



Fire Ground Survival

Chapter 3: Self-Survival Procedures



Objectives

Students will be able to:

- Identify situations where a Mayday must be called.
- Describe the procedures that increase fire fighter survivability.
- Explain the GRAB LIVES mnemonic and how to follow it in performing the self-survival procedures.
- Recognize the conditions requiring immediate evacuation and describe the emergency evacuation procedures.



Open Video File: "IAFF FGS Module 1 – Self-Survival Procedures "

Watch Module 1 of Fire Ground Survival Video

Fire Fighter Self-Survival Procedures



Mayday Situations

The Situations for Calling a Mayday

IF

THEN

Lost or missing member

Call a Mayday



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WHY ARE YOU LISTENING TO HIM?
YOU'RE ALONE AND IN TROUBLE...
CALL THE FREAK'N MAYDAY!



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Anyone on the fire ground who recognizes one of the Mayday situations can call the Mayday.



Reasons Fire Fighters Don't Call the Mayday

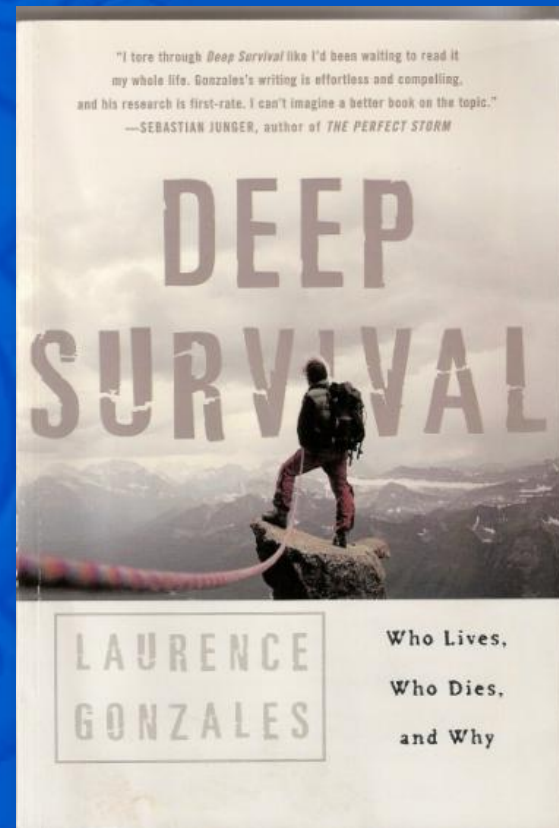
1. Fear of calling attention to a mistake and discipline.
2. Fear of being perceived as weak or not knowing your job well enough to keep yourself out of a Mayday situation.
3. Don't know how.

Use it....or Lose it!



Avoid Panic

Fear and Anxiety
=
Panic



Laurence Gonzales, Deep Survival: Who Lives, Who Dies, and Why

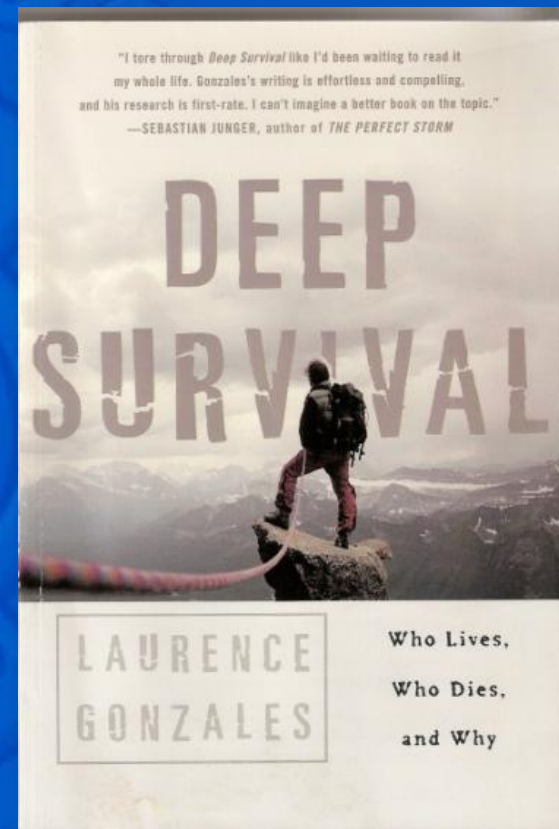


The Physiological Response to PANIC

Cortisol and other hormones interfere with perceptions and decision making.

This results in:

- Seeing less.
- Hearing less.
- Missing cues from the environment.
- Making mistakes.



Laurence Gonzales, [Deep Survival: Who Lives, Who Dies, and Why](#)



Suppressing the PANIC Response

Breathe:

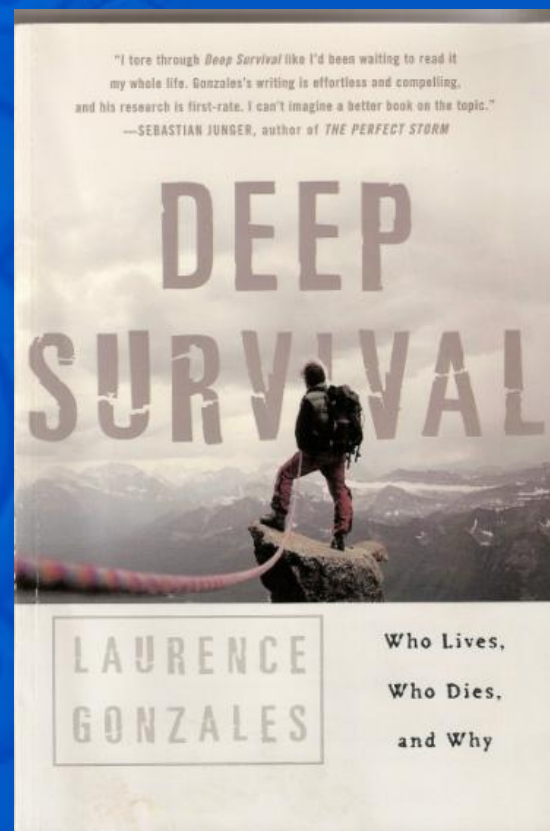
- Controlled steady breathing.

Organize:

- Follow a plan with logical steps.

Act:

- Take action and perform steps in order.



Laurence Gonzales, [Deep Survival: Who Lives, Who Dies, and Why](#)

Fire Fighter Self-Survival Actions (NIOSH)



- Transmit a distress signal.
- Activate their PASS device.
- Try to conserve air by staying calm and reducing activity.
- Remain in one place if not in immediate danger.
- Get bearings and look for potential escape routes.
- Attract attention:
 - Maximize PASS sound.
 - Move light around.
 - Use tools to make noises.



Self Survival Procedure

G auge	CHECK AIR GAUGE
R adio	RADIO FOR ASSISTANCE
A ctivate	ACTIVATE PASS
B reathing	CONSERVE AIR
L ow	STAY LOW
I lluminate	SHINE FLASHLIGHT
V olume (make noise)	MAKE A LOUD NOISE
E xit (find one)	FIND AN EXIT
S hield Airway	PROTECT AIRWAY



Why a Mnemonic?

“... mnemonics are used in training to memorize a procedure, deeply imbedding it into the memory until it is second nature and can be recalled without hesitation or thought.”

Dr. Burt Clark

NFA, Executive Fire Officer Program Chair

GRAB LIVES Applications



1. Reminds fire fighters of the important equipment they must check when arriving for duty:
 - G = gauge, check the air in SCBA.
 - R = radio, check battery and frequency.
 - A = activation of PASS, working?
 - I = illuminate, flashlight battery good?
 - S = shield airway, hood and gloves good?



GRAB LIVES Applications



2. Reminds fire fighters of survival elements upon arrival at a fire when a Mayday situation does not exist:
 - G = gauge, check air in SCBA periodically.
 - R = radio, advise command of conditions/location.
 - L = low, stay below the heat.
 - I = illuminate, use light to cut through smoke.
 - E = exit, identify exits while searching for victims and fire.



GRAB LIVES Applications

3. Using GRAB LIVES during a Mayday:
 - Not necessary to follow sequentially.
 - Use actions required for your immediate survival (ex. Flash over conditions may require fire fighter to perform “R” for radio and “E” for exit only).



Self-Survival Procedure: Gauge

G-R-A-B L-I-V-E-S

Check Air (Chest Harness **G**auge)

- Routinely check SCBA air gauge.
- Quantity of air indicates time available to find a more tenable atmosphere.
- When in distress, advise IC of quantity of air.





Self-Survival Procedure: Radio

G-R-A-B L-I-V-E-S

Initiate a “Fire Fighter Mayday” on a Radio

- Use the EAB if available.
- Do not wait.
- Pause after each message.
- Repeat until IC replies.
- Initial message should be brief.





Self-Survival Procedure: Radio

G-R-A-B L-I-V-E-S

Example of Mayday call over a Radio

Fire Fighter

“MAYDAY, MAYDAY, MAYDAY”

[All radio traffic shall cease]

Incident Commander

“Unit calling Mayday identify”

Fire Fighter

[Use mnemonic LUNAR, HELP, LIP, CLAN, to guide response]

Who-What-Where

(Mnemonic-

LUNAR, HELP, LIP, CLAN)

“This is fire fighter Smith, from Engine 1, I’m lost on the 2nd floor”



Self-Survival Procedure: Radio

- Example: A fire fighter separated from crew and unable to find a hose line.

“This is Fire Fighter Smith from Engine 1.

Who are you? -----

I’m separated from my crew.

What is the emergency?-----

I’m on the 2nd floor in a hall way.”

Where are you?-----

Self-Survival Procedure: Activate PASS



G-R-A-B L-I-V-E-S
Activate PASS Device

- Activate PASS Device.
- Position the device's audible alarm and light so best heard and seen by rescuers.
- Silence the device to talk on the radio and to listen for rescuers.



Self-Survival Procedure: Control Breathing

G-R-A-B L-I-V-E-S
Conserve Air, Control Breathing

- Control anxiety, breathe slowly, and minimize exertion as much as possible, even before a Mayday.
- Use TALK TEST to stay in aerobic zone – physical effort where short sentences can be spoken.
- Breathe through low air alarm and beyond.
- To conserve air, make exhalation period twice as long as inspiration periods.



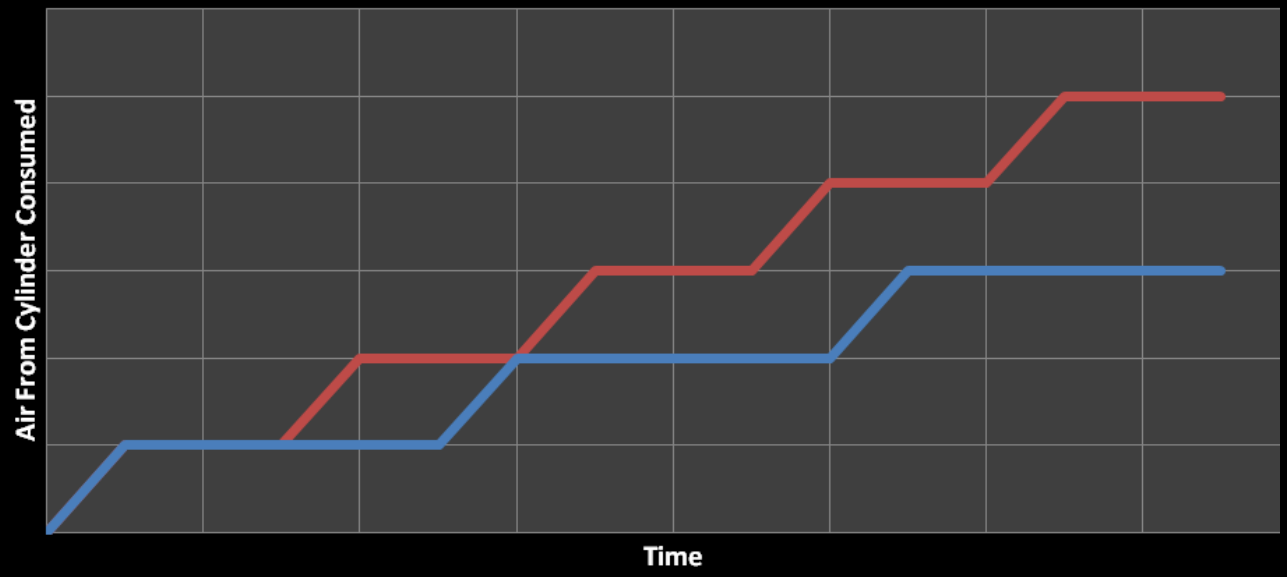


Self-Survival Procedure: Control Breathing

G-R-A-B L-I-V-E-S

Conserve Air, Control Breathing

R-EBT Breathing vs. Normal Breathing



Normal Air Consumption R-EBT Air Consumption

Inhale = Increasing Lines
Exhale = Horizontal Lines



Self-Survival Procedure: Stay Low

G-R-A-B L-I-V-E-S
Stay Low

- Stay near floor to avoid super-heated toxic air.
- Stay low to help visualize hose line and locating an exit.





Self-Survival Procedure: Illuminate

G-R-A-B L-I-V-E-S
Illuminate

- Keep flashlight on while working.
- Shine flashlight at 45 degree angle.
- Momentarily turn off flashlight to locate rescuer's light.



Self-Survival Procedure: Volume



G-R-A-B L-I-V-E-S Volume

- Use a hand tool to make noise.
- Generate sound on an exterior wall if possible.





Self-Survival Procedure: Exit

G-R-A-B L-I-V-E-S

Exit

- Move along exterior walls to locate windows.
- Use expansion joints to mark path of travel.
- Follow hose line using couplings as guides.



Self-Survival Procedure: Exit

G-R-A-B L-I-V-E-S
Exit

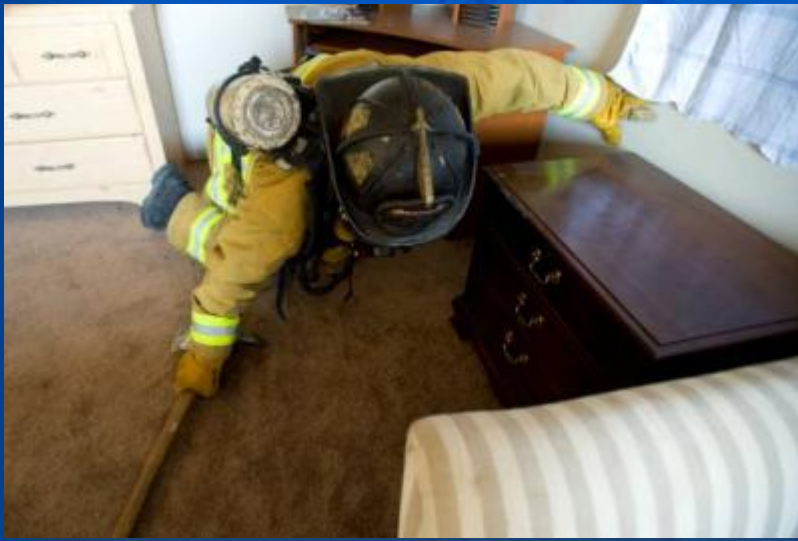
The first coupling felt should be the smooth end of the female, followed by short lugs, then the long lugs of the male coupling.





Self-Survival Procedure: Exit

G-R-A-B L-I-V-E-S
Exit



Self-Survival Procedure: Shield Airway



G-R-A-B L-I-V-E-S Shield Airway

- When air in SCBA is exhausted, disconnect second stage regulator.
- Cover air intake port on face-piece with hood or glove.
- Shielding the intake prevents debris from entering the mask.



Self-Survival Procedure: Shield Airway

G-R-A-B L-I-V-E-S
Shield Airway





Self-Survival Procedure: Shield Airway

G-R-A-B L-I-V-E-S
Shield Airway





Another Near Miss...

Open Video File: "CA Jeff Helvin Incident"



Capt. Jeff Helvin
Sacramento City Fire Dept. - IAFF Local 522



Self-Survival in a Mayday Situation

SUMMARY:

A Mayday involves all personnel assigned to an incident, and each must know their role.

