

A photograph of two men in an airplane hangar. The man on the left is wearing a light blue button-down shirt and dark trousers, pointing at a tablet held by the man on the right. The man on the right is wearing a dark jacket and dark trousers. They are standing in front of a white airplane fuselage. The hangar has a high ceiling with metal beams and lights.

# THE 13<sup>th</sup> FACTOR

*How Cultural Friction  
Amplifies the “Dirty Dozen”*



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Prepared by Matthias Holighaus

# 1. THE SILENT RISK

## Where culture meets cockpit & hangar

In aviation, we have mastered the technical; our SOPs are world-class and our engineering is precise. Yet, **Human Factors** remain the primary cause of 80% of maintenance-related errors.\*

While the industry focuses on the **“Dirty Dozen”** precursors to error, there is a silent force multiplier that amplifies them all:

### The 13th Factor - Cultural Friction

When global teams collaborate, differences in “Power Distance” and “Communication Styles” create the gaps where critical safety information is lost.

To protect your **Just Culture** and **reduce AOG (Aircraft on Ground) downtime**, we must bridge hierarchy gaps to help leaders catch Dirty Dozen errors - like “Lack of Assertiveness” or “Lack of Communication” - before they reach the aircraft.

\*www.FAAsafety.gov



### The Bottom Line:

If a junior technician in a high-hierarchy culture is afraid to correct a senior Lead’s error, the SOP has failed.

That failure leads to rework, AOG delays, and safety risks.

## Content



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# 2. CROSS-CULTURAL ANALYSIS

As an example of cultural differences, see here a comparison about Germany and Singapore across various professional dimensions\*.

**Example:** *How do I give feedback?* (#2. Evaluating domain)

**Germany:** Feedback is delivered with high intensity and focus on honest, direct criticism to ensure professional improvement.

**Singapore:** Criticism is softened and delivered in private to avoid causing a loss of "face" for the individual.



\*Based on *The Culture Map* by Erin Meyer



# 3. THE 13th FACTOR CORRELATION

To demonstrate how cultural dynamics deeply compromise operational safety, the following table maps a selection of the **13th Factor (Cultural Friction)** domains\* against the FAA's **Dirty Dozen** to reveal the behavioral root causes of operational risk.

<b>The 13th Factor Trigger</b> (Cultural Friction)	<b>Correlated Dirty Dozen Factor</b> (FAA)	<b>Operational Impact</b> (Examples)
<b><u>Communicating</u></b> (Low- vs. High-Context)	#1. Lack of Communication #5. Lack of Teamwork	In high-context cultures, "explicit" details are often left out of handovers because they are "assumed," leading to critical technical omissions.
<b><u>Evaluating</u></b> (Direct vs. Indirect negative Feedback)	#3. Lack of Knowledge #12. Norms	If a Lead gives "Indirect" feedback on a mistake, a technician from a "Direct" culture may not realize they have actually been corrected.
<b><u>Leading</u></b> (Egalitarian vs. Hierarchical)	#8. Pressure #9. Lack of Assertiveness	In high-power distance environments, safety violations may go uncorrected despite being spotted by the maintenance team.
<b><u>Deciding</u></b> (Consensual vs. Top-Down)	#5. Lack of Teamwork #8. Pressure	Top-down cultures may struggle with the "consensual" nature of Crew Resource Management (CRM), leading to siloed decision-making.
<b><u>Disagreeing</u></b> (Confrontational vs. Avoids Confrontation)	#1. Lack of Communication #11. Lack of Awareness	Teams that avoid confrontation will not "speak up" when they see a colleague losing situational awareness, fearing a "loss of face."
<b><u>Scheduling</u></b> (Linear vs. Flexible Time)	#2. Complacency #4. Distractions #6. Fatigue	Flexible-time cultures may "rush" at the end of a shift to meet a linear-time deadline, leading to shortcuts and missed steps.

\*Based on *The Culture Map* by Erin Meyer

Note: This table is not intended to be exhaustive



# 4. STRATEGIC APPROACH

We often treat the **Dirty Dozen** as individual human failings. A better approach is to treat them as **systemic cultural gaps**.

By addressing the **“13th Factor”**, we strengthen the integrity of your **Just Culture** at every regional base.



## Step 1: **Identify** the Cultural Trigger

Moving beyond the “human error” to identify the specific cultural friction (e.g., High Power-Distance) that allowed the error to occur.

## Step 2: **Neutralize** the Hierarchy

Implementing “Face-Saving” communication tools that allow junior staff to report risks to seniors without fear of social or professional backlash.

## Step 3: **Align** Cross-Border SOPs

Ensuring that Just Culture rules are interpreted consistently across different regions to create a single, global standard of accountability.

## Step 4: **Secure** the Feedback Loop

Stabilizing the reporting flow so that data from the hangar floor actually reaches the safety office, preventing the next AOG event.



# Moving Toward Operational Reliability

# 1

Request your **FREE**

## **INTERCULTURAL LEADERSHIP FIELD GUIDE** for Aviation Professionals

The 13th Factor identifies the problem; my **Intercultural Leadership Field Guide for Aviation Professionals** provides potential solutions.

It provides practical tools addressing Just Culture, Human Factors, and the Dirty Dozen in global aviation.



Get your digital copy here:

[crossculturalaviation.com/field-guide](https://crossculturalaviation.com/field-guide)



# 2

Schedule a **FREE**

## **30-min Cultural Friction Audit**

For a more direct assessment, let's schedule a **30-minute Cultural Friction Audit** with Matthias Holighaus. We will discuss the specific hierarchy gaps between your regional hubs and identify where "Human Factor" risks are most likely to affect your AOG metrics.

[crossculturalaviation.com/cultural-audit/](https://crossculturalaviation.com/cultural-audit/)



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