

Shell Aircraft International

Our GOAL is your SAFETY



HFDM - A CUSTOMER PERSPECTIVE

22 Feb 2010

Tony Cramp – Senior Advisor, Air
Safety & Global Projects



SCOPE

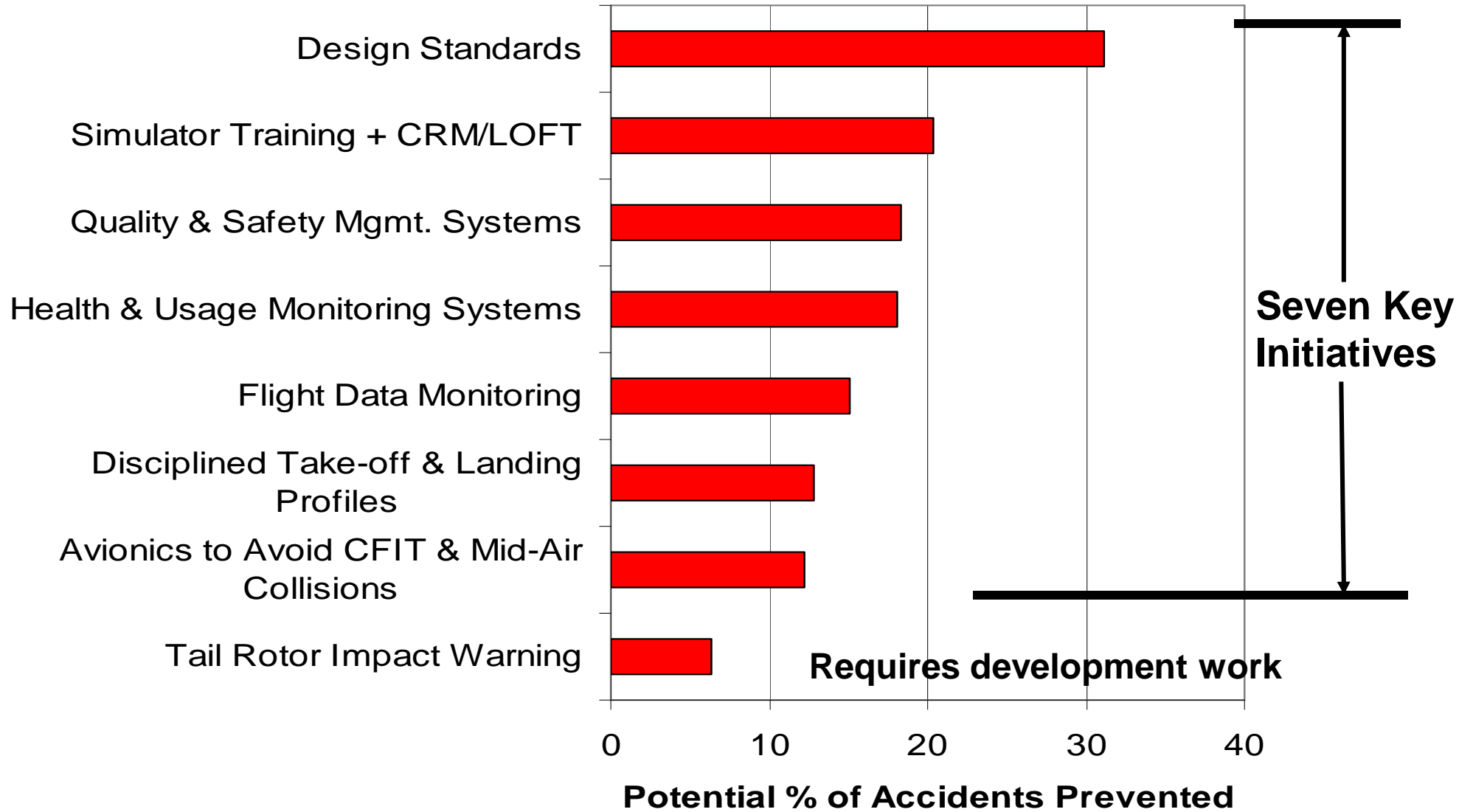
- Current picture in Shell contracted operations
- Equipment/system frustrations
- Operating procedures
- Summary

Definition

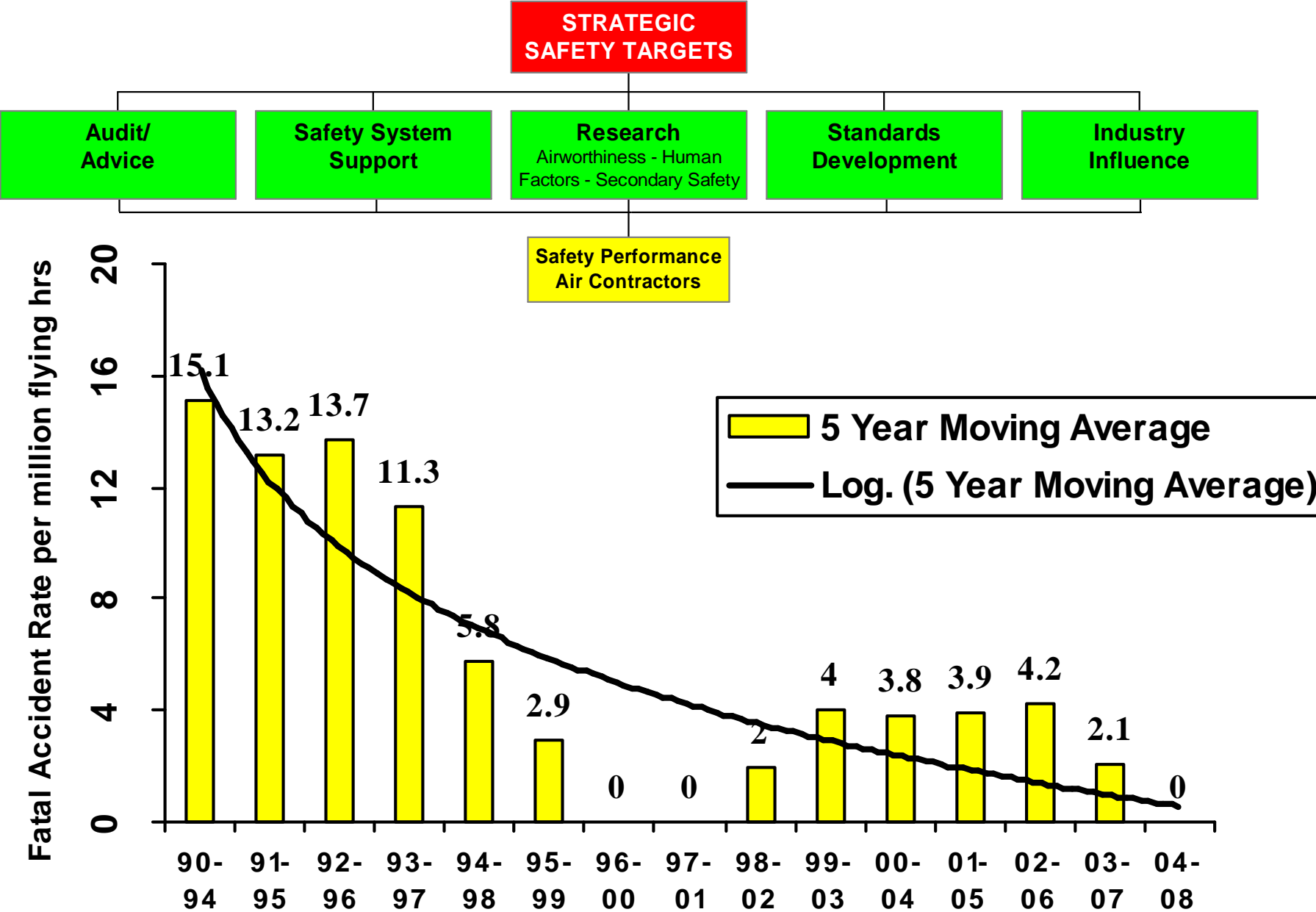
FDM is the systematic, pro-active and non-punitive use of digital flight data from routine operations to improve aviation safety. (CAP 739)

- The FDM system enables an operator to compare its standard operating procedures (SOP's) with those actually achieved in everyday flights. A feedback loop will allow timely corrective action to be taken where safety may be compromised by significant deviation from SOP's. The FDM system should be constructed so as to:
 - Identify areas of operational risk and quantify safety margins.
 - Highlight when non-standard, unusual or unsafe circumstances occur.
 - Put in place appropriate risk mitigation techniques.
 - Confirm the effectiveness of any remedial action by continued monitoring.

Shell's 7/7=1 Strategy



Shell's Fatal Air Accident Rate



Current Shell Ops

- FDM usage growing steadily and dramatic results shown in some areas.
 - 20 – 25 operators currently operating FDM, both RW & FW
 - Not all yet fully effective
 - Overwhelming positive feedback from those that have implemented it successfully.
- All currently conduct own in house data analysis.
- 70% are achieving daily downloads and about 60% daily analysis.

Frustrations

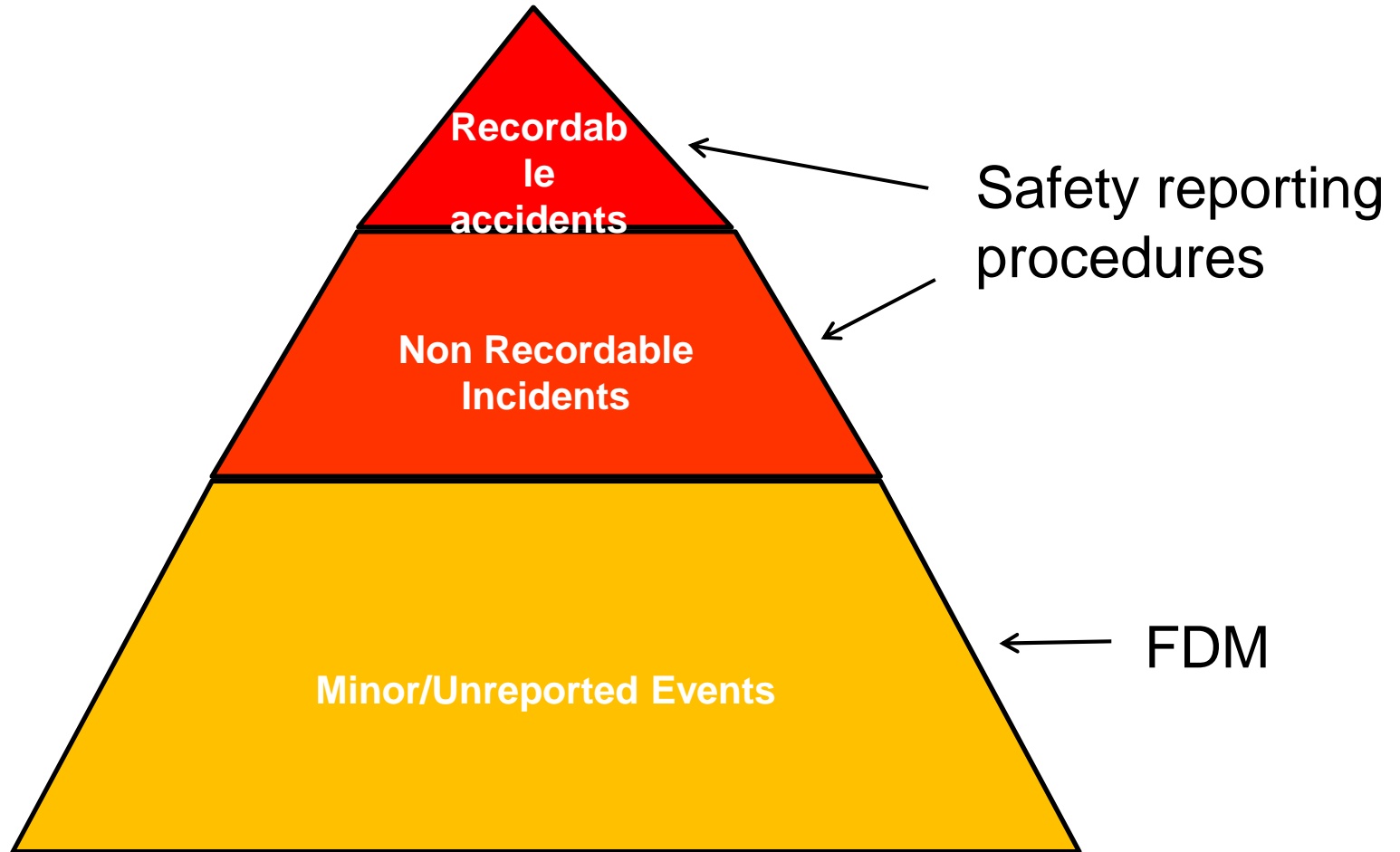
- FDM system availability for all contracted types
 - The time and cost of the STC process.
 - Full OEM support required.
 - Like to see commitment from regulators streamlining the process for this critical safety system.
- Non standard range of recorded parameters
 - E.g. lack of GPS position for S92, EC135 and S76.

Observations from audit

– Operating procedures

- Ineffective communication of FDM information to crews.
 - Every validated event should result in a crew contact
 - To reduce workload, means of contact will vary dependant on severity of event. i.e. Low severity events by email with no response required.

Need for crew contacts



Communicating these events only as period reports will not have the same impact as individual contacts.

Observations from audit

– Operating procedures

- Ineffective communication of FDM information to crews.
 - Every validated event should result in a crew contact
 - To reduce workload, means of contact will vary dependant on severity of event. i.e. Low severity events by email with no response required.
- Inadequate resources allocated to FDM system.
 - Appropriate to size and geographical coverage of operator.
 - Analysis capability should be top priority for dedicated staff.
 - Other functions can be more effectively covered by dual role staff/pilots.
 - In small operators consider use of non-flight crew personnel to conduct first look analysis and identify if events have occurred or use third party analysis.

Work in progress

- Define contract requirements for FDM
 - Guidance to operators
- Produce a generic event set list
 - Specific to FW or RW
 - Phase of flight requirements. E.g. Stabilized approaches, PC2 take off profiles
 - Mission specific
 - From that, guidance can be given to OEM's to make the required parameters available.
- Support all initiatives that raise awareness of and increase the use of FDM across the industry.

