

2019 Mid Year Accident Update

Performance at
15th June 2019

17 July 2019



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Observations

- This is an update of the 2019 accidents classified by the Accident Classification Technical Group (ACTG) on June 10th -12th , 2019.
- Due to the latency time between an accident occurrence and its reporting, this update may not contain all accidents that occurred in the first half of 2019.
- The rates in this presentation are based on the most accurate flight counts available to IATA at the time of production. Historical rates may have changed slightly as actual sector counts replace previous estimates. Some regions may have greater variability on the sector count as new and more up-to-date data is available. This may result in differences in the accident rates when compared to previous IATA reports.

Executive Summary

- During the first half of 2019, there were a total of 20 accidents worldwide, of which three incurred fatalities.
- The three fatal accidents (all jets) incurred 201 on board fatalities.
- IATA member airlines suffered a total of eight accidents, three of which resulted in the 201 fatalities.
- In the category 'all accidents per million sectors' IATA member airlines continue to trend lower than all industry at 0.68 versus 0.91 in 2019, a pattern which is also reflected in the five year average.
- It is worth noting that the accident rate is extremely low, so any accident will create a spike.

Accidents

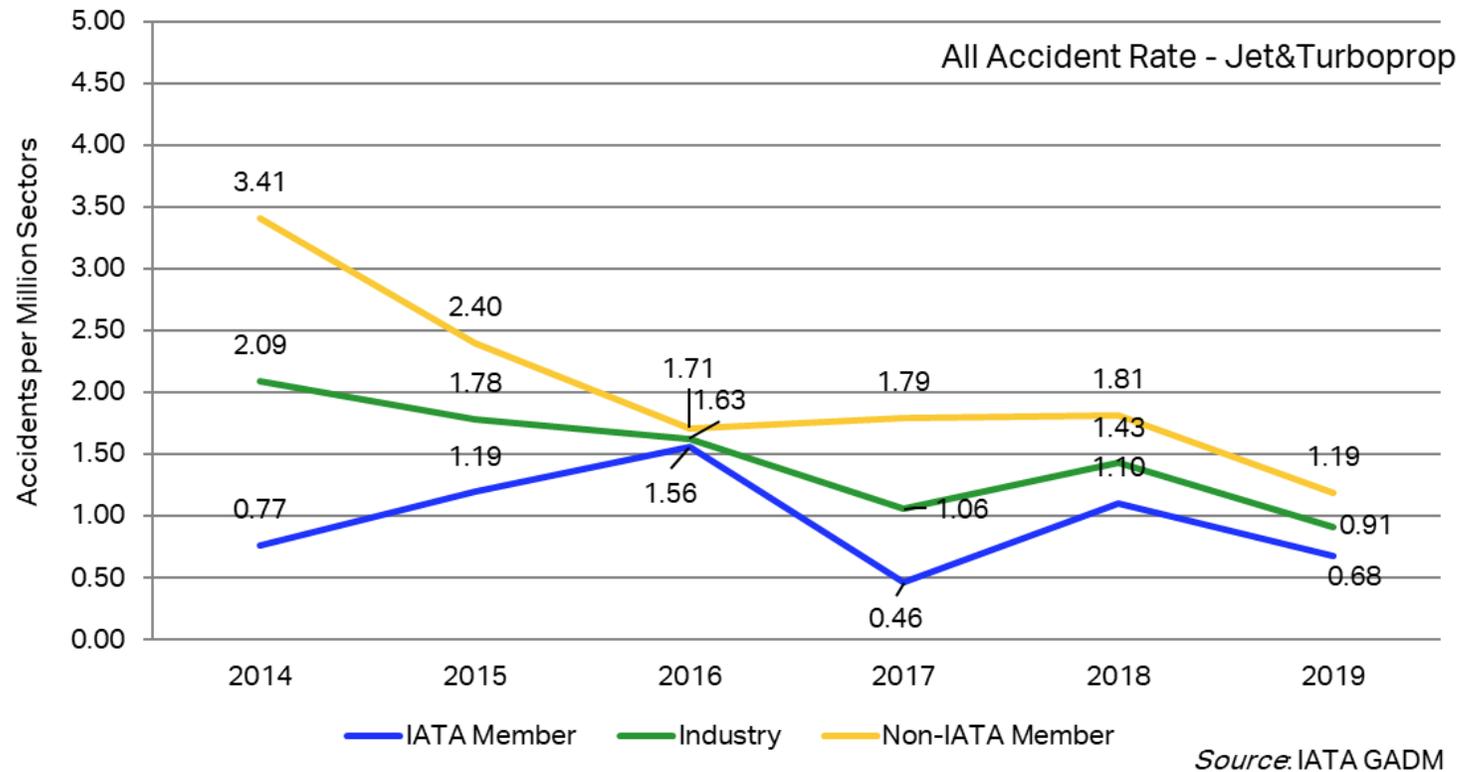


2019 All Accidents Overview

Total Accidents	20
Total Jet Hull Losses	3
Total Turboprop Hull Losses	1
Total Fatal Accidents	3
Total Fatalities on board	201
Total IATA Member Accidents	8

Industry Accident Rate Decreased, confirming a five year downward trend

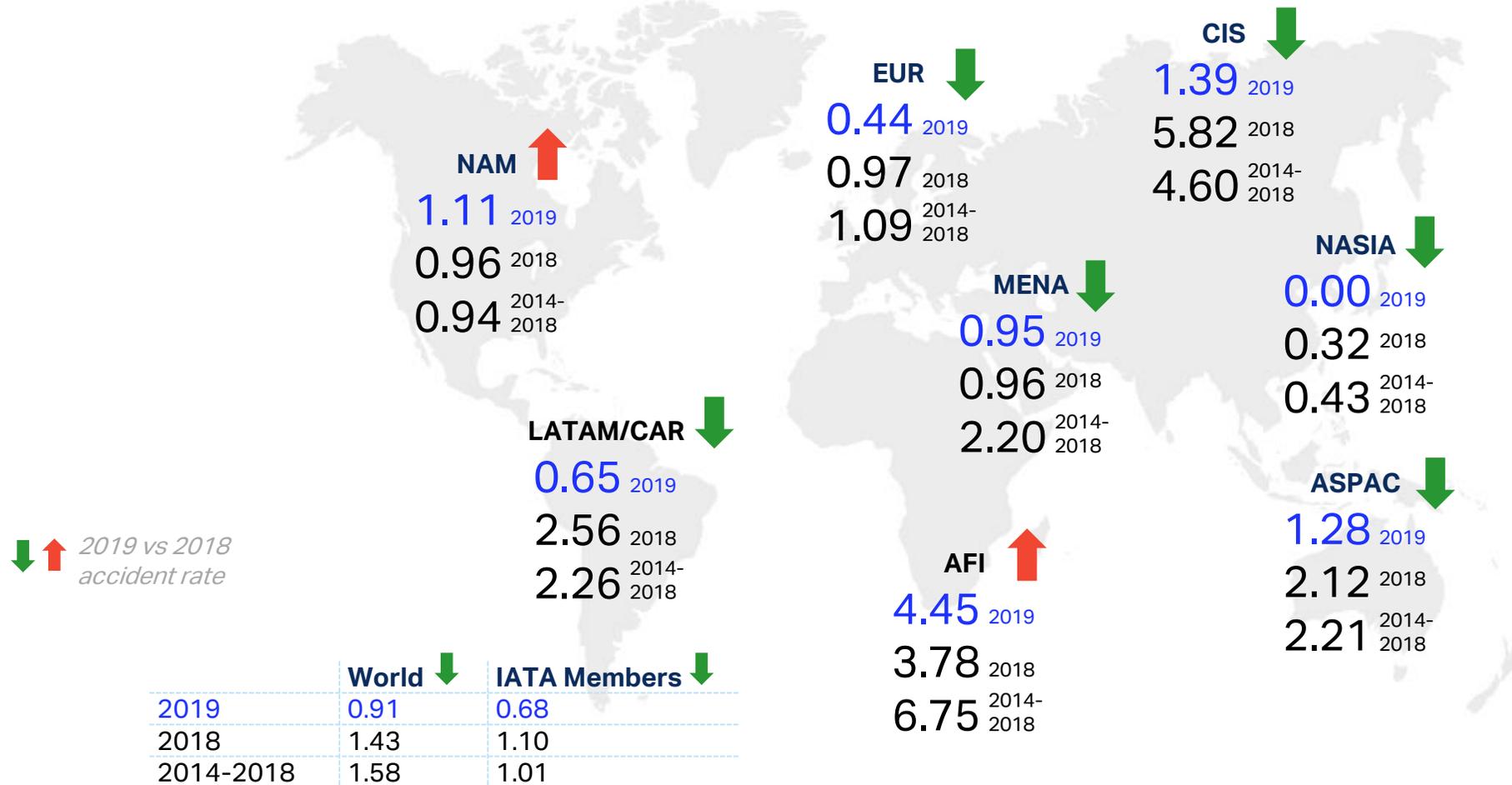
All Accidents per Million Sectors 2014 to 2019



- The first half of 2019 has seen the overall accident rate decrease over 2018, across all the industry, with 20 accidents.
- IATA members continue to trend lower than all the industry.

In 2 of 8 IATA Regions the Accident Rate Increased

All Accident Rate per Region of Operator as 15th June 2019



Source: IATA GADM

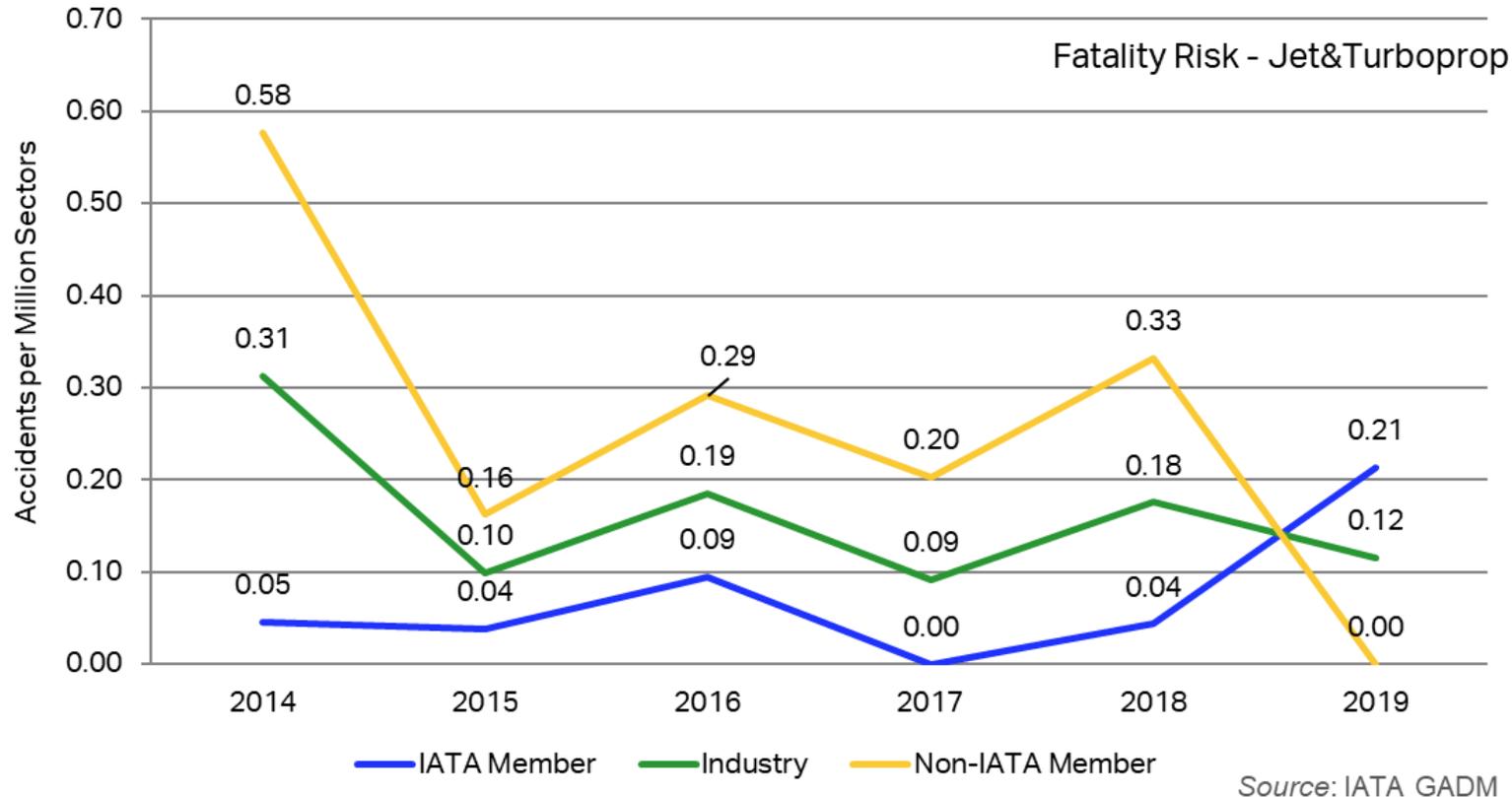


Fatalities



The Number of Fatalities decreased compared to 2018

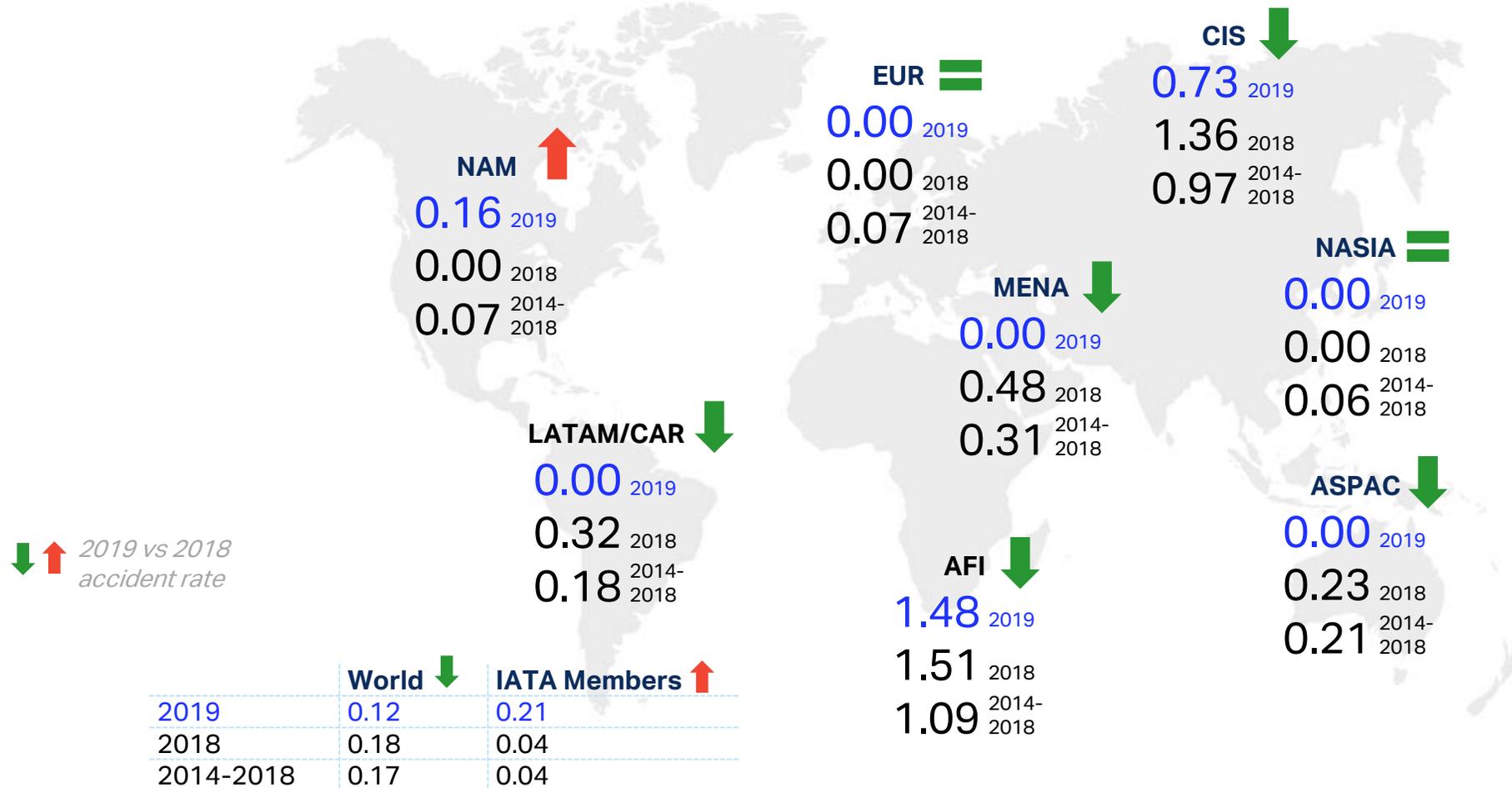
Fatality Risk (Full-Loss Equivalents per Million Sectors)



- In the first half of 2019, the fatality risk increased for IATA member airlines, due to the three fatal accidents which accounted for 201 fatalities.

In 7 of 8 IATA Regions Fatality Risk Decreased

Fatality Risk per Region of Operator as at 15th June 2019



Source: IATA GADM



Jet Fatality Risk Increased in the first half of 2019

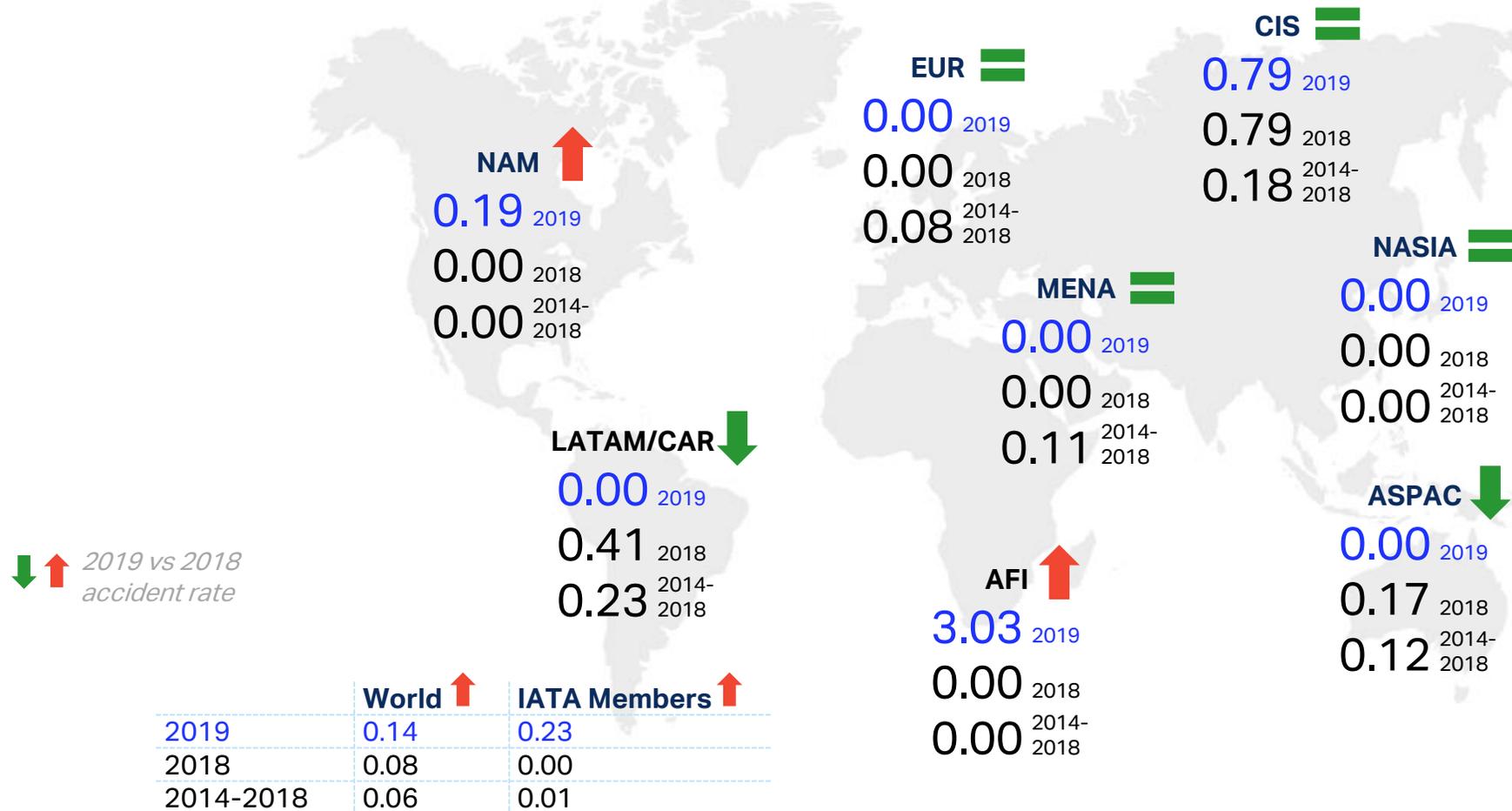
Jet Fatality Risk (Full-Loss Equivalents per Million Sectors)



- The first half of 2019 has seen the fatality risk for jet aircraft increase from 2018, due to the three fatal accidents that involved IATA members (LOC-I in AFI, Hard Landing in CIS and LOC-I in NAM)

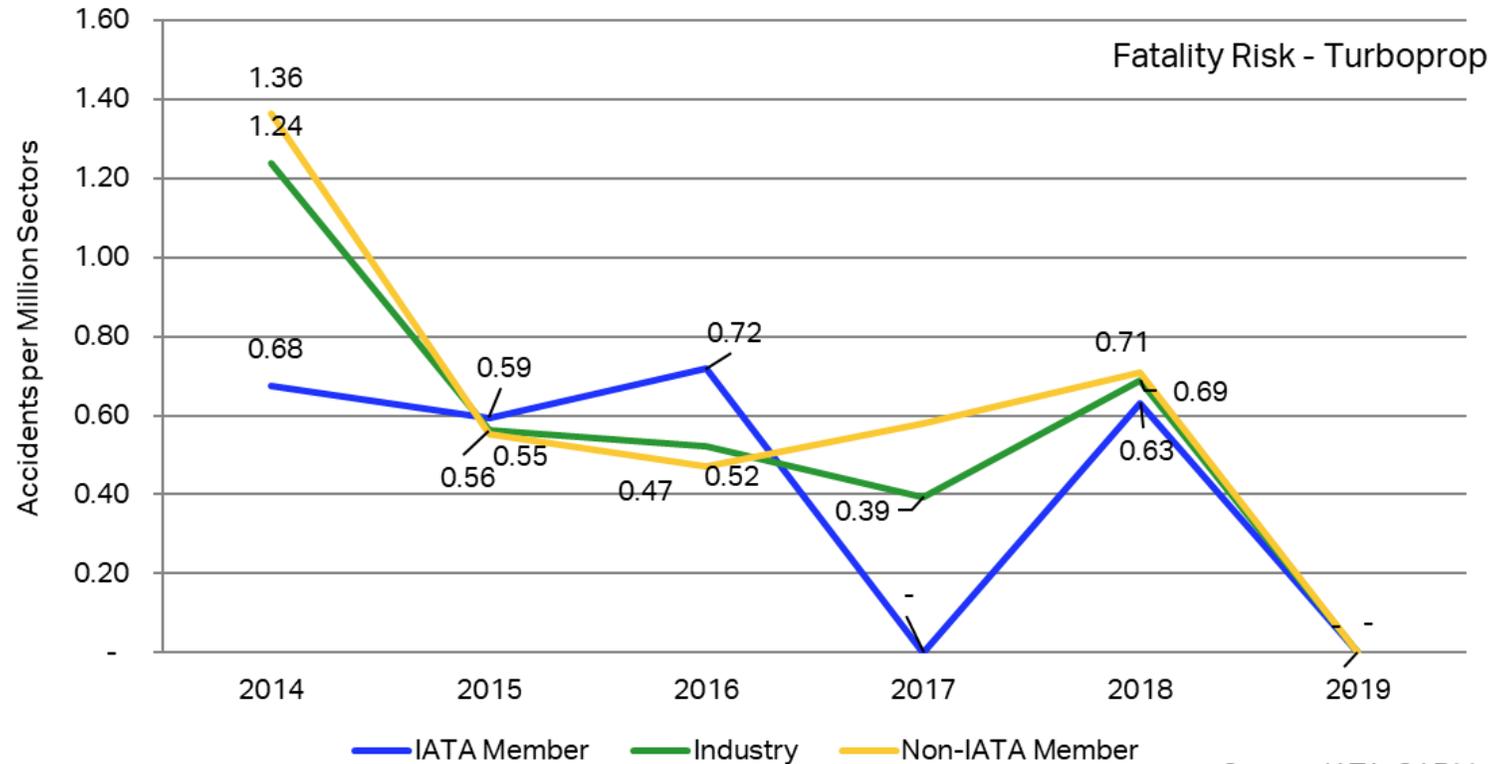
Jet Fatality Risk Increased in AFI and NAM

Jet Fatality Risk per Region of Operator as at 15th June 2019



Turboprop Fatality Risk is zero in the first half of 2019

Turboprop Fatality Risk (Full-Loss Equivalents per Million Sectors)



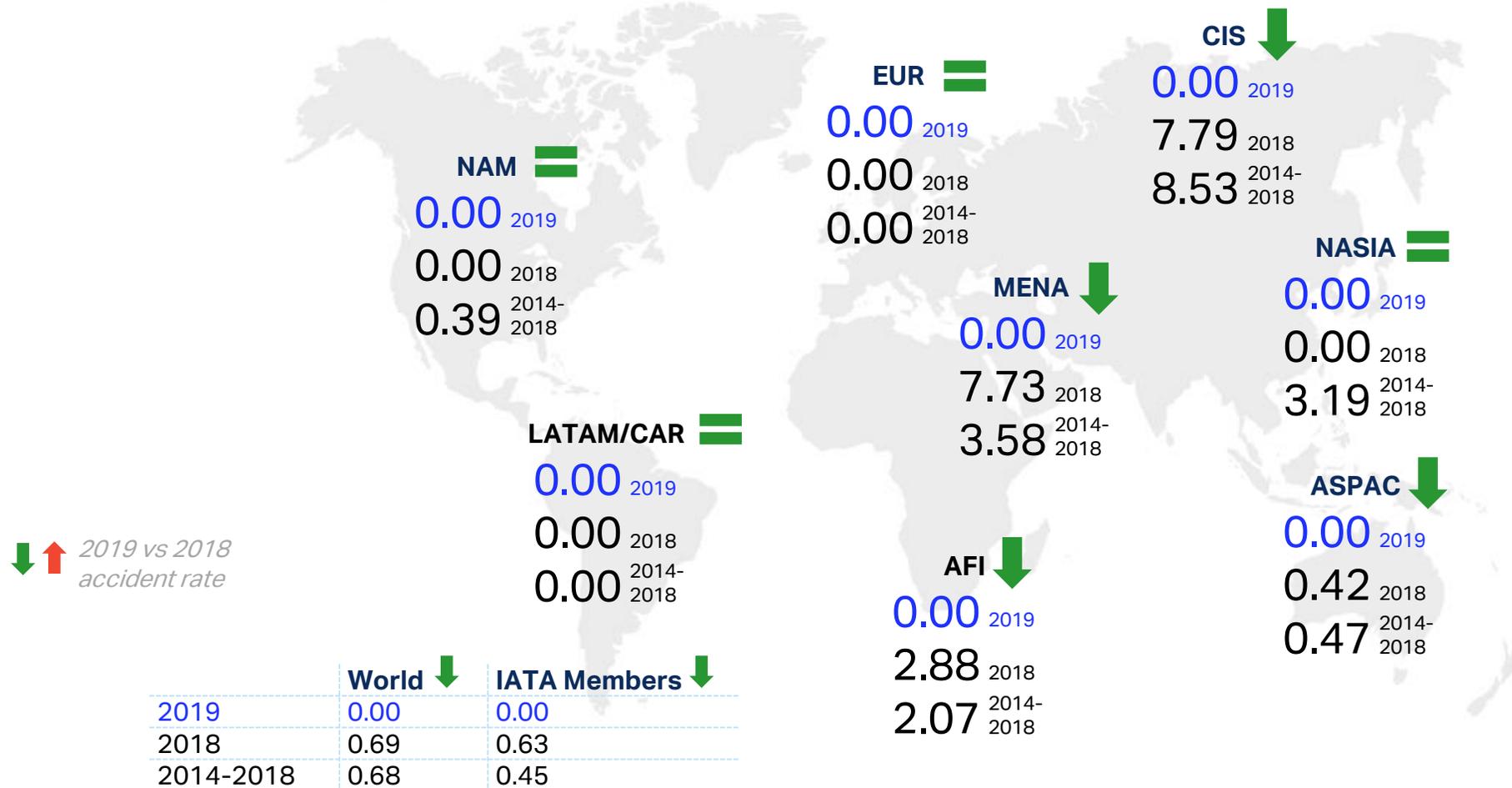
Source: IATA GADM

- Across all the industry, there were no fatal accidents that involved turboprop aircrafts in the first half of 2019, resulting in a fatality risk equal to zero.



No fatal accidents involving turboprop aircraft in the first half of 2019, resulting in a decreasing rate across all the regions

Turboprop Fatality Risk per Region of Operator as at 15th June 2019

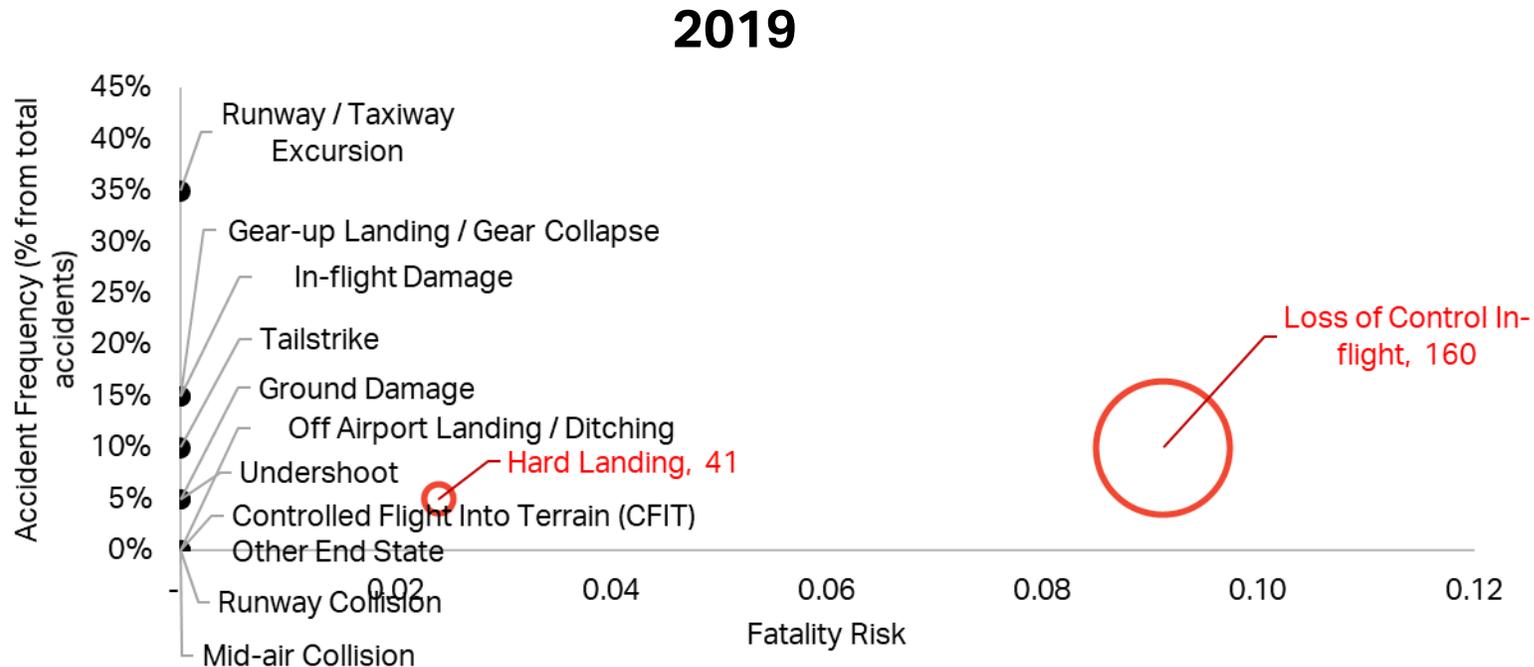


Source: IATA GADM



LOC-I and Hard landing are the fatal end states in the first half of 2019

Fatality Risk by Accident Category in 2019



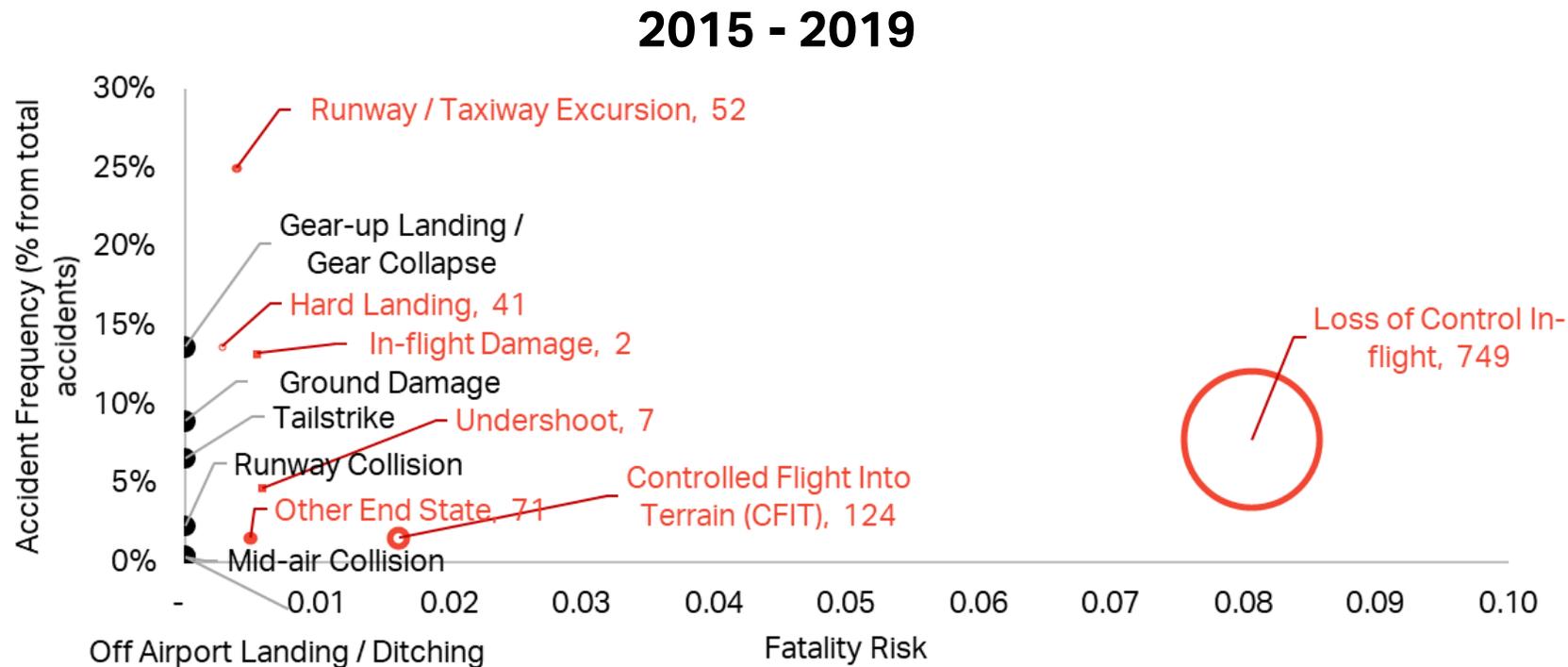
- Note:
- (1) The area of the bubble indicates the number of fatalities associated with the particular accident category, the value is displayed
 - (2) Fatality Risk: number of full-loss equivalents per 1 million flights
 - (3) Accidents not involving fatalities are displayed on this graph as black circles

Source: IATA GADM



LOC-I, CFIT and RWY Excursion Caused the Most Fatalities from 2015 to 2019

Fatality Risk by Accident Category from 2015 to 2019



- Note:
- (1) The area of the bubble indicates the number of fatalities associated with the particular accident category, the value is displayed
 - (2) Fatality Risk: number of full-loss equivalents per 1 million flights
 - (3) Accidents not involving fatalities are displayed on this graph as black circles

**Three accidents that incurred in 31 fatalities did not have sufficient information about the event to assign an end state*

Source: IATA GADM

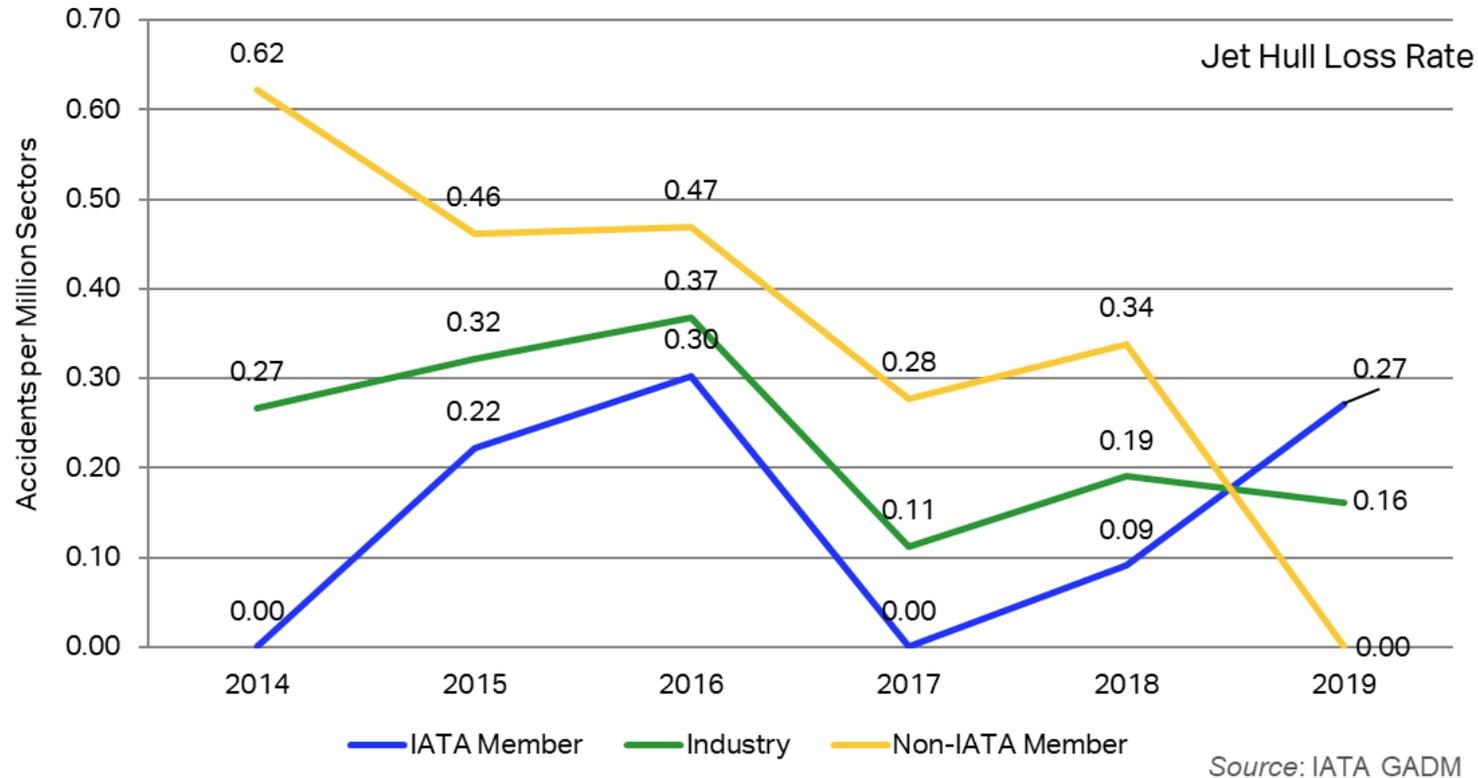


Jet Hull Losses



Global Jet Hull Loss increased in in the first half of 2019 for IATA members

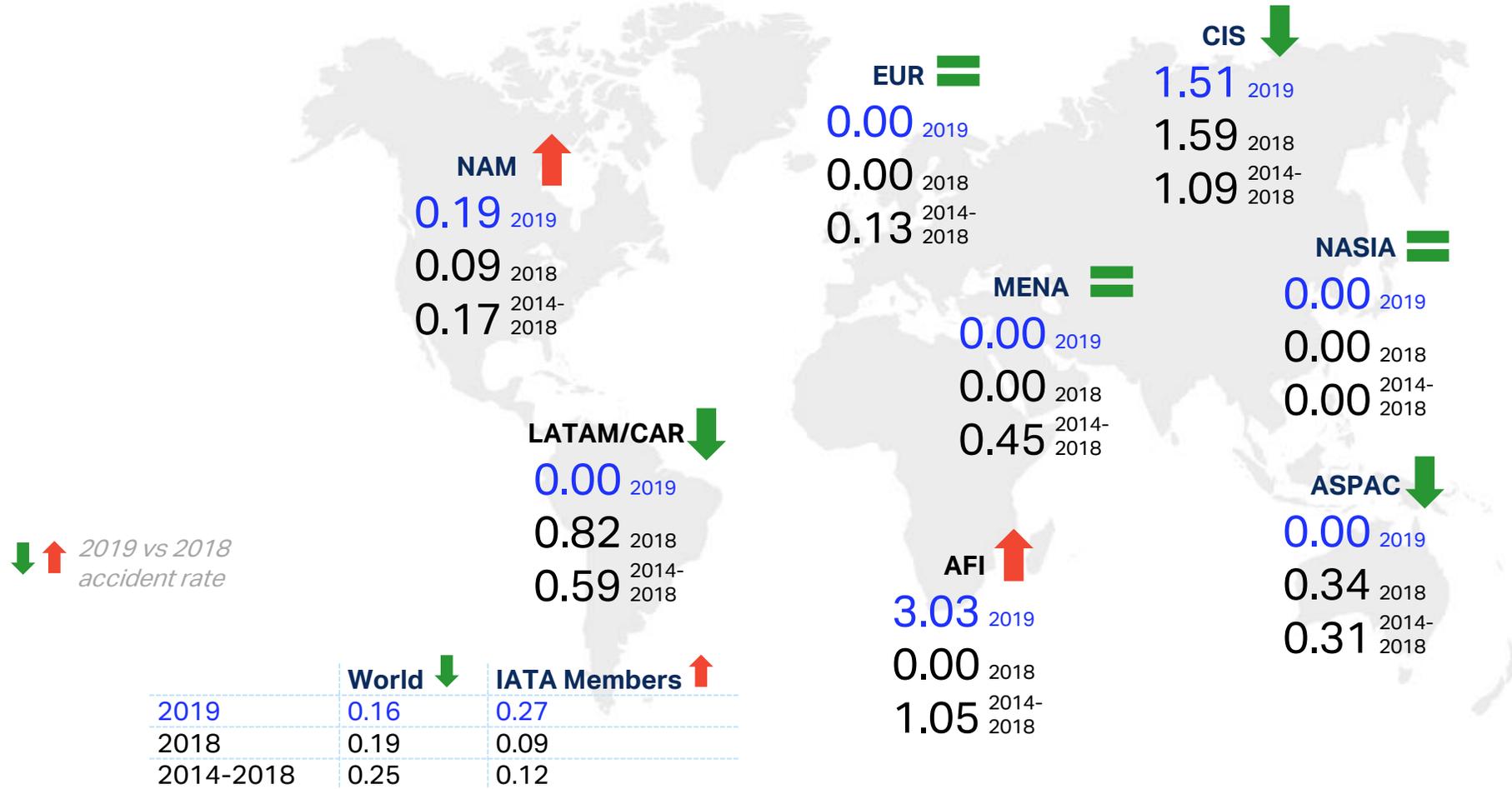
Jet Hull Loss Rate per Million Sectors



- The three fatal accidents in the first half of 2019 involved IATA member airlines

Jet Hull Loss Rate Increased in NAM and AFI

Jet Hull Loss Rate per Region of Operator as at 15th June 2019

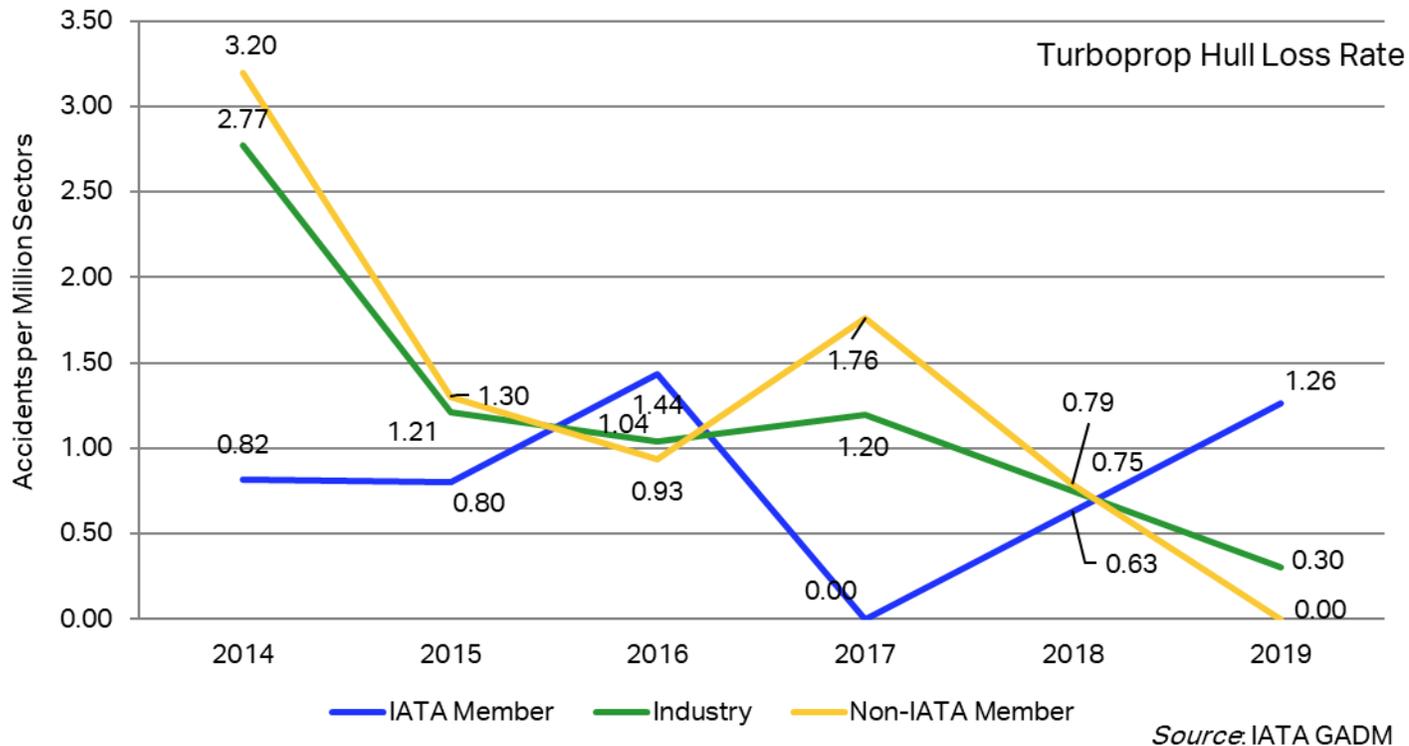


Turboprop Hull Losses



Turboprop Hull Losses

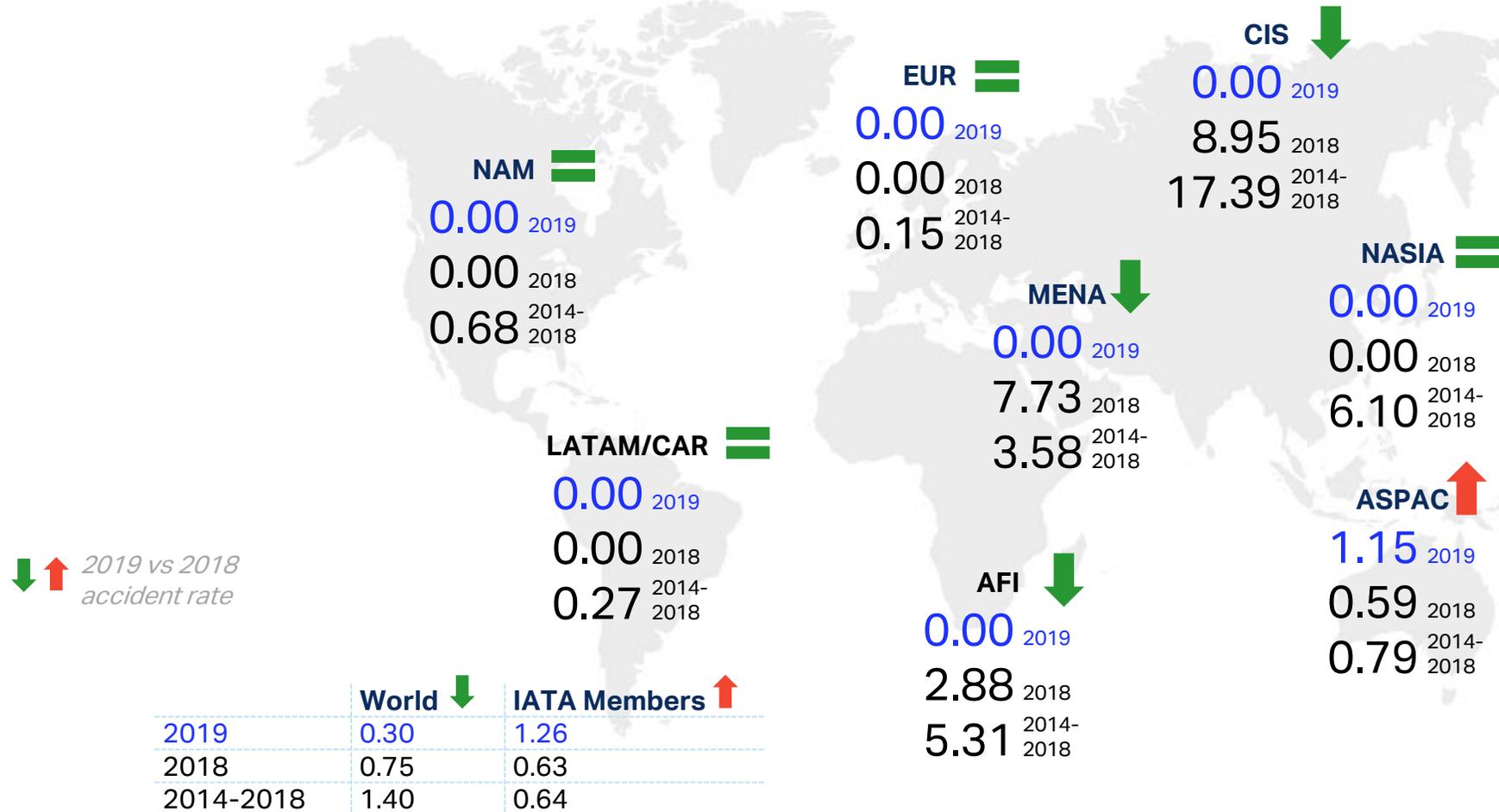
Turbo-Prop Hull Losses per Million Sectors



- In the first half of 2019, there was one turboprop hull loss accident in ASPAC (Myanmar), which resulted in a runway excursion.

Turboprop Hull Loss Rate Increased in ASPAC

Turboprop Hull Loss Rate per Region of Operator as at 15th June 2019



Source: IATA GADM



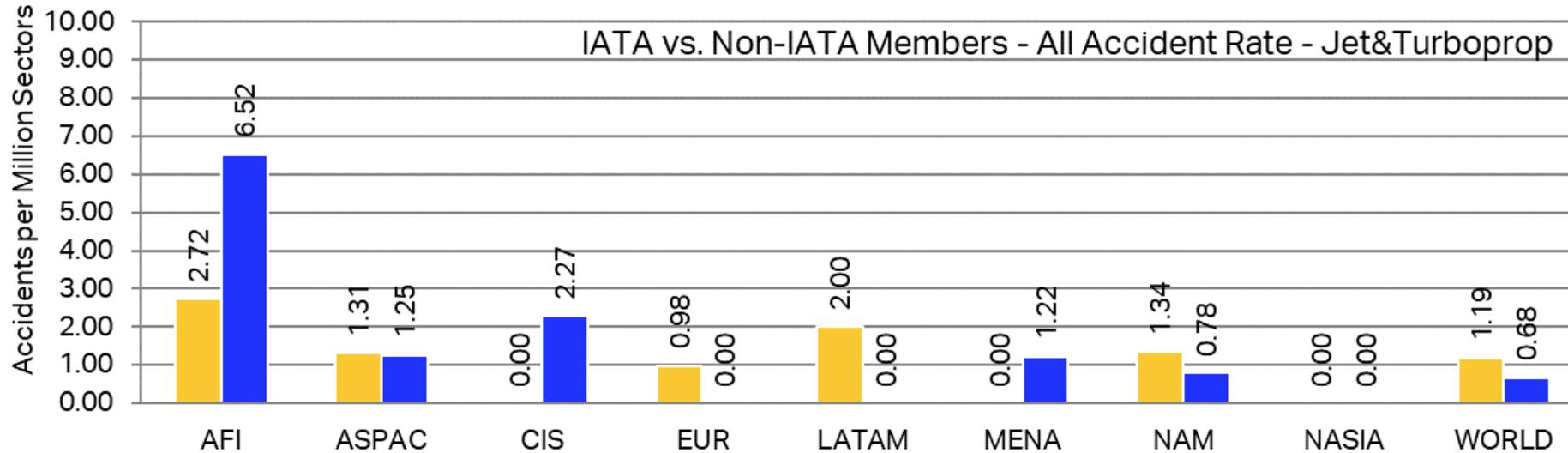
IATA/ IOSA Accidents



The IATA Member Accident Rate is lower in 4 out of 8 regions

All Accident Rate (Jet & Turboprop) for IATA Members vs. Non-Members, 2019

2019



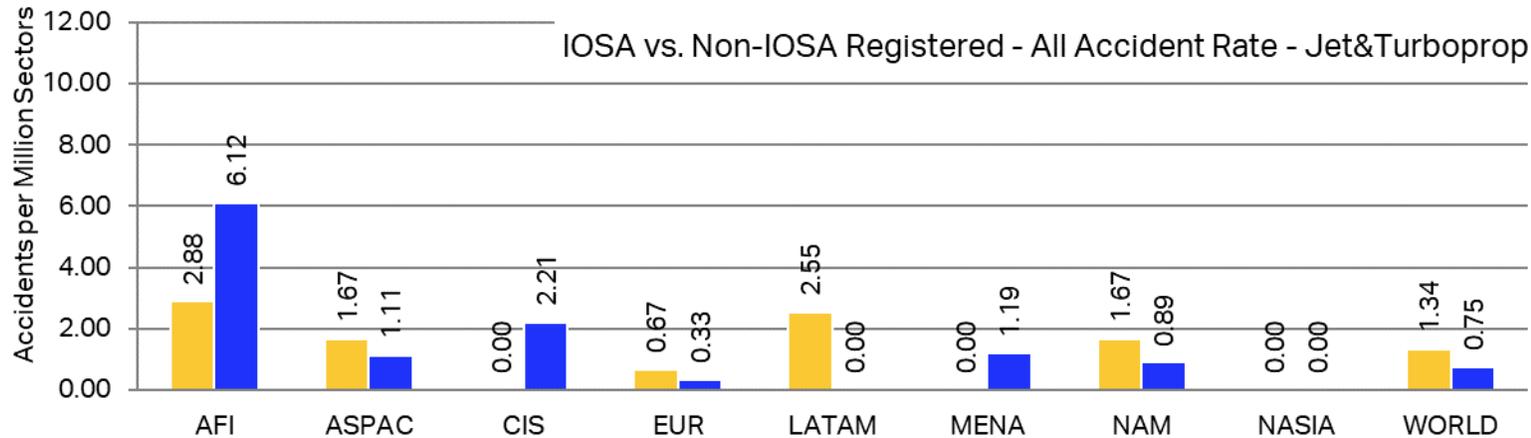
Regional Sector Count Distribution (Percentage)



In the first half of 2019, IOSA Operators Accident Rate was lower than non-IOSA Operators in 4 out of 8 regions

All Accident Rate (Jet & Turboprop) for IOSA Operators vs. Non-IOSA, 2019

2019



Regional Sector Count Distribution (Percentage)



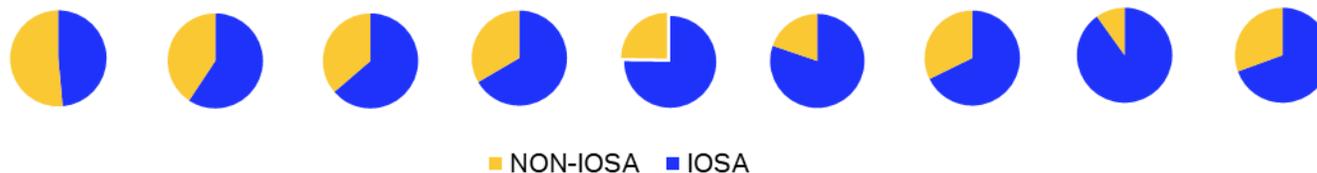
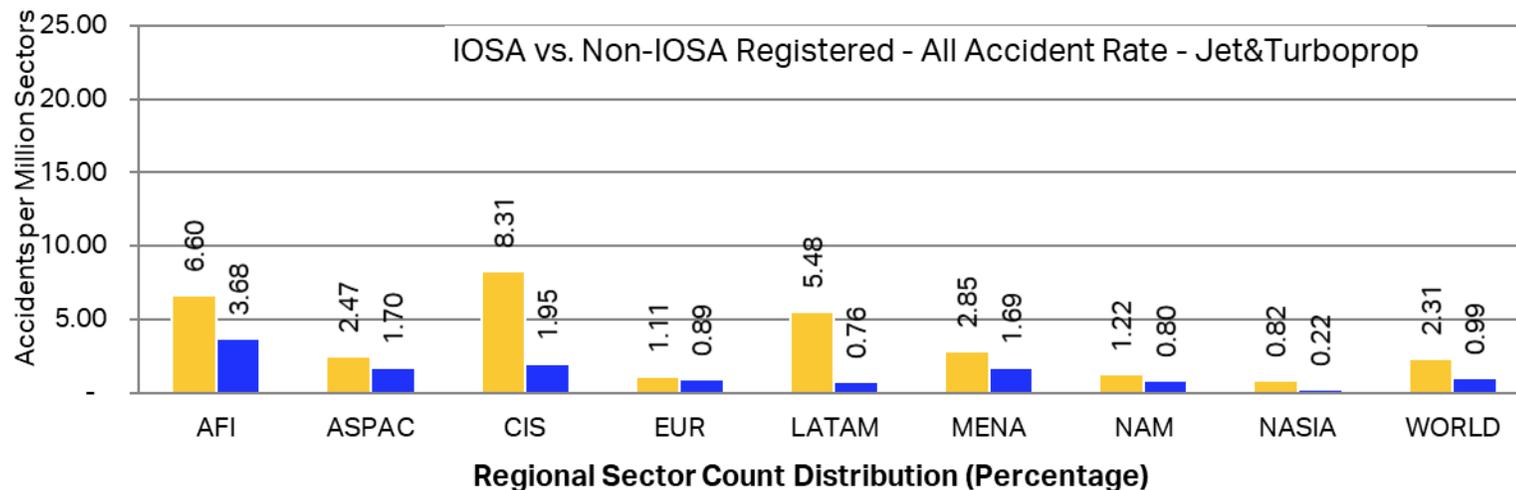
Source: IATA GADM

- The accident rate for IOSA carriers in the first half of 2019 was almost 2 times lower than the rate for non-IOSA carriers

IOSA Operators Accident Rate Lower than Non IOSA from 2015 to 2019

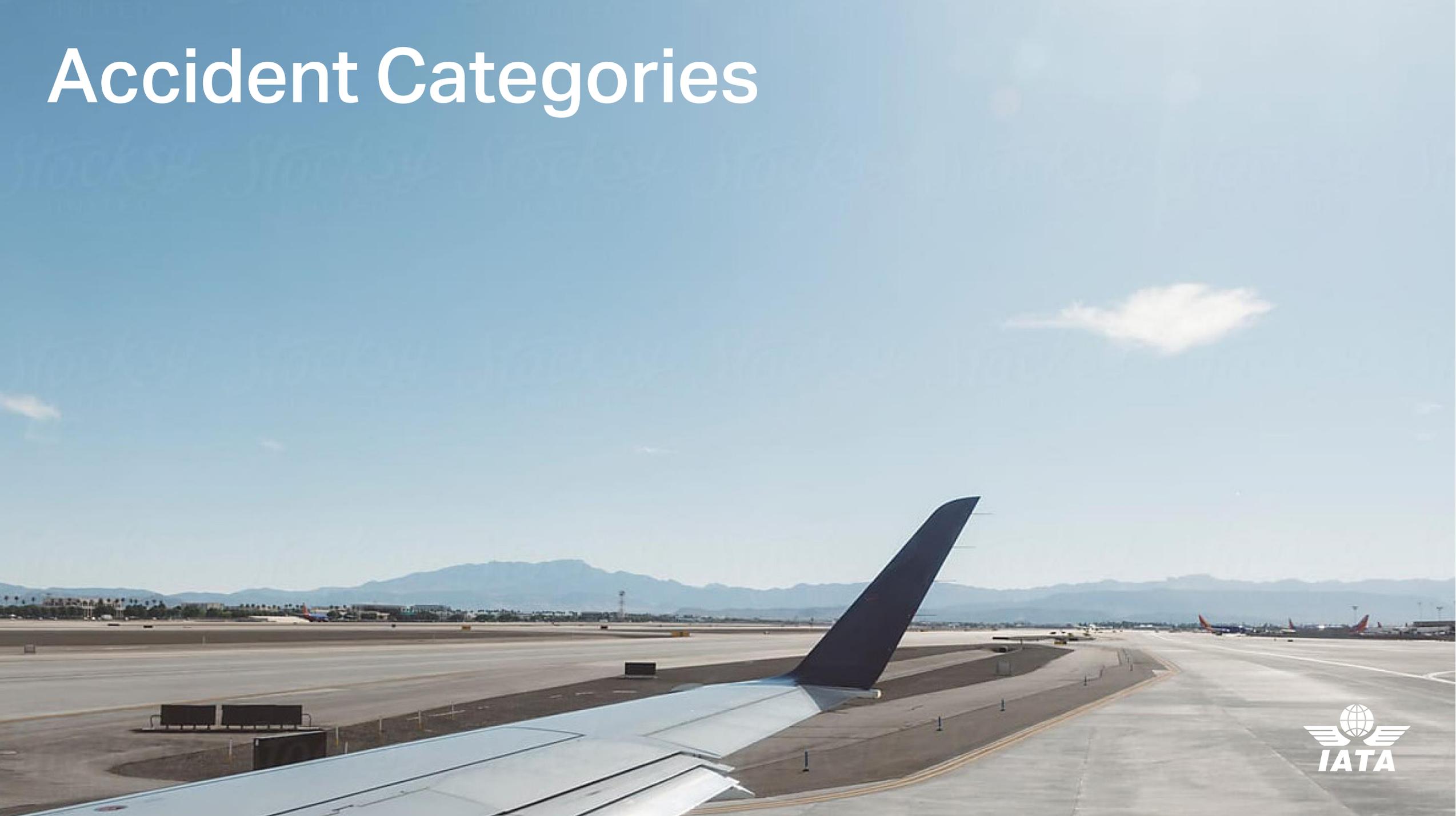
All Accident Rate (Jet & Turboprop) for IOSA Operators vs. Non-IOSA, 2015-2019

2015-2019



- IOSA registered airlines keep outperforming non-IOSA airlines in every region, on a five year trend.

Accident Categories



Accident List First Half 2019

Date	Month	Operator Region	Operator	Aircraft Type	Propulsion	Severity	Fatalities on Board	IATA	IOSA	Accident Category
2019-01-21	January	AFI	Serve Air	B737-300	Jet	Substantial Damage	-	No	No	Gear-up Landing / Gear Collapse
2019-01-23	January	NAM	Air Creebec	Dash-8-100/200	Turboprop	Substantial Damage	-	No	No	RWY Excursion Lateral
2019-01-26	January	ASPAC	Alliance Air	ATR 72	Turboprop	Substantial Damage	-	No	No	Tailstrike
2019-01-28	January	EUR	Swift Air	ATR 72	Turboprop	Substantial Damage	-	No	Yes	RWY Excursion Lateral
2019-01-28	January	NAM	Kalitta Charters II	B727-200	Jet	Substantial Damage	-	No	No	Gear-up Landing / Gear Collapse
2019-01-29	January	ASPAC	Air India	A321	Jet	Substantial Damage	-	Yes	Yes	In-flight Damage
2019-02-08	February	EUR	Novair	A321	Jet	Substantial Damage	-	No	No	Tailstrike
2019-02-16	February	ASPAC	Lion Air	B737-800	Jet	Substantial Damage	-	No	Yes	RWY Excursion Overrun
2019-02-23	February	NAM	Atlas Air	B767-300	Jet	Hull Loss	3	Yes	Yes	Loss of Control In-flight
2019-02-26	February	AFI	Airlink	ERJ135	Jet	Substantial Damage	-	Yes	Yes	In-flight Damage
2019-03-04	March	NAM	CommutAir	ERJ145	Jet	Substantial Damage	-	No	Yes	Undershoot
2019-03-10	March	AFI	Ethiopian Airlines	B737-800	Jet	Hull Loss	157	Yes	Yes	Loss of Control In-flight
2019-03-19	March	MENA	Iran Air	Fokker 100	Jet	Substantial Damage	-	Yes	Yes	Gear-up Landing / Gear Collapse
2019-04-08	April	LATAM	Sky High	BAE Jetstream 41	Turboprop	Substantial Damage	-	No	No	RWY Excursion Lateral

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Date	Month	Operator Region	Operator	Aircraft Type	Propulsion	Severity	Fatalities on Board	IATA	IOSA	Accident Category
2019-04-10	April	NAM	American Airlines	A321	Jet	Substantial Damage	-	Yes	Yes	In-flight Damage
2019-04-23	April	ASPAC	Airblue	A320	Jet	Substantial Damage	-	No	No	RWY Excursion Overrun
2019-05-03	May	NAM	Miami Air International	B737-800	Jet	Substantial Damage	-	No	No	RWY Excursion Overrun
2019-05-05	May	CIS	Aeroflot Russian Airlines	Superjet 100-95	Jet	Hull Loss	41	Yes	Yes	Hard Landing
2019-05-08	May	ASPAC	Biman Bangladesh Airlines	Dash 8-400	Turboprop	Hull Loss	-	Yes	Yes	RWY Excursion Lateral
2019-05-10	May	NAM	Jazz	Dash-8-300	Turboprop	Substantial Damage	-	No	Yes	Ground Damage