

FIREFIGHTER SAFETY

*Life and Death Decisions
Lessons from Linton*



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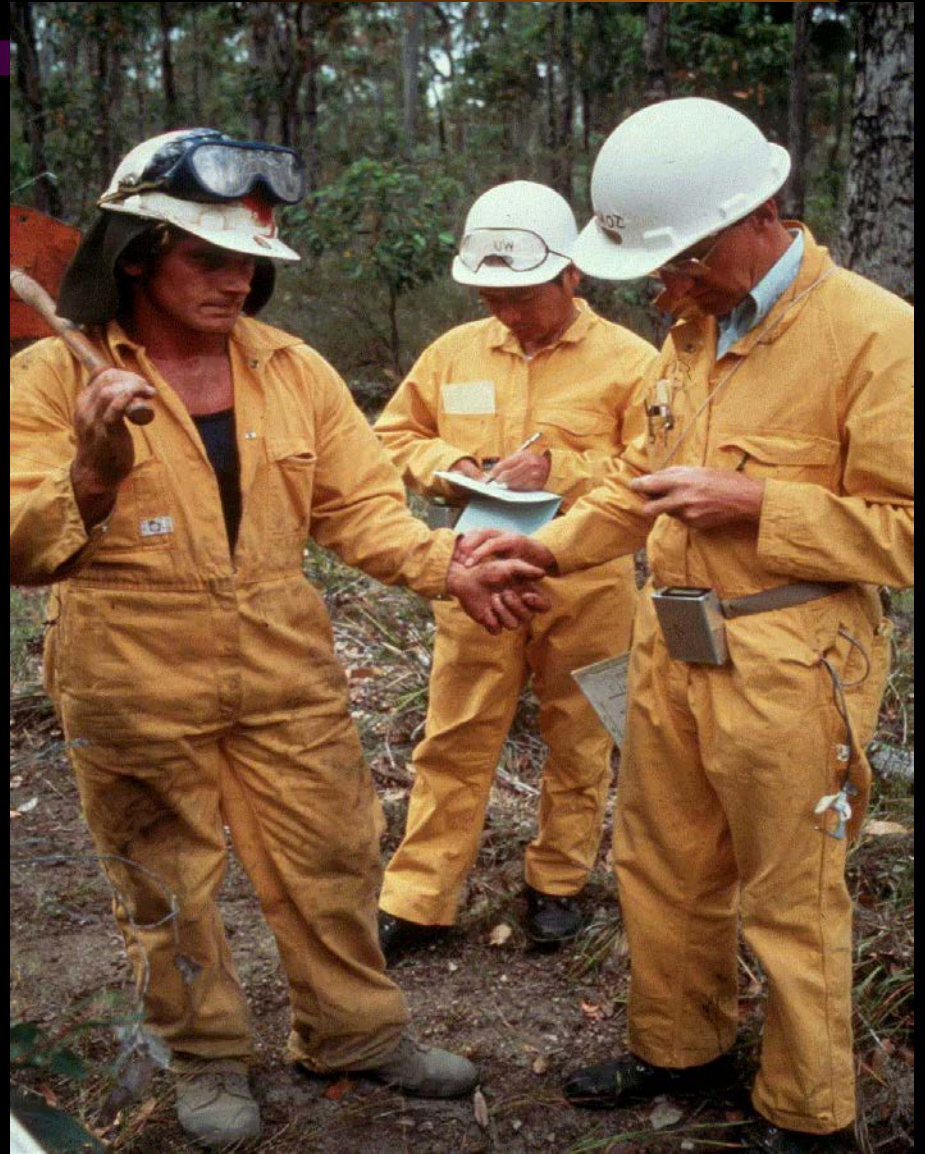
Safety and Suppression: Fundamentals


The Fire
Factor



Safety and Suppression: Fundamentals

The Human Factor





The quality of
decision making in
firefighting is a matter
of life and death

Purpose:

What fundamental firefighter safety lessons can we learn from Linton?

Structure:

1. The Linton Fire - an overview
2. The Coronial Inquiry
3. Entrapments
4. Safety lessons
5. Organisational lessons
6. The Bottom Line

1. The Linton Fire: an overview





The Fire Environment

Forest

- 120-140 yo mixed stringybark regrowth
- 20 m tall, heavily stocked
- low open understory
- Fuels 20 - 40+ years

Fuels

- surface litter fine fuels 12 -14 t/ha
- bark 5-7 t/ha, flammable
- pmc = 6-8% ?
- paddocks green

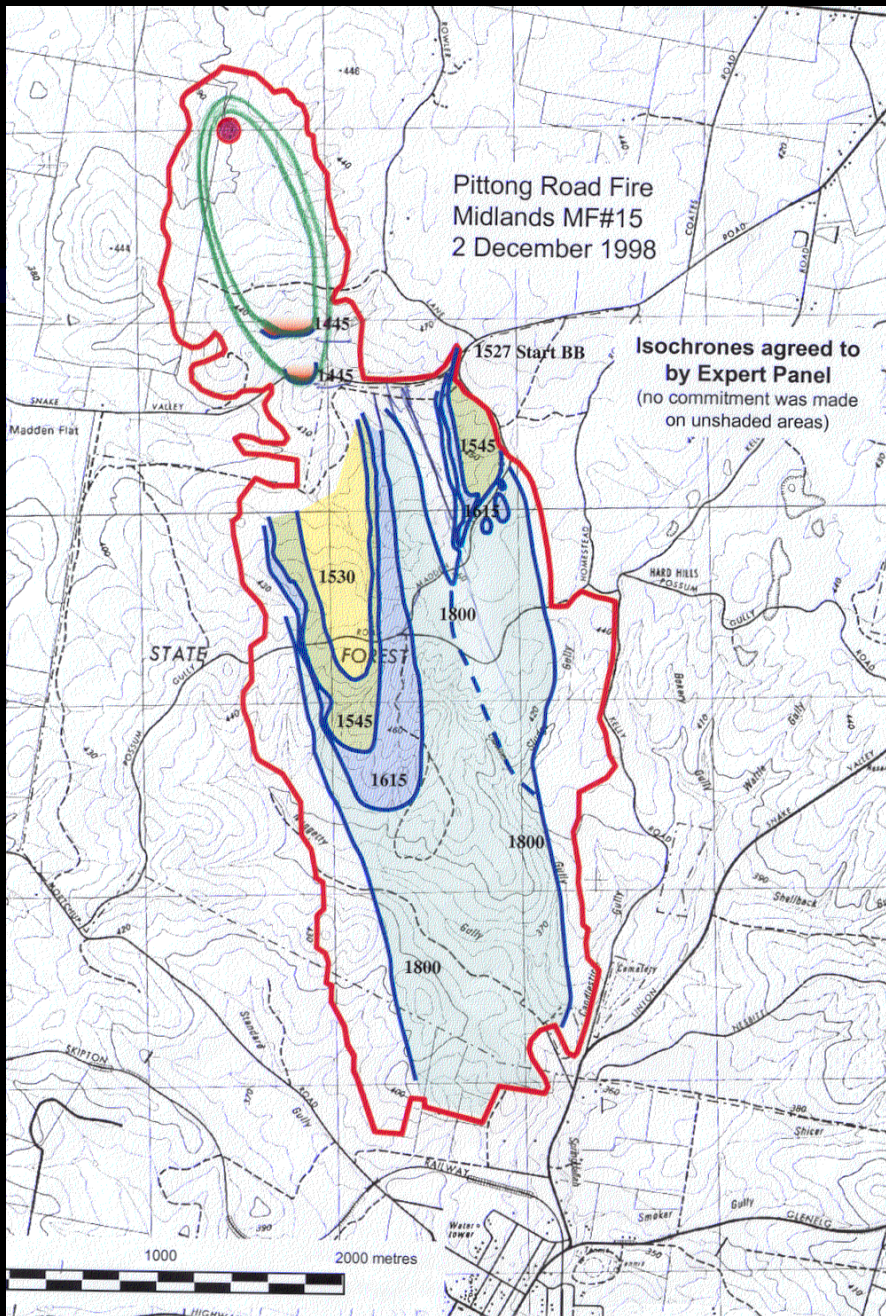
The Fire Environment

Topography

- undulating
- 6-10° slopes, up to 20°
- numerous gold diggings

Weather

- temp. low 30s
- RH low 20s
- wind: NNW 45 km/h, gusting 70 km/h.
- **forecast wind change to SW**
- KBDI (Drought Index) low



Overview of suppression strategy



Resources

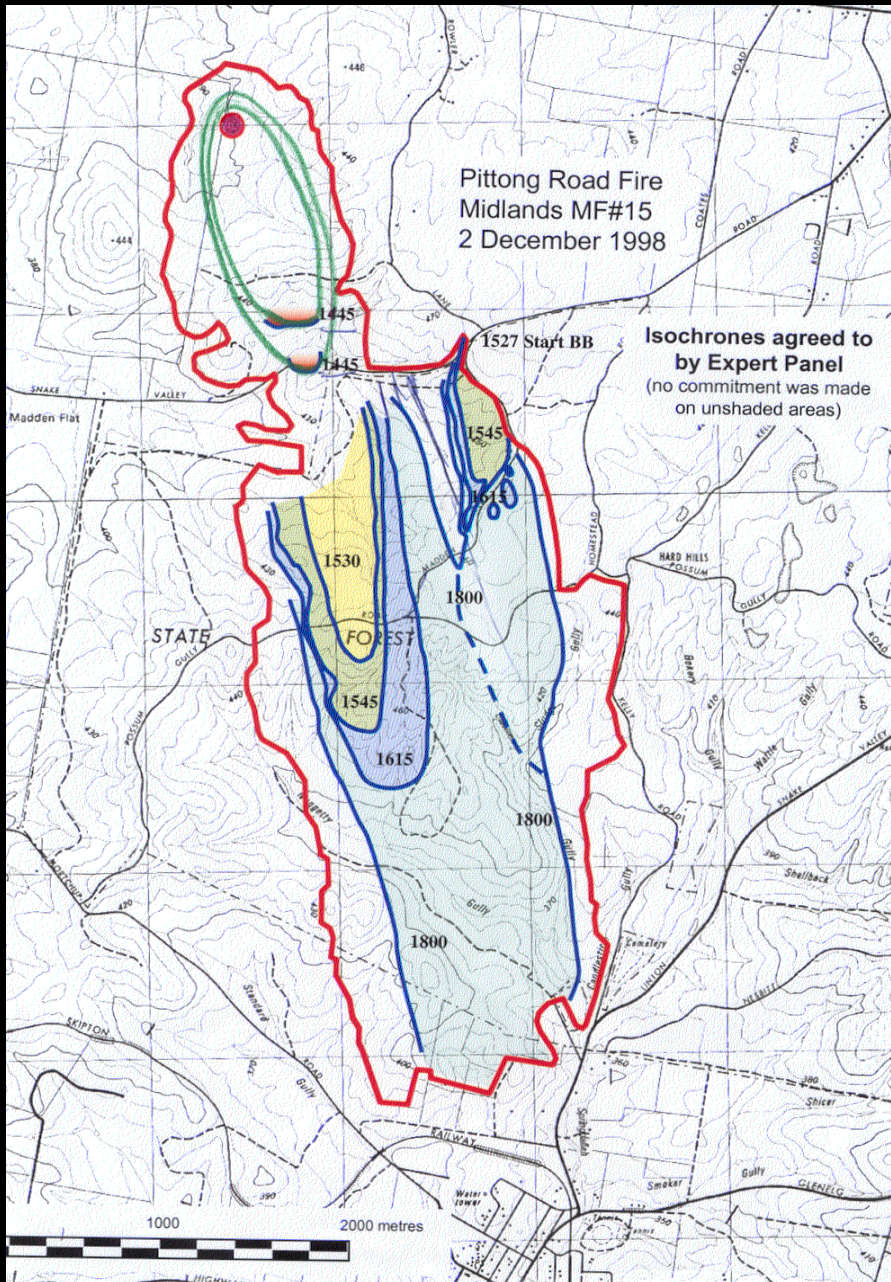
Agency	Personnel	Tankers	Slip-ons
CFA	200+	40	?
NRE	50	1	15?

2. The Coronial Inquiry

- To determine the cause of death & contributing factors
- To make recommendations to avoid a repetition

3. Entrapments & Burnovers

- **1303 hrs:** Fire detected
- **1332 hrs:** First CFA tankers arrive
- **1400 hrs:** First attack NRE D4 arrives
Spotter aircraft over fire
- **1445 hrs:** Attempted direct headfire attack with tankers:

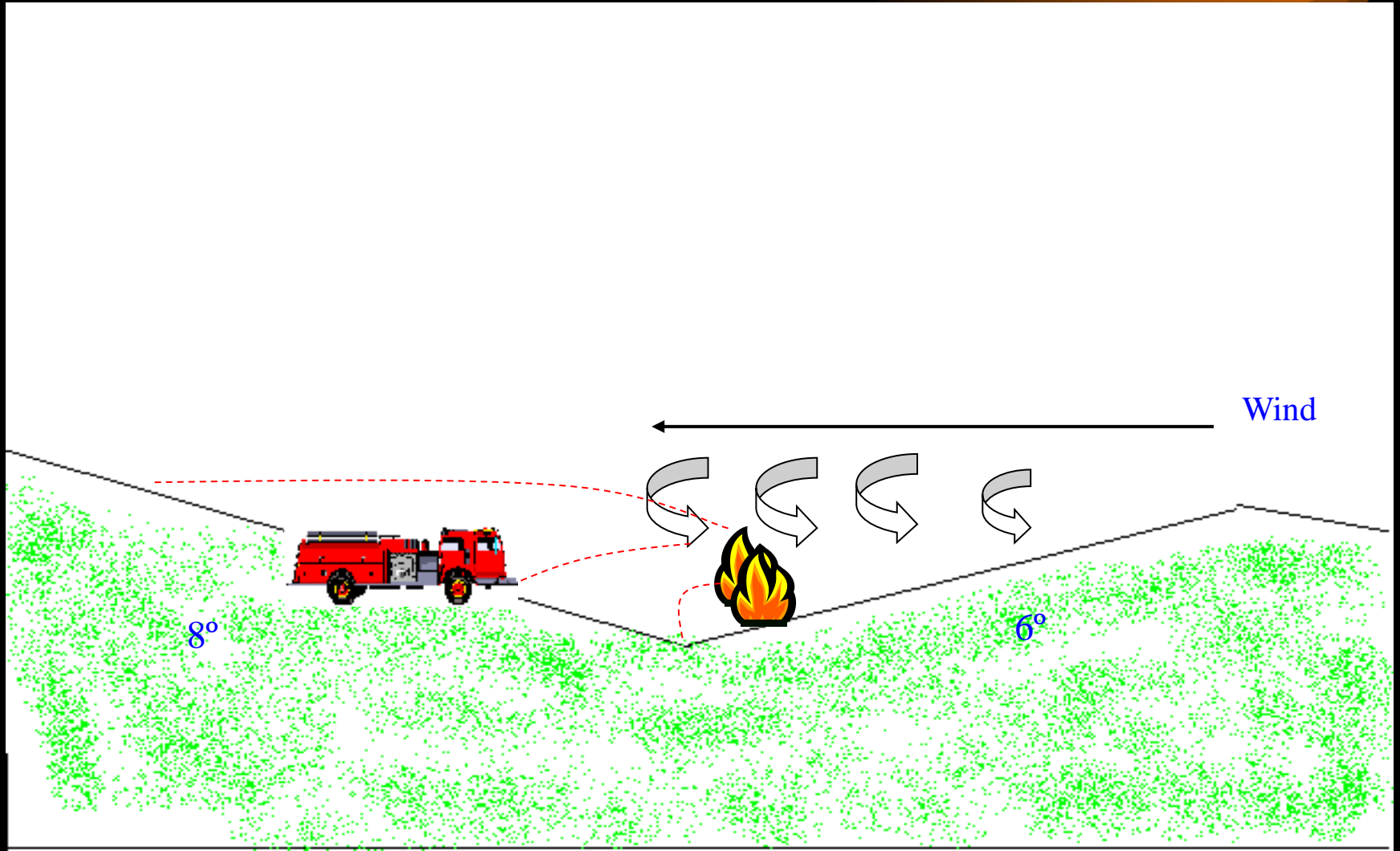


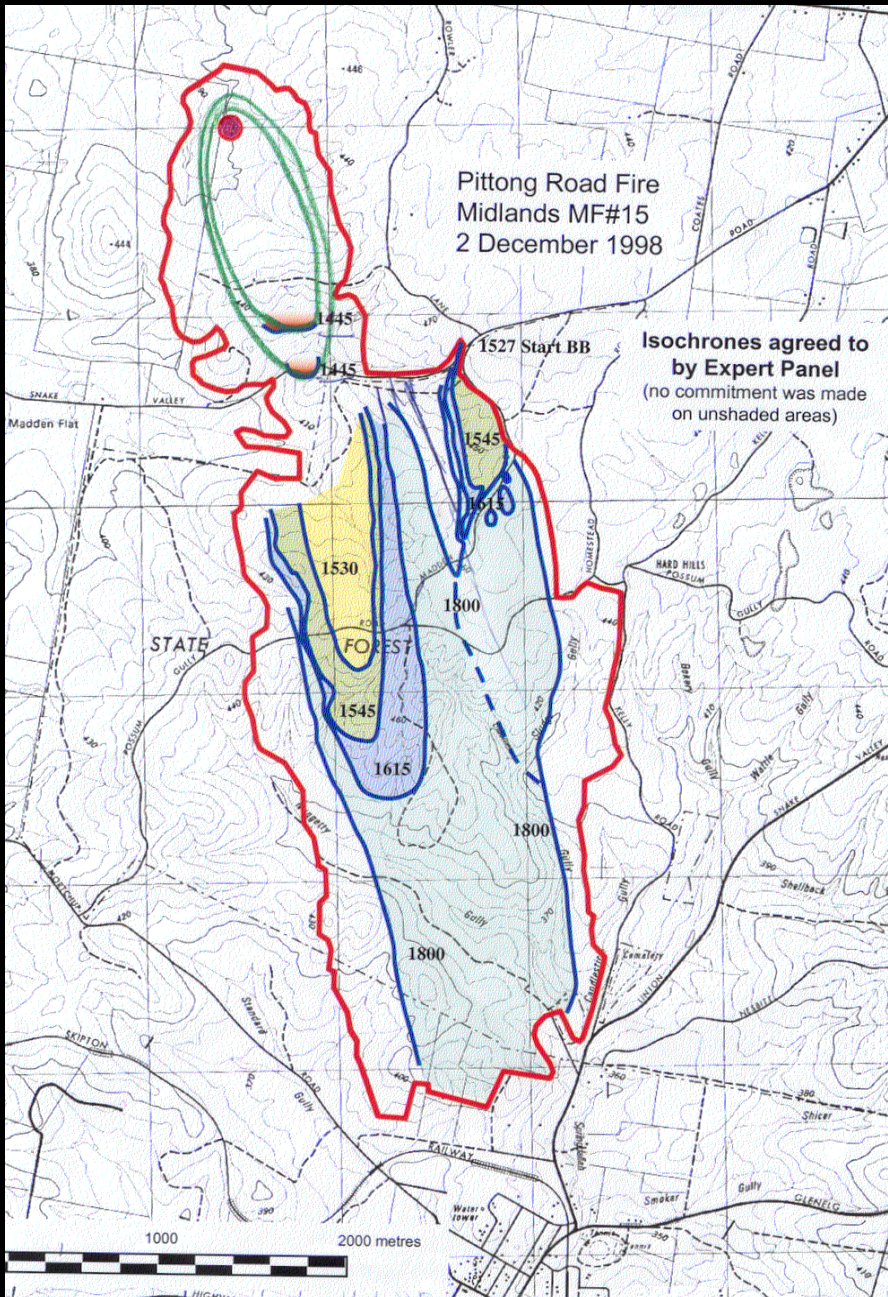
*Entrapment 1
(1445 hrs):
Pittong - Snake
Valley Road
stand*

Entrapment 1



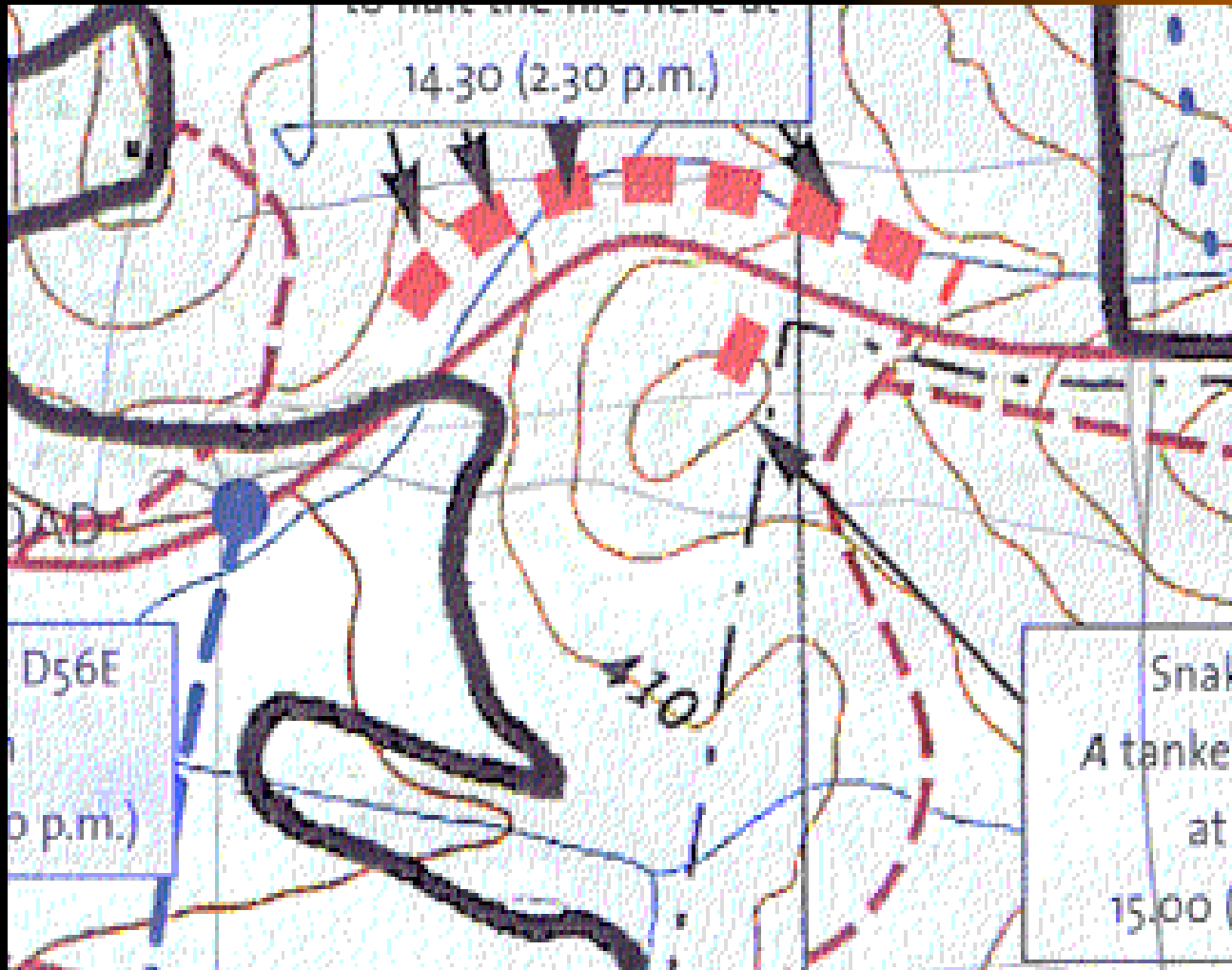
Entrapment 1

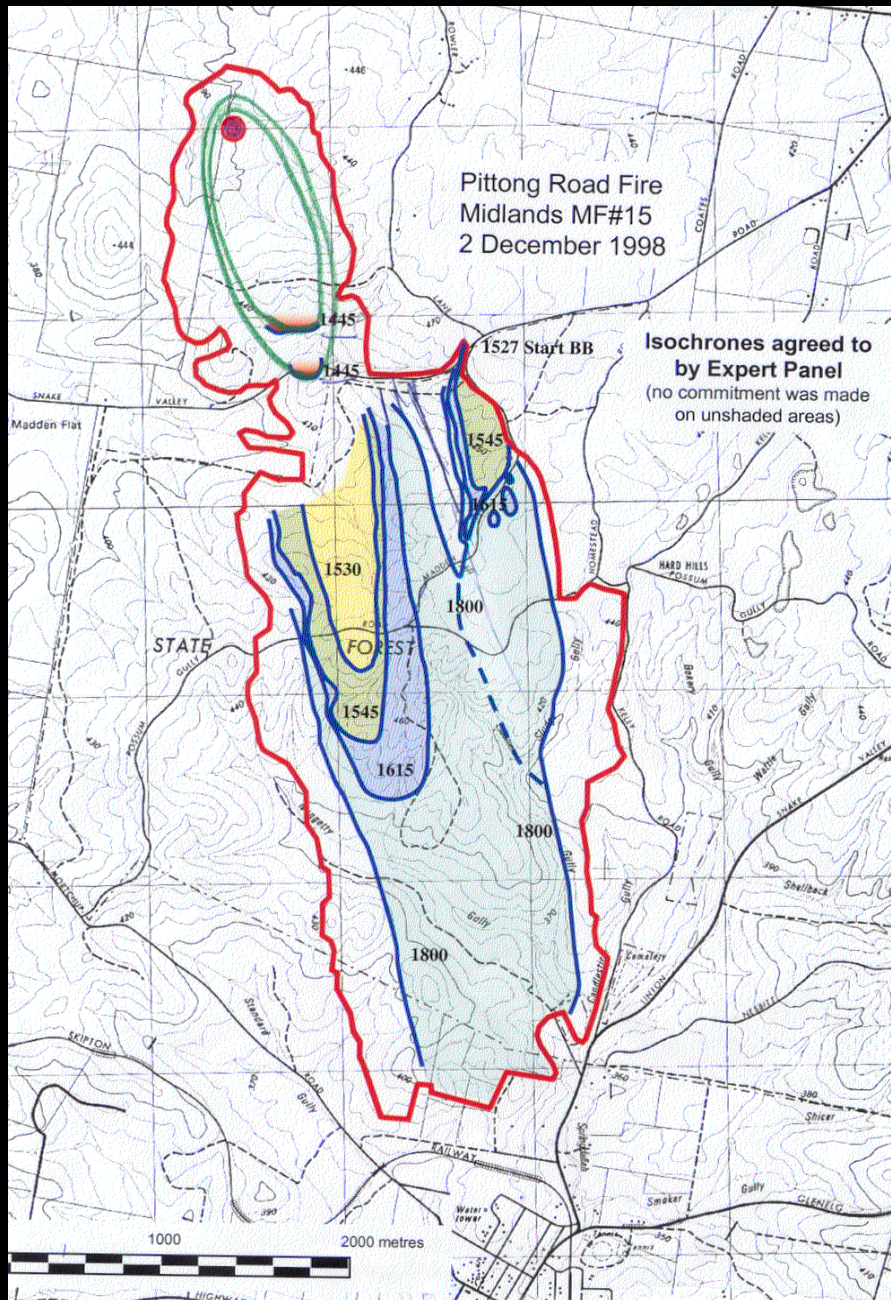




Pitong Road Fire
Snake Valley
“A” tanker

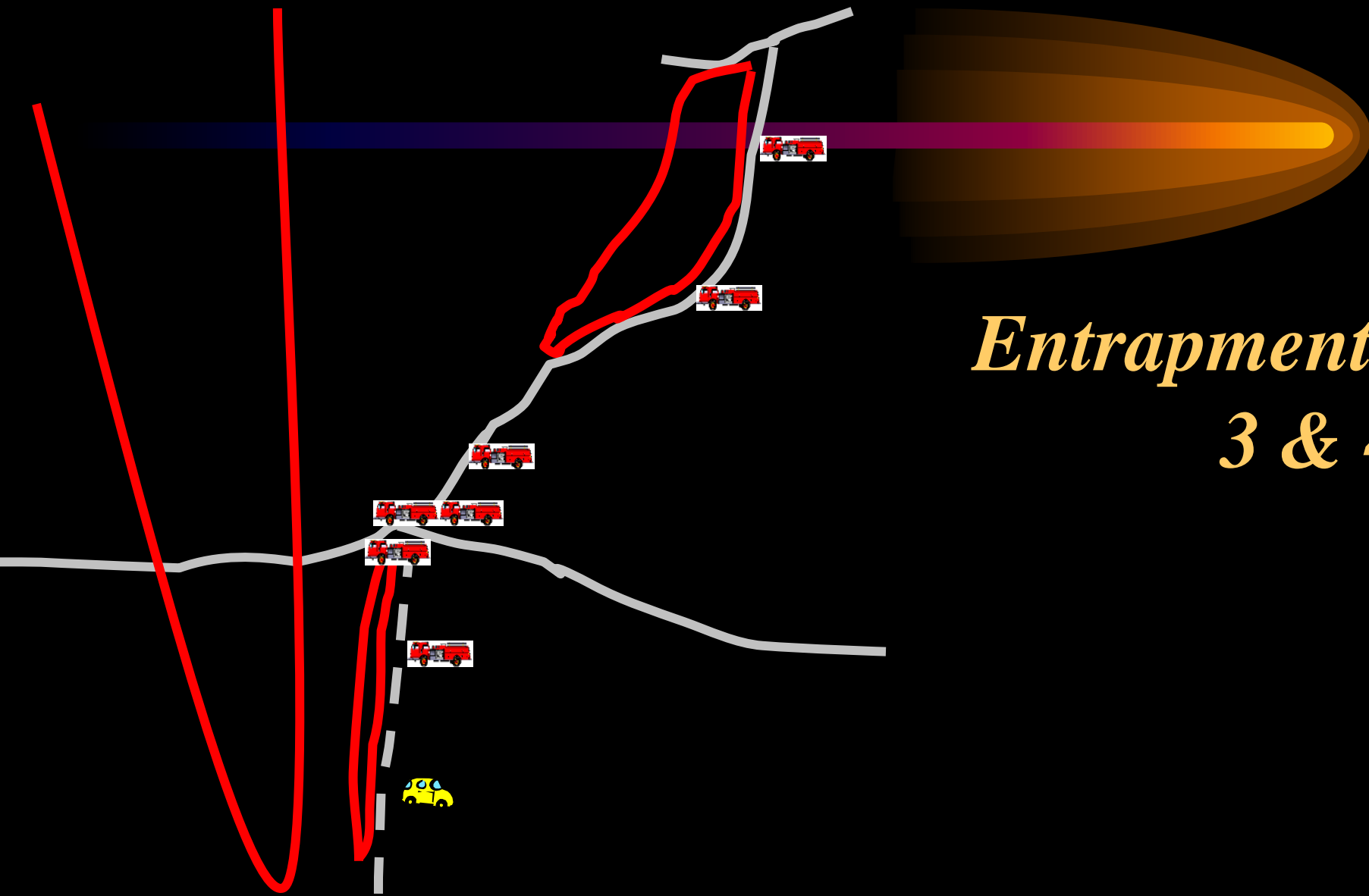
Entrapment 2





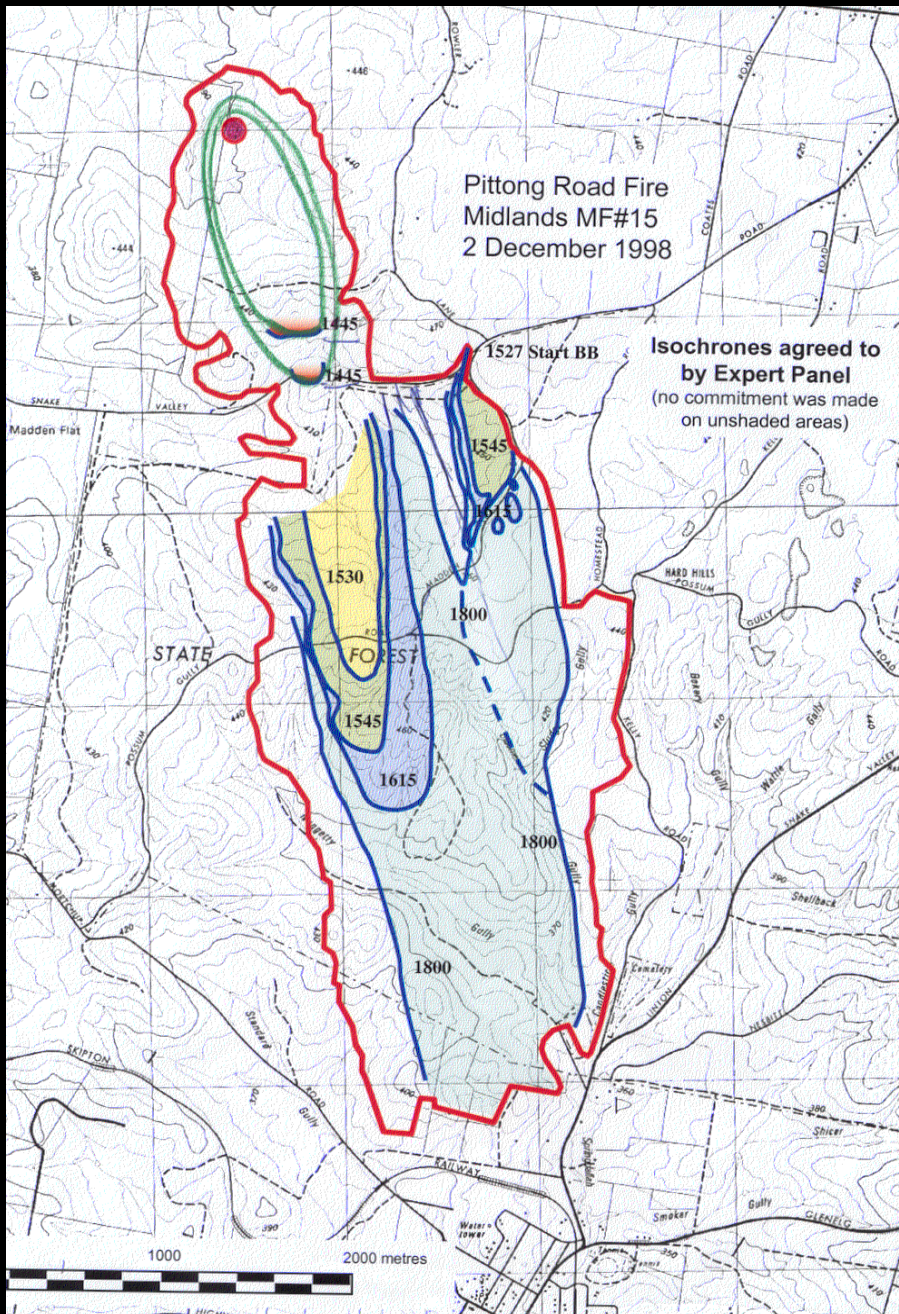
*Pitong Road Fire
Midlands MF#15
2 December 1998*

*Entrapments 3 & 4
(1600 hrs): Possum
Gully Road*

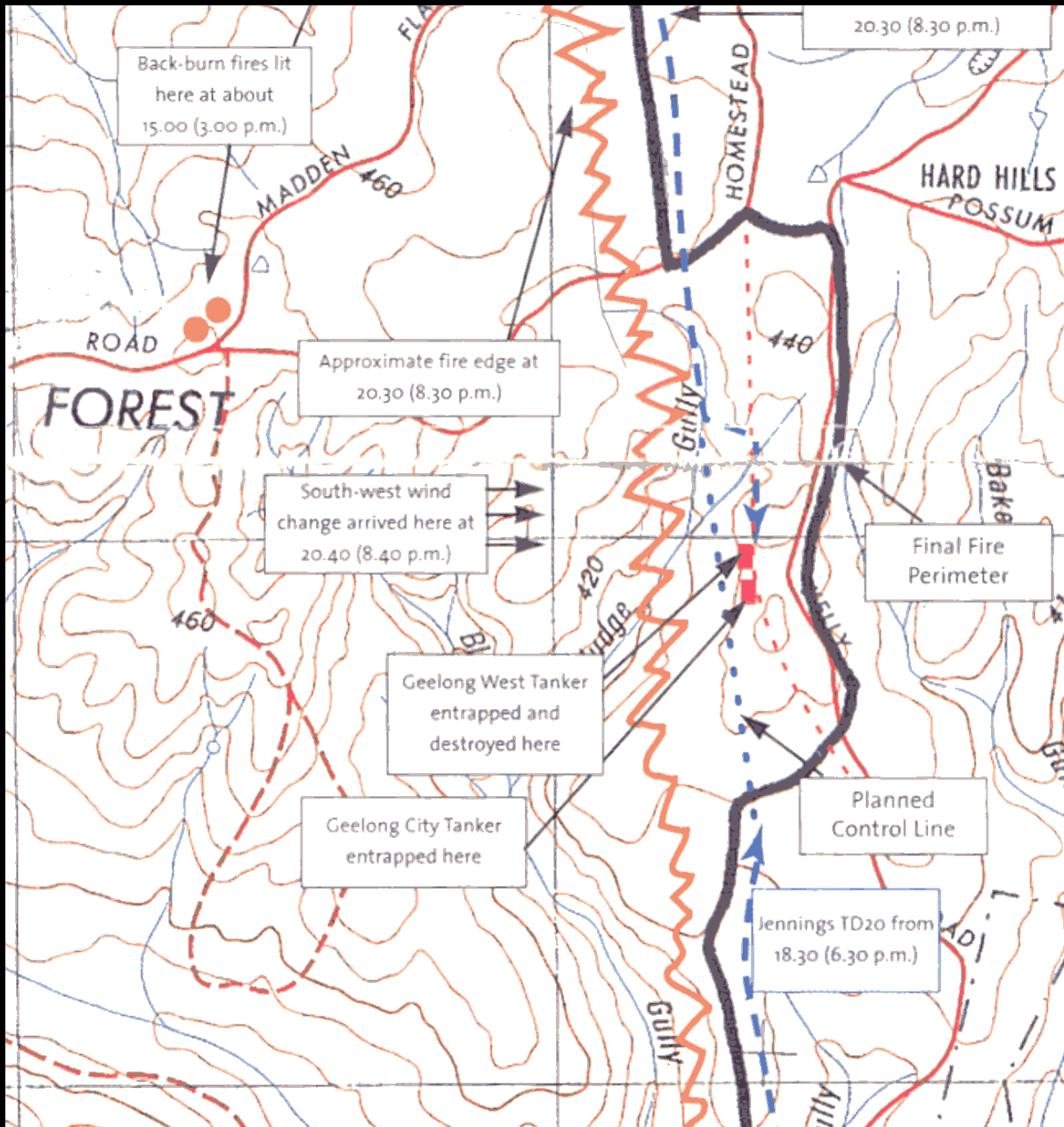


Entrapments
3 & 4

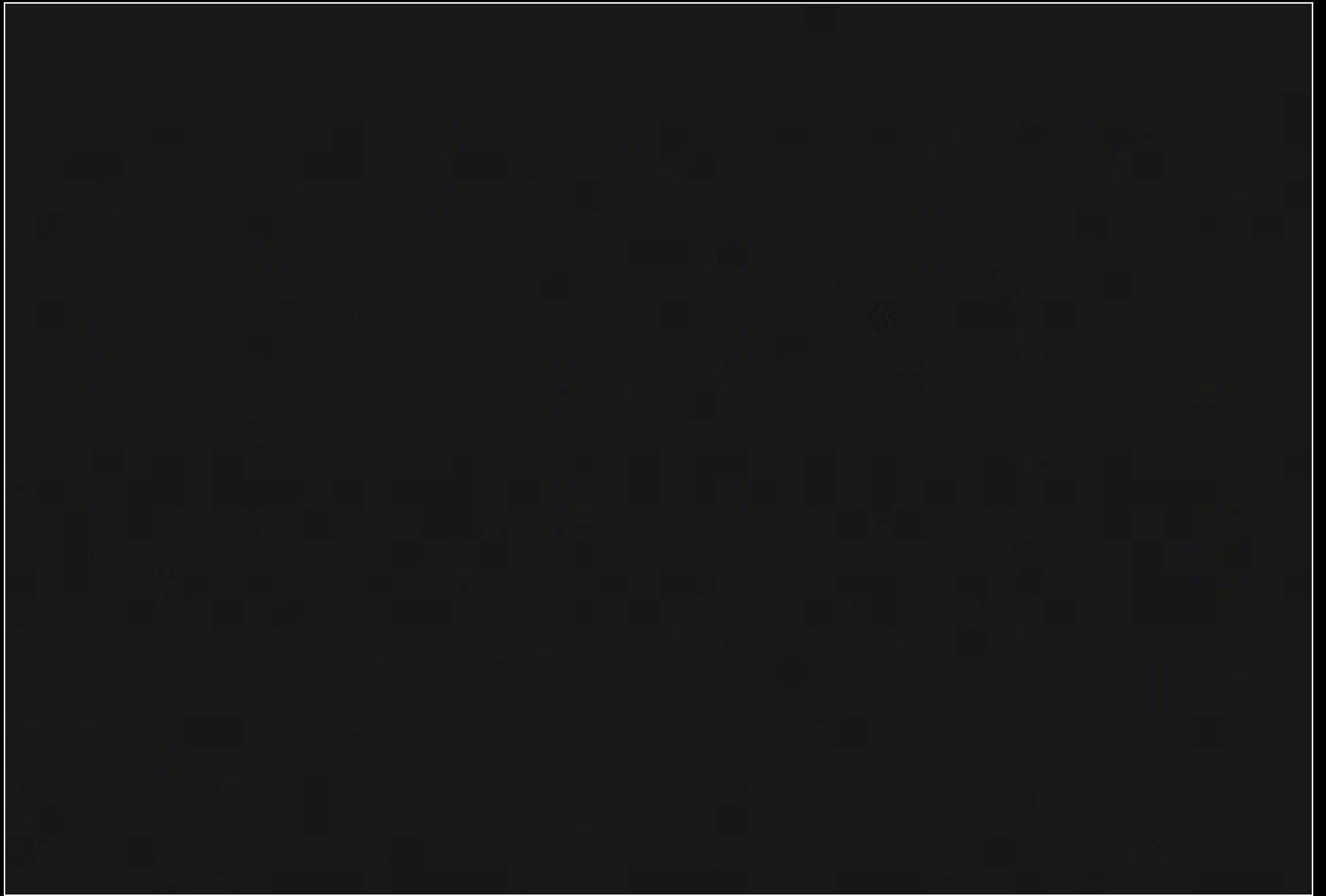




***Entrapment 5
(2040 hrs):
Homestead track
extension
extension
(Fatalities)***

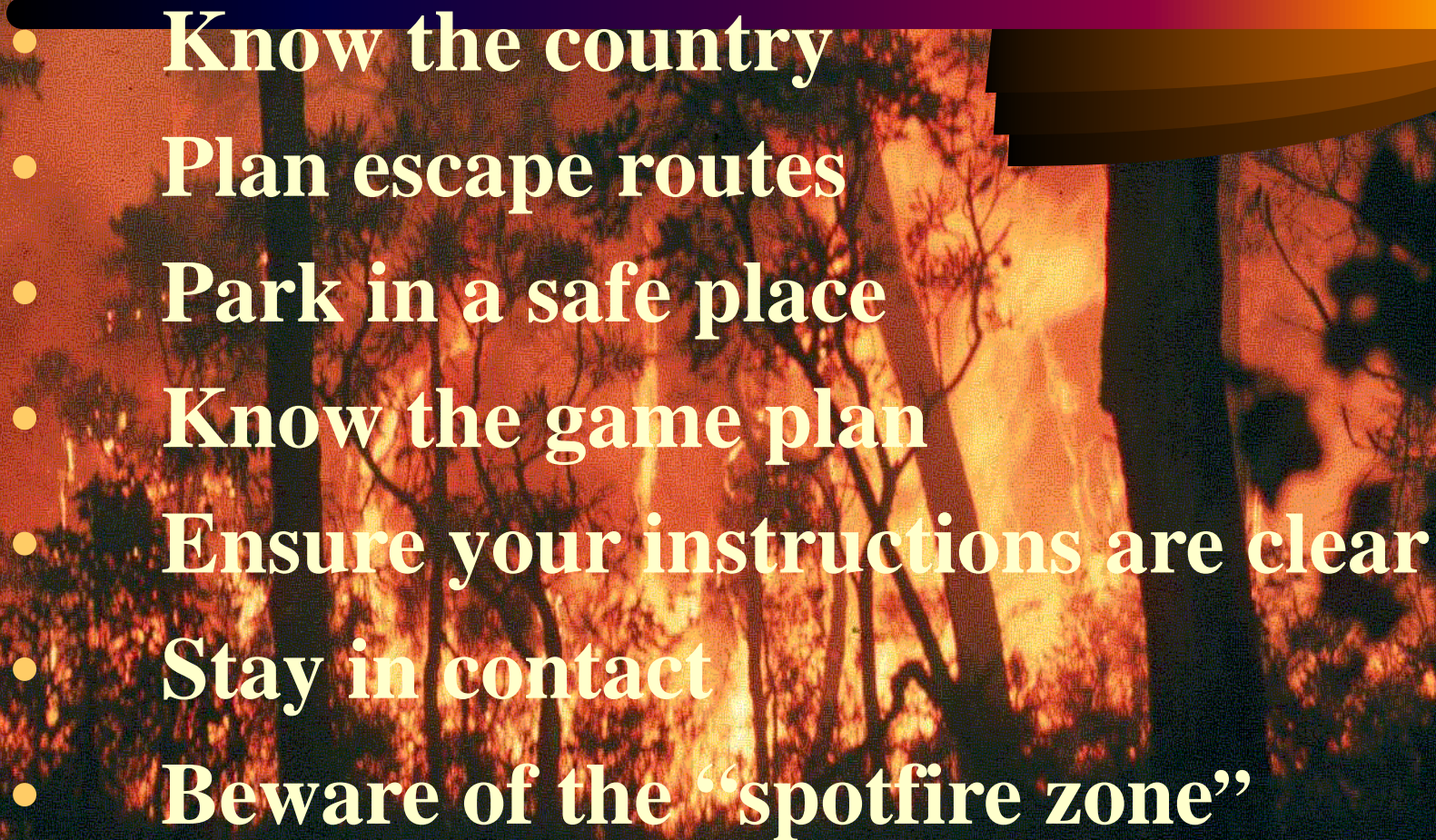


Entrapment 5



4. Fundamental Safety Lessons

- **Wind-on-slope equals danger**
- **Work close to a safe anchor point**
- **Know where the fire is and what it's doing**
- **Keep an eye on the fire**
- **Know the local fire behaviour**
- **Expect violent fire behaviour when fuels are heavy and/or dry.**

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- **Know the country**
 - **Plan escape routes**
 - **Park in a safe place**
 - **Know the game plan**
 - **Ensure your instructions are clear**
 - **Stay in contact**
 - **Beware of the “spotfire zone”**

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- A background image of a forest fire with a large, stylized arrow graphic pointing right. The arrow is dark purple on the left and transitions to a bright yellow-orange on the right. The forest fire is in the background, with trees and flames visible.
- **Use water conservatively**
 - **Vehicles can provide protection (but don't bet your life on it)**
 - **Construct turnarounds**
 - **Wear safety gear**

5. Fundamental Organisational Lessons



1. Firefighter safety first
2. Firefighter competencies
3. Effective ICS
4. Fire management capacity

6. The Bottom Line



Firefighter safety is a line management responsibility.

DEDICATED TO THE
MEMORY OF:

Matthew Armstrong

Stuart Davidson

Chris Evans

Jason Thomas

Gary Vredevelt

who will have died in vain if
we are no wiser after the event

