

# Safety Report



Safety data 2015-2019



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## Foreword (from previous SR edition)

Volume of air traffic in the World is experiencing an incredible growth. The number of passengers traveling in 2019 was 4.3 billion in the World, 1.1 billion in Europe and 185 million in Italy. The Safety levels achievements are very high but, with those numbers, we must not let our guard down and we must continue to improve.

The Safety Report is a very useful tool containing data that allow us to learn from occurred accidents and incidents.

The ENAC Safety Report has been prepared using, for the first time, data collected by means of the electronic ENAC Mandatory Occurrence Reporting (eE-MOR) system where about 9800 reports have been received in 2018 with information related to a wide range of occurrences.

In the present report are also shown ENAC Safety Performance Indicators, continuously monitored in order to maintain the ENAC Safety Plan at maximum level of reliability.

During the considered period (2015-2018) no fatal accidents occurred in Italy in the scheduled commercial transport and the Italian accident rate in 2018 was less than the World average of 1.46 accidents per million departures for scheduled commercial flights on airplane above 5.7 tons. In any case it is a fundamental priority for ENAC, as well as for all the Civil Aviation Authorities in the World, to further improve those numbers emphasising occurrences analyses, corrective actions and Safety prevention tasks.

The overall results arising from the present Safety Plan are positive, but we will continue to put the maximum effort to increase Safety in all the areas and domains of Civil Aviation.

*ENAC President  
Nicola Zaccheo*





# 1. Introduction

The **State Safety Program - Italy**, as for the ICAO Annex 19 and ICAO Doc.9859 (Safety Management Manual), requires that Italy defines indicators to measure the level of safety performance achieved in the Italian civil aviation. These indicators, **Safety Performance Indicators (SPI)**, aim to verify the achievement and keeping of an Acceptable Level of Safety Performance (ALoSP) at State level.

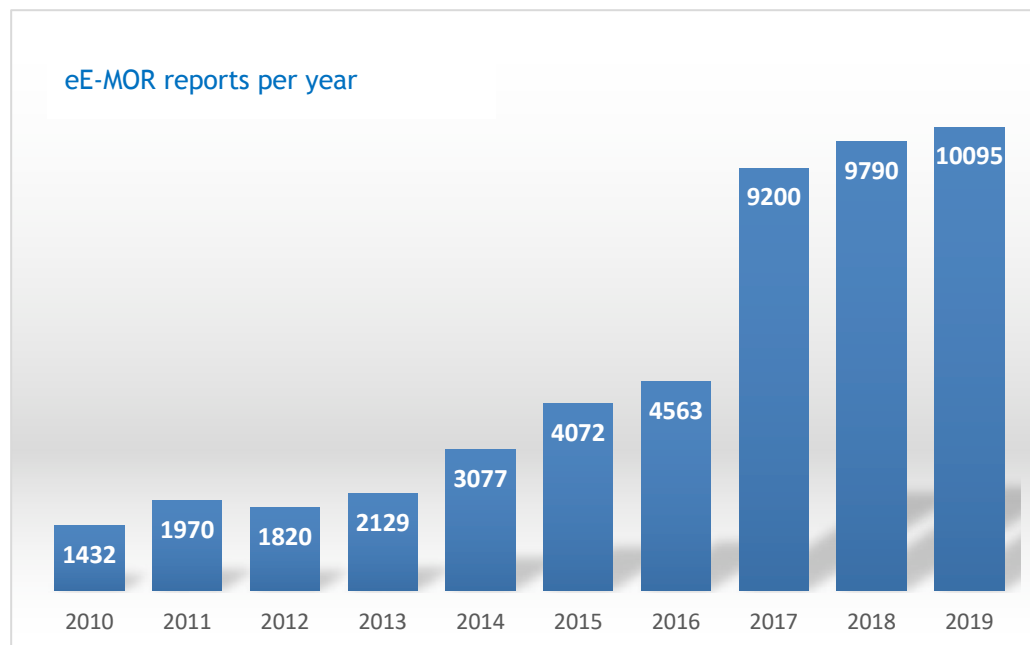
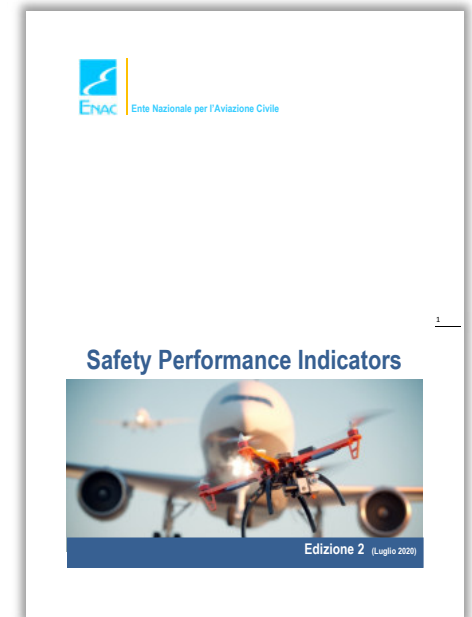
For this scope, ENAC issued in June 2019 the document **“ENAC Safety Performance Indicators”**.

Furthermore, ENAC must comply with the obligation to carry out an analysis of the safety data collected, as required by Regulation (EU) no. 376/2014.

The present ENAC Safety Report is the result of the statistical analysis of the safety data available in ENAC eE-MOR (electronic ENAC Mandatory Occurrence Reporting) system for the four-year period 2015-2019 with reference to the Safety Performance Indicators established in the aforementioned document.

Note: this revision includes 2019 data.

The link between SPIs and the corresponding action items in the ENAC Safety Plan 2018-2022 are indicated in tables § 7.1 and § 7.2.





## 2. Occurrence Class

**Accident:** an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- a person is fatally or seriously injured as a result of:
  - being in the aircraft, or,
  - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or,
  - direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windcreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome); or
- the aircraft is missing or is completely inaccessible.

**Serious Incident:** means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down.

**Incident:** an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

[Regulation (EU) 996/2010]







### 3. Information Sources

In this section are described data sources (occurrences and exposure data) used in the report.

#### 3.A eE-MOR system

The following table shows the number of occurrence reports received in the eE-MOR system (the Italian occurrence repository). The eE-MOR system is described in the ENAC web site and in the Circular GEN-01D.

Year/Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	total
2015	214	189	263	310	479	466	456	445	435	357	257	201	4072
2016	175	294	291	407	512	542	558	491	418	328	280	267	4563
2017	473	519	628	861	1050	998	1152	952	853	705	496	513	9200
2018	534	475	672	831	1226	1094	1244	979	816	801	596	522	9790
2019	482	509	751	877	1128	1215	1279	1098	916	761	551	528	10095

#### 3.B ENAC exposure data

Number of movements in the Italian commercial aerodromes is shown in the documents “*Dati di Traffico*” published in the [ENAC website](#). Data on ramp and ACAM inspections are given by the competent unit in ENAC and published in ENAC Management Report (*Report Direzionale*).

#### 3.C Eurocontrol exposure data

The source for the numbers of total flights is the STATFOR interactive dashboard of Eurocontrol. Number of total flights is calculated as the sum of flight to/from Italian aerodromes, flights between Italian aerodromes and flights that flies over Italy.





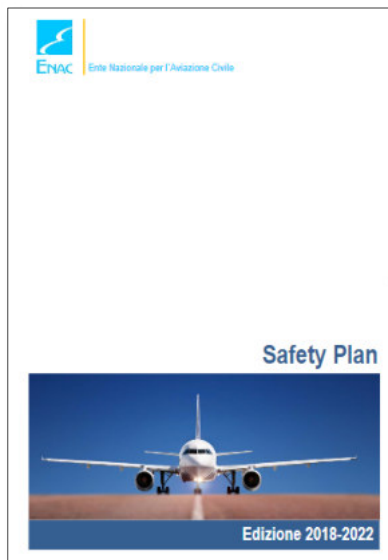


## 4. ENAC Safety Plan

ICAO Annex 19 requires that all Contracting States implement an SSP [State Safety Program] while providers are required to establish an SMS [Safety Management System].

[State Safety Program-Italy](#), according to the ICAO SSP framework, is based on three main elements:

- *the strategy*: a set of policies and objectives established by Italian aviation institutions (ENAC, ANSV, MIT, Aeronautica Militare, AeroClub d'Italia, ENAV).
- *the programme*: an integrated set of regulations and activities aimed at improving safety.
- *the plan*: all the actions developed by ENAC in order to achieve the safety objectives set in the Italy SSP. The [ENAC Safety Plan](#) conforms to the [European Plan for Aviation Safety](#) (EPAS). The ENAC Safety Plan cover a five years period; the last edition available is the 2018-2022 while the **State Plan for Aviation Safety (SPAS) 2020-2024** edition is going to be published soon.



Details on how national SPIs are connected to ongoing actions of the ENAC Safety Plan 2018-2022 can be found in table 7.1.

*Note 1:*

**MST.xxx=Member State Task** are action deriving from EPAS, based on safety priorities identified in collaboration with MSs and owned by the State. Most of them are continuous actions to ensure continuous monitoring of the underlying safety risks and regular reporting on progress of those MS actions.

**ENS.xxx (ENAC Systemic), ENO. xxx (ENAC Operational) and ENE.xxx (ENAC Emerging)** are actions established by ENAC Safety Board at national level.

*Note 2:* the connection between SPIs and Safety Actions included in the new SPAS 2020-2024 could change.



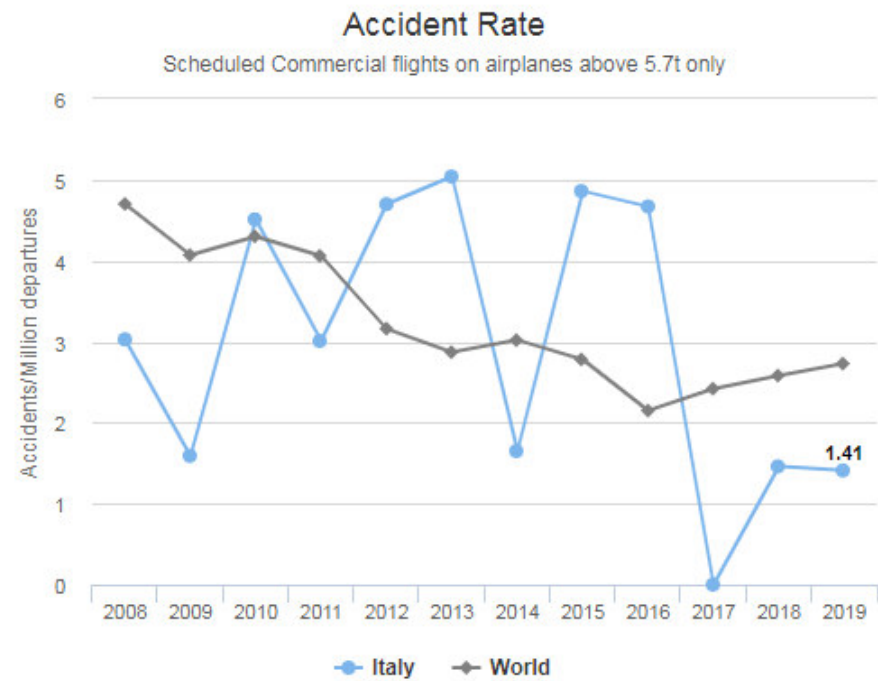
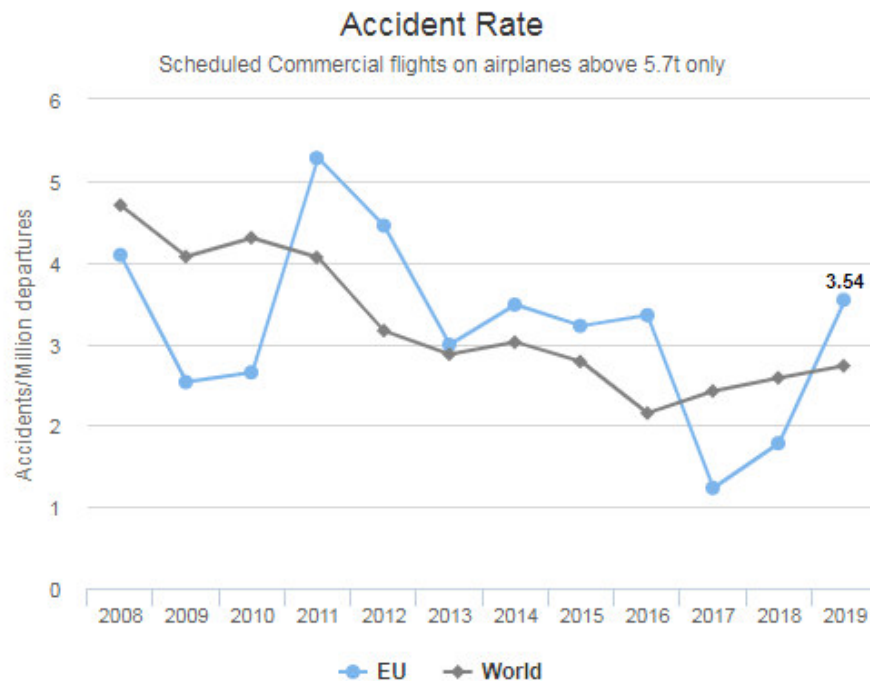


## 5. Accident rate

Graphs below show, for commercial flights of aircrafts with MTOW > 5700 Kg, the accident rate in Europe and in Italy in comparison to the world (source: web [ICAO iSTARS](http://www.icao.int/icao/en/istars/)).

The Italian data appear to be spread but, from a statistic point of view but this can be easily explained because the dataset available in ICAO database is much wider than the limited number of accident occurred in Italy.

However, even if the number fluctuates over the years, a trend can be recognized also for Italy and it can be considered substantially equivalent to the world average.





## 6. Occurrence Category (ICAO ADREP)

TAXONOMY	DESCRIPTION
ARC	Abnormal Runway Contact
AMAN	Abrupt Maneuver
ADRM	Aerodrome
MAC	Airprox/TCAS Alert/Loss of Separation/Near Mid-Air Collisions/Mid-Air Collisions
ATM	ATM/CSN
BIRD	Bird
CABIN	Cabin Safety Events
CTOL	Collision with Obstacle(s) during Take-Off and Landing
CFIT	Controlled Flight into or toward Terrain
EVAC	Evacuation
EXTL	External Load related occurrences
F-NI	Fire/Smoke (non-impact)
F-POST	Fire/Smoke (post-impact)
FUEL	Fuel related
GTOW	Glider Towing related events
GCOL	Ground Collision
RAMP	Ground Handling
ICE	Icing

TAXONOMY	DESCRIPTION
LOC-G	Lost of Control-Ground
LOC-I	Lost of Control-InFlight
LOLI	Loss of Lifting Conditions En Route
LALT	Low Altitude Operations
MED	Medical
NAV	Navigation Errors
OTHR	Other
RE	Runway Excursion
RI	Runway Incursion
SEC	Security related
SCF-NP	System/Component Failure or Malfunction (Non-Powerplant)
SCF-PP	System/Component Failure Or Malfunction (Powerplant)
TURB	Turbulence Encounter
USOS	Undershoot/Overshoot
UIMC	Unintended Flight in IMC
UNK	Unknown or Undetermined
WILD	Wildlife
WSTRW	Wind Shear or Thunderstorm





## 7. ENAC Safety Performance Indicators

Safety Performance Indicators have been identified in accordance with the ICAO Doc. 9859 ed.4 and ICAO Annex 19 issue 2 as described in the document “[ENAC Safety Performance Indicators](#)” available in the ENAC web site.

SPIs have been grouped into two main categories:

- 1 Outcome oriented [operational SPI]** deriving from the measurement of events that could be the precursors of “undesired events” (accident or serious incident).

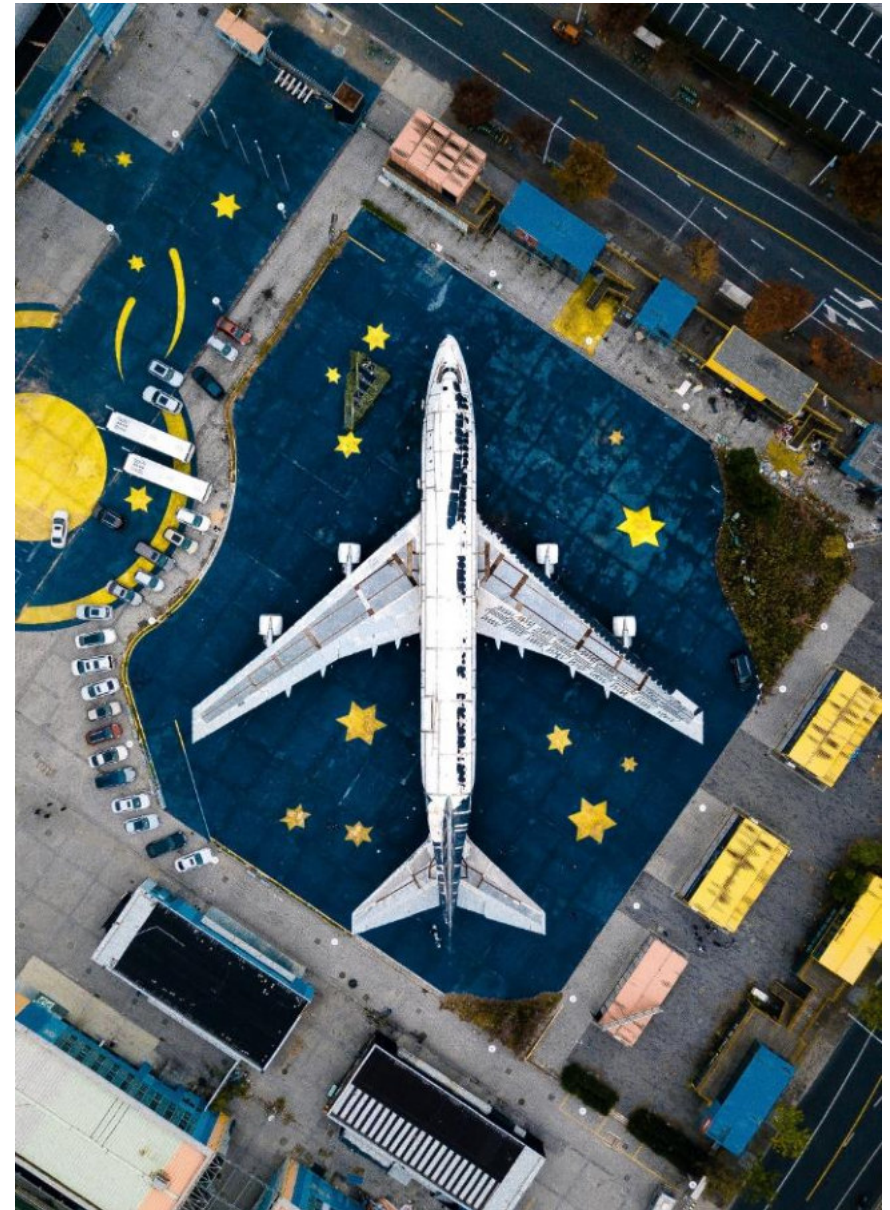
Normally these SPIs are measured on the basis of mandatory reports (MOR’s) received in the eE-MOR system.

These indicators have been chosen taking into account types of events particularly relevant in all the domains of civil aviation: Aerodrome, Air Traffic Control, Airworthiness, Operations and UAS.

Note: statistics are based on number of occurrences not on the number of reports received.

- 2 Process oriented [systemic SPI]:** deriving from most typical processes of the Civil Aviation Authority. These SPIs aim to measure the effectiveness of the activities that ENAC has been activated to ensure the highest possible level of safety of the aeronautical operations.

For this reason, the two types of SPIs have been included into two different tables, each table shows, for each indicator, a brief description, the data source for its measurement and (if any) the connection to the relevant action of the ENAC Safety Plan.









## 7.1 Outcome oriented [operational SPI]<sup>1</sup>

Code	SPI	Indicator description	Safety Plan Action [ref. Safety Plan 2018-2022]	Data source [ref. § 3]
SPI-O-01	RE Runway Excursions (rate)	<p>Number, every 10.000 movements, of occurrences involving a veer off or overrun off the runway surface.</p> <p>A runway excursion occurs when an aircraft departs the runway in use during the take-off or landing run. The excursion may be intentional or unintentional.</p> <p>Note: Runway excursion occurred in GA private airfield are not included.</p>	MST.007	3.A/3.B
SPI-O-02	RI Runway Incursions (rate)	<p>Number, every 10.000 movements, of occurrences involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft</p> <p><b>Runway Incursion:</b> any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft [ICAO DOC 4444].</p>	MST.014	3.A/3.B
SPI-O-03	LOC-I Loss of aircraft control in flight (rate)	Number, every 10.000 flights, of occurrences with loss of aircraft control while, or deviation from intended flight path in flight	MST.004	3.A/3.C
SPI-O-04	TCAS Resolution Advisories (rate)	Number, every 10.000 flights, of TCAS Resolution Advisories following a TCAS activation	MST.010	3.A/3.C
SPI-O-06	TAWS Activations of TAWS (rate)	<p>Number, every 10.000 flights, of Terrain and Avoidance Warning System (TAWS) activations.</p> <p>TAWS is a system that provides the flight crew with sufficient information and alerting to detect a potentially hazardous terrain situation and so the flight crew may take effective action to prevent a CFIT event.</p>	MST.006	3.A, 3.C
SPI-O-07	RAMP Ramp events (rate)	Number of occurrences, every 10.000 movements, where a collision occurred while servicing, boarding, loading, and deplaning the aircraft.	MST.018	3.A, 3.B

<sup>1</sup> some indicators, based on the experience gained during the analysis, could be slightly different from those listed in the ENAC SPIs document.



Code	SPI	Indicator description	Safety Plan Action [ref. Safety Plan 2018-2022]	Data source [ref. § 3]
SPI-O-08	<b>GCOL</b> Collision while taxiing to or from a runway in use (rate)	<p>Number of occurrences, every 10.000 movements, where an aircraft comes into contact with another aircraft, a vehicle, a person, a structure, a building or any other obstacle while moving under its own power in any part of the airport other than the active runway, excluding power pushback.</p> <p>Collision while taxiing to or from a runway in use. Includes collisions with an aircraft, person, ground vehicle, obstacle, building, structure, etc., while on a surface other than the runway used for landing or intended for takeoff.</p> <p>Ground collisions resulting from events categorized under Runway Incursion (RI), Wildlife (WILD), or Ground Handling (RAMP) are excluded from this category.</p>	MST.018	3.A, 3.B
SPI-O-09	<b>F-NI</b> "Fire or smoke on aircraft" (rate)	<p>Number, every 10.000 flights, of occurrences where fire or smoke was detected in or on the aircraft, in flight, or on the ground.</p> <p>Includes fire due to a combustive explosion from an accidental ignition source, fire and smoke from system/component failures/malfunctions in the cockpit, passenger cabin, or cargo area.</p>	MST.005	3.A, 3.C
SPI-O-10	<b>LASER</b> Laser beam interferences with flight operations (rate)	Number of occurrences, every 10.000 movements, in which a laser beam interfered with the flight operations of an aircraft during take-off or landing.	N/A	3.A, 3.B
SPI-O-11 <sup>2</sup>	<i>BRI - Bird Strike Index</i> Bird/Wildlife Strikes rate	Please refer to ENAC Circolare APT-01 (last revision)	ENO.002	3.A, 3.B
SPI-O-12	<b>UPA</b> Airspace Infringements (occurrences)	<p>Number of airspace infringements that occur when an aircraft enters notified airspace without previously requesting and obtaining clearance from the ATC or enters the airspace under conditions that were not contained in the clearance.</p> <p>Notified Airspace includes controlled airspace structures in ICAO airspace classes A to E, such as Airways, Terminal Control Areas (TMA), Control Zones (CTR) or Aerodrome Traffic Zones (ATZ) outside controlled airspace, as well as restricted airspaces, such as danger areas, restricted areas, prohibited areas and temporary segregated/reserved areas.</p>	MST.016	3A

<sup>2</sup> SPI-O-11 will be analyzed after the publication of the [Bird Strike Committee Italy Report 2018](#).



Code	SPI	Indicator description	Safety Plan Action [ref. Safety Plan 2018-2022]	Data source [ref. § 3]
SPI-O-13	<b>SMI</b> Separation Minimum Infringement number (occurrences)	Number of occurrences where prescribed separation minima between aircrafts was not maintained	N/A	3A
SPI-O-14	<b>ATM failure</b> Serious technical failure (occurrences)	Number of serious technical failures affecting the safe provision of air traffic services. Occurrences involving Air Traffic Management (ATM) or Communication, Navigation, Surveillance (CNS) service issues. Includes Air Traffic Control (ATC) facility/personnel failure/degradation, CNS service failure/degradation, procedures, policies, and standards. Occurrences do not necessarily involve an aircraft. ATM includes all of the facilities, equipment, personnel, and procedures involved in the provision of Italian approved Air Traffic Services.	N/A	3A
SPI-O-15	<b>APR interference</b> Interferences of APR with manned aircraft during take-off or landing (occurrences)	Number of occurrences where an APR interferes with the flight of a manned aircraft during take-off or landing.	ENE.002	3A

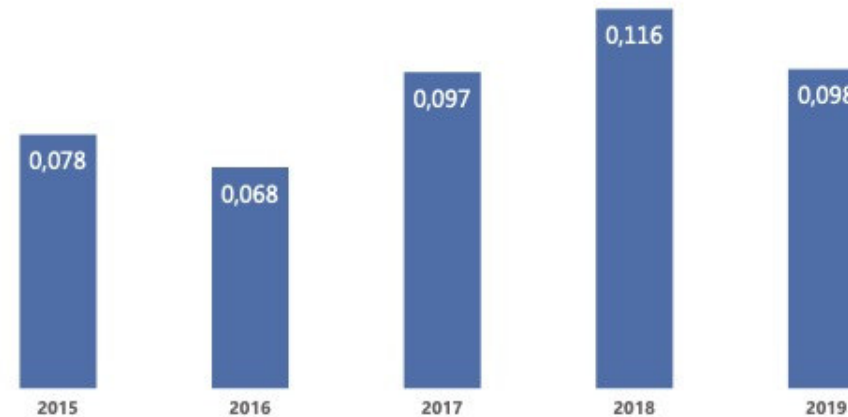


## SPI-O-01 RE - Runway Excursions

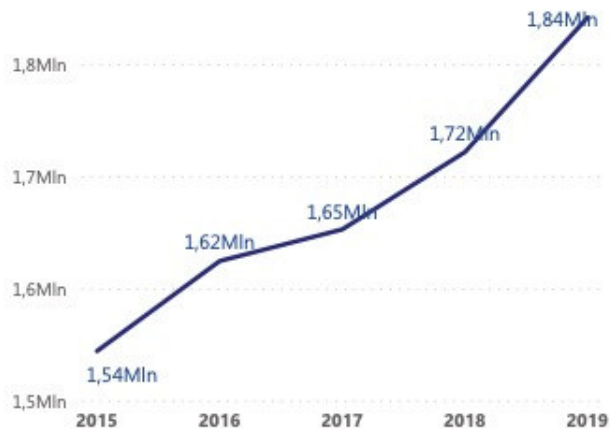
Occurrences per year



Rate per year



Movements per year



The **Runway Excursions** (RE) rate shows a slight decrease in the year 2016 followed by a significant increase in the following two years (+ 42% in 2017 and + 20% in 2018) and then by a new decrease (-16%) in 2019.

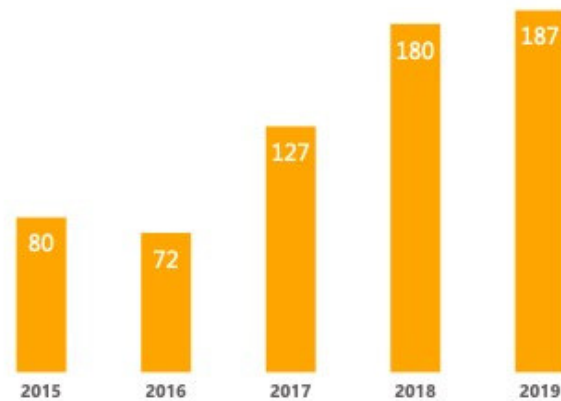
The indicator value fluctuates between 0,068 and 0,116 around the average value of 0,092 and therefore a clear trend cannot be recognized.

However, it can be assumed that in subsequent years it could remain within the fluctuation range.

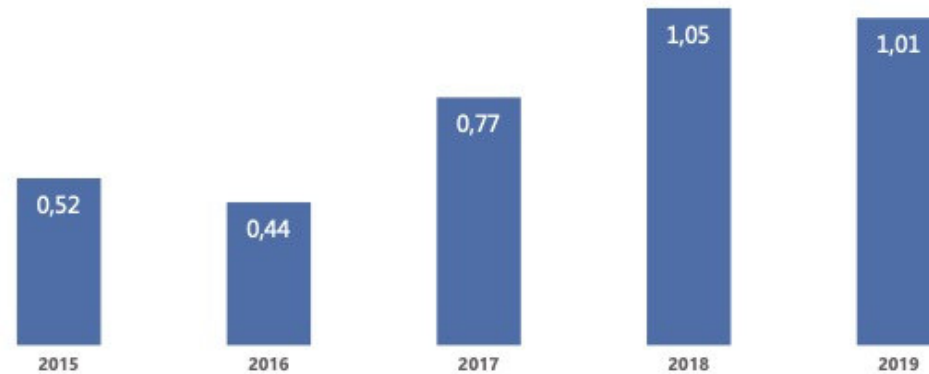


## SPI-O-02 RI - Runway Incursions

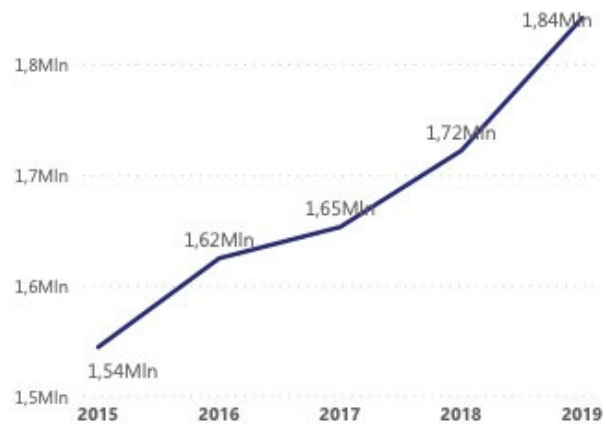
Occurrences per year



Rate per year



Movement per year



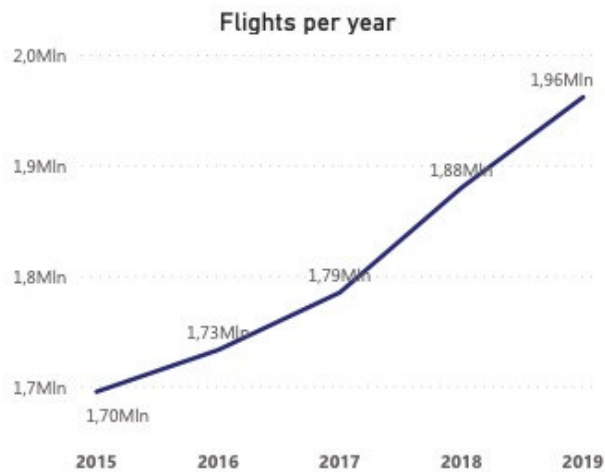
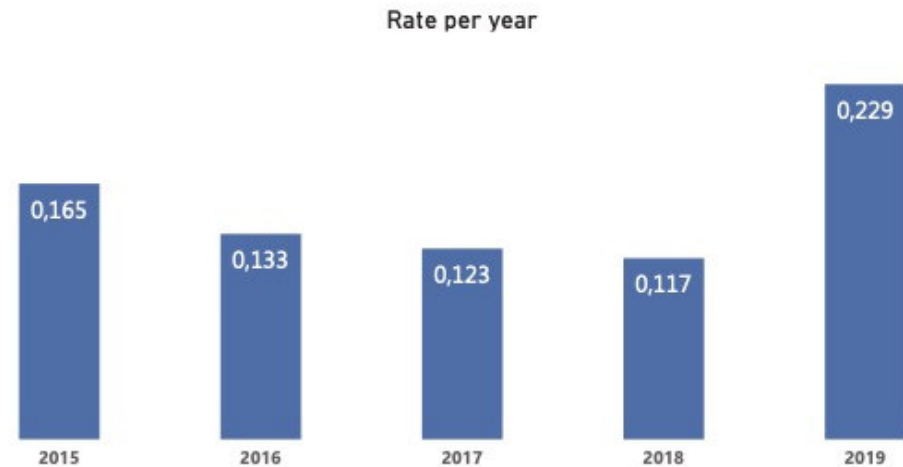
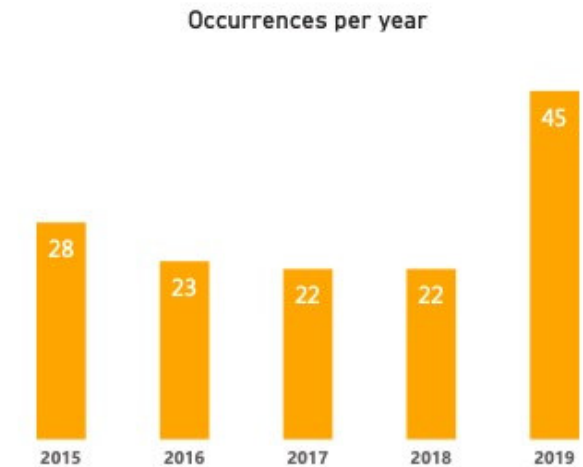
The **Runway Incursions** (RI) rate shows a decrease in the year 2016 followed by a significant increase in the following two years (+ 75% in 2017, + 36% in 2018) and then by a new decrease (-0,4%) in 2019.

The indicator value fluctuates between 0,44 and 1,05 around the average value of 0,75 and therefore a clear trend cannot be recognized.

However, it can be assumed that in subsequent years it could remain within the fluctuation range.



## SPI-O-03 LOC-I - Loss of aircraft control in-flight

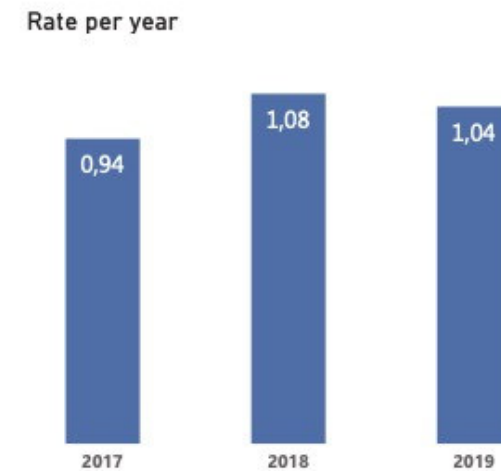
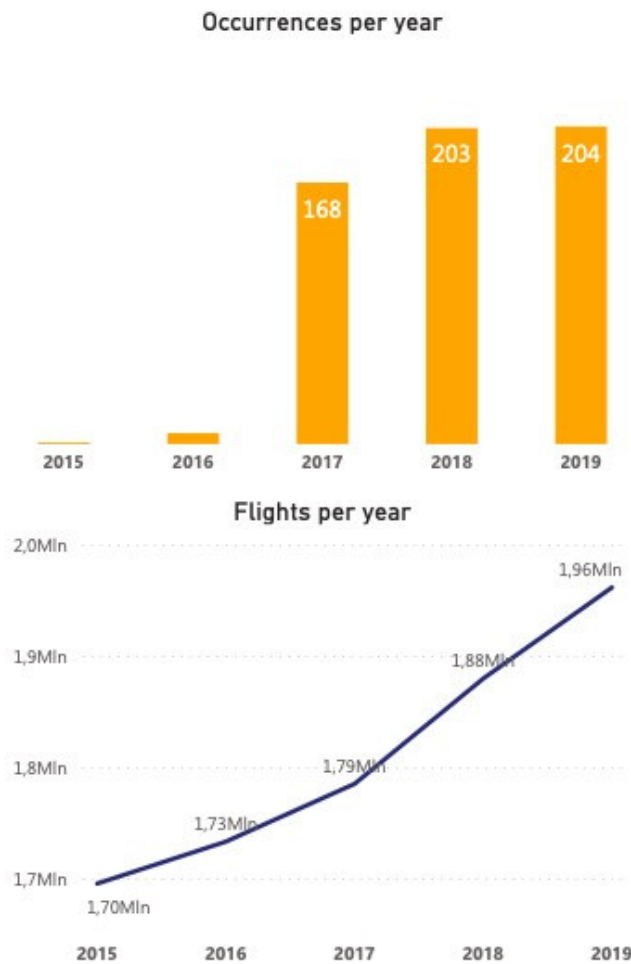


After a constant decrease in the period 2015-2018, a significant increase of the indicator value has been recorded in the year 2019.

Further analysis will be performed in order to understand the reason of this so evident inversion of tendency.



## SPI-O-04 TCAS Resolution Advisories

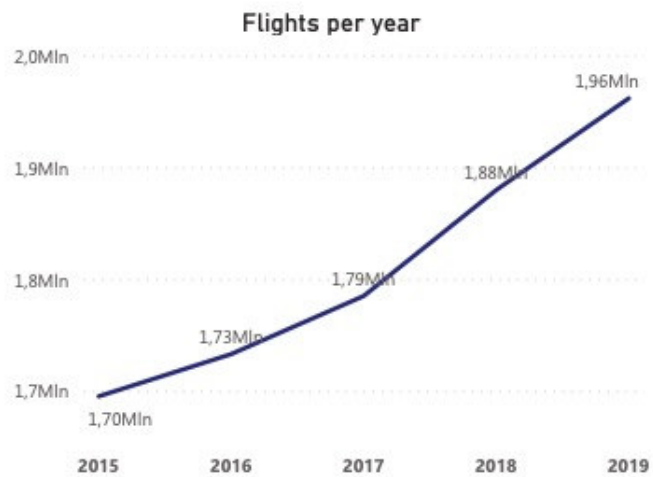
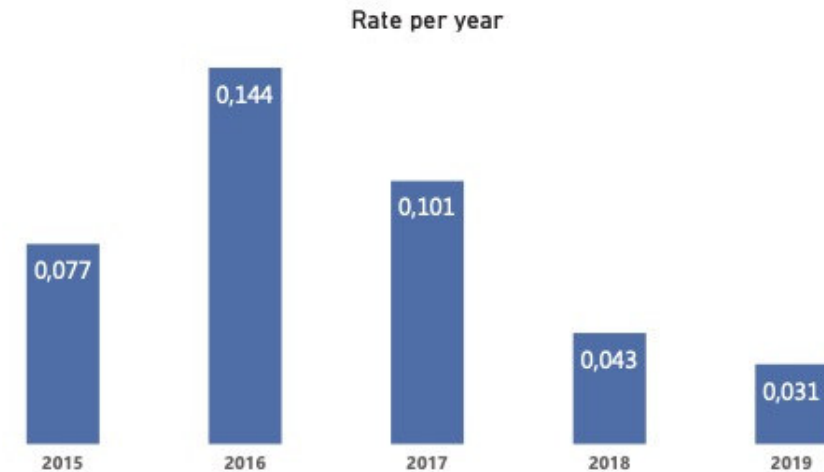
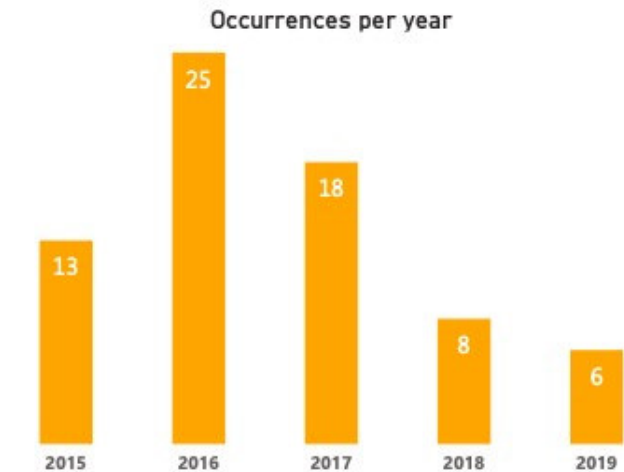


In the period 2017-2019 the value of the indicator fluctuates between 0,94 and 1,08 around the average value of 1,01 with a slightly decrease (-4%) in the year 2019. Therefore a clear trend cannot yet be recognized.

**Note:** the first two years (2014-2015) eE-MOR system recorded data do not include reports that has been provided by the ANSPs by other means.



## SPI-O-06 TAWS Activations



**Note:** data provided in the previous edition of the Safety Report has been reviewed.

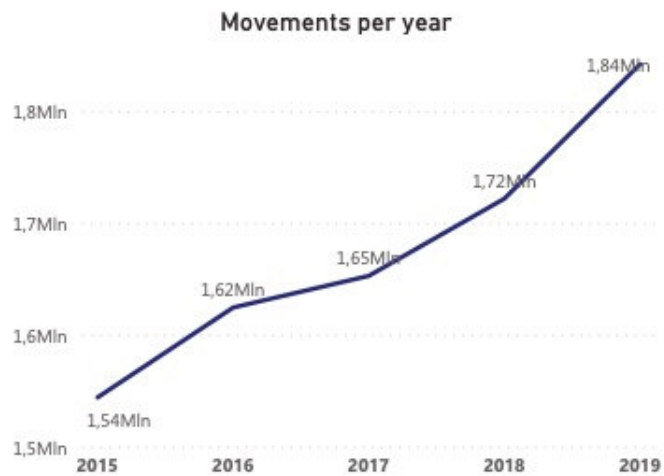
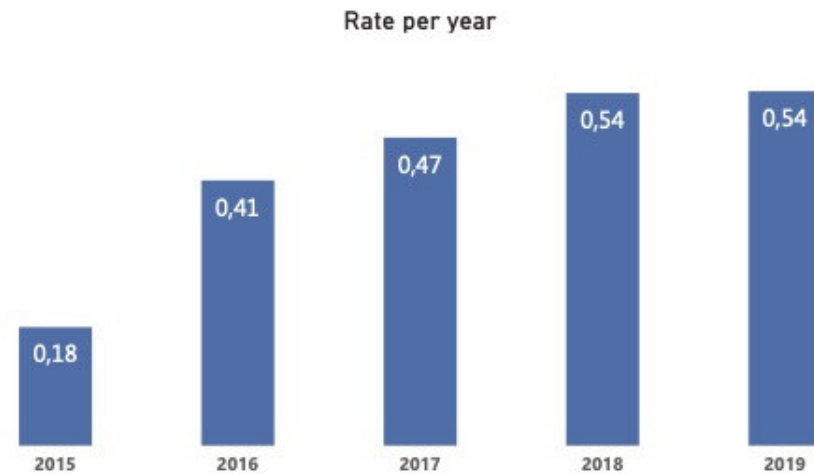
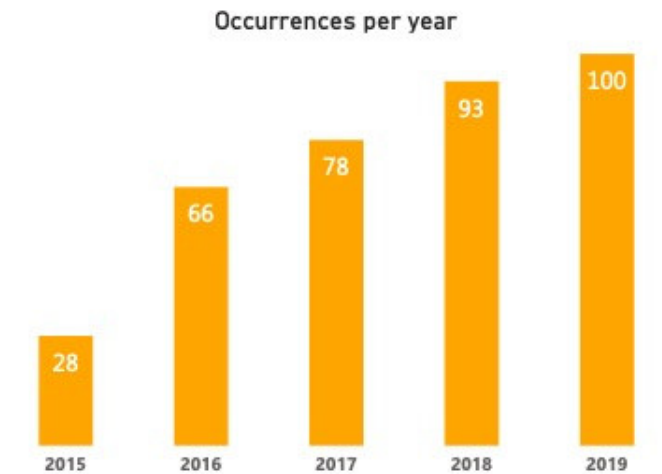
Since 2016 a constant decrease (from 0,144 to 0,031) can be noted.

Given the constancy of the trend, it is realistic to assume that it could be possible to define a reliable safety performance target for the year 2021.





## SPI-O-07 RAMP events



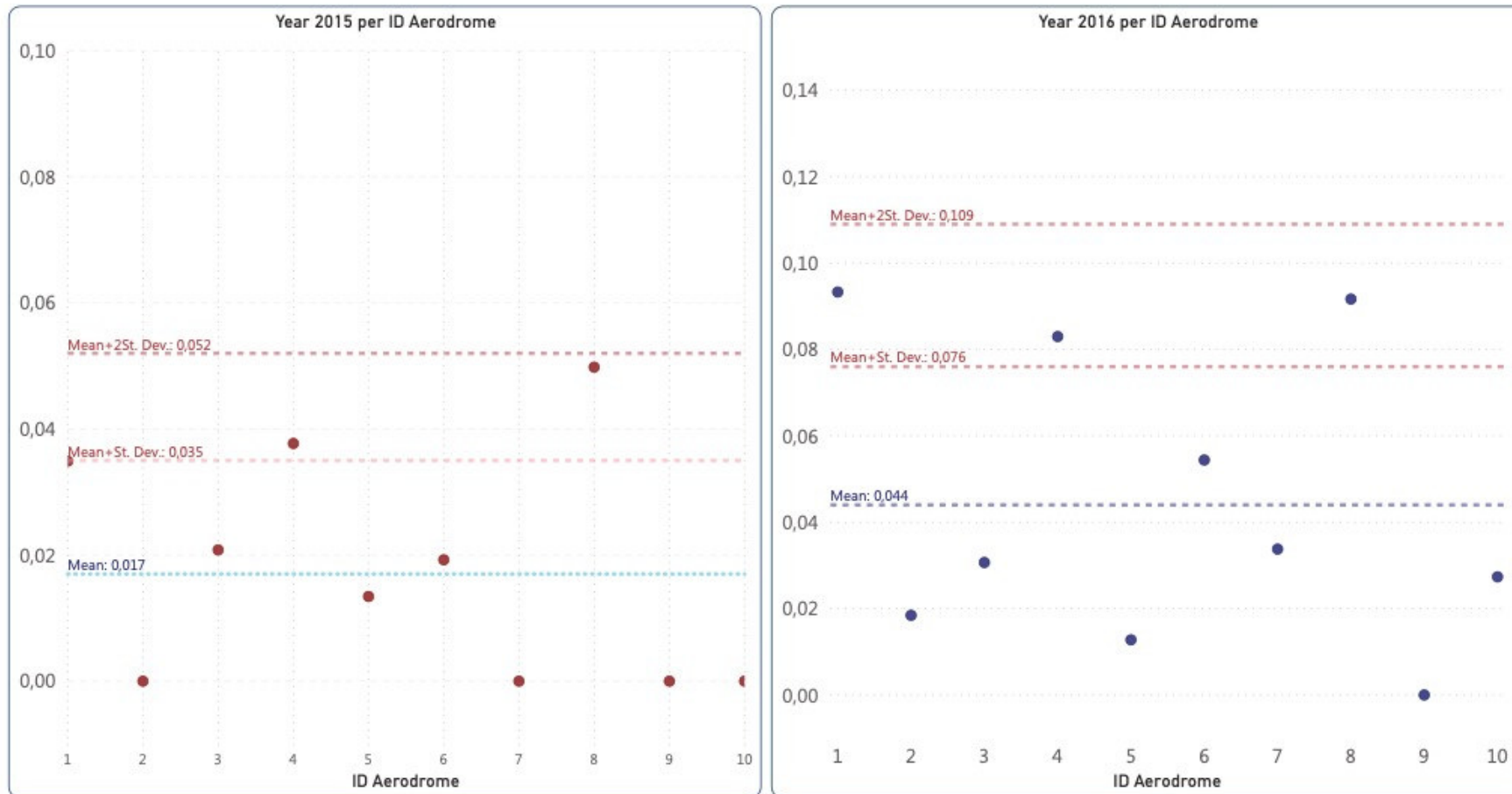
A constant increase of the rate (from 0,18 to 0,54) can be noted, with a stable value of 0,54 in the years 2018 and 2019.

Given the constancy of the trend, it is realistic to assume that it could be possible to define a reliable safety performance target for the year 2021.



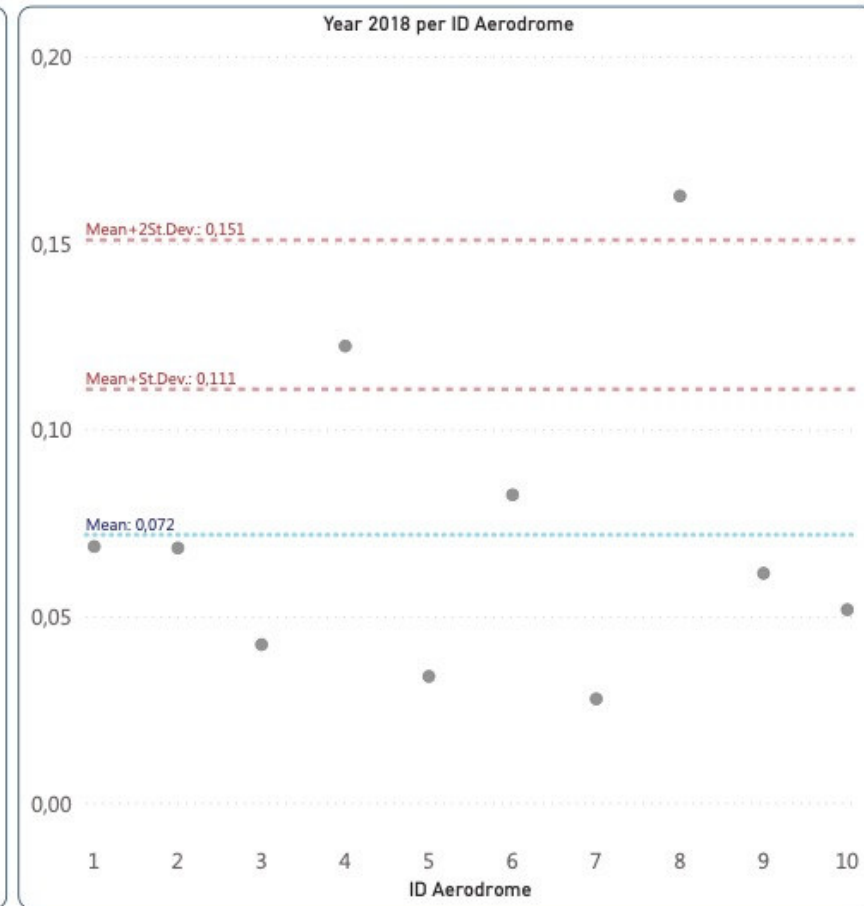
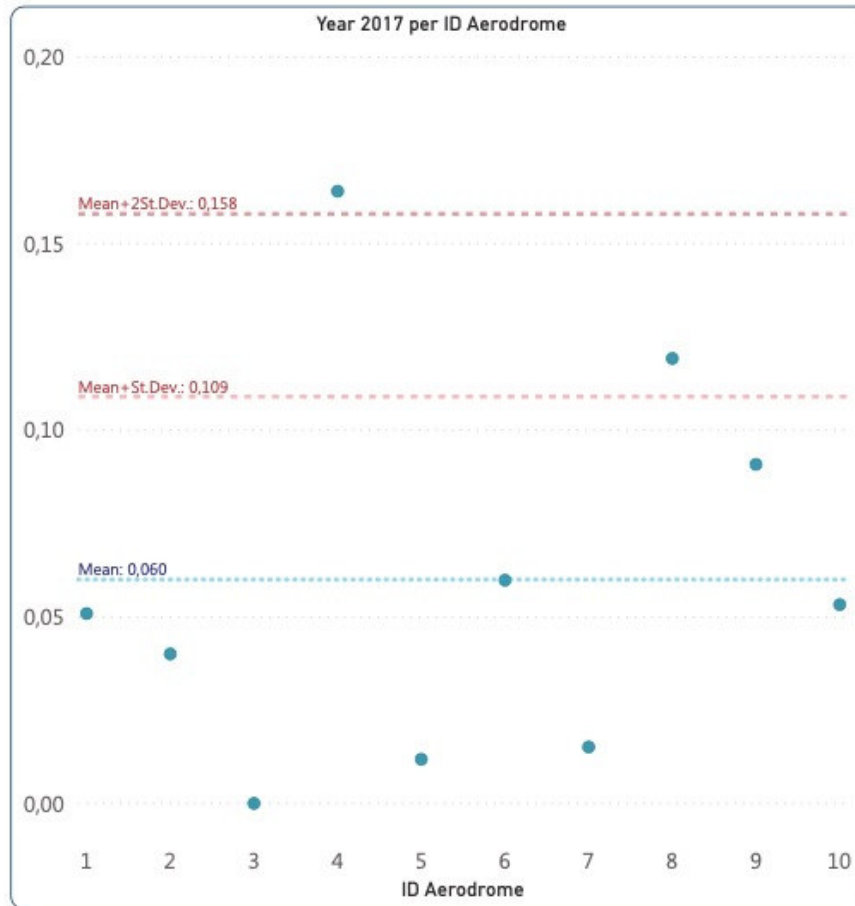
## (continue) SPI-O-07 RAMP events

The **ID Aerodrome** is an anonymous identifier linked to a specific aerodrome from the top 10 airports for number of movements. These graphs show that some aerodromes have values above the standard deviation (i.e. ID 4, ID 8, etc).



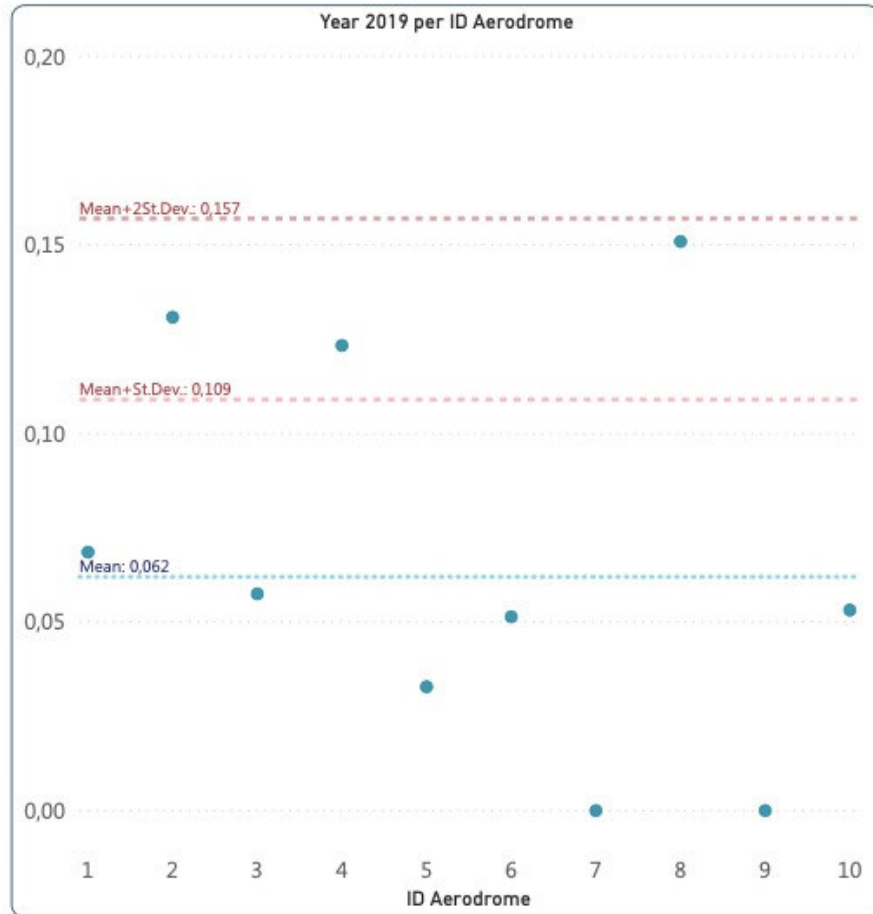


(continue) **SPI-O-07 RAMP events**



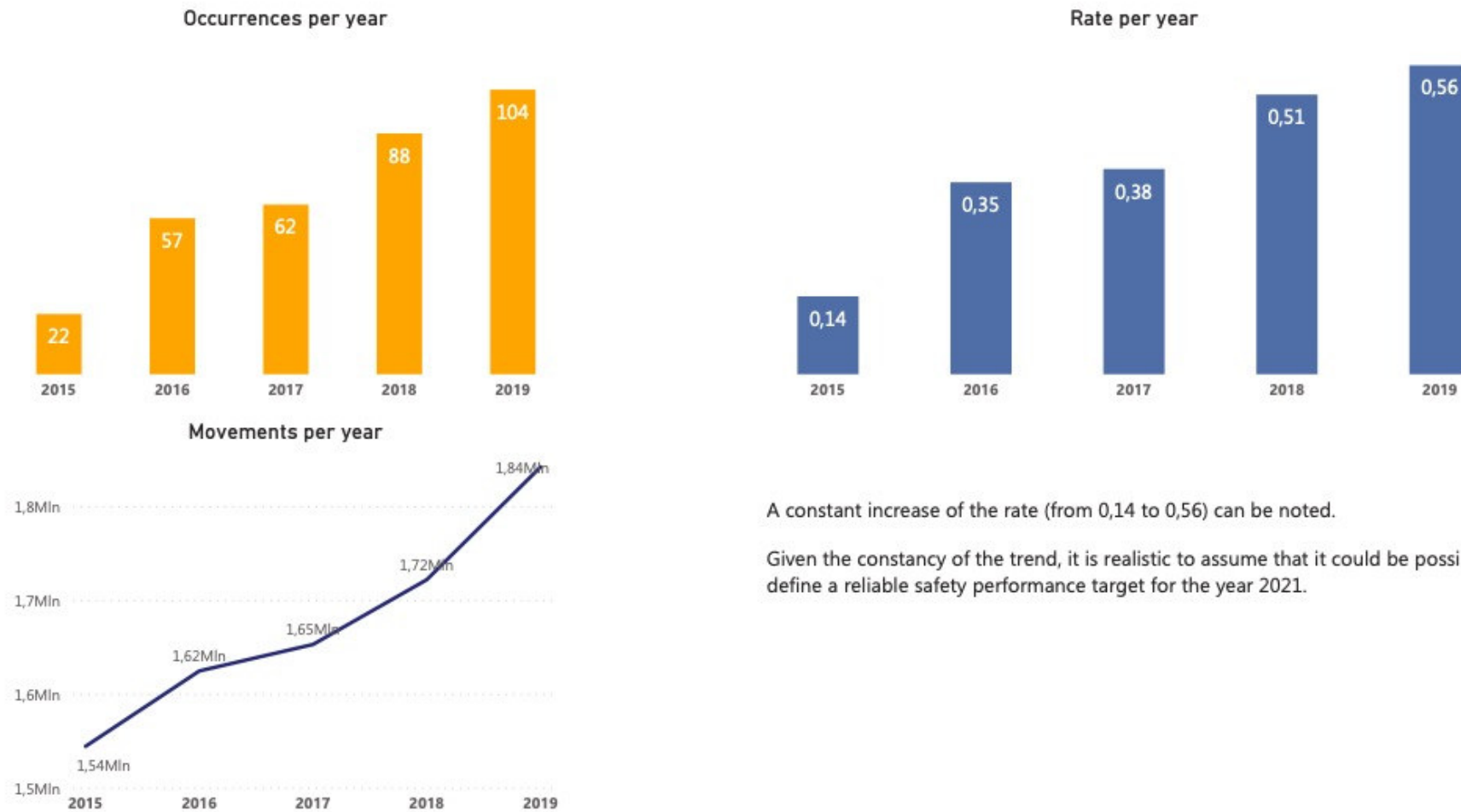


(continue) **SPI-O-07 RAMP events**





## SPI-O-08 GCOL - Collision while taxiing to or from a runway in use

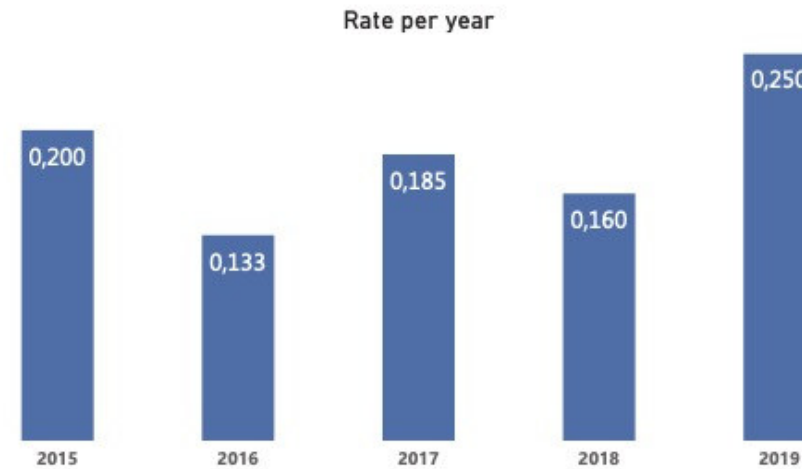
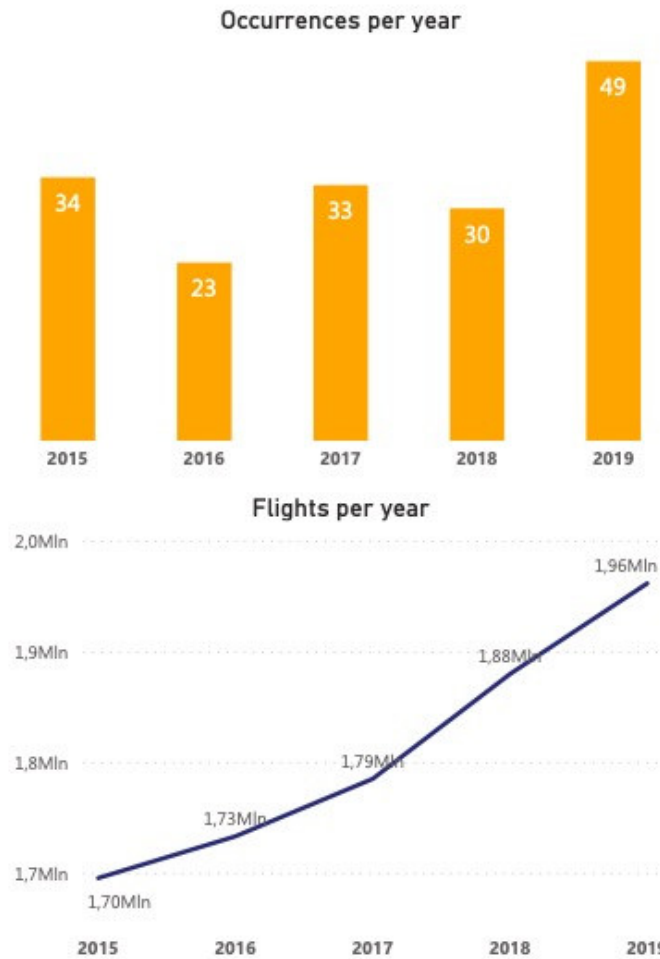


A constant increase of the rate (from 0,14 to 0,56) can be noted.

Given the constancy of the trend, it is realistic to assume that it could be possible to define a reliable safety performance target for the year 2021.



## SPI-O-09 F-NI - “Fire or Smoke on aircraft”



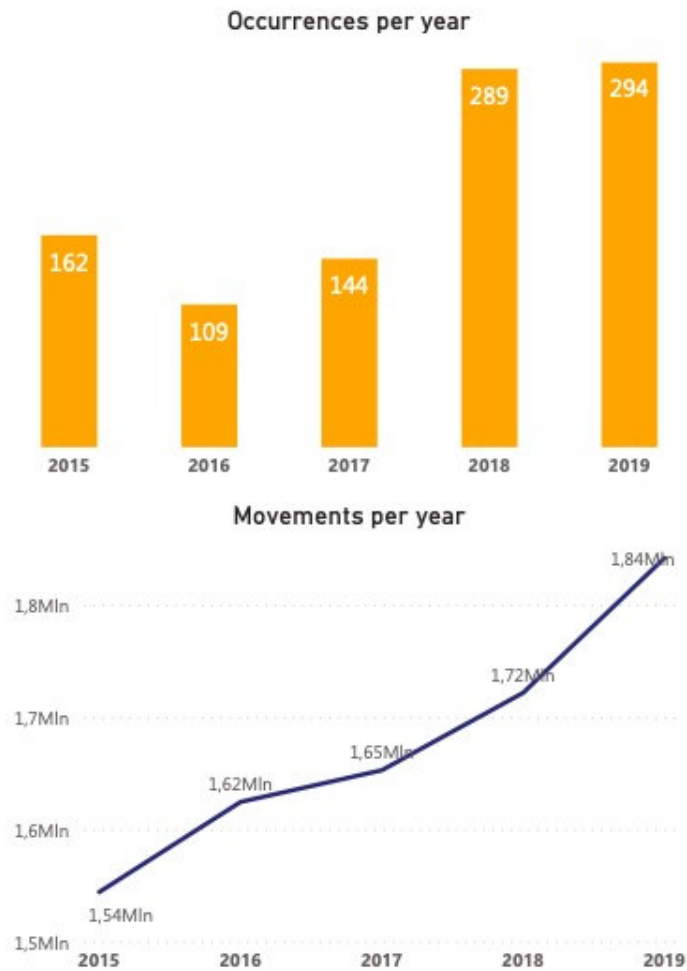
**Note:** data provided in the previous edition of the Safety Report has been reviewed.

The **Fire or Smoke on aircraft** rate fluctuates in the years, oscillating between 0,133 and 0,250 around the average value of 0,185 and therefore a clear trend cannot be recognized.

However, it can be assumed that in subsequent years it could remain within the fluctuation range.



## SPI-O-10 LASER - Laser beam interferences with flight operations occurrences



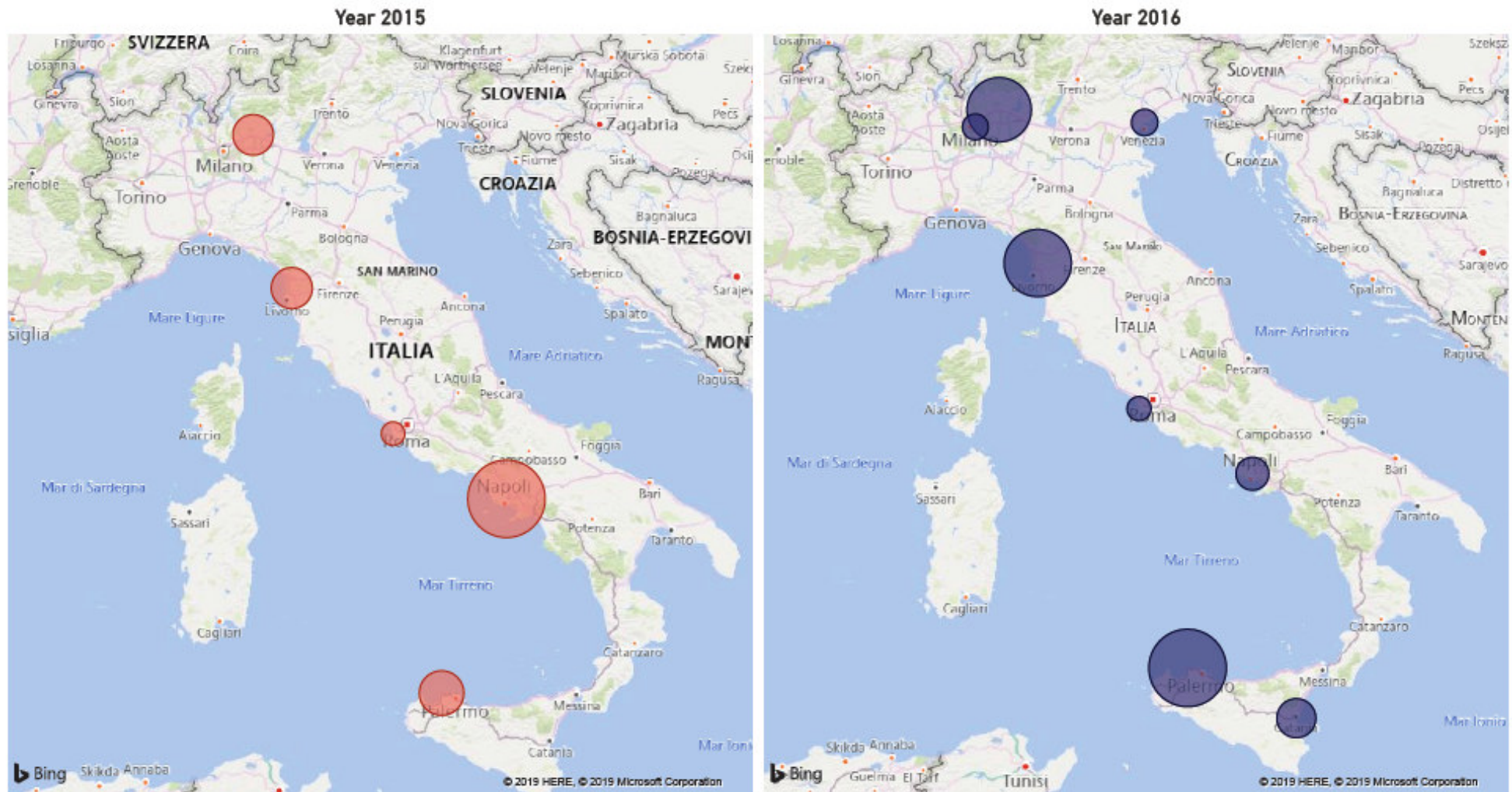
The **LASER** rate fluctuates in the years, oscillating between 0,67 and 1,68 around the average value of 1,173 and therefore a clear trend cannot be recognized.

The geographical distribution of the phenomenon is shown in the following pages where bubbles diagrams of the events occurred in the vicinity of main Italian airports are provided.



## (continue) SPI-O-10 LASER - Laser beam interferences with flight operations occurrences

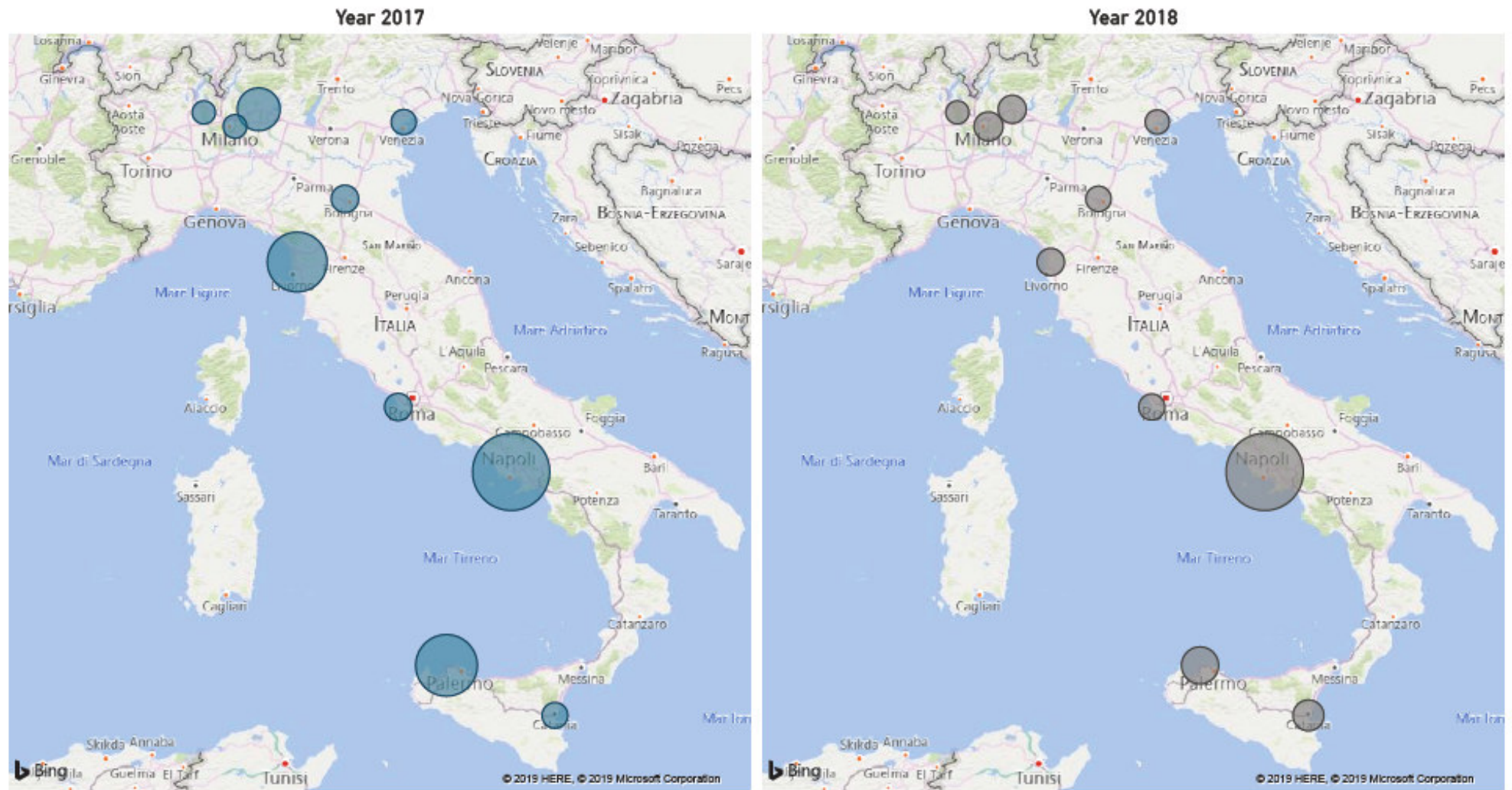
The trend of laser beam attack shall be seen in the light of the single aerodrome because generally the phenomenon can be considered decreasing.





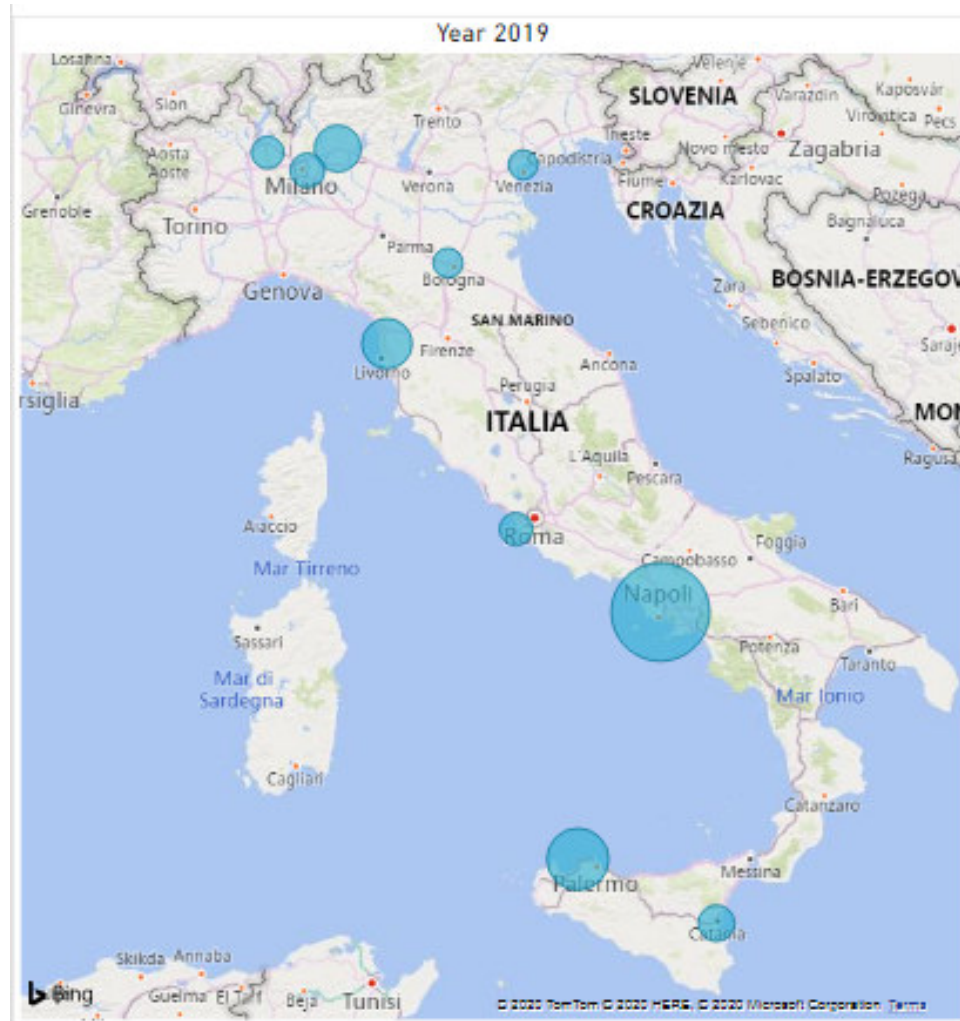


(continue) **SPI-O-10 LASER - Laser beam interferences with flight operations occurrences**



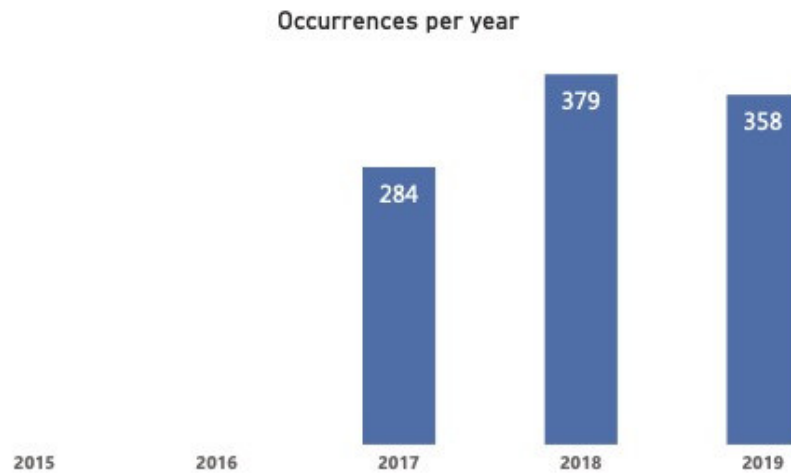


(continue) **SPI-O-10 LASER - Laser beam interferences with flight operations occurrences**





## SPI-O-12 UPA - Airspace Infringements



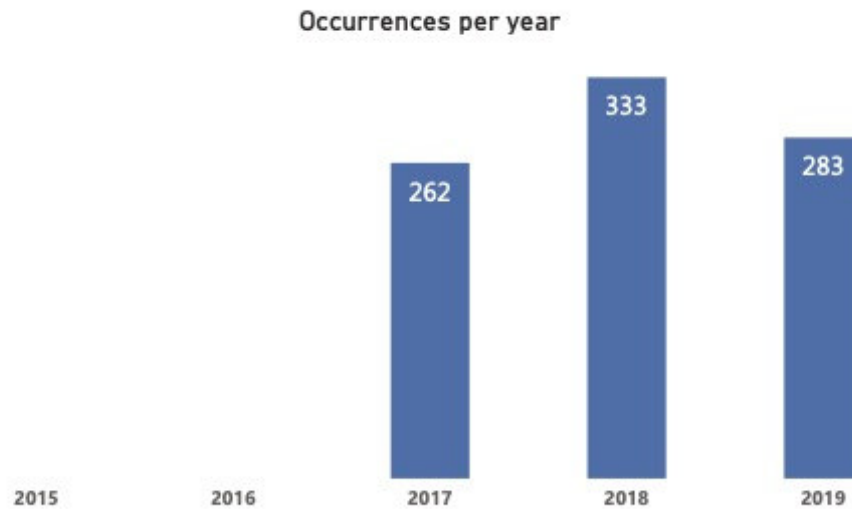
In the period 2017-2019 the value of the indicator fluctuates between 284 and 379 around the average value of 331 with a slightly decrease (-6%) in the year 2019. Therefore a clear trend cannot yet be recognized.

**Note:** the first two years (2014-2015) eE-MOR system recorded data do not include reports that has been provided by the ANSPs by other means.





## SPI-O-13 SMI - Separation Minimum Infringements



In the period 2017-2019 the value of the indicator fluctuates between 262 and 333 around the average value of 297 with a significant decrease (-15%) in the year 2019. Therefore a clear trend cannot yet be recognized.

**Note:** the first two years (2014-2015) eE-MOR system recorded data do not include reports that has been provided by the ANSPs by other means.

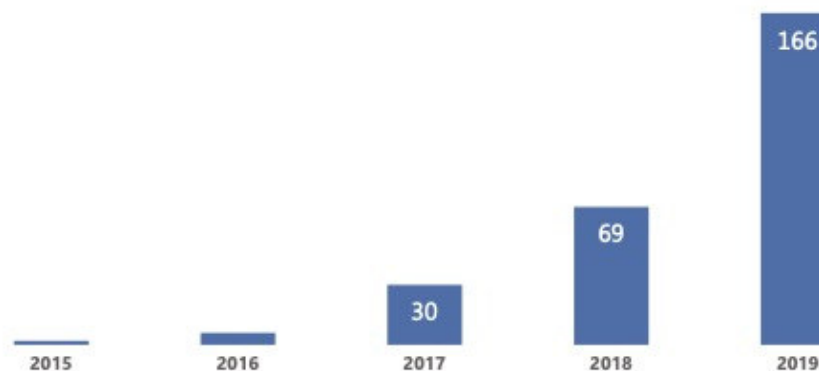




## SPI-O-14 ATM failure - Serious technical failures



Occurrences per year

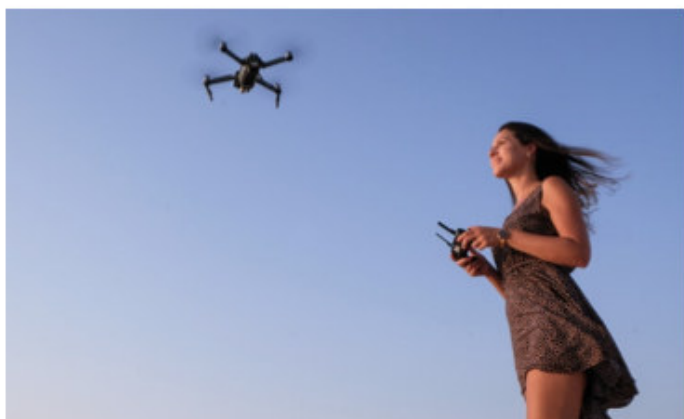
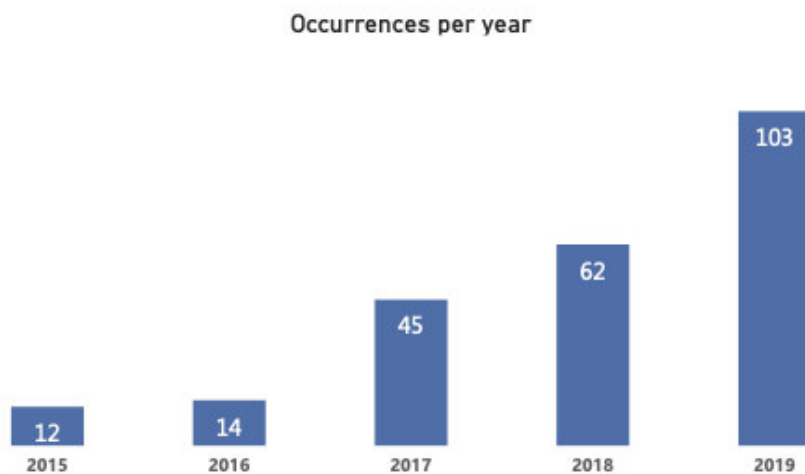


The trend of **ATM failures** shows a significant increase in the period 2017-2019 (+130% in 2018, +130% in 2019) probably due to a better reporting culture and not to a real increase of incidents.

**Note:** the first two years (2014-2015) eE-MOR system recorded data do not include reports that has been provided by the ANSPs by other means.



## SPI-O-15 APR - Interferences of APR with manned aircraft during take-off or landing



The trend of **APR interferences with manned aircraft** shows a constant increase with a major step in the year 2019 (+ 220%) probably due to also to a better reporting culture.





## 7.2 Process Oriented [systemic SPI]

Codice	SPI	Indicator description	Data source [ref. § 3]
SPI-S-01A	Ramp Inspections performed	Ramp Inspections performed, on annual basis, in respect of EASA target	Foreign Operator Unit
SPI-S-01B	ACAM inspection performed	ACAM inspection performed, on annual basis, in respect of ENAC target	Technical Oversight Directorate
SPI-S-03A	Occurrences reported by private pilots	Number, on an annual basis, of occurrence reported by general aviation private pilot, in compliance with Reg. (EU) 2015/1018 Annex V, as indicator of the spread of Safety Culture principles in this sector	3.A
SPI-S-03B	Occurrences reported by APR pilot/operators	Number, on an annual basis, of occurrence reported by APR pilot/operators in compliance with ENAC Reg. “ <i>Mezzi aerei a pilotaggio remoto</i> ” art.29 as indicator of the spread of Safety Culture principles in this sector	3.A
SPI-S-04	Training activities on aviation safety	Number of course days for training activities carried out on subjects directly related to aviation Safety	Human Resources Unit
SPI-S-05 <sup>3</sup>	Annual rate (for each domain) of non-compliance raised to approved Organization for renewal	Ratio of number of non-compliances (findings), on an annual basis, raised to approved Organization and number of approvals renewal audits granted in accordance with EU regulations	EMPIC system
SPI-S-06	Reactivity index to Safety Recommendations issued by ANSV	Percentage, on an annual basis, between the number of Safety Recommendations received by ANSV and the number of FACTORS issued by ENAC within the terms of the Reg. (EU) 376/2014 (90 days)	Safety Unit

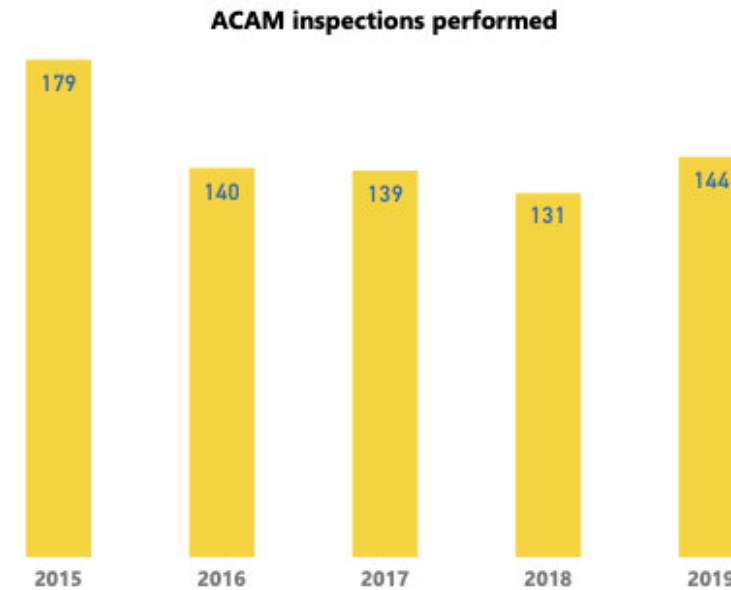
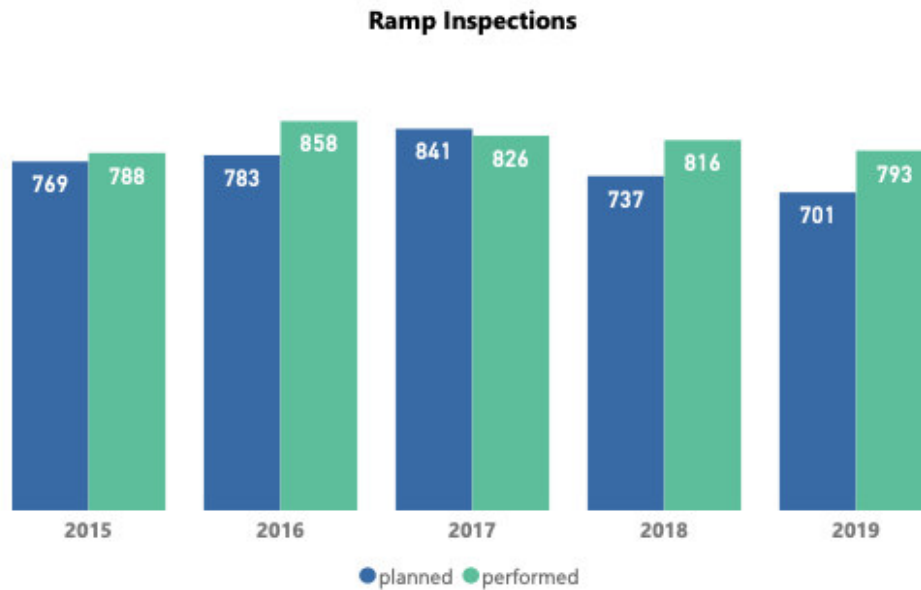
<sup>3</sup> this SPI will be analyzed in the next edition of the ENAC Safety Report





## SPI-S-01A Ramp Inspections

## SPI-S-01B ACAM Inspections



### Ramp Inspections

Except for 2017, the number of inspections performed exceeded the number of inspections planned.

Note: for the year 2019 the EASA target set for Italy was between 658 and 744 inspections and, therefore, the average value of 701 has been considered.

### ACAM Inspections

The number of planned inspections is not shown because the sampling approach has been reviewed few times in order to focus on aircraft fleets not yet inspected.

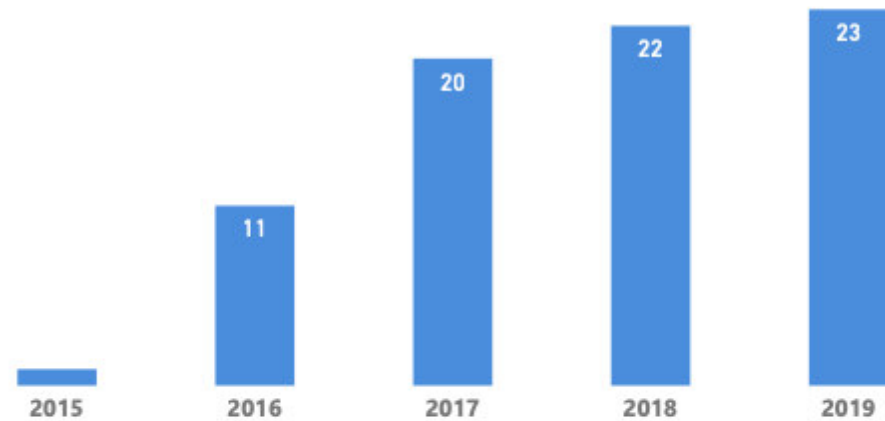




## SPI-S-03A Occurrences reported by private pilots



MOR's received

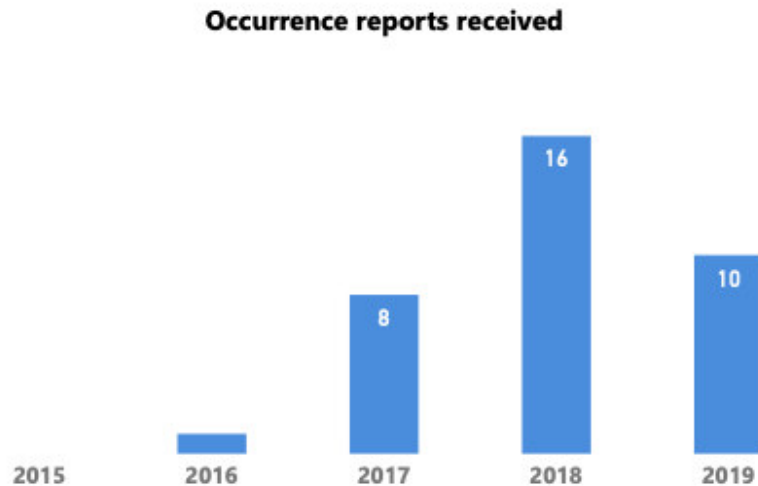


The very limited number of MOR's received by ENAC does not allow a valid statistical analysis.

Therefore a Safety Promotion activity should be introduced in the future edition of the State Plan for Aviation Safety in order to be sure that GA pilots are informed about the obligation to report occurrences to ENAC (ref. Regulation (UE) 376/2014 and (UE) 2015/1018).



## SPI-S-03B Occurrences reported by APR pilots/operators



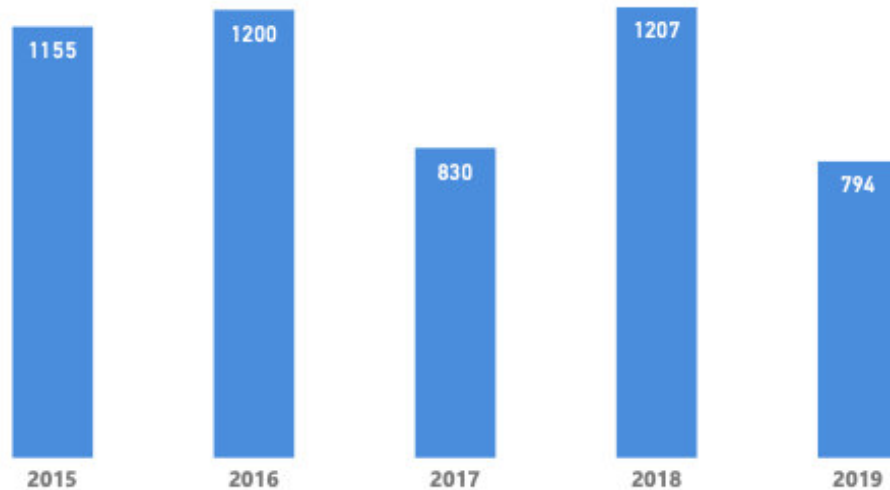
The very limited number of reports received does not allow for a valid statistical analysis. The data available for year 2019 show, moreover, a substantial decrease of the reports which are much lower than the occurrences that have really occurred.

This can be partially explained by the regulatory framework that has been constantly changing in the past years. Therefore a Safety Promotion activity should be introduced in the future edition of the State Plan for Aviation Safety in order to inform APR operators/pilots about the obligation to report occurrences.



## SPI-S-04 Training activities on aviation safety

Training days per year



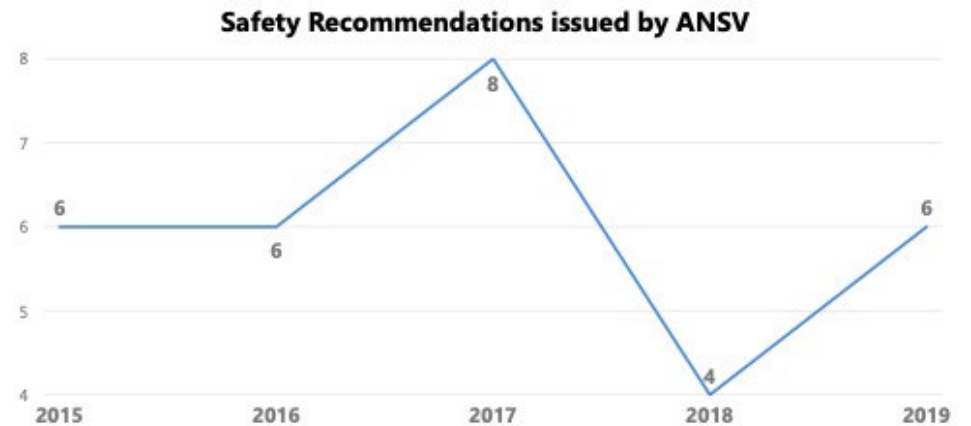
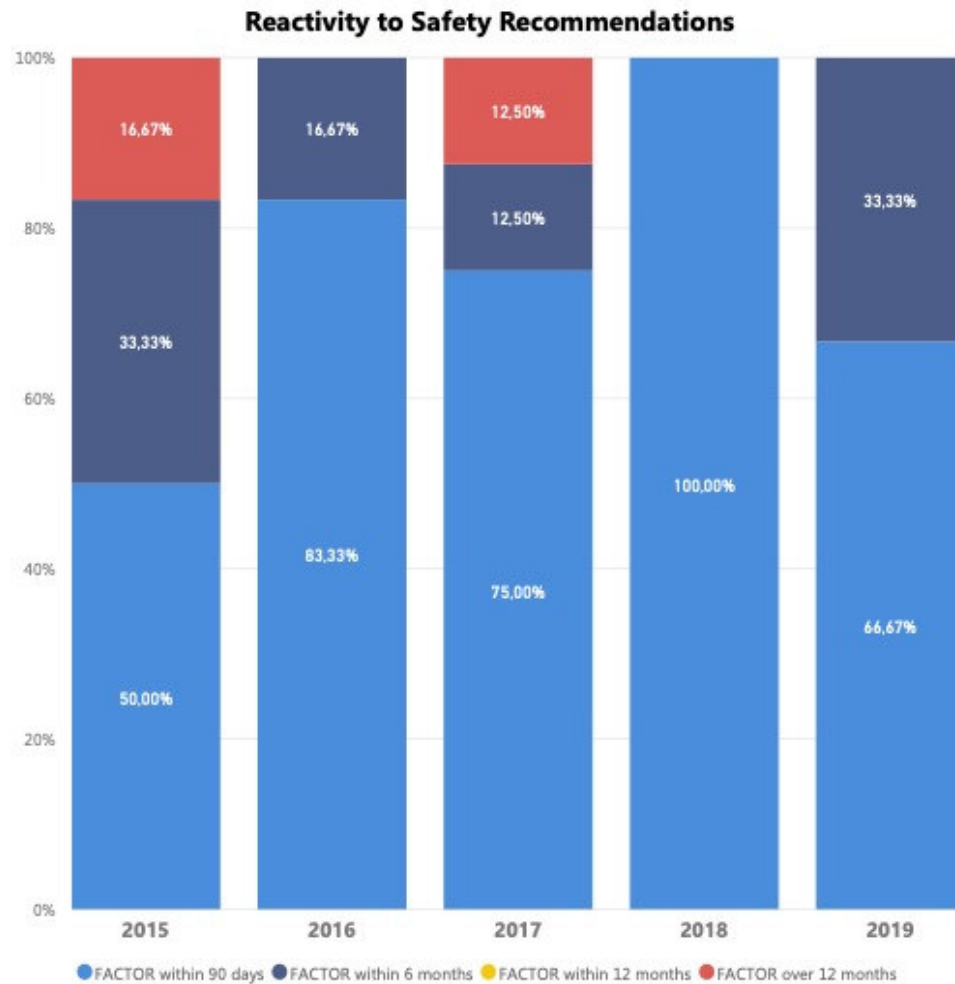
The value fluctuates between 1207 (the maximum value in 2018) and 794 (the minimum value in the 2019). The fluctuation can be explained either with external factors (i.e budget constraints, EASA requirements) either with internal factors (like the retirement or the re-qualification of personnel).

Furthermore, due to a significant recruitment of new inspectors occurred in the last two years (2019 and 2020), is still necessary to wait at least the 2020 value to try to establish a safety performance target.





## SPI-S-06 Reactivity index to Safety Recommendations issued by ANSV



The ratio of ENAC replays within 90 days to Safety Recommendations fluctuates between 50% (in 2015) and 100% (in 2018).

**Note:** Only in 2015 and 2017 a little percentage of Safety Recommendations were followed by a FACTOR after more than 1 year. Furthermore FACTORs that in 2019 exceeded the limit exceeded it by only a few days.

A positive trend can be therefore recognized and a safety performance target could be defined for the coming years.





## Conclusions

This Safety Report is the update of the original report 2015-2018, published to include the 2019 data. Data analyzed are those relating to the Safety Performance Indicators [SPIs], as revised in July 2020.

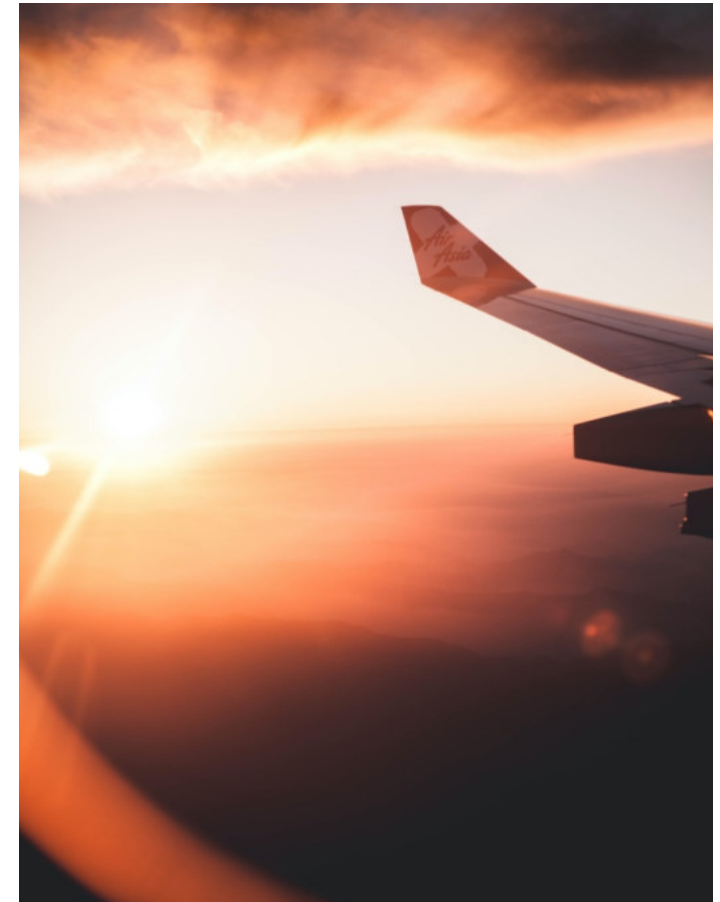
The analysis carried out had the following purposes:

- verify SPIs trend in the five-year period 2015-2019 in order to identify, as much as possible, is Safety Performance Targets [SPTs] can be established
- verify if the SPIs chosen are realistic and significant and, eventually, to obtain suggestions to adapt or modify them
- be an assessment tool to verify the effectiveness of any action of the Safety Plan (n.d.r. now *State Plan for Aviation Safety*) associated to each SPI.

The result of the analysis is positive, and data substantially supported the expected indications.

For some Safety Performance Indicators (i.e. SPI-O-07, SPI-O-08) data collected seem mature enough to try to define the associated Safety Performance Targets; however it is clear that for others (i.e. SPI-O-01, SPI-O-02) is more appropriate to await the analysis of the 2020 data before formulating realistic hypotheses.

Furthermore, is evident that an additional work is required to have a fine tune of some SPIs that could be better characterized (i.e. to convert the absolute values, where still used, in rates).



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