



SAFETY THROUGH A “VOYAGE OF DISCOVERY”

Pierre FJ Blais, CSC

Introduction



Background and Context!

Why?











ROYAL CANADIAN AIR CADETS

C F B
TRENTON
1973

SUMMER
CAMP

INTERMEDIATE
LEADER'S
COURSE



Royal Canadian Air Cadets

Flying Scholarship!

IN THE BEGINNING

Eventually joined the Canadian Armed Forces. (1976)

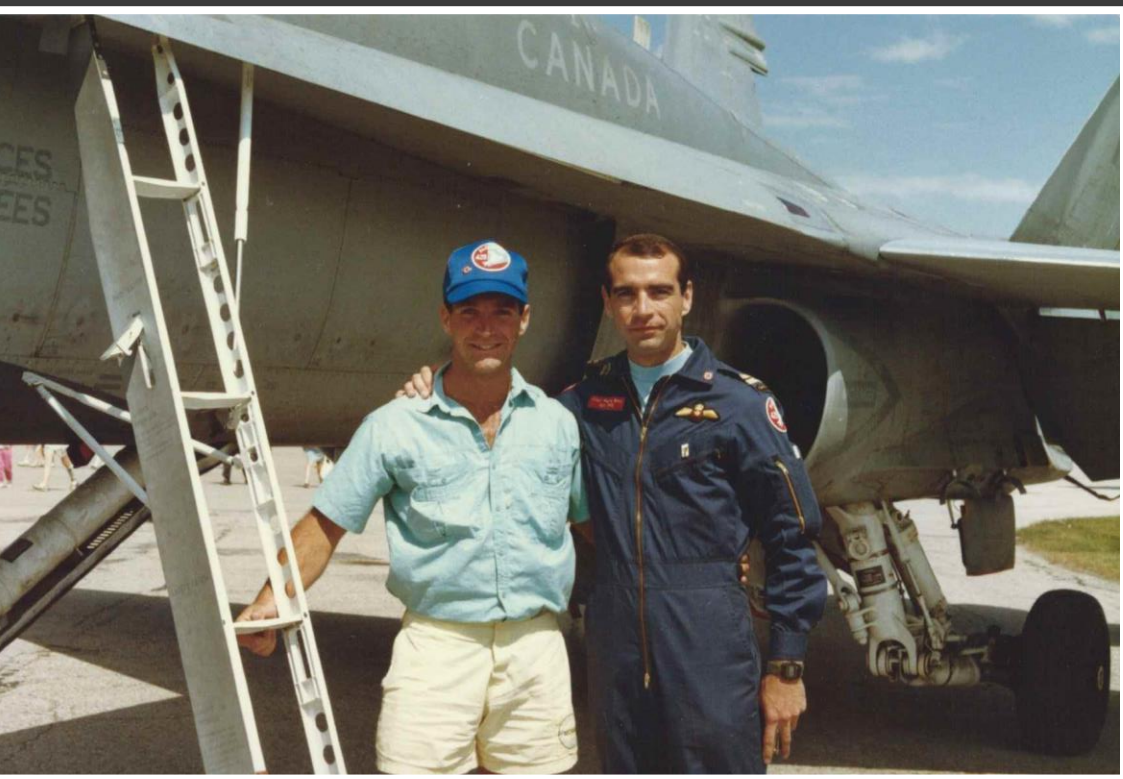
Graduated from Pilot Course in Moose Jaw,
Saskatchewan (1981)

Selected for QFI training in Portage La Prairie,
Manitoba

Back to Moose Jaw for 2.5 years!

1988 CF-18 Demonstration Pilot (55 shows at 33
different sites).

A number of Fatalities on a regular basis!



CANADIAN AIR CRASHES

April 1982

Muskateer Pilot QFI – Captain Paul Cormier

Friday afternoon Famil flight with two cadets on board go missing.

Crash site found in a creek bed. **3 DEAD.**

Possible engine failure at low level.

29 March 1985

Two Canadian Forces Lockheed CC-130H Hercules, 130330 and 130331, both of 435 Squadron, crashed after having a mid-air collision over CFB Namao, near Edmonton, Alberta. This is the only dual Hercules mid-air.

7 Canadian aircrew and one American exchange officer **DEAD.**

25 May 1986

CF-18 Pilot Capt Tristan DeKoninck - Eastern Canada Airshow Pilot for the 1986 season! Departure from his home town after airshow was cancelled due to bad weather. His first show site . Suspect Somatogravic event. **DEAD!**



Evolution of
Safety in the
RAAF

and the
ADF

...Our Track
Record!



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RAAF AIR CRASHES

02 August 1990

F/A-18 Collision RAAF Tindal.

CO (WGCDR Ross Fox) **Dead!**



19 November 1990

Macchi 55nm north of Williamtown. Left wing failed in-flight during Air Combat Maneuvers approximately 55 nm NE of Williamtown, NSW.

FLTLT Page **died** after he ejected and was then struck by the aircraft. His parachute subsequently did not open and he impacted into the water.

RAAF Ejection number 73.

26 April 1991

Cocos Island P3 Orion Ditching – Corrosion in leading edges.

FLGOFF Tom Henniker - **DEAD**

19 crew survived the ditching! Canadian Exchange Pilot on his last exercise and a month to go before ending his tour!



RAAF AIR CRASHES (CONT'D)

05 June 1991

F/A-18 Hypoxia Event

FLTLT Cam Conroy – **DEAD!** – Crash site found 1994

29 October 1991

Boeing 707 Crash – East Sale

Asymmetric Training – 5 Crew - **DEAD !**

19 May 1992

F/A-18 CFIT

FLGOFF Robert Jepsen (23 years old) from St Huberts Island & passenger Mr Michael Howlett (DSTO scientist, 36 years of age) from Melbourne were Killed – **DEAD!**

13 September 1993

F-111 Crash near Guyra – 2 **DEAD!** – To my Knowledge....NO Board of Inquiry!
Crew Error!

18 April 1999

F-111 CFIT Night South China Sea

FLTLT Tony Short and SQNLDR Nigel Hobbs – **DEAD!**



Other ADF Crashes

12 June 1996

Blackhawk Collision High Range – **12 DEAD!**

13 July 1996

Sea King Crash – Bamaga



Shark 02

Sea King Crash –
02 April 2005

Nine fatalities
Two survivors
Severe post
accident fire

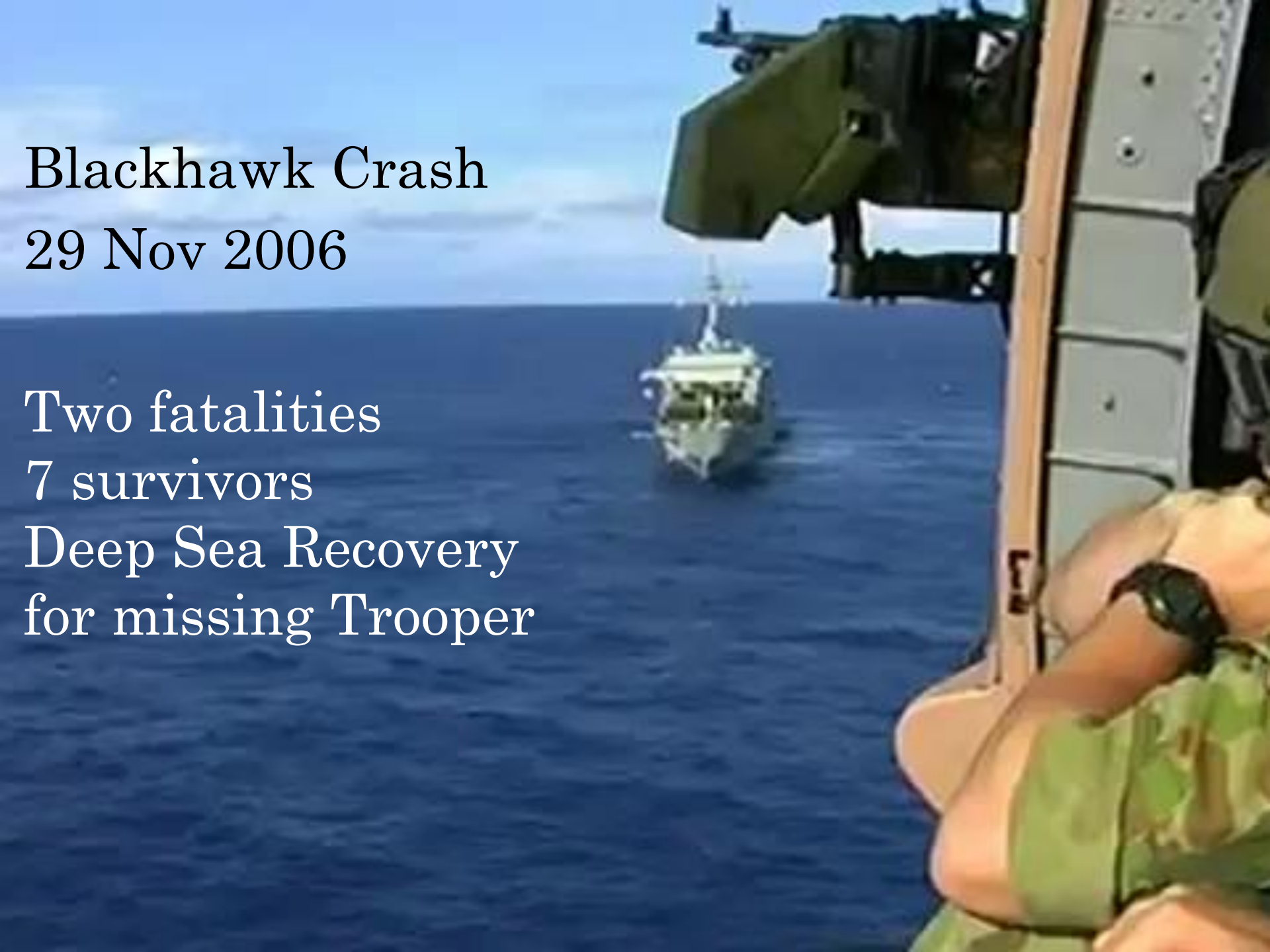




Blackhawk Crash

29 Nov 2006

Two fatalities
7 survivors
Deep Sea Recovery
for missing Trooper





CDF
Directive

CAF
Directive

The Team!



The Team!



Quality Management Audits (ISO 9001) Versus SMS

QMS focus

- Delivery of products & services to customers
- Documented processes & audit to form rather than substance
- Continuous improvement through feedback of discrepancies

Quality Management Audits (ISO 9001)

Versus SMS

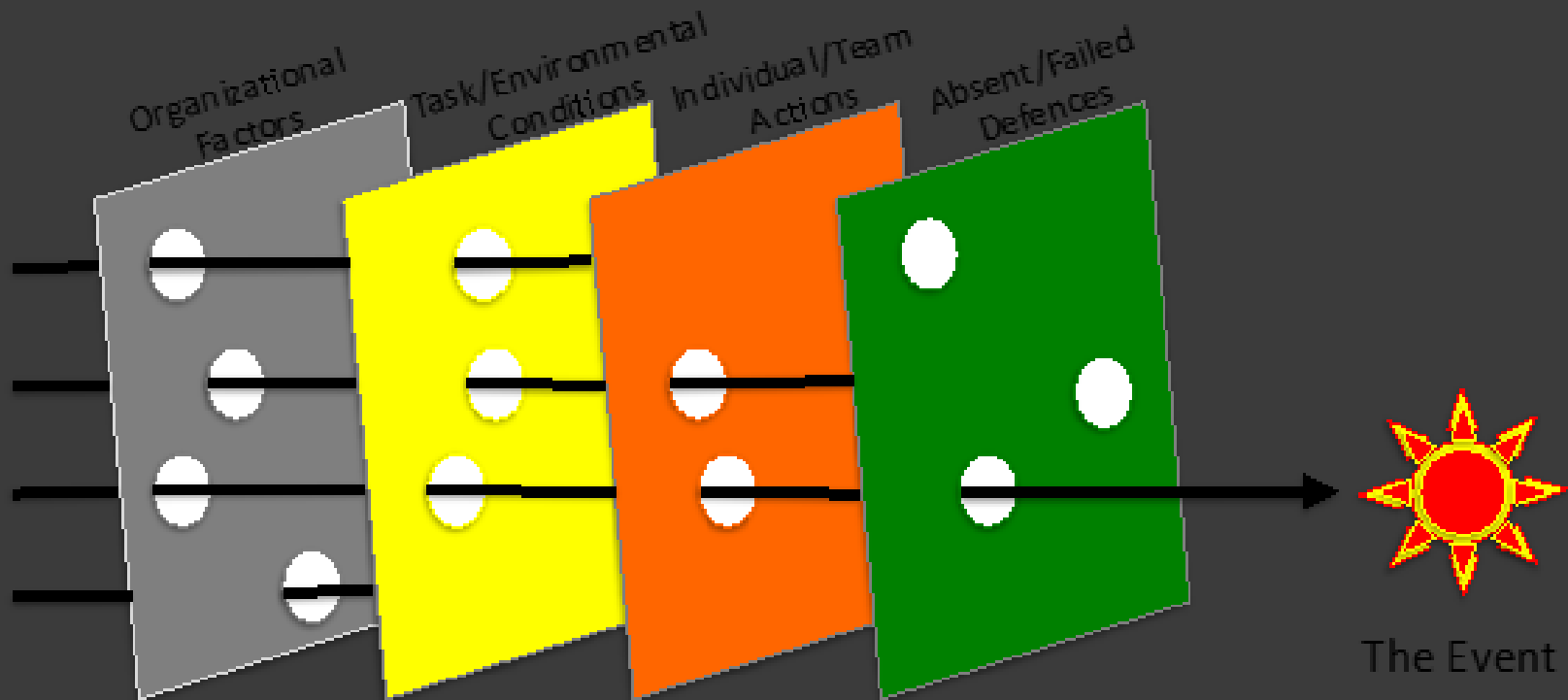
SMS focus

- Hazard identification, assess risk, & systemic controls & recovery
- Keep risks ALARP / SFAIRP
- Operational risks are dominated by human & organisational factors

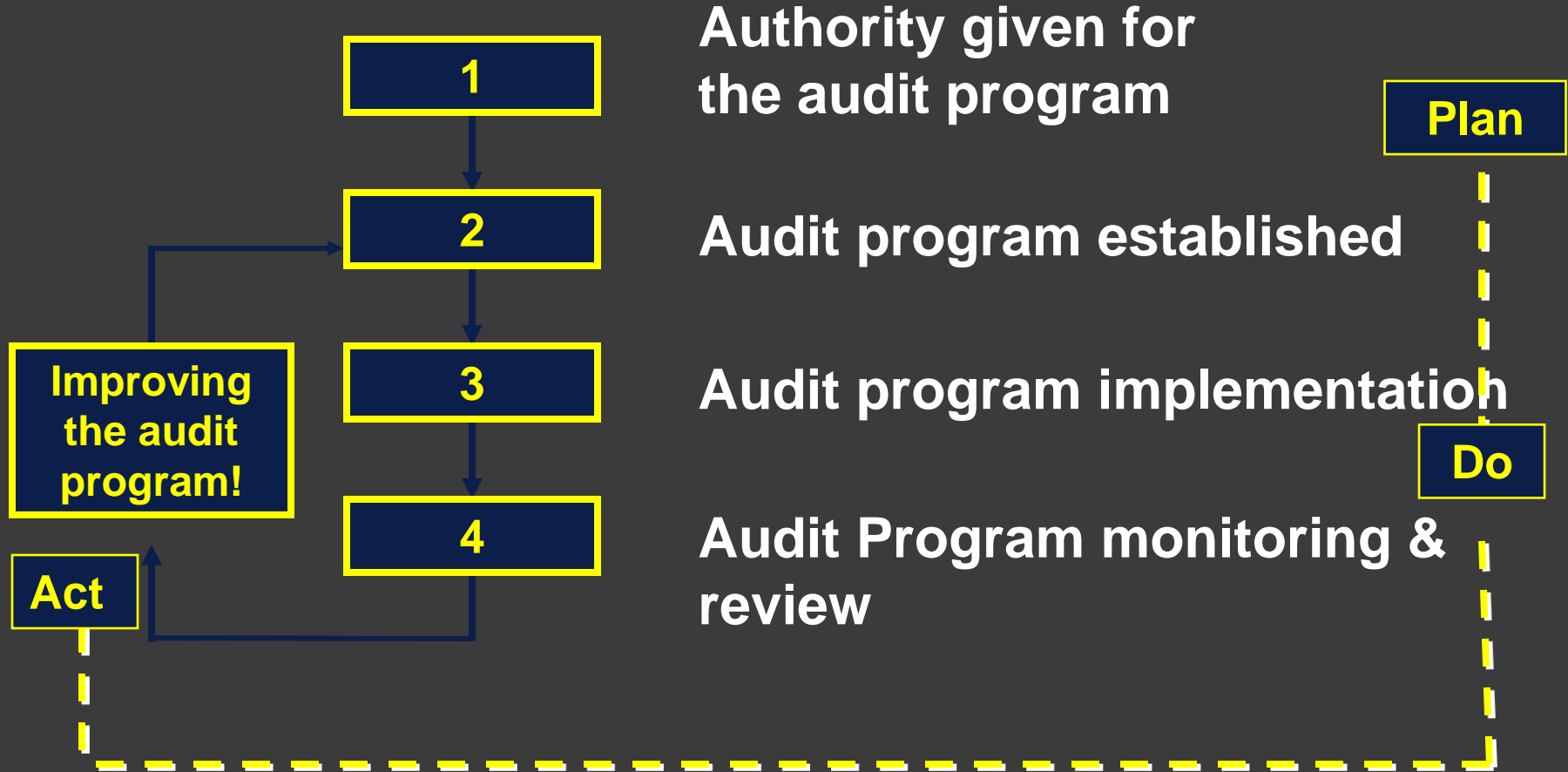
A Reasonable Model



A Reasonable Model



Managing an Audit Program



OVERVIEW OF AN AUDIT

1. Initiating & Planning the audit

2. Document Review

3. Preparing for the on-site audit

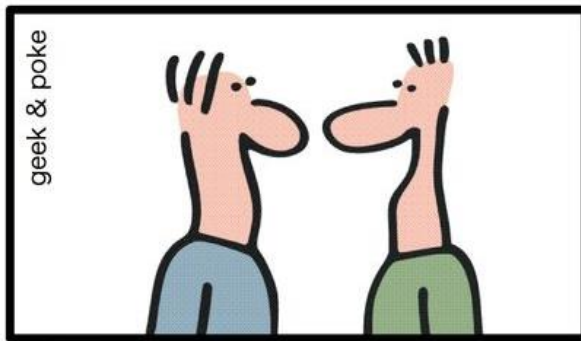
4. Conducting on-site audit activities

5. Audit Reporting

6. Completion of audit



The Plan!



"PLAN THE WORK, WORK THE PLAN"



The
Locations –
Australia
and
Overseas!

In Australia

Army

16Bde HQ – Ennogara QLD

5Avn – Townsville QLD

161 Sqn – Darwin NT

171 Sqn – Holsworthy, NSW

SASR – Perth, WA

Navy

CANAG - NAS Nowra, NSW

816 Sqn - Nowra NSW

Overseas



East Timor
TLAG 7



Kandahar
AFG



HMAS Arunta
Arabian Sea



The Process!

Step by Step!

OVERVIEW OF AN AUDIT

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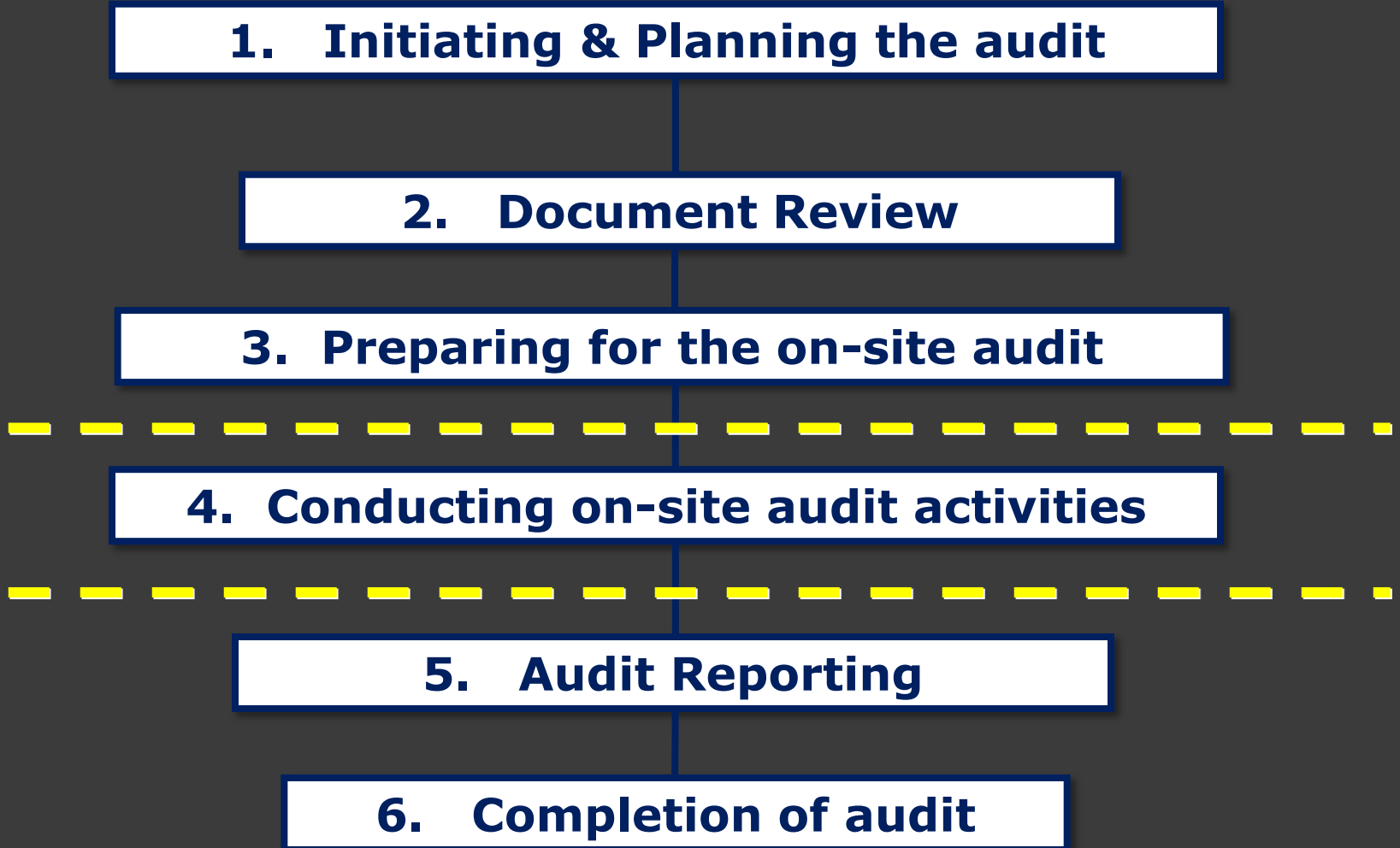
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Notification!

Auditing Safety in a War Zone!???

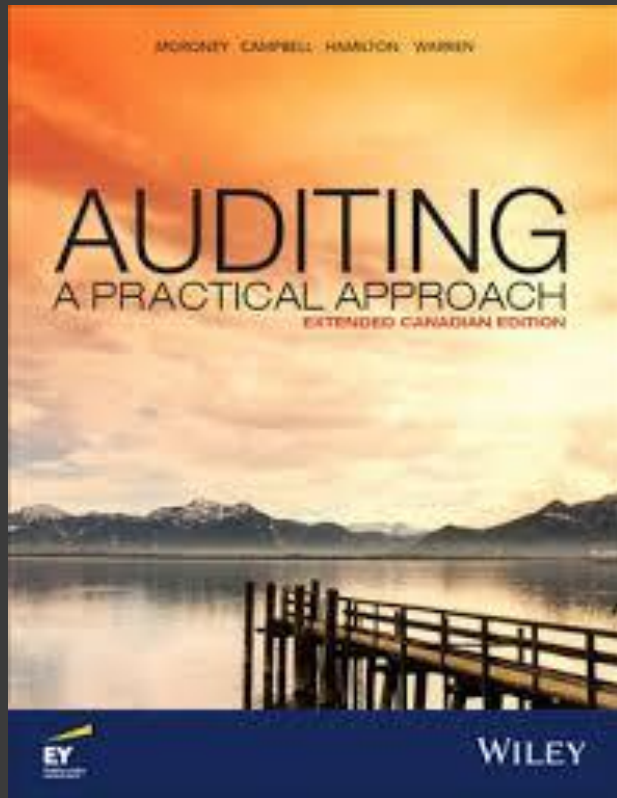
You've got to be Joking!!!

NO TOURIST!

Command Priorities!







A Practical Approach

Who, When, Where,
How Long etc etc.

Logistics, training,
force preparation.

Risks?





Snap Shot Survey!

Leadership

Workload

Team work

Resources

Just Culture

Reporting Culture

Etc.....

Two Open
Questions?



Checklist Preparation



12 Elements of the ADF
Aviation SMS

A guide for Commanders!

Accountabilities versus
Responsibilities!



Key to Success!

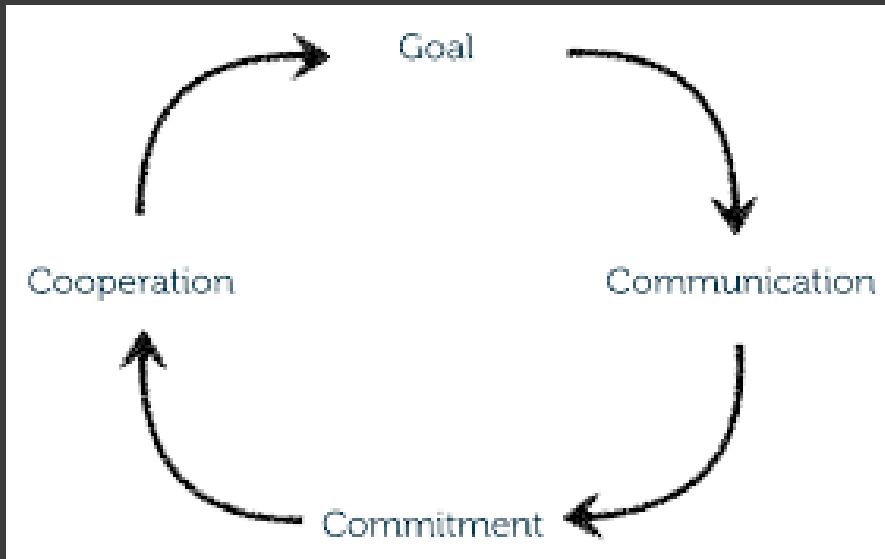
Clear Goal!

Communicate!

Clear
understanding of
purpose!

Not judgmental!

Here to help!



Watch out for the Boiling Frog Syndrome



The Million Dollar Question?

Case Study 1 – Portable Shade



Case Study 2

Troops buy own equipment!



OUT BRIEFING



ROTARY WING SAFETY AUDIT

OUTBRIEF

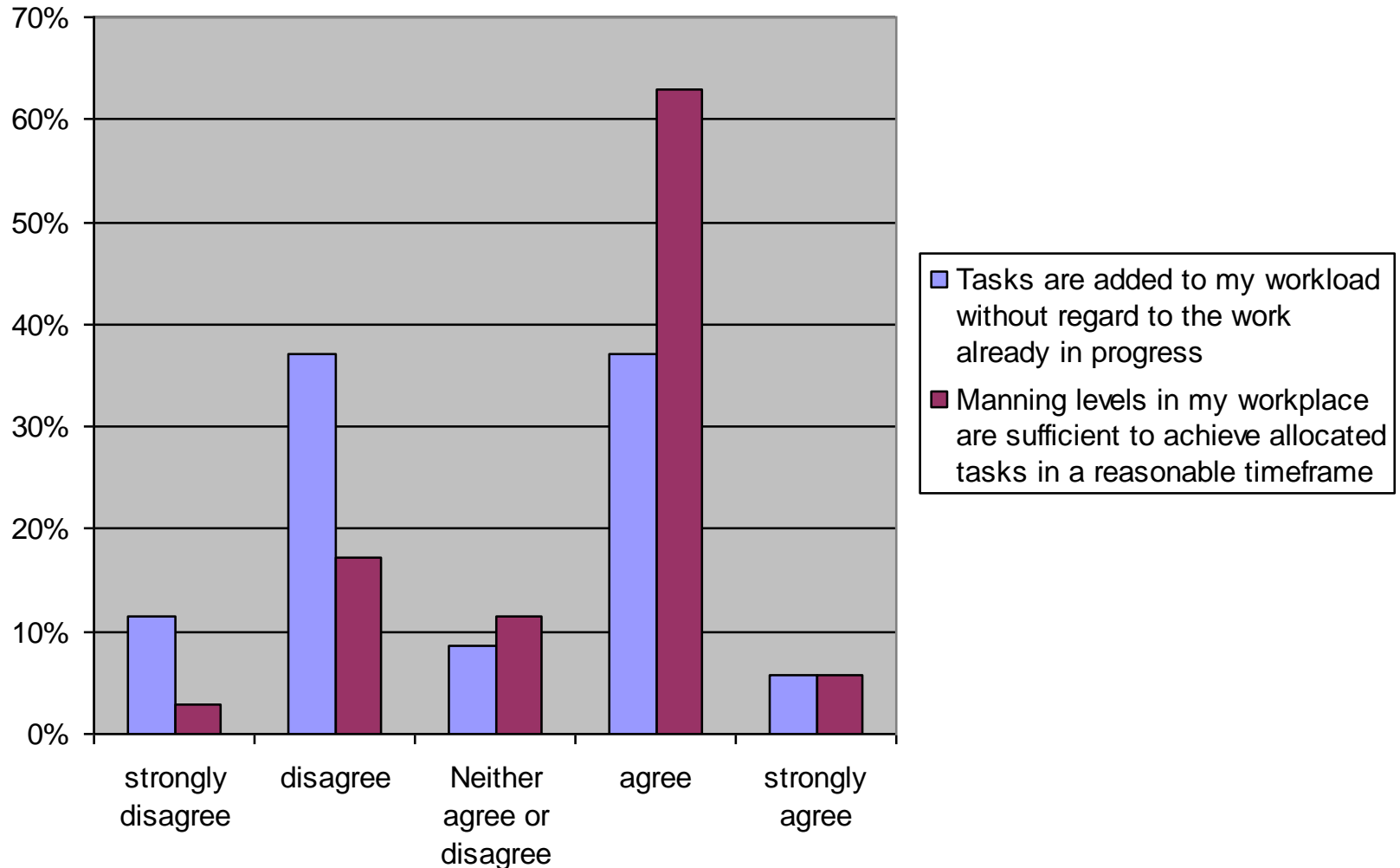
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Rotary Wing Group

Rotary Wing Safety Audit Team

RESPONSES TO WORKLOAD AND MANNING QUESTIONS



Final Report





ROTARY WING SAFETY AUDIT CAF BRIEFING 2 JUN 08

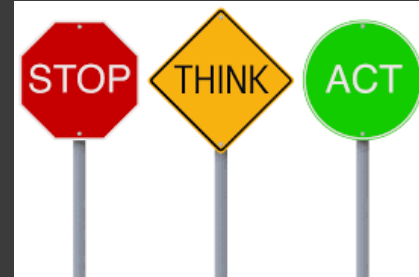
Lessons Learned

The PAST is where you
learned the leSSon
The FUTURE is where you
apply the leSSon.

Don't GIVE UP
in the middle!

What has Changed?

Safety Culture!

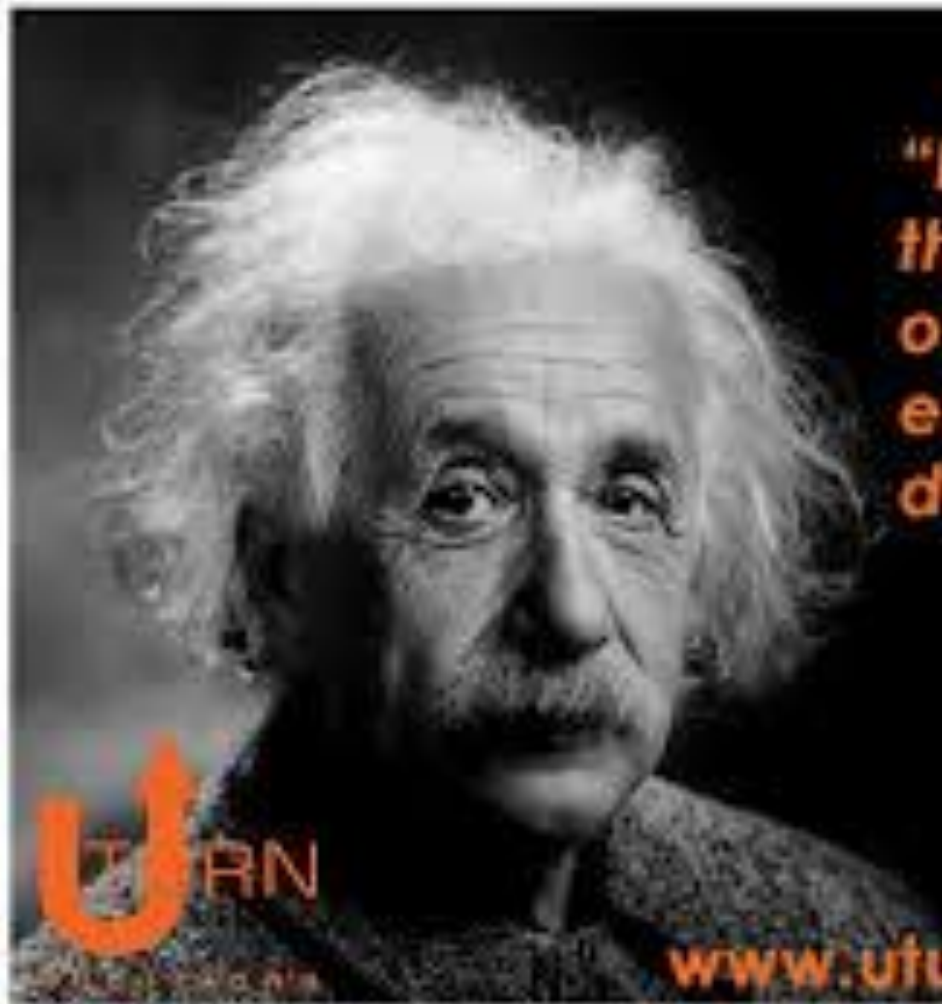


Accountability!



Values Based!





*"Insanity is doing
the same thing
over & over again,
expecting
different results"*

Albert Einstein



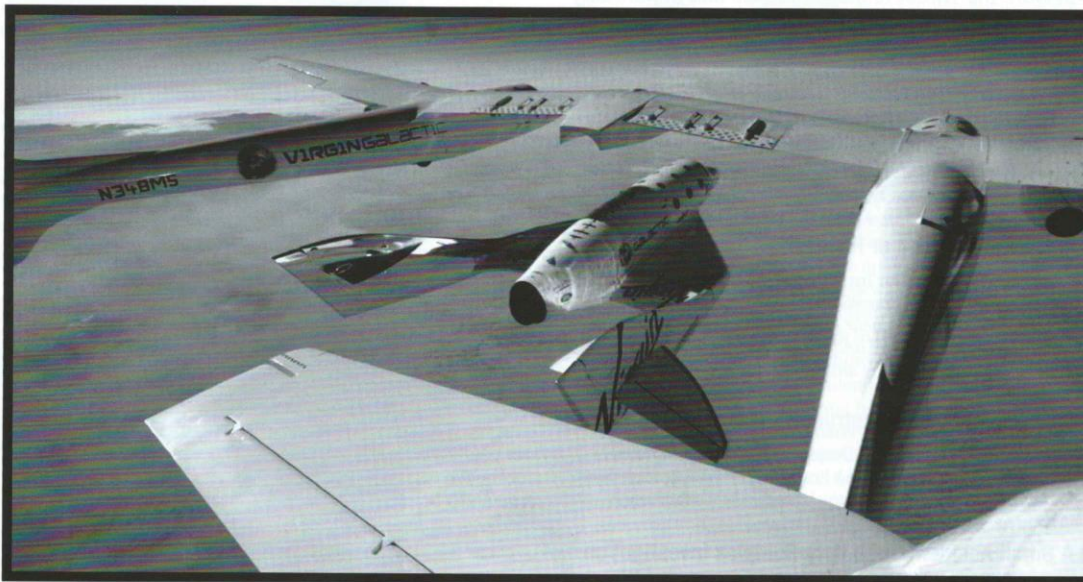
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FORUM

Air Safety Through Investigation

APRIL-JUNE 2016

Journal of the International Society of Air Safety Investigators



Air Safety

through

The Voyage of
Discovery
(Audit)

Page 4 Commentary: Unmanned Aerial Systems Will Reduce Fatalities but Will Disrupt Aviation in the Process

Page 6 B-787 Lithium Battery Incidents: Complex Investigations, Boeing's Role

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Page 16 A Family Affair: AirAsia Group in Light of Indonesia AirAsia Flight QZ8501

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Page 22 Fixing the Helos: Infrastructure, Training, and Oversight

Presentation dedicated to my close friends!

