



# Skydiving Fatality Case Study

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# Presentation Overview



1. Introduction
2. Role of the APF
3. Overview of parachute equipment
4. Case Study of a recent fatality
5. Conclusion



# About the Speaker

- Business background
- 35 years skydiving experience
- 30 years flying experience (CPL)
- Cert IV Lead Auditor & Workplace Health and Safety
- ATSB Investigation Fundamentals training
- Lead investigator on 11 previous skydiving fatalities





# Skydiving Has Changed!

- 60 training operations around Australia
- Fleet of 90 modern aircraft (turbine)
- 400,000 jumps pa
- Chief Instructors accountable for safety
- SMS in place at all operations
- Winning multiple tourism awards



# Role of the APF

- Deed of Agreement with CASA
- Administer skydiving in Australia
- Jump Pilot training & authorisation
- Investigate incidents
- Annual safety audit of all operations
- Power to discipline members



# Overview of Equipment

## Standard Parachute Equipment:

- Harness/Container
- Main Canopy
- Reserve Canopy

## Backup Devices:

- Automatic Activation Device (AAD)
- Wrist altimeter
- Audible altimeter



# Post Incident Actions

- Emergency services called promptly
- First Aid clearly not required
- Equipment not disturbed
- Victoria Police/Coroner and APF investigation launched
- Media and Workcover interest low

# Preliminary Facts



- 44 year old male
- 35 Jumps experience
- Solo jump from 14,000 feet
- Impact with ground, part parachute open
- No witnesses
- Equipped with altimeter, audible altimeter and AAD
- No obvious cause



# Initial Evidence



- Main parachute not activated
- Reserve handle still in place
- Reserve parachute activated but not fully open
- AAD activated
- Three Reserve lines under deceased left armpit
- Still no obvious cause

# History of Deceased



- 35 Jumps over 16 years
- Intermittent pattern of activity
- Different equipment at different locations
- Some history of freefall instability
- No obvious cause but some human factors emerging



# Later Evidence of Interest

- Recent training video located
- AAD data recovered from German manufacturer
- First jump on new jumpsuit (3 months old)
- Marriage issues, living good life with mates
- Recent wind tunnel experience
- All equipment found to be operational
- Autopsy/Toxicology found non-contributory

# Past Training Jump



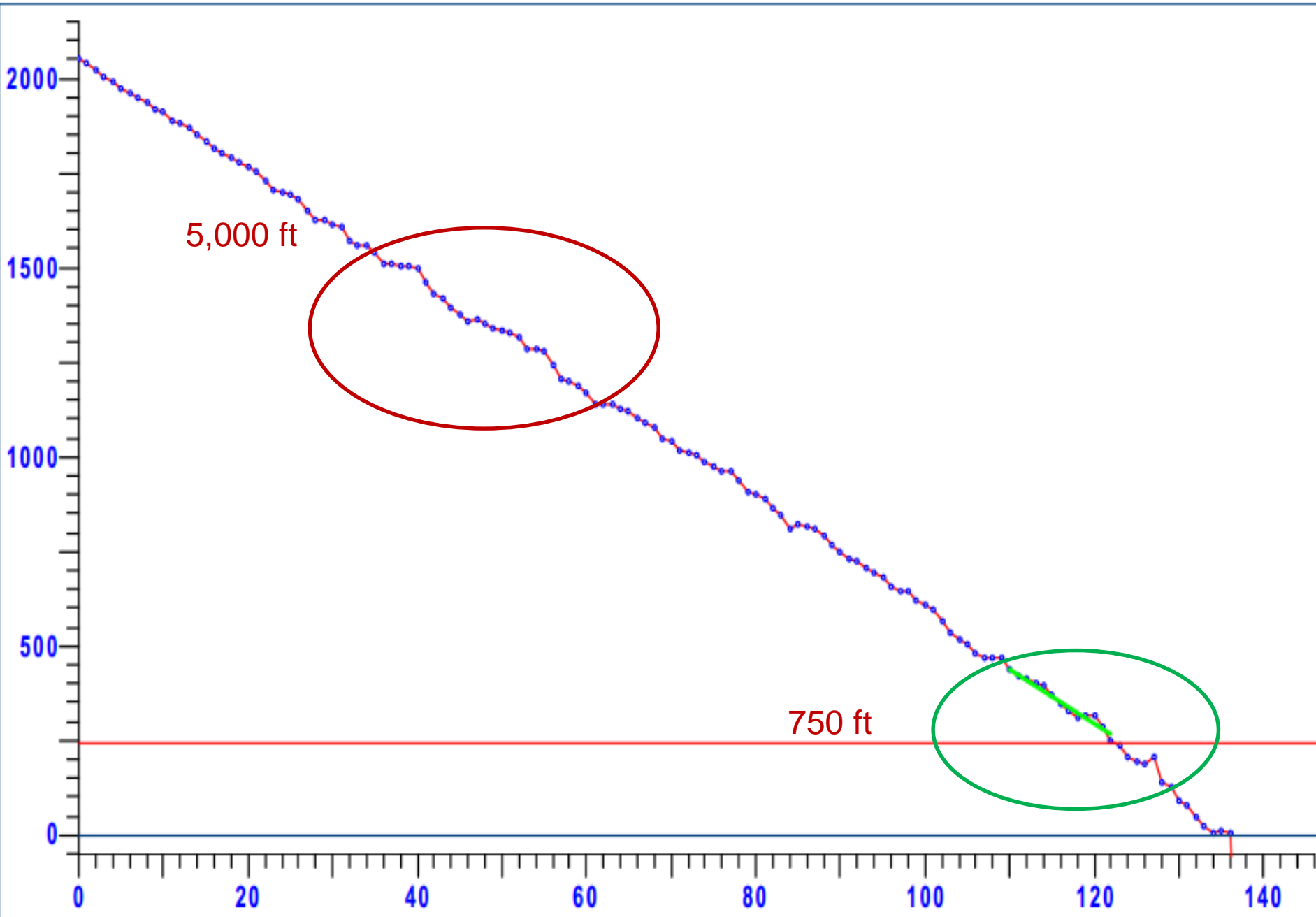
Training Jump  
(Note the stability)



# AAD Data Review



AAD data download





# The Pieces Come Together

Whilst all equipment found to be operational.....

- Video/log evidence: stability issues at deployment
- AAD: supports instability at deployment height
- Lifestyle: marriage issues, living good life
- Jumpsuit: too tight due 10Kg weight gain
- Wind tunnel: lack of height awareness
- Poor Currency: contributes to slow reaction times



# Likely Sequence of Events

- Normal freefall from 14,000 ft
- Trouble reaching main deployment handle
- Jumpsuit/weight gain possible contributing factor
- Bent at waist causing instability (rolled onto back)
- Failed to revert to emergency procedure (reserve)
- Lost height/time awareness (200 kph or 12,000 ft/min)
- AAD activated reserve at 750 ft
- Reserve pilot chute under armpit





# Coroner's Findings

- Finding without Inquest (14 months later)
- Satisfied equipment was NOT deficient
- Adopted APF scenario of events
- Left APF to make any recommendations

Note:

- APF has directed more focus on currency

# Close



- 2 fatalities per year and declining
- Back-up devices have really assisted safety
- New challenges with high performance canopies
- Remains an adventure sport – potential danger





Thank You



Thank You