2023 Full Year Accident Update

Pérformance at 31st December 2023



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2023 Accidents

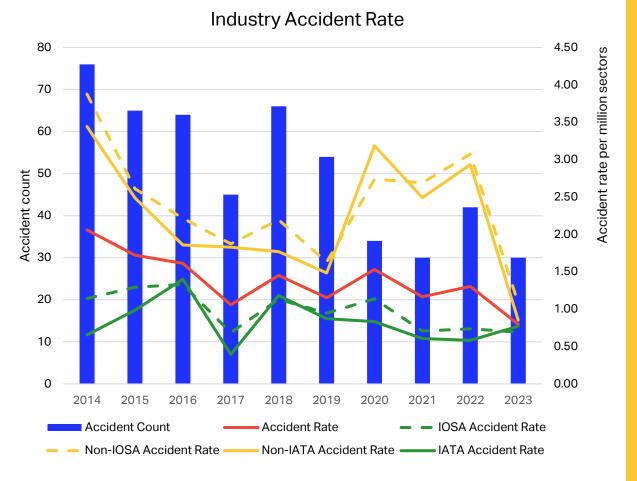


Accidents Overview

	2021	2022	2023	5-Year Average
Accident Count	30	42	30	38
Accident Rate	1.17	1.30	0.80	1.19
Jet Hull Losses	3	7	0	4
Turboprop Hull Losses	5	6	2	4
Fatal Accidents	7	5	1	5
Fatalities on-Board	121	158	72	143
Fatality Risk	0.23	0.11	0.03	0.11
IATA Members	11	13	20	16
IOSA Carriers	14	18	19	20
Sectors – in millions	25.8	32.2	37.7	32.9
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Industry Accident Rate All accidents per million sectors



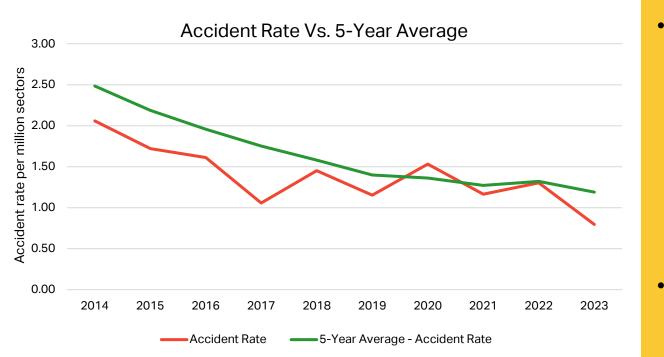
- The industry accident rate went from 1.30 in 2022 down to 0.80 accidents per million sectors in 2023.
- The 2023 industry accident rate of 0.80 reached its lowest point in over a decade.
- The accident rate for IOSAregistered carriers in 2023 was lower than that for non-IOSA carriers (0.69 vs 1.08).



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Longer Term View All accidents per million sectors

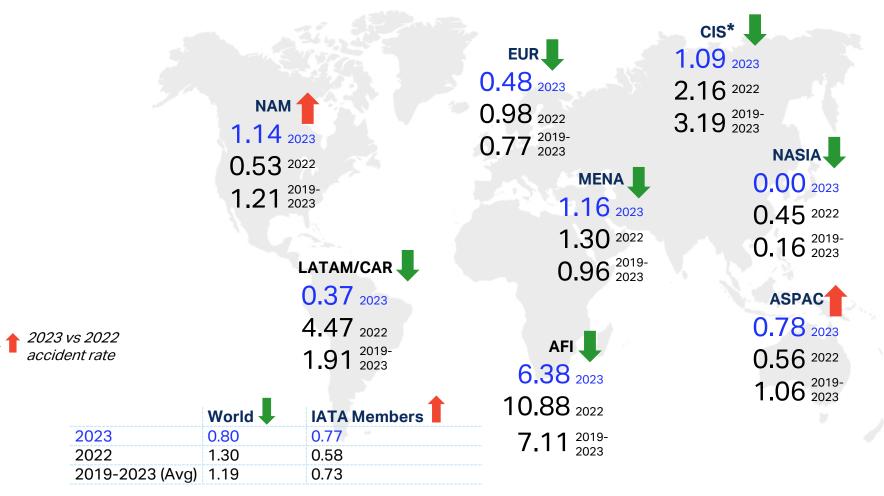


- The industry has improved its overall safety performance over the last ten years by
 - 61%, with an accident rate in 2023 of 0.80 per million sectors, compared to 2.06 in 2014
 - 52%, with a 5-year (2010-2014) rolling average of 2.49, compared to the current 5year (2019-2023) average of 1.19 accidents per million sectors
- The 2023 industry accident rate of 0.80 is below the 5-year (2019-2023) accident rolling average rate of 1.19 per million sectors.



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All Accident Rate per Region of Operator 6 regions saw an improvement in the accident rate per million sectors



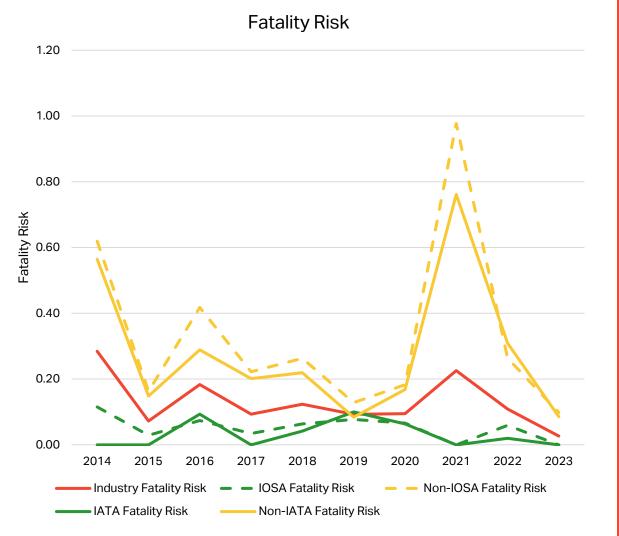
* CIS sectors may undergo larger revisions than normal once actual flown sectors becomes available – this will affect accident rate as well as fatality risk calculations

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Fatality Risk



Industry Fatality Risk All accidents per million sectors



- The industry fatality risk went from 0.11 in 2022 down to 0.03 accidents per million sectors in 2023.
- There was only one fatal accident in 2023, resulted in 72 fatalities
 - The fatality risk for IOSAregistered carriers in 2023 was lower than that for non-IOSA carriers (0.00 vs 0.10) and is below the 2023 industry fatality risk of 0.03.

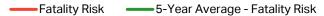
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Industry Fatality Risk Vs. 5- Year Rolling Average Accidents per million sectors

Fatality Risk Vs. 5-Year Average 0.40 0.35 0.30 0.25 0.20 0.15 0.10 0.05 0.00 2014 2015 2016 2020 2022 2023 2017 2018 2019 2021





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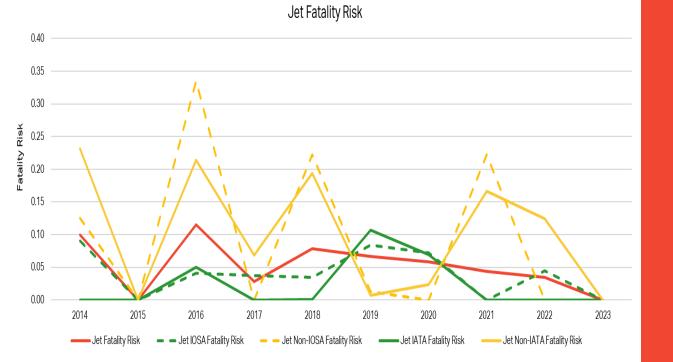
Industry Fatality Risk per Region of Operator The Industry Fatality Risk Rate for 7 regions has either remained the same or seen an improvement



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Industry Jet Fatality Risk



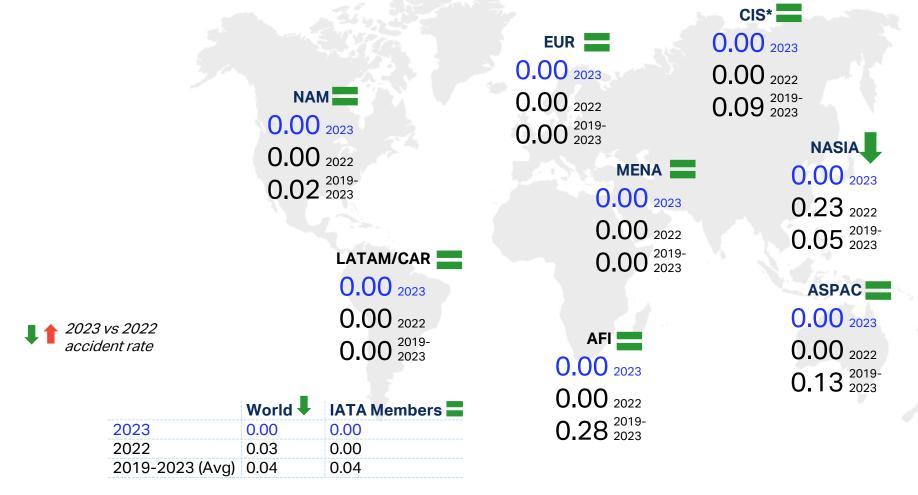
• Zero Fatality Rate for jet aircraft in 2023



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Jet Fatality Risk per Region of Operator All Regions had Zero Fatality Risk

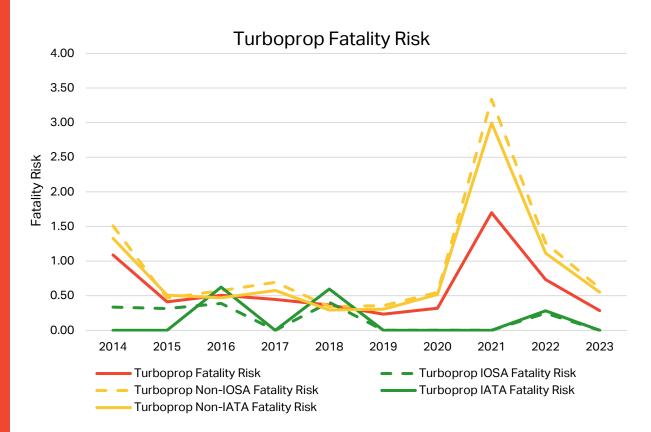


* CIS sectors may undergo larger revisions than normal once actual flown sectors becomes available – this will affect accident rate as well as fatality risk calculations

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- The turboprop fatality risk across all domains has improved in 2023
 - The industry fatality risk for turboprop aircraft went from 0.73 in 2022 down to 0.28 in 2023.
 - The turboprop fatality risk for IOSA members and IATA members has improved:
 - For IOSA members, the accident rate went from 0.25 per million sectors in 2022 down to zero
 - For IATA members, it went from 0.28 to zero.

Turboprop Fatality Risk

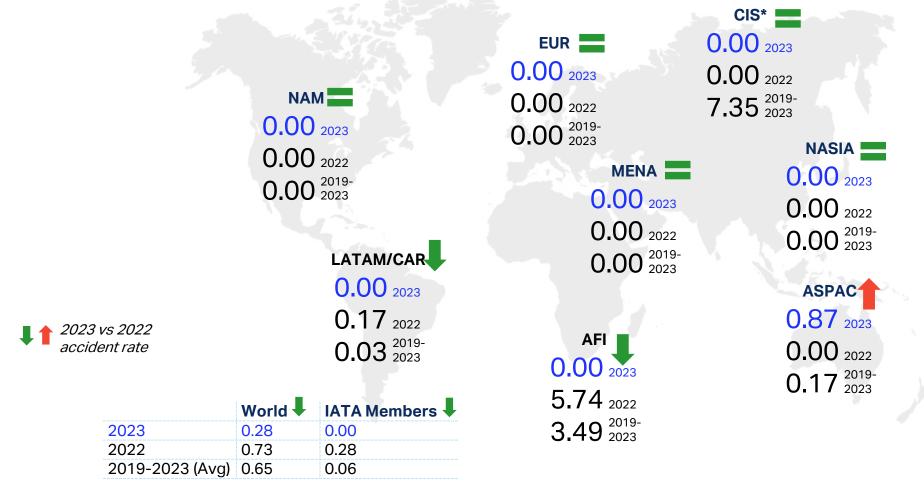




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Turboprop Fatality Risk per Region of Operator 7 Regions had Zero Fatality Risk



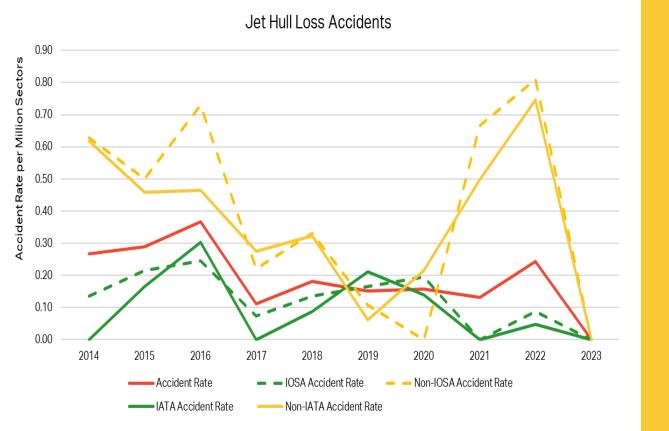
* CIS sectors may undergo larger revisions than normal once actual flown sectors becomes available – this will affect accident rate as well as fatality risk calculations

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Jet and Turboprop Hull Losses



Jet Hull Loss Accident Rate All Accidents per million sectors



The jet hull loss accident rate across all domains has improved in 2023

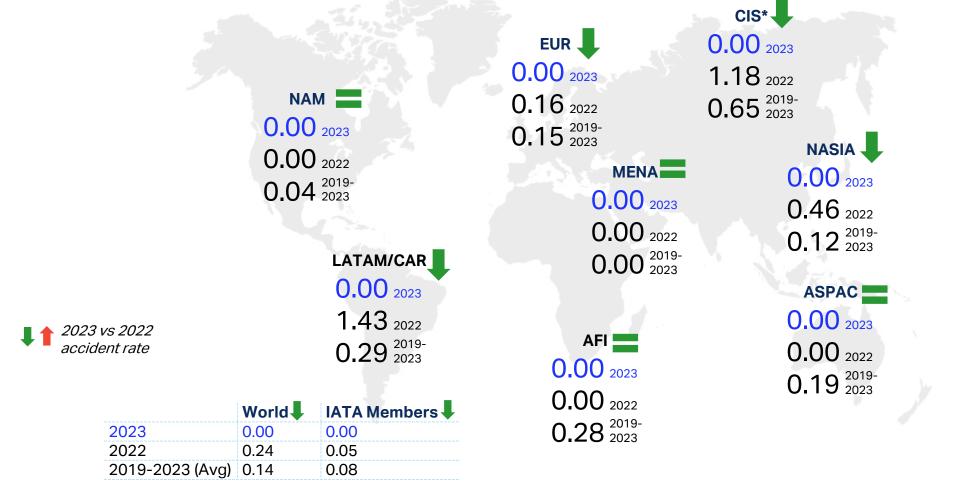
- The industry jet hull loss accident rate went from 0.24 per million sectors in 2022 down to 0.00 accidents per million sectors in 2023.
- The jet hull loss accident rate for Non-IOSA members and Non-IATA members has improved:
 - For Non-IOSA members, the accident rate went from 0.81 per million sectors in 2022 down to zero in 2023
 - For Non-IATA members, it went from 0.75 to zero.



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Jet Hull Loss per Region of Operator Jet hull loss accident rate is lower or the same in all Regions



* CIS sectors may undergo larger revisions than normal once actual flown sectors becomes available – this will affect accident rate as well as fatality risk calculations

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Turboprop Hull Loss Accident Rate All Accidents per million sectors



Turboprop Hull Loss Accidents

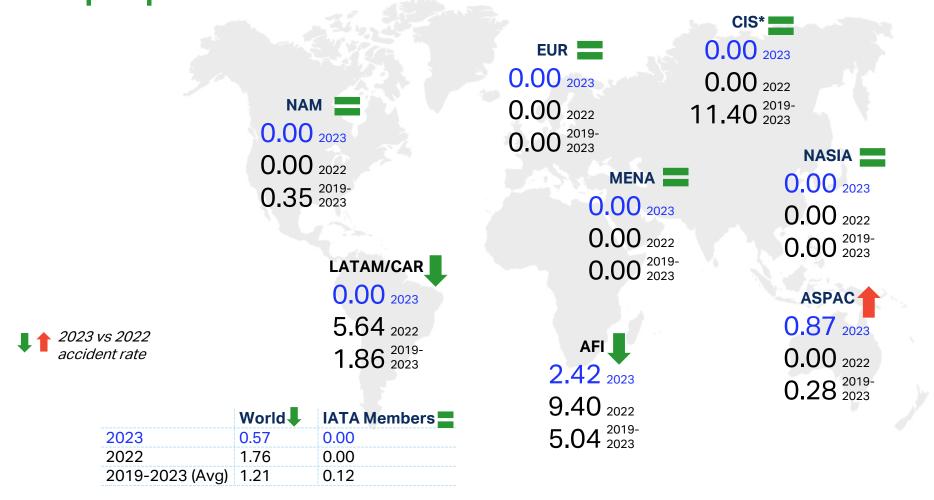
- The turboprop hull loss accident rate across all domains has improved in 2023
 - The industry turboprop hull loss accident rate went from 1.76 in 2022 down to 0.57 accidents per million sectors in 2023.
 - Zero turboprop hull Loss accidents for IATA members and IOSA carriers since 2020



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Turboprop Hull Loss per Region of Operator Turboprop hull loss accident rate is lower or the same in 7/8 Regions



* CIS sectors may undergo larger revisions than normal once actual flown sectors becomes available – this will affect accident rate as well as fatality risk calculations

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Accident Categories Overview



Industry Accident Count/Fatalities per Accident Category

10 80 9 70 8 60 7 Accident count 50 6 5 40 4 30 3 20 2 10 1 0 0 Fuel Landing Ground Tailstrike Hard Off Airport Loss of In-flight Other End Controlled Runway Mid-air **Off Runway** Deliberate Runway Touchdown Exhaustion Gear Damage Landing Excursion Landing / Control In-Damage State Flight Into Damage Collision Act Terrain (Off or Ditching flight (CFIT) Partial)

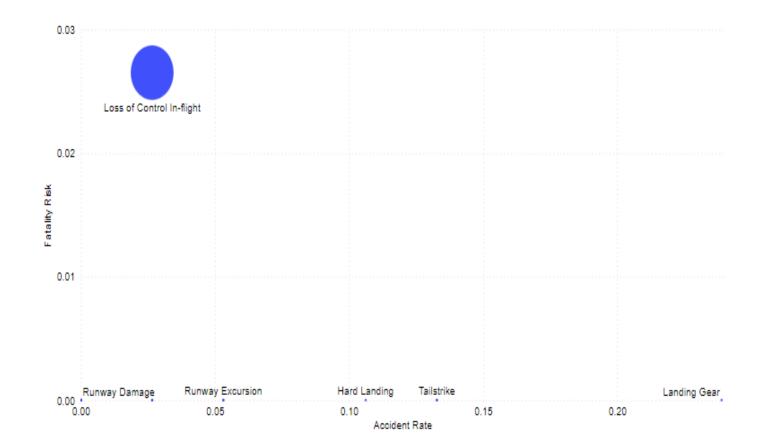
Accident Categories

Accident Count • Fatalities Onboard

Number of fatalities

Fatality Risk by Accident Category - 2023

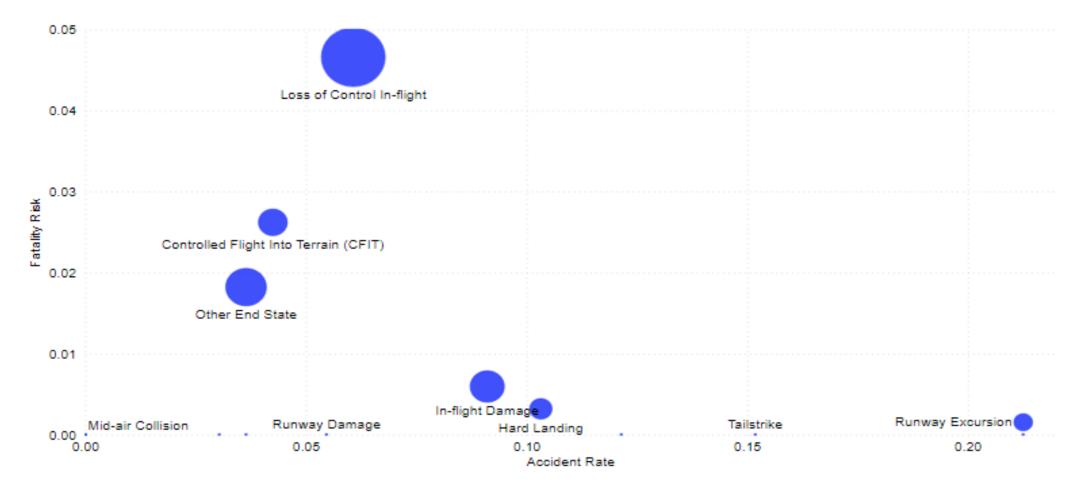
There was one fatal LOC-I accident in 2023, which resulted in 72 fatalities





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Fatality Risk by Accident Category – 2019-2023 LOC-I caused the highest fatalities during this period



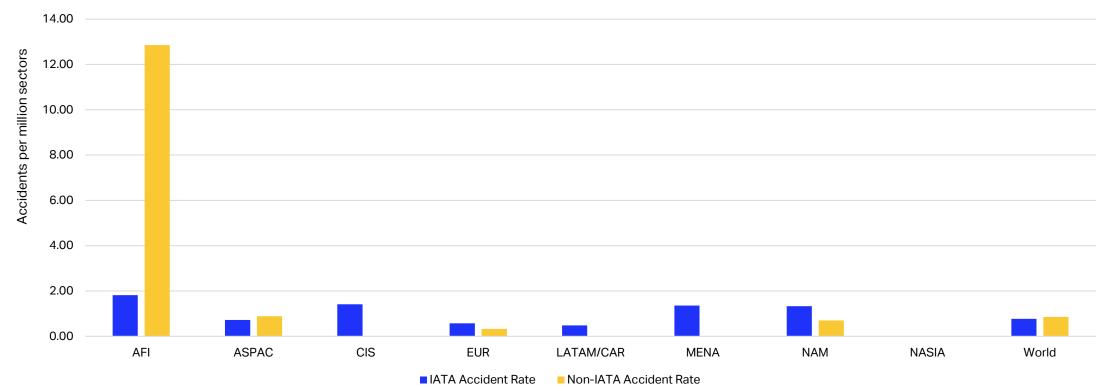


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IATA / IOSA Accidents



Industry Accident Rate for IATA Vs. Non-IATA



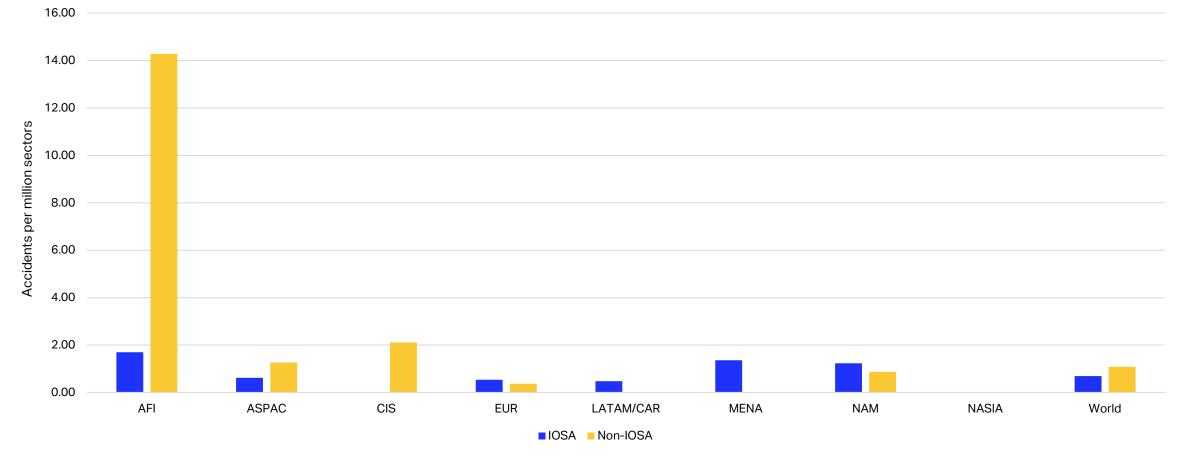
2023 IATA Vs. Non-IATA Accident Rates



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Industry Accident Rate for IOSA Vs. Non-IOSA - 2023

IOSA vs. NON-IOSA - 2023

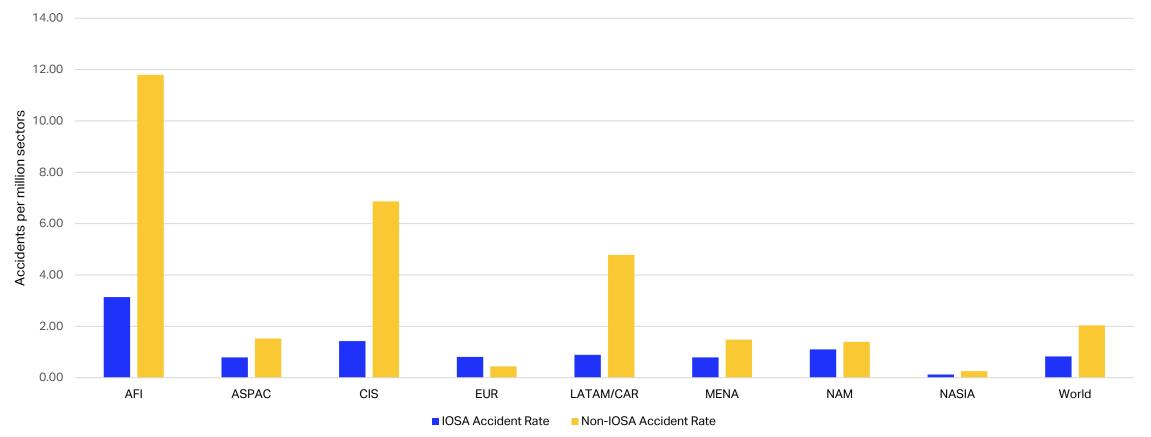




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Industry Accident Rate for IOSA Vs. Non-IOSA – 5 Years

2019-2023 IOSA vs. Non-IOSA





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List of 2023 Accidents



List of 2023 Accidents

Accident Date	Region of Operator	Operator Name	Aircraft Model	Engine Type	Severity	Fatalities Onboard	IATA Member	IOSA Registered Airline	End State
Dec	cember 20, 2023 ASPAC	Air India Limited	Airbus A320neo	Jet	Substantial Damage		OYes	Yes	Hard Landing
De	ecember 8, 2023 ASPAC	Lulutai Airlines Limited	Saab 340B	Turboprop	Substantial Damage		0 No	No	Ground Damage
Nov	vember 28, 2023 AFI	Unity Air Zanzibar Limited	Embraer 120	Turboprop	Substantial Damage		0 No	No	Landing Gear
	October 4, 2023 NAM	FedEx	Boeing 757-200	Jet	Substantial Damage		OYes	Yes	Landing Gear
Sep	tember 19, 2023 EUR	Air Europa Lineas Aereas, S.A.	Boeing 737-800	Jet	Substantial Damage		OYes	Yes	Ground Damage
Sep	tember 18, 2023 MENA	DHL Aviation EEMEA B.S.C.(c)	Boeing 767-300	Jet	Substantial Damage		OYes	Yes	Hard Landing
Sep	tember 12, 2023 CIS	Joint Stock Company "Ural Airlines"	Airbus A320	Jet	Substantial Damage		OYes	No	Off Airport Landing / Ditching
	August 30, 2023 EUR	Aer Lingus Limited	Airbus A321neo	Jet	Substantial Damage		OYes	Yes	Tailstrike
	August 20, 2023 NAM	Alaska Airlines Inc.	Boeing 737-800	Jet	Substantial Damage		0Yes	Yes	Landing Gear
	August 9, 2023 NAM	WestJet	Boeing 737-700	Jet	Substantial Damage		OYes	Yes	Ground Damage
	August 7, 2023 ASPAC	PT. Garuda Indonesia (PERSERO) Tbk	Boeing 737-800	Jet	Substantial Damage		0Yes	Yes	Tailstrike
	August 3, 2023 NAM	United Airlines, Inc.	Boeing 767-300	Jet	Substantial Damage		OYes	Yes	Landing Gear
	July 29, 2023 NAM	United Airlines, Inc.	Boeing 767-300	Jet	Substantial Damage		0Yes	Yes	Hard Landing
	July 24, 2023 NAM	Delta Air Lines, Inc.	Boeing 767-300	Jet	Substantial Damage		0Yes	Yes	In-flight Damage
	July 11, 2023 AFI	Halla Airlines Limited	Embraer 120	Turboprop	Hull Loss		0 No	No	Other End State
	June 28, 2023 NAM	Delta Air Lines, Inc.	Boeing 717-200 Embraer RJ145	Jet	Substantial Damage		OYes	Yes	Landing Gear
	May 31, 2023 AFI	United Nigeria Airlines Company Ltd		Jet	Substantial Damage		0 No	No	Runway Excursion
	May 14, 2023 EUR	Cargolux Airlines International S.A	Boeing 747-400	Jet	Substantial Damage		0 Yes	Yes	Landing Gear
	May 6, 2023 NAM	UPS	Boeing 747-400	Jet	Substantial Damage		0 Yes	Yes	Hard Landing
	April 16, 2023 LATAM/CAR	Transportes Aereos Guatemaltecos SA	Saab 340	Turboprop	Substantial Damage		0 Yes	Yes	Landing Gear
	April 13, 2023 MENA	Emirates	Boeing 777-300ER	Jet	Substantial Damage		0 Yes	Yes	Ground Damage
	April 11, 2023 AFI	Air Kasai	Antonov An-26	Turboprop	Substantial Damage		0 No	No	Runway Excursion
	April 9, 2023 EUR	Ryanair Ltd.	Boeing 737-800	Jet	Substantial Damage		0 No	No	Landing Gear
	March 24, 2023 NAM	USA Jet Airlines, Inc.	Boeing (Douglas) MD88	Jet	Substantial Damage		0 No	No	Tailstrike
	March 22, 2023 NAM	UNITED AIRLINES, INC. (CHICAGO, IL)	Airbus A320	Jet	Substantial Damage		0Yes	Yes	Tailstrike
F	February 9, 2023 AFI	Allied Air Limited	Boeing 737-400	Jet	Substantial Damage		OYes	Yes	Landing Gear
	lanuary 27, 2023 AFI January 15, 2023 ASPAC	Fly Air Africa Aviation Yeti Airlines Domestic Pvt. Ltd.	Aircraft Industries (LET) 410 ATR 72	Turboprop Turboprop	Substantial Damage Hull Loss		0 No 72 No	No No	Off Airport Landing / Ditching Loss of Control In-flight
	January 2, 2023 ASPAC	Interglobe Aviation Ltd. dba IndiGo	Airbus A321neo	Jet	Substantial Damage		0Yes	Yes	Tailstrike
	January 1, 2023 NAM	Flair Airlines Ltd.	Boeing 737 MAX 8	Jet	Substantial Damage		0No	No	Ground Damage



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