AUTHORS: Phil Crabtree, Chevron; Brad Apostolo, Commercial Airline Pilot

IPS 24-2.1

A view from ABOVE

Presented by: Phil Crabtree, Chevron

A Different View

- Looking at safety from a different view
- Pilot friend
- Airline Industry
- Why?



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• secure from threat of danger, harm, or loss

Safe / Safety is in the past and presence tense and not in the future

• Safety has no memory

Safety has no Rank or Seniority

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Climbing Mt Everest



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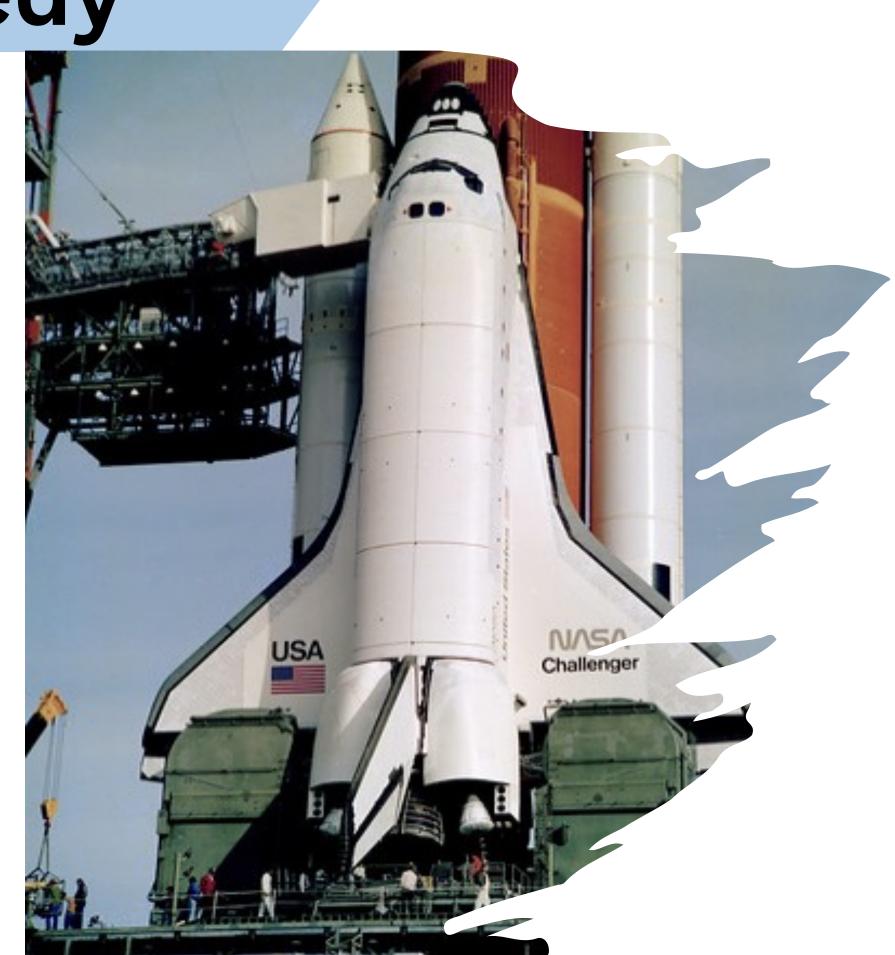
RISK

possibility of loss or injury

- When?
- Risk has no memory
- The risk factors don't improve as we repeat the same behavior or task

The Challenger Tragedy

- Online Paid Video Service: 4-part documentary
 - National attention had been lost on Space Program
 - Back page news
 - Government needed public interest again
 - First US Civilian in space!
 - Picked a teacher -everyone could relate!
 - Major national media attention and public interest
 - Solid Rocket Booster o-rings had evidence of loss of containment on several previous missions.
 - Many engineers waved red flags!
 - Coldest launch in US history (38 deg F)
 - O-rings not rated for temperature
 - 3rd attempt to launch
 - Major public interest



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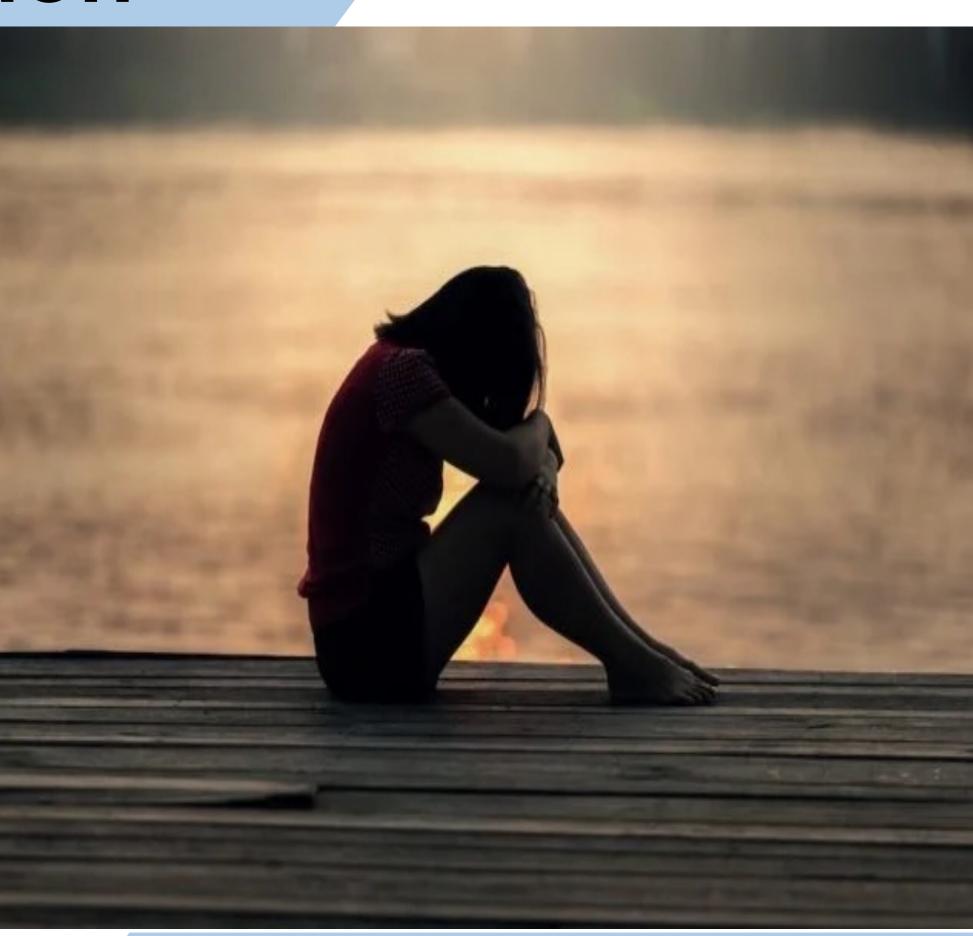
Normalization of Deviance



- Colonel Mike Mullvane West Point Graduate in 1967
- Commissioned to United States Air Force
- 134 Combat missions in
 - Vietnam
 - Astronaut on 3 missions as
 - a Mission Specialist
 - YouTube: 4-part series

A Death Investigation

- Surface detonation
- 50+yr old male, married with children
- 20+yr employee in oil industry
- Well Trained and EUIC
- Same operation 100's of jobs
- Why?



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Risk Management

API RP 67 – Recommended Practice for Oilfield

Explosives Safety

Job Safety Analysis

Operational Reviews

Risk Assessments

Risk Mitigation Planning

What can you do?

- Challenge our community to refocus on how we can reduce and mitigate risk
- What is your role?
- What can you do to reduce risk?



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QUESTIONS?

IPS 2024

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