision-Making

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- ☐ Review fire assignment information with students.

### Slide 55

#### Exercise 5: Initial Attack (Support)

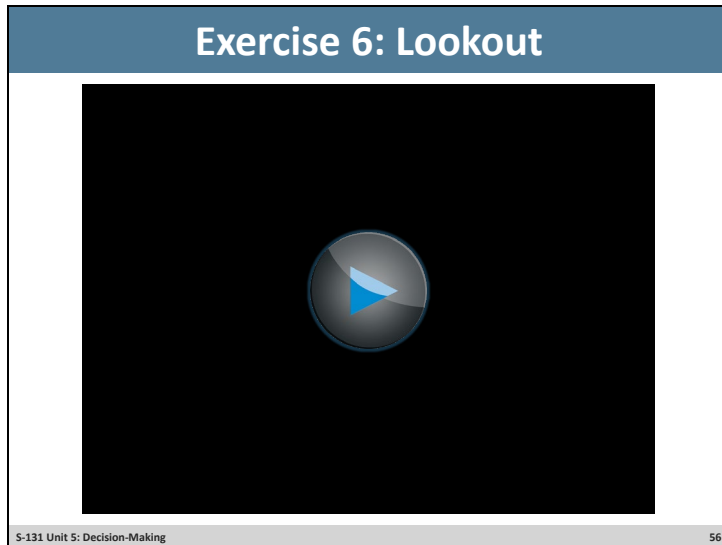


#### **Exercise Execution:**

- Allow 5 minutes for the players to decide on their course of action.
- The facilitator should be looking for an implementation of the Risk Management Process (IRPG, <https://www.nwcg.gov/publications/461>).
- The “Murphy’s Law Suggestions” listed below can be added as “what ifs” at any time during the exercise to raise the stress level of the leader or use one of your own:
  - Mandatory indirect fireline on the left flank.
  - Task Force Leader/Incident Commander (IC) cannot be reached by radio.
  - Tractor 49 cannot be reached by radio.
  - Tractor 49 gets bogged down.
  - Sea breeze arrives early.
  - Fire jumps indirect line, making escape route to the road impossible.
  - Drainage to the north is very dry (if students choose it for deployment site); KBDI is 675.
  - Plowed lines begin to fill up with water, making footing difficult at best.
  - An irate citizen shows up and demands to know what is going to be done to protect his home.

- ☐ The instructor conducts an AAR.

### Slide 56



#### **Objective:**

Students must assess a lookout assignment and determine how to proceed. Then they must communicate their decisions to the appropriate individuals.

☐ Play video

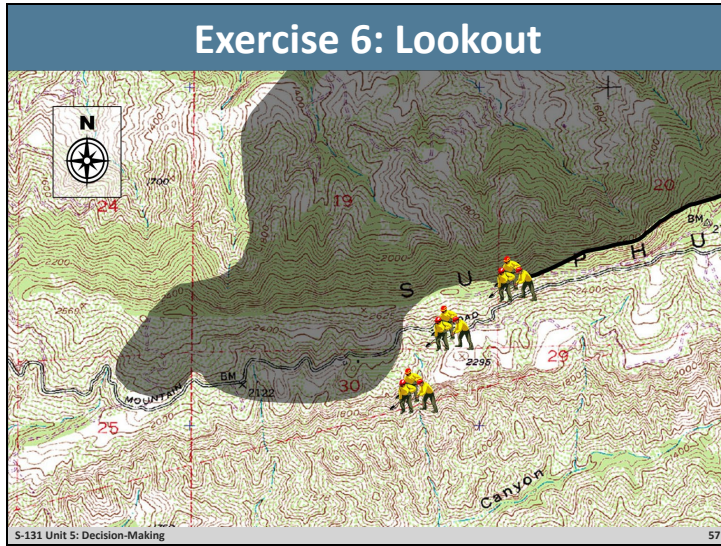
**Title** Lookout

**Summary** Aerial overview of the fire.

**Time** (00:34.18)

**Audio**

### Slide 57



- ☐ Hand out Exercise 6: Lookout map to students.

### Slide 58

#### Exercise 6: Lookout

##### Scenario

- It is October 24 at 0700, and your crew is assigned to Division Zulu (Z) on the Stanley Incident. Division Z can be described as having an underslung handline through moderate to heavy chaparral brush on moderate terrain.
- You have recently moved into one of the lead crew member slots with the Pinnacle Hotshots. Your supervisor has indicated that you have good potential to move up to more advanced positions in fire by keeping up the good work.
- During the previous night shift, hand crews made good progress but stopped short of an underslung segment below the road. The crew superintendent wants one squad to stay on the ridge top and finish the handline to the road. The other two squads will anchor at the road and pick up the underslung segment below the road. The crew superintendent feels it can be done before the onset of the peak burning conditions.

S-131 Unit 5: Decision-Making

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- ☐ Review scenario with students and facilitate exercise.

### Slide 59

#### Exercise 6: Lookout

- **Fire Size:** 60,000 acres.
- **Fuel Type:** Chaparral brush combination of fuel models 4 and 5.
- **Terrain:** Slopes average 30%.
- **Fire Behavior:** Currently smoldering.
- **Observations:** The weather forecast in the Incident Action Plan (IAP) indicates an expected high temperature of 100 °F; RH at 21%; wind, W-SW, 6-10 mph with the possibility of a slight Santa Ana wind condition. Currently, it is 0700 with a temp of 65 °F; RH 45% and no wind.
- **Assignment:** You are the lookout for the crew today. Your crew's assignment is to contain the underslung segment of the line before the heat of the day.
- **Resources Assigned:** One Type 1 crew.
- **Hazards:** Snags, fire behavior, downhill line, entrapment.

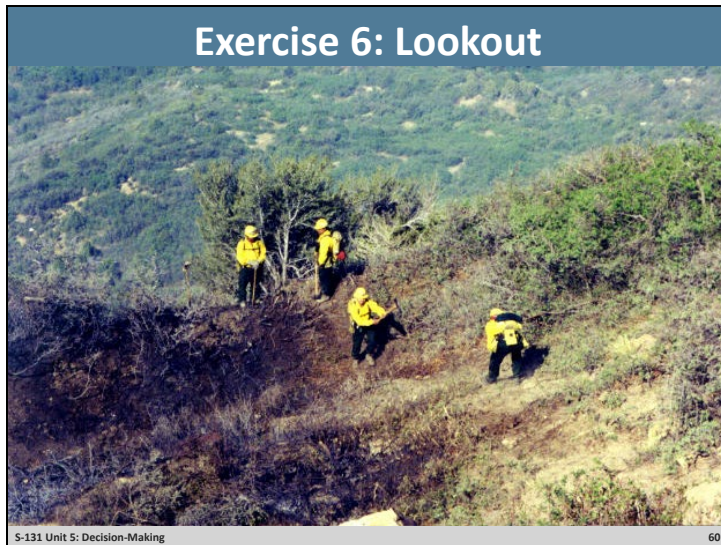
The crew superintendent hurries away before taking the time to brief you on where you are to be located. Looking around, you notice a good vantage point on a larger hill adjacent to the fire. How do you proceed?

S-131 Unit 5: Decision-Making

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- ☐ Review fire information with students.

### Slide 60



#### Exercise Execution:

- Allow 5 minutes for the students to decide on their course of action.
- The instructor should be looking for an implementation of the LCES checklist, specifically the lookout duties (IRPG, <https://www.nwcg.gov/publications/461>).
- The “Murphy’s Law Suggestions” listed below can be added as “what ifs” at any time during the exercise to raise the stress level of the leader (or use one of your own).
  - Smoke obscures your view with the crew(s).
  - Crew superintendent changes tactics to encircle spots (indirect). By doing that, you can no longer see the crew.
  - One of the squads is having a difficult time describing their location to you.
  - You are scanning radio channels and hear air attack calling your superintendent. There is no response. What can you do?
  - Change in wind condition.
  - Spot fires building under crew.
  - Sling psychrometer breaks.

☐ The instructor conducts an AAR.



### Slide 61

#### Review Unit Objectives

**Students will be able to:**

- **Demonstrate the ability to apply the Risk Management Process in a changing environment.**
- **Demonstrate the ability to assess resource capabilities.**
- **Demonstrate the ability to develop tactical and logistical plans.**
- **Demonstrate the ability to locate and apply standard wildland fire operating procedures found in the Incident Response Pocket Guide (IRPG) and other identified fireline references.**

S-131 Unit 5: Decision-Making

61

☐ Review unit objectives.

### Slide 62

#### Review Course Objectives

Student will be able to:

- Identify position responsibilities and demonstrate the ability to apply principles of Operational Leadership found in the *Incident Response Pocket Guide* (IRPG), PMS 461.
- Describe how to incorporate and maintain open lines of communication with appropriate personnel and identify documentation responsibilities.

S-131 Unit 5: Decision-Making

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- ☐ Review Course Objectives.
- ☐ Ensure that any student questions are answered.

### Slide 63

#### Review Course Objectives

**Student will be able to:**

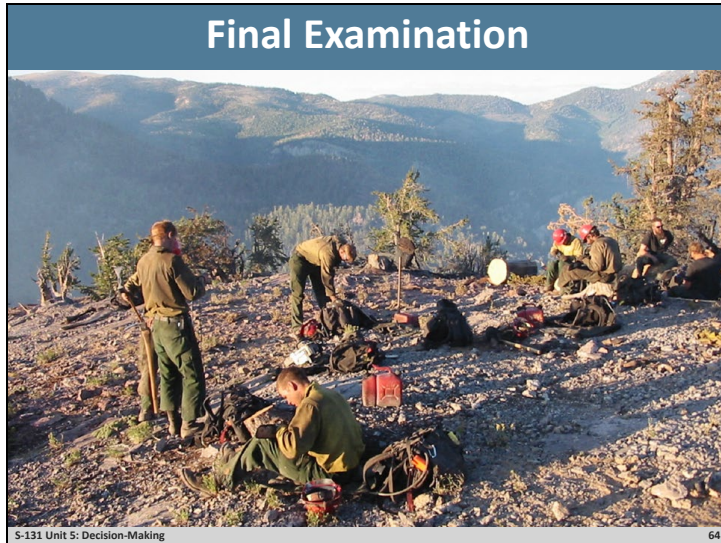
- **Identify Look Up, Down and Around indicators, and demonstrate the ability to apply the components of Lookouts, Communications, Escape Routes, and Safety Zones (LCES) as described in the IRPG.**
- **Demonstrate the ability to apply tactical decision-making procedures.**

S-131 Unit 5: Decision-Making

63

- ☐ Review Course Objectives.
- ☐ Ensure that any student questions are answered.

### Slide 64



- ☐ Administer the final exam.  
The final examination consists of 20 questions and should be completed within 1 hour.
- ☐ Ensure that students fill out a course evaluation, available online at <https://www.nwcg.gov/course-evaluation>