

AC624: Hard Landing in Halifax



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Objectives

- To review the clinical and operational impact related to the crash of a commercial aircraft
- To identify key aspects of effective mass casualty incident management

Disclaimer

No funding from Big Pharma
or Big Disasta



Swissair 111: Peggy's Cove, 1998



MK1602: Halifax, 2004











EHS Timeline on AC624

Description	Time	Description	Duration
Time of crash	0:30:00	As per TSB report	
Phone Pickup	0:34:05	Initial call	
1st Key Stroke	0:34:05	Received to In Queue	0:02:02
In Waiting Queue	0:36:12	Call Taking	0:03:36
1st Unit Assigned	0:36:20	Call Received to 1st Assign	0:02:15
1st Unit Enroute	0:36:36	Assigned to 1st Enroute	0:00:16
Call Taking Complete	0:37:46	In Queue to 1st Assign	0:00:08
1st Unit Arrived	1:11:01	Enroute to 1st Arrived	0:34:25
Closed	4:46:00	Incident Duration	4:11:55

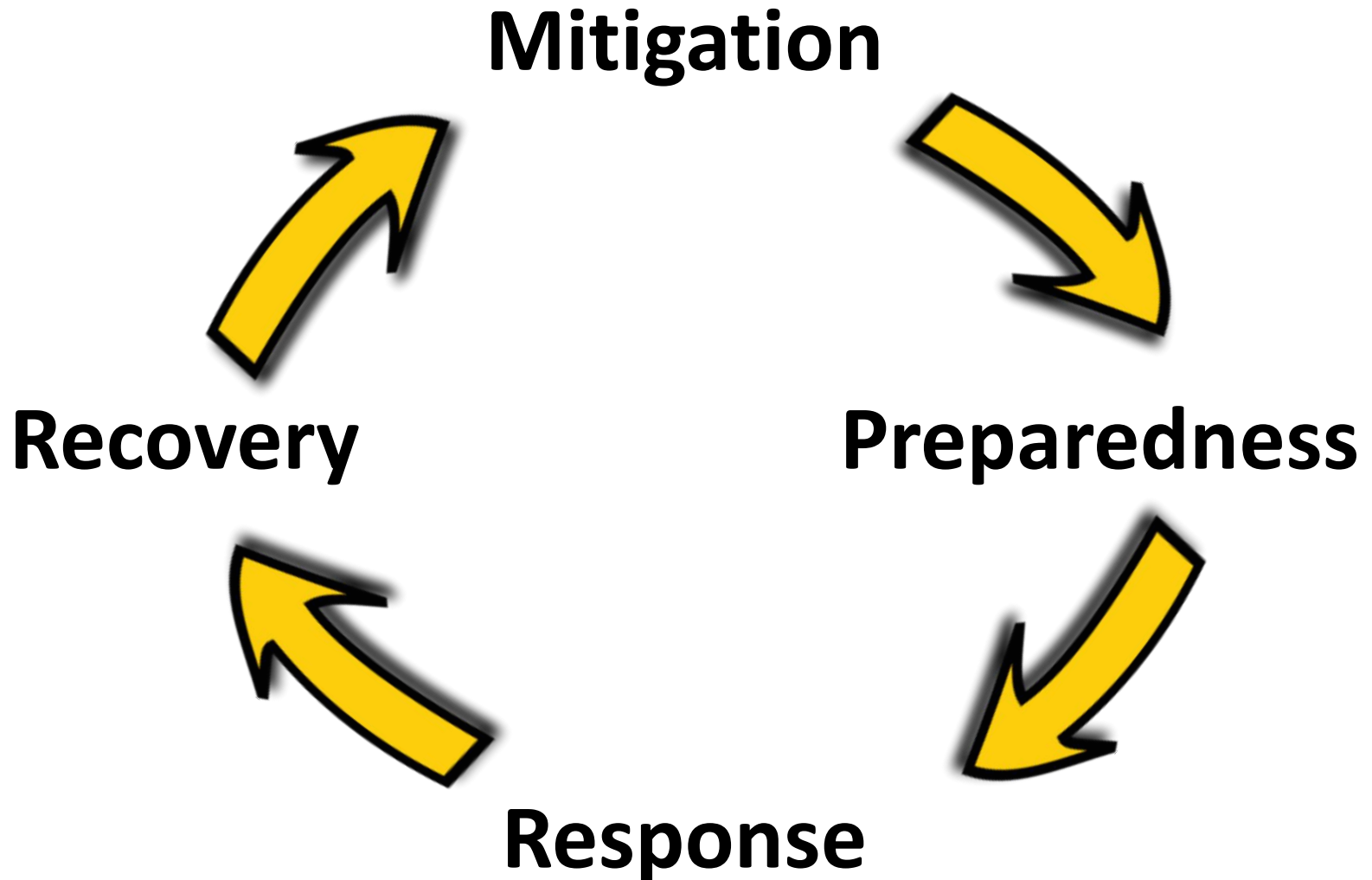
EHS Triage and Transport

- Patient Triage acuities
 - RED: 2
 - YELLOW: 21
 - GREEN: 115
- Transport destinations: total 26 patients
 - QEII: 5
 - DGH: 3
 - Truro: 10
 - Windsor: 4
 - IWK: 3
 - Women's: 1

Injuries on AC624

- **Captain:** minor head injury
- **First Officer:** head injury, serious injury to the right eye
- **Flight attendant** shoulder injury (hit by coffee brewer)
- **Passengers**
 - jackknifing at lap belt, flailing forward
 - striking back of the forward seat, another surface, or both
 - Injuries to hands and wrists
- Passenger with **infant** held infant with both arms
 - hit back of the seat in front

The Disaster Cycle



Mitigation

What are we preparing for?

What can we put in place to minimise the impact when it does happen?

Risk = Likelihood x Severity

		HAZARD SEVERITY				
		Negligible (1)	Slight (2)	Moderate (3)	High (4)	Very high (5)
LIKELIHOOD OF OCCURRENCE	Very Unlikely (A)	LOW	LOW	LOW	LOW	MEDIUM
	Unlikely (B)	LOW	LOW	LOW	MEDIUM	MEDIUM
	Possible (C)	LOW	LOW	MEDIUM	MEDIUM	HIGH
	Likely (D)	LOW	MEDIUM	MEDIUM	HIGH	HIGH
	Very Likely (E)	LOW	MEDIUM	HIGH	HIGH	HIGH

Steps to developing policy and SOPs

Research applicable laws and standards



Needs assessment



Team composition (command, operations)



Develop SOP's



Implement

Goals

- Scene Safety
- Notify Medical Comms Centre
- Organise EHS responders
- Effective MCI Triage with frequent reassessment

Scene Safety

- Consider hazmat, structural, and weapons-related risks. Use PPE.
- Communicate with Fire, Police.
- Choose staging area (upwind, uphill)

Organisation

- First arriving paramedic is Medical Incident Commander; most senior takes over on arrival
- Notify MCC re: type, number and severity of casualties (see ICS)

Triage

- Use START tags

Tips

- Mass Casualty Incident called with ≥ 6 casualties, or < 6 in unusual circumstances
- Activate Trauma Team, Lifeflight and Ground OLMOPs as required
- For additional MCI resources, ask for EPSO
- START triage:
 - **RED** = Immediate care
 - **YELLOW** = Delayed
 - **GREEN** = Minor
 - **BLACK** = Expectant

What is your capacity for providing...?

Psychological First Aid

Family Information and Reunification

Disaster Morgue

Preparedness

MCI plan

Education

Exercise

What should plan cover? **STD-3!**

Staff phone lists, Red Alert, Facebook, social media

Stuff blood products, SPD, beds, IR, ex-fixes

Space PACU, ICU, Medicine $\leftarrow \rightarrow$ Surgery

Triage rapid, continuous

Treatment minimum required

Transport to next level of care ASAP

Decant clear the decks

Defer let it go

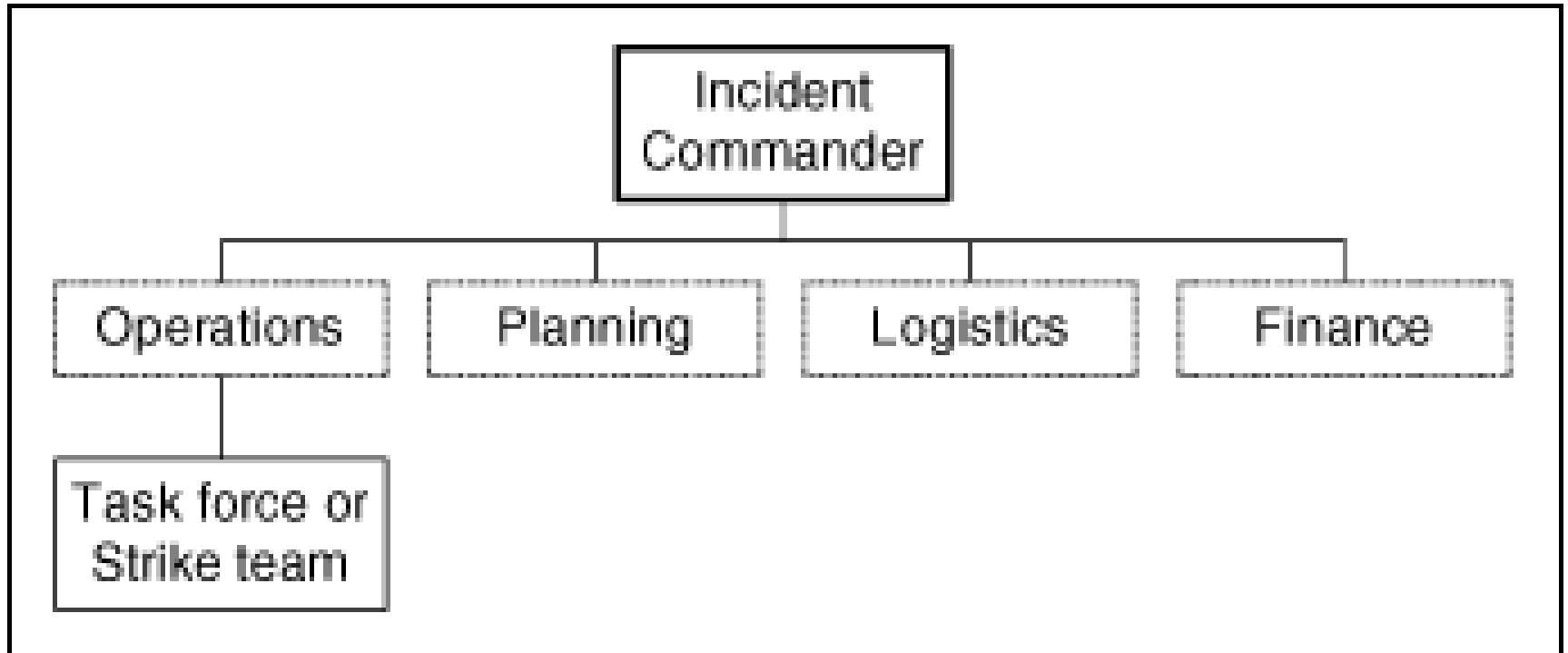
Deflect to other sites

Response

Operations

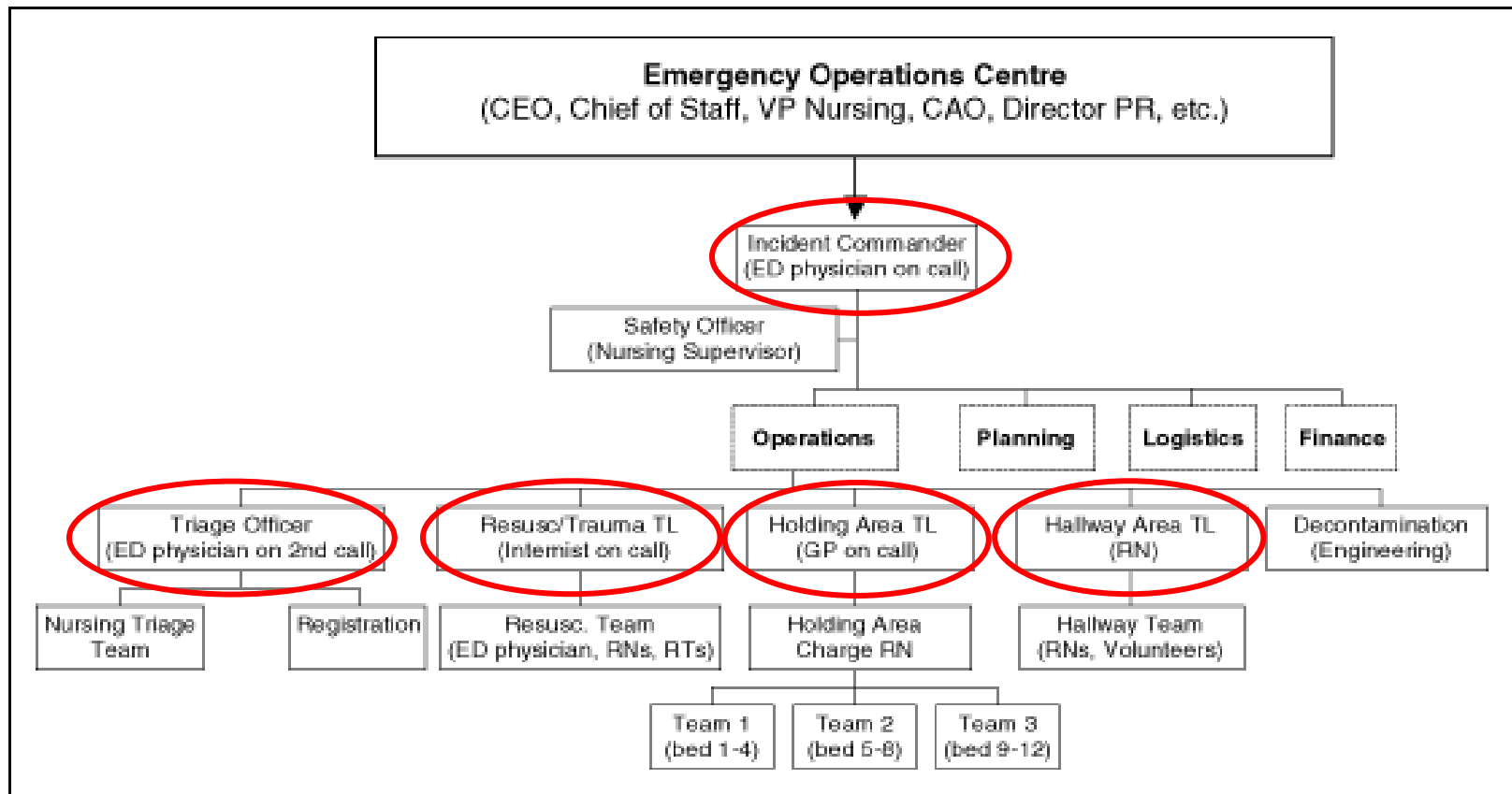
Command

Incident Command Structure



Christian MD, Kollek D, and Schwartz B. Emergency preparedness: what every health care worker needs to know. *Can J Emerg Med* 2005;7(5):330-7

Hospital Command Structure (initial)



The Secret Weapon in EP: **Practice!**

BWH conducted or participated in 73
separate exercises, events, and
disaster activations prior to April 2013

Going up and down in an elevator...



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Thank you

