



# Training for Safety

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**Global Safety Manager**  
**FlightSafety International**



# About FlightSafety International

**NEARILY 50,000**  
**CUSTOMERS TRAINED ANNUALLY**

This includes pilots and  
maintenance technicians

**800+**  
**ONLINE COURSES**

Including self-paced and live  
instructor-led training

**30+**  
**TRAINING FACILITIES WORLDWIDE**

Serving customers from nearly  
170 countries and territories

**1.7M HOURS**  
**ANNUAL TRAINING**

For pilots, technicians and other  
aviation professionals (This includes  
700,000+ hours in simulators)

**300+**  
**SIMULATORS**

The world's largest fleet of  
advanced full flight simulators

**130+**  
**AIRCRAFT MODELS**

With approved professional training

**1,600+**  
**WORLD-CLASS INSTRUCTORS**

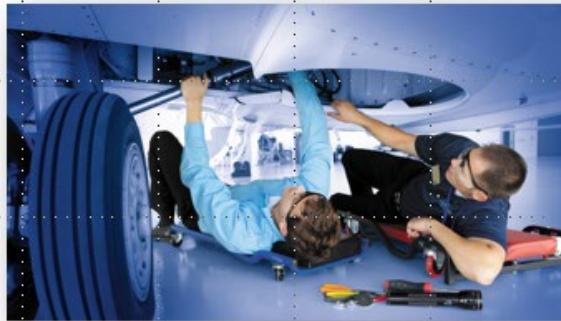
Pilot, Maintenance, Cabin  
Attendant and Dispatcher

**20+**  
**NUMBER OF MANUFACTURERS**

That call FSI their authorized trainer

**FlightSafety**  
INTERNATIONAL

# Good enough isn't.....

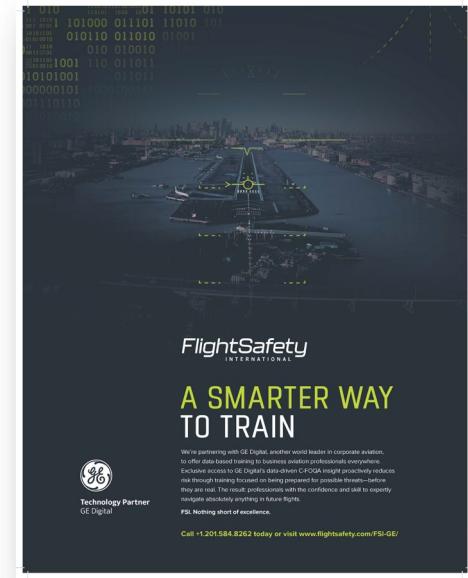


# Safety Focused Training

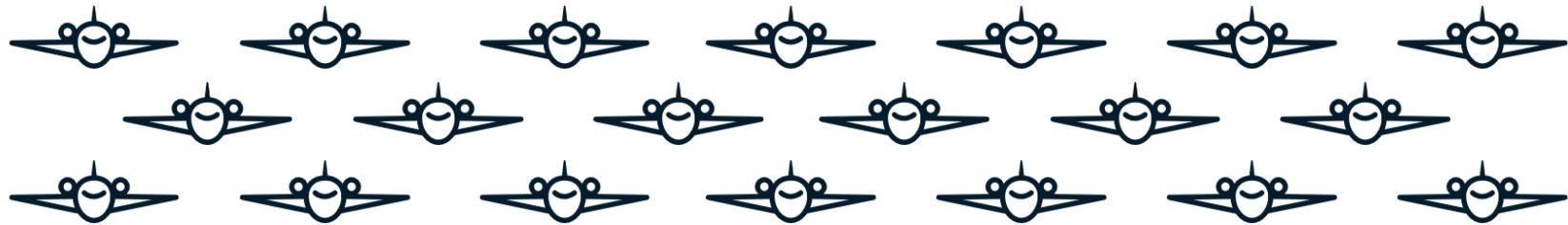


# GE Digital – FlightSafety Partnership

- Both world leaders in aviation services
- Real world data allows focus on actual threats to safety
- Proactive
- Data driven scenario construction
- Risk based approach to training
- Smallest of operations benefit from the power of big data
- Enhance safety, not expedient completion of required items



## GE C-FOQA Participants



- Data de-identification
- Analysis
- Threat identification



- Safety focused  
training based on  
real world threats

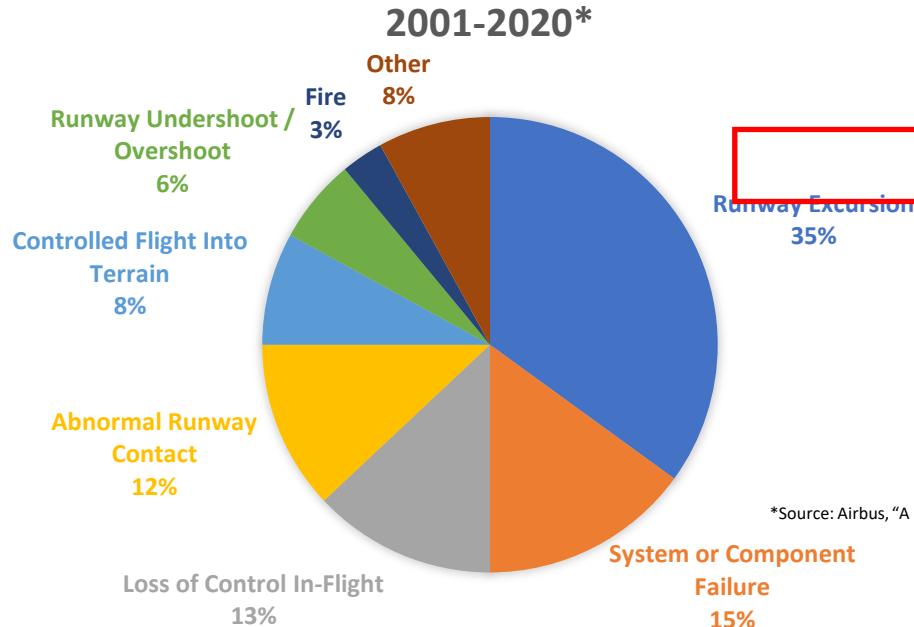


FlightSafety Clients and Customers

**FlightSafety**  
INTERNATIONAL

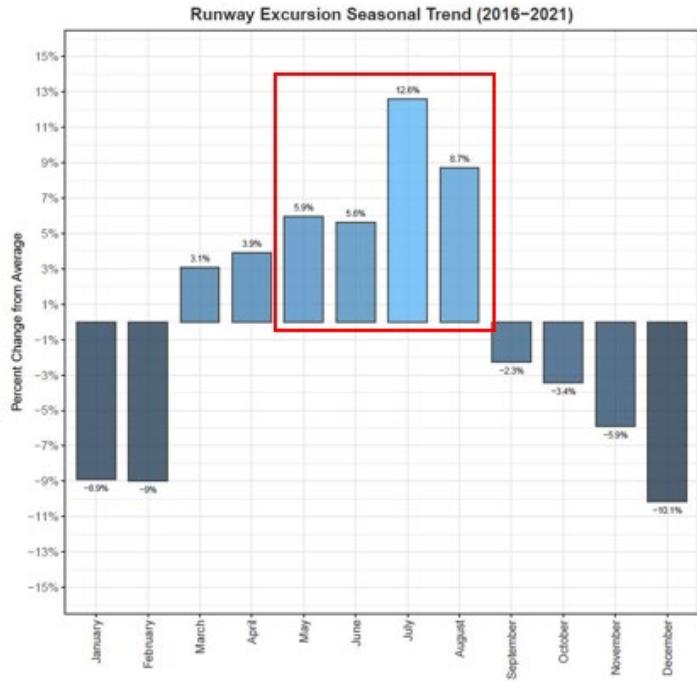
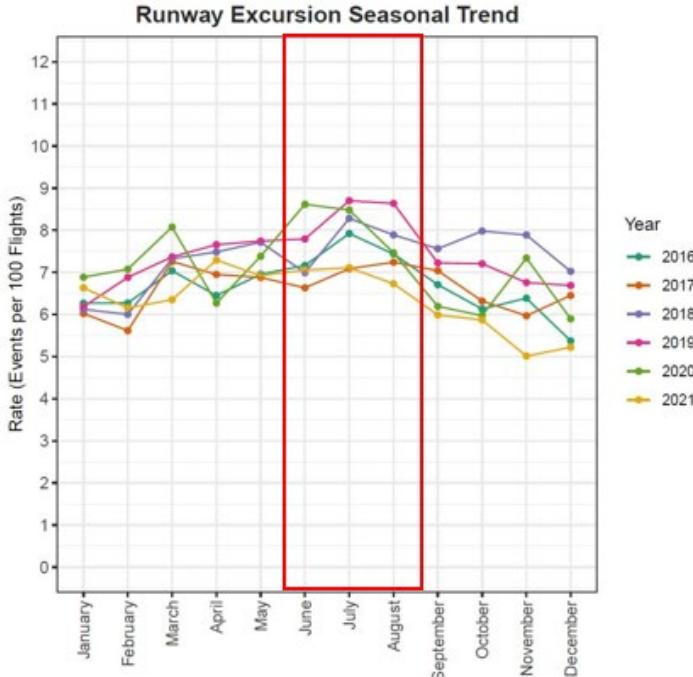
# Runway Excursions—Persistent Operational Risk

## HULL LOSS ACCIDENT DISTRIBUTION PER ACCIDENT CATEGORY



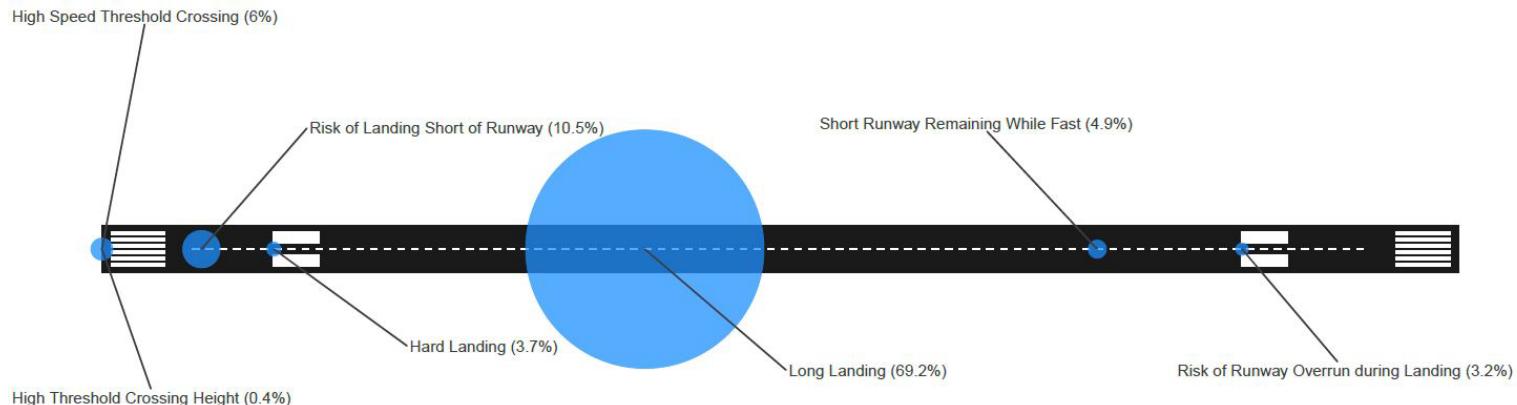
\*Source: Airbus, "A Statistical Analysis of Commercial Aviation Accidents 1958-2020."

# Runway Excursion Trends

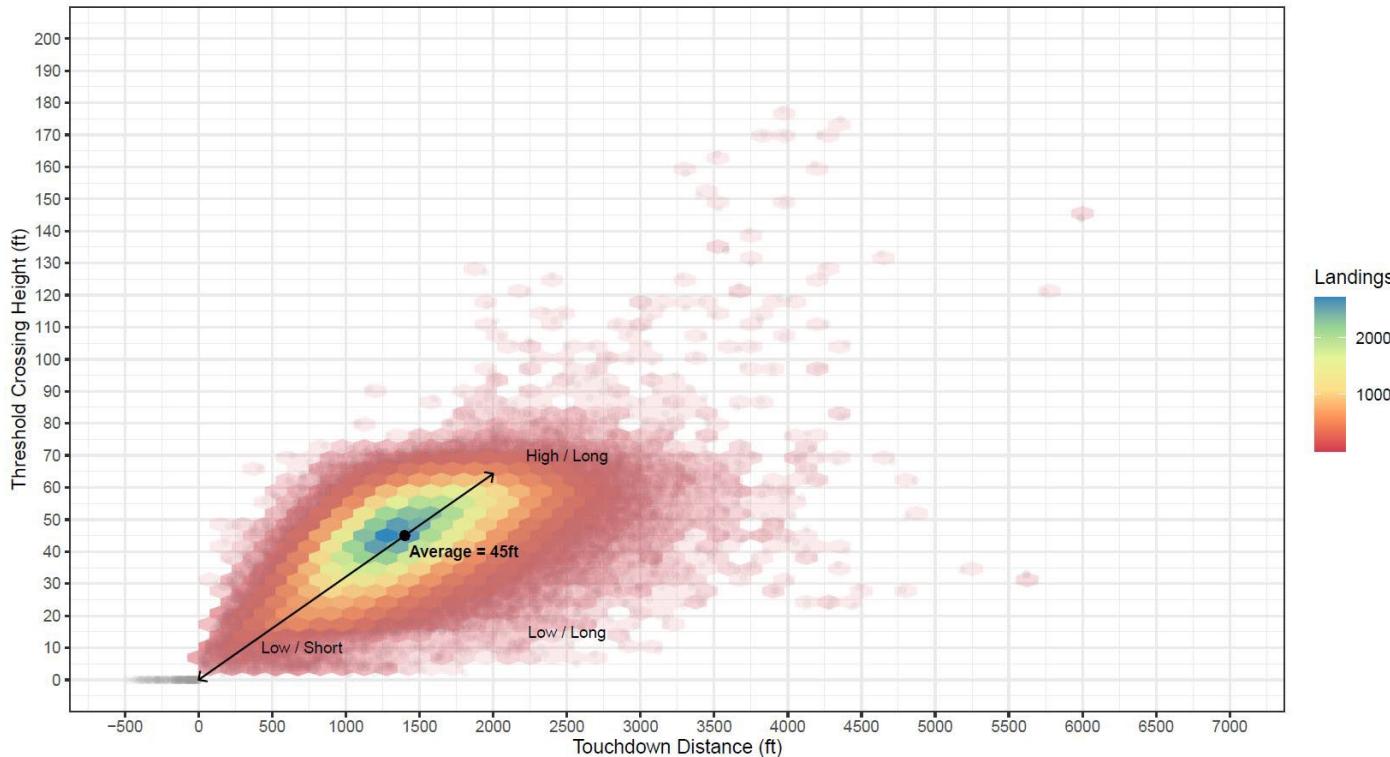


# Runway Excursion Event Categories

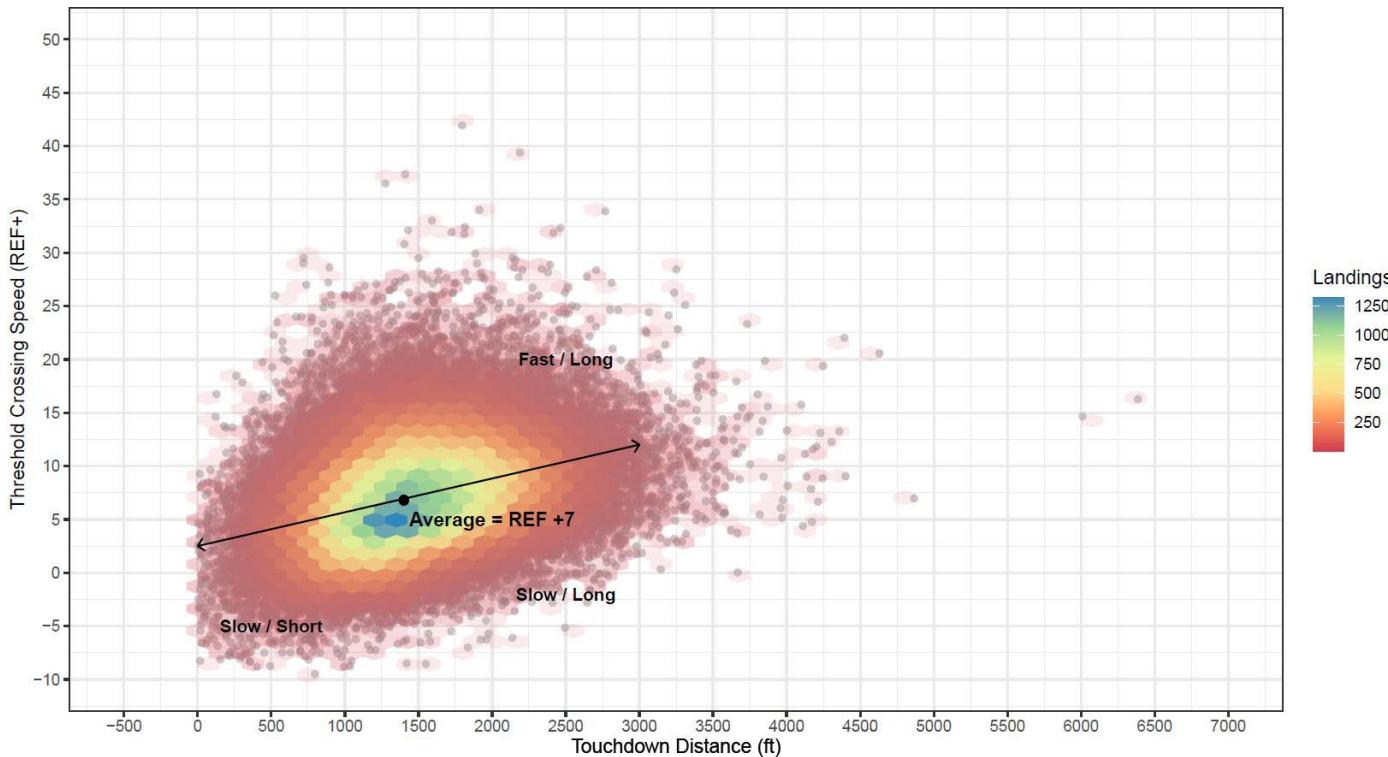
Percent of Events during Landing



# Threshold Crossing Height



# Threshold Crossing Speed

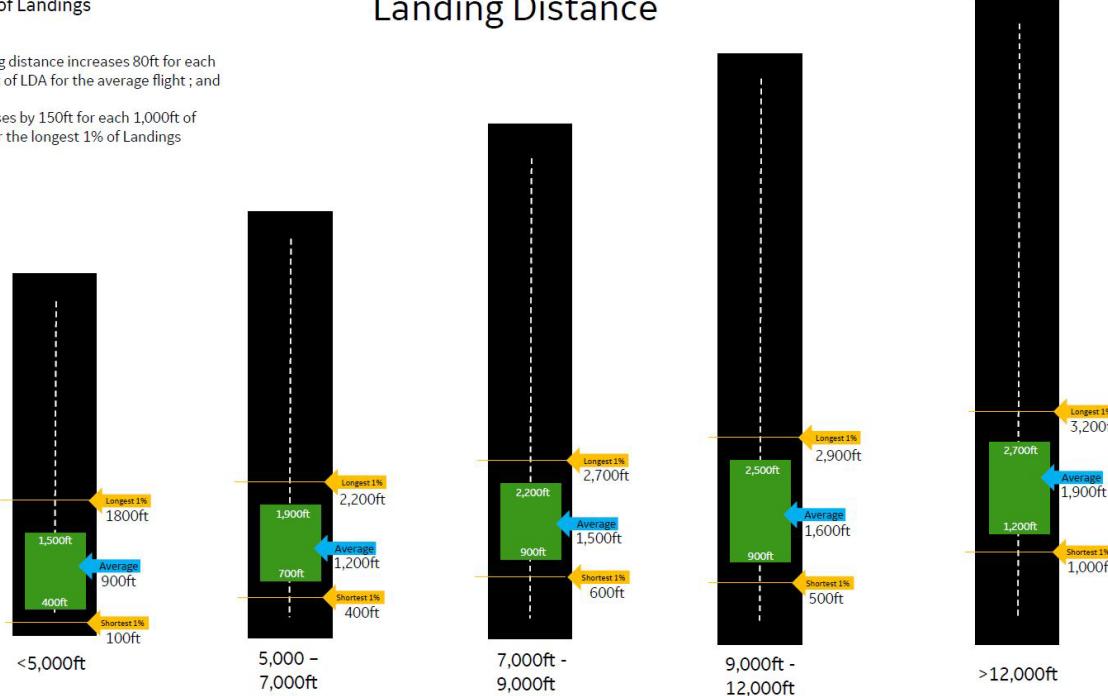


# Touchdown Point

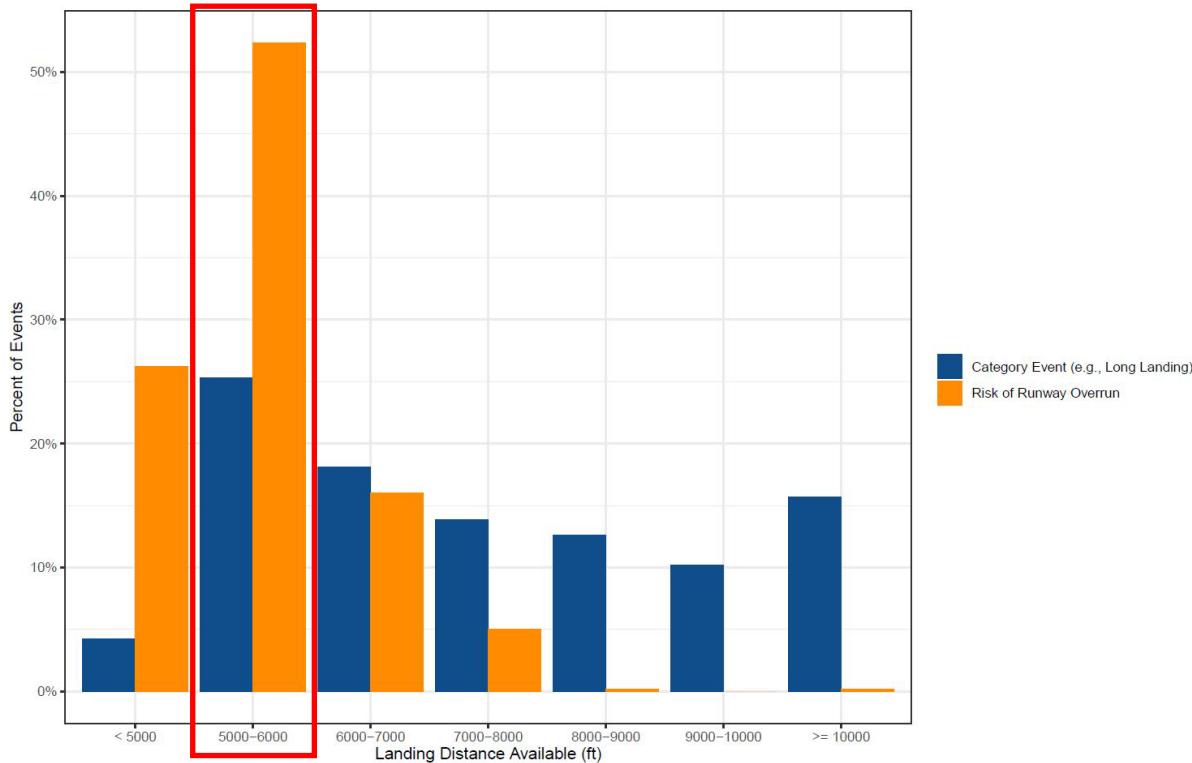
90% of Landings

- ❖ Landing distance increases 80ft for each 1,000ft of LDA for the average flight ; and
- ❖ Increases by 150ft for each 1,000ft of LDA for the longest 1% of Landings

## Landing Distance



# Runway Overrun Risk



# Runway Excursion Prevention

Runway excursion risk can be substantially decreased by focusing on:

- Precision delivery of the aircraft to the runway threshold
- Improved touchdown point management
- Heightened focus on changing conditions and associated go-around decisions

# Simulator Emphasis Areas

- Approach stabilization and aircraft energy management performance
  - Threshold crossing height
  - Threshold crossing speed
  - Touchdown Point
- Go-Around decision-making
  - Crew resource management (PF and PM)
  - Hazard awareness
  - Unexpected changes during approach and landing phases

# Conclusion

- Safety and precision are tightly coupled
- Regulations
  - Largely static
  - Do not encompass real world hazards
- Undesirable state:
  - Data without action
  - Action without direction has risk
- Coupling data and action enhances safety
- Train for safety, not proficiency



# PROFICIENT IS CAPABLE PREPARED IS UNSHAKEABLE

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