

HOW COULD WE TURN EACH FLIGHT INTO A TRAINING OPPORTUNITY?

Singapore - August 29th, 2018

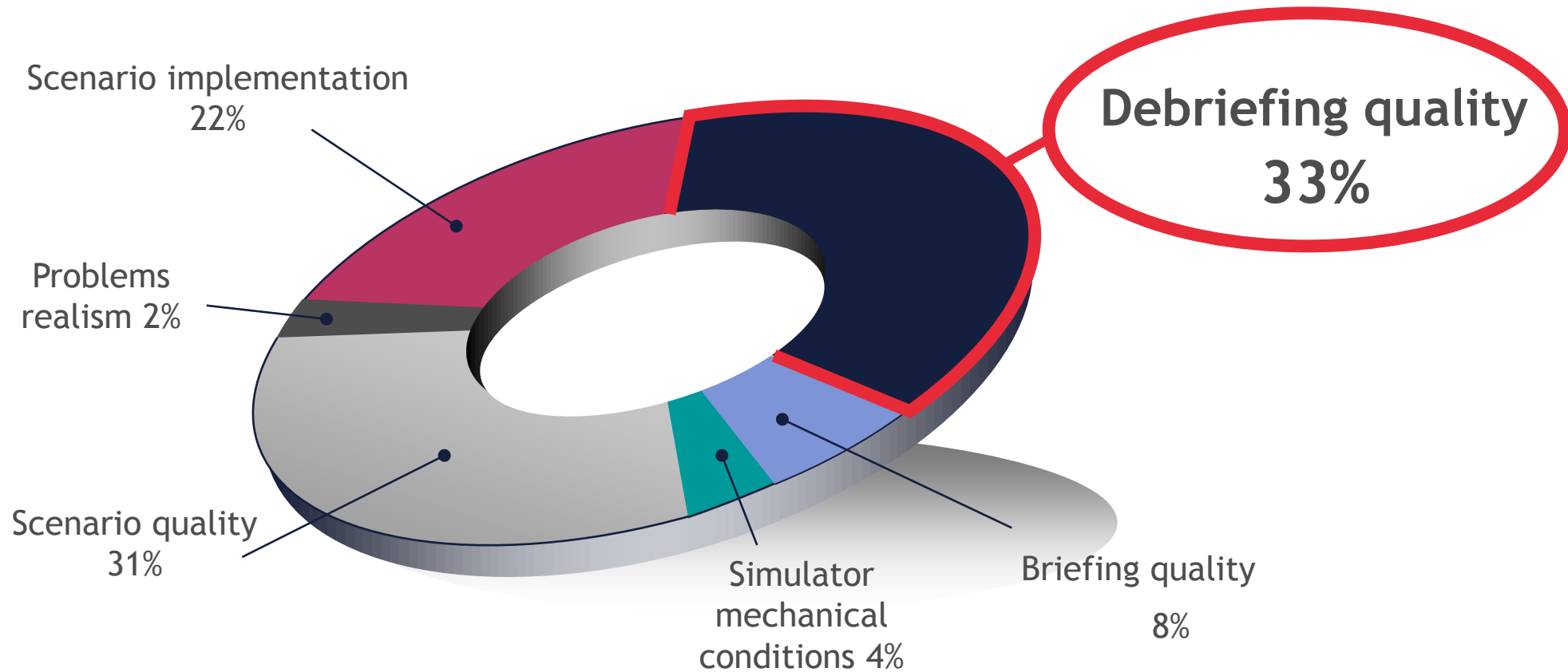
Pierre WANNAZ

Capt. A330/A340
Flight instructor

- ✈ Levels of **safety** required → meet **growth** demand?
- ✈ Maintain sustainable **quantity** & **quality** of pilots?
- ✈ Technology + data + experience → maximize **efficiency**?

NO... BUT THERE IS A SOLUTION !

WHAT DO EXPERTS SAY ABOUT DEBRIEFING?



TRAINING EFFICIENCY - FLIGHT SIMULATOR

Source: Swiss HF Guide
out of a NASA/AMES study



“We do not learn from experience only.
We learn from reflecting on experience...”

self-reflection leads to

20 %

improvement of training performances



3-4 simulator sessions (12-20 hours) a year



BUT

- ✘ predefined program (reducing the startle effect)
- ✘ not all flight encountered situations are addressed
- ✘ expensive (instructor needed/ unproductive day/ travel...)

**→ Offer a relative LOW training potential improvement
at HIGH COST/BENEFIT**

70 (LH) to 850 (SH) flights/year in real life,
offering numerous & various situations...



**ACTUAL
ISSUES/
DIFFICULTIES**

- ✈ global understanding in a dynamic environment
- ✈ debriefings based on pilot memory

**ACTUAL
POTENTIAL**

- ➔ **HIGHEST potential for training**
- ➔ **HIGHEST potential for safety improvement**

at **LOW COST/BENEFIT** with the right **TOOL...**
EACH FLIGHT OFFERS A TRAINING OPPORTUNITY

HOW COULD WE TURN EACH FLIGHT INTO A TRAINING OPPORTUNITY?

FLIGHT DEBRIEF - LINE TRAINING

INTRODUCTION VIDEO

Capt. Pierre Wannaz

REAL VIDEO ANIMATION

EVENT NOT FLAGGED BY Flight Data Monitoring

COST RELATED AS COOLING IS REQUIRED OR DELAYED FLIGHT

FOR PILOTS / CHIEF PILOTS / FLIGHT INSTRUCTORS



1. **Confidential access** to own flight data only, each pilot being his own **gatekeeper**

Animation respecting the anonymity of the involved pilot

2. Flight debriefings based on global/holistic **factual** evidences

→ lower risk of developing **individual techniques**
→ **EBT** brought to individual level

FOR PILOTS / CHIEF PILOTS / FLIGHT INSTRUCTION



3. **Better global understanding** of occurrences and root causes → eliminate self-doubt → build self-confidence
4. Easier **knowledge transfer** and **sharing of experience** between crew members
5. Database of animation with “State of the Art” of difficult Approach

FOR TRAINEESA DEBRIEFING SOLUTION

1. **Understanding support** for dynamic/difficult situations as the crew is **still together**
2. **An analysis tool:**
 - ✂ for trainees
 - a **solid foundation** for a Crew Centered Debriefing
 - ✂ for **novice pilots**
 - help them to **understand own performance** using the tools (tablets) that the young generation already use everyday !



FOR SAFETY TEAMS

1. Simple occurrence not flagged as FDM events ignored by the safety system today, can be shown to FDM → animation used as a **collaborative tool** for flight safety!

JUST CULTURE SUPPORT

REPORTING ENVIRONMENT

‘human-in-the-system’ safety protection

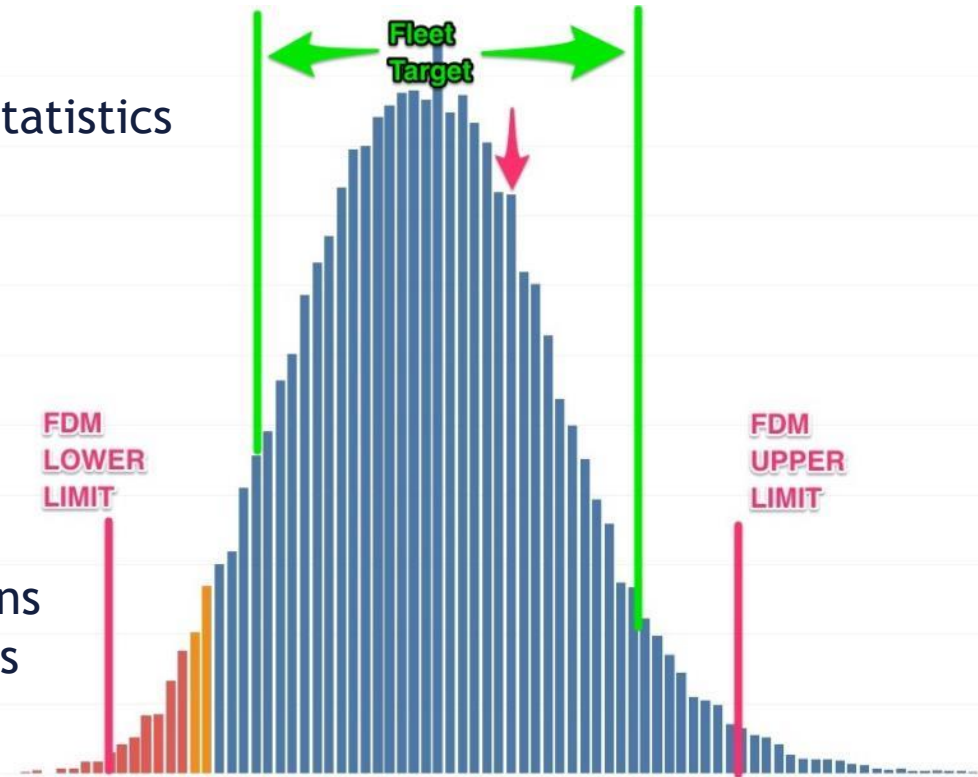
To create an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety-related information

FOR SAFETY TEAMS

NEW BENEFITS:

2. FDM can provide Big Data statistics for own evaluation vs fleet performance!

3. Trend monitoring of situations before a serious event occurs



“It has revolutionized the company culture regarding the debriefings and the use of flight data.

It has freed pilots’ speech!”

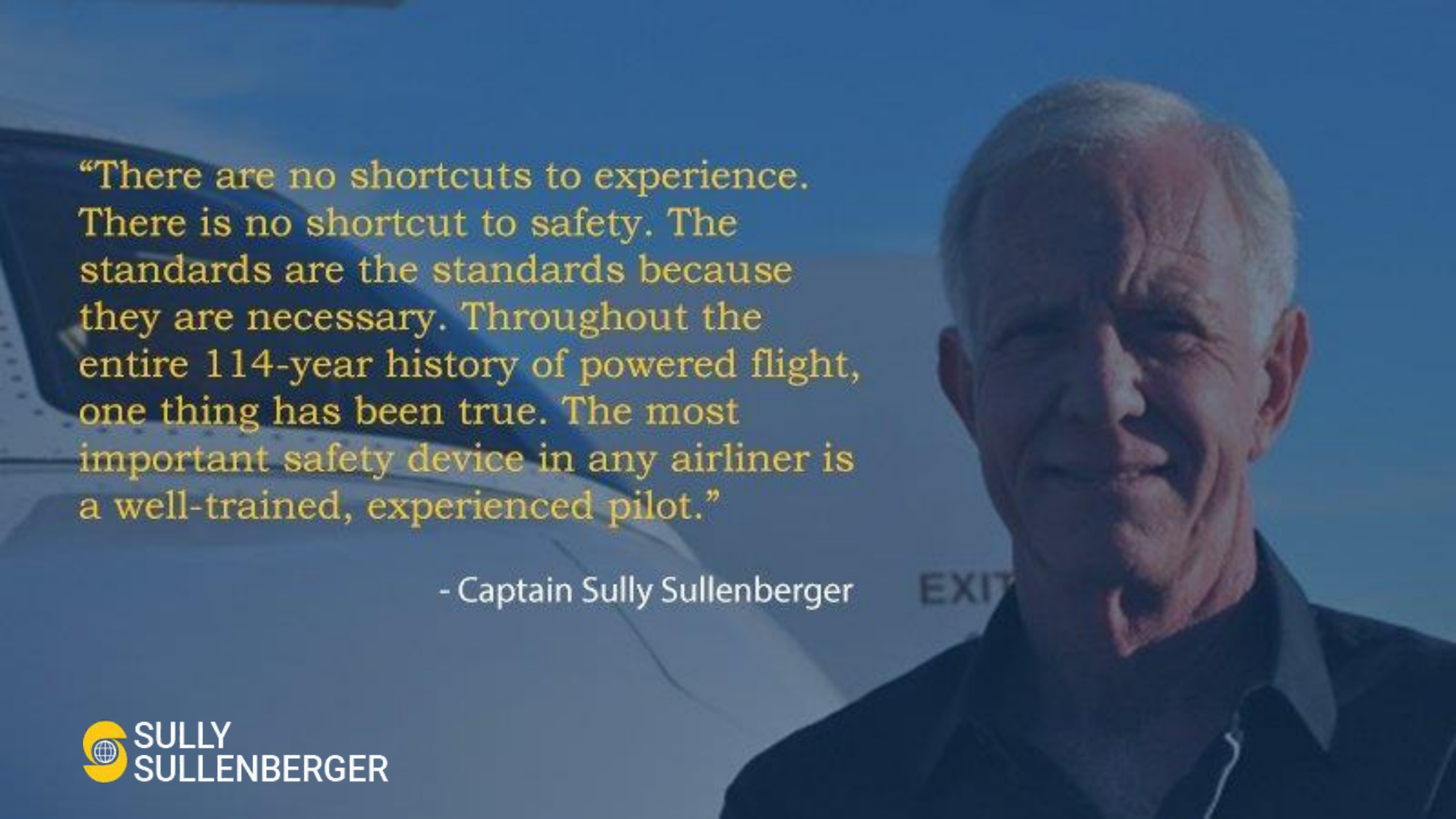
Hideo Morioka, Senior Director Safety promotion and Flight Data Analysis



RESILIENCE

=

CONFIDENCE x COMPETENCE



“There are no shortcuts to experience. There is no shortcut to safety. The standards are the standards because they are necessary. Throughout the entire 114-year history of powered flight, one thing has been true. The most important safety device in any airliner is a well-trained, experienced pilot.”

- Captain Sully Sullenberger

**COME & DISCOVER
OUR INNOVATION!**

STAND #801