



ETIHAD
BEYOND BORDERS

Safety Reporting – AI Powered

Ethad Airways – Safety & Quality

16 Oct. 2025

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Transforming Safety Investigations with AI

Enhanced Proactive Approach

Etihaad Airways, has established itself as an industry leader by integrating Artificial Intelligence (AI) models supported by Microsoft and Google into its Safety Management System (SMS) to analyze over 23,000 reports yearly.

In-house AI application development has been achieved through the collaboration with Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) Internship Program.

Objective



- Enhancement of AI integration across the Safety Investigation framework.
- Identify sustainable approaches to manage and mitigate operational risks.
- Transforming the conventional reactive response to proactive operational risks management, thus empowering our teams to act before incidents occur.



AI and Case Management

System Integration

Case Management Intelx Functions

- Automated Classification
- Investigation Management
- Stakeholder's Engagement (ROSI Automation)
- Reporter's Feedback Templates
- Historical Data Enabled Risk Assessment

Case Management

Case List | Incident List | Aircraft Registration

Admin | Triage Review | Incident/Basic Data

Case Number

Case Creation Date

Investigation Standard Title

Investigation Title

Parameters

Open By ERC

Low 77 | Medium 13 | Empty 28



Safety Intelligence Dashboard

Landing Performance Monitoring

RESET | Date Last Refreshed: 01-Oct-25 1:15:05 | ETIHAD AIRWAYS

Fleet: A320 | Flight Count: 175 | Abnormal Landings: 2 | Dual-Cont TO: | Minor: 1 | Moderate: | Significant: 1

Performance Overview

• Avg for Other Staff in Same Fleet rolling average • Fleet STD DEV pos • Fleet STD DEV neg • Individual Avg

Individual Value: 5.20 | Fleet Average: 6.04

Parameter Details

Modified Name	Value
Approx Landing Distance	484.93
Average Vertical Speed during Flare	-350.55
Bank Angle at T/D	-0.10
Duration from 50ft to T/D	7.17
Flare Duration	5.20
G-Load Max during T/D	1.28
Pitch Angle at T/D	4.27
Std Dev Pitch Input below 50ft	4.00
Std Dev Roll Input below 50ft	3.31
Vertical Speed 1 sec before T/D	-249.99

Flight Details

Fit Record	T/D Date	Capt.	FO	A/C Reg	Dep	Arr	Value	DI	CTO	Landing_Raw_Text
211996	02-Feb-24	514984	507646	A6-EIN	AUH	BAH	8.00			33017KT 9999 SCT045 16/05 Q1019 NOSIG
334594	04-Nov-24	514984	513354	A6-EIA	DOH	AUH	8.00			33005KT CAVOK 30/24 Q1012 NOSIG
404220	30-Mar-25	514984	514992	A6-AEI	ISB	AUH	8.00			03008KT 360V060 CAVOK 26/12 Q1012 NOSIG
212136	03-Feb-24	514984	507646	A6-EIN	BAH	AUH	7.00			30014KT 9999 FEW035 19/11 Q1016 NOSIG
221265	27-Feb-24	514984	513349	A6-AEF	AUH	JED	7.00			34005KT CAVOK 22/16 Q1010 NOSIG
248439	24-Apr-24	514984	513630	A6-EII	MCT	AUH	7.00			28009KT 250V310 CAVOK 31/18 Q1007 NOSIG
315049	14-Sep-24	514984	515377	A6-AEF	AUH	TRV	7.00			01005KT 3000 BR SCT012 27/24 Q1009 NOSIG
380094	26-Jan-25	514984	515624	A6-EIP	LHE	AUH	7.00			33005KT 300V010 CAVOK 20/14 Q1017 NOSIG
424491	22-May-25	514984	518134	A6-EIV	DMM	AUH	7.00			19004KT 4000 HZ NSC 28/25 Q1000 TEMPO 3000 BR BKN007
210128	28-Jan-24	514984	512382	A6-EW	COK	AUH	6.75			VR801KT CAVOK 22/15 Q1015 NOSIG

Dashboard Capabilities

- Hotspot Visibility by airport, route, and phase of flight
- Crew Risk Trending via identification of patterns before incidents occur
- Training Gap Analysis
- Real Time SPI Update
- Integration through Power BI and FDM system
- Predictive alerts through proactive notifications of emergency risks

Safety Culture

AI Impact



How AI will transform the Safety Culture

- Data driven decision
- Increase objectivity supporting Just Culture framework
- Focus on addressing system deficiencies and enhance awareness of employees
- Holistic view enabled through integrated systems
- Continues improvement culture enhancement

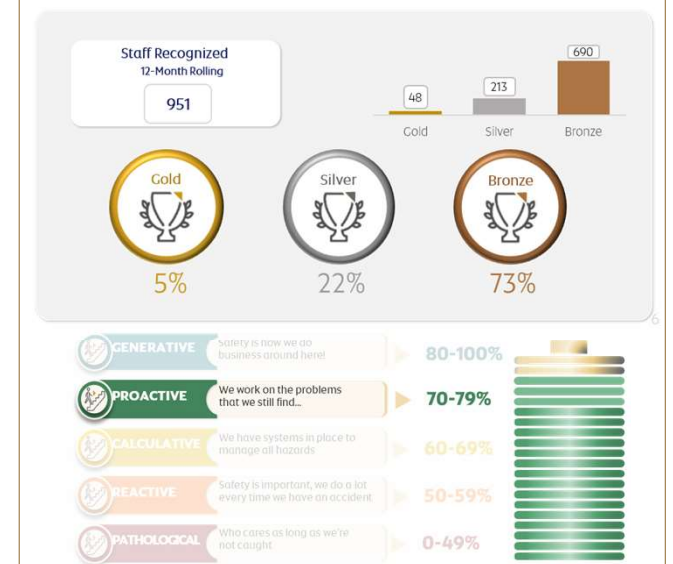


Technical Challenges

- AI learning patterns
- Interface integration
- Data quality

Ethical Consideration

- Transparency
- Human oversight
- Building trust



The Success Vision

Implementation Completion

- ✓ AI-driven integrated systems
- ✓ Safety Intelligence Specialists
- ✓ Technology-augmented human skills
- ✓ Ongoing improvement ingrained in Safety Culture
- ✓ Systems that are safe, efficient, and resilient



A close-up, low-angle shot of the nose of an Etihad Airways Airbus A350-1000 aircraft. The aircraft is white with gold accents. The cockpit windows are prominent, and the letter 'E' is visible above them. Below the cockpit, the text 'AIRBUS A350-1000' is printed in gold. To the right, the UAE flag is visible. The background is a clear blue sky with some light clouds. A gold triangular graphic element is in the top right corner.

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Thank you