



S-420 Unit 9: Risk Management

Summary:

Teams will learn the importance of managing risk as a continuous process. They will be introduced to multiple risk management processes and the general steps of these processes.

Objectives:

- Describe the ability to use a risk management process in a team environment.

Instructor Note:

Unit instructor must work with Simulation Coordinator on how risk management will be incorporated into the simulation.

Unit at a Glance:

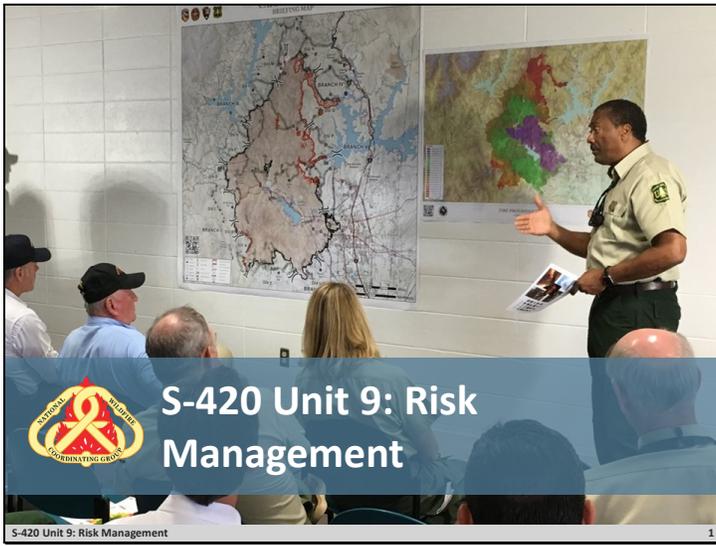
Topics	Method	Duration
Risk	Presentation	5 Minutes
Risk Management	Presentation	5 Minutes
Risk Management Processes	Presentation	25 Minutes
Incident within an Incident	Presentation	25 Minutes
Total Unit Duration		1 Hour

Materials:

- Handouts:
 - HO_09a_IncidentEmergPlanChecklist.
 - HO_09b_IncidentwIncidentPlan.
- Flip chart, paper and markers (1 per small group).
- Ability to display images and video on large screen.
- White board or easel access for group breakout.

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Slide 2

Objective

Students will be able to:

- Describe the ability to use a risk management process in a team environment.

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- Review unit objective.

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What is Risk?

Risk is the likelihood or possibility of hazardous consequences in terms of severity or probability.

Source: Interagency Standards for Fire and Fire Aviation Operations.

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- There is a degree of risk in every decision made and every action that is taken by an individual or an organization.

Discussion

- Risk science offers multiple definitions of risk and its components and processes; even within the fire management profession, risk definitions, components and process vary significantly. What is severity? What is probability?

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What is Risk Management?

Risk management is the process whereby management decisions are made and actions taken concerning control of hazards and acceptance of remaining risk.

Source: *Interagency Standards for Fire and Fire Aviation Operations*.

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Federal Wildland Fire Policy

Sound risk management is a foundation for all fire management activities. Risks and uncertainties relating to fire management activities must be understood, analyzed, communicated, and managed as they relate to the cost of either doing or not doing an activity. Net gains to the public benefit will be an important component of decisions.

Source: Guidance for Implementation of Federal Wildland Fire Management Policy.

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Discussion

- Ask students what are examples of decisions where there is a lot of uncertainty and risk?

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What is a Risk Management Process?

A continuous systematic process, or tool, to assist in decision-making; the process helps to identify the level of risk, how to reduce the risk, and if it is an acceptable level considering the desired outcome.

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- C&G has to make decisions where there is a lot of uncertainty and risk; therefore, C&G need to use risk management process(es).
- Corporations and organizations (such as financial industry and military) use risk management processes.

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Risk Management Processes

In wildland fire, there are different organizational levels where risk decisions are made and different risk management processes are used.

Strategic

Risk Management

Operational

Risk Management

Time Critical

Risk Management

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Strategic Level

This is big picture, longer-term perspective risk. These decisions are framed by statute, policy, land management plans, and the socio/political climate.

- For Federal wildland fire, the Wildland Fire Decision Support System (WFDSS) is a set of decision support tools (GIS & analysis) and a documentation system that is used in risk management at the strategic level.

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- The risk decision is documented in the Incident Decision. Federal agencies may require additional risk management processes to be conducted and documented.

Discussion

- Review these questions from the student pre-course work on WFDSS.
- What information does a WFDSS decision document provide an IMT?
- What information does an IMT provide to update or validate a WFDSS decision?

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Operational Level

This is risk that is more focused on a specific situation and is mission oriented.

- The *Incident Action Plan Safety Analysis (ICS 215A)* and *Safety Analysis Risk Matrix* are examples of risk management processes that are used at the operational level.

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Time Critical

This is risk related to making decisions in a dynamic environment focused on immediate personal exposure and safety. For example, a crew determining if they should turn down a line construction assignment.

- The *Incident Response Pocket Guide (IRPG)*, PMS 461, *Risk Management Process* is an example of a risk management process used at the time critical level.

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

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General Steps in the Risk Management Process		
1	Identify Objectives	What is to be accomplished?
2	Identify Hazards	What could go wrong?
3	Assess Risks	What is the probability and severity of a bad outcome?
4	Identify Options	What can be done to reduce the probability or severity?
5	Evaluate Risk vs. Gain	What is risk? What is gain?
6	Execute a Decision	Is the residual risk acceptable?
7	Monitor/ Re-Evaluate	

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- General steps that most risk management processes follow include:
- Identify objectives (What is to be accomplished?).
- Identify hazards (What could go wrong?).
 - Agency management and supervisors, the people that set the trade-offs between safety and production, cannot possibly know all the hazards their employees face. The Iceberg Model 90:10 rule was developed from a study of industrial operations, but is applicable to wildland fire (See Slide #12).
 - Agency management (strategic level) knows only 10% of the hazards on a fire.
 - Supervisors (operational level) know about 20 – 30 % of the hazards on a fire.
 - Front line workers (time critical level) know about 60% of the hazards. This group knows what is actually occurring (hazards) and is directly experiencing the risk.
 - Risk management processes need feedback loops between those developing the plans and those who are implementing plans.
- Assess risk (What is the probability of a bad outcome? What is the severity of a bad outcome?).
 - Hazard and risk are not the same thing. A snag is a hazard. The risk is the probability that it could hurt someone and the severity if it does happen.
- Identify options (What can be done to reduce the probability or severity?).
 - Can the risk be transferred, avoided, or mitigated to an acceptable level?
 - What is the residual risk?
- Evaluate risk versus gain (What is the risk? What is the gain?).
- Execute a decision (Is the residual risk acceptable?).
- Monitor and re-evaluate.

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Hazards

90 : 10 RULE

Hazards Known to Management (Strategic)

Hazards Known to Supervisors (Operational)

Hazards Known to Front Line Workers (Time Critical)

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Incident within an Incident

An incident within an incident (IWI) is any accident or medical emergency during an incident directly involving IMT personnel or assigned resources.

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- Planning for an IWI needs to occur prior to each operational period.
- ☐ The following questions should be asked and answered prior to engaging. (IRPG)
 - What are we going to do if someone gets hurt?
 - How will we get them out?
 - How long will it take to get them to a hospital?

Discussion

Role of IMTs and the roles and responsibilities of each C&G position during an IWI.

Note to Instructor

Consider the use of pertinent case studies to aid discussion.

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Planning for an Incident within an Incident?

- Every team has their own version of an IWI plan.
- There is no official or formal template of an IWI plan.

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- Hand out and briefly discuss examples of IWI Plans:
 - HO_09a_IncidentEmergPlanChecklist
 - HO_09b_IncidentwIncidentPlan

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Objective

Students will be able to:

- Describe the ability to use a risk management process in a team environment.

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- Review unit objective.