THE NUMBERS TELL A STORY 2004 Fireline Safety Refresher Training

Facilitator Guide



This presentation will provide an overview of basic safety principles for wildland firefighting.

Through group exercises, students will be asked to apply these safety principles to real-life fire scenarios from previous fire seasons.

Notes to Facilitator

The success of this presentation is dependent on your ability to stimulate meaningful discussion during group exercises. This is not a plug-and-play presentation! Refer to NOTES on page FG 4 of the Facilitator Runsheet. When used as a video course, review the tape prior to the class. The facilitator of the course should have a wide range of wildland and firefighting experience and techniques. AN INCIDENT RESPONSE POCKET GUIDE, NFES #1077, IS REQUIRED FOR EACH STUDENT.

Introduction

This year's fireline safety refresher training, THE NUMBERS TELL A STORY, is intended as an alternative delivery system for annual refresher training required for all personnel participating in fire suppression or prescribed fire activities, who may be subject to assignments on the fireline. Check specific agency policy to determine if this training package meets all refresher training requirements.

Prerequisites

Students should have successfully completed S-130 and S-190 and have at least one season as a firefighter.

Course Objectives

Upon completion of this training, the student will be able to understand and apply general wildland firefighting principles to simulated fire scenarios using the Incident Response Pocket Guide.

Course Components

The course package includes a video tape, Facilitator Guide, and Student Workbook.

Equipment and Materials

The following is a list of equipment and other material required for presentation of the course:

- Training Room
- TV/VCR or DVD
- Course package: print extra copies of the Student Workbook from www.fire.blm.gov/training/blmtrng/blmtrng.html
- Incident Response Pocket Guide, NFES #1077; one for each student
- Sign up sheet
- Paper and pencil for each student
- Flip chart with paper and marking pens
- Optional: Using Your Fire Shelter video, NFES #1568 New Generation Fire Shelter video, NFES #2711

Administration

The facilitator is responsible for identifying necessary equipment, materials, and supplies. He/She is responsible for recording attendance and assuring evaluations are completed and returned.

BY MAIL:	NIFC Fire Training BLM Training Unit Attn. Eva Brown 3833 S. Development Avenue Boise, ID 83705
BY FAX:	(208) 387-5378
E-MAIL:	Eva_Brown@nifc.blm.gov

Total program time is approximately four hours, depending on the length of the exercises. Additional time will be needed for the fire shelter deployment practice.

DESCRIPTION	EXERCISE	SWB PAGE
Los Alamos Campground Fire	1	3
Standard Firefighting Orders	2	5
Downhill Line Construction	3A	6
Downhill Line Construction	3B	7
Ship Island Fire	4	10
Wildland-Urban Interface	5	13
Grand Prix Fire	6	27
Wrap-Up Discussion	7	28
Comments		36

Facilitator's Runsheet

NOTES:

- View the tape before your classroom presentation.
- Be ready to facilitate classroom discussions on each topic.
- Exercises 3A and 3B are more complex and will require your careful review prior to presentation.
- To complete the minimum requirements for BLM Annual Refresher training as outlined in the Interagency Standards for Fire and Fire Aviation Operations 2004, the facilitator, in addition to the showing of this tape, will need to:
 - a) "Review forecasts and assessments for the upcoming fire season and discuss implications for firefighter safety." We suggest you solicit the help from a local meteorologist.
 - b) "Conduct hands-on fire shelter inspections. Practice shelter deployments in applicable crew/module configurations." Is it strongly recommended that you practice both types of fire shelter deployment—old and New Generation fire shelters.
- The classroom should be set up to facilitate group discussions.
- Ensure all students have a copy of the *Student Workbook* and the *Incident Response Pocket Guide*.

DVD Operating Instructions

NOTE: This is not a closed captioned program. If you require closed captioned capabilities, order the VCR version.

Hardware requirement: If you are projecting from a laptop, you will need at least a Pentium 4 processor or a settop player.

• From Main Menu, click on *Play Program*

IMPORTANT NOTE:

Press **PAUSE** during group exercises. **DO NOT** press **STOP**. If you click **STOP**, your DVD player may **NOT** hold the program in the same place like a VCR. You may be forced back to the Main Menu.

For your convenience, the program has been broken into eight chapters. These chapters are only placeholders and are not intended to be individual lessons. Descriptions of the placeholders are listed below. Refer to DVD column in Facilitator's Guide.

- Chapter 1 Introduction to Los Alamos Campground Fire and Exercise 1.
- Chapter 2 Introduction to fire statistics. (Right after Exercise 1)
- Chapter 3 Recap fire history in the '50s. Introduction to Downhill Line Construction and Exercises 3A & B.
- Chapter 4 National Incident Radio Support Cache update and Exercise 4.
- Chapter 5 Recap fire history in the '80s and '90s. Introduction to LCES. WUI. Exercise 5.
- Chapter 6 Continued '90s and 2000s recap. Hazard Trees. Leadership. Driving Standards & Work/Rest.
- Chapter 7 Continued 2000s recap. Introduction to Grand Prix Fire and Exercise 6.
- Chapter 8 Continued recap of fire history in the 2000s. Exercise 7.

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
			 Introductions Review Prerequisites Review Course Objectives Handout and stress the use of the Incident Response Pocket Guide (IRPG). Stress that this tape is not going to simply list and explain the references in the IRPG. Knowledgeable fire personnel will discuss the meanings and intent behind these tools in greater depth than may be expected. 	SWB p.2 IRPG
CH 1	Play/ Resume	 Historical clips from the field Introduction Introduction to Los Alamos Campground Fire and Exercise 1 		SWB p. 3
	Stop/ Pause		Have students get into groups of 5-6 and complete Exercise 1.	SWB p. 3
			 (Suggested time for group exercise and classroom discussion: 10 minutes) Additional discussion points: This is a warm-up exercise. Don't focus too much on tactics. Use the green pages in the IRPG to identify the safety concerns. Direct versus indirect. Probability of success. Available resources. Incident commander intent. Fire behavior. 	IRPG
СН 2	Play/ Resume	 Recap Exercise 1 Introduction to fire statistics Graphics of fire statistics 		SWB p. 3

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
		 Introduction to Significant Fires and Guiding Principles Bud Moore interview 		SWB p. 4
		 Introduction to Standard Firefighting Orders and Exercise 2 		SWB p. 5
	Stop/ Pause		Have students get into groups of 5-6 and complete Exercise 2.	SWB p. 5
			(Suggested time for group exercise and classroom discussion: 10 minutes)	
			 Additional discussion points: Do you routinely go over the Standard Firefighting Orders prior to engagement? How do you mitigate a situation when a specific order cannot be followed? Share examples. 	
CH 3	Play/ Resume	 Recap fire history in the 1950s Introduction to Downhill Line Construction and Exercise 3A 		SWB p. 6
	Stop/ Pause		Have students get into groups of 5-6 and complete Exercise 3A. (Suggested time for group exercise and classroom discussion: 20 minutes total Group exercise: 10 minutes Class discussion: 10 minutes)	SWB p. 6
			3A Solution:A. Items you could have noted in	
			favor of cold trailing down"chimney" canyon:1. Relatively short distance to construct line.	

DVD Chapter	DVD/ Tape Action	Content		Refer To
			 Fire backing downslope against prevailing wind. Los Angeles County crews and equipment working at bottom of line with probable tie- in. Alternate plan (from Point A, east along ridge to road below) would include more acreage, longer line construction, and burnout. 	
			 B. Factors you could have noted NOT in favor of cold trailing down "chimney" canyon: 1. Steep terrain with rocky face and chimney. 2. You were provided no information on advance scouting—no assurance that crew could "keep one foot in the burn" all the way. 3. No provision for any type of communication with cooperator crews or FS liaison at base of slope (no radio). 4. Alternate plan (from Point A along the ridge to road below) was easier, safer terrain even though it would require burnout or backfire to complete line construction. 	
			C. Use alternate plan ridge (Point A, East along the ridge to road below) as already determined in the pre- attack plan. This decision should include splitting crew and sending one-half of crew down ridge to work backup from an anchor at bottom. Dispatch runner back to Del Rosa crew to get advice to Division Boss and to Liaison with LA County of action taken and	

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
			plan to fire line, along the ridge, when line completed and tied across bottom to LA County dozer line.	
	Play/ Resume	 Recap Exercise 3A Introduction to Exercise 3B 		SWB p. 7
	Stop/ Pause		Have students get into groups of 5-6 and complete Exercise 3B.	SWB pp. 7-8 IRPG
			(Suggested time for group exercise and classroom discussion: 20 minutes total Group exercise: 10 minutes Classroom discussion: 10 minutes)	
			3B Solution:	
			A. Alternate courses:	
			 Build cold trail line along fire's edge into steep gully and then out to dozer line on far side of gully. Build indirect line from the "diamond" area along the east edge of the deep gully to a point opposite the dozer line. Hold the crew at the "diamond" area, out of chimney canyon, send a scout down along the fire's edge into deep gully, and out, to scout line and make contact with LA County crew. Pull back uphill for new line choice. Abandon effort, pulling out to safe area. 	
			B. Fire behavior factors key to decision (but not necessarily known to King):	

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
			 Topography Chimney canyon Steep sided, deep gully with fire edge in bottom Fuels Light Dry Preheated by fire's proximity Fire had spotted earlier County crews still working toward him from bottom. Fire laying down—static situation Spot fires were not active. Light fuels and some natural opening made line construction easy along east edge of gully. Hold crew at "diamond." Send out scout with one foot in the burn to contact lower crew. Have prearranged signal and plan to use burned area west from chimney as escape route. If possible, scout to determine plan of tie-in and best method of attack. 	
CH 4	Play/ Resume	 Recap Exercise 3B with Gordon King Recap fire history in the 1960s National Incident Radio Support Cache update 		SWB p. 9
	Stop/ Pause		Break (10 minutes)	
	Play/ Resume	 Recap fire history in the 1970s Introduction to Ship Island and Exercise 4 		SWB p. 10
	Stop/ Pause		Have students get into groups of 5-6 and complete Exercise 4.	SWB p. 10

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
			 (Suggested time for group exercise and classroom discussion: 10 minutes) Additional discussion point: What is your prediction of "worst case" fire potential? How would this affect the current plan? 	
СН 5	Play/ Resume	 Recap Exercise 4 Recap fire history in the 1980s 1990 Dude Fire and LCES Clip of Paul Gleason Recap fire history in the 1990s Introduction to Wildland Urban Interface (WUI) in the 1990s Introduction to Dick Mangan's article on 		SWB p. 10 SWB p. 11 SWB
	Stop/ Pause	WUI and Exercise 5	 Have students get into groups of 5-6 and complete Exercise 5. (Suggested time for group exercise and classroom discussion: 15 minutes) Additional discussion point: Discuss this article in relation to local WUI intermix (or from past experiences). 	13-16 SWB pp. 13-16 IRPG
CH 6	Play/ Resume	 Continued recap of fire history in the 1990s Introduction to hazard trees Clip of Winston Rall Introduction to aviation safety Clip of aircraft personnel 		SWB pp. 19-21 SWB p. 22

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
		 Introduction to leadership Clip of Jim Cook Recap of fire history in the 2000s Clip of Anthony DePaolo Introduction to incident driving standards and work/rest ratios Clip of Michelle Ryerson-Grett 		SWB p. 23 SWB pp. 24-26
	Stop/ Pause		Break (10 minutes)	
CH 7	Play/ Resume	 Continued recap of fire history in the 2000s Introduction to the Grand Prix Fire and Exercise 6 		SWB p. 27
	Stop/ Pause		 Have students get into groups of 5-6 and complete Exercise 6. (Suggested time for group exercise and classroom discussion: 10 minutes) Additional discussion points: Trigger points Safety zones and Escape routes What do you do when given management objectives (protect homes from Haven to Archibad), but not a valid tactical plan? Refer students to <u>www.wildlfirelessons.net</u> for details on the Fire Storm 2003 report 	SWB p. 27
	Play/ Resume	 Recap of Exercise 6 Clip of Tom Pylmale, Lessons Learned 		SWB p. 27

DVD Chapter	DVD/ Tape Action	Content	Facilitator Tasks	Refer To
CH 8		 Continued recap of fire history in the 2000s Introduction to Exercise 7 		SWB p. 28
	Stop/ Pause		 Have students get into groups of 5-6 and complete Exercise 7. (Suggested time for group exercise and classroom discussion: 15 min.) Additional discussion points: Discuss any local issues facing your unit Share any fire history not mentioned in this training 	SWB p. 28 IRPG
	Play/ Resume	Final ClosingCredits		
	Stop/ Pause		 Complete evaluations Proceed with fire shelter deployment practice. (It is highly recommended to practice with both old and New Generation fire shelters.) 	SWB p. 37



Fire Shelter Update

Introduction

A new fire shelter has been under development for several years and is now available to wildland firefighters (Figure 1). The adoption of this new system, which includes the fire shelter, training shelter, video and booklet, began in June 2003. About 50,000 of the new shelters have already been delivered to the GSA. A complete transition to the new shelter is expected to take another 2 to 4 years. All wildland firefighters need to know the impacts of this change.

A Tech Tip entitled <u>"New Generation Fire Shelter Developed</u> for Wildland Firefighters (0351-2313-MTDC)" provides information on the new fire shelter system. This Tech Tip also

includes instructions on modifying existing fireline packs to fit the new shelter, and can be accessed electronically on the

Fire Shelter References

- <u>Fire Shelter Information from</u> the USDA Forest Service, Fire and Aviation Management web site.
- More information on the New Generation Fire Shelter Developed for Wildland Firefighters (0351-2313-MTDC) You will be prompted for a user name and password when accessing the MTDC website. Use the following user name: td / password: t-d.

MTDC website or can be ordered in hard copy through MTDC. You will be prompted for a user name and password when accessing the MTDC website. Use the following user name: t-d / password: t-d.



Figure 1 - New fire shelter

Size Comparison of New and Current Fire Shelters:

	New Fire Shelter	Current Fire Shelter
Weight - w/o case	4.2 lbs	3.4 lbs
Folded size - w/o case	8.5" x 5" x 4"	8.5" x 5.5" x 3"
Folded Size - w/case	9" x 5.75" x 4.5"	9" x 5.75" x 3 1/8"
	86" long	71" long
Deployed Dimensions	15.5" high	24" high
	31" wide	48" wide
Cost	\$256	\$65 (approximate)

How will adoption of the new shelter affect wildland firefighters?

From the perspective of how we train firefighters to use fire shelters, very little has changed. Though the new shelter offers better protection from direct flames than the original shelter, survival of the occupant is more likely if direct flame contact with the shelter is avoided. Even though the new shelter provides

increased protection compared with the original shelter, firefighters will still need to know how to recognize potential entrapment situations and how to avoid them. The same evaluation process that firefighters have been using to identify survivable sites still applies. Teaching firefighters to avoid deploying shelters in or near fuel concentrations, chimneys, and other potentially hazardous areas will continue to remain an important part of fire shelter training.

Use of Original Fire Shelter

The original fire shelter still provides good protection if used as described by existing guidelines. The original shelter can be used until the transition to new shelters is complete and as long as they meet the refurbishing criteria listed in the "Fire Equipment Storage and Refurbishing Standards" prepared by the National Fire Equipment System Refurbishment Standards Task Group, Sept. 1998, (See related website links above).

Current Fire Shelter Training Aids (Original or New Shelter)

The present standard for fire shelter training materials for either shelter system includes the Entrapment Avoidance-Its Your Call! training program (2002),) and the Lessons From the Thirtymile Fire html/PowerPoint training program. There are two videos currently approved for fire shelter training; instructors will have to choose which video to use based on the type of fire shelter that trainees will be usina.

Original Fire Shelter Training Aids

Instructors providing training for persons using the original fire shelter will need to utilize the Using Your Fire Shelter video (NFES# 1568, 2001 edition to demonstrate the most current original fire shelter information available today. A previous fire shelter training video, Your Fire Shelter (NFES# 1568, 1986 edition) shows techniques that are no longer recommended. Since both videos have the same NFES number and similar titles, it is suggested that the 1986 version be eliminated from training libraries to prevent confusion.

The Your Fire Shelter booklet (NFES #1570) 2001 edition, and the Avoid the Flames pamphlet (MTDC) 1999 edition can also be used as training materials for original shelter users.

Training Revisions for New Shelter

The new fire shelter and training fire shelter have significant differences from the original system (Figures 1, 2). Wildland firefighters will need to attend a training session to learn how to use the new shelter and training shelter before they are allowed to carry the new shelter on the fireline.

The new training shelter, The New Generation Fire Shelter training video (NFES #2711, 2003 edition), and the New Generation Fire Shelter pamphlet (NFES #2710) became available in May 2003. A Spanish language version of the New Figure 2 - Cutaway view of new fire shelter



Generation Fire Shelter training video and the Your Fire Shelter booklet will be available by mid 2004.



National Interagency Fire Center 3833 S. Development Avenue Boise, Idaho 83705 208-387-5512

NOTE: Contents of this site will be reviewed and updated annually.

SAFENET

SAFENET is a form, and process, that provides a method for reporting unsafe situations on, or off, the fireline. The information provided on the form will help collect important, safety-related data to determine long-term trends and problem areas. A SAFENET may be filled out at any time to report a valid concern about unsafe situations in fire operations, as well as document corrective action.

Discuss the methods for filing a SAFENET.

- Electronically (access site through NIFC website)
- By hardcopy (self-addressed, stamped forms available through the cache system).
- By phone (1-800-670-3938)

Discuss advantages of filing a SAFENET through your supervisor versus sending it yourself.

- Increase the chances of finding an immediate solution.
- Keeps supervisor "in the loop."

Discuss using SAFENET in situations other than fire.

- Prescribed fire
- All-risk
- Training

Where does a SAFENET go, and what response can you expect?

- SAFENETs are received and stored in a database in Boise. After a SAFENET is received, the names are removed. It is then given a document number and posted to the web.
- Every new SAFENET is then forwarded to the affected agencies designated list of contacts, which usually includes the National or Regional Safety Officer.
- It is each agency's responsibility to ensure that corrective actions are taken.

Corrective actions can be filed by anyone at any time. They are automatically attached to the individual SAFENET on the database.

Discuss using SAFENET to monitor safety issues other firefighters may be having.

SN	SAFENE	
SAFENET	ildland Fire Safety and Health	n Network
	REPORTED BY	
Name (optional)	1	Phone
Agency/Organization	I	Date Reported
	EVENT	
Date and Time	Jurisdictio	n/Local Unit
Incident Name & Number	S	tate
Incident Type	Incident Activity	Stage of Incident
 Wildland Prescribed Wildland Fire Use All Risk Training Fuel Treatment Work Capacity Test 	 Line Support Transport to/from Readiness/Preparedness 	 Initial Attack Extended Attack Transition Mop Up Demobe Non-Incident Other
Position Title		
	CONTRIBUTING FACTOR	
☐ Fire Behavior ☐ Human Factors Other:	□ Environmental □ Con	nmunications er (Explain Below)
	NARRATIVE	
Describe in detail what happened in fire behavior, etc), and the resulting paper and include it with this form.	cluding the concern or potential issue, safety/health issue. If more room is r	, the environment (weather, terrain, equired, write on a separate piece of
(2/02)		NFES 2633







POSTAGE WILL BE PAID BY ADDRESSEE

SAFENET PO BOX 16645 BOISE ID 83715-9750

Ասհահհետհովեեհեհետհոհեհետուհե



Fold on dotted line

Wildland Fire Safety and Health Network

The purpose of SAFENET is:

- 1. To provide reporting and documentation of unsafe situations or close calls.
- 2. To provide a means of sharing safety information throughout the fire community.
- 3. To provide long-term data that will result in identifying trends.

Submitting a SAFENET is not a substitute for on the spot corrections!

When filing a SAFENET:

You have the option of submitting SAFENET at any level of the organization, but are encouraged to submit it to your supervisor for immediate corrective action.

If you submit SAFENET directly to the national center, you are encouraged to provide a copy to your supervi-

sor. You have the right to report unsafe conditions anonymously, in accordance with 29 CFR 1960.

File a SAFENET by Phone 1-888-670-3938

്ലാവിന്നു മാദ്യാന് മാദ്യാന്നിന്നു.

CORRECTIVE ACTION

Please document how you tried to resolve the problem and list anything that, if changed, would prevent this safety issue in the future.

INTERNET WEB SITE LINKS

www.fire.blm.gov/training/blmtrng/blmtrng.html

Website for 2001, 2002, 2003, and 2004 Fireline Safety Refresher (Student Workbook and Facilitator Guide)

www.fire.blm.gov/

- Six Minutes for Safety
- Operational Documents and Reports

View investigation reports and reviews from high-profile fires.

- Sawtooth Fire
- Cramer Fire
- Thirtymile Fire
- Historical Wildland Fire Fatalities

View a variety of interagency guides, handbooks, and publications.

- Fire Preparedness Review Guide
- Interagency Standards for Fire and Fire Aviation Operations, 2004
- Task books for ICS positions

www.nifc.gov/safety_study/index.htm

(Also accessed through the Safety link on the NIFC home page)

- Wildland Fire Safety Training Annual Refresher (WFSTAR) What's New For 2004:
 - Radio Communication
 - Driving Safety
 - Work/Rest Guidelines
 - New Fire Shelter
- ♦ SAFENET
- Historical Wildland Firefighter Fatality Reports

www.nwcg.gov/pms/pubs/pubs.htm

Select National Fire Equipment System Catalog - Part 2 Publications 2003 Edition

- Using Your Fire Shelter Video (2001), NFES 1568
- Your Fire Shelter Booklet, 2001 Edition, PMS 409-2, NFES 1570
- Incident Response Pocket Guide, PMS 461, NFES 1077
- Fireline Handbook, PMS 410-1, NFES 0065
- Interagency Standards for Fire and Fire Aviation Operations, 2004
- New Generation Fire Shelter Video (2003), NFES 2711
- New Generation Fire Shelter Booklet (2003), NFES 2710, PMS 411
- New Generation Fire Shelter DVD (2003), NFES 2712

www.wildfirelessons.net

NARTC Lessons Learned website

www.fireleadership.gov

Interagency Fireline Leadership website

• Information concerning staff rides

ANNUAL FIRELINE SAFETY REFRESHER COMMENTS

•	How man	y seasons have you worke	ed as a firefighter	r?		
•	What is y	our primary function in fi Line Firefighter Fireline Supervisor Other IMT Section	re suppression:		In Support of Fires Management	
•	What wil	l you do differently after v	viewing this refre	sher?		
•	How can	the refresher be improved	?			
	cilitator, j lcome.	please return this form to	o the address be	low. Comn	nents by e-mail are	
BY	MAIL:	NIFC Fire Training BLM Training Unit	BY	FAX: (208	8) 387-5378	

E-MAIL: Eva_Brown@nifc.blm.gov

Attn. Eva Brown

Boise, ID 83705

3833 S. Development Ave.