Civil Aviation Authority of Nepal

Aviation Safety Report 2021

FOREWORD

The prime objective of the establishment of Civil Aviation Authority of Nepal (CAAN) is to make the operation of national and international flights, air communication, air navigation and air transportation services safe, regular, standard and efficient.

Safety is the fundamental and foremost prioritized domain of aviation because there are lives involved in every operation of aircraft. The 193 countries including Nepal, who cooperate through ICAO, are currently working towards their agreed global safety target of zero fatality by 2030 along with the strengthening of their regulatory capacities, while pursuing a range of programmes and targets relevant to current core areas of global aviation safety planning, oversight and risk mitigation.

CAAN has been publishing the Aviation Safety Report annually in order to support the safety objectives. This Annual Safety Report (ASR) is an endeavor to promote safety through sharing of state safety information. It also reflects the level of CAAN's priority on safety promotion and enhancement.

This Safety Report, 2021 is the fifth edition of the Aviation Safety Report that started being published from 2016. It provides a summary on safety activities, initiatives and updates on safety indicators, reactive and proactive safety information, safety promotional activities and the progress on implementation of Nepal Aviation Safety Plan (NASP) 2018-2022. It is based on Safety data (mandatory and voluntary) collected by the State and operators, ICAO USOAP Audit Reports, and Accident Investigation Reports conducted by MoCTCA. It also depicts Nepal's status in USOAP Audit as well as in the field of SSP implementation.

I hope this report will successfully serve the purpose of its publication and play an important part in inculcating safety culture in the aviation stakeholders of Nepal.

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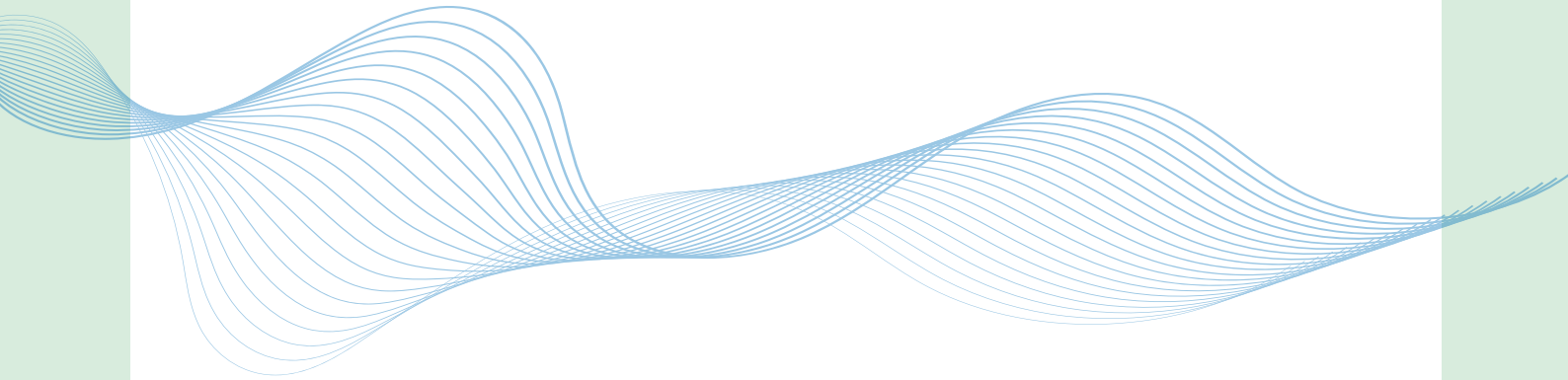

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EXECUTIVE SUMMARY

Nepal has diverse geographical and meteorological conditions since the geography ranges from Mountain region (3000m and above), to Hilly region (below3000 meters and above1000 meters) and Terai region (below1000 meters up to 60 meters above mean sea level). This composite distribution demands operation of different types of aircraft to connect all parts of nation.

With the limitations regarding types of aircraft operated in most of the STOL airfields with manoeuvring restrictions, the operations in different regions of Nepal pose different levels of complexity. Moreover, helicopter operations are almost inevitable and hence frequent in remote sector owing to the demand of rescue and relief flights. These specific conditions prevalent in Nepal have resulted in quite a heterogeneous fleet operating in the airspace of Nepal.

In 2020, International and Domestic traffic movement has decreased significantly compared to that in 2019. The decrease in movement is, primarily, due to the imposition of travel restriction to contain the COVID -19 pandemic.

Considering the data of past ten years, the trends of accident (per 1,000 departures) and fatality related to aeroplane have registered a continuous steep drop. However, the fatality related to helicopter accidents has undergone a rise in trend during 2011-2020. During the past ten years, there has been a continuous increase in helicopter movement. The abundance of remote topography in the country demands helicopter operations for logistic, rescue and relief purposes in mountainous terrain. Similarly, growth in tourism has also led to the increase in helicopter operations. Since such operation carries a higher risk factor considering the geography and weather, the accidents related to helicopter operations still remain as a challenge in the field of Nepali aviation.

With regards to the category of aircraft, in the fixed wing sector, the higher number of fatal accidents and also that of fatality have been related to the multiengine aircraft with 19 seats or less capacity. Such aircrafts have witnessed 13 accidents with 99 fatalities in the past ten years. The second in the list is helicopter operations with 13 accidents and 27 fatalities.

During the last ten years, aircraft operating in STOL sector have suffered comparatively more number of accidents than the aircraft operating in trunk sector. Out of 19 accidents that occurred during the period, 16 occurred in the STOL sector aircraft rendering the STOL operation comparatively riskier.

Analyzing the causes of accident with fixed wing aircraft, in the past ten years, top three high risk categories of accident were CFIT, LOCI and RE on the basis of a combination of factors such as number of accidents and fatal accidents together with the fatality percentage witnessed by such category of aircraft.

Mandatory Occurrence Reports (MOR) are one of the sources of reactive safety information. 213 occurrences were reported mandatorily in 2020 against 572 in 2019. In 2020, aircraft operation was halted for numerous (?) months due to the travel restriction imposed by COVID-19 pandemic. Studying the type of occurrences based on their severity, only one accident has occurred in the year 2020. 13 serious incidents and 199 incidents, were registered in 2020. Referring to the data derived from the MORs in 2020, based on the number and severity of the occurrences, the significant seven areas posing risk to Nepali civil aviation sector for the year 2020 are USOS (Under Shoot Over Shoot), SCF-NP (System Component Failure- Non-Power Plant), MAC (Mid Air Collision), BIRD (Bird occurrences), RE (Runway Excursion), ATM (Air Traffic Management), SCF-PP (System Component Failure- Power Plant). Similarly, top four risky phases have been identified to be take-off, en-route, approach and landing phase respectively.

Similarly, there has been a progressive development regarding the proactive source of information especially in the area of voluntary information reporting. The approaches such as introduction of SMS audits, vigorous safety promotion and collaboration with

stakeholders in SMS matters have played a significant role in spreading awareness in a deeper way. As a result, 625 hazards have been reported in the year 2020 against 819 in 2019 despite the …months-long halt in aircraft operations.

Nepal Aviation Safety Plan (NASP), 2018-2022 developed in congruence with the Global Aviation Safety Plan, and Regional Aviation Safety Plan (RASP), has identified seven areas of operational safety risk, viz. Controlled Flight into Terrain (CFIT), Loss of Control in Flight (LOC-I), Mid Air Collision (MAC), Runway Incursion (RI), Runway Excursion (RE) and Wild life Strike (WS) and Abnormal Runway Contact (ARC). CAAN is continuously monitoring the implementation ofNASP -SEIs and associated actions to make sure that the actions are carried out within the deadlines.

Of all these operational safety risks, wildlife is a prominent area of concern in the South Asian Region. Voices from this region, including Nepal, were raised in the 13th, 14th, and 15th meetings of the APRAST (Asia Pacific Regional Aviation Safety Team) for the need of including Wild life Strike as the operational safety risk of Asia Pacific Region in the RASP APAC (Regional Aviation Safety Plan, Asia Pacific Region). In this regard, APRAST has formed a Safety Reporting Programme Working Group (SRPWG) for studying in this area and identifying the safety enhancement initiatives (SEIs) in the area of wildlife. This report has included the data related to wildlife hazard in Nepal.

In 2020, third phase of SMS audits were conducted in the airline operators of Nepal. SMS performance of the operators was analysed based on their SMS audit reports.

Improvement was also observed in each of the level of compliant activity in 2020 against the level of 2019.

The Effective Implementation of Nepal in the last USOAP audit is 66.76 which is above the benchmark of 60% set by ICAO through its Global Aviation Safety Plan (GASP). Nepal has made a significant progress in its oversight capability since the initial audit in 2009.

Nepal is ranked 18th in RASG-APAC with respect to overall effective implementation within this group. Nepal rates above the average of RASG-APAC.

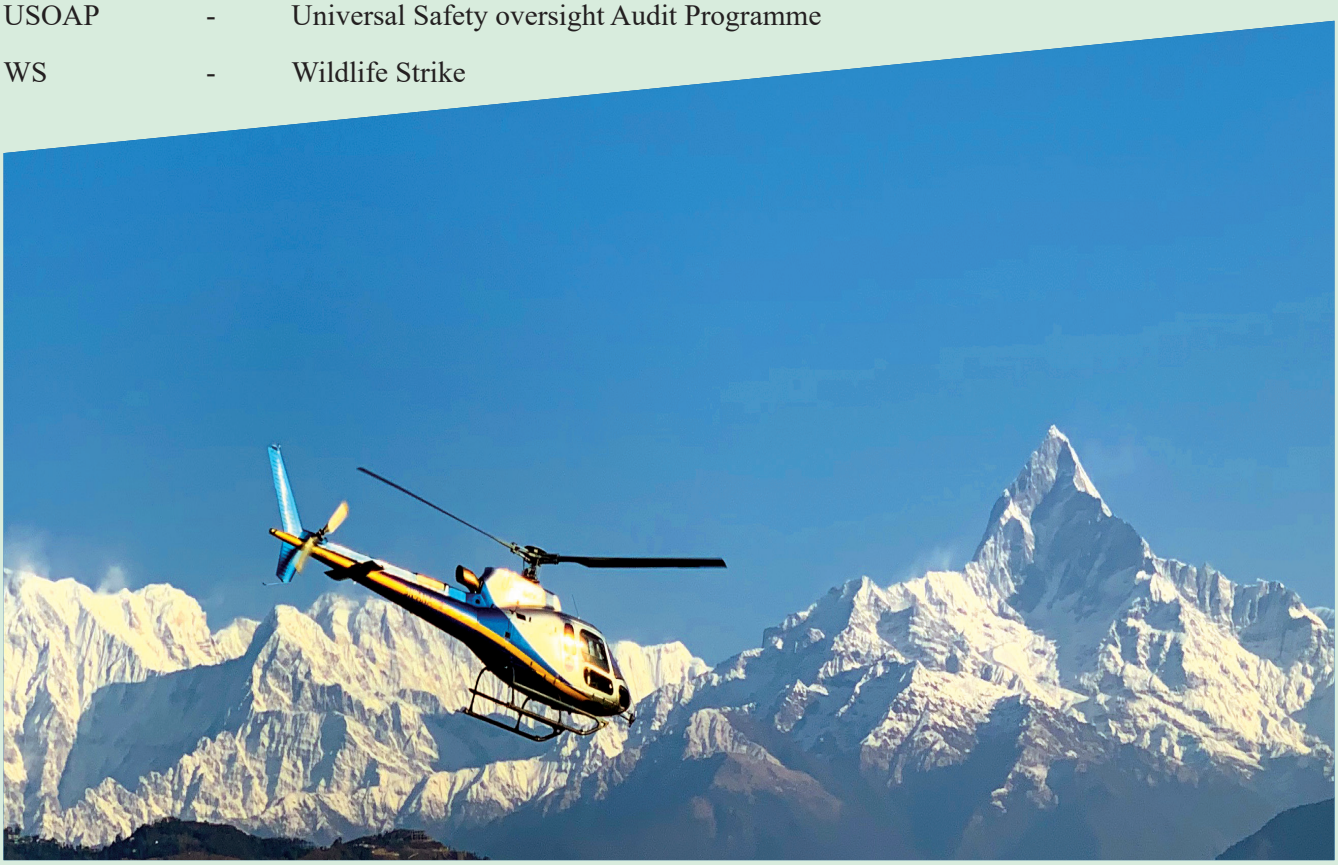
Nepal has started to implement State Safety Programme for effective state safety management. Now, CAAN has completed 72.69% of total required SSP foundation and is in Level 2 with 95.2% of work completed in that phase. (SSP implementation as depicted by ICAO iSTARs SSP implementation dashboard).

During 2020, despite of the pandemic, CAAN performed various activities for the enhancement of safety and inculcation of safety culture among all. Various promotional activities were carried out by CAAN and some in collaboration with aviation stakeholders.

Abbreviations and Acronyms

AGA	-	Aerodrome and Ground Aids
AIG	-	Aircraft Accident and Incident Investigation
AIR	-	AirworthinessAirprox- Aircraft Proximity
ANS	-	Air Navigation Services
APAC	-	Asia Pacific
APRAST	-	Asia Pacific Regional Aviation Safety Team
ATM	-	Air Traffic Management
ATS	-	Air Traffic Services
CAAN	-	Civil Aviation Authority of Nepal
CAP	-	Corrective Action Plan
CAST	-	Commercial Aviation Safety Team
CE	-	Critical Element
CFIT	-	Controlled Flight into Terrain
CICTT	-	CAST/ICAO Common Taxonomy Team
DHM	-	Department of - Hydrology and Meteorology
EI	-	Effective Implementation
FH	-	Flying Hours
GASP	-	Global Aviation Safety Plan
HRC	-	High Risk Category
ICAO	-	International Civil Aviation Organization
ICVM	-	ICAO Coordinated Validation Mission
LEG	-	Legislation
LOC-I	-	Loss of Control- In Flight
MAC	-	Mid Air Collision
MoCTCA	-	Ministry of Culture, Tourism and Civil Aviation
MOR	-	Mandatory Occurrence Reporting
MTOW	-	Maximum Take-Off Weight
NASP	-	Nepal Aviation Safety Plan
NAV	-	Navigation

OPS	-	Operations
ORG	-	Organization
PEL	-	Personnel Licensing
PQs	-	Protocol Questions
RASG	-	Regional Aviation Safety Group
RASP	-	Regional Aviation Safety Plan
RE	-	Runway Excursion
RI	-	Runway Incursion
RS	-	Runway Safety
SARPs	-	Standards and Recommended Practices
Sch.	-	Scheduled
SEI	-	Safety Enhancement Initiative
SMS	-	Safety Management System
SMSIGM	-	Safety Management System Implementation Guidance Material
SRPWG	-	Safety Reporting Programme Working Group
SSP	-	State Safety Programme
STOL	-	Short Take-off and Landing
TIA	-	Tribhuvan International Airport
USOAP	-	Universal Safety oversight Audit Programme
WS	-	Wildlife Strike



Chapter-1

Aircraft Operations in Nepal

Air Transport Management in Nepal largely depends upon its geographical and meteorological conditions. With the limitations regarding types of aircraft to be operated in most of the STOL airfields with manoeuvring restrictions, the operations in different regions of Nepal pose different levels of complexity. Moreover, helicopter operations are almost inevitable and hence frequent in remote sector owing to the demand of rescue and relief flights. Thirdly, larger aircraft carry out international flights to/from the only international airport, TIA, Nepal. Other trunk sectors have been witnessing operations by medium category of aircraft. These specific conditions prevalent in Nepal have resulted in quite a heterogeneous fleet operating in the airspace of Nepal. The smallest type of aircraft (besides helicopters) based on the maximum take-off mass is the LET 410, while the largest one is the A330. Similarly, ultralight aircraft are also one of the prominent activities in the field of recreational aviation.

As of date of publication of this report, total 21 airliners are into operation with 9 of them operating fixed wing aircrafts, 11 operating helicopters and 1 operating a mixed fleet of fixed wing aircrafts and helicopters. Helicopter operators in Nepal are involved in chartered as well as rescue and relief flights. Of the 9 fixed wing operators, 1 is an exclusive international scheduled operator, 3 are into both domestic and international scheduled operations, and the remaining are involved in scheduled domestic operations. One operator owning both helicopters and fixed winged aircrafts has been operating international chartered flights together with domestic chartered, rescue and relief flights with its helicopters and scheduled domestic flights with the fixed winged aircraft.

Recreational activities also occupy a significant space in Nepali Aviation. The recreational activities include ultra-lights, paragliding, balloons etc.

Aircraft Operations in Nepal

International (4)

* Nepal Airlines Corp.
* Himalaya Airline
* Buddha Air
* Shree Airlines *(Chartered only)*

Domestic (9)

* Nepal Airlines Corp.
* Buddha Air
* Guna Airlines
* Saurya Airlines
* Shree Airlines
* Sita Air
* Summit Air
* Tara Air
* Yeti Airlines

Helicopter (11)

* Air Dynasty Heli.
* Altitude Air
* Fishtail Air
* Heli Everest Services
* Kailash Helicopters
* Manang Air
* Mountain Helicopters
* Prabhu Helicopters
* Shree Airlines
* Simrik Air
* Mustang Helicopters

Recreational (Ultralight only) **(4)**

* Avia Club Nepal
* Fishtail Ultralight
* Heli Air Nepal
* Pokhara Ultralight

Chapter-2

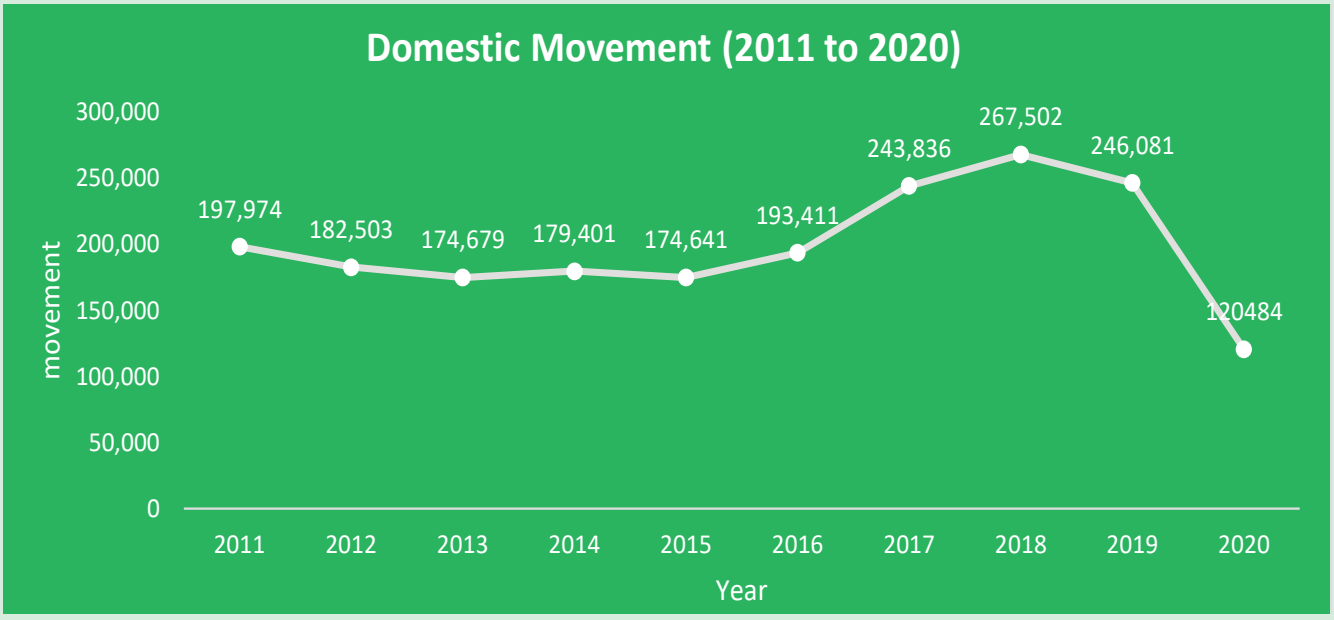
Air Traffic Movement in Nepal (2011 to 2020)

International

International traffic movement in 2020 has decreased by 68.38% compared to that in 2019. One of the major causes behind this is the nationwide lockdown and national and international travel restrictions due to the global COVID-19 pandemic.

Domestic

Due to the similar reasons of decrement in international traffic movement, domestic traffic movement has also decreased in 2020 by 51.04% compared to that in 2019.



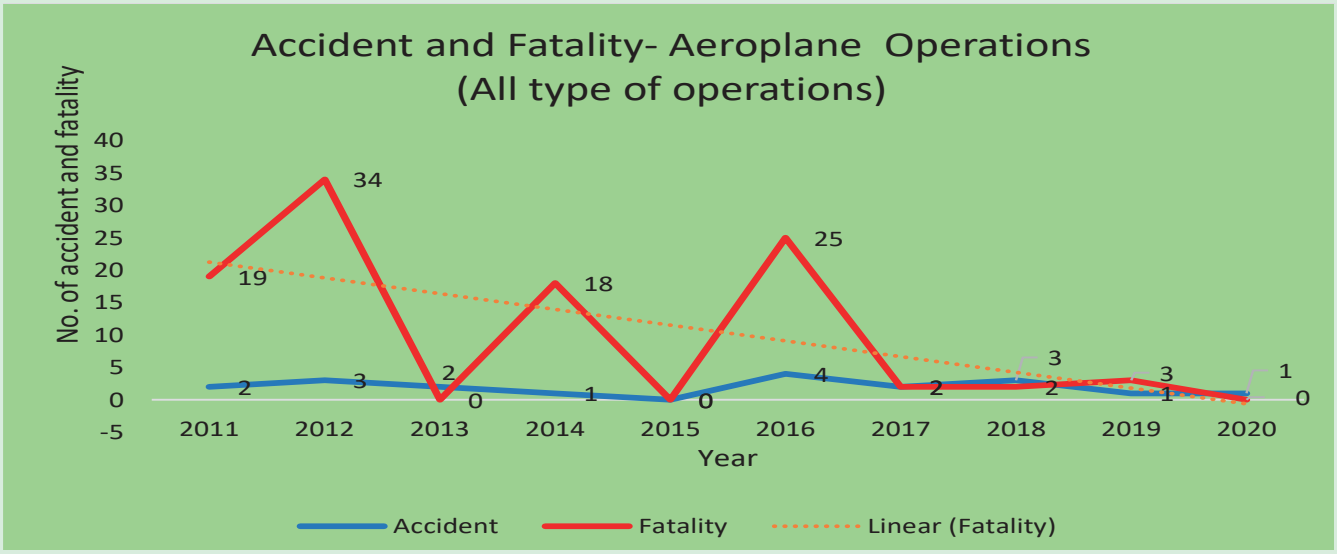
Chapter-3

Accident Statistics and Analysis

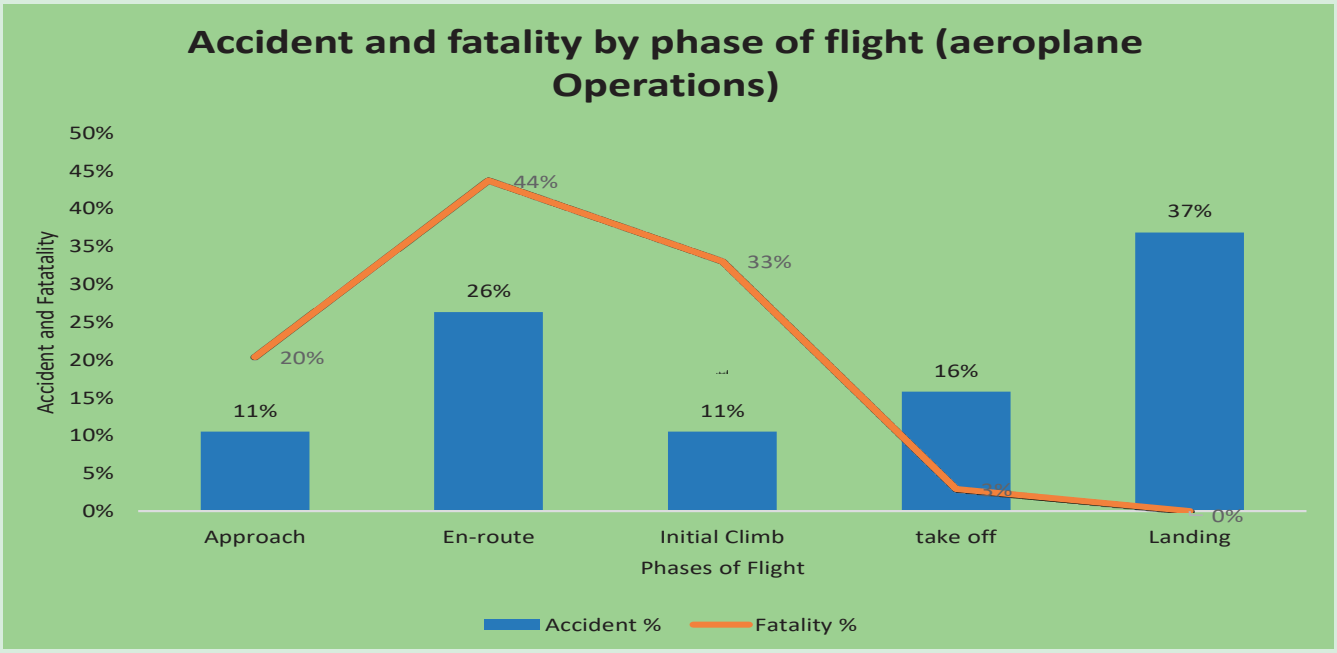
(2011 to 2020)

Accident and Fatality – Aeroplane operations

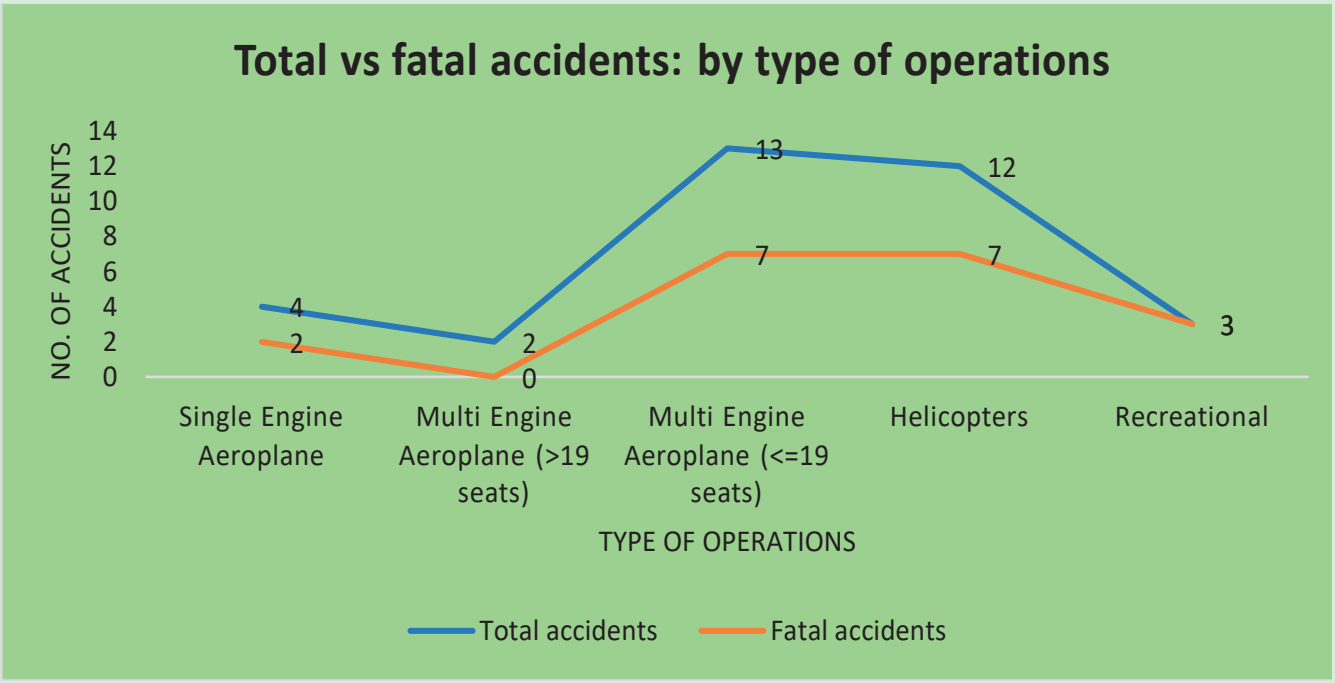
During the period of 2011-2020, the highest number of accidents in aeroplane operations was recorded in 2016 with occurrence of 4 accidents. The highest number of fatalities was observed in 2012 when 34 lives were lost. Year 2020, witnessed one accident without any fatality. The trend of fatality is seen continuously declining during the period.



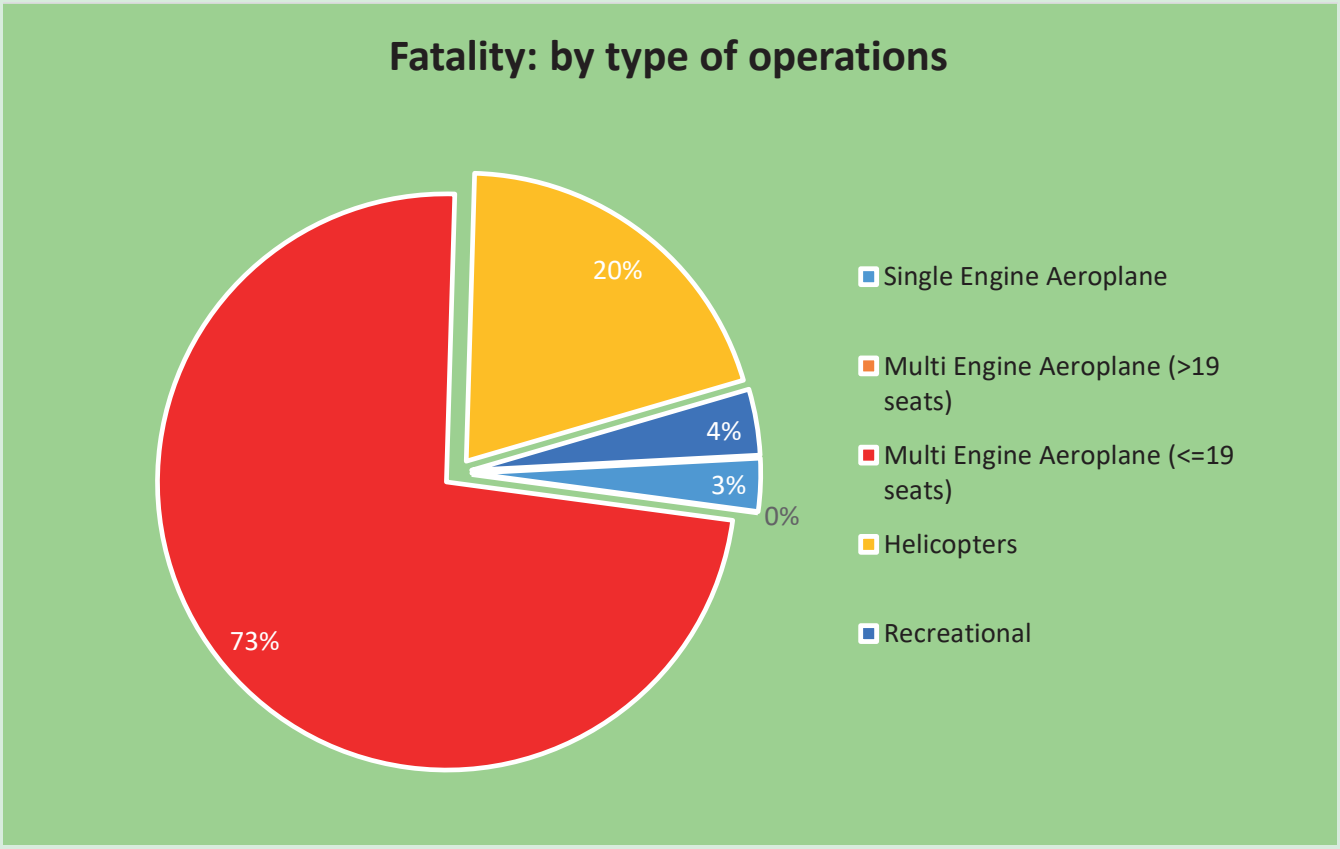
The highest number of accidents in aeroplane operations occurred during the landings whereas highest number of fatalities happened when the aircrafts met with accidents while in their En-route phases.



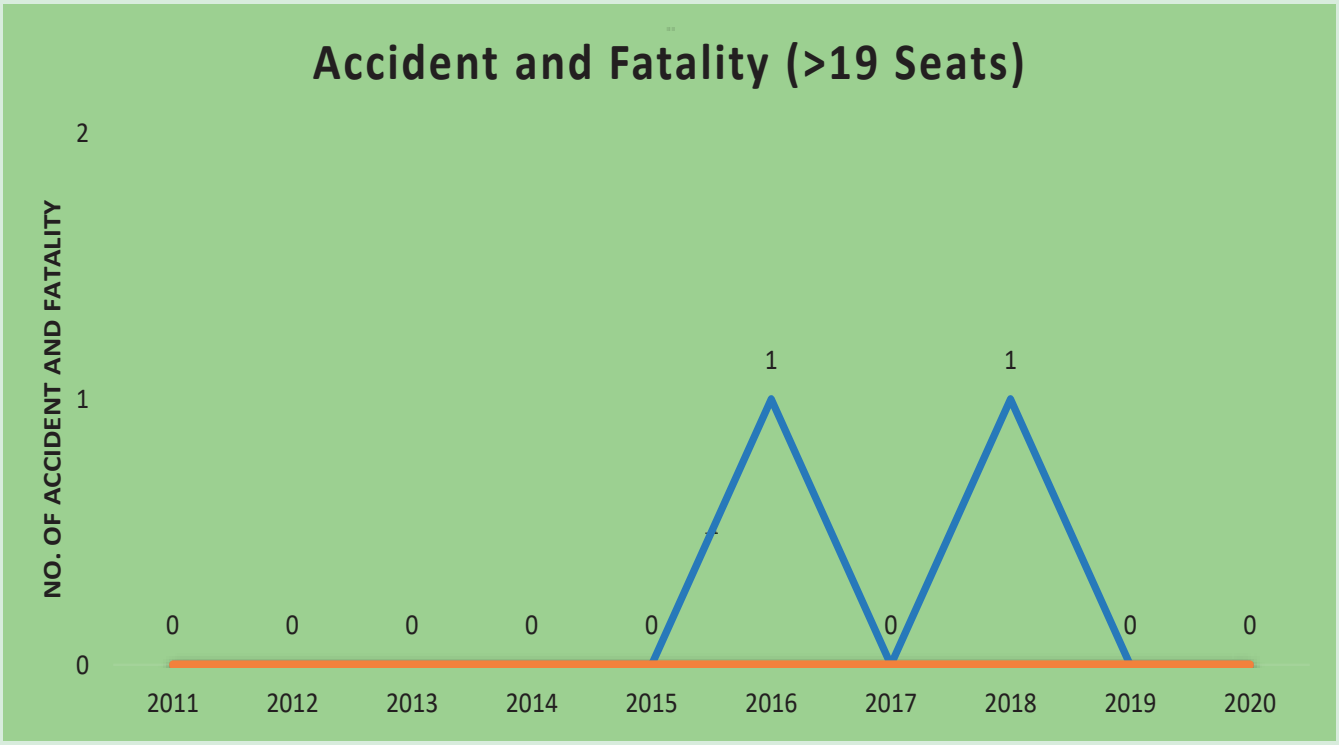
Considering the type of operations, the highest number of accidents was accounted to Multi-engine aeroplane (<=19 seats) among which the number of fatal accidents was same as that of helicopter operations in the last 10 years.



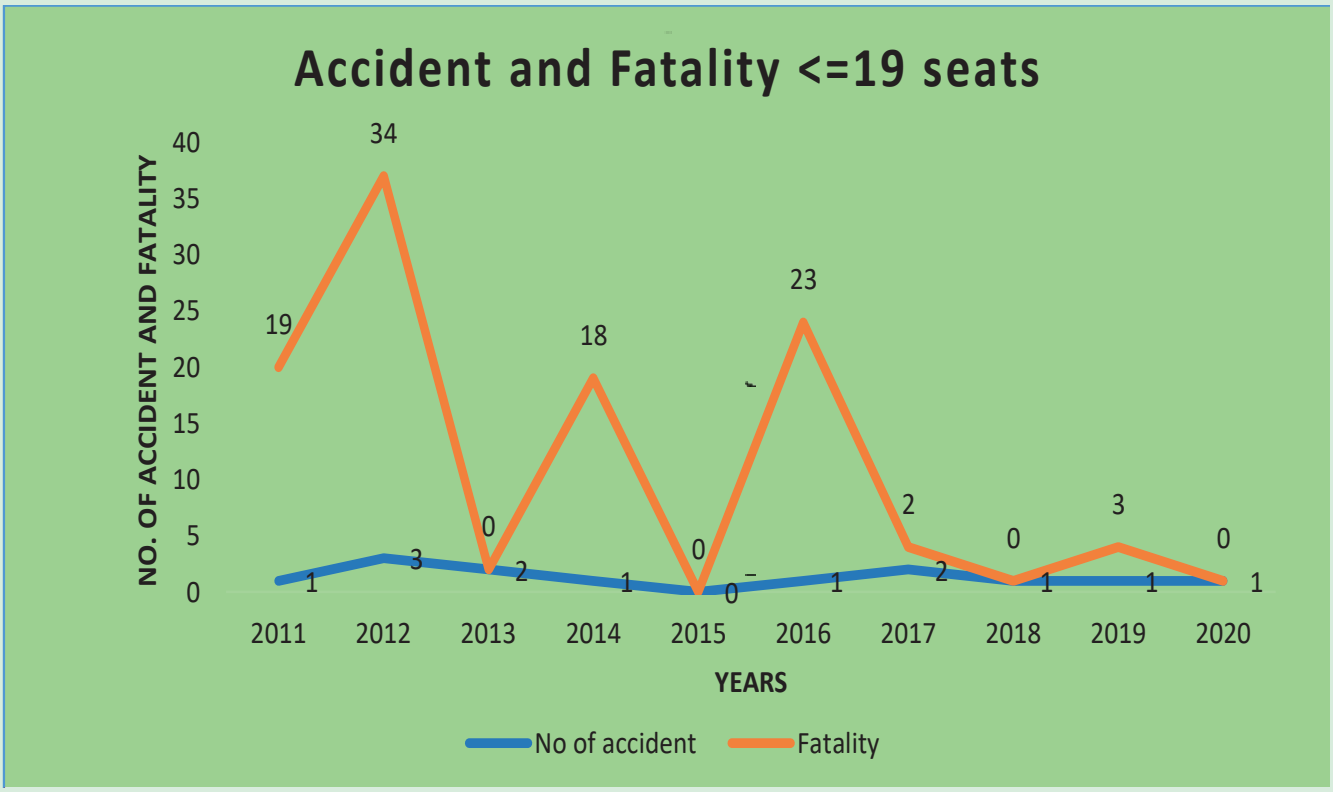
The highest number of fatalities was recorded in the accidents of Multi-engine Aeroplane (<=19) operations whereas the lowest number was in the accidents of Single-engine Aeroplane Operations.



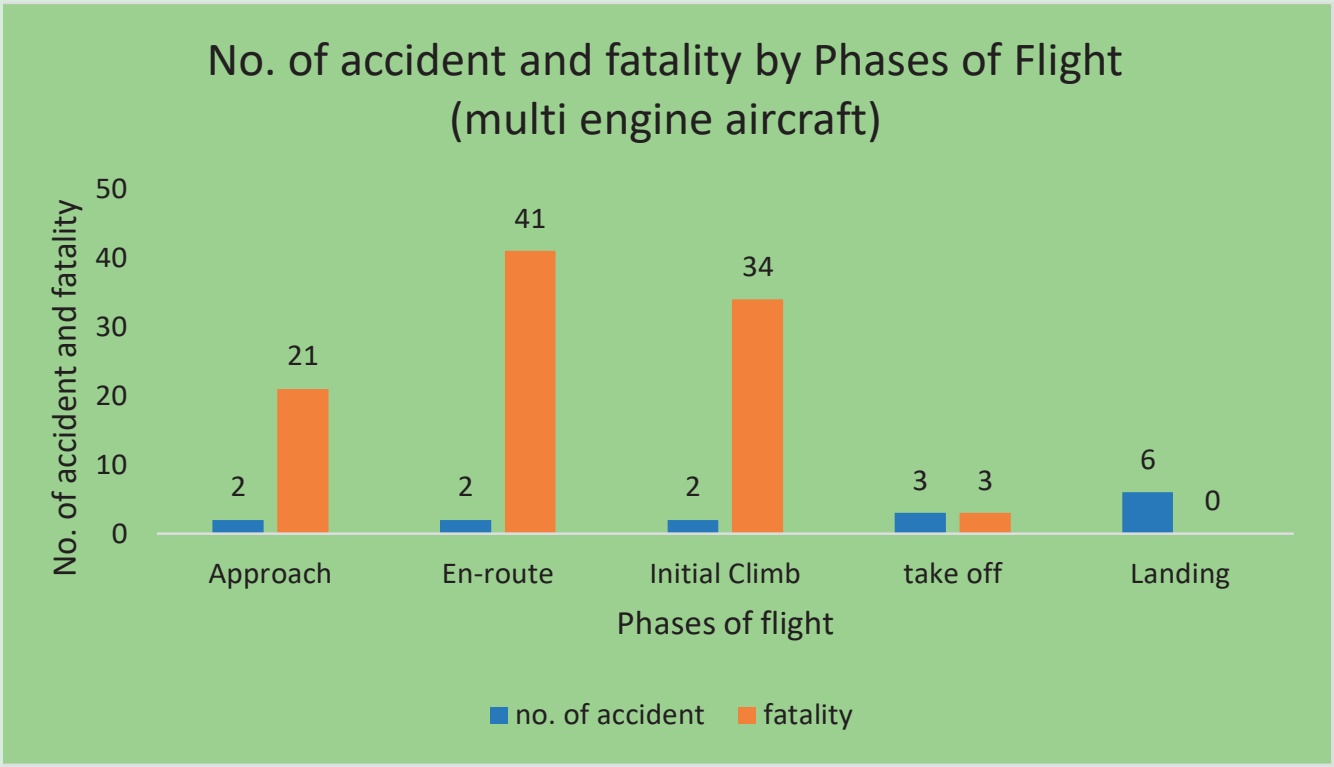
During the past 10 years, there were only 2 accidents in Aeroplane Operations (>19 Seats) but none of them were the fatal ones.



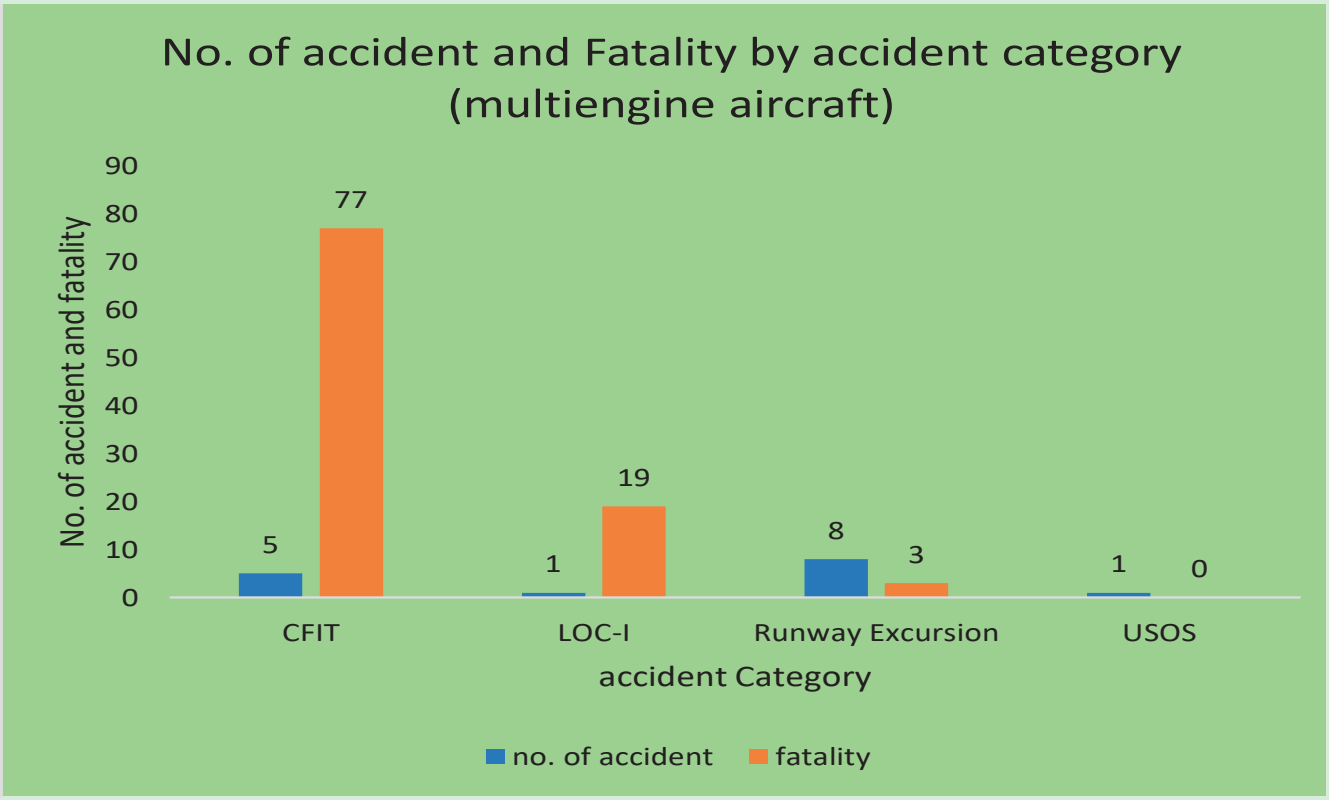
Aircraft operating with <=19 seats witnessed 3 accidents resulting the highest number of fatalities (i.e.34) in 2012. There was one non-fatal accident in 2020.



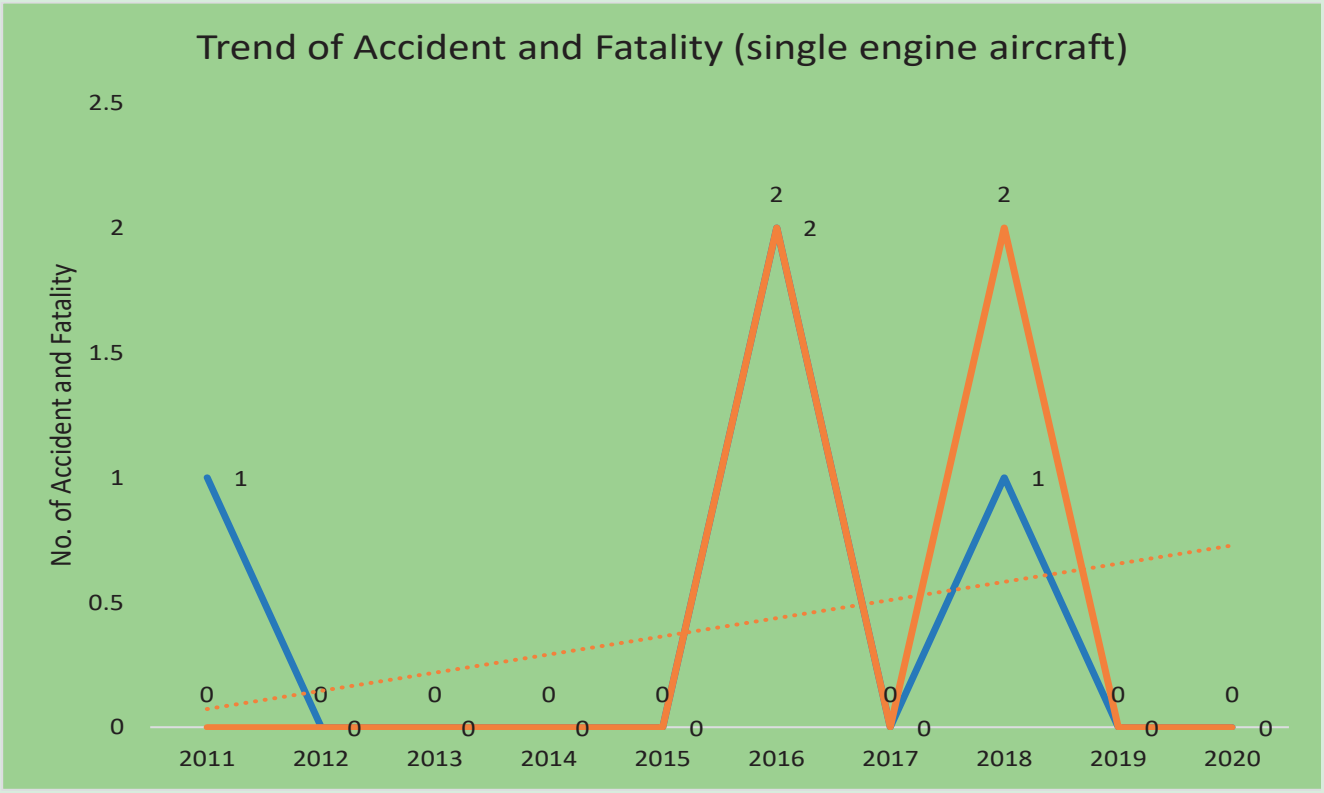
During the last 10 years, Multi-engine Aeroplane witnessed 2 accidents in En-route phase of flight resulting in 41 fatalities and 6 accidents in Landing phase without any fatalities.



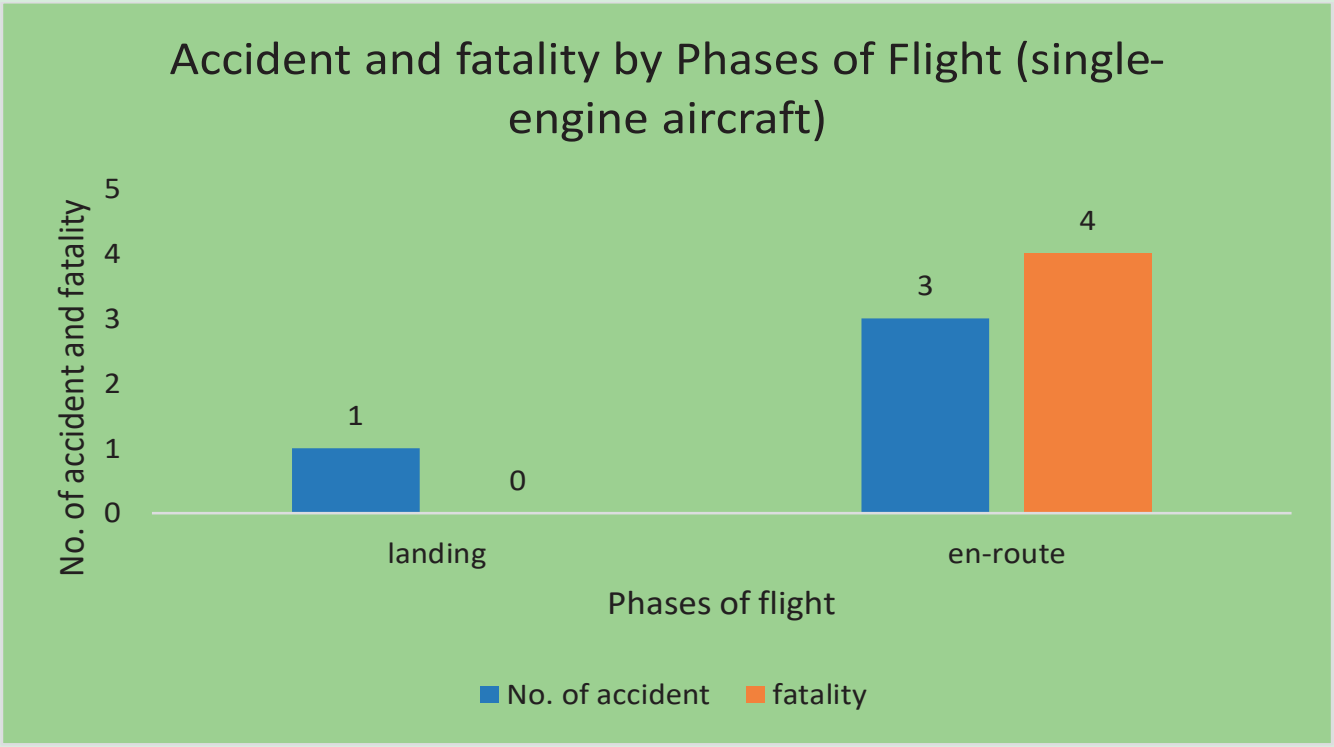
Multi-engine aircraft witnessed 5 accidents due to CFIT resulting in 77 fatalities and one none fatal accident under USOS category.



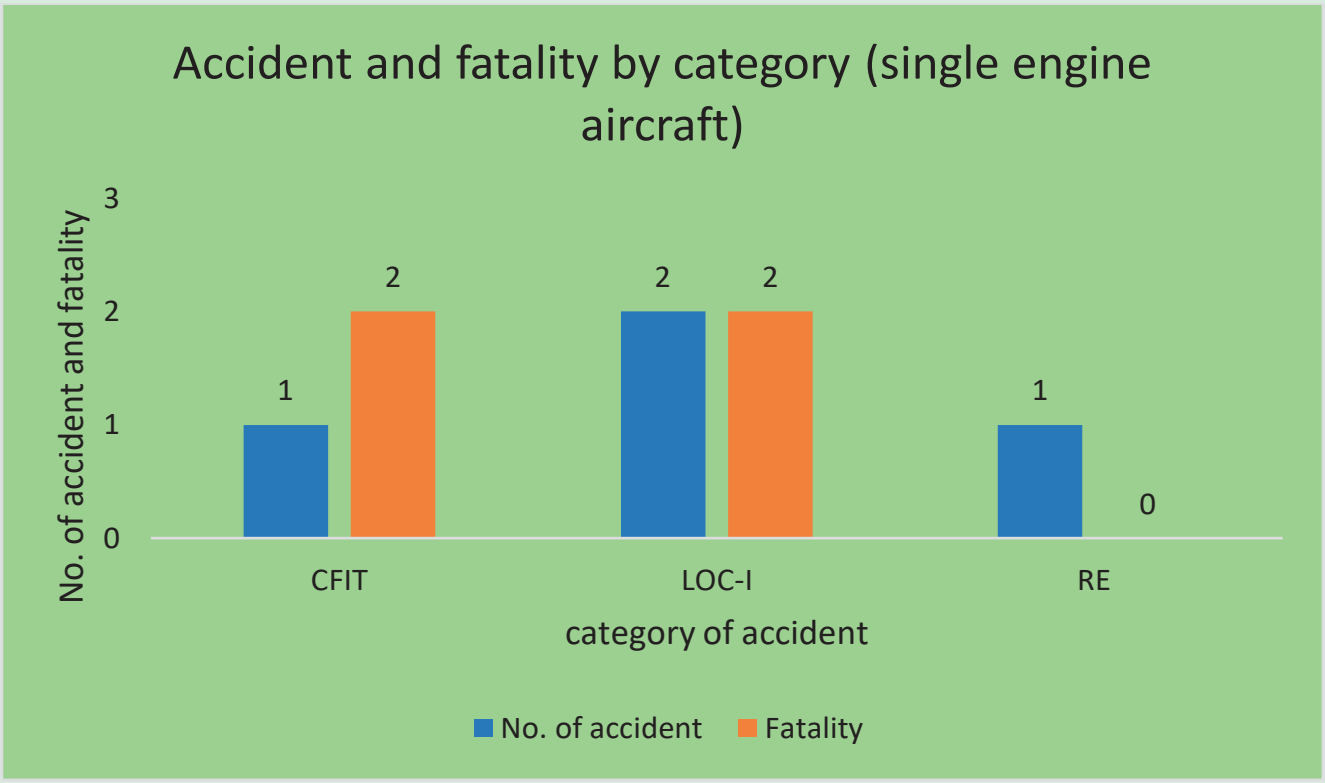
In the Single-engine aeroplane operations, year 2016 witnessed the highest number of fatal accidents with 2 fatalities. Similarly, year 2018 also witnessed the same number of fatalities with 1 accident.



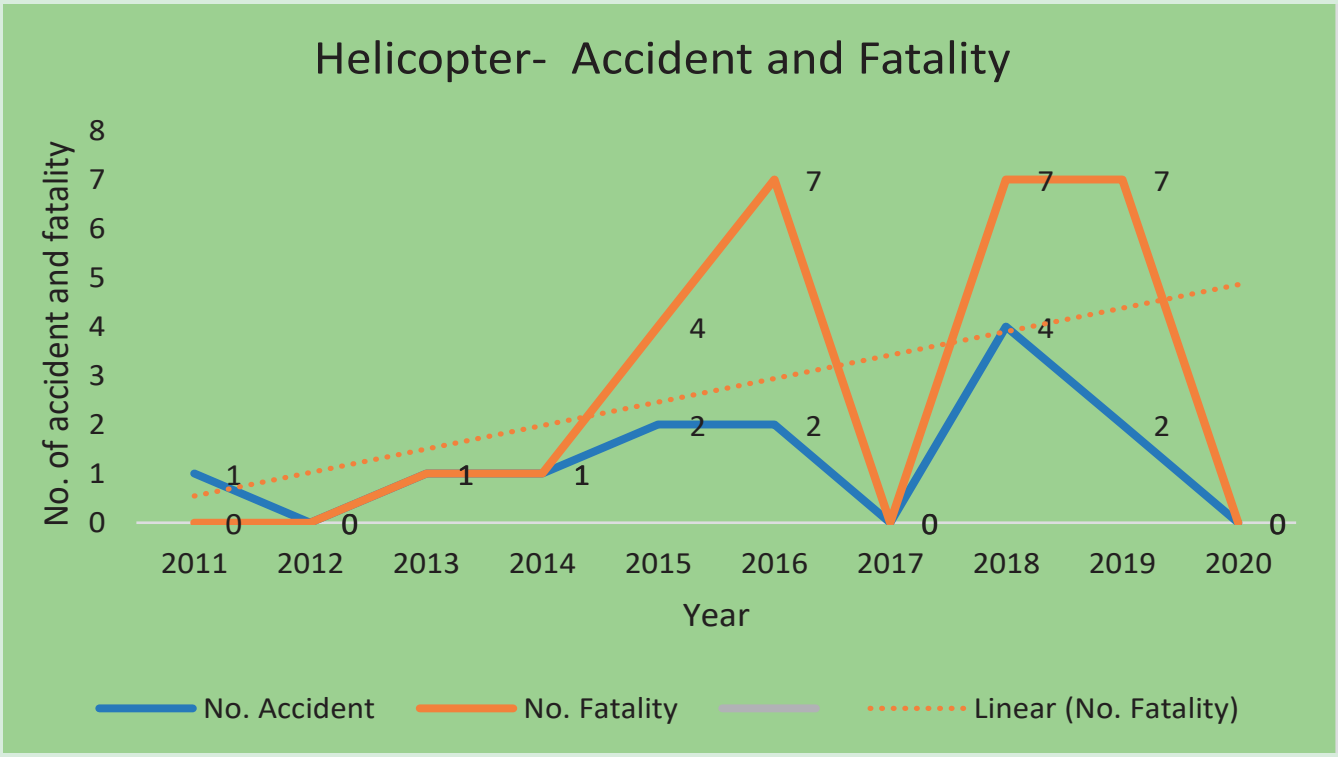
During the last 10 years, Single-engine aircraft witnessed 4 fatalities with 3 accidents in en-route phase of flight.



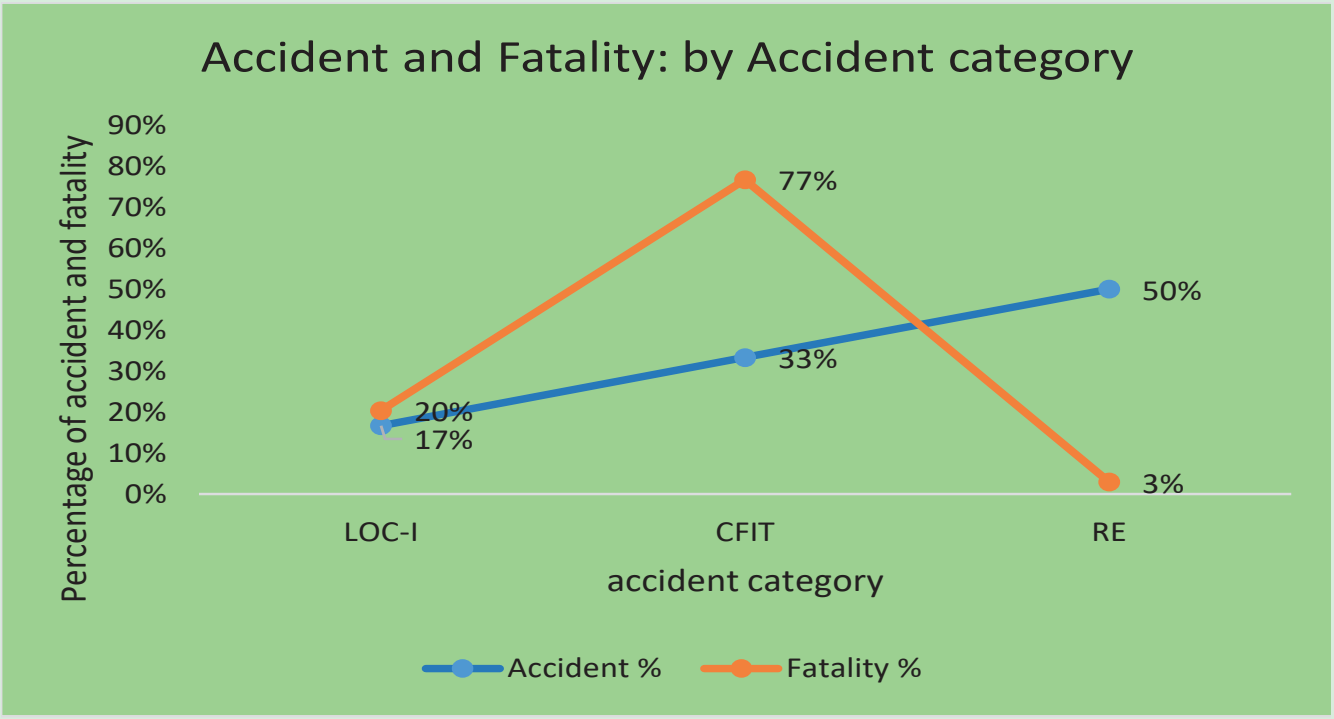
Single-engine aircraft witnessed highest number of accident (i.e. 2) due to Loss of Control-In flight resulting in 2 fatalities. There was one non - fatal accident under Runway Excursion Category during the last 10 years.



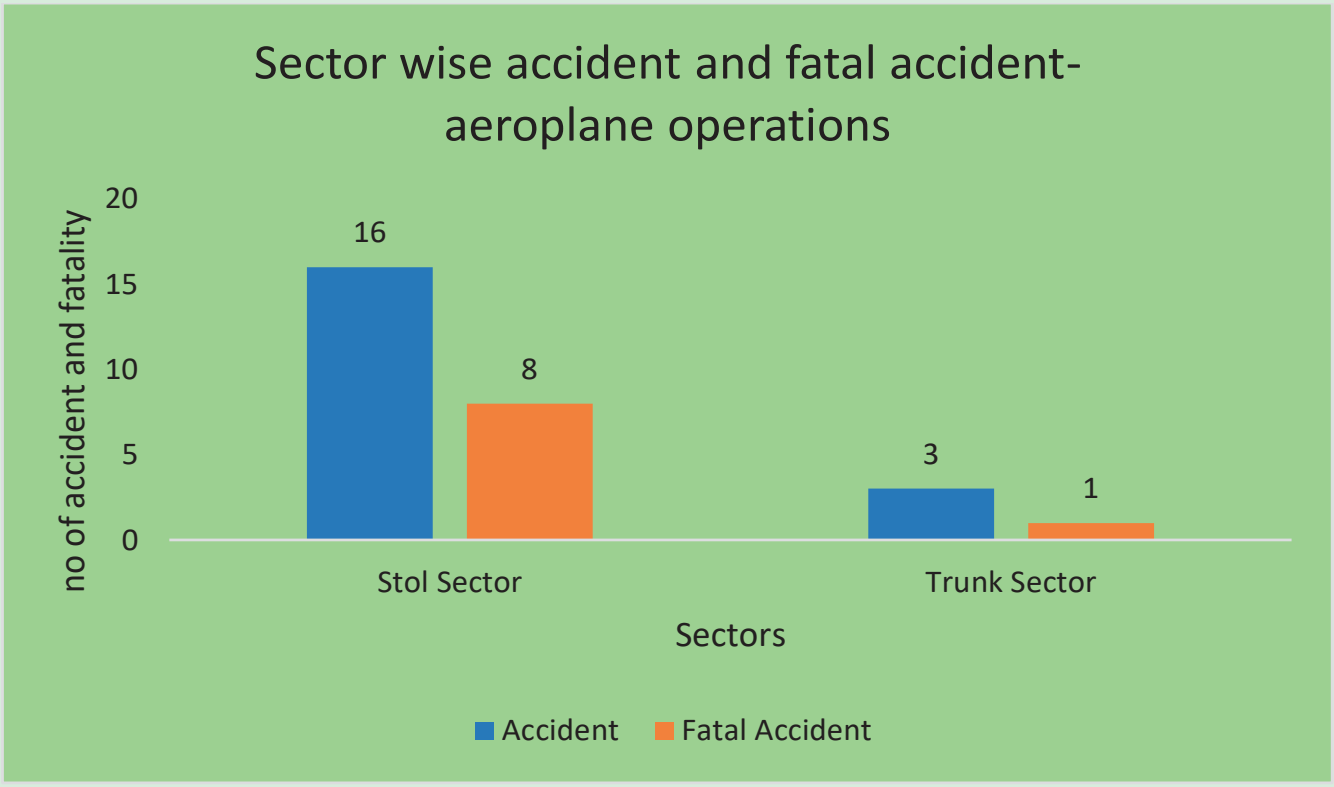
Helicopter Operations witnessed highest number of accidents (i.e.4) in 2018 resulting in 7 fatalities. Years 2016 and 2019 also witnessed less number of accidents with equal number of fatality.



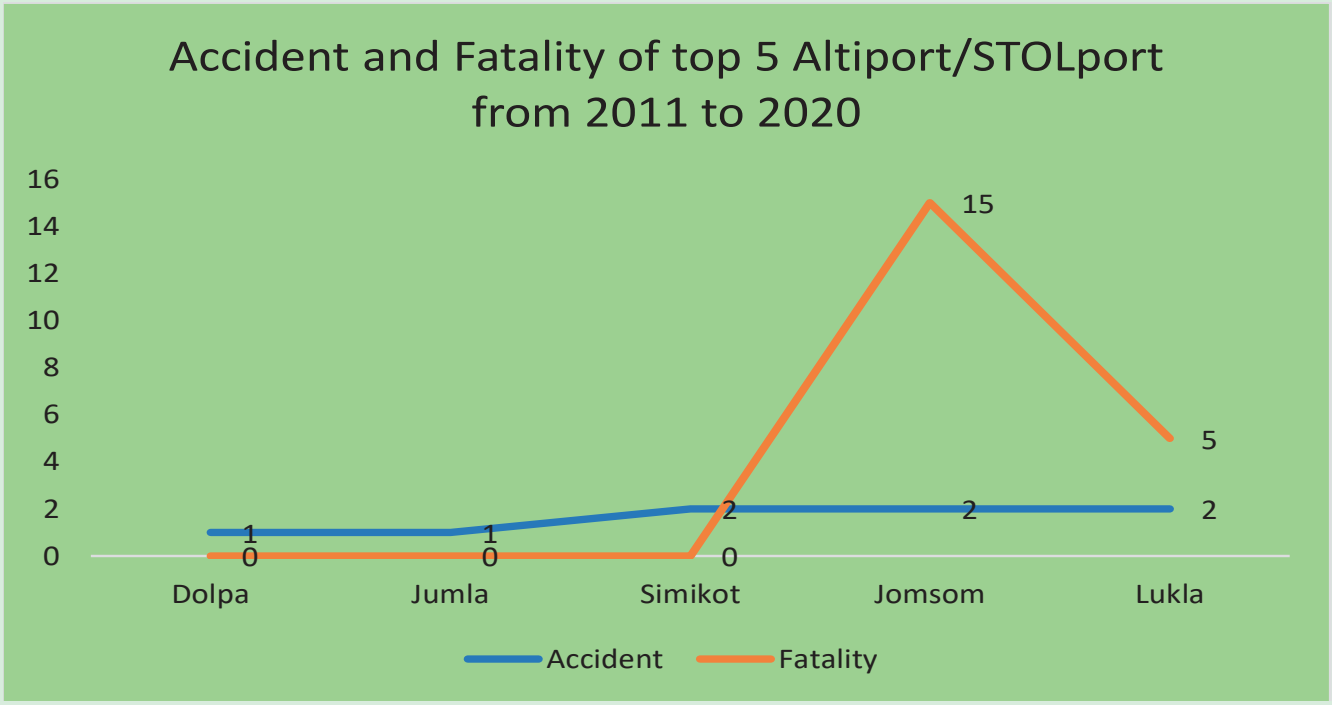
CFIT is the number one safety risk category in Nepal resulting 77% of fatalities with just 33% of accidents in the last 10 years. Runway Excursion Category is comparatively less risky with just 3% of fatalities though half of the total accidents occurred in Nepal were related to this category.



Aircraft primarily related to STOL airfields witnessed 8 fatal accidents out of 16 accidents, whereas the aircraft operating in Trunk sector witnessed just one fatal accident out of 3 accidents in the last 10 years.



In the last 10 years, Jomsom airfield witnessed the highest number of fatalities (i.e.15) from 2 accidents followed by Lukla airfield with 5 fatalities from 2 accidents.

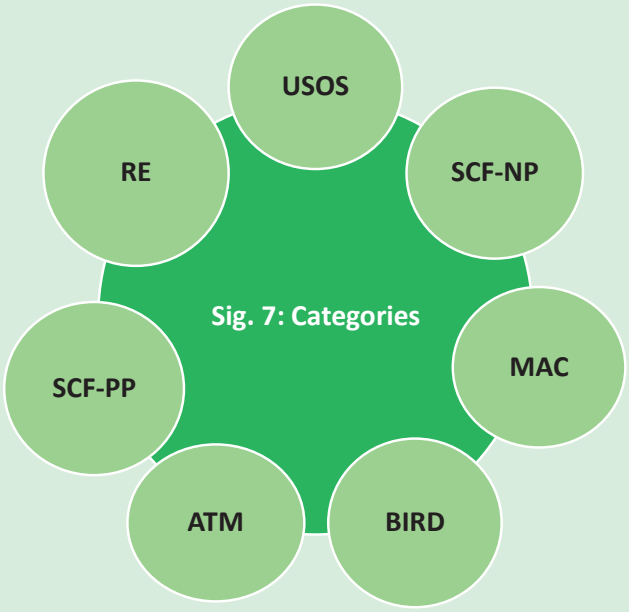


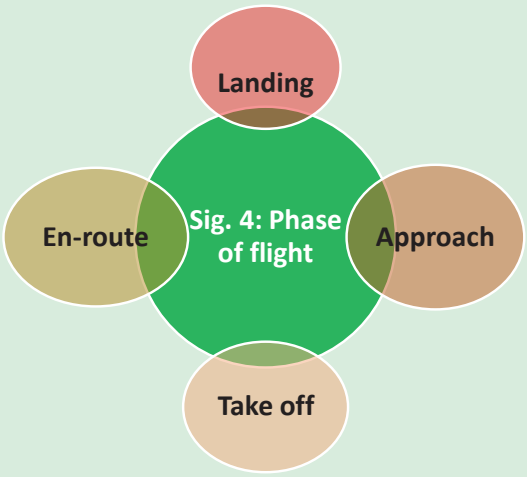
Chapter-4

State Safety Risks

A. On the basis of occurrences reports (Reactive approach)

On the basis of occurrence reports received in 2020, State top safety risks for 2021 have been identified which are determined considering three areas (i.e. HRCs, Phase of flight and Months). This approach of identification of top risks has been considered as a part of reactive safety risk management.



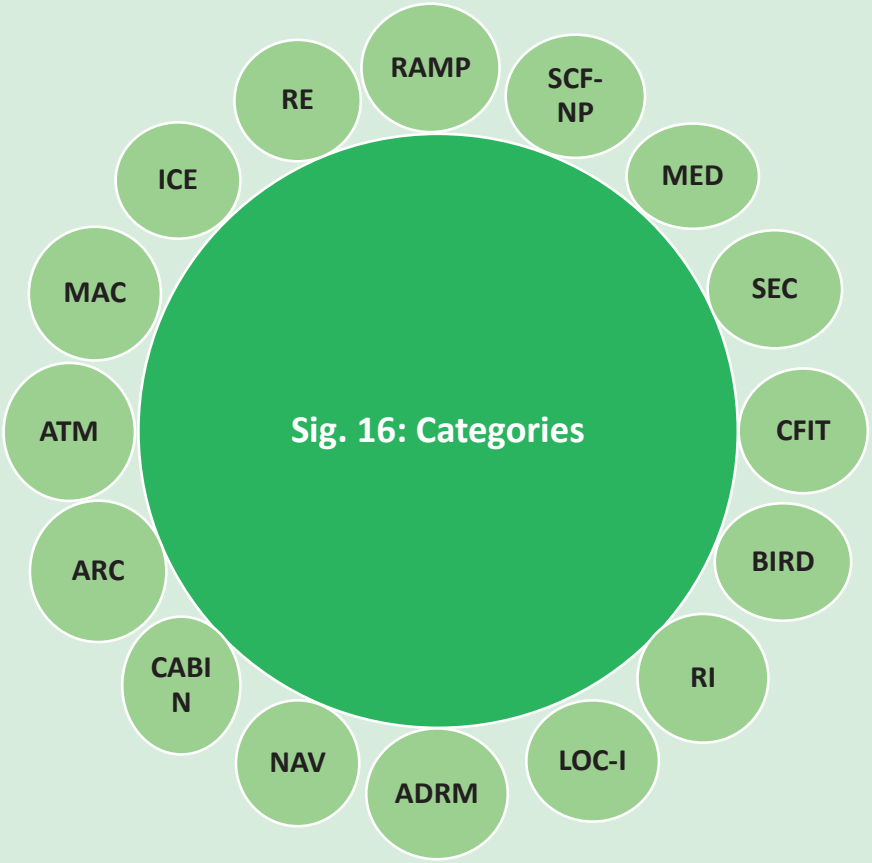


RE= Runway Excursion
LOC-I= Loss of Control – In flight
MAC= Mid Air Collision
SCF-NP= System Component Failure- Non Powerplant
NAV= Navigation

State Safety Risks for 2021

B. On the basis of Hazard reports (Proactive approach)

On the basis of hazards reports received in 2020, State top 16 safety risks for 2021 have been identified. The risks so identified have been considered as future risks since they are identified from hazard reports. This approach of identification of safety risk has been considered as a part of proactive safety risk management.

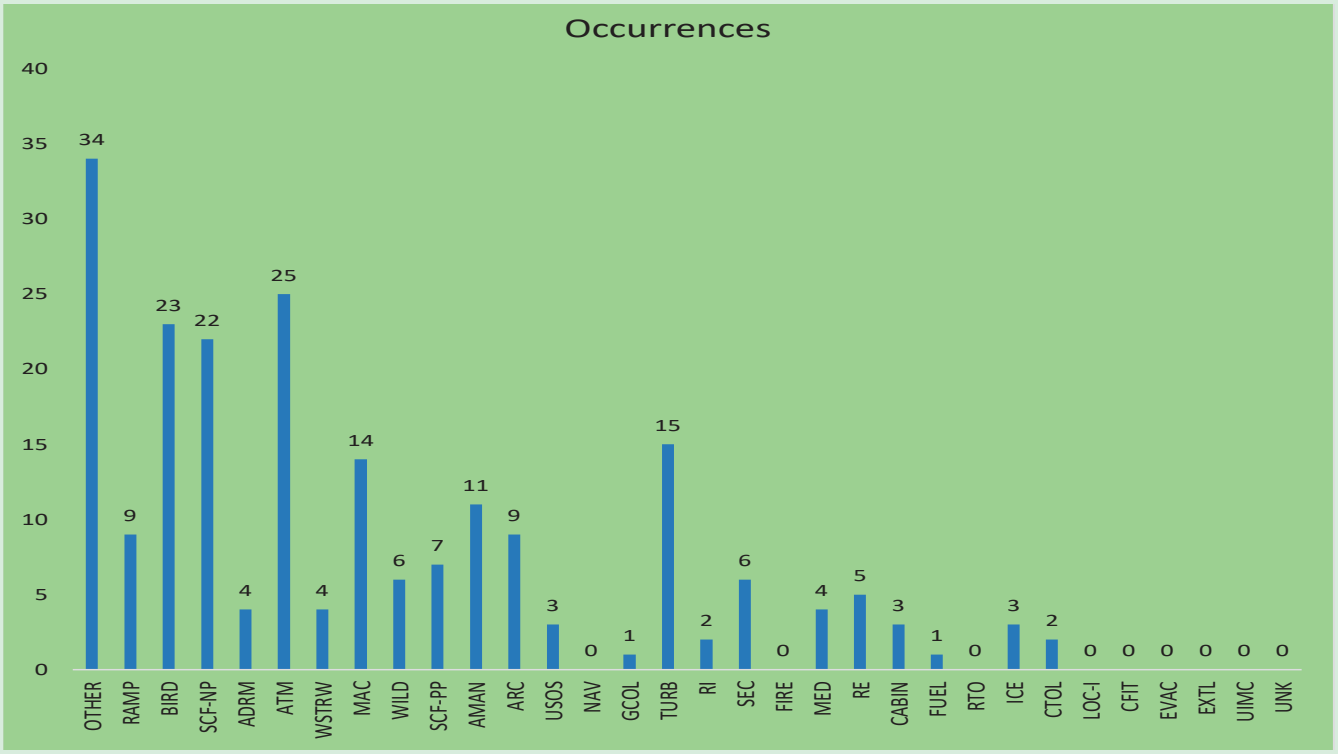


Chapter- 5

Mandatory Occurrence Reporting (MOR) – 2020

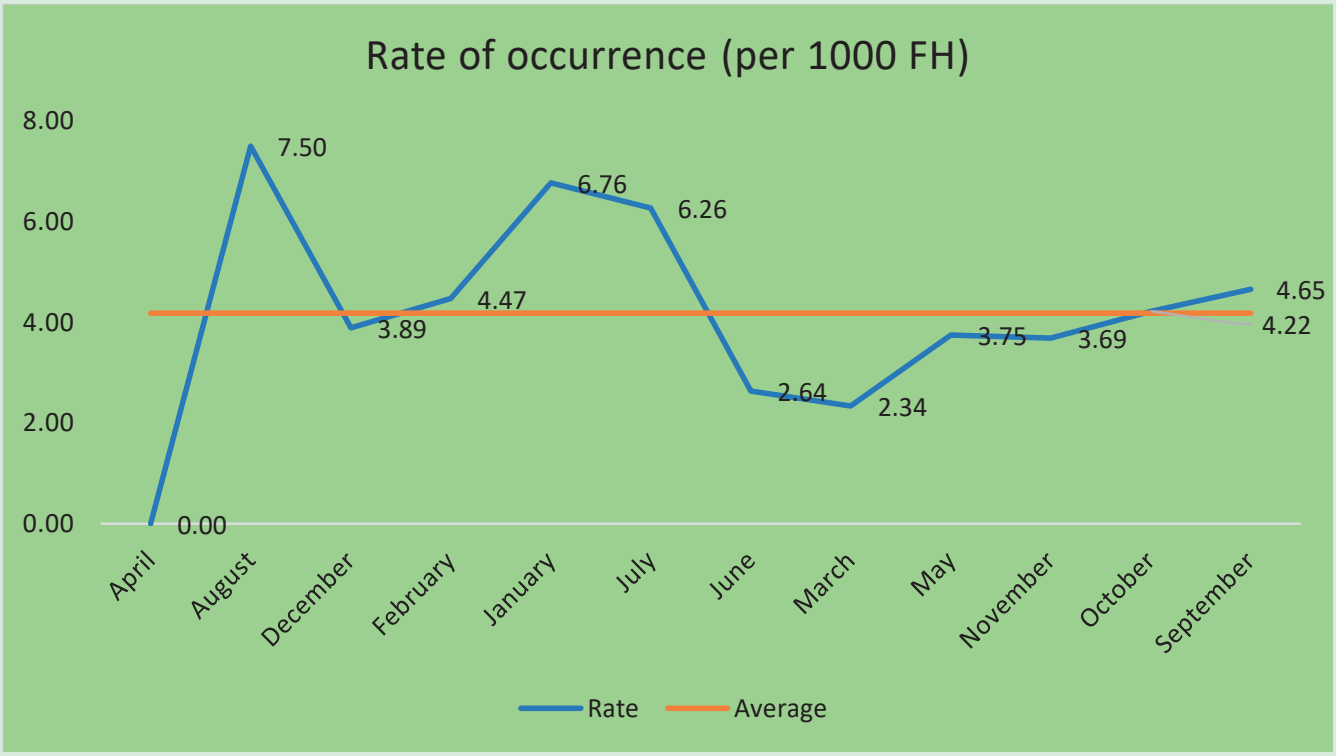
Occurrence reporting- 2020

In 2020, total 213 occurrences were reported out of which 34 were not related to any taxonomy prescribed by ICAO/ CAST and therefore have been listed under OTHERS. The highest number of occurrences were related to ATM (i.e.25). BIRD and SCF-NP related occurrences also accounted significant numbers (i.e. 23 and 22 respectively). Similarly, occurrences related to TURB, MAC and AMAN are also among the prominent ones. Maximum MED related occurrences were related to COVID-19.

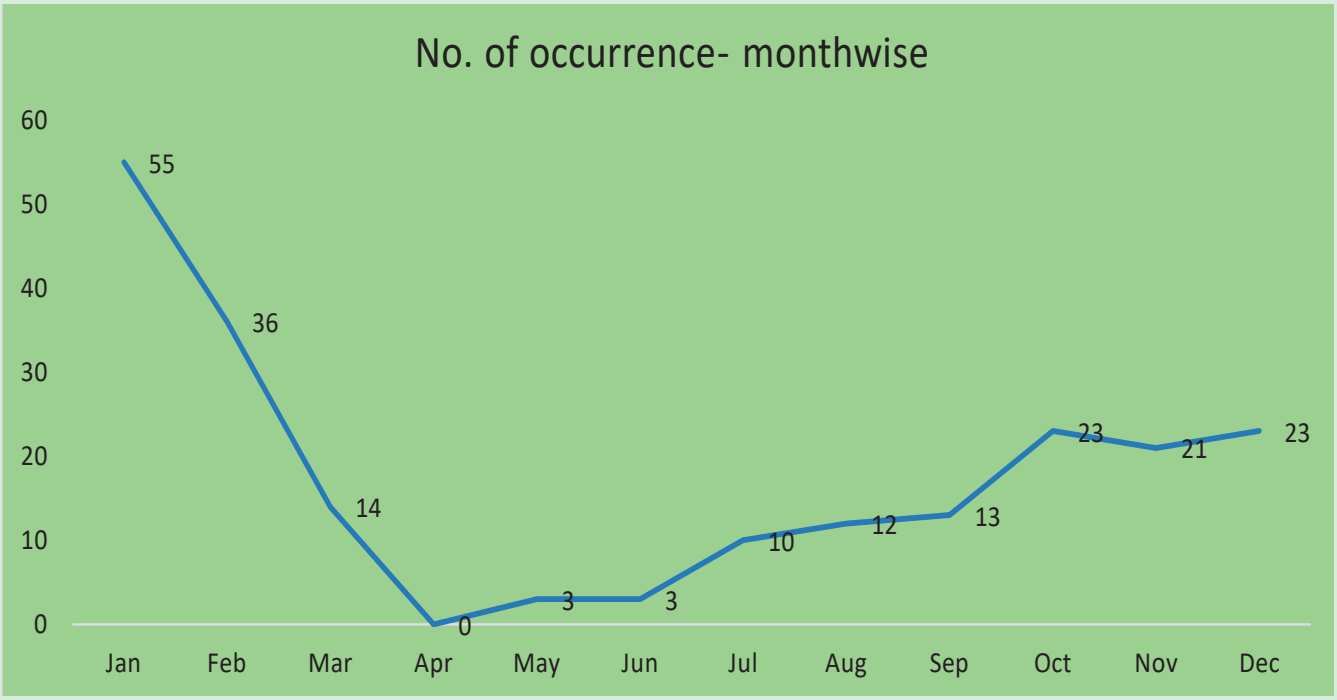


Rate of Occurrences – 2020

The average rate of occurrence per 1000 flying hours was 4.22. The significant number of occurrences were observed in the Months of August, January and July whereas none of the occurrences were reported in April.

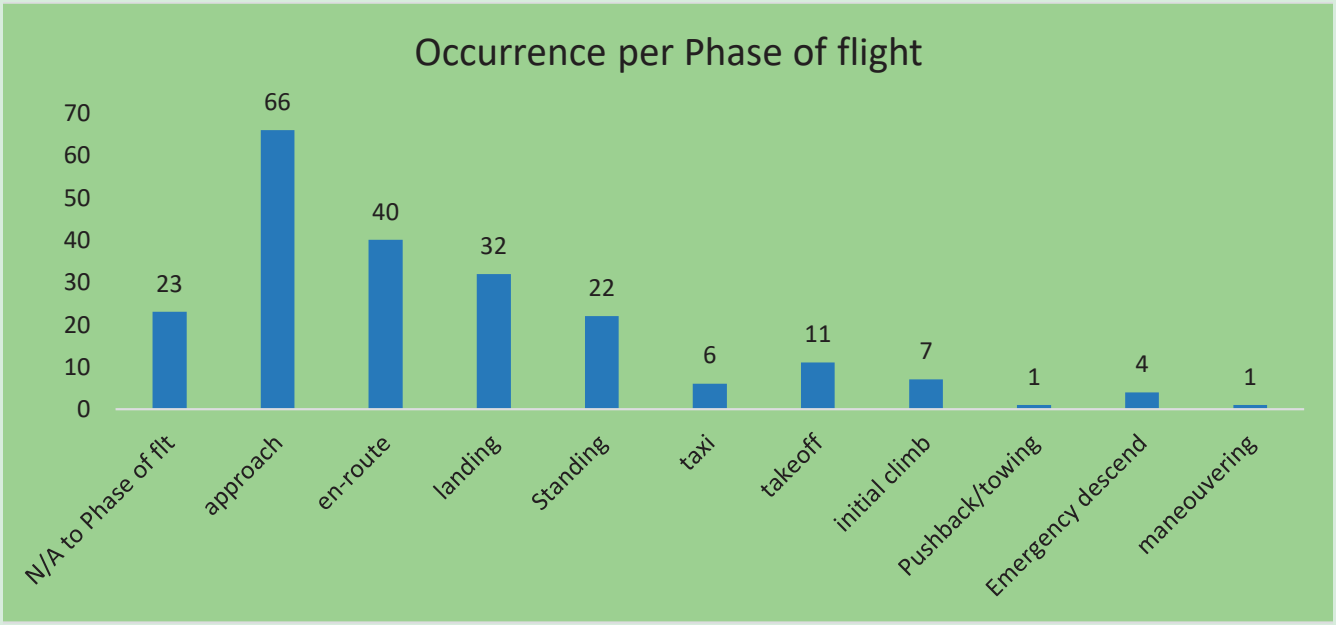


No. of Occurrences – Month wise



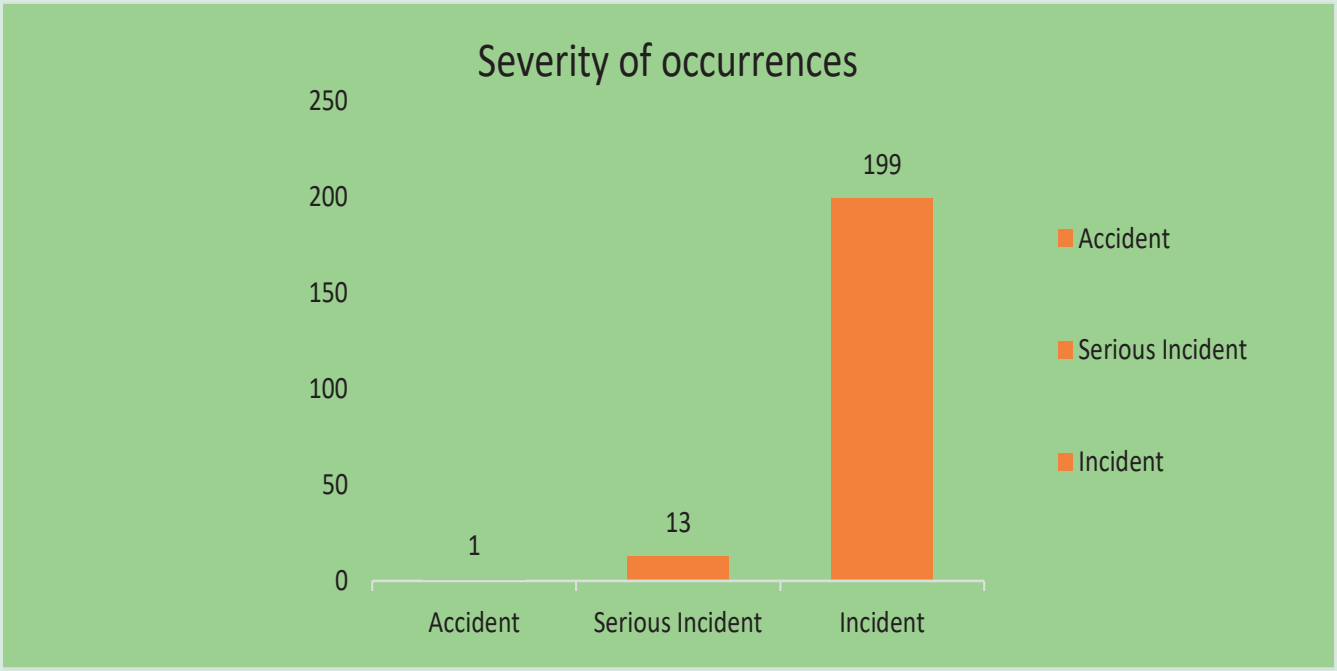
Occurrence- Phase of flight

Highest number of occurrences were reported during approach phase of flight whereas the lowest were related to pushback/towing and maneouvering.



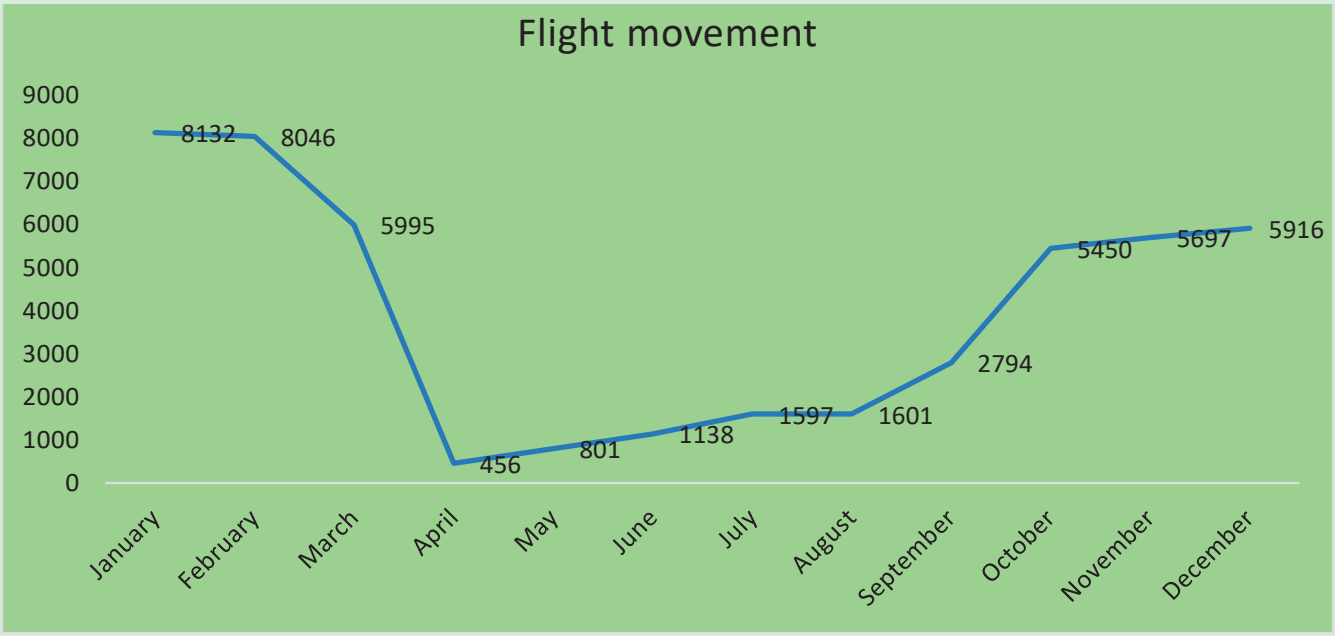
Type of Occurrence

In 2020, 1 accident, 13 serious incidents and 199 incidents were reported. The categorization of Accident, Serious Incident and Incident has been done based on the definitions of ICAO Annex – 13.



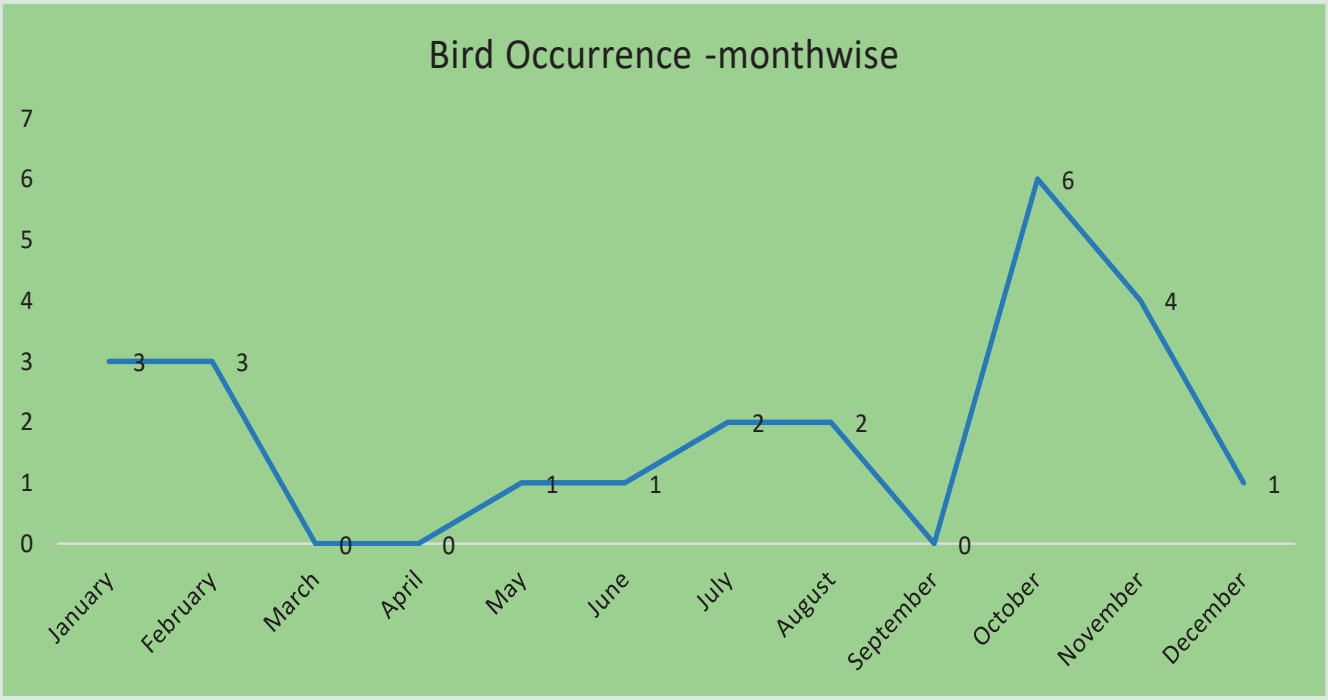
Flight Movement

In 2020, the highest number of aircraft movements was recorded in January and lowest in April. Total number of flight movements significantly decreased in 2020 in comparison to that in 2019 because of imposed travel restrictions due to the pandemic of COVID-19.

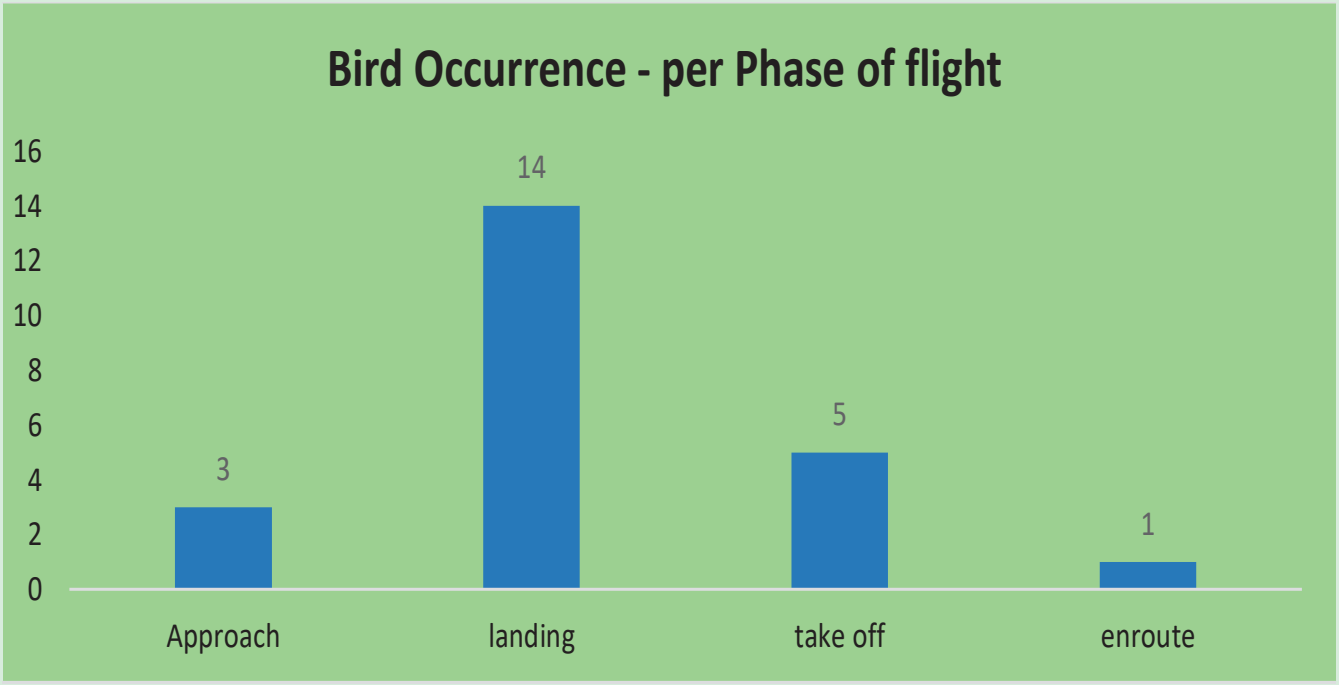


Bird Occurrence

Total 23 occurrences related to Bird were reported in 2020. Month of October witnessed highest number of Bird related occurrences whereas none of such occurrences was observed in the months of September, March and April.

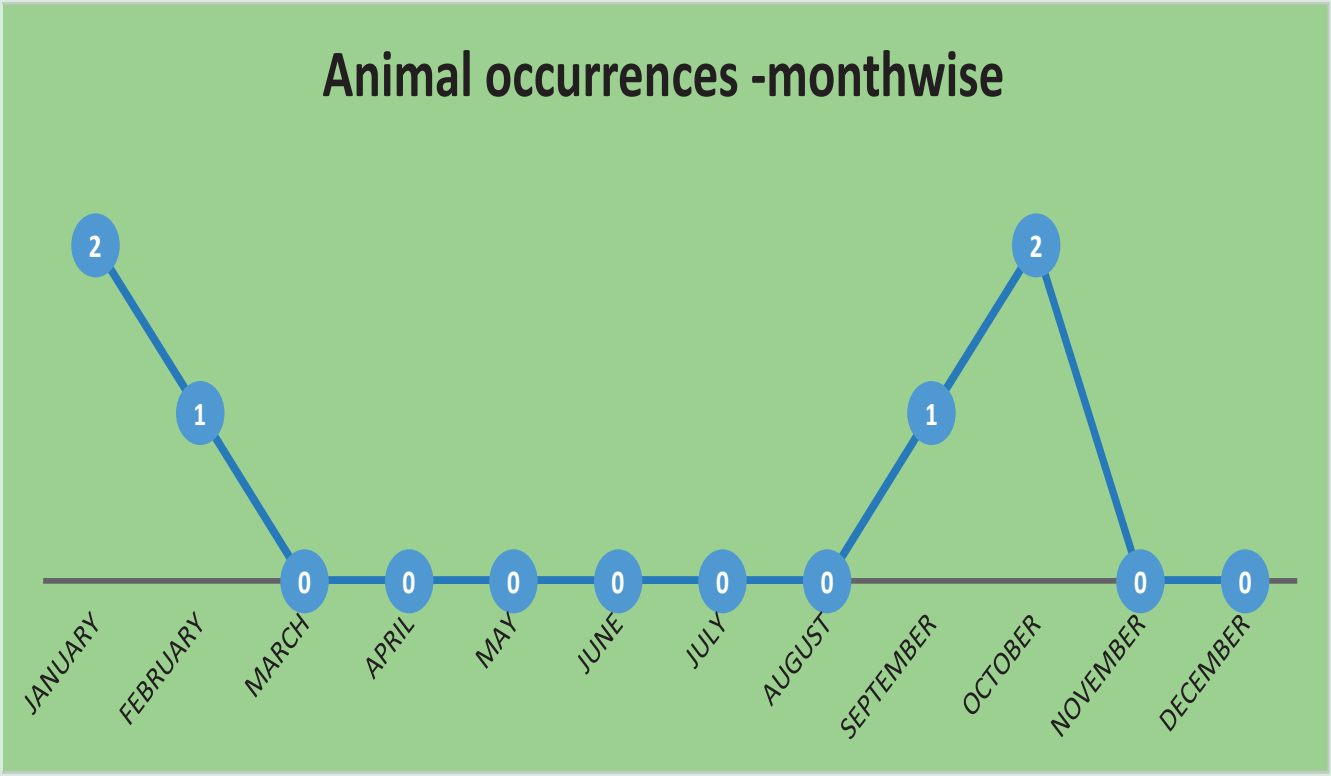


Highest number of Bird occurrences was reported in the Landing phase whereas lowest number of such occurrences was reported during en-route phase.

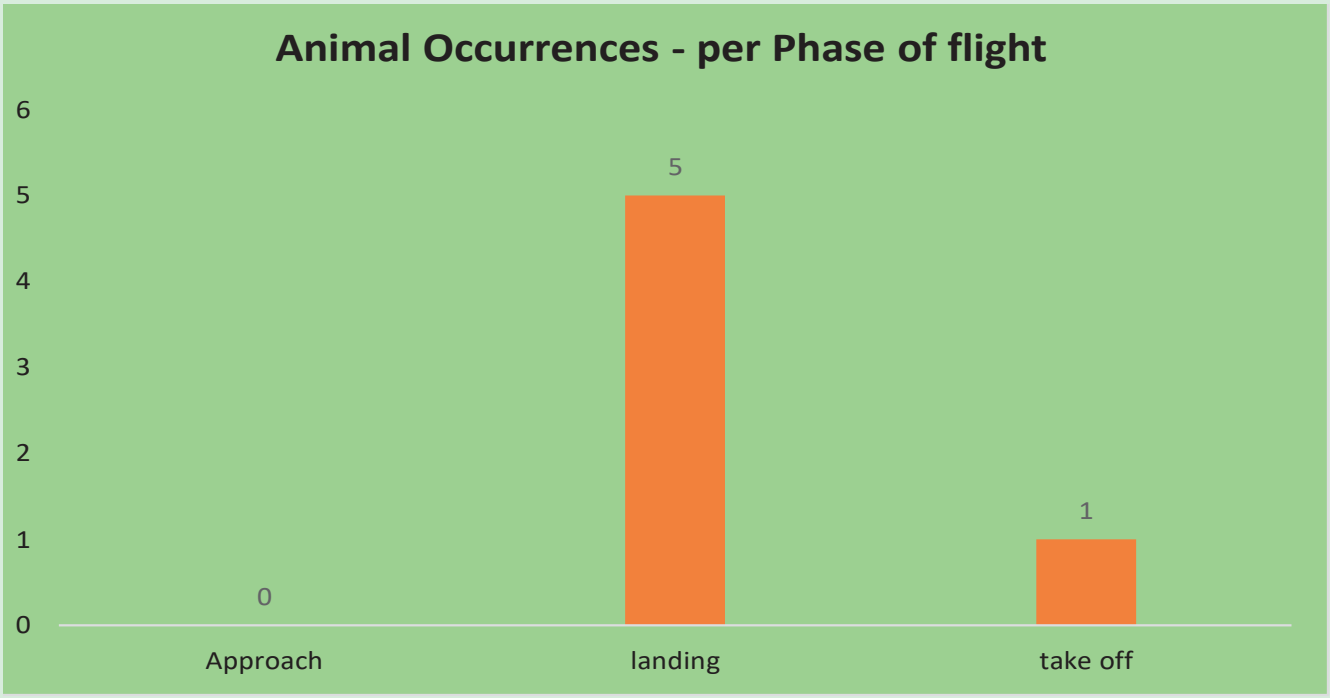


Animal Occurrence

Out of total 6 Animal occurrences in the year 2020, more than 60% occurred in the months of January and October.



Among them, 5 occurrences were reported in landing phase.

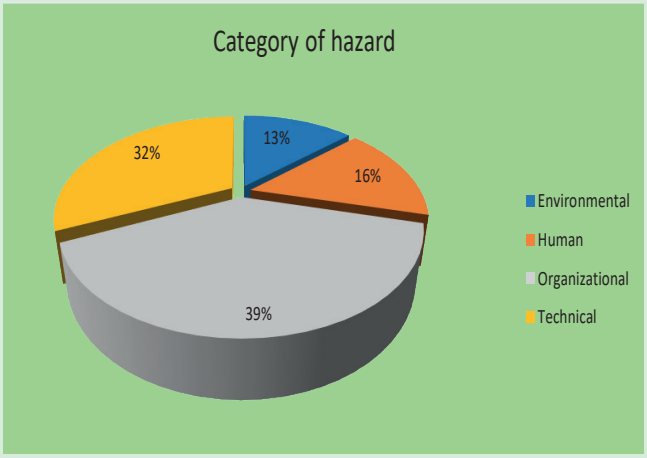


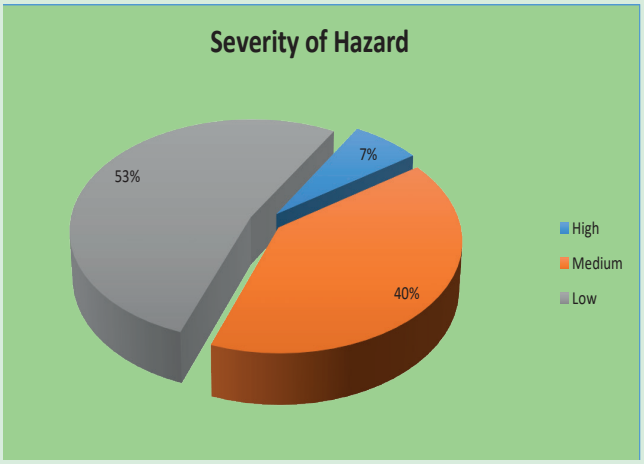
Chapter- 6

Hazard Reporting - 2020

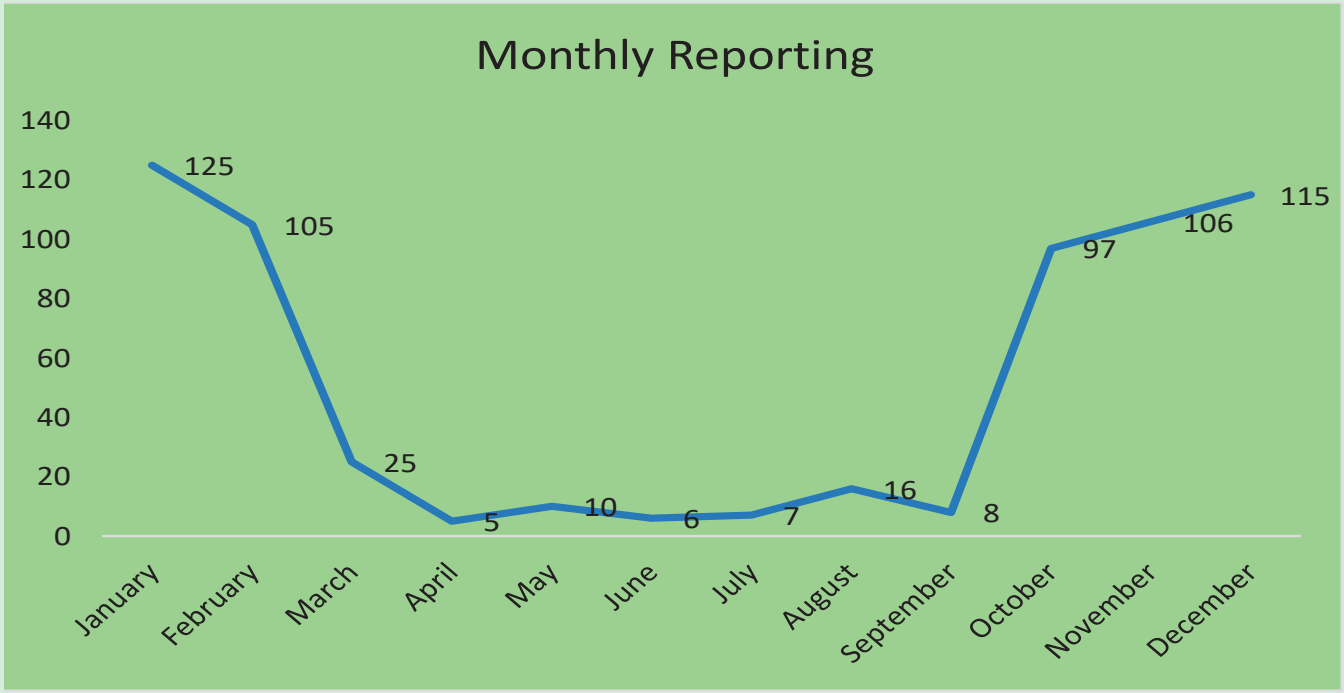
Total 625 hazards were reported in year 2020. They were categorized into 4 categories, as prescribed by ICAO/CAST Taxonomy for Hazard. Maximum number of hazards were reported in Organizational area whereas the Environmental area witnessed the lowest number of hazards.

Out of total hazards reported, 7% were of high safety concern and 53% were of low safety concern. The level of safety concern was determined on the basis of probable level of risk of consequence of hazard.

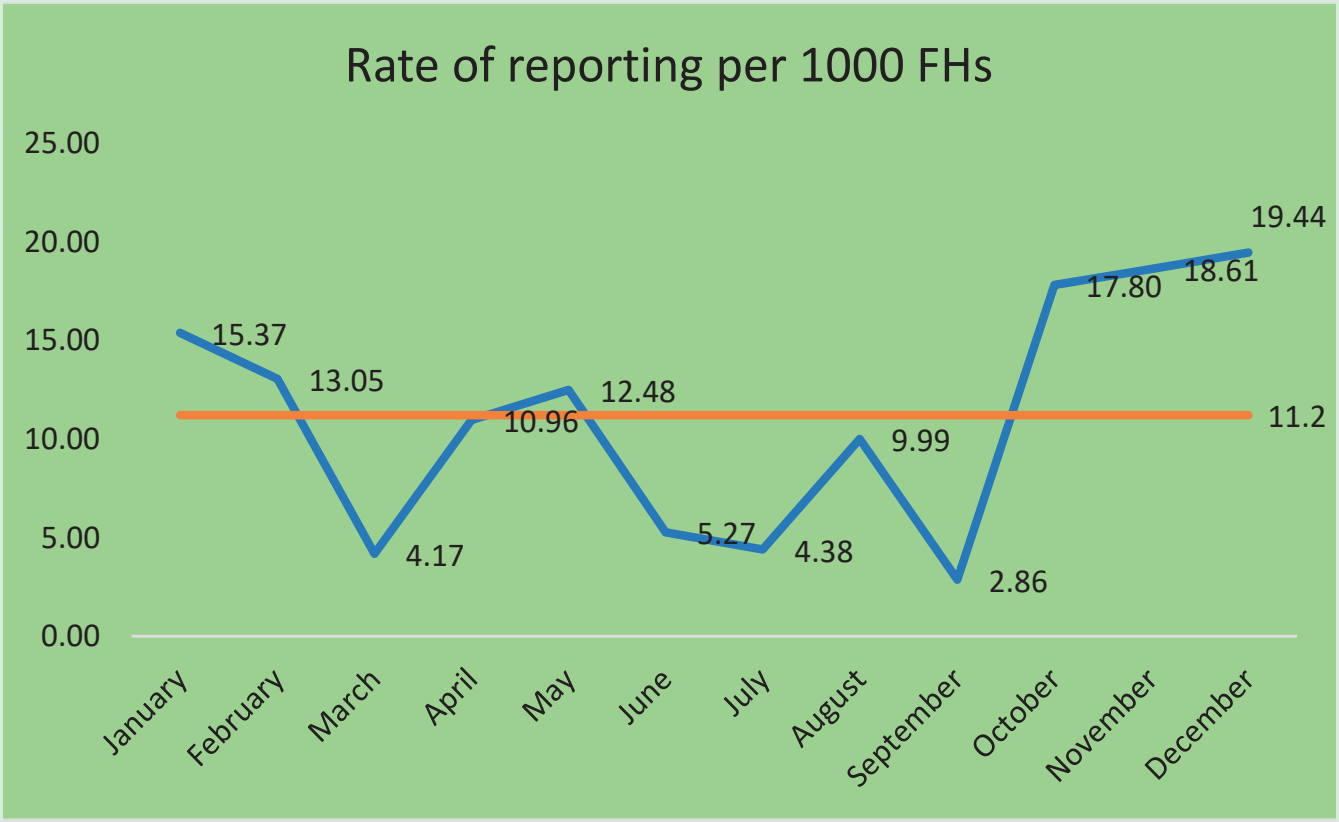




Highest number of hazards were reported in January and lowest in April. Months of December, November and February also witnessed significant number of hazard reports.



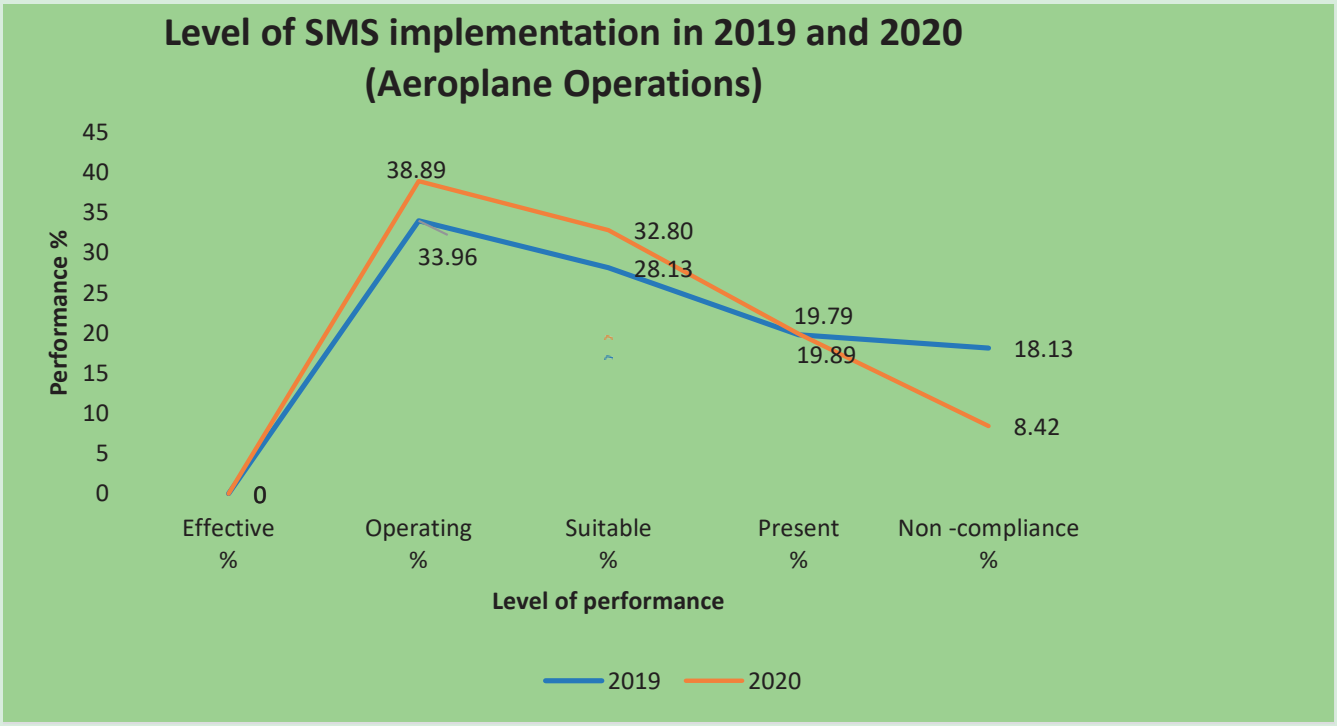
The average rate of hazard reports per 1000 flying hours was 11.2. Months of January, December, November, October and April witnessed the higher-than-average rate of hazards whereas September witnessed the lowest rate.

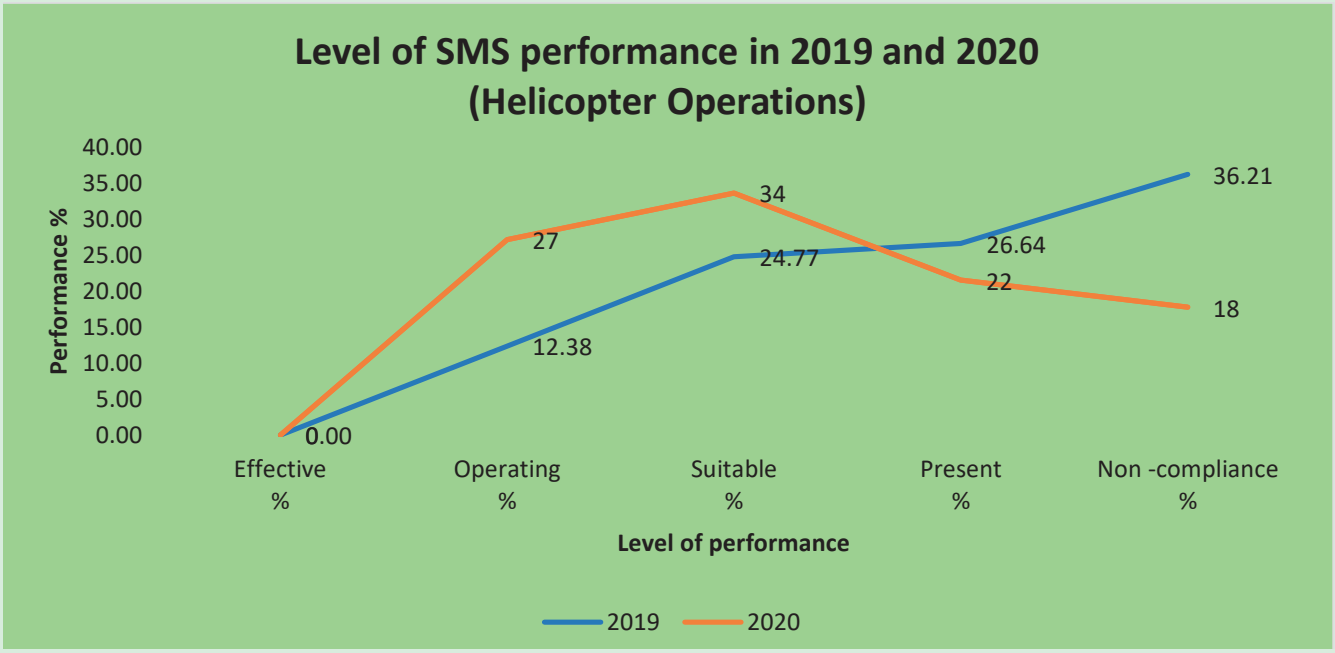


Chapter- 7

SMS Implementation in Airline Operators

The level of SMS performance has been assessed into 4 maturity levels as recommended by ICAO. In each level of maturity, improvement has been observed in both Aeroplane and Helicopter operators.



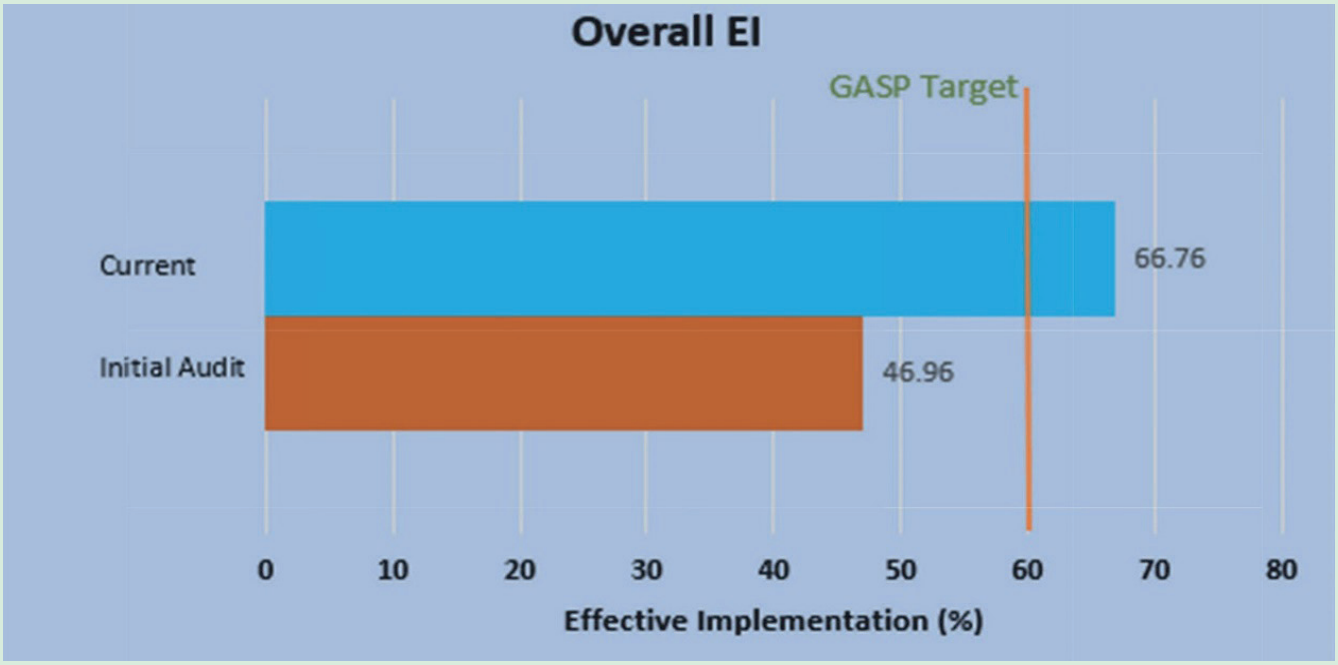


Chapter- 8

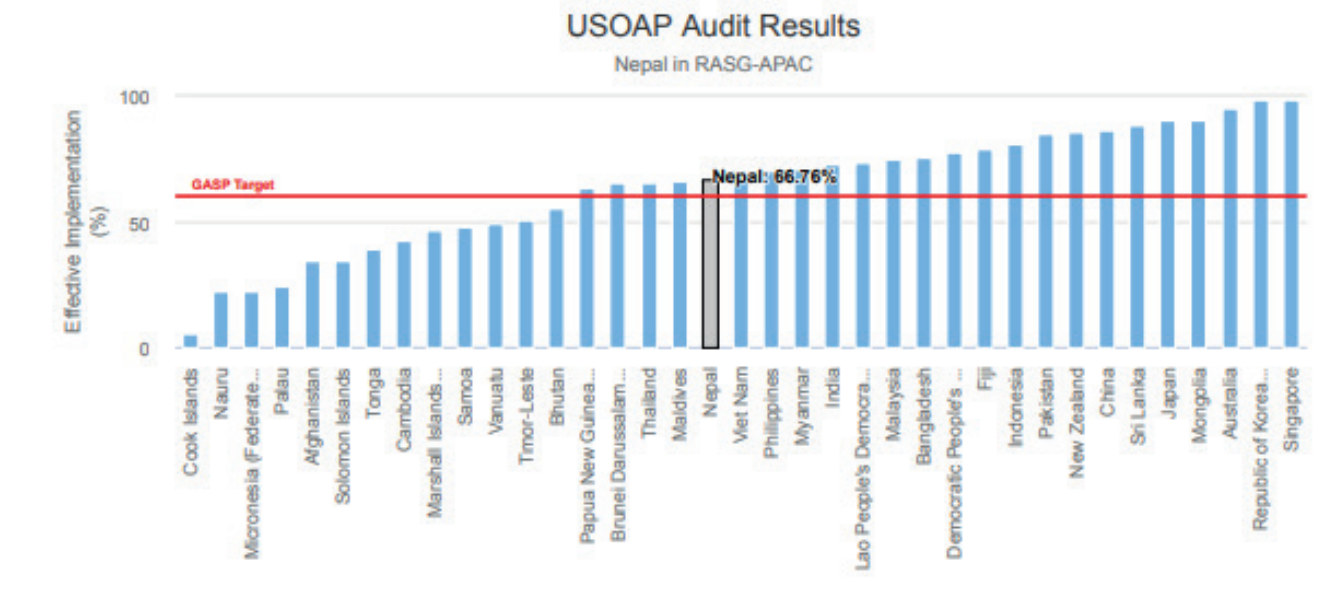
State Oversight Information

Overall Effective Implementation:

The Effective Implementation of Nepal in the last USOAP audit is 66.76% which is 6.76% above the global benchmark set in Global Aviation Safety Plan. This reflects the significant progression in the state's oversight capability since the initial audit in 2009.

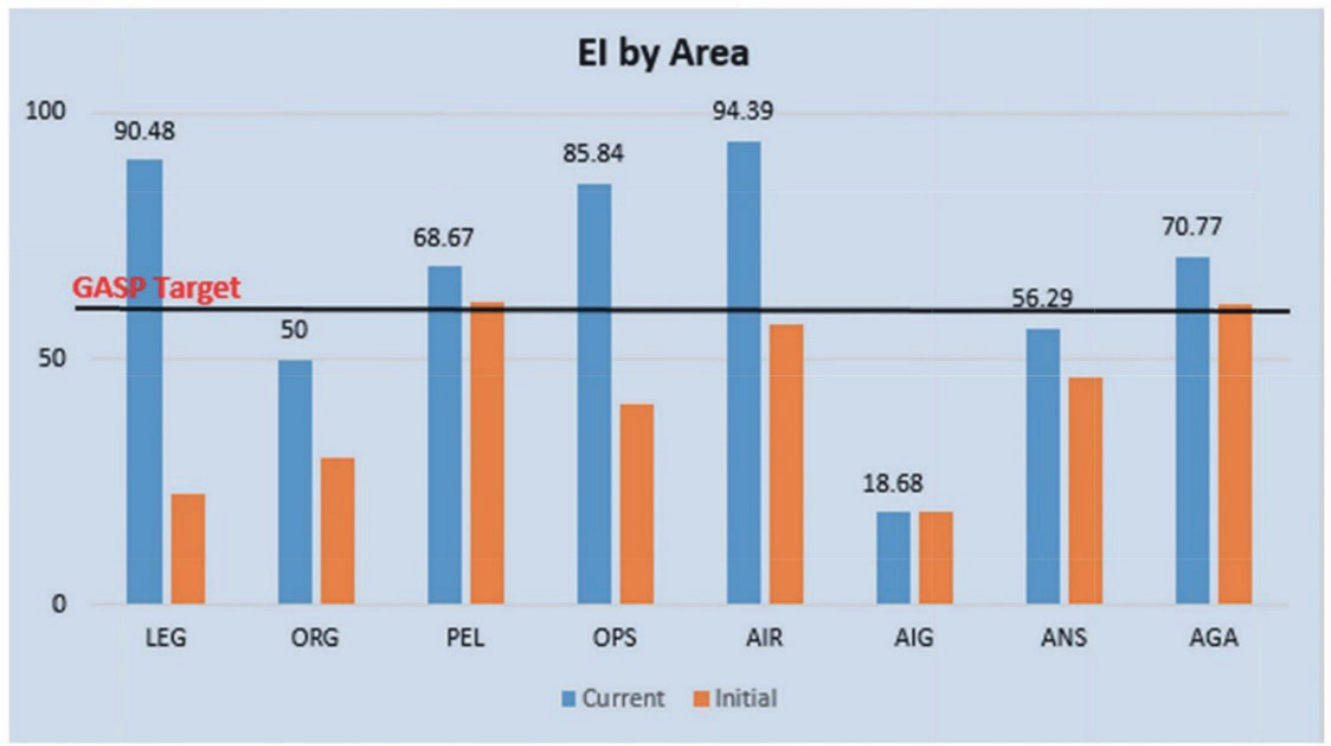


Nepal is ranked 20th in RASG-APAC with respect to overall effective implementation within this group. In this region, 64.86% states have reached the ICAO GASP target of 60% with the regional average of 63.91%. The overall EI of Nepal is 2.85% above the regional average.

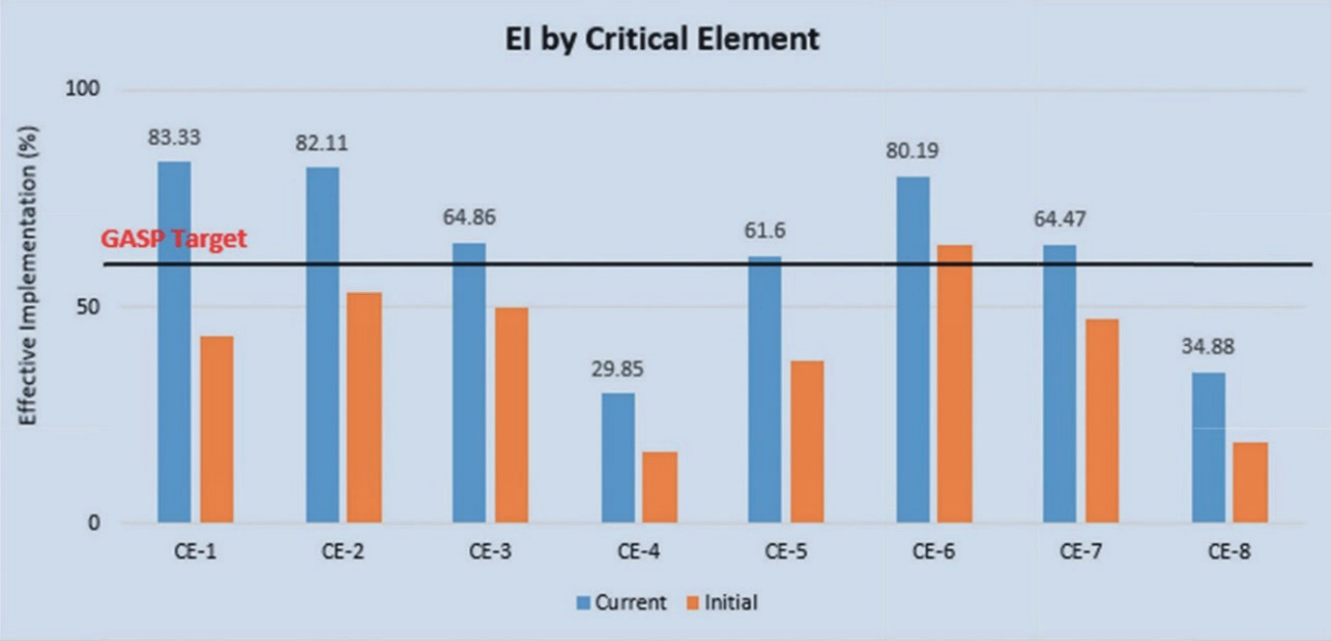


Effective Implementation by Area

Nepal has five areas that are above the GASP target of 60% EI. The strongest area of Nepal is AIR having 94.39% EI. AIG, with least EI, is the area which has not been audited since 2009.

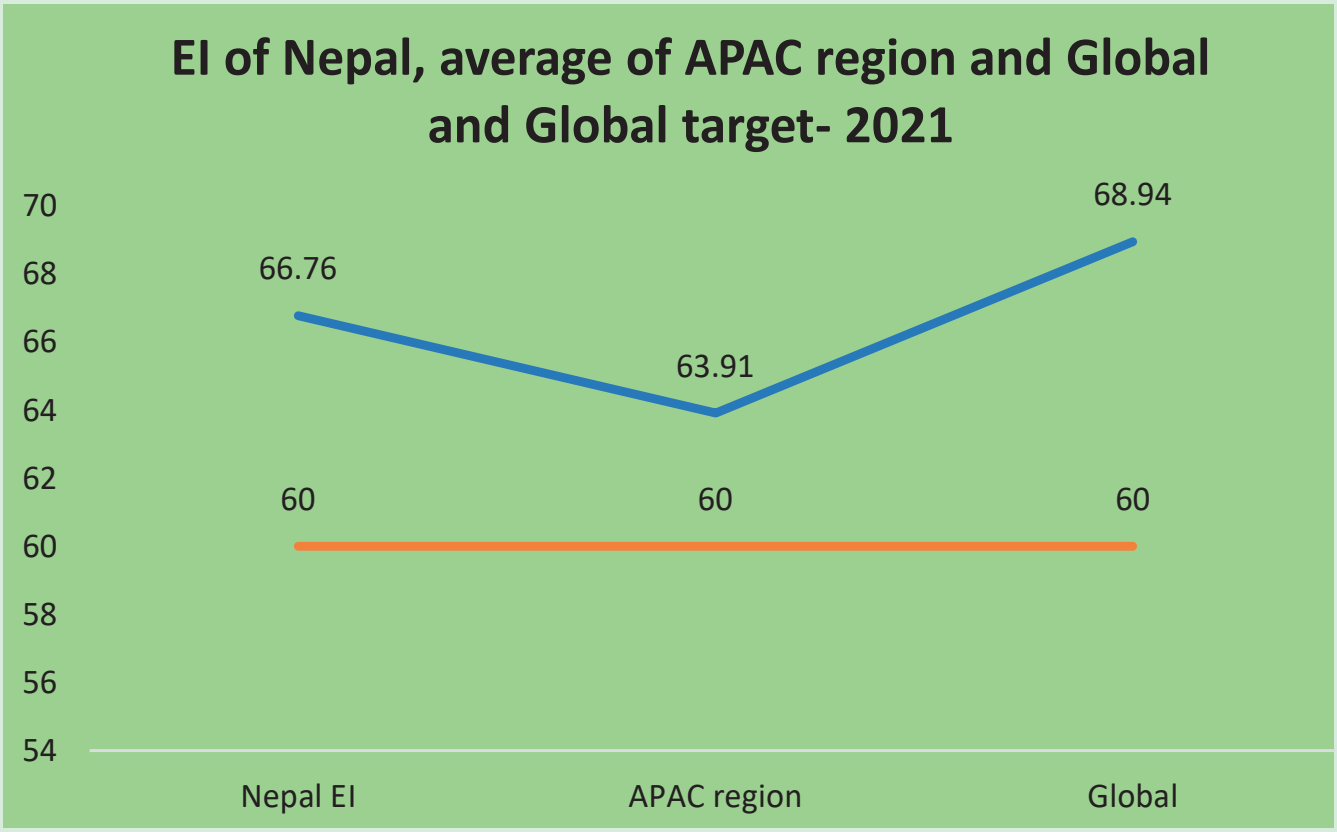


Effective Implementation by Critical Elements



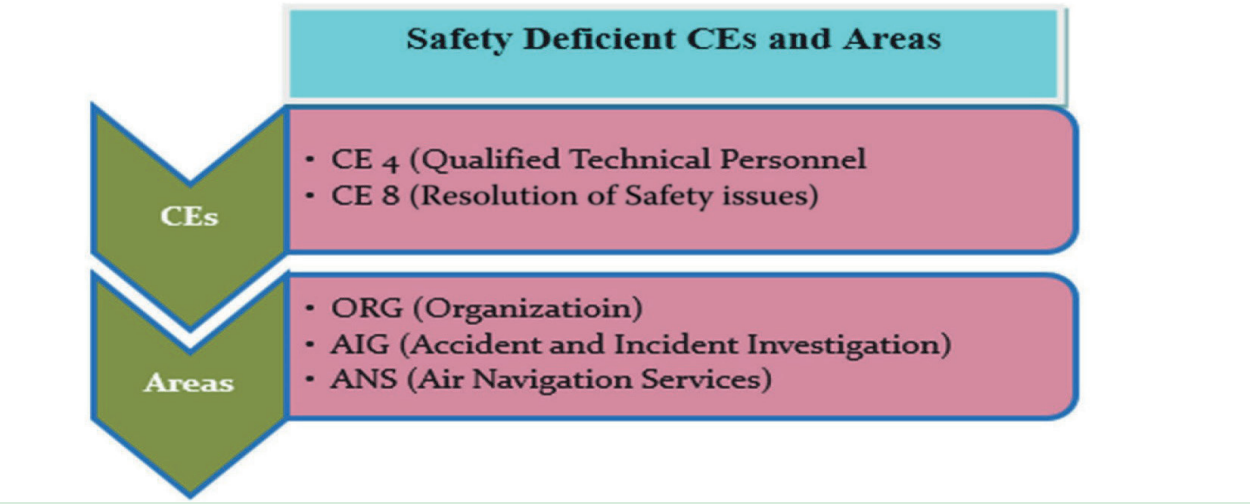
Nepal has six Critical Elements with EIs standing above the GASP target. CE1, CE2 and CE6 are the stronger elements whereas CE4 and CE8 are the weakest ones.

Nepal's EI (66.76%) is higher than APAC regional average EI (63.91%) and ICAO's global target (60%) but close to Global Average EI (68.94%).



Safety Deficient CEs and Areas

CE4 and CE8 were identified as the safety deficient critical elements whereas ORG, AIG and ANS were identified as the safety deficient areas of the state safety oversight capability system in the last USOAP Audit- 2017.



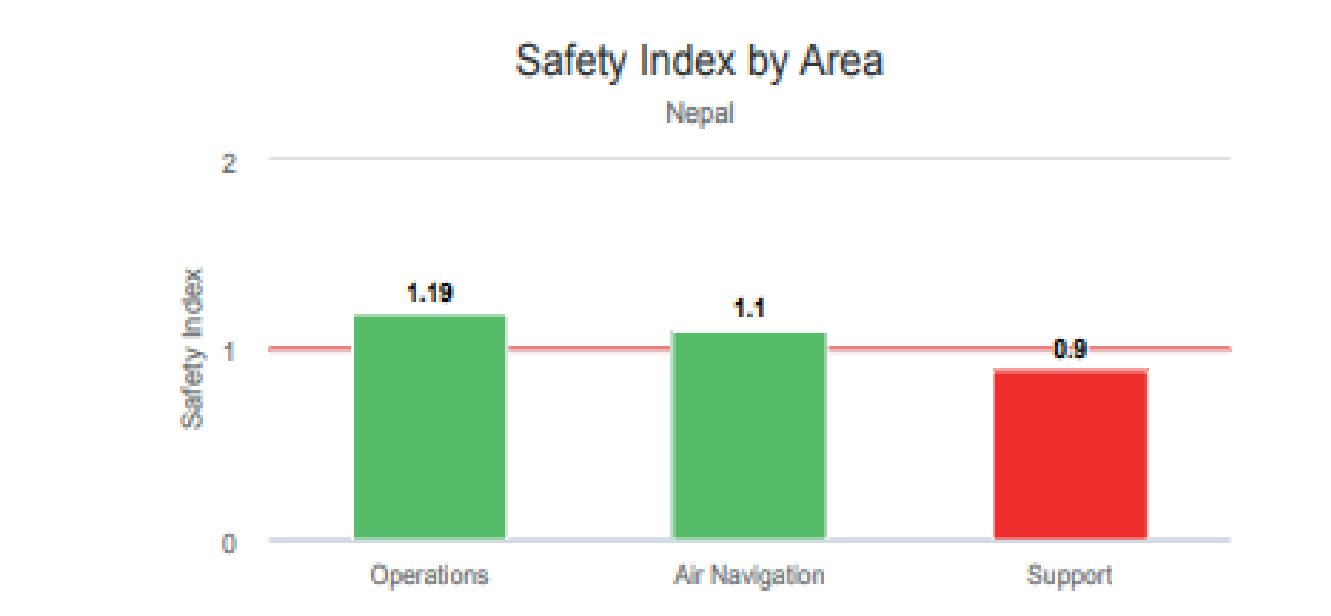
	LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA
CE-1		1				4		
CE-2	2		3	1		7	2	2
CE-3		4	1	1	1	7	10	2
CE-4			4	4	1	6	29	3
CE-5			1		1	39	3	4
CE-6			10	4	1		17	10
CE-7			4	4	1		8	10
CE-8			3	2	1	11	4	7

Protocol findings by Area and Critical Element intersection

Nepal currently has 240 open USOAP protocol findings. The highest number of protocol findings (39) is related to Technical Guidance, Tools and the Provision of Safety-Critical Information (CE-5) in the area of Accident Investigation (AIG).

Safety Indexes (indices) provide a risk-based prioritization of operations, air navigation and support related USOAP areas. A State with a positive safety index is considered to have sufficient regulatory controls in place to cover its existing traffic volume and that with the negative one is considered to have an insufficient oversight system considering its traffic volume.

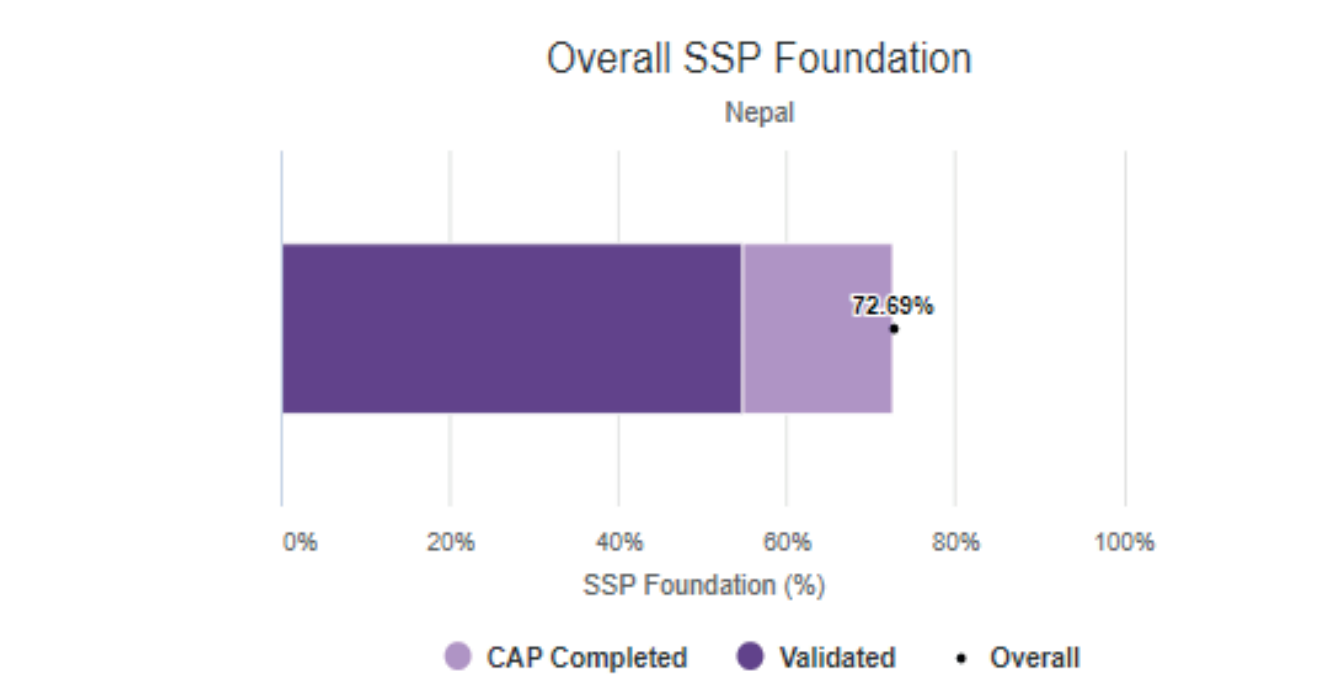
Nepal has a positive Safety Index in Operations (OPS, AIR and PEL) and Air Navigation (ANS and AGA) whereas negative index in Support area which includes LEG, ORG and AIG.



SSP Foundation

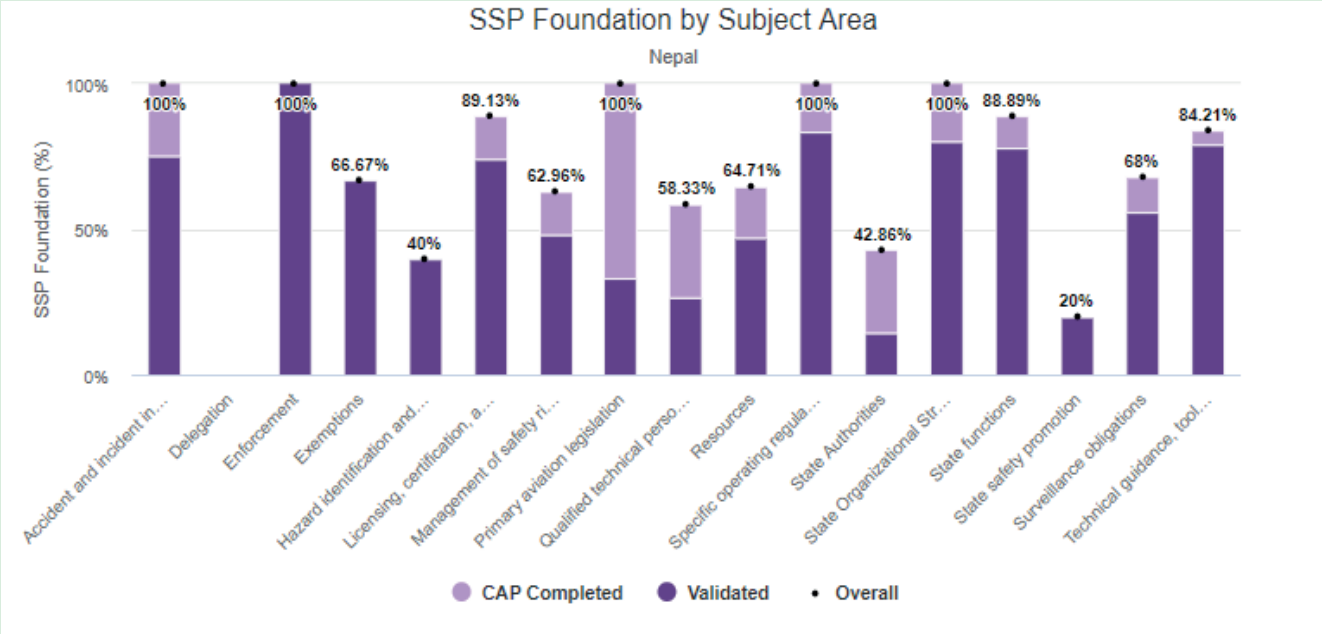
The SSP Foundation indicator is calculated, as the percentage of a sub-set of 299 USOAP Protocol Questions considered as the foundation for an SSP implementation.

Nepal has overall (Validated and CAP completed) 72.69% of SSP foundation implementation.



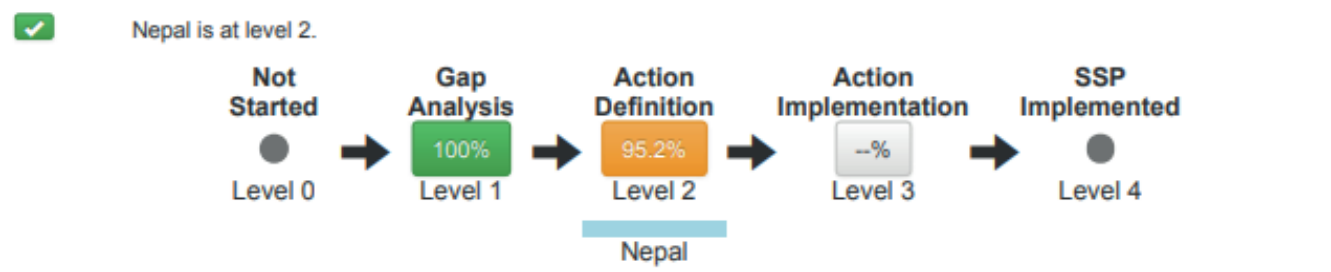
SSP Foundation by Subject Area

Based on ICAO Annex-19 (second edition) and Safety Management Manual (fourth edition), the sub-sets of the Protocol Questions have been grouped under 17 subjects as shown below.



SSP Implementation in Nepal

Nepal has almost completed Level 2 of SSP implementation attaining the target of State as agreed with ICAO.



Definitions:

Level 0: States not having started a GAP analysis

Level 1: States having started a GAP analysis

Level 2: States having reviewed all the GAP analysis questions

Level 3: States having defined an action plan for all non -implemented questions

Level 4: States having closed all actions and fully implemented their SSPs

Chapter- 9

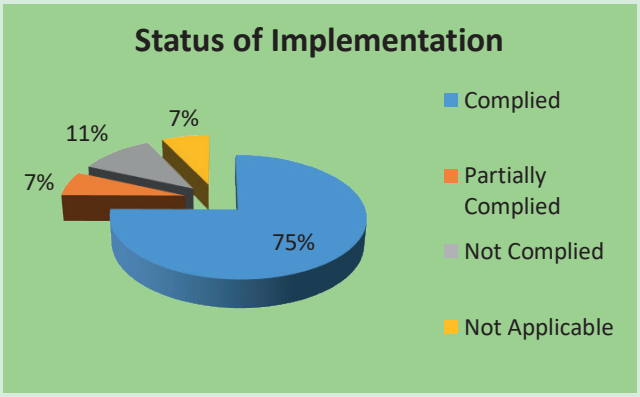
Operational Safety Risks in Nepal

Based on records of actual fatalities, high fatality risk per accident and the numbers of accidents and incidents, Nepal Aviation Safety Plan (NASP, 2018-2022) has identified six areas of operational safety risks in Nepal, viz. Controlled Flight into Terrain (CFIT), Loss of Control in Flight (LOC-I), Mid Air Collision (MAC), Runway Incursion (RI), Runway Excursion (RE) and Wild Life Strike (WS). These areas resemble with the global HRCs as identified by GASP (2020-2022).

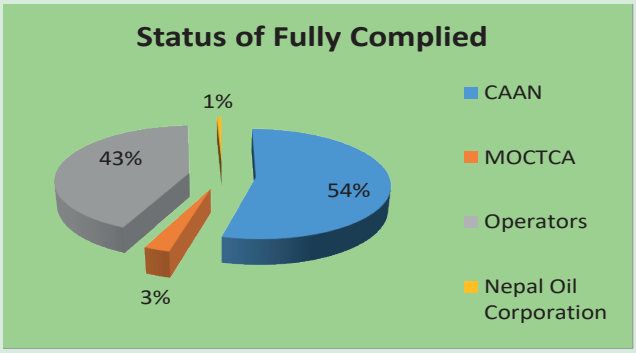
Chapter- 10

Status of Implementation of Accident Investigation Recommendations in Nepal (2011 to 2020)

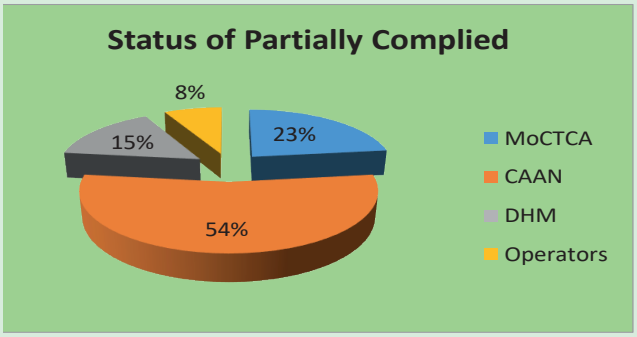
Total Recommendations:	**197**
Complied:	148
Partially complied:	13
Not Complied:	22
Not Applicable*:	14



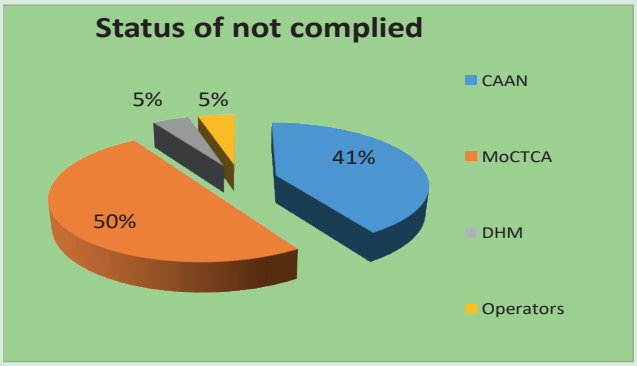
Total Complied:	**148**
CAAN:	80
MoCTCA:	4
Operator:	63
Nepal Oil Corporation:	1



Partial Complied:	**13**
MoCTCA:	3
CAAN:	7
DHM	2
Operators	1

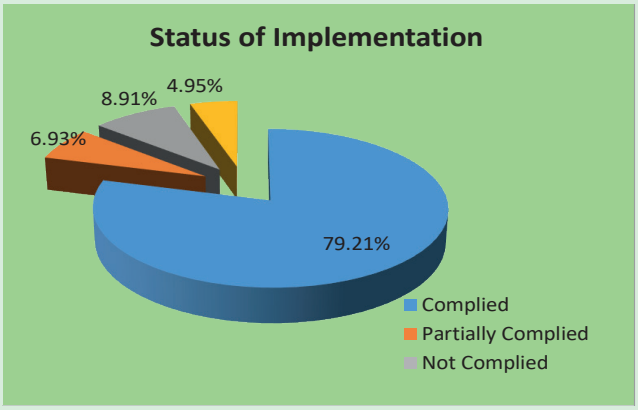


Not Complied:	**22**
CAAN:	9
MoCTCA:	11
DHM	1
Operators:	1



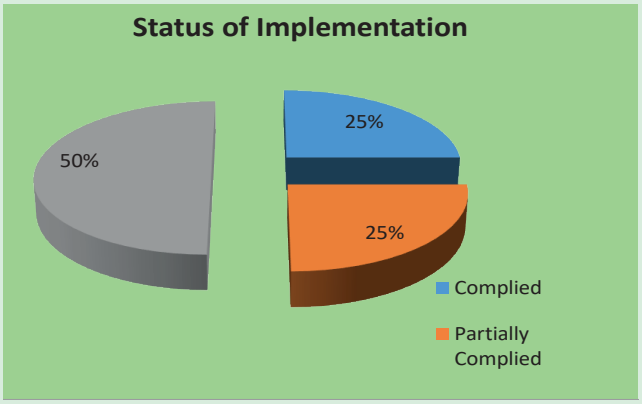
Directed to CAAN

Total Recommendations:	**101**
Complied:	80
Partially complied:	7
Not Complied:	9
Not Applicable	5



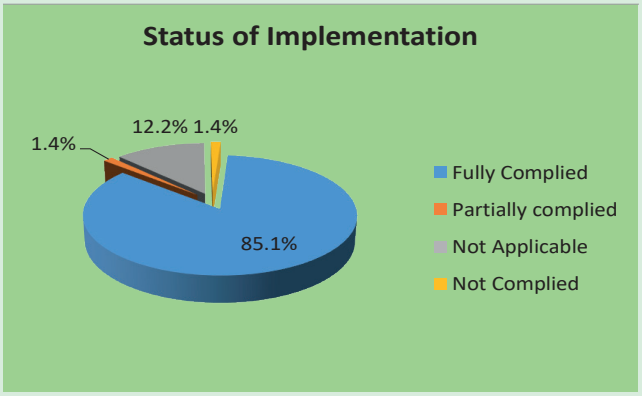
Directed to MoCTCA, DHM and NOC

Total Recommendations:	**20**
Complied:	5
Partially complied:	5
Not Complied:	10



Directed to Airline Operators

Total recommendations:	**74**
Complied:	63
Partially complied:	1
Not Complied:	1
Not applicable:	9



Chapter- 11

National Aviation Safety Plan (NASP), 2018 to 2022

Goal 1

Target 1.1: to maintain a decreasing trend of the national accident rate.

Goal 2

Target 2.1:to improve score for the EI of CEs of the Nepal's safety oversight system with focus on priority PQs as follows:
By 2022- 75%
By 2026- 85%
By 2030- 95%
Target 2.2: to reach a positive safety oversight margin in all categories by 2022.

Goal 3

Target 3.1: Nepal to implement the foundation of its SSP by 2022.

Target 3.2: Nepal to attain L3 SSP implementation (defined actions implemented) by 2022.

Target 3.3: Nepal to implement an effective SSP (Level 4), as appropriate to the aviation system complexity by 2025.

Goal 4

Target 4.1: Nepal to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO recognized functions in seeking assistance to strengthen their safety oversight capabilities by 2020.

Target 4.2:Nepal to contribute information on safety risks, including SSP Safety Performance Indicators (SPIs), to Asia pacific aviation safety group (AP-RASG) by 2022.

Target 4.3: Nepal to actively lead RASGs' safety risk management activities with effective safety oversight capabilities and an effective SSP by 2022.

Target 4.4: Nepal to actively participate in the regional mechanism for data collection, analysis and sharing by 2020.

Target 4.5: Encourage to participate in flight data sharing initiatives by Nepal air operators, with aircraft of mass 27,000kg or above.

Goal 5

Target 5.1: All service providers in Nepal to use globally harmonized SPIs as part of their safety management system (SMS) by 2020.
Target 5.2: Encourage to increase the number of service providers participating in the corresponding ICAO-recognized industry assessment programmes (ie IOSA accrediation).

Goal 6

Target 6.1: Nepal to implement air navigation and airport core infrastructure by 2022.

Target 6.2: Nepal to achieve at least 75% EI in AGA of USOAP CMA by 2022.

Target 6.3: Nepal to achieve at least 75% EI in AIG of USOAP CMA by 2022.

Target 6.4: Nepal to certify all aerodromes that are used for international operations by 2022.

NASP, Nepal (2018 to 2022) SEIs - Actions Implementation Status

A. ANS Safety

1. **Actions:** Promote the improvement of ATC systems, procedures and tools to enhance conflict management- With the installations of EMSSR system,

   Status: Implemented

2. **Action:** Ensure that the ATC system is properly equipped of and is in effective implementation of STCA by 2022.

   Status: With the installations of EMSSR system, task has been completed.

3. **Action:** Develop policy, procedures and trainings that support situational awareness for controllers, pilots, airside-vehicle drivers and other airport users by 2020.

   Status: Developed under MATS Nepal Chapter 13, Training and Rating Program, 13.6, Emergency Training, 13.7 Refresher Training for ATCOs.

4. **Action:** Ensure that procedures for the systematic reduction of the rate of stabilized approaches to runways are developed and implemented by 2022.

   Status: RNP AR APCH at TIA, New RNP AR APCH for RWY 20 and RWY 02 for TIA in Approval phase and all the latest PBN procedures implemented in Dhangadhi, Chandragadhi, Janakpur as well as the PBN procedure in Rajbiraj airport (in approval phase) are based on Continuous Descent Final Approach Techniques (CDFA).

5. **Action:** Implement minimum safe altitude warning system. Ensure the timeliness of updates and accuracy of Electronic Terrain and Obstacle Data.

   Status : Works on progress.

6. Besides above initiatives, the ANSSSD has taken following initiatives for the enhancement of overall safety of ATS operation:

   a. Circular issued to ATS provider giving basic recommendations for the development of SOP to address the impact of COVID-19 pandemic.

   b. Monsoon Circular issued to ATS provider.

   c. Safety circular issued to ATS provider giving basic recommendations for the preparation to resume normal ATS operation in new normal situation.

B. Aerodrome Safety

1. **Action:** Aerodrome Certification.

   Status: Currently one international airport (TIA) and two regional hub airports (Biratnagar and Nepalgunj) have been granted aerodrome certification. Gautam Buddha airport is in preliminary phase of preparing aerodrome manual and other documents required for applying for aerodrome certification.

2. **Action:** Reporting of runway surface condition.

   Status: All the certified aerodrome operators are notified for making necessary preparations to meet the applicability date of November 2021 (amended) for using ICAO global reporting format (GRF) for assessing and reporting runway surface condition. Some aerodrome inspectors and officials have also received online training regarding the ICAO global reporting format.

3. **Action:** Runway End Safety Areas (RESA).

   Status: Runway extension work at end of RWY 02 of Tribhuvan International Airport (TIA) has been completed and RESA has been declared at both runway ends of TIA.

4. **Action:** Promote collecting, reporting, recording and analysis of data on Wildlife strikes and observed wildlife and formulate the strategies for Wildlife strike management.

   Status: Implemented.

5. **Action:** Wildlife Strike management.

   Status:

   a. With the replacement of existing ICAO bird strike information system with new European Coordination Center for Accident and Incident Reporting system (ECCAIRS), all the certified aerodrome operators have been notified for reporting bird strike/wildlife strike using ECCAIRS format.

   b. New bird scarring devices have been installed at TIA as means for distracting birds.

   c. Management of Bird Activities: At each certified airport, bird control coordination and implementation unit chaired by GM/Director of the airports has been formed. The major function of such unit includes collecting data on bird activities in vicinity of airports and managing bird hazard by finding out appropriate solution.

C. Flight Safety

1. **Action:** Issue a Safety Advisory to increase adherence to TAWS warning procedures.

   Status: Safety Advisory to increase adherence to TAWS warning procedures issued.

2. **Action:** Guidance for operators on training programme on the use of GPWS.

   Status: Flight Safety Circular on Guidance for operators on training programme on the use of GPWS issued.

3. **Action:** Awareness of Monsoon.

   Status: Advisory Circular on monsoon issued to all air operators.

4. **Action:** Guidance for operators to ensure effectiveness of GPWS equipment.

   Status: Flight Safety Circular on Guidance for operators to ensure effectiveness of GPWS equipment issued.

5. **Action:** CRM Training Programme.

   Status: Flight Safety Circular on CRM Training Programme issued.

6. **Action:** CFIT and ALAR training

   Status: Flight Safety Circular on CFIT and ALAR training issued.

7. **Action:** Mode Awareness and Energy State Management Aspects and Flight Deck Automation

   Status: Flight Safety Circular on Mode Awareness and Energy State Management Aspects of issued. Flight Deck Automation issued.

8. **Action:** Instrument Approach Procedure using CDFA Technique.

   Status: Flight Safety Circular on Instrument Approach Procedure using CDFA Technique issued.

9. **Action:** Establishment of FDAP

   Status: Flight Safety Circular on Establishment of FDAP issued.

10. **Action:** FSDS

    Status: Flight Safety Circular on FSDS issued.

11. **Action:** Air Operators' SOP for Flight Deck Crew members regarding LOC-I and CFIT.

    Status: Flight Safety Circular on Air Operators' SOP for Flight Deck Crew members regarding LOC-I and CFIT issued.

12. **Action:** Runway Safety Maturity.

    Status: Flight Safety Circular on Runway Safety Maturity issued.

13. **Action:** Runway Incursion prevention and pilot training.

    Status: Flight Safety Circular on Runway Incursion prevention and pilot training issued.

14. **Action:** Flight crew proficiency.

    Status: Flight Safety Circular on Flight crew proficiency issued.

D. State Safety Programme (SSP)

1. **Action:** Secure State-level commitment to improve safety.
   Status: State-level commitment to improve safety secured through State Safety policy.
2. **Action:** Conduct initial SSP gap analysis (checklist) then the detailed SSP self -assessment.
   Status: Both conducted.
3. **Action:** Establish an SSP implementation team.
   Status: Team established and is functioning.
4. **Action:** Develop an implementation plan for the SSP
   Status: Developed the plan and working on it.
5. **Action:** Issue SMS regulations for service providers and verify SMS implementation.
   Status: CAAN SMS Implementation Guidance Materials, 2019 promulgated.
6. **Action:** Identify and share safety management best practices
   Status: Few best practices have been identified and shared with industry through the SMS Implementation Guidance material.
7. **Action:** Establish a process for planning and allocation of resources to enable SSP implementation and identify areas where resources are needed.
   Status: Deficient areas have already been identified through Gap Analysis.
8. **Action:** Establish a system for the continuous improvement of the SSP, in collaboration with all relevant stakeholders.
   Status: High level Safety Coordination Committee (HLSCC) with participation of all relevant stakeholders has been established and is functioning. One of the responsibilities of the committee is to monitor the SSP implementation and take necessary decisions for the continuous improvement of SSP.
9. **Action:** Establish a legal framework related to the protection of safety data, safety information and other related sources.
   Status: The protection of safety data, safety information and other related sources have been ensured including the related provisions in Civil Aviation Requirement for Safety Management (CAR-19), 2nd Edition, 2019. (See CAR-19, 2nd Edition, 2019, Appendix-3).
10. **Action:** Establish a State and Industry mandatory occurrence reporting system.
    Status: Safety Occurrence Reporting Procedure, 2016 have been developed and implemented.
11. **Action:** Establish a State and Industry confidential voluntary safety reporting system providing data to the safety database.
    Status: Provision related to State confidential voluntary safety reporting system included in CAR-19, reporting systems established and is functioning.
12. **Action:** Collaborate with national and industry stakeholders to establish a mecaahanism for the regular sharing and exchange of safety information, analyses, safety risk discoveries/lessons learned and best practices within a confidential and non-punitive environment.
    Status: NAST-Aeroplane, NAST-Rotor, NAST-Aerodrome and NAST-ANS have been established and are functioning for the regular sharing and exchange of safety information, analyses, safety risk discoveries/lessons learned and best practices within a confidential and non-punitive environment as the mechanisms for collaborating with national and industry stakeholders.

Chapter- 12

Aviation Safety Activities in 2020

1. Instructor Standardization Ground Training (16 January, 2020) organized by CAAN and Airbus Helicopter.
2. Flight Assessment of Instructor Pilot- Helicopter (18-24 January, 2020), organized by CAAN and Airbus Helicopter.
3. Safety Management System (19-22 January,2020) organized by AOAN
4. Training on Understanding Safety Culture for Accountable Manager (20 January,2020), organized by CAAN and Airbus Helicopter.
5. Workshop on Safety Risk Management in Flight Procedure Design Implementation (20 January, 2020) organized by CAAN.
6. Introductory Training on Helicopter Weight and Balance (21 January,2020) organized by AOAN.
7. Training on Understanding Safety Culture for Pilots/ AME" (Part-I) (21 January,2020), organized by CAAN and Airbus Helicopter.
8. Aviation medicine refresher course (22 January,2020) organized by CAAN.
9. Safety Concern Workshop (22-24 January,2020) organized by CAAN and DGAC France.
10. Training on Understanding Safety Culture for Pilots/ AME" (Part-II) (30 January,2020), organized by CAAN and Airbus Helicopter.
11. Seminar on 'QMS in AIS' and 'PELR for ATSEP and CNS Operation Practices' (14 February,2020) organized by CAAN.
12. Approved Training Organization workshop (18-20 February,2020), organized by CAAN and DGAC France.
13. Workshop on SMS for executives (24 February,2020) organized by CAAN and COSCAP-SA.
14. Workshop on Defining SPIs and SPTs (25 to 27 February,2020) organized by CAAN and COSCAP-SA.
15. MEL workshop (5-6 March 2020) organized by CAAN and DGAC France.
16. Webinar on ATFM Workshop (May 2020) conducted by CAAN.
17. Training on PBN Operations Approval organized in May 2020.
18. Quality Management workshop organized in Aug 2020 and Root Cause Analysis Workshop in Sept/Oct 2020.
19. Workload Management training organized in Oct 2020 and Mandatory Occurrence Reporting workshop in Nov / Dec 2020.
20. Workshop on Global Reporting Format for Runway Surface Conditions for Aircraft Operators and Flight

Crew (25 May 2020, ICAO / IATA).

21. Webinar for SMS awareness (19 June, 2020) organized by CAAN.
22. Webinar on EDTO and EFB (July 2020) conducted by CAAN and COSCAP-SA.
23. Safety promotional activities for all FOO of helicopter operators in Nepal by CAAN, AOAN and Airbus helicopter.
24. NGAP programs in different educational institutions conducted by CAAN.
25. Crisis Management Preparedness Seminar organized by CAAN.
26. "Standardization of Flight Instructors/examiners" and all potential instructors/examiners of helicopter operators and "EASA FCL workshop by EASA" for all stakeholders in Nepal.
27. Nepal Aviation Safety Campaign (Dec 2020) organized by CAAN and AOAN.

Appendix-1

Record of multi-engine Aeroplane Accident in Nepal

S.N.	Date	Registration	Type of A/C	Operator/Owner	Operation	Place	Fatality	Survival
1	5 Nov 1960	9N-AAD	DC-3	Nepal Airlines	Scheduled	Bhairahwa	4	None
2	1 Aug 1962	9N-AAH	DC-3	Nepal Airlines	Scheduled	TulachanDhuri	10	None
3	12 July 1969	9N-AAO	DV-3	Nepal Airlines	Scheduled	Near Heatauda	35	None
4	25 Jan 1970	9N-AAR	F-27	Nepal Airlines	Scheduled	New Delhi	1	22
5	15 Oct 1973	9N-ABG	DHC-6/300	Nepal Airlines	Scheduled	Lukla	None	6
6	22 Dec 1984	9N-ABH	DHC-6	Nepal Airlines	Scheduled	Cheklatidanda	15	8
7	02 May 1986	9N-ABI	DHC-6	Nepal Airlines	Scheduled	Sanfebagarirport	None	
8	19 Aug 1987	9N-ABB	DHC-6	Nepal Airlines	Scheduled	Dolpa	None	
9	9 Jun 1991	9N-ABA	DHC-6	Nepal Airlines	Scheduled	Lukla	None	
10	28 Jun 1991	9N-ABS	DHC-6	ATSC,DCA	Charter	Simikot	None	
11	26 Sep 1992	9N-ACI	Y-12	Nepal Airways	Scheduled	Lukla	None	
12	08 Nov 1993	9N-ACS	Y-12 II	Nepal Airways	Scheduled	Jomsom	None	
13	31 Jul 1993	9N-ACL	DO-228	Everest Air	Scheduled	Solighopte	18	None
14	14 Jan 1995	9N-ABI	DHC-6	Nepal Airlines	Scheduled	KathmanduAirport	2	23
15	15 Jul 1995	9N-ADB	Y-12	Nepal Airways	Scheduled	Bharatpur	None	
16	25 Apr 1996	9N-ABR	HS-748	Nepal Airlines	Scheduled	Meghauli	None	
17	28 Jul 1996	9N-ACC	DHC-6/300	ATSC,DCA	Charter	Simikot	None	
18	23 Dec 1996	9N-ACF	Y-12	Nepal Airways	Scheduled	Dolpa	None	
19	21 Aug 1998	9N-ACC	DHC-6	Sangrila Air	Scheduled	ChuchcheKhark,Myagdi	18	None
20	05 Sept	9N-AEG	HS-748	Necon Air	Scheduled	Thankot, Kathmandu	15	
1999	1999	9N-AEG	HS-748	Necon Air	Scheduled	Thankot, Kathmandu	15	
21	25 Dec 1999	9N-AFL	DHC-6	SkylineAirways	Scheduled	Burjo Lake, Makwanpur	10	
22	26 Feb 2000	9N-ABO	DHC-6	Nepal Airlines	Scheduled	Bajhang	1	
23	27 Jul 2000	9N-ABP	DHC-6	Nepal Airlines	Scheduled	Jogbuda, Dadeldhura	25	None
24	03 Nov 2000	9N-ACV	DO-228	GorkhaAirlines	Scheduled	Lukla	None	
25	19 Nov 2000	9N-AFS	DO-228	Cosmic Air	Scheduled	Tumlingtar	None	

Record of multi-engine Aeroplane Accident in Nepal

26	05 Apr 2001	9N-AEV	DHC-6/300	YetiAirlines	Scheduled	Tumlingtar	None	3
27	17 Jul 2002	9N-AGF	DHC-6/300	SkylineAirlines	Scheduled	GadgadeDanda,Surkhet	4	None
28	22 Aug 2002	9N-AFR	DHC-6/300	Shangrila Air	Scheduled	Pokhara	18	None
29	21Apr 2004	9N-AEK	B1900D	BuddhaAir	Scheduled	TIAAirport	1	None
30	25May 2004	9N-AFD	DHC-6/300	YetiAirlines	Scheduled	Lamjura,Solukhumbu	3	None
31	30June 2005	9N-AEO	DO-228	GorkhaAirlines	Scheduled	Lukla Airport	None	12
32	12June 2006	9N-AEQ	DHC-6/310	YetiAirlines	Scheduled	JumlaAirport	9	None
33	03July 2006	9N-AFE	DHC-6/310	YetiAirlines	Scheduled	Bajura Airport	None	3
34	08Oct 2008	9N-AFE	DHC-6/300	YetiAirlines	Scheduled	Lukla Airport	18	1
35	24Aug 2010	9N-AHE	DO-228	AgniAir	Scheduled	Sikharpur,Makawanpur	14	None
36	15Dec 2010	9N-AFX	DHC-6/300	TaraAir	Scheduled	Okhaldhunga,	22	None
37	25Sept 2011	9N-AEK	Beech1900D	BuddhaAir	Scheduled	Kotdanda,Lalitapur	19	None
38	14May 2012	9N-AIG	DO-228	AgniAir	Scheduled	Jomsom Airport	15	6
39	21Sept 2012	9N-ABQ	Do-228	TaraAir	Scheduled	Dolpa	None	7
40	28Sept 2012	9N-AHA	DO-228	SitaAir	Scheduled	Manohara,Bhaktapur	19	None
41	16May2013	9N-ABO	DHC-6/300	Nepal Airlines	Scheduled	Jomsom Airport	None	22
42	01June 2013	9N-AHB	DO-228	SitaAir	Scheduled	Simikot Airport	None	7
43	16Feb 2014	9N-ABB	DHC-6/300	Nepal Airlines	Scheduled	Masinelek, Arghakhanchi	18	None
44	24Feb 2016	9N-AHH	DHC-6/400	TaraAir	Scheduled	Dana,Myagdi	23	None
45	24Sept 2016	9N-AIB	J41	Yeti Airlines	Scheduled	Bhairahawa	None	32
46	27May 2017	9N-AKY	Let410	SummitAir	Cargo	Lukla Airport	2	1
47	28Nov 2017	9N-ABM	DHC-6/300	TaraAir	Scheduled	Simikot	None	16
48	9June 2018	9N-AEV	DHC-6/300	TaraAir	Scheduled	Jumla	None	21
49	1 Sept. 2018	9NA-HW	JS41	Yeti Airlines	Scheduled	TI Airport	None	21
50	14 April 2019	9N-AMH	LET 410	Summit Air	Scheduled	Lukla Airport	1+2	2
51	March28, 2020	9NAKU	Y12 E	NAC	Charter	Nepalgunj airport	0	None

Appendix-2

Record of single Engine Aeroplane Accidents in Nepal

S.N.	Date	Registration	Type of A/C	Operator/Owner	operation	Place	Fatality	Survival
1	31 Mar 1975	9N-AAZ	PC-6	Nepal Airlines	Charter	Bouddha, Kathmandu	5	None
2	30 Oct 1981	9N-ABJ	PC-6	Nepal Airlines	Charter	Biratnagar	10	None
3	20 Nov 1998	9N-ABK	PC-6/B2-H4	Nepal Airlines	Charter	Phakding	1	None
4	17 Jan 1999	9N-ADA	Cessna-208	Necon Air	Charter	Jumla	5	7
5	21 Nov 2011	9N-AJM	Cessna-208	Makalu Air	Cargo	Talcha Airport	None	None
6	26 Feb 2016	9N-AJB	PAC750XL	Air Kashthamandap	Charter	ChilkhayaKalikot	2	9
7	08 Apr 2016	9N-AKC	Cessna-208	Makalu Air	Cargo	Near Simikot	None	2
8	16 May 2018	9N-AJU	Cessna-208	Makalu Air	Cargo	Simikot Pass	2	None

Appendix-3

Record of helicopter accidents in Nepal

S.N.	Date	Registration	Type	Operator/Owner	Place	Fatality	Survival
1	27 Dec 1979	9N-RAE	Allutte-III	VVIP	Langtang	6	None
2	27 Apr 1993	9N-ACK	Bell-206	Himalayan Helicopter	Langtang	None	
3	24 Jan 1996	9N-ADM	MI-17	Nepal Airways	Sotang	None	3
4	30 Sep 1997	9N-AEC	AS-350	Karnali Air	Thupten Choling	1	4
5	13 Dec 1997	9N-ADT	MI-17	Gorkha Airlines	Kalikot	None	
6	04 Jan 1998	9N-RAL	Bell-206	VVIP Flight	Dipayal		
7	24 Oct 1998	9N-ACY	AS-350B	Asian Airlines	MulKhark	3	None
8	30 Apr 1999	9N-AEJ	AS-350BA	Karnali Air	Lisunkhu, Sindhupalchowk	None	
9	31 May 1999	9N-ADI	AS-350B2	Manakamana Airways	Ramechhap	None	
10	11 Sep 2001	9N-ADK	MI-17	Air Ananya	Mimi	None	5
11	12 Nov 2001	9N-AFP	AS-350B	Fishtail Air	Rara Lake, Mugu	4	2
12	12 May 2002	9N-AGE	AS 350B2	Karnali Air	Makalu Base Camp	None	1
13	30 Sep 2002	9N-ACU	MI-17	Asian Airlines	Sholumkhumbu*	11	None
14	(MI8-MTV)	Asian Airlines	Sholumkhumbu*	11	None	2	6
15	28 may 2003	9N-ADP	MI-17 IV	Simrik Air	EverestBase Camp	2	6
16	04 Jan 2005	9N-AGG	AS-350BA	Air Dynasty Heli Service	Thhose VDC, Ramechhap	3	None
17	02 Jun 2005	9N-ADN	MI-17	Shree Airlines	EverestBase Camp.	None	7
18	07 May 2006	9N-ADT	MI-17 MTV1	Heli Hansa Services	Dhawalagiri Base Camp	None	7
19	08 Aug 2006	9N-AGS	MI-17	Karnali Air	TI Airport, KTM	None	5
20	03 Sep 2006	9N-ACR	AS-350BA	Air Dynasty Heli Service	Dhawalagiri BaseCamp	None	1
21	23 Sep 2006	9N-AHJ	MI-17	Shree Airlines	Ghunsa, Taplejung	24	None
23	29 Jun 2008	9N-AIA	AS-350	Fishtail Air	Annapurna Base Camp	None	4
24	07 Nov 2010	9N-AIX	AS 350B3	Fishtail Air	Amadablam Mountain	2	None
25	29 Nov 2011	9N-AIK	AS 350B	Fishtail Air	Solukhumbu	None	2
26	19 Jun 2013	I-VIEW	AS 350B3	Fishtail Air	Simikot, Muchu	1	5

27	03 Aug 2014	9N-AJI	AS 350B3	Fishtail Air	Sindhupalchok	1	None
28	02 Jun 2015	9N-AJP	AS 350B3	Mountain Helicopter	Yamuna Danda, Sindhupalchok	4	None
29	22 Jun 2015	9N-AKF	AS 350B3e	Simrik Air	Samdo, Gorkha	None	5
30	17 Mar 2016	9N-AJI	AS 350B3	Fishtail Air	Langtang	None	1
31	08 Aug 2016	9N-AKA	AS 350B3	Fishtail Air	Betani, Nuwakot	7	None
32	30 June 2018	9N-ALR	AS 350B2	Simrik Air	Grandy Roof-top Helipad	None	1
33	14 Aug. 2018	9N-AHV	AS350 B	Manang Air	Hilsa, Humla	1	6
34	8 Sept. 2018	9N-ALS	AS350 B3	Altitude Air	Dhading	6	1
35	27 Feb. 2019	9N-AMI	AS350 B3 E	Air Dynasty	Pathivara, Taplejung	7	None
36	14 April 2019	9N-ALC	AS350	Manang Air	Lukla Airport	None	1

Appendix 4

Record of foreign - registered aircraft accidents in Nepal

S.N.	Date	Registration	Type	Operation	Operator/ Owner	Place of accident	Fatality	Survival
1	30 Aug 1955	VT-AZX	DC-3	Scheduled	Kalinga Air	Simara	2	1
2	15 May 1956	VT-DBA	DC-3	Scheduled	Indianairlines	Kathmandu	14	19
3	24 Mar 1958	VT-CYN	DC-3	Scheduled	IndianAirlines	Patnebhnajyang	20	None
4	10 May 1972	HS-TGU	DC-8-33	Scheduled	ThaiAirways International	TIA	0+1	110
5	31 Jul 1992	HS-TID	A 310	Scheduled	ThaiAirways	Gyangphedi	113	None
6	28 Sep 1992	AP-BCP	A 310	Scheduled	PakistanInternational Airlines	Bhattedanda	167	None
7	07Jul1999	VT-LCI	B727(200)	Cargo	Lufthansa	Bhasmasur Hill,Kathmandu	5	None
8	4 Mar 2015	TC-JOC	A330-300	Scheduled	TurkishAirlines	TIA	None	235
9	12 Mar 2018	S2 – AGU	DHC 8 D	Scheduled	US Bangla	TIA	51	20

Appendix 5

Record of recreational aircraft (Ultralight) accidents in Nepal

S.No.	Date	Registration	Type	Operation	Airline	Place of accident	Fatality	Survival
1	03 Oct 2013	9N-AJY	A-22L2	Sports	Avia Club	Santi Stupa,Pokhara	2	None
2	10 Aug 2015	9N-ALI	Aeros 2	Sports	Pokhara Ultralight	Machhapuchhre VDC, Kaski	2	None
3	23 Nov 2016	9N-ALL	Ultralight	Sports	Aviaclub	Pokhara	1	1

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