MINISTRY OF TRANSPORTATION REPUBLIC OF INDONESIA DIRECTORATE GENERAL OF CIVIL AVIATION

RESPINSE



RESPONSE

Safety Bulletin

RESPONSE Safety Bulletin provide information on actual or potential safety deficiencies based Mandatory on Occurrence Report (MOR) and Voluntary Reporting System (VRS), including SSP implementation progress overview in Indonesia. The Bulletin aims to share the information as a form of safety promotion to the aviation community and fulfils an important SSP's element of reporting responsibilities to the wider aviation community



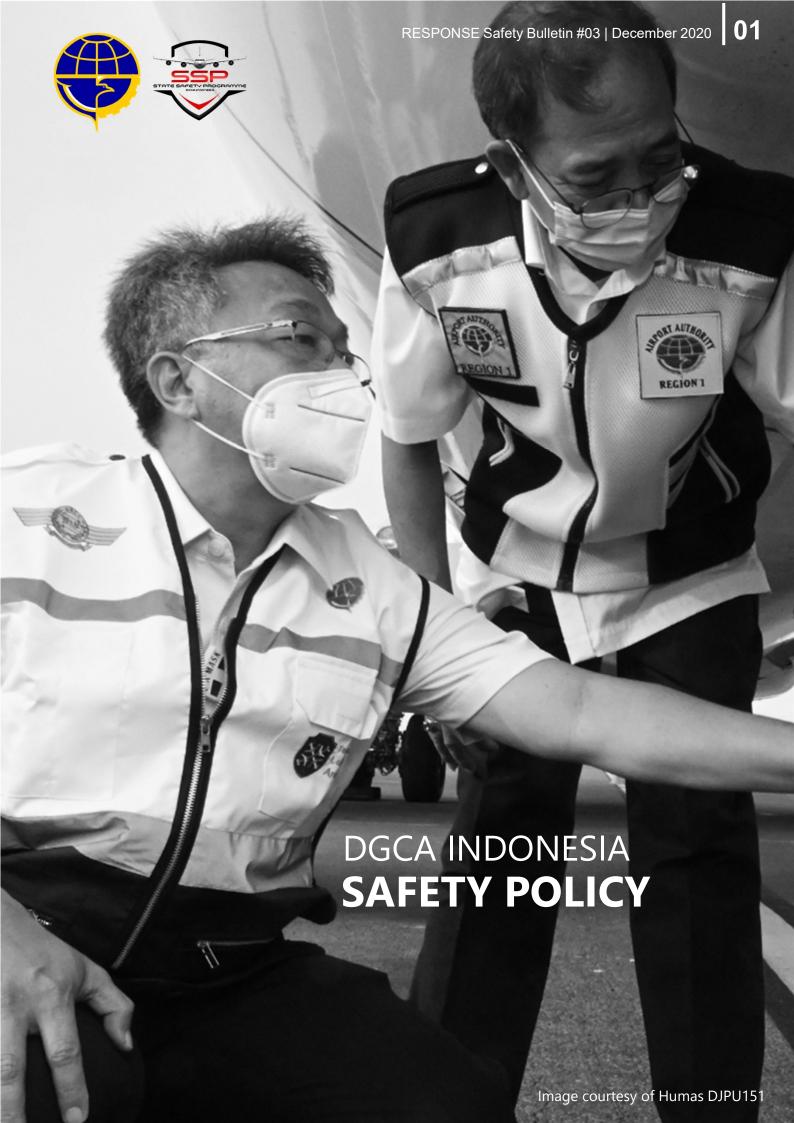
Website: https://imsis-djpu.dephub.go.id/voluntary-reporting-system/voluntary/show Email: vision_ssp@dephub.go.id



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DGCA INDONESIA

SAFETY POLICY



The Ministry of Transportation Republic of Indonesia c.q. Directorate General of Civil Aviation is committed to establishing, implementing maintaining and continuous improving strategies and processes to ensure that all of our activities take place under a balanced allocation of organizational resources, aimed at achieving the highest practicable level of safety performance and meeting national and international standard.

Our commitment is to:

- 1. Set rules and regulations that are in line with the Standards, Recommended Practices and Procedures of the ICAO; where to do so is in Republic of Indonesia's best interest;
- 2. Encourage the adoption of a data-driven and performance-based approach to safety regulation where appropriate;
- 3. Identify safety trends within the aviation industry and adopt a risk-based approach to industry surveillance activities to address areas of greater safety concern or need;
- 4. Monitor and measure the safety performance of our aviation system continuously through the DGCA's aggregate safety performance indicators as well as service providers' safety performance indicators;
- 5. Actively collaborate and consult with the aviation sector, including the public, to identify and address safety matters and continuously enhance aviation safety;
- 6. Promote good safety practices and a positive safety culture within the aviation industry based on sound safety management principles;
- 7. Encourage safety information collection, analysis, sharing and exchange amongst all relevant industry organizations and service providers, with the intent that such information is to be used for safety management purposes only;
- 8. Allocate sufficient financial and human resources for effective safety management implementation including State Safety Programme; and
- 9. Equip staff with the proper skills and expertise to discharge their safety management responsibilities competently.

Accountable Executive

Novie Riyanto R (Director General of Civil Aviation)



SAFETY

OVERVIEW

The safety in Indonesia Aviation is our business and our top priority. Along with other DGCA Indonesia lines of business, State Safety Programme is working tirelessly to take a more proactive approach to instills a culture of safety both inside the DGCA Indonesia and within the aviation community that We regulate.

A graph plotted in Figure 1 is based on reported Mandatory Occurrence Report (MOR) 2020 for AOC 121 and AOC 135 as required by CASR Part 830 and CASR Part 19. For all reported MOR in January – November 2020, there are 24 occurrences investigated by KNKT i.a.w CASR Part 830 and for the rest investigated internally by Operator i.a.w CASR Part 19 under DGCA supervision.

The statistic in Figure 1 shows that the MOR has increased significantly. It is likely that SSP campaign on MOR reporting has brought good result. Significant rise of MOR reporting are still expected due to SSP improvement on several identified problem areas. MOR data 2020 can be categorized using The Commercial Aviation Safety Team/ICAO Common Taxonomy Team (CICTT) taxonomy as shown in Figure 2. In Figure 2 shows the top 5 (five) reported MOR in 2020. These top 5 (five) reported MOR will be DGCA top 5 (five) challenges. Precise, coordinated and to the point measurement and action will be required in the coming years to reduce the number of the occurrence.

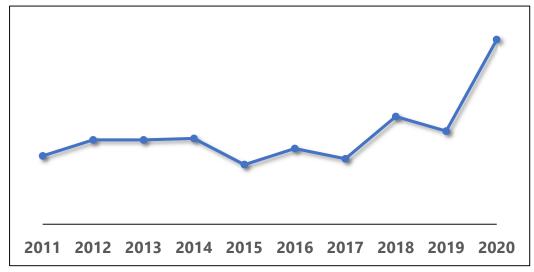
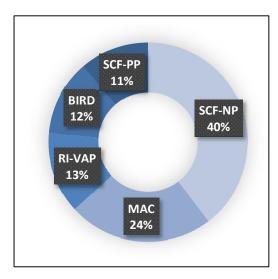


Figure 1. Reported MOR 2011 - 2020

SAFETY OVERVIEWRESPONSE Safety Bulletin #03 | December 2020



Acronym	Term
	System/component failure or
SCF-NP	malfunction (non-powerplant)
	Airprox/ ACAS alert/ loss of
MAC	separation/ (near) midair collisions
	Runway incursion - vehicle, aircraft or
RI-VAP	person
BIRD	Birdstrike
SCF-PP	Powerplant failure or malfunction

Figure 2. Top 5 Reported MOR 2020

The Covid-19 pandemic also impacted safety oversight in Indonesia. DGCA Indonesia must react and adapt to various challenges and restrictions resulting from the pandemic. In order not to significantly decrease the effectiveness of safety oversight, DGCA Indonesia refocus, modify, and reallocate resources available during this period of Covid-19 pandemic. Risk based safety oversight is inevitable, remote or distance mechanism of conducting oversight is employed, and DGCA also learned from best practices advocated by ICAO or methods performed by other CAAs. In almost a year enduring the pandemic, those modified safety oversight methods will be reviewed for better practices in the future.





Image courtesy of DAAO

This picture was taken before COVID-19

VOLUNTARY

REPORTING SYSTEM

Voluntary Reporting System is a system that enables aviation personnel to report voluntarily on actual or potential safety deficiencies in their areas that would otherwise not be reported through other channels, in order to enhance aviation safety. The collected data will be followed up and analyzed as basis materials for conducting hazard identification.

The objective of the Voluntary Reporting System is to enhance aviation safety through the collection of reports on actual or potential safety deficiencies that would otherwise not be reported through other channels.

Every year DGCA Indonesia publishes RESPONSE Safety Bulletin whose content comes from Voluntary Reports reported by aviation service providers

The reports that have been collected in DGCA Indonesia SSP VRS Portal since the first edition of the RESPONSE Safety Bulletin were published are 795 report as shown in Figure 3.

Go report
your valuable
experience and
share it to
aviation
community

We will never punish a reporter by using the information

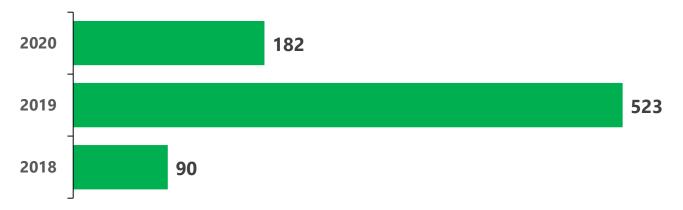


Figure 3. Collected VRS from 1st -3rd Bulletin

Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020

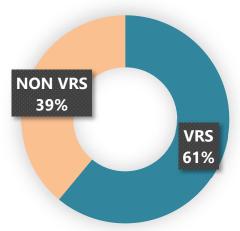


Figure 4. Reported VRS 2020

We will protect your identity, so please put your identity correctly and keep report

Based on reports that were collected into the VRS SSP DGCA portal, there were 182 reports. After a screening process of the 182 reports, 39% of reports collected in 2020 were not included in the VRS category according to SI 19-02, as in Figure 4. Reports in the Non-VRS category are due to the unclear identity of the reporter, such as not including their name, telephone number and email address incorrectly, making it difficult to follow up.

From 61 % valid VRS were reported to the SSP Portal in 2020. We present a selection of safety topics which are particularly relevant to 2020. We used the following criteria in selecting these safety topics:

- Analysis of safety occurrences: balance between the number of occurrences reported and the hazard presented.
- · Public and media enquiries
- Input from DGCA Subject Matter Experts

The results of the analysis conducted by the SSP DGCA Indonesia team from the Valid VRS reports collected during 2020. We found the highlighted safety topics 2020. For this reason, the DGCA Indonesia SSP team analyze the events reported by the VRS portal that were related to highlighted safety topics in 2020 as in Figure 5.

List of VRS Safety Topics 2020	Navigation Aid	Wildlife	Runway Surface
	Refuelling	Marking	Communication
	Another Airborne Object	TCAS-TA	Foreign Object Debris

Figure 5. List of VRS Safety Topics 2020

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CATEGORY: LARGE AIRCRAFT / ATC

NAVIGATION AID

Making go around due to glide Slope ILS not Proper Condition

Making go around due to glide Slope ILS on AAA not on proper Condition (too low), Then We doing mandatory Missed approach due to can't maintain and established visual reference.

VISION comment

- It is important for all flight crews to report any navigation aid anomalies when it was occurred during flight to the ATS unit.
- It is essential for ANSP to ensure the performance of navigation aid by conduct several measures as necessary.

Making go around due to glide Slope ILS suddenly unserviceable

Go around due to unstabilize approach, ILS suddenly unserviceable, We continue with visual, but We were unstable and make go around

VISION comment

- It is important for all flight crews to report any navigation aid anomalies when it was occurred during in flight to the ATS unit.
- It is essential for ANSP to ensure the performance of navigation aid by conduct several measures as necessary.

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CATEGORY: LARGE AIRCRAFT / ATC

Glide slope unserviceable but not listed in NOTAM

Approach ILS runway YYY and glide slope not alive, when contact to XXX tower they said glide slope unserviceable but not listed in NOTAM, continue approach localizer only follow LOC VNAV, then glide slope aural warning horn, all approach on path and stabilize, continue visual until landed safely Runway YYY

VISION comment

- It is necessary to issue NOTAM if there is any Nav-Aid failure
- It is essential for ANSP to ensure the availability of navigation aid

Lost of the NAV-AID of ILS during ILS approach

During ILS approach We lost the NAV-AID of ILS. We decide to going around climb 3000 by radar. We follow vector and make another approach of VOR runway AAA, We landed safely..

VISION comment

- It is important for all flight crews to report any navigation aid anomalies in flight to the ATS unit.
- It is essential for ANSP to ensure the performance of navigation aid by conduct several measures as necessary.



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CATEGORY: LARGE AIRCRAFT / ATC

WILDLIFE

Making go around for approach RWXX due to animal on the Runway

Cancel approach by ATC and Making go around for approach Runway XXX due to animal on the Runway. Expect approach ILS Runway XXX, after leaving VOR 4500ft already flap 5, continue descend to 2200ft follow VNAV and continue to gear down, flap 15. ATC inform us to cancel approach due to animal on the Runway and continue to climb 4500ft to VOR and hold. We do go-around procedure, After 2 times Holding, ATC gives us clearance to approach again ILS runway XXX. Continue approach and landed safely

Two flock of stork around taxiway and runway

We saw more than two flock of stork around taxiway and runway. We were waiting them to go away while the car has done a chase birds away from runway. Aircraft XXX took off after both of We and Tower are sure which the runway is cleared of them. It's also happened at previously day with Aircraft XXX

VISION comment

it is important to ensure the implementation of Wildlife Hazard Management and having coordination with local government if necessary.



VISION comment

it is important to ensure the implementation of Wildlife Hazard Management and having coordination with local government if necessary.

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CATEGORY: LARGE AIRCRAFT / ATC

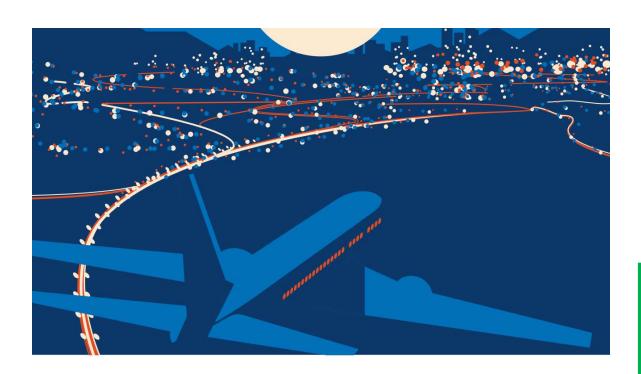
TCAS-TA

TCAS-TA on due to High Vertical Speed

TCAS TA ON departure XXX on frequency XXX MHz. Instruct from XXX radar maintain FL 150. We already using vertical speed <1000ft/minutes when passing FL 130 (2 thousand feet to level off). I think the other traffic vertical speed more than 1000ft\minutes.

VISION comment

It is necessary to improve situational awareness for pilot. It is also recommended to follow AIC no. 2 / 2016 about Vertical Rates Adjustment for ACAS/TCAS II RA Caused by High Vertical Rates.





Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020

CATEGORY: LARGE AIRCRAFT / ATC

ANOTHER AIRBORNE OBJECT (KITES)

There were 3 kites in the approach runway

When the Aircraft XXX was in the final approach position, the pilot informed ATC that there were 3 kites in the Approach runway XXX area with the following distances: 1. Distance 3.7 NM from an altitude of 1000 - 1200 feet 2. Distance 2.3 NM from altitude <700 feet 3. Distance 1.1 NM and altitude <300 feet.

VISION comment

- It is important to coordinate with local governments to fix the problem. Meanwhile airport operator can publish the condition if there is a lot of flying kites to increase awareness of pilot.
- it is advisable for the airport operator to request NOTAM to ANSP if there is a lot of flying kites around the airport

FOREIGN OBJECT DEBRIS

Go-Around due to FOD and unexpected runway inspection

A few moment after clear for approach ILS Runway XXX, tower instructed us for making Go-Around due to FOD on the runway and Unexpected runway inspection. And We making go-around follow ATC instruction radar vector to point XXX 3500ft. And make One holding over point XXX and then continue landing safely.

VISION comment

it is important to consistently conduct runway inspection and take immediate action to fix the problem

Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020

CATEGORY: LARGE AIRCRAFT / ATC

COMMUNICATION

Misunderstanding with ATC Instruction

Misunderstanding with ATC instruction. It should be parking stand No XXX, but We go to stand No YYY.

VISION comment

It is necessary for all flight crews to make confirmation to ATC if any unclear instruction then do action as instructed.

Traffic too dense and there is heavy CB above runway

Departure Runway XX with SID. After departure, ATC Director instruct us after XXX Point, Proceed right turn to VOR. The traffic at aerodrome at the moment was too dense, also there are CB above runway to the south. After XXX point We are making right turn, ATC inform us that what they mean was left turn. We do apologize and we're unable making left turn due to heavy CB. We monitored the traffic ahead, visibility below 1000ft. Aircraft safely climb to FL270 and landed at destination.

VISION comment

It is essential for all flight crews to improve situational awareness (double check between pilot and co-pilot) and inform the condition to ATC concerning the cause of track deviation.

Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020



CATEGORY: CABIN / MECHANIC / AIRPORT / OTHER

NAVIGATION AID

PAPI lights were not illuminated

During approach on hazy condition, conducted ILS Runway AAA. On final approach path about 5NM final pic requested to increase the brightness of PAPI lights and tower AAA acknowledge but crew found there were no PAPI light at all. After landing crew report to tower control that the PAPI lights were not illuminated at all.

VISION comment

It is important to issue NOTAM if there is any approach light failure. Based on that, the airport operator takes immediate action to inspect the condition and conduct mitigation

Unreliable PAPI Light

During ILS Approach at 400ft found out the PAPI Light shown all red, even though flight crew has been following glide slope through F/D until 400ft and correction by reduce vertical speed, PAPI was still showing 3 red 1 white. Glide Slope guidance showing that the aircraft above the glide. Suspect Unreliable PAPI Light

VISION comment

It is important to issue NOTAM if there is any approach light failure. Based on that, the airport operator takes immediate action to inspect the condition and conduct mitigation



Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020

CATEGORY: CABIN / MECHANIC / AIRPORT / OTHER

RUNWAY SURFACE

Irregularity runway surface

Aircraft experienced soft bounced right after touchdown which indicates possibility of irregularity runway surface encounter during touchdown

VISION comment

- it is important to issue NOTAM if there is any abnormal runway surface. Based on that, the airport operator takes immediate action to inspect the condition and conduct mitigation
- it is important for airport operator to resolve height variation of the runway and uneven runway surface

Aircraft doesn't move during taxi in high thrust

When holding on NP2 point (between N2 and N9), the ATC instruct to continue taxi but suddenly the ATC instruct to hold on short N1 (between N2 and N1). The ATC instruct to the pilot to hold after one traffic departed and two traffic arrived. After the ATC give clearance for line-up, the pilot set thrust to 30% but the aircraft does not move then the pilot increase thrust up to 40% and aircraft still does not move. The pilot increase thrust up to 50% but aircraft still does not move. The pilot check the situation for any no FOD or other aircraft near them, after ensure everything clear, then the pilot decide to increase thrust approximately 60% and finally the aircraft move. After the aircraft moved, the pilot reduces thrust to 30%.

VISION comment

It is important for air transport operator if they found any abnormal condition. Based on that, it is essential for the airport operator to increase the awareness when receiving these kinds of reports and take immediate action to fix the problem.





Voluntary Information for Safety Improvement in Aviation System (VISION) RESPONSE Safety Bulletin #03 | December 2020

CATEGORY: CABIN / MECHANIC / AIRPORT / OTHER

REFUELLING

Fuel spillage in the apron

Error in the variable stator vane which caused fuel leakage, causing fuel spillage in the apron at parking stand no. 11 covering an area of $(10 \times 1.5 \text{m})$ due to engine number 1 (one), and $(8 \times 0.5 \text{m})$ for engine number 2 (two). The damage was immediately repaired by XXX engineers and the spill was cleaned by ground handling.

VISION comment

It is necessary to have procedure or inspections to make sure the aircraft component and refueling tools and equipment are working properly during refueling.

MARKING

Pilot experienced difficulties on identifying taxiway marking

On taxiway XXX, Pilot experienced difficulties on identifying taxiway marking, taxiway sign and barricade/blockade which led to missed-maneuvering the aircraft until passing taxiway XXX. Aircraft then hold its position on taxiway XXX and checked by engineer. After all check has proven satisfactory by engineer, aircraft pushed back to intersection XXX and departed normally.

VISION comment

It is important for the airport operator to take immediate action to fix the problem and constantly conduct serviceability inspection.



MANDATORY

OCCURRENCE REPORT

Mandatory Occurrence Report (MOR) developed by DGCA and KNKT is to capture all of the valuable information about an occurrence, including: what happened, where, when and to whom the report is addressed.

In addition to that, Mandatory Occurrence Report (MOR) would also be able to capture of some specific hazards which are known to contribute to accidents, so normally occurrence report tend to collect more technical information.

Mandatory Occurrence Report (MOR) is renewed system managed by DGCA thru IMSIS Portal Database with user-friendly mindset. In 2020, DGCA managed confirm reports for AOC 121 and AOC 135, and classified into accident, serious incident and incident as shown at Figure 6.

For all reported MOR in January – November 2020, there are 24 occurrences investigated by KNKT i.a.w CASR Part 830 and for the rest investigated internally by Operator i.a.w CASR Part 19 under DGCA supervision.

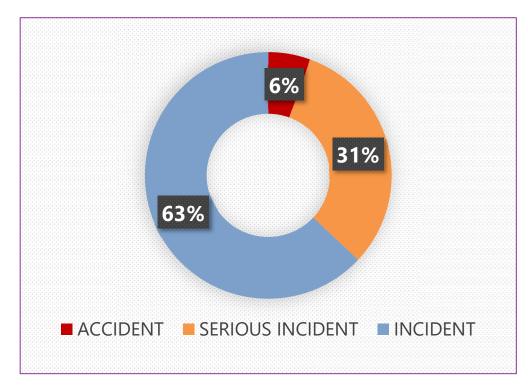


Figure 6. Confirm MOR during 2020

MANDATORY OCCURANCE REPORT RESPONSE Safety Bulletin #03 | December 2020

ACCIDENT

Accident for AOC 121 and AOC 135 in 2020 consist Runway Excursion (RE), Control Flight into Terrain (CFIT), and Abnormal Runway Contact (ARC). There is 1 (one) occurrence resulted 1 (one) fatality.

SERIOUS INCIDENT

Serious Incident for AOC 121 and AOC 135 in 2020 consist Airprox / ACAS Alert / Loss of Separation / (Near) Mid Air Collisions (MAC), Runway Excursion (RE), Malfunction of Non Power Plant Component (SCF-NP), Power Plant Component Failure (SCF-PP). Undershoot / Overshoot (USOS), Fire/Smoke (Not Impact) (F-NI), Ground Collision (GCOL), Runway Incursion - Vehicle, Aircraft or Person (RI-VAP), Turbulence Encounter (TURB).

By comparing data from the previous year, it will show that there is a significant increase of MAC occurrences. This might be because starting this year SSP already include EFFORT data from AirNAV. The connecting data is still in manual mode so not all data from AirNav are in SSP database. Starting next year SSP will continue its program to integrate SSP data with AirNav database. Another significant rise of MOR data will be likely to happen again due to the vast coverage of AirNav database.

INCIDENT

Incident for AOC 121 and AOC 135 in 2020 consist Malfunction of Non Power Plant Component (SCF-NP), Runway Incursion - Vehicle, Aircraft or Person (RI-VAP), Birdstrike (BIRD), Power Plant Component Failure (SCF-PP), and Airprox / ACAS Alert / Loss of Separation / (Near) Mid Air Collisions (MAC).

From this data DGCA will know what kind of incident contribute most and which operator that experience them. This data can be used to make surveillance program for the next year.



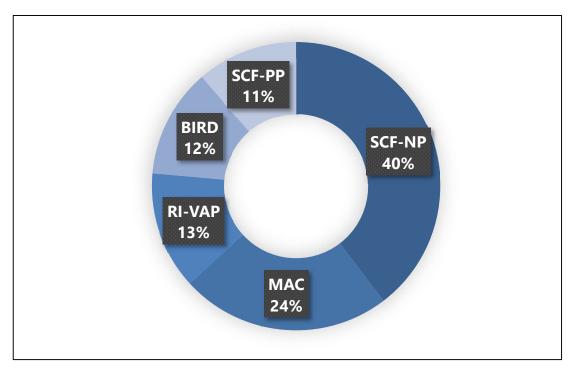


Figure 7. Top 5 Reported MOR 2020

SCF-NP

Defines as: Rotorcraft main rotor and tail rotor system, drive system and flight control failures or malfunctions, errors or failures in software and database systems, non-powerplant parts or pieces separating from an aircraft, failures/malfunctions of ground-based launch or recovery systems equipment and all failures/malfunctions, including those related to or caused by maintenance issues.

In 2020, We recognize that there is strong interest in Airspeed/Mach indication event, particularly related to instrument which measures and indicates speed of the aircraft such as unreliable airspeed during take-off. This occurrence mostly happen on large fix aeroplane and result significant amount of Rejected take-off event.

Other occurrences have significant contribution is brake and tire failure related event such as flat tire, brake lost and failure of down and lock gear. Trend of this show that flat tire and brake lost significant related to small fix aeroplane on unpaved and remote runway (airstrip)

However, There are several other contribution regarding System Component Failure – Non-Power Plant, but those two occurrence already included DGCA Indonesia in performance-based oversight program to monitor this issue on Operation, Airworthiness and Airport side based on feed back of this.

MAC

Define as: Airprox, ACAS alerts, loss of separation as well as (near) mid air collisions or collisions between aircraft in flight including all collisions between aircraft while both aircraft are airborne, Both air traffic control and cockpit crew separation-related occurrences are included, To be used for AIRPROX reports and Genuine TCAS alerts are included here.

Airprox events reported involving civil aircraft was submitted by Civil Aircraft Operator and Air Navigation Provider and managed (verified) by DGCA. One of the Safety Issue that Non equip TCAS/ACAS Aircraft such as Military Aircraft, Small Helicopter and Aircraft & Training Aircraft. Those are domestic safety concern and is why We work closely with Military Authorities, and industry to encourage safe operation.

The highlight area contribute of this occurrence mostly near designated Training Area such as Batam, Banyuwangi and Malang (*Military Training Area*) and also (over the airspace with high density traffic) the greatest of traffic clearly lies in the Cengkareng, Sentani and Wamena.

The team recognises that the safeguards can be less effective for aircraft are not equipped with a radio or a transponder (a device that communicates an aircraft's position and flight path information).

DGCA has set Airprox as one of the safety performance indicators (SPI) in air navigation area. In order to keep Airprox Occurrence at an acceptable level, DGCA Indonesia conduct the Quarterly Airprox Meeting involving KNKT, DAAO, DAN, ANSP, and Airline to determine root cause and the preventive actions.

DGCA regularly conduct The Civil – Military Coordination Forum to discusses safety issues (including airprox) involving military aircraft.

During the COVID-19 pandemic, DGCA Indonesia reminded ANSP and Airline to maintain safety awareness to potential occurrence, including airprox.

RUNWAY INCURSION

Define as: 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.

In fact, there are events in particularly could leads to be runway incursion occurrence which is likely happened at Cengkareng and east of Indonesia an. First, 53% event caused risk of collision and evasive action taken by an aircraft to avoid, a vehicle or other aircraft on a runway in use such as vehicle movement during runway maintenance activity and go around due to avoid other aircraft on the line up area.

Second, rest of the event regarding risk of collision and evasive action taken by an aircraft to avoid, a person or animal on a runway in use. Data shows that the event commonly rise up on the fenceless airport. DGCA established working grup known as Indonesia Runway Safety Team consist of Air Operator, Air Navigation Provider and Aerodrome Operator initiates this issue to be mitigate by publishing NOTAM, increase flight crew awareness and aerodrome surveilance. To improve effectiveness of Runway Safety Team, in March 2020. DGCA Indonesia has been assisted by ICAO Runway Safety Go Team.



BIRD: BIRDSTRIKE

Define as: Occurrences involving collisions / near collisions with or ingestion of one or several birds that could be occur in any phase of flight

In 2020, saw almost bird strikes in Indonesia, indicating a significant increase from previous year. Approximately user-friendly reporting line established recently in Indonesia. According to the data available, about 50% of the confirmed bird strikes in the Indonesia occurred at take-off phase.

It is worth noting that:

- Bird strikes in the Indonesia resulted in reported aircraft damage
- Bird strikes in the Indonesia had an operational impact on the flight such as the aircraft had to halt its take-off run and return to its take-off airport

Understanding more about the geography and habitat of a particular site, and identifying the bird species involved and their routines are among the fundamental steps necessary to create and implement an effective wildlife hazard management plan. We work closely with airlines, airports, Air Navigation Service Provider and other organisations and experts to identify, address and mitigate the potential risk of bird strikes. The Indonesia Wildlife Hazard Management Discussion Group is the national forum to present, share and discuss these safety issues.



MANDATORY OCCURANCE REPORT

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SCF-PP

Define as: Failures or malfunctions of any of the following: propellers, rotors, propeller/main rotor drive train (gearbox transmission), reversers, and powerplant controls, powerplant parts or pieces separating from a powerplant and all failures/malfunctions, including those related to or caused by maintenance issues.

This occurrence category falls into 5th place. Most common problem such as engine temperature, compressor stall, engine bleed air occur in large fix wing aircraft. The second common problem is engine oil pressure and quantity that occur in both Fix and Rotary Wing Aircraft.

According to data collected, the outcome of the occurrence category above resulted in Declare Emergency, Rejected Take Off, Engine Shutdown and Aircraft Return to Base/Apron. To manage this problem, DGCA is working closely with each Aircraft Operator to monitor the root cause of this occurrence on SDR (Service Difficulty Report) Program and the root cause itself could be the feed back to develop performance-based monitoring program.





SAFETY CIRCULAR

SE 47. YEAR 2020

Safety Circular SE 47 Year 2020 which has been issued by DGCA Indonesia aims to minimize the number of incidents, serious incidents and aircraft accidents in the territory of the Republic of Indonesia due to take off and landing in conditions that are less than the minimum weather requirements, it is necessary to increase flight operational compliance. during weather minima

Air Transport Operators, Air Navigation Service Providers, Airport Operators, and Aviation Meteorological Information Service Providers in the territory of the Republic of Indonesia, in carrying out operations when weather minima is obliged to implement provisions and preventive measures

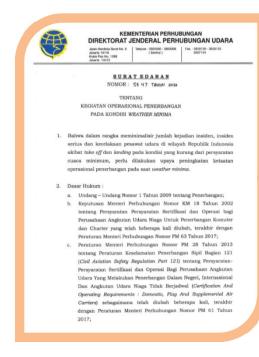


Figure 8. Safety Circular SE. 47. Year 2020

Air Transport Operators

Air Navigation Service Providers

Aviation Meteorological Information Service Providers

Airport Operators

DGCA Regional Office (DGCA Indonesia)

Directorate of Airworthiness & Aircraft Operation (DGCA Indonesia)

Directorate of Air Navigation (DGCA Indonesia)

Directorate of Airport (DGCA Indonesia)

AIR TRANSPORT OPERATORS

- Comply with minimum weather requirements during dispatch, take off & landing in accordance with the Standard Operating Procedure (SOP) and applicable regulations (for VFR visibility of at least 3 SM or 4.8 km and a minimum ceiling of 1000 feet)
- Instruct the pilot in command to convey inflight / post flight weather observation to the Air Traffic Services (ATS) unit regarding weather conditions, CB clouds, turbulence, windshear and other information related to flight safety;
- 3. Prepare a flight following system that can provide the latest weather information to the pilot in command
- Make hand over control procedures according to Safety Circular No. SE 013 / DKPPU / X / 2019
- 5. Perform preventive measures & requirements according to Safety Circular No. SE 003 Year 2018 consistently and continuously.

AIR NAVIGATION SERVICE PROVIDERS

- Prepare and implement a Standard Operating Procedure (SOP) for handling aircraft in a visibility below minima;
- 2. Informing below-minima visibility conditions at airports due to weather changes (FOG, MIST, HAZE, RAIN) are included in the category of temporary disturbances at visibility around airports and / or heliports that do not affect the safety of aircraft operations in accordance with the provisions of CASR Part 175 regarding Information NOTAMs should not publish;
- 3. Convey information immediately in case of significant weather changes, especially in the approach and landing phase in the event of low visibility conditions according to information from the Aviation Meteorological Information Service Unit to:
 - a. Pilot in command using Air to Ground (A
 / G) communication tools or in Automatic Terminal Information Services (ATIS);
 - b. The associated unit uses a ground to ground (G / G) communication device.
- 4. Improve coordination with related units for handling aircraft in visibility below minima

AIRPORT OPERATORS

- 1. Establish and implement a Standard Operating Procedure (SOP) for airport services in conditions of visibility below minima
- 2. Perform visibility measurements along the runway and report to the Air Traffic Services (ATS) unit
- 3. Carry out arrangements and minimize vehicle movement in the movement area during periods of low visibility operation;
- 4. Perform inspections of the movement area during low visibility operations;
- 5. Temporarily suspend the application of Slot Management if the weather conditions do not meet the minimum weather requirements for flight operations.



SAFETY CIRCULAR SE. NO 47. 2020

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AVIATION METEOROLOGICAL INFORMATION SERVICE PROVIDERS

- Ensure the delivery of the latest weather information to the Air Traffic Services (ATS) unit to be immediately submitted to the pilot in command, especially in the approach and landing phase
- Continuously updating weather data and information, both through proprietary weather sensors and based on AIREP for consideration in conducting flight operations.





DGCA INDONESIA

- 1. The Chief of the DGCA Regional Office is instructed to immediately report to the Director General of Civil Aviation if there is disturbance of low visibility conditions at airports under their jurisdiction and it affects delayed flights, cancelled flights, and diverted flights.
- 2. The Director of Airworthiness and Aircraft Operations, the Director of Airports and the Director of Air Navigation shall supervise the implementation of Safety Circular SE. No. 47 Year 2020.



SSP GAP ANALYSIS

OVERVIEW

Before developing an SSP (State Safety Programme) implementation plan, a gap analysis of existing State structures and processes against the ICAO SSP framework is needed to assess the existence and maturity of the respective SSP elements. The elements or processes identified as requiring action as a result of the gap analysis will form the basis of the SSP implementation plan.

DGCA in Indonesia has conducted self assessment SSP GAP Analysis on February 28th, 2020. The result of self assessment SSP GAP Analysis as seen in Figure 9. Not only is DGCA as a regulator but also, it requires the involvement of all stakeholders involved in the aviation sector so that the implementation of the SSP can be realized / mature.



State Safety
Programme means
an integrated set
of legal acts
and activities
aimed at managing
civil aviation safety
in the State



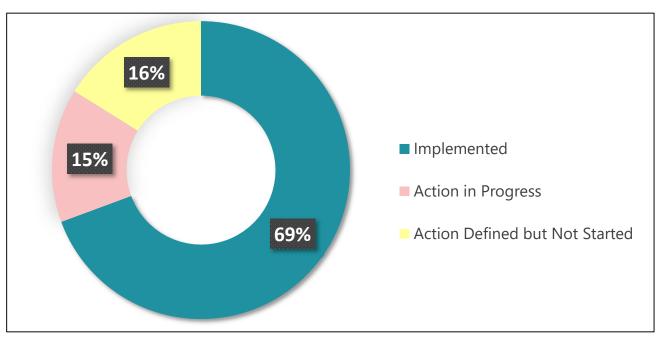


Figure 9. SSP GAP Analisys

SSP **PROTOCOL QUESTIONS OVERVIEW**







SSP

PROTOCOL QUESTIONS OVERVIEW

Total of 299 among 943 ICAO USOAP Protocol Questions (PQs) are used to assess the foundation of an effective State Safety Programme (SSP) as referred to an "SSP Foundation PQs". Based on ICAO Coordinated Validation Mission (ICVM) report in 2017 and implementation Corrective Action Plan (CAP) Open PQs ICAO USOAP, the Effective Implementation (EI) score 2020 for SSP Foundation PQs is 82,04% whereas above the average of APAC score 63,77%. Corrective Action Plan (CAP) has been implemented in regards to the Open PQs and resulted in the completion of 29 Foundation PQs out of total 80 Open PQs or left 17,96% Open PQs to be targeted Closed in the next year plan.

DGCA Indonesia has included the completion of Open SSP Foundation PQs as part of its SSP implementation plan.

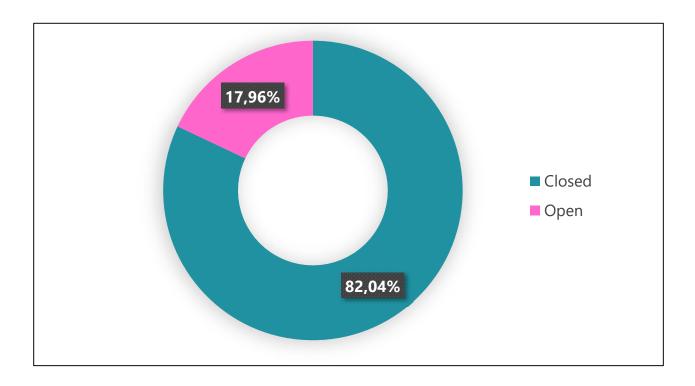


Figure 10. SSP Foundation Protocol Questions (PQs) Status 2020



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ALoSP

The ALoSP (Acceptable Level of Safety Performance) expresses the safety levels the State expects of its aviation system. Currently, DGCA Indonesia has established safety performance indicators for each service providers to determine the acceptable level of safety in Indonesia as shown in Figure 11.

Figure 11. DGCA Indonesia Safety Performance Indicators

No	Service Providers	Safety Performance Indicators
1	AOC 121	Loss of Separation incidents/ airprox/ nearmiss (with Cockpit crew involvement) Runway Excursion (with Cockpit crew involvement) Unstabilized approach Go around after unstabilized approach Voluntary report related presence of wildlife (Airside) Return to base and/or aborted take off Hard overweight landing

Reference: KP. No 46 Year 2020

	Runway Excursion (with Cockpit crew involvement) Controlled Flight Into Terrain (CFIT) (with Cockpit crew involvement) Go around
2 AOC 135	Voluntary report alert Terrain Awareness Warning System (TAWS) Voluntary report alert related presence of aircraft, vehicle, person, and animal (Airside) Return to base and/or aborted take off Voluntary report hard landings, crabbed landings, nose wheel first touchdown

Reference: KP. No 46 Year 2020

3	AIRPORT OPERATOR	Runway Incursion (with no ATC involvement)
		Runway Excursion (with no ATC involvement)
		Ground Collision (Aircraft-Aircraft, Aircraft-Vehicle, and Vehicle-Vehicle)
		Bird Strike
		Damage in the Aircraft due to Foreign Object Debrish in the
		runway or taxiway or ramp

Reference: KP. No 222 Year 2017

No	Service Providers	Safety Performance Indicators
AIR NAVIGATION 4 SERVICE PROVIDER		Airprox Cat.A and Cat. B (with ANS contribution)
		Runway Incursion Cat. A and Cat. B (with ANS contribution)
	ATC Coordination Error between ATS Unit	
	ATC Readback-Hearback Issue	
		Availability of Aeronautical Telecomunication Facility
		Safety Occurrence Review
		Internal Safety Meeting
		External Safety Meeting

Reference: KP. No 203 Year 2020

