

Global Safety Assessment

*An understanding of the global and regional safety needs
Survey Results APAC Region
Presented to RASG-APAC/11*

*Mark Millam, Vice President, Technical
Henry Gourджи, Director, Safety Strategy and Policy*

Regional Aviation Safety Assessment: Data-Driven Analysis of the Impact of Pandemic on Global Aviation

Data Analysis for Tangible
Insights

Gaining a **Dynamic Lens**
on Regions' Safety

Region-Specific Safety
Metrics



Regional **Best Practices**
and Lessons Learned

Information Sharing
Across Regions

Identify Gaps and
Opportunities: Data-
Driven **Recommendations**

Data and information gathering

Statistical Review of Safety Information

Partners

Surveys Questionnaires Interviews

Workshops

Additional aviation safety issues

Validation

Collection, interrogation and validation

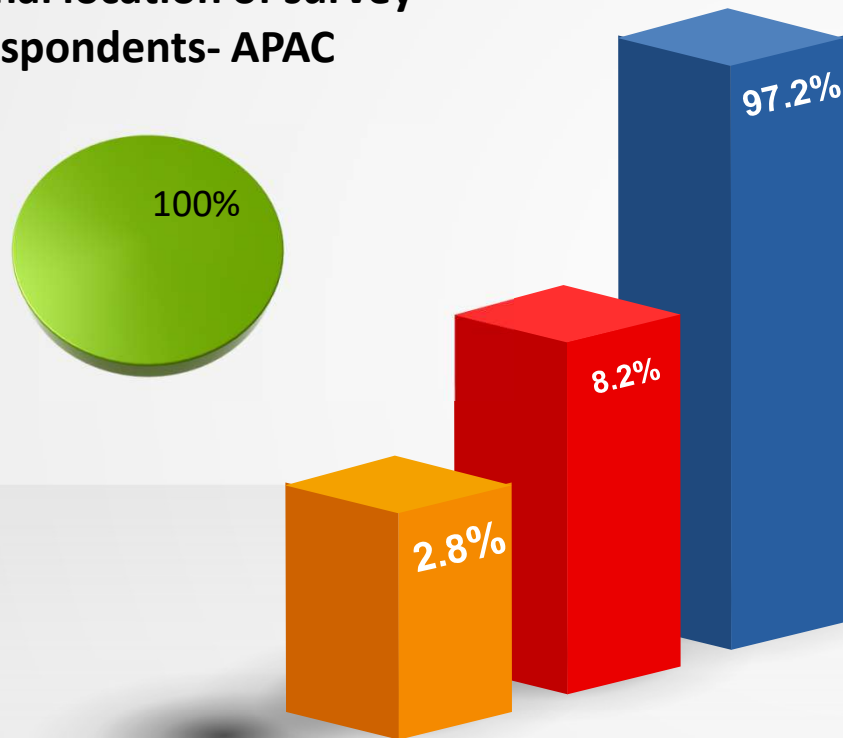
- Accidents and serious incidents of commercial air transport and business aviation- **fatality risk** and **contributing factors**
- **Partners** – ICAO, IATA, FAA, IBAC, airline associations
- Collection of information from operators through **surveys and questionnaires**
- Workshops to **drill down** further into the survey results and challenges encountered
- Internal review of all data collected for **quality and traceability**

About the Survey

- an **anonymous online survey** concerning the impact of the COVID 19 pandemic on the aviation system which has caused significant disruption to the entire aviation sector and most organizations.
- The survey asks questions about the risk assessments and mitigations strategies that may have been put in place during this global pandemic.
- The survey was prepared in coordination with AAPA and distributed to its members, associate airline as well as non-members
- A total of 36 airlines completed the survey within a period of three weeks
- The Flight Safety Foundation is routinely involved in examining the state of safety in the industry and looking for methods to enhance safety for the benefit of countries across the globe. We expect to find safety areas of interest that will prioritize our activities and draw a closer focus to the work that must be undertaken to address hazards to flight safety.

Survey Respondents -Breakdown

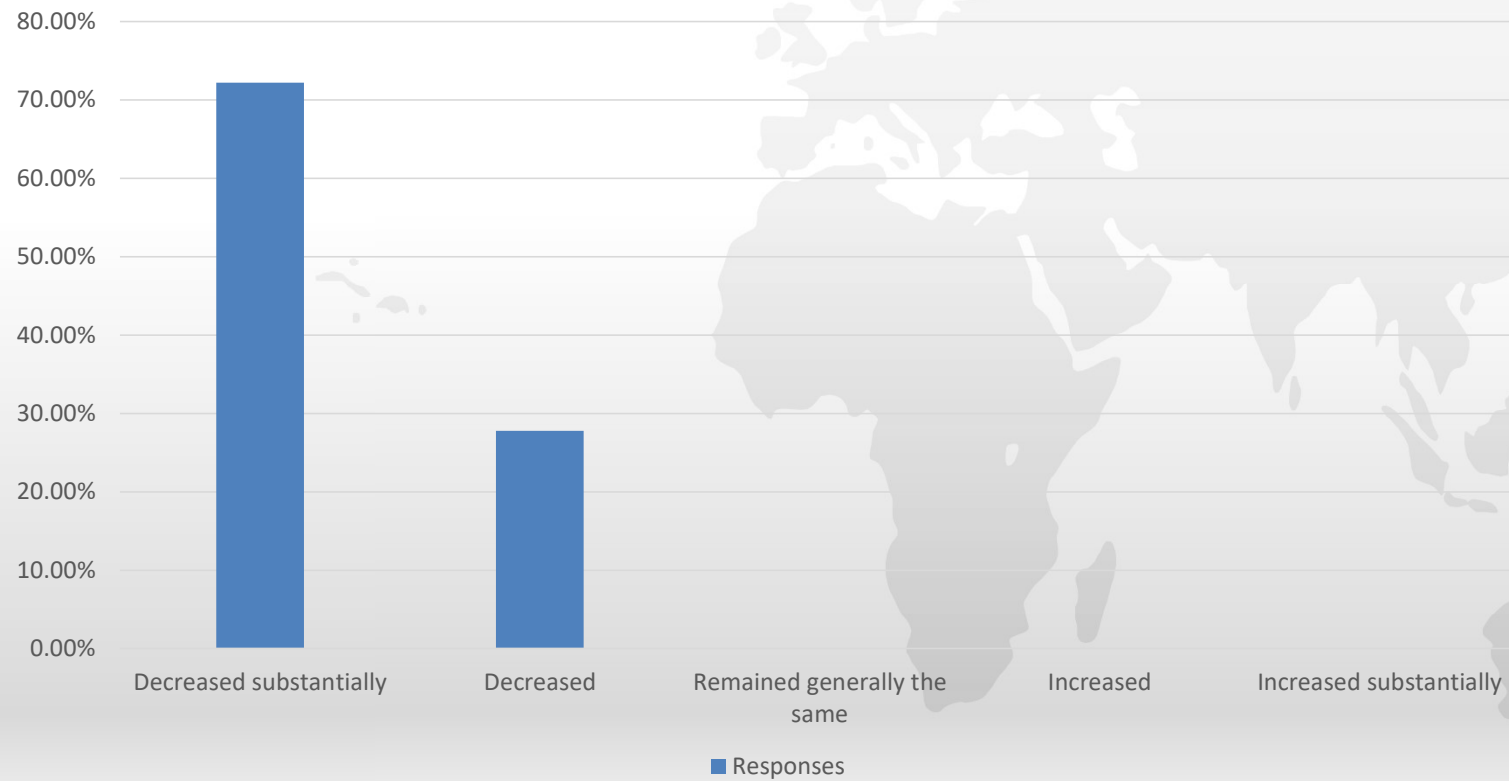
Regional location of survey respondents- APAC



Breakdown of Survey participants

97.2% Commercial/Passenger airline
8.3% Cargo Airline
2.8% Specialty Operations

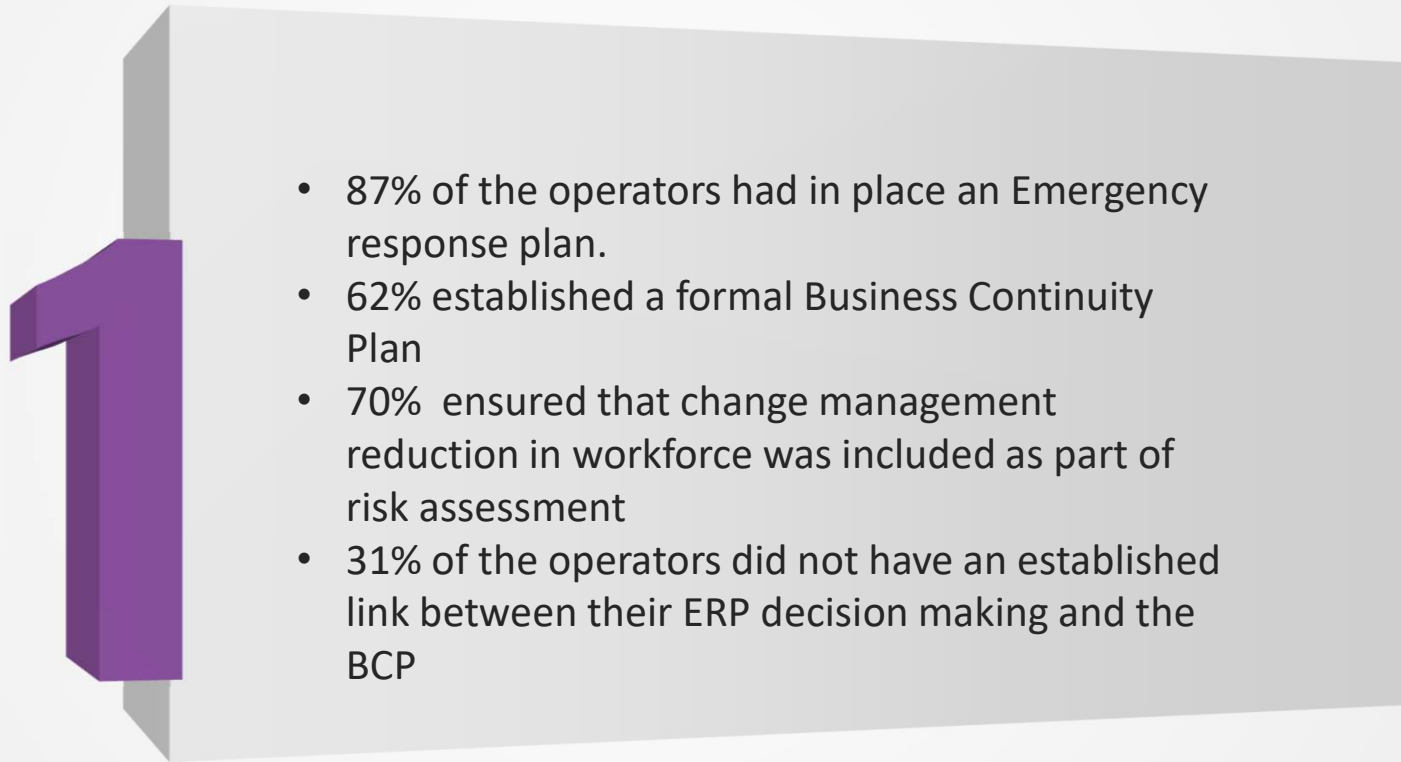
Impact of the Disruption



Top areas to further explore based on survey result



Business Continuity and Emergency Response Plans

- 
- 87% of the operators had in place an Emergency response plan.
 - 62% established a formal Business Continuity Plan
 - 70% ensured that change management reduction in workforce was included as part of risk assessment
 - 31% of the operators did not have an established link between their ERP decision making and the BCP

Safety Management Systems and Risk Assessment Process

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- All operators have established an SMS and established a Hazard identification and Safety risk Assessment process. 96% indicated that they have updated their risk assessment due to the Pandemic.
- Top considerations when performing safety risk assessments were **Exposure to Infection** (86%), **Route Differences** (63%)
- 71% of the operators reviewed their risk assessment as required / weekly/or monthly
- Flight Operations- 71% of operators established phases for restart operations, of which 80% reviewed its SOPs under each phase.

Ability to Monitor and Detect Hazards and perform a Risk Analysis

A large, blue, 3D-style number '3' is positioned on the left side of the slide, partially overlapping a grey rectangular box that contains a bulleted list.

- 63% of operators indicated they routinely examine normal safety SPI Monitoring as well as Safety Reporting Integrity
- 10% of the reporters did not Monitor and detect potential hazards for airports and Runway FOD Programs
- 18% did not consider differences in COVID risks by region, nation or cities
- 68% have witnessed an increase of wildlife activity at airports and 21% have witnessed an increase in substance and surface damage

Change Management Process

A large, 3D orange number '4' is positioned on the left side of the slide, partially overlapping a grey rectangular box that contains the main content.

- 43% of the Operators indicated that Change management process was applied across their entire company without exception.
- 63% of the operators felt that they managed to mitigate the risk of staff workforce changes during the pandemic well or exceptional.
- 60% felt that overall company processes and systems keeping pace with COVID related changes to operations was better than usual or exceptional

CAA and Industry Cooperation

5

- The top guidance received by operators from their CAAs during COVID related to Pilot Medical Certificates, pilot proficiency checks, pilot recent experience as well as license validity.
- 68% of the operators received targeted exemptions, exceptions or alleviations related to the above in particular, 90 % received exemptions for Pilot proficiency.
- 66% of operators requested and received exemptions to address in Cargo Cabin Solutions
- 32% of operators requested extensions to flight duty periods of which all were successfully granted. Although 83 % of those operators had an approved FRMS.
- 53% of CAAs reduced their periodic inspections during the last 12 months of the Pandemic
- 10% of operators indicated that the level of communication between regulator and operator reduced during the pandemic.

Other Insights

- The survey identified other insights related to OEM Consultation as well as Human Factors / Crew Resource Management which can be further reviewed in this presentation

Business Continuity and Emergency Response Plans

Business Continuity Plan (BCP)

■ Responses

62.5%

37.5%

YES

NO



94% of those with a BCP had a mechanism in place to ensure safety hazards are shared at the appropriate level.

70% with no BCP ensured that Change management and reduction in workforce was included as part of risk assesment.

Emergency Response Plan (ERP)

■ Responses

86.7%

13.3%

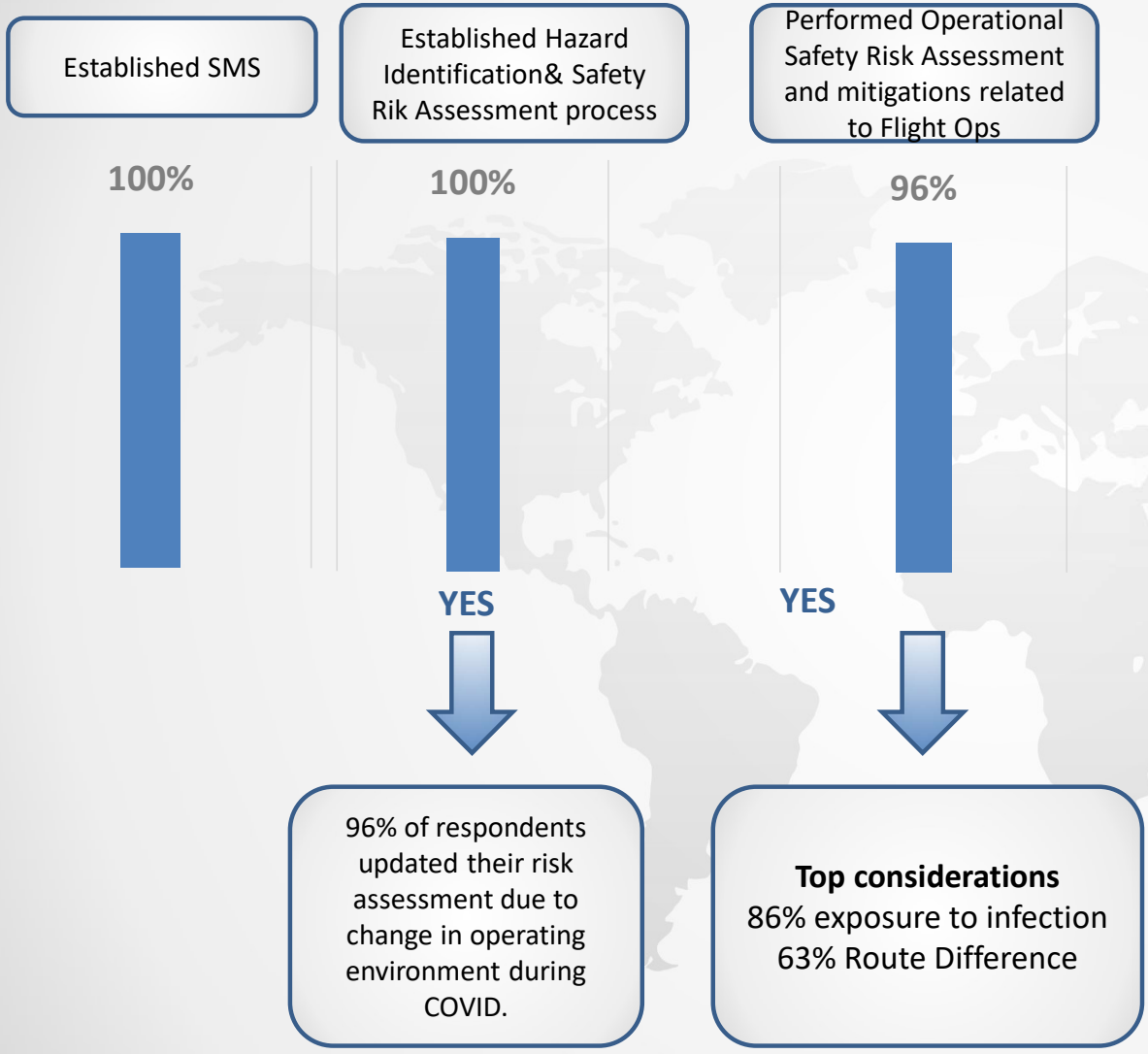
YES

NO

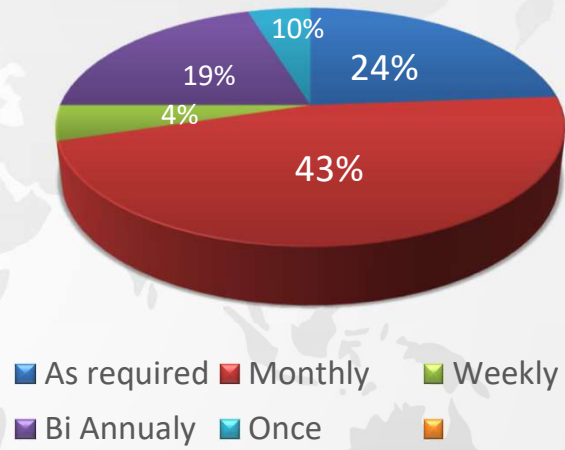


69% established a link between their ERP decision making and their BCP.

Safety Management Systems- Risk Assessment Process



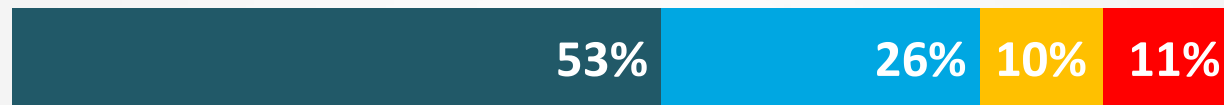
Safety Risk Assessment review frequency



The Change management process applied to an organization



Across the company



Applied to new route changes



Applied to delays in previous planned safety improvement / implementation plans

- Fully documented and without exception
- Some independent assessment and analysis
- Only in consideration by the change designers
- Inconsistent

Manage to mitigate the risks of staff workforce changes



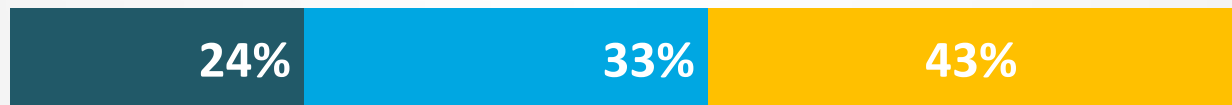
Communications to all staff affected by the changes



Training of hazards expected during the crises



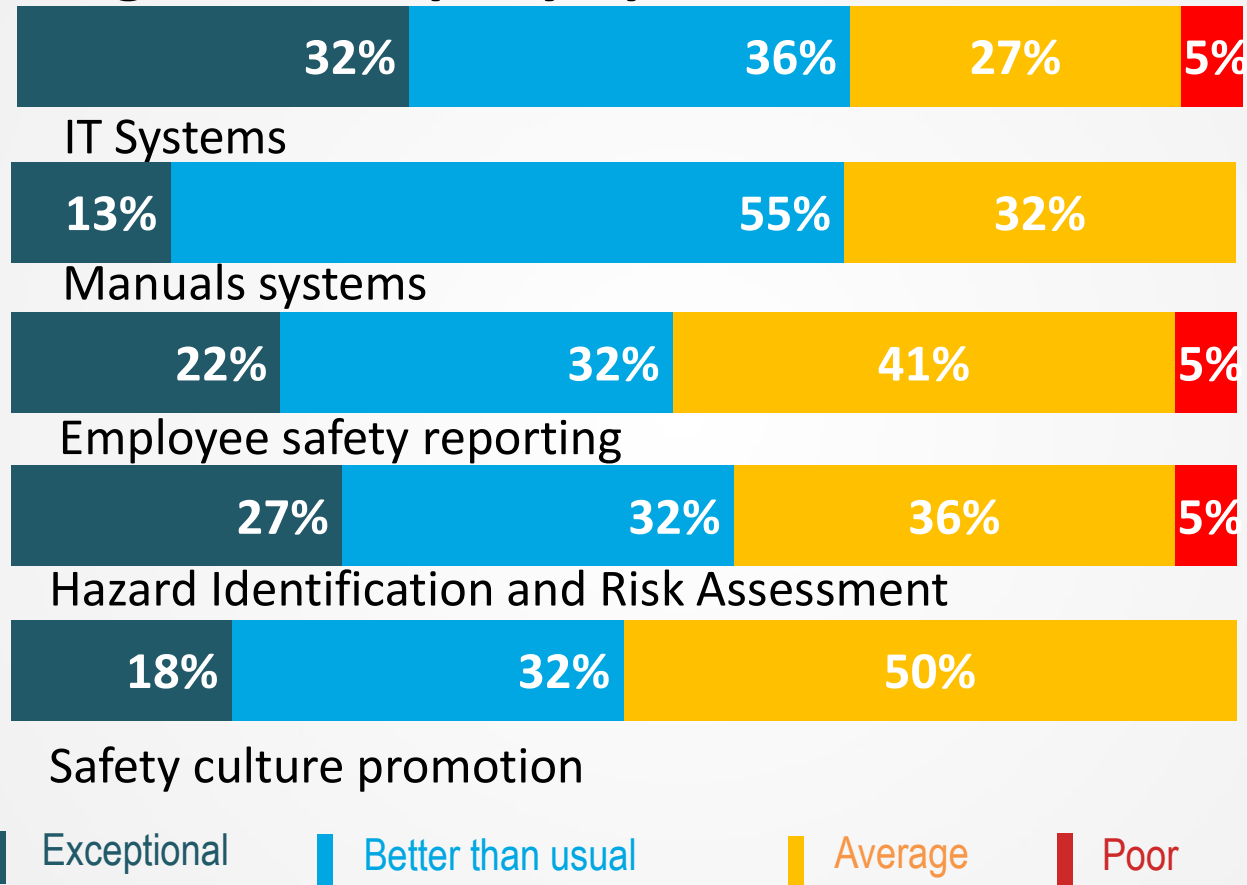
Utilization of all available training methods



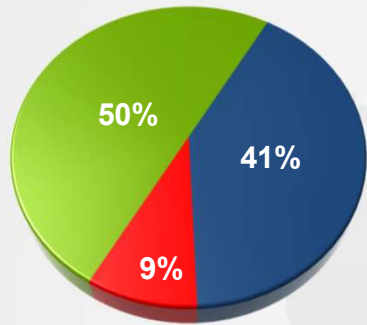
New risks of fatigue due to scheduled changes



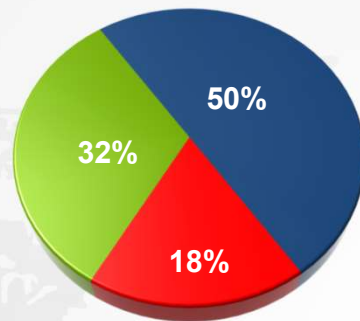
How well have processes and systems kept pace with COVID related changes to company operations



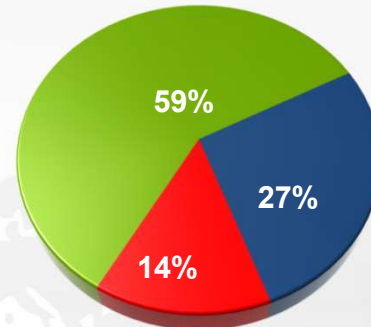
Ability to Monitor and Detect Hazards and Risk Analysis during the COVID 19 Recovery



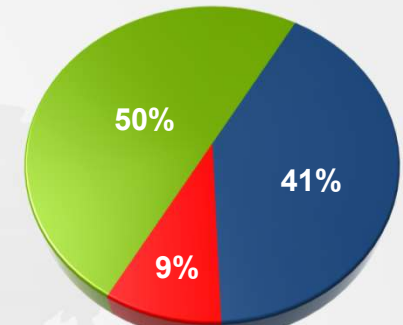
Monitoring special events attributed to COVID 19 Operations



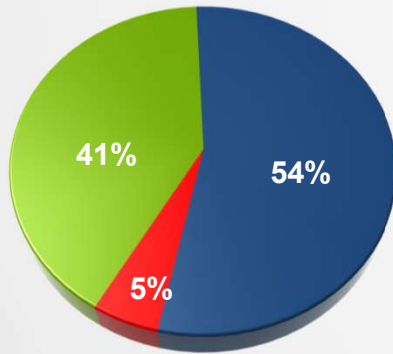
Understanding differences in COVID risks by region, nation, cities



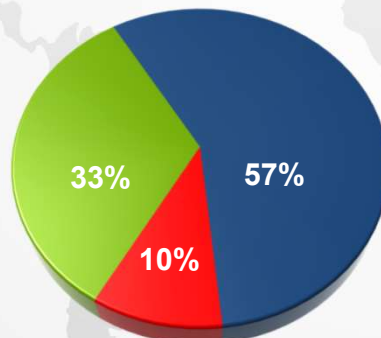
Quality audits of aircraft storage systems



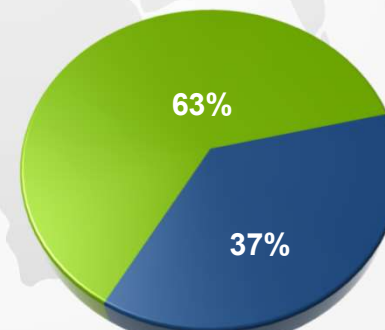
Quality audits on maintenance parts and service providers



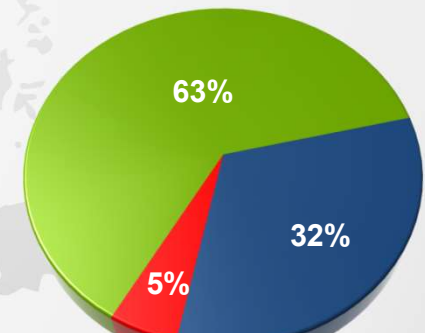
Non standard operations



Airport and Runway FOD Programs



Normal Safety SPI Monitoring



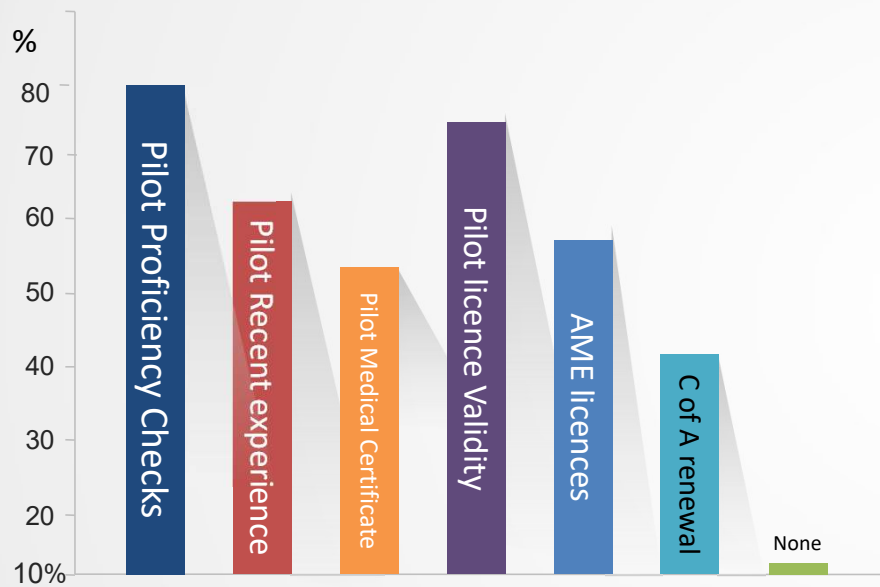
Safety Reporting Integrity

█ Routinely examine

█ When alerted about potential issues

█ No data or information collected

NAA and Industry cooperation



Level of guidance provided by NAAs for adapting flight operations, continuing airworthiness/maintenance and training in the “new normal” during COVID conditions

Level of targeted exemptions, alleviations, extensions issued by NAAs for adapting flight operations in the new normal during COVID



NAA and Industry cooperation

Exemptions to address Cargo in Cabin Solutions

66%



85% of NAAs that received such requests were responsive to determine whether an acceptable level of safety can be maintained.

Adapt regulatory oversight

53%



53% of NAAs have reduced their periodic inspections during the last 12 months due to the Pandemic

Level of communication

10%



10% of the respondents indicated that the level of communication between regulator and operator reduced during the Pandemic.

Industry Oversight Programs

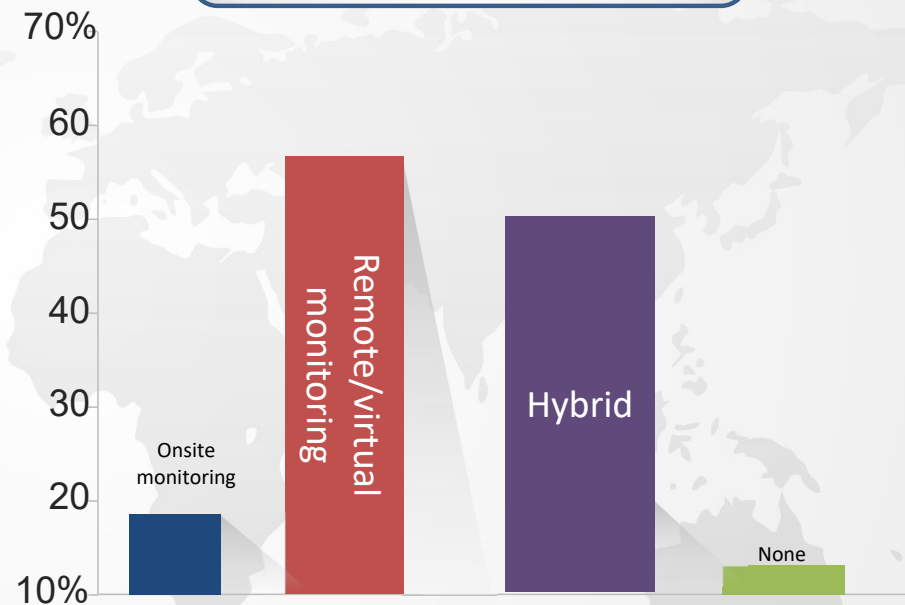
Participation in an industry audit program
(IOSA,ISSA,BARs,IS_BAO etc)

76%



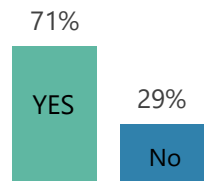
93% of the operators who are participating in an Industry audit program have indicated that the program has adapted well during the pandemic.

Monitoring activities provided during the pandemic

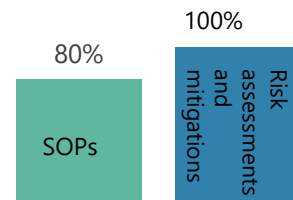


Flight Operations- SOPs – Risk Assessments

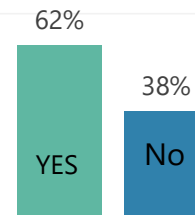
phases for restart operations



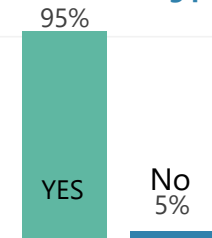
Reviewed under each phase of restart Ops



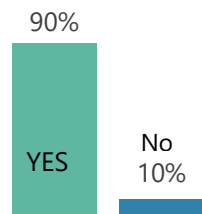
SOP to address contingency measures for reduced air traffic



Risk assessment performed for each new SOP during pandemic



Risk assessments performed on new SOPs formally established during pandemic



Additional SOPs attributed to the Pandemic that were highlighted by operators

- Training Program
- Passenger to cargo configuration change
- COVID-19 (cleaning, testing) Prevention
- Cargo in Cabin
- Centralized Tracking System
- Pandemic Handbook
- Audit Schedule / Maintenance Periodical check schedule
- Crew Quarantine

Flight Operations- SOPs – Risk Assessments

85% of Operators identified the Risk below:

85%



The extended absence of a significant number of flight deck crew can lead to diminished skills, less effective situational awareness and can lead to deviation from established SOPs. Additionally, as a result of the pandemic, crew will have to educate themselves with multiple temporary revisions to operational policies and procedures designed to operate in the current environment

Mitigating Measures Introduced

- Awareness training before flight with an instructor
- Simulator classroom training
- Hazard Identification and Risk Assessment tool
- Full Operator proficiency check (OPC) when returning to work and SIM if possible.
- New training methods, voluntary training sessions, increased engagements
- Online training, Self debrief, crew were paired with crew who have maintained currency
- Reduced training intervals observation flights
- Emphasize Threat and Error Management for every operation activity
- Simulator training done locally
- CRM trainings were focussed on risks associated with returning to operations
- Selection of a small number of pilots and crew to maintain the sufficient hours to maintain proficiency.

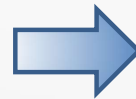
Flight Operations- Duty Periods

Seek extension from the CAA
to flight duty periods

32%



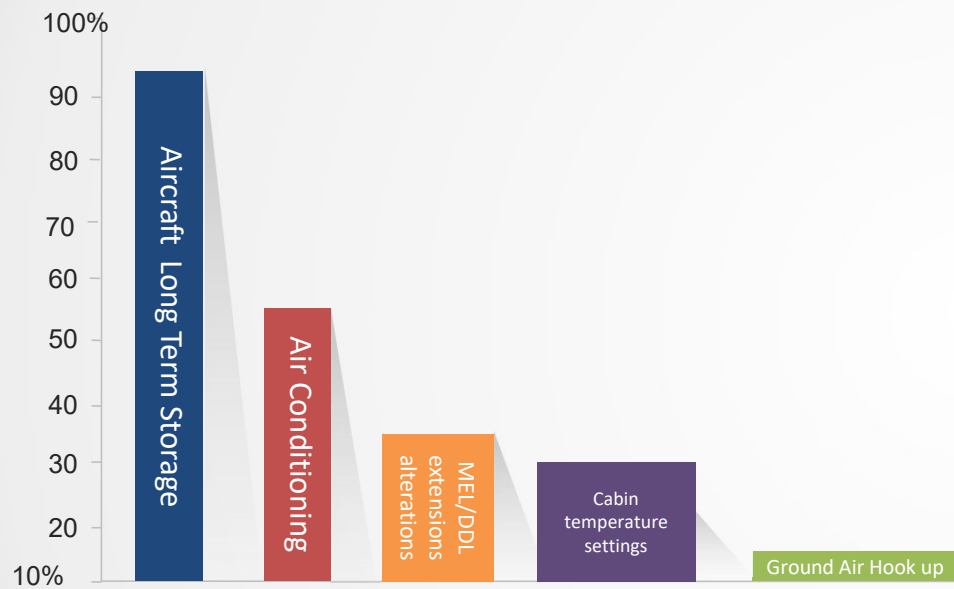
83% of those operators
seeking extension flight duty
periods had an approved
FRMS or a means to manage
fatigue risks.



90% of Operators developed a
Plan to ensure Flight Instructors
and Evaluators (IE) are fully
recent and competent.

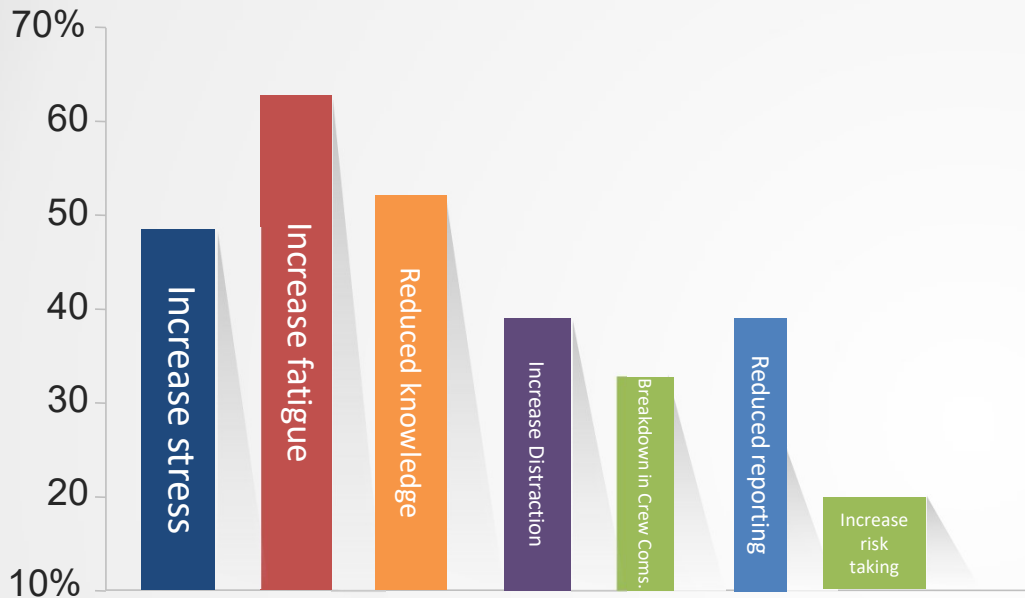
100% of the operators
indicated that their CAA's
were responsive to
appropriately determine
whether an acceptable level
of safety can be maintained.

Consultation with the OEM



Top areas consulted with the OEM during the Pandemic

Human Factors / Crew Resource management



Program to deal with Mental Health

63%



Increase of staff reporting mental health issues

15%



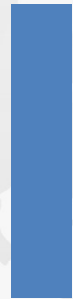
Human Factor issues throughout COVID which require attention during crew training and onboard operations. Some may have adverse affect on individual and group performance and introduce additional safety risks

- 47% - Increase stress – due to nonstandard operations
- 63% - Increase Fatigue – returning to work following a long period of inactivity. Constant alertness to ongoing fears and concerns around employment, infection, protection.
- 53% - Reduced knowledge and skills
- 37% - Increase distraction from tasks
- 32%- Breakdown in communications and alignment primarily due to change in SOPs related to health and operational procedures that may be country or operation specific.
- 37% - Reduced reporting of non-conformities
- 16% - increase in risk taking

Air operators network- airports

Increase in wildlife activity

68%



68% of operators have witnessed an increase in wildlife activity (birds etc.) due to recent static airport operations

Increase of substance and surface damage

21%



21% of operators have witnessed an increase of substance and surface damage during this period of inactivity

Next steps

- The Foundation will work closely with AAPA to prepare a workshop for survey participants and its members to closely review the results of the surveys and confirm the gaps and challenges and provide guidance through best practices shared by participants and facilitators.
- The Foundation is performing a similar review in other regions and will analyze these results together with statistical review of safety information gathered from global and regional safety reports.
- A global assesment report will be prepared by Sept 2022

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Thank you

*Henry Gourджи
Director Safety Strategy and Policy*