



ICAO

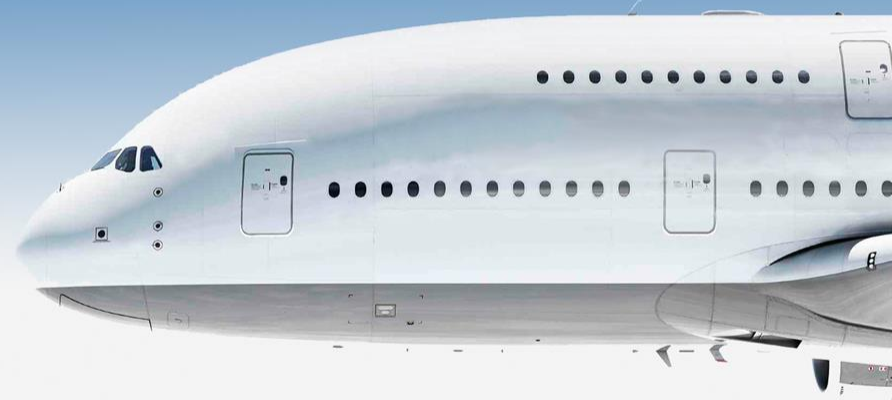
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# SESSION 7

## Safety Performance Measurement





# Overview

- Measuring safety performance
- Safety information sharing & exchange
- Progress reporting
- Responsibilities for evaluation
- ICAO reporting tools



# Measuring Safety Performance

- Safety performance of GASP is measured by series of metrics
  - as defined by GASP indicators
- Elements used to measure safety performance related to GASP include
  - number of fatalities (main indicator)
  - accident rate
  - fatal accident rate
  - priority PQs for safety oversight system
  - safety oversight index
  - SSP foundational PQs
  - PQs related to safety management





# Safety Information Sharing & Exchange

- Through NASP, State sets national goals and targets
  - and determines series of SEIs to achieve them
- State also uses GASP indicators related to targets
  - to measure if SEIs attain their desired outcomes





# Safety Information Sharing & Exchange

- Safety info collected by State serves dual purpose
  1. identify & prioritize SEIs to mitigate safety risks as part of planning process
  2. measure effect of SEIs as part of safety assurance process





# Safety Information Sharing & Exchange

- Safety information is used to determine if goals and targets are met
  - at national level
- Safety information sharing and exchange is at centre of SPM
- RASGs play key role
  - measuring safety performance
  - evaluating success of GASP / RASP
  - at regional level





# Progress Reporting

- Timely & accurate reporting of safety information is critical
  - at international, regional and national levels
  - to verify whether goals are being achieved
  - to monitor implementation of SEIs of roadmap
- ICAO, RASGs, and partner organizations publish reports on safety
  - to monitor progress of their safety goals
- Analysis of multiple safety performance indicators is essential
  - to assess safety performance globally





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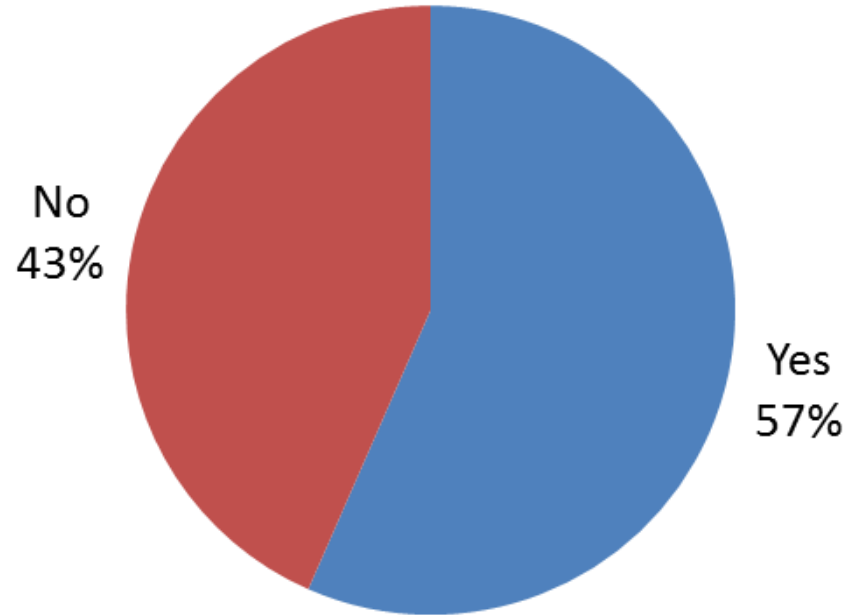
# GASP Questionnaire

## Safety Performance Measurement





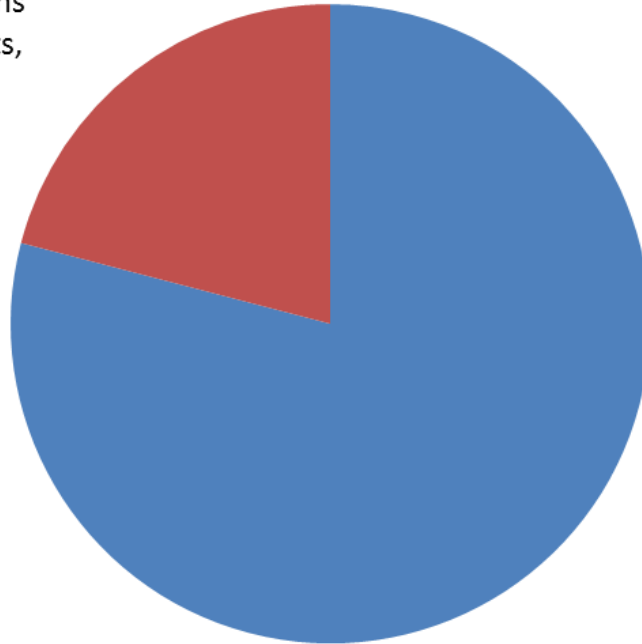
## Does your State/organization publish an annual safety report?





## How is annual report communicated to relevant stakeholders?

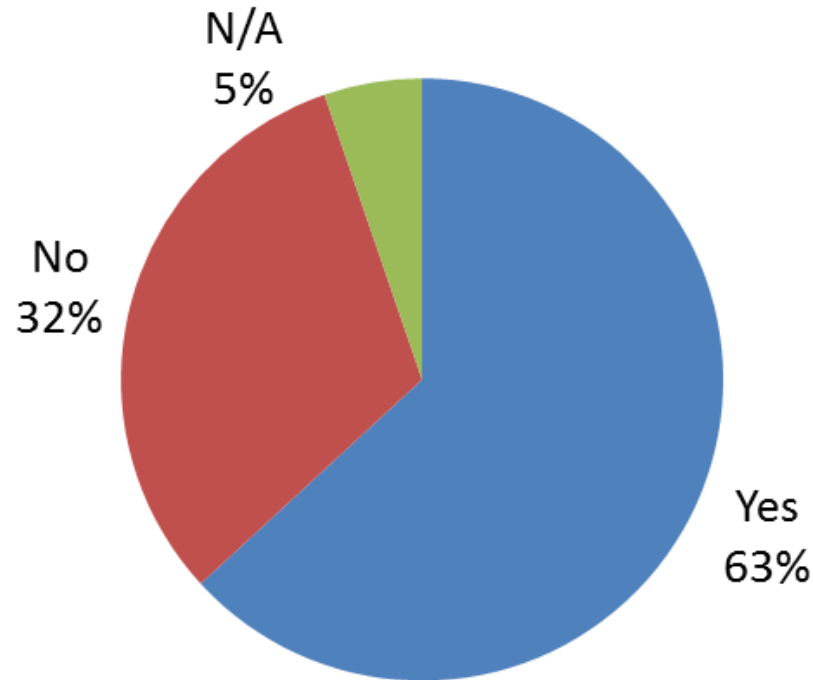
Internal  
communications  
(emails, reports,  
meetings)  
21%



Public website  
79%

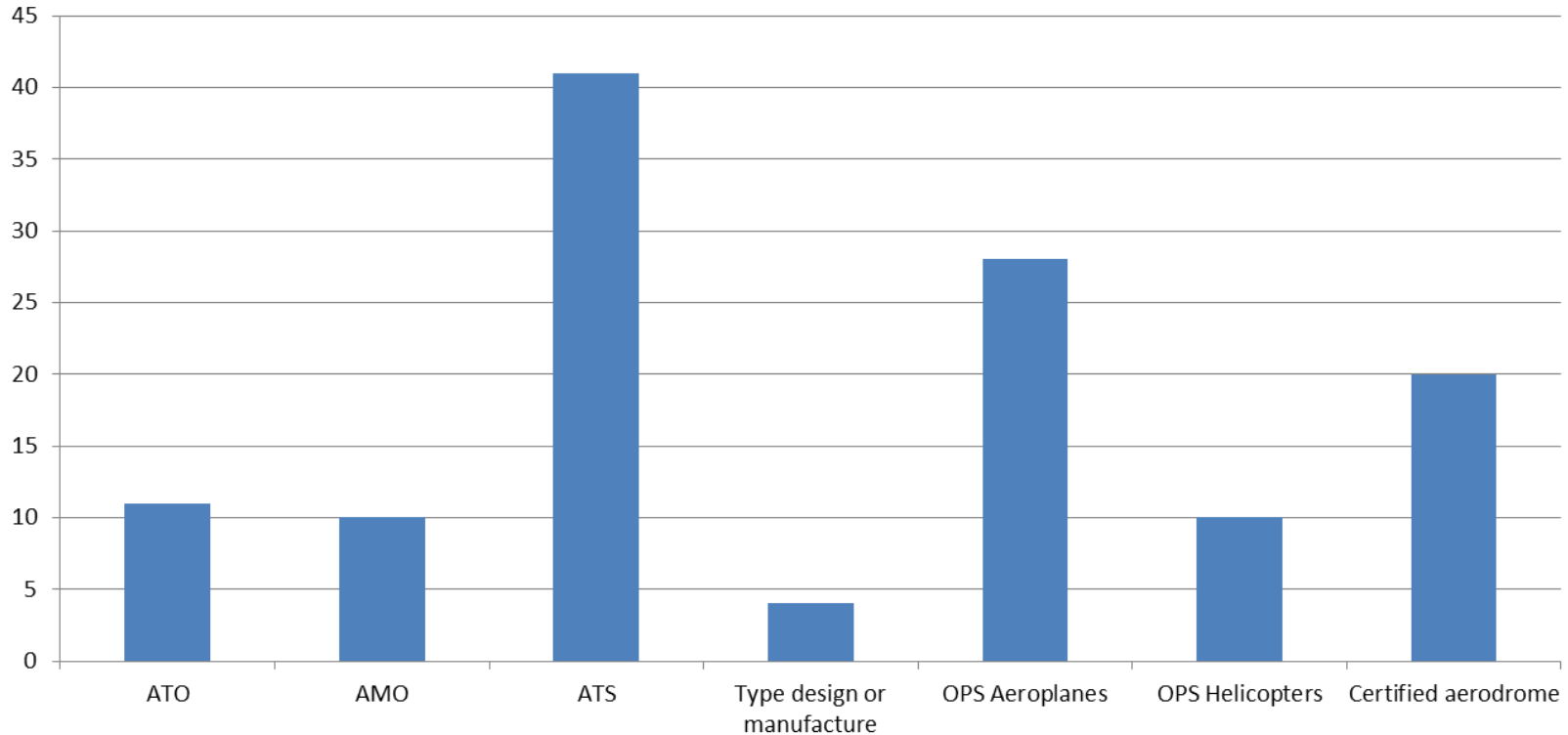


## Do State's service providers publish annual safety report?



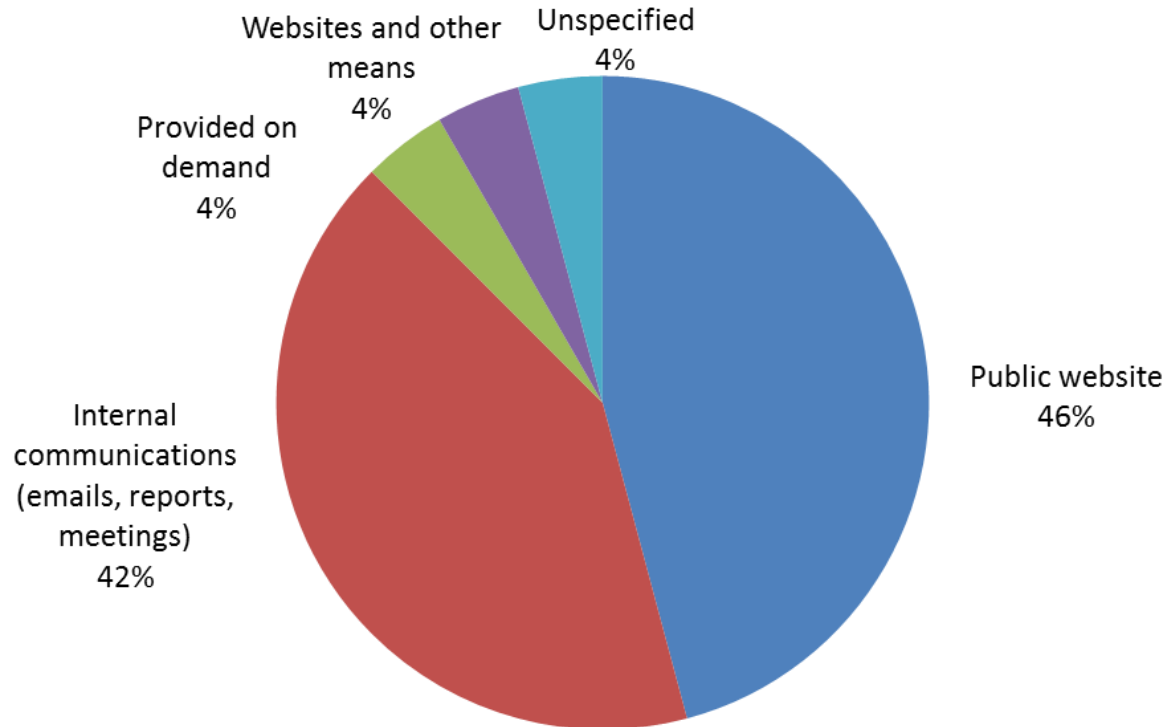


## Breakdown by service providers





## How is service provider's report communicated to stakeholders?





# Responsibilities For Evaluation

- RASGs are responsible to continuously evaluate progress of GASP goals and targets
  - presented in RASPs
  - to determine if these were met within timeframe
- Each State is responsible for submitting pertinent information from NASP to RASG
  - to enable compilation of regional results
- ICAO Regional Offices are responsible to work with RASGs to produce report
  - which is submitted to ICAO Headquarters
  - serves as basis of *State of Global Aviation Safety Report*
  - presented to Assembly
- Results of evaluation also serve as feedback for revision of subsequent GASP editions



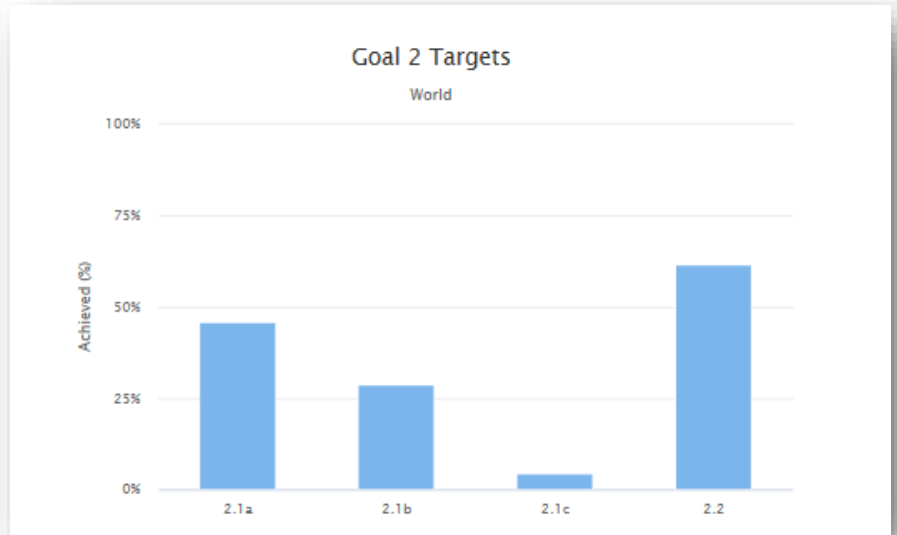
# GASP Dashboards

Target 2.1 - All States to improve their score for the effective implementation (EI) of the critical elements (CEs) of the State's safety oversight system (with focus on priority PQs) as follows: By 2022 – 75% By 2026 – 85% By 2030 – 95%

Target 2.2 - By 2022, all States to reach a safety oversight index greater than 1, in all categories

World

Target 2.1a - by 2022, States should reach 75% Effective Implementation	States that have reached 75%	85/185 (45.94%)
Target 2.1b - by 2026, States should reach 85% Effective Implementation	States that have reached 85%	53/185 (28.64%)
Target 2.1c - by 2030, States should reach 95% Effective Implementation	States that have reached 95%	8/185 (4.32%)
Target 2.2 - by 2022, States should reach Safety Oversight Index >1 in all categories	States that have all SOIs >1	114/185 (61.62%)



[www.icao.int/safety/GASP/Pages/GASP-Dashboards.aspx](http://www.icao.int/safety/GASP/Pages/GASP-Dashboards.aspx)



# Emerging Issues & Ops Safety Risks Portal

Title \*

Choose one

State Name

International/Regional Organization

ICAO Region

RASG Concerned

Description of the Issue

Hazard Type  
 Natural  
 Technical  
 Economical

Risk Assessment

Area of Impact

High Risk Category (HRC)

CICTT Taxonomy  
 ABNORMAL RUNWAY CONTACT (ARC)  
 ABRUPT MANEUVER (AMAN)

Choose based on the risk matrix here:  
<http://aviationsafetyblog.asms-pro.com/hubfs/images/AviationRiskManagementCycleMatrix.png>

<https://portal.icao.int>





# Indicator Catalogue

The screenshot shows a web page for the ICAO Indicator Catalogue. The main heading is "1.202 Wildlife strikes by occurrence class and flight phase". The page is structured with a left sidebar containing navigation links: "About ICAO", "Accidents Investigation Authority", "Assess and Measure", "API Data Service", "Indicator Catalogue", and "eSTARS". The main content area is divided into sections: "DESCRIPTION:" (Number of occurrences related to wildlife strikes, such as birds and other species by occurrence class and in various flight phases), "STRATEGIC OBJECTIVE:" (Aviation Safety), "INDICATOR TYPE:" (Outcome-related (Reactive or Lagging)), "RATIONALE:" (Number of wildlife strikes provides an overall indicator of safety performance), "LIMITATIONS:" (Limitations may be introduced depending on the availability of voluntary reporting data), "CALCULATION METHOD/FORMULA:" (N/A), and "REFERENCES:" (1.202 Wildlife Strikes by Occurrence Class and Flight Phase.pdf). A "Subscribe" button is visible on the right side of the page.

[www.icao.int/safety/Pages/Indicator-Catalogue.aspx](http://www.icao.int/safety/Pages/Indicator-Catalogue.aspx)



# Points to Remember

- Safety information sharing & exchange is at centre of SPM
- Safety information needed to determine if goals and targets are met at national level
- Need to measure effect of SEIs as part of SA process for NASP
- Each State is responsible for submitting pertinent information from NASP to RASG >>> ICAO tools available



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