CAA RPAS Safety Reporting Project

Survey Summary and Results

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1.0
Introduction

1.0 Introduction

According to our existing data, the Civil Aviation Authority (CAA) believe that the RPAS* community under reports safety incidents when compared to the manned aviation sector.

In RPAS, there are 44 MORs (Mandatory Safety Reports, also known as safety reports) raised on average every month from a community of ~500,000 known RPAS Operators and Flyers.

Approximately 75% of those MORs are from Airports/Air Traffic Control/the manned party involved in the occurrence and not the RPAS user themselves.

This is in comparison to ~2,000 MORS raised on average every month from the manned commercial sector and compared to General Aviation (GA) where there are ~140 MORS raised on average a month per 100,000 GA flying hours. (Source UK CAA Data October 2021)

This project has been made possible by a grant from the £3.7 million Regulators' Pioneer Fund launched by the Department for Business, Energy and Industrial Strategy (BEIS). The fund enables UK regulators and local authorities to help create a UK regulatory environment that unleashes innovation and makes the UK the best place to start and grow a business.

This funding allowed us to carry out a six-week discovery phase alongside our third-party supplier consortium; to70, Ebeni and Tektowr to investigate the current safety picture across the RPAS community.

This document highlights the results of the RPAS Safety Survey through which we surveyed 277,245 known Flyers and Operators and received 32,933 responses - Drone and model aircraft safety information | Civil Aviation Authority (caa.co.uk).

The survey was sent to both Open and Specific category users and ran for two weeks from 28 January 2022 to 10 Feb 2022.

> **Open category users**
>
> The Open category is divided into three subcategories, to specify certain rules for different types of flying. The category you fall into depends on the type of drone you wish to fly, and how you wish to fly it.
>
> • A1: Flying 'over' people.
>
> • A2: Flying 'close to' people.
>
> • A3: Flying 'far from' people.
>
> Flyers must always comply with the rules of whichever subcategory they are flying in.
>
> Most people, flying a UAS away from people in the open countryside, will fall into the basic requirements of the A3 category. Restrictions around the type of drone which can be used are also in place.
>
> Open category flyers and operators tend to be hobby drone owners who fly at a low-risk operational level.
>
> For details, visit;
> https://www.caa.co.uk/consumers/remotely-piloted-aircraft/drones-flying-in-the-open-category/

*Remotely Piloted Aircraft System (also known as Drones or Unmanned Aerial Systems UAS)

1.0 INTRODUCTION

Specific category users

An operational authorisation issued by the CAA is required for any flight within the Specific category.

The Specific category covers operations that present a greater risk than that of the Open category, or where one or more elements of the operation fall outside the boundaries of the Open category.

The key element of the Specific category is that the operator is required to hold an operational authorisation, which has been issued by the CAA.

For more visit:
https://www.caa.co.uk/consumers/remotely-piloted-aircraft/flying-in-the-specific-category/

The survey ran alongside a series of stakeholder interviews and desktop research to assess the current RPAS safety landscape.

For more in-depth analyses in what we discovered and next steps see the **CAA RPAS Safety Reporting Project – Discovery Summary Report** which complements this document.

1.0 INTRODUCTION

1.1 Why is Safety Reporting Important?

'Data from MORs help us to improve the safety landscape for RPAS and all those directly or indirectly involved.'

Safety Reports (MORs) are one of the key data sources we use to understand the current safety picture. They allow us to identify trends that may lead to investigations and, in turn, changes in permissions/use cases or taking action to prevent an incident from happening in the future. Data from MORs help us to improve the safety landscape for RPAS and all those directly or indirectly involved.

The data might also reveal that certain flying practices are safer than we think, therefore allowing us to increase permissions and use cases etc.

Safety occurrences are categorised as accidents, serious incidents and other occurrences. For more details on what constitutes an occurrence, and for current open and specific reporting flowcharts see p71-73 of CAP 722: Unmanned Aircraft System Operations in UK Airspace Guidance at: https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=415

If there are fewer reports than there should be, this means we are potentially missing a key source of safety information for our overall safety landscape for RPAS.

The RPAS Safety Reporting Project also allowed us to review best practice/other reporting options and see what changes we could make to try and improve the process end-to-end and hopefully increase reporting given it was found to be low.

2.0
Survey Details

2.0 Survey Details

Survey Purpose

The purpose of the survey was to engage the RPAS community on their involvement in the reporting process and to learn about the following topics:

1. RPAS Flyer previous involvement in the reporting process
2. RPAS Flyers' views on potential obstacles to reporting
3. RPAS Flyers' ideas on potential areas for improvement.

Survey Development

The survey was developed in the following categories:

- Part 1: Awareness of safety-related reporting
- Part 2: Users' experience of reporting occurrences
- Part 3: About your views on reporting or sharing the details of a safety - related occurrences
- Part 4: Learning about how the CAA can help and provide support
- Part 5: About how you use drones and model aircraft.

For more details about the survey questions see Appendix C.

Direct Mail

The survey was sent via direct email to all open and specific category flyers registered in the UK CAA DMARES System or those holding an active Specific Category Authorisation.

The survey was open for two weeks from 28 Jan 2022 – 10 February 2022.

Social Media and Supporting Organisations

Multiple individuals and organisations helped to promote and raise awareness of the survey to encourage participation – a huge thankyou to everyone who supported us.

These organisations also supported the survey distribution through direct dissemination to their members/partners;

- ARPAS-UK
- BMFA
- CHIRP
- DFT
- FPV

- Knowledge Transfer Network
- LMA
- MAA
- Police
- UKRI Future Flight Challenge

CAA Website

The survey was also available via the CAA website where extra information to support the survey was provided. The website was viewed 472 times during the survey period.

www.caa.co.uk/consumers/remotely-piloted-aircraft/drone- and-model-aircraft-safety-information/

2.0 SURVEY DETAILS

2.1 RPAS Population Summary

This page highlights the responses received via the Direct Email Distribution. A more detailed analysis is provided in Appendix A.

Category	Emails Delivered	Opened	Opens %	Survey Responses	Response %
Open	269,726	153,455	56.90%	31,998	11.90%
Specific	7,519	4,650	61.80%	935	12.80%
TOTAL	**277,245**	**158,105**	**57%**	**32,933**	**12%**

Responses by Question Area

Category	Question Set	Open	Specific
Part 1: Awareness of safety-related reporting	Q3 to Q4	~26,000	~850
Part 2: About your experience of reporting occurrences	Q5 to Q11	~ 25,000	~830
Part 3: About your views on reporting or sharing the details of a safety-related occurrences	Q12 to Q13	~21,000 (Q12)	~430 (Q12)
Part 4: Learning about how the CAA can help and provide support	Q14 to Q21	~19,000	~630
Part 5: About how you use drones and model aircraft	Q22 to Q33	~18,500	~636

2.0 SURVEY DETAILS

Responses by category
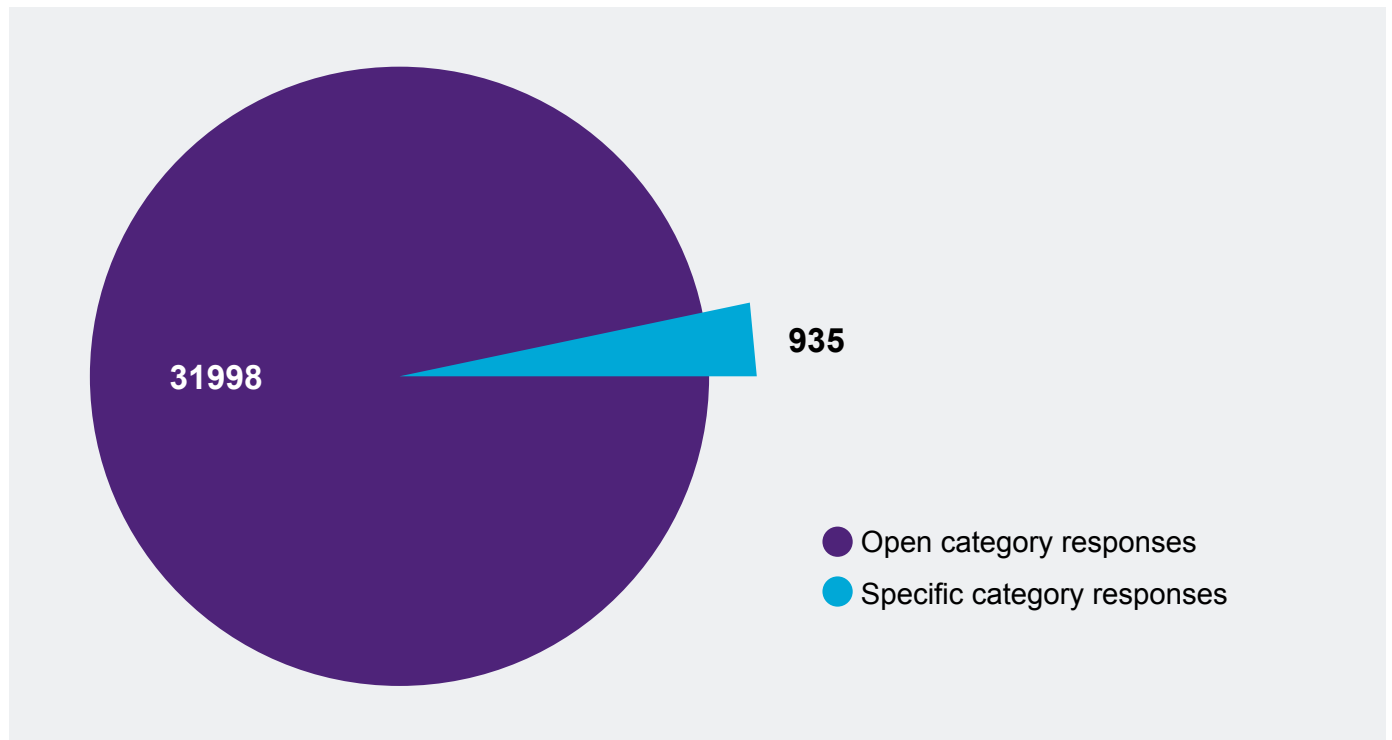
Category	Number of Responses	Holding an authorisation
Open	~17,300	26.5%
Specific	~624	88.9%

3.0 Survey Findings

3.0 SURVEY FINDINGS

3.1 Obstacles and Benefits

The survey helped us to identify a number of issues and answered the three main areas in which we wanted to get a better understanding.

1. **Are the number of RPAS Safety Reports accurate or are they lower/higher than they should be?** No – they should be higher than they currently are.

2. **What is the benchmark number we should expect?** The Survey results provided data towards some of the methods used to calculate what the benchmark for reporting should be currently and could be in the future. See **CAA RPAS Safety Reporting Project – Discovery Summary Report** for more details.

3. **If they are lower – what are the reasons why people are not reporting?** The survey helped us to understand the barriers that exist to reporting and potential solutions. The main ones are;

Open Category	Common across both Open and Specific Categories	Specific Category
Not being aware that the occurrence needed reporting	Having to report an occurrence to more than one organisation	Having a tool that doesn't recognise characteristics of RPAS
Not knowing who to report to	Fear of being penalised if I was at fault	Having to use a tool that does not work on tablet or mobile device
	Believing that the operation was otherwise safe and legal	

4. **Review best practice/other reporting options and see what changes we could make to try and improve the process end-to-end and hopefully increase reporting if it was found to be low** – We have identified over 50 different changes we could make based on feedback from the community and stakeholders as to what the barriers are to reporting, best practice/lessons learnt opportunities etc. One of the key elements found is that a vast number of stakeholders do not consider themselves to be part of the aviation community and see the operation of their RPAS as more of a 'tool to do their job'. Therefore, traditional aviation techniques and methodologies such as MORs may not be appropriate for all RPAS users.

3.0 SURVEY FINDINGS

There are currently 14 main possible ways to report an MOR – our guidance dictates the user has to report to multiple different organisations – this is inefficient, confusing, and frustrating to the user.

The survey results show that the RPAS community recognised the benefits of the reporting process. It means we consider the door is open to work with the RPAS community to improve.

Learning from experiences of others is seen as the most significant benefit to reporting.	Importance of providing feedback to the reporter of the events	More freedom in flying due to better understanding of hazards.

3.0 SURVEY FINDINGS

3.2 Survey Findings Headlines

| Question	Commentary	Reference questions
Is 44 reports a month correct or too low?	The results show that there is significant under-reporting due to lack of awareness about reporting channels, failing to report an occurrence or difficulties in the reporting process. The data suggests ~60 reports a month are missed this way.	Question 8
	If the Open category report at the same rate as the Specific category [8.39% vs 1.35%] the number of reports would increase from 30 to 186 per month.	Question 6
	Extrapolating the reporting rates for GA to RPAS given a conservative estimate of the monthly flying hours of the RPAS community as indicated in the survey and the rate of reporting by GA (a rate of 140 per 100,000 flying hours) suggests over 460 occurrences a month are likely.	Question 32
Why do RPAS Users not report?	Many users find the reporting process and number of reporting routes confusing.	Question 12
	A significant number of reports are not filed as the reporter abandoned the process.	Question 8
	The relative infrequency of flying in both categories and consequent lack of 'currency' provides an indication of why some pilots and operators are unfamiliar with the rules, the importance of reporting and reporting methods.	Question 32
How could we increase RPAS reporting?	Development of an education campaign to stress the importance and mechanisms of reporting and the existence of a just culture.	Question 4
	46% of drones are being operated commercially from within the Open category, with only 27% having an operational authorisation. *There may be an opportunity to re-introduce a commercial license for RPAS operators to help foster strong aviation and open reporting culture.*	Question 26
	There is strong support from both communities for using mission data to assist with reporting – so long as this is not done automatically.	Question 17
What benefits would increased RPAS reporting provide to the community?	Learning from experiences of others is seen as the most significant benefit to reporting. Reporters highlighted the importance of receiving feedback on the reported occurrence, and trend data on the performance of the industry. Greater freedom in flying due to better understanding of hazards is also seen as a major benefit.	Questions 14 and 20

4.0
Survey Results

4.0 Survey Results

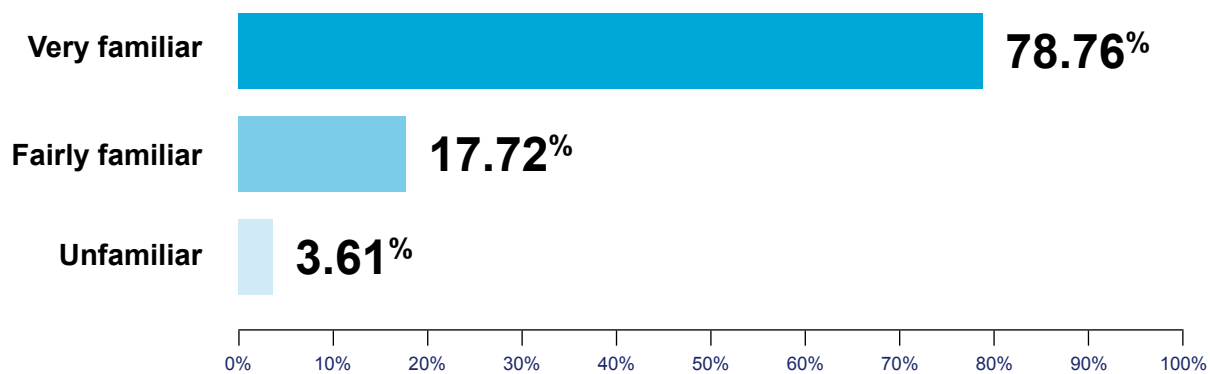| Theme	Open Category Results	Specific Category Results	Commentary
Familiarity with requirements	41% - very familiar 40% - fairly familiar 19% - unfamiliar	78.76% - very familiar 17.72% - fairly familiar 3.61% - unfamiliar	Most Open and Specific category flyers believe they are aware of the requirements to report and what to report.
Source of familiarity	The CAA website dominates the source of knowledge within the Open category at 48.94% with the Drone and Model Aircraft code second at 38.89%. Training or other courses is third most popular at 24.65%.	A range of sources were indicated as being the source of familiarity, but training or other courses was selected by 73.89% of respondents. CAP722 was the second most selected option with 53.86%.	For Open category flyers, the existing website material appears effective in creating knowledge on where to access guidance on reporting. **For Specific category flyers, (Recognised Assessment Entities) RAEs provide a critical path to awareness to reporting.** *Improvement Opportunity: To increase the number for reports in the Open category, make the CAA website guidance and reporting pages easily accessible and simple to use.*

4.0 SURVEY RESULTS

4.1 Part One: Awareness of Safety-Related Reporting

Open Category Results
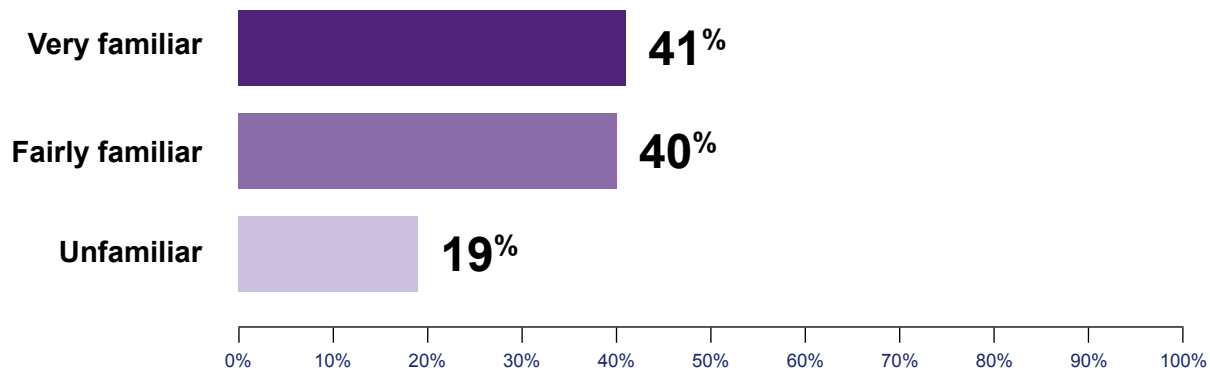
Very familiar	**41**%
Fairly familiar	**40**%
Unfamiliar	**19**%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

The CAA website dominates the source of knowledge within the Open category at 48.94% with the Drone and Model Aircraft code second at 38.89%. Training or other courses is third most popular at 24.65%.

Specific Category Results

Very familiar	**78.76**%
Fairly familiar	**17.72**%
Unfamiliar	**3.61**%

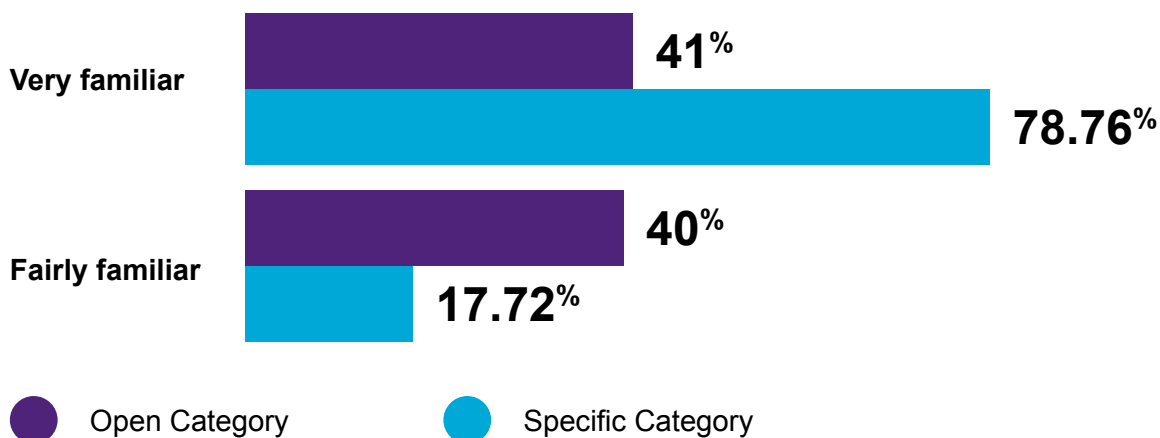0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

A range of sources were indicated as being the source of familiarity, but training or other courses was selected by 73.89% of respondents. CAP722 was the second most selected option with 53.86%.
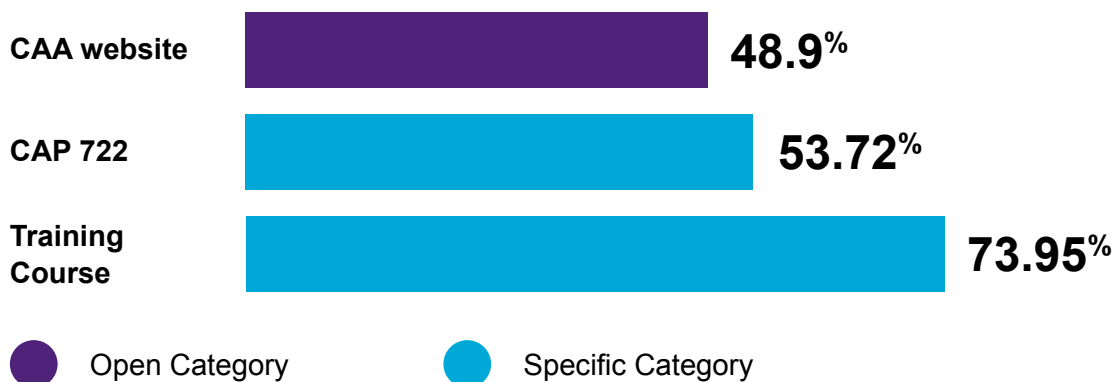
4.0 SURVEY RESULTS

4.2 Part One: Awareness of Safety-Related Reporting – Direct Answers

How familiar are you with the requirements to report certain safety- related occurrences, such as accidents, serious incidents and other incidents, in relation to flying drones and model aircraft?

Very familiar
41%
78.76%

Fairly familiar
40%
17.72%

● Open Category ● Specific Category

Where did you find out about the requirements for reporting safety- related occurrences?

CAA website
48.9%

CAP 722
53.72%
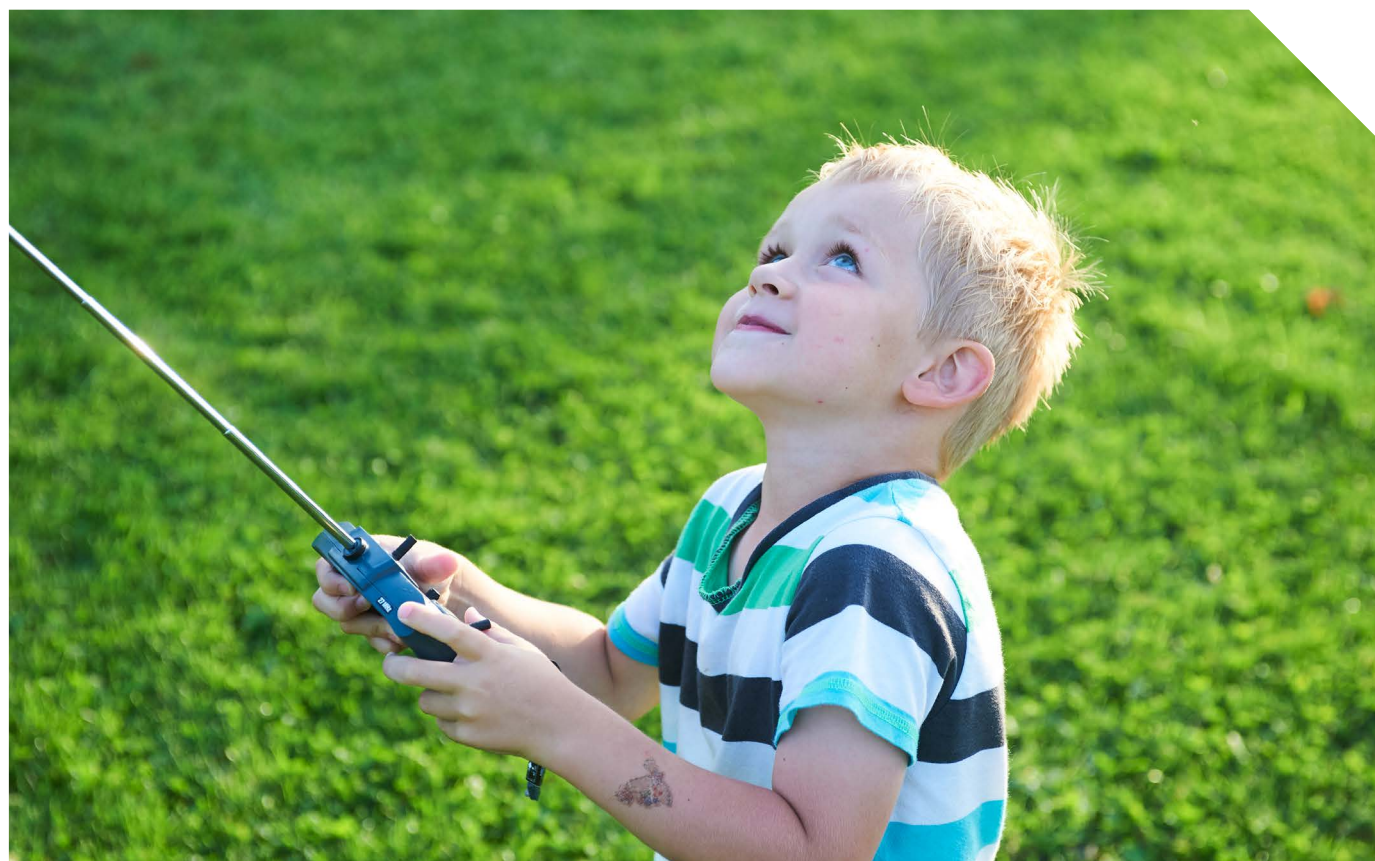
Training Course
73.95%

● Open Category ● Specific Category

4.0 SURVEY RESULTS

4.3 Part Two: Experience of Reporting Occurrences

Theme	Open Category	Specific Category	Observation(s)
Have reported an occurrence	~1% of respondents indicated they had reported a safety-related occurrence in the Open category. This is 359 of 26,687 who answered the question.	Less than 9% of respondents indicated that they had reported a safety-related occurrence.	*If* the Open category reported at the same rate as the Specific category, then over 2,300 occurrence reports could be expected.
Who to report to	The results show that all available reporting bodies were provided with reports from the 1% of respondents. There is no specific trend in who is the most appropriate reporting body for Open category. This indicates possible confusion on who to report to.	The results show that all available reporting bodies were provided with reports from the 9% of respondents. The CAA and AAIB were the primary bodies that responders reported to. The second category were the Employer or Insurance Provider. The third category were the police and the UK Airprox Board.	Without further information, it is difficult to determine whether the body that has received the report was the correct one. **Correlating this answer with the response to potential blockers then 43% of people said that reporting occurrences to more than one organisation would be a potential blocker.**
Ease of reporting	Most reporting systems are found relatively easy to use. Outliers are the ABANL, Whistleblower and police reporting systems where ~10-15% of reporters found them difficult to use.	There are no clear trends on the ease of use of the different systems. From the most popular options, the AAIB was noted as Very Easy or Fairly Easy to report to. It's noted that this is a phone call reporting system. The CAA ECCAIRS was noted as 'Fairly Easy', but the CAA was the tool that had the largest percentage of responders indicating it was 'Fairly Difficult' or 'Very Difficult'. ABANL and Whistleblower reports were found the most difficult.	The Open category found reporting marginally easier than the Specific category, though from a very small population size.**The number of reporting routes is clearly an issue in terms of consistency and quality of data.** *Improvement opportunity: Agree a single reporting route using a consistent format.*

4.0 SURVEY RESULTS

Theme	Open Category	Specific Category	Observation(s)
Giving up on the process	2.5% of responders [634 responses] indicated that they had given up reporting an occurrence because of the process.	Only a very small number of people had given up reporting an occurrence because of the process	Those that are willing to report are committed to the process no matter the ease or difficulty of the reporting form. Nevertheless, **634 reports from Open category flyers are missing from the CAA data base due to difficulties in the process dissuading them from completing and submitting the report. Though only a small number of responders reported a problem, the number of reports not filed is nearly double the number of successfully filed reports.**

4.0 SURVEY RESULTS

4.3 Part Two: Experience of Reporting Occurrences – Summary

"600-700 occurrence reports are likely to be missing from both the open and specific categories owing to lack of awareness about reporting channels or failing to report an occurrence."

Theme	Open Category	Specific Category	Observation(s)
Not reporting at all	A small number of people (~1%) have chosen not to report because they were not sure who to report to. Compared to those likely to have had an occurrence this indicates that there is confusion within the community on who to report to. 1.7% of responders [436] indicated that they were unsure if an incident they were involved required reporting. ~2.5% also noted [591] that within hindsight they may have been involved in an incident and not reported it. This also indicates that there are potentially 600+ reports that are missing from the reporting system.	A small number of people (~1%) have chosen not to report because they were not sure who to report to. 4.5% of responders [38] indicated that they were unsure if an incident they were involved required reporting. A similar (~6%) number. [48] also noted that within hindsight they may have been involved in an incident and not reported it.	**600-700 occurrence reports are likely to be missing from both the Open and Specific categories owing to lack of awareness about reporting channels or failing to report an occurrence.**

4.0 SURVEY RESULTS

4.4 Part Two: Experience of Reporting Occurrences – Direct Answers

Question	Open Category	Specific Category
Q4 Where did you find out about the requirements for reporting safety- related occurrences?	48.9% of users find the information from the CAA website.	53.72% of users get the information from CAP 722 and 73.95% from training or a course.
Q6 Have you ever reported a safety- related occurrence?	Only 1.35% have reported an occurrence.	8.39% have reported an occurrence.
Q7 For each organisation that you reported a safety-related occurrence to, please rate how easy or difficult it was to report?	The 303 respondents who replied said it was easy to report an occurrence.	The 66 respondents who replied said it was easy to report an occurrence.
Q8 Have you ever given up on reporting an occurrence because the process was too difficult?	2.46% [634 respondents] said they had given up on a report as the process was too difficult.	3.13% [26 respondents] said they had given up on a report as the process was too difficult.

4.0 SURVEY RESULTS

4.5 Part Three: Views on Reporting or Sharing Occurrences – Summary

"445 ideas have been received demonstrating the community is willing to participate in lesson learning as a means of improving safety and human performance."

Theme	Open Category	Specific Category	Observation(s)
Obstacles to reporting	When asked about potential blockers then there is a large distribution of responses to all options apart from using a digital form (5%). The six dominant responses were i) not knowing what to report, ii) having to report to more than one organisation, iii) not knowing who to report to, iv) using a tool that was not tailored to the characteristics of drones or model aircraft and vi) just thinking that the event was still safe or otherwise legal.	When asked about potential blockers, then there is a similarly wide distribution of responses to all options apart from using a digital form (5%). The three dominant responses were i) having to report to more than one organisation, ii) the fear of being penalised and iii) using a tool that was not tailored to the characteristics of drones or model aircraft.	There is a wide distribution of blockers to reporting in both communities. This is seen as a significant issue and improvement opportunity. Improvement opportunities: Design a tool tailored to RPAS and using mobile devices is also an area to focus improvement. Develop an education campaign to stress the importance and mechanisms of reporting and the existence of a just culture.
Information that would be valuable to share with others	9,950 responses were made to this question. Planning, human factors, weather, operation of the aircraft, location were the most dominant topics that were identified as valuable to share information on. The word-map on the next page highlights these in an easily digested form.	445 ideas have been received demonstrating the community is willing to participate in lesson learning as a means of improving safety and human performance.	Flight planning, human factors issues, preparation, weather and operation of the aircraft are key issues that reporters would find useful in terms of improving safety and human performance.

4.0 SURVEY RESULTS

4.6 Part Three: Q13 Word Cloud Summary of Responses

Open category

Specific category

4.7 Part Four: How the CAA can help and provide support – Summary

Theme	Open Category	Specific Category	Observation(s)
Desired benefits from safety reporting process	Learning from experiences of others is seen as the most significant benefit (77%) to reporting. Linked to this was the most importance of providing feedback to the reporter of the events (54%). Second most indicated (70%) was the benefit of more freedom in flying due to better understanding of hazards.	Learning from experiences of others is seen as the most significant benefit (85%) to reporting. Linked to this was the most importance of providing feedback to the reporter of the events (55%). Second most indicated (69%) was the benefit of more freedom in flying due to better understanding of hazards.	Sharing outcomes of investigations and trends in occurrences to the reporter and the entire community remains critical to the success of the reporting programme. This is true for the Open and Specific category flyers. *Improvement opportunity: Provide feedback to the community on reports filed.*
Preferred method of reporting / sharing safety-related info	An online form is the highest priority for reporting with a mobile app second most preferred. There was also support for reporting via the aircraft control / mission planning app. Anonymous surveys are supported as a method for gathering information. There is also significant support for workshops with the CAA or within flying clubs and groups to support information sharing within the community.	An online form is the highest priority for reporting with a mobile app second most preferred. An email system was indicated as the third highest priority. There is significant support for workshops with the CAA or within flying clubs and groups to support information sharing within the community. Surveys are also supported as a method for gathering information.	An online form is the most preferred option and providing that through an app is also supported. The use of other mission planning and aircraft control apps are supported but with no clear preference. However, all other forms remain of interest to Open category users. These answers confirm that the industry is willing to engage in discussions on safety related occurrences and that workshops (face-to-face) are a preferred means. This is aligned to our understanding of principles of a good reporting and investigation process.
Views on drone data auto-populating a report	Responders (80%) are supportive of using data stored within the aircraft or the mission planning applications to support reporting. 65% of respondents said that control of what is submitted remains with the pilot.	Responders (81%) are supportive of using data stored within the aircraft or the mission planning applications to support reporting. 66% of respondents said that control of what is submitted remains with the pilot.	There is strong support from both communities for using mission data to assist with reporting – so long as this is not done automatically.

4.0 SURVEY RESULTS

Theme	Open Category	Specific Category	Observation(s)
Types of helpful information	Safety reports from other flyers (65%) and rules on where to fly (74%) and training or other briefing material (58%) are the most preferred information types that the specific category would welcome.	Safety reports from other flyers (73%), rules on where to fly (60%), training or other briefing material (55%) and statistics on reporting across the RPAS industry (43%) are the most preferred information types that the Specific category would welcome.	**The responses suggest that the RPAS community wishes to get additional information from the CAA and that a two-way sharing programme should be provided at the point at which people are submitting their reports.**

Learning from experiences of others is seen as the most significant benefit in both categories – Open (77%) Specific (85%).

"Sharing outcomes of investigations and trends in occurrences to the report and the community remain critical to the success of the reporting programme."

4.0 SURVEY RESULTS

4.7 Part Four: How the CAA can help and provide support – Direct Answers

"Safety reports from other flyers [Open: 64.97% Specific: 73.35%] and rules on where to fly [Open: 74.18% Specific: 60.51%] were the most important issues listed by respondents."

Question	Open Category	Specific Category
Q10 Have you ever chosen not to report an occurrence because you weren't sure if it should be reported?	1.69% [436 respondents] said they had chosen not to report an occurrence as they were not sure if it should be reported.	1.2% [10 respondents] said they had chosen not to report an occurrence as they were not sure if it should be reported.
Q11 Do you believe you may have seen or been involved in an occurrence in the past that you should have reported but didn't?	2.37% [591 respondents] believed they may have seen or been involved in an occurrence in the past that they should have reported but didn't.	5.90% [48 respondents] believed they may have seen or been involved in an occurrence in the past that they should have reported but didn't.
Q14 What benefits would you like to see from a reporting system?	Learning from others [77.32%] and receiving feedback from the CAA [53.95%] were the most important issues reported.	Learning from others [84.3%] and more freedom in flying due to better understanding of hazards [69.36%] were the most important issues reported.
Q20 What type of information provided by the CAA would help you operate your drone or model aircraft?	Safety reports from other flyers [64.97%] and rules on where to fly [74.18%] were the most important issues listed.	Safety reports from other flyers [73.35%] and rules on where to fly [60.51%] were the most important issues listed.

5.0 SURVEY RESULTS ANALYSIS

4.8 Part Five: How you use drones and model aircraft – Summary

"95% of open category users said they operate their drone as a hobby compared to 60% of specific category responders."

| Theme	Open Category	Specific Category	Observation(s)
What the RPAS is used for	95% of Open category respondents said they operate their drone as a hobby. ~5% of Open category respondents said they didn't. Only 20% of Open category respondents said they were part of a flying club or association. 12% of responders (2,252 of 18,600) said that they use their drones or model aircraft for work.	60% of Specific category respondents said they operate their drone as a hobby. Only 28% of Specific category respondents said they were part of a flying club or association. 87% of responders said that they use their drones or model aircraft for work.	~ 13% of responders in the Specific category indicated that they did not use their drones for work – and presumably use them as a hobby. The membership of flying clubs and associations is low across both categories. Improvement Opportunity: Encourage the formation of flying clubs as a way of improving a strong aviation and open reporting culture in the industry.
Why do they fly their RPAS	12% use their drone or model aircraft for work of those, 58% said that their work was part of their own business. Further clarification on the sector they work in shows that 46% is commercial activity (Approximately 1,032 or 6% of 18,600). The remaining identified sectors are government, education and research (amounting to ~20%).	Only 550 responders chose to answer this. 80% of responders indicated that the work is part of their own business. 71% of responders indicated the sector they most worked in was commercial sector. 17% of respondents said other.	Assuming the rate (6%) of those in the Open category who use their drone for commercial work is consistent across the total Open category population, approximately 16,000 Open category users could be operating their drones for commercial purposes. Improvement Opportunity: Re-introduce a commercial license for RPAS operators to help foster strong aviation and open reporting culture.

5.0 SURVEY RESULTS ANALYSIS

Theme	Open Category	Specific Category	Observation(s)
Flyer IDs and authorisations	96.5% of responders said they have a drone and model aircraft flyer ID where 94% said they had an operator ID. 19.5% of responders selected UK PDRA01 for operational authorisation. 7.5% of responders said that they had other authorisations. Only 20% have an additional flyer qualification.	98% of responders said they have a drone and model aircraft flyer ID where 99.5% said they had an operator ID. UK PDRA01 is the most selected operational authorisation with 71%. 14% of responders said that their permission has expired. 82.5% have an additional flyer qualification.	The vast majority of flyers in both categories have flyer IDs and authorisations indicating the success of the programmes.
Flying frequency	The majority of responders indicated that they fly their drones a few times a year (60%). With 34% flying several times a month and only 5% flying a few times a week. The time they fly is largely 1 to 3 hours per month (~75%) with 42% flying less than 1 hour per month.	The responders indicated that they fly their drones several times a month (60%). With only 15% flying several times a week and only 5% flying most days. The time they fly is largely 1 to 3 hours per month.	The relative infrequency of flying in both categories and consequent lack of 'currency' provides some insight as to perhaps why some pilots and operators may be unfamiliar with the rules, the importance of reporting and reporting methods.

5.0 SURVEY RESULTS ANALYSIS

4.8 Part Five: How you use drones and model aircraft – Direct Answers

Question	Open Category	Specific Category
Q22 Do you use drones or model aircraft as a hobby?	95% of Open category respondents said they operate their drone as a hobby.	60% of specific category said they operate their drone as a hobby.
Q23 Are you a member of a flying club or association?	Only 20% of Open category respondents said they were part of a flying club or association.	Only 28% of specific category said they were part of a flying club or association.
Q24 Do you use drones or model aircraft for work?	12% of responders (2,252 of 18,600) said that they use their drones or model aircraft for work.	87% of responders said that they use their drones or model aircraft for work.
Q26 What sector do you mostly work in?	46% is commercial activity (Approximately 1,032 or 6% of 18,600). The remaining identified sectors are government, education and research (amounting to ~20%).	71% of responders indicated the sector they most worked in was Commercial Sector. 17% of respondents said other.
Q28 Do you have a drone and model aircraft flyer ID?	96.5% of responders said they have a drone and model aircraft flyer ID.	98% of responders said they have a drone and model aircraft flyer ID.
Q29 Do you have a drone and model aircraft operator ID?	94% said they had an operator ID.	99.5% said they had an operator ID.
Q30 Do you currently hold an operational authorisation (or similar) in the specific category issued by the UK CAA? And Q31 Do you have any current additional remote pilot qualifications?	26.83% have an operational authorisation but only 20% have an additional flyer qualification.	88.93% have an operational authorisation and 82.5% have an additional flyer qualification.
Q32 Typically, how often do you fly drones or model aircraft?	The majority of responders indicated that they fly their drones a few times a year (60%).	The majority of responders indicated that they fly through drones several times a month (60%).

Do you use drones or model aircraft for work?

Open Category

12%

said that they use their drones or model aircraft for work

Specific Category

87%

said that they use their drones or model aircraft for work
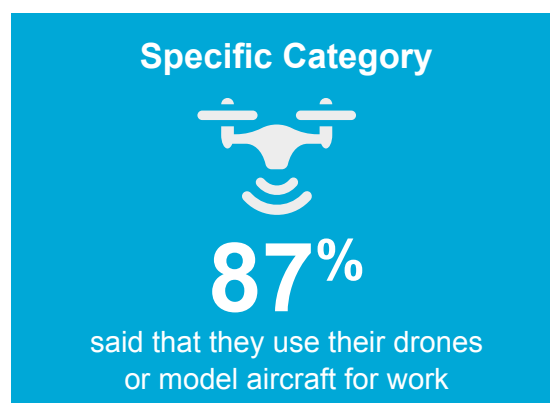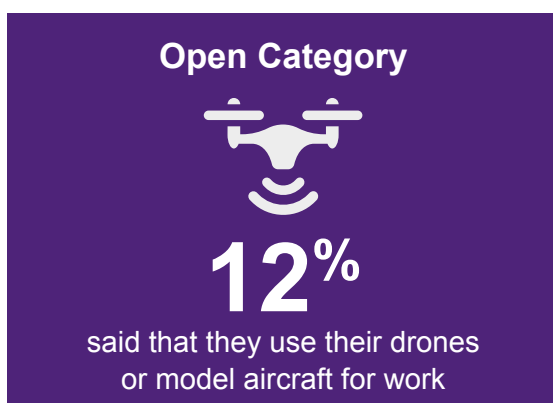
5.0
Survey Results Analysis

5.0 SURVEY RESULTS ANALYSIS

5.1 Survey Summary Findings

"A tool tailored to RPAS reporting and using mobile devices and an easily accessible web-page is an area to focus improvement on."

1. For Open category flyers, the existing website material appears effective in creating knowledge on where to access guidance on reporting. To increase the number for reports in the Open category, make the CAA website guidance and reporting pages easily accessible and simple to use.

2. On the assumption that if the open community report at the same rate as the Specific category [8.39% vs 1.35%] the number of reports would increase from 30 to 186 per month.

3. From the data, we can see that 600-700 occurrence reports [58 per month] are likely to be missing from both the Open and Specific categories owing to lack of awareness about reporting channels, failing to report an occurrence or difficulties in the reporting process.

4. There is a wide distribution of blockers to reporting in both communities. Suggested solutions are:
   - *A tool tailored to RPAS reporting and using mobile devices and an easily accessible web-page is an area to focus improvement.*
   - *Development of an education campaign to stress the importance and mechanisms of reporting and the existence of a just culture.*

5. The Open category found reporting marginally easier than the Specific category, though from a very small population size. The number of reporting routes is clearly an issue in terms of consistency and quality of data. There is an opportunity to agree a single reporting route using a consistent format

6. Sharing outcomes of investigations and trends in occurrences to the reporter and the entire community remains critical to the success of the reporting programme.

7. There is strong support from both communities for using mission data to assist with reporting – so long as this is not done automatically.

8. 46% of drones are being operated commercially from within the Open category, with only 27% having an operational authorisation. There may be an opportunity to re-introduce a commercial license for RPAS operators to help foster strong aviation and open reporting culture.

9. Drone pilots don't fly that much with the majority in the Open category flying a few times a year and those in the Specific category a few times a month. The relative infrequency of flying in both categories and consequent lack of 'currency' provides an indication of why some pilots and operators are unfamiliar with the rules, the importance of reporting and reporting methods.

5.0 SURVEY RESULTS ANALYSIS

5.2 Understanding the Rules for Reporting Occurrences – Analysis

"A key question is whether pilots and operators understand the rules for reporting occurrences."

- The survey says yes in both categories, but the data strongly implies that in reality the rules are not well understood using the base hypothesis that the reporting is very low with just 1.5% in the all category (26,000 responses) compared to 8.23% in the specific category (826 responses).

- In both datasets from Q9 'choosing not to report an occurrence because of uncertainty on who report where to report to,' virtually all 27,000 respondents answered that they were never 'not sure' who or where report to. Similarly from Q10 and Q11, the 27,000 people who filled in the CAA survey claim they understand the reporting rules.

- In the results of Q12, 'the greatest obstacle to reporting an occurrence,' the top three answers across all categories (21,000 respondents) are;
  – Having to report an occurrence to more than one organisation (44.97%)
  – Not being aware the occurrence needed to be reported (38.47%)
  – Not knowing who to report to (36.1%)
  Closely followed by 'fear of being penalized'.

Learning Point: Clearly there is some confusion on where to report, who to report to and what to report. This is also reflected in the specific category where having to report to more than one organisation is a similar percentage (44%) but where fear of being penalized is at 43%.

5.3 Presence of a Just Culture – Analysis

"In both categories, the top three answers to Q14 'benefits of a reporting system' were learning from the experience of others, receiving feedback from the CAA and having more freedom in flying due to better understanding the hazards."

Q12 'The greatest obstacle to reporting a safety-related occurrence' infers that reporters do fear being penalised – in both the Specific category and Open category.

• Respondents for Q17 'use of mission planning apps to be used to auto-populate a reporting form' in both categories said that they were happy to report but only if it is not automatic. So, despite what they said in Q12, they were happy to report providing they were in control of the report. This implies that as long as they have a stake in the reporting then the system is safe - inferring to some degree a belief in a just culture.

• In both categories, the top three answers to Q14 'benefits of a reporting system' were learning from the experience of others, receiving feedback from the CAA and more freedom in flying due to better understanding the hazards.

• The results imply that the community believes that a just culture is present in terms of communication, better understanding, more training.

• Similarly, the answers to Q18 'collecting and sharing information about safety-related occurrences' and Q20 'types of information provided by the CAA to help operate a drone or model aircraft' show that the community would like to safely participate and understand more of what the CAA does with these reports and how can it benefit them in terms of upskilling and more flying opportunities

• Learning point: The analysis suggests that there is an established belief in a just culture within the industry if the fear of being penalised for making a report can be overcome.

5.0 SURVEY RESULTS ANALYSIS

5.4 What's Next?

As mentioned, we found 50 changes which could be made to improve the end-to-end safety reporting landscape, all based on feedback from the community and stakeholders. What is clear is that MORs may not be appropriate for all RPAS users. Please see the **CAA RPAS Safety Reporting Project - Discovery Summary Report** which provides further context, outlines what the information gathered in the survey was used for and what we are doing next.

6.0
Appendices

APPENDICES

Survey Questions and Sample Responses

Part One: Awareness of Safety Related Reporting

How familiar are you with the requirements to report certain safety-related occurrences, such as accidents, serious incidents and other incidents, in relation to flying drones and model aircraft? (Select one)

☐ Very unfamiliar – I did not know there are requirements

☐ Somewhat unfamiliar – I had an idea there are requirements, but I'm not sure what should be reported

☐ Fairly familiar – I know there are requirements, and I have a reasonable idea what should be reported

☐ Very familiar – I am fully aware of the requirements and know what should be reported

Where did you find out about the requirements for reporting safety-related occurrences? (Select all that apply)

☐ Article or blog

☐ CAA website

☐ CAP722: Unmanned Aircraft System Operations in UK Airspace, guidance document

☐ Drone and Model Aircraft Code

☐ Information provided by drone or model aircraft association or club

☐ Operational authorisation logbook

☐ Organisations Operation Manual

☐ Regulation (EU) 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation

☐ Training or another course

☐ None

☐ Other – Please give details

APPENDICES

Part Two: Your Experience of Reporting Occurences

Have you ever reported a safety-related occurrence?

☐ Yes

☐ No

For each organisation that you reported a safety-related occurrence to, please rate how easy or difficult it was to report. (Please only rate for the organisations you reported to and leave the others blank)

Organisation	Very easy	Fairly easy	Neither easy nor difficult	Fairly difficult	Very difficult
Air Accidents Investigation Branch (AAIB)					
Alleged breaches of air navigation legislation (ABANL)					
Association of Remotely Piloted Aircraft Systems (ARPAS UK)					
British Model Flying Association (BMFA)					
Civil Aviation Authority (CAA), e.g. via ECCAIRS					
Civil Aviation Authority (CAA) whistleblower report					
Confidential Human Factors Incident Reporting Programme (CHIRP)					
Drones Reunited					
Employer					
Insurance provider					
Mission planning application, e.g. UTM airspace service provider					
Police					
UK Airprox Board (Airprox)					
Other – please give details					

APPENDICES

Part Two: Your Experience of Reporting Occurences

Have you ever given up on reporting an occurrence because the process was too difficult?

☐ No

☐ Yes – Please give details below

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Have you ever chosen not to report an occurrence because you weren't sure who to report to or where to report to?

☐ No

☐ Yes – Please give details below

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Have you ever chosen not to report an occurrence because you weren't sure if it should be reported?

☐ No

☐ Yes – Please give details below

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APPENDICES

"I tried to report in the early days by calling CAA but was told there was no need to do so."

"Ended up logging on a week later and re-doing it, thankfully it worked second time."

"I didn't report a battery disconnection which caused a drone failure from 10m because I didn't know where to report to."

"I had a drone ditch in the channel – I wasn't sure if it was reportable as it was off-shore."

"Learning FPV flying involves a lot of crashes, reporting every single one would be pointless."

APPENDICES
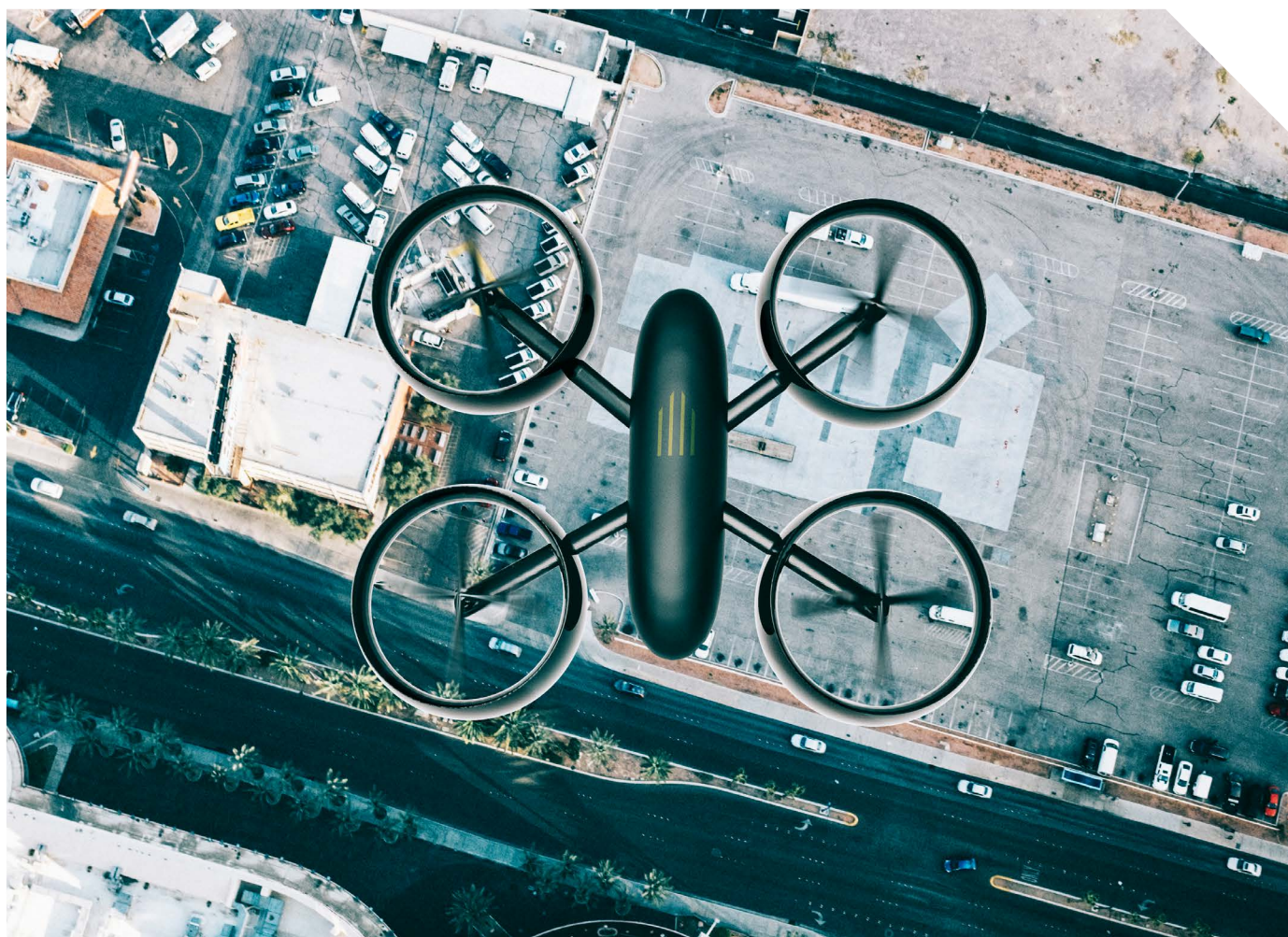
Part Two: Your Experience of Reporting Occurrences

The two key reasons the regulations require people to report safety-related occurrences are to help the CAA, in its role as regulator, to:

- identify trends in the type of safety-related occurrences that are taking place

- identify areas where aviation rules and guidelines could be adapted to improve aviation safety by preventing similar occurrences from happening again.

With this in mind, do you believe you may have seen or been involved in an occurrence in the past that you should have reported but didn't?

☐ No

☐ Yes – Please tell us why you didn't.

"I should have reported the controller resetting as the situation could've been worse or it could be happening to other people too."

"I would have reported other drone operators not operating within the Drone Code as they were specifically flying above legal limits and above condensed crowds. I couldn't identify the operators on these occasions, or I would have reported them."

"Yes, I should have reported an occurrence, but it was pilot error and I suppose you don't want to admit to errors or deal with the ramifications."

"I've previously reported concerns about a drone club but they never ever been taken seriously. Seen people flying illegally and dangerously in public places but no one cares or does anything to tackle it, ie flying and dropping loads from drones for deliveries."

APPENDICES

Part Three: Your Views on Reporting or Sharing Details of Safety-Related Occurrences

Which of the following would be the greatest obstacle to you reporting a safety-related occurrence? (Please rank the top five obstacles, making 1 highest, 2 next highest, through to 5 for fifth highest. Only your top five will be ranked.)

☐ Not being aware that the occurrence must be reported

☐ Missing the deadline for reporting an occurrence

☐ Not knowing who to report to

☐ Having to report an occurrence to more than one organisation

☐ Not having the time to report

☐ Not understanding the benefit of reporting an occurrence

☐ Believing that nothing would happen with the report

☐ Believing that the operation was otherwise safe and legal

☐ Having to use a tool that does not recognise the specific characteristics of drones or model aircraft

☐ Having to use a tool that does not work on tablet or mobile devices

☐ Having to use a digital form

☐ Fear of being penalised if I was at fault

What type of information to do you believe would be valuable to share with other flyers and operators to help improve safety? For example, a lesson you learnt as a result of an incident or other learning point during the following activities:

• Flight planning

• Preparing the aircraft

• Operation of the aircraft

• Changing between same or different aircraft types

• Changing components during operation

• Human factor issues relating to operating controls.

Please give details of the sort of information that could be shared:

APPENDICES

"The greatest obstacle to reporting is just not being aware the incident needed reporting."

"Having to report an incident to more than one organisation."

"A big obstacle is not having a reporting tool that works in mobile or tablet devices."

"Making sure operators had regular training would improve safety."

"Flight Planning would improve safety"

"Using real life accidents and occurrences are good sources to share and learn from."

"If people can buy drones without registering with the CAA, then knowledge of and compliance with the rules will be absent."

APPENDICES

Part Four: Learning about how the CAA can help and provide support

What benefit(s) would you like to see from a reporting system?
(Please rank the benefits from 1 highest to 9 lowest.)

☐ Learning from the experience of others

☐ Receiving feedback from the CAA on reports I submit

☐ More freedom in flying due to better understanding of hazards

☐ Help develop proactive maintenance recommendations

☐ Trends in performance are shared with manufacturers to enable safety changes / updates

☐ I only must report once

☐ Safety data is shared between agencies from a central source

☐ More comprehensive training and education

☐ Other – Please give details

What would be your preferred method for reporting a safety-related occurrence?
(Please rank in order of preference from 1 highest to 6 lowest.)

☐ Online form

☐ Mobile app

☐ Via my mission planning software app

☐ Via my aircraft control app

☐ Phone

☐ Email

Would you be happy for data from your drone, model aircraft, operational or mission planning apps to be used to auto-populate a reporting form?

☐ Yes

☐ Yes, if I can agree in the app and the information is not submitted automatically

☐ No

Part Four: Learning about how the CAA can help and provide support

As well as a reporting service, what other methods do you believe would be useful or would you participate in for collecting and sharing information about safety-related occurrences? (Select all that apply)

☐ Open discussion workshops, such as at flying clubs, associations and workplaces

☐ CAA workshops on selected topics, such as review of UK CAP 722

☐ Promotional events

☐ 1-2-1 interviews

☐ Anonymous surveys

☐ Other – please give details

"Receiving feedback from the safety reports I submit to the CAA would be a benefit."

What type of information provided by the CAA would help you operate your drone or model aircraft? (Select all that apply)

☐ Safety reports from other flyers

☐ Statistics on safety reporting across the RPAS industry.

☐ Rules on where to fly

☐ Online training and briefing material on flying.

☐ Practical flight training

☐ Other – please give details

APPENDICES

Part Five: About how you use Drones and Model Aircraft

Do you use drones or model aircraft as a hobby?

☐ Yes

☐ No

Are you a member of a flying club or association?

☐ Yes

☐ No

Do you use drones or model aircraft for work?

☐ Yes

☐ No

Is the work where you use drones or model aircraft your own business?

☐ Yes

☐ No

What sector do you work in?

☐ Drone or model aircraft training (Recognised Assessment Entity)

☐ Government

☐ Education

☐ Commercial

☐ Research

☐ Other – give details

"It could lead to trends in performance allowing manufacturers to enable safety changes/updates."

APPENDICES

Part Five: About how you use Drones and Model Aircraft

Do you have a drone and model aircraft flyer ID?

☐ Yes

☐ No

If no, please tell us if you're exempt or similar:

[ ]

Do you have a drone and model aircraft operator ID?

☐ Yes

☐ No

Do you currently hold an operational authorisation (or similar) in the specific category issued by the UK CAA? (Select all that apply)

☐ UKPDRA01*

☐ UKPDRA02**

☐ Another specific category operational authorisation

☐ No, my permission or authorisation has expired

☐ Not applicable

* UKPDRA01: Operations within 150 metres of any residential, commercial, industrial or recreational areas for UAS with a maximum take-off mass (MTOM) of less than 25kg.

** UKPDRA02: Flights for research and development testing of UAS with a maximum take-off mass (MTOM) between 25kg and 150kg.

Part Five: About how you use Drones and Model Aircraft

Do you have any current additional remote pilot qualifications? (Select all that apply)

☐ A2 CofC (Certificate of Competence)

☐ GVC Multi-Rotor (General VLOS Certificate)

☐ GVC Fixed-Wing (General VLOS Certificate)

☐ NQE Full Recommendation (National Qualified Entity)

☐ No

Typically, how often do you fly drones or model aircraft? (Select one)

☐ A few times a year

☐ Several times every month

☐ Several times every week

☐ Most days

☐ More than once a day, most days

Approximately how many hours do you fly drones or model aircraft in an average month? (Select one)

☐ Less than 1 hour

☐ 1 to 3 hours

☐ 3 to 5 hours

☐ 5 to 20 hours

☐ 20 to 100 hours

☐ More than 100 hours

APPENDICES

Appendix B

Survey population size and response rate

The detailed results of the survey are displayed below.

Category	Emails Provided	Emails duplicated/invalid	Emails Sent	Email bounce back	Unsubscribed	Opened	Opens	Clicks	Survey Responses
Open (direct email)	277,667	5,843	271,824	2,098	1,098	153,455	56.9%	11.9%	31,998
Specific (direct email)	7,707	0	7,707	188	10	4,650	61.8%	12.8%	935
TOTAL	**285,374**	**5,843**	**279,531**	**2,286**	**1,108**	**158,105**	**100%**	**100%**	**32,933**

Appendix C
Full Survey

APPENDIX C – FULL SURVEY

Q1 Do you currently use or fly remotely-piloted aircraft, such as drones and model aircraft?

Answered: 32,933   Skipped: 34
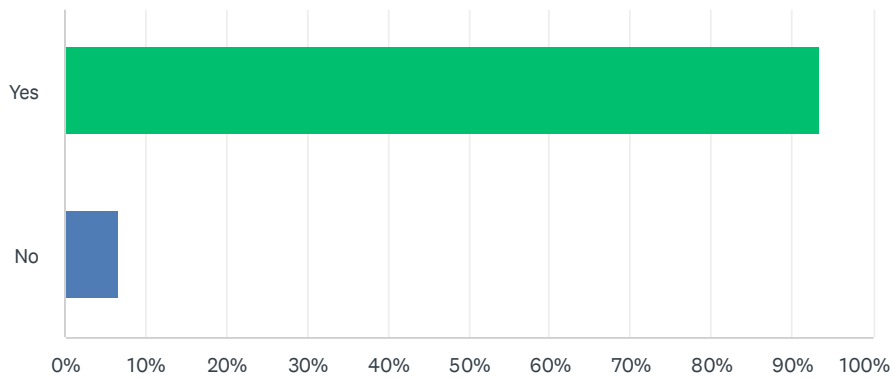
ANSWER CHOICES	RESPONSES	
Yes	93.42%	30,767
No	6.58%	2,166
TOTAL		32,933

APPENDIX C – FULL SURVEY

Q2 Would you like to continue with the survey?

Answered: 2,050   Skipped: 30,917
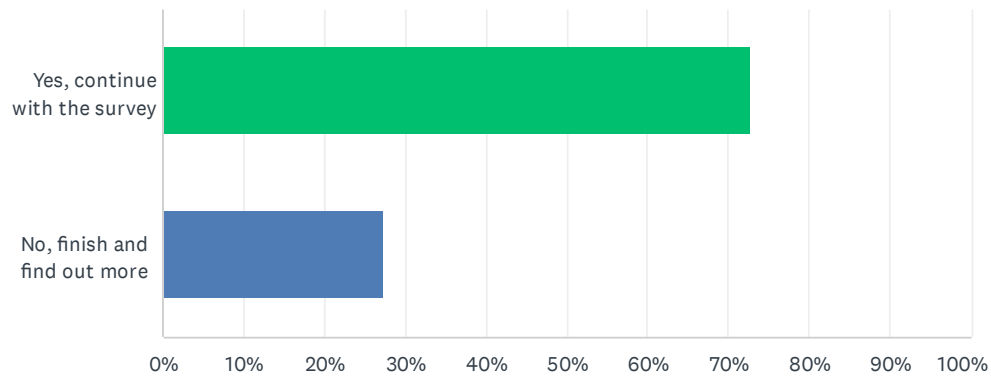
ANSWER CHOICES	RESPONSES	
Yes, continue with the survey	72.63%	1,489
No, finish and find out more	27.37%	561
TOTAL		2,050

Q3 How familiar are you with the requirements to report certain safety-related occurrences, such as accidents, serious incidents and other incidents, in relation to flying drones and model aircraft?

Answered: 27,618   Skipped: 5,349
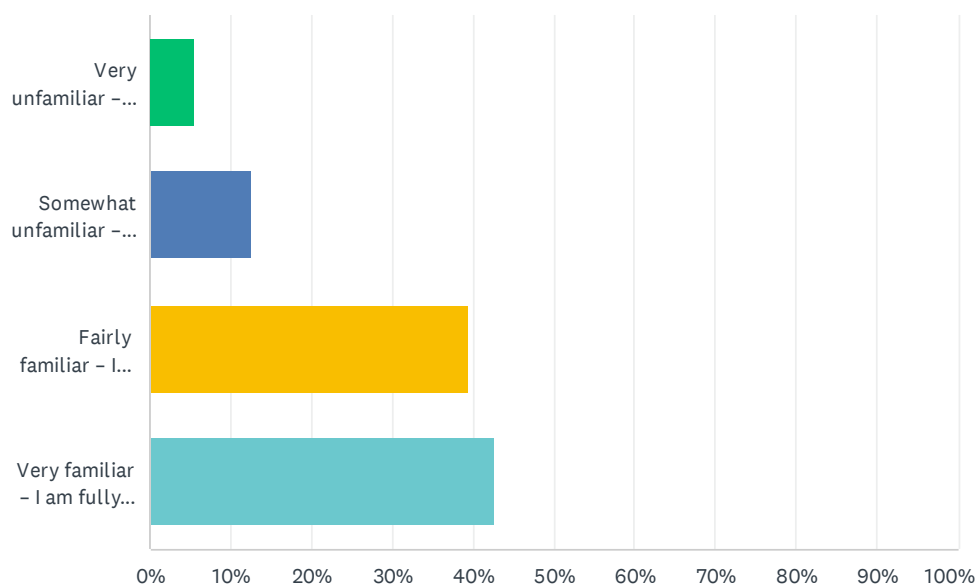
ANSWER CHOICES	RESPONSES	
Very unfamiliar – I did not know there are requirements	5.49%	1,517
Somewhat unfamiliar – I had an idea there are requirements, but I'm not sure what should be reported	12.48%	3,446
Fairly familiar – I know there are requirements, and I have a reasonable idea what should be reported	39.34%	10,866
Very familiar – I am fully aware of the requirements and know what should be reported	42.69%	11,789
TOTAL		27,618

Q4 Where did you find out about the requirements for reporting safety-related occurrences? Select all that apply.

Answered: 27,427   Skipped: 5,540
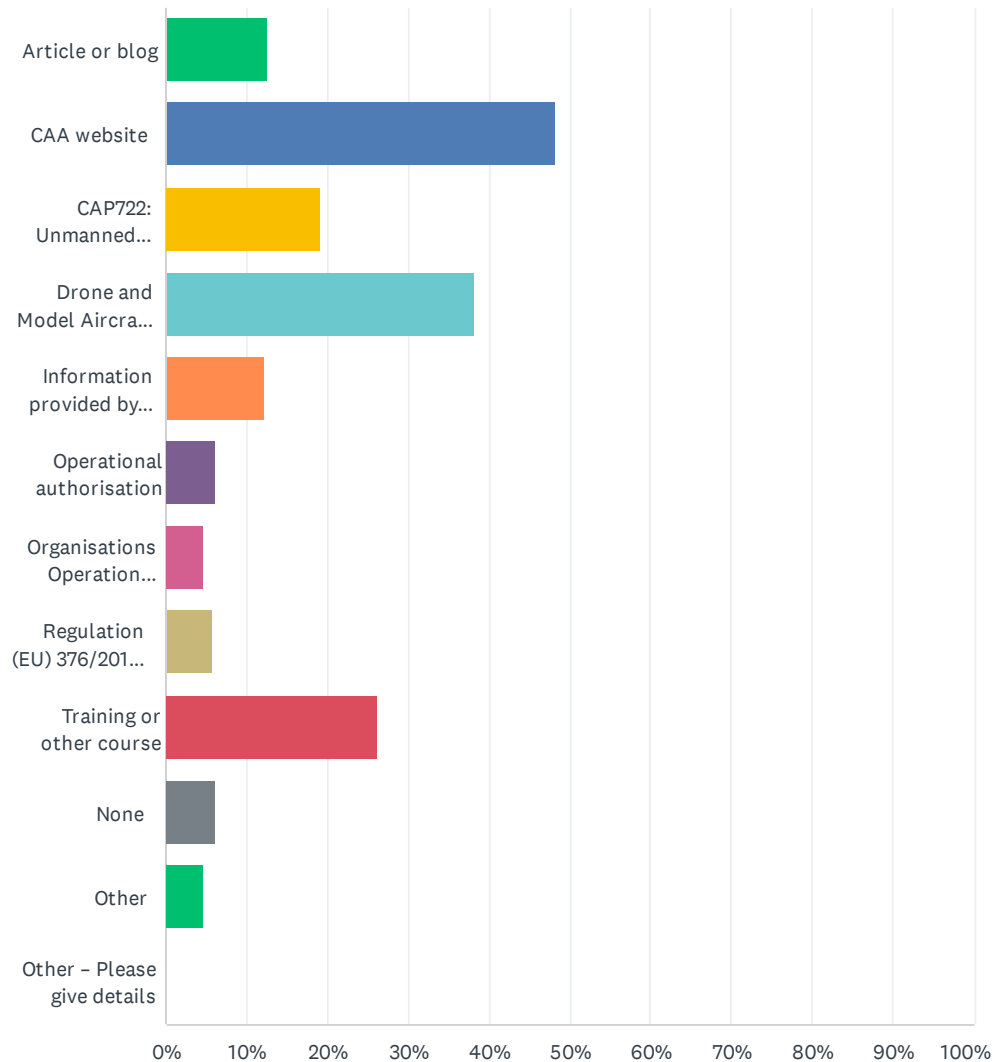
APPENDIX C – FULL SURVEY

ANSWER CHOICES	RESPONSES	
Article or blog	12.66%	3,472
CAA website	48.28%	13,241
CAP722: Unmanned Aircraft System Operations in UK Airspace, guidance document	19.27%	5,286
Drone and Model Aircraft Code	38.21%	10,481
Information provided by drone or model aircraft association or club	12.17%	3,337
Operational authorisation	6.09%	1,671
Organisations Operation Manual	4.66%	1,278
Regulation (EU) 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation	5.74%	1,574
Training or other course	26.18%	7,181
None	6.18%	1,694
Other	4.60%	1,261
Other – Please give details	0.00%	0
Total Respondents: 27,427		

APPENDIX C – FULL SURVEY

Q5 If other, please give details.

Answered: 1,568   Skipped: 31,399

Q6 Have you ever reported a safety-related occurrence?

Answered: 27,497   Skipped: 5,470
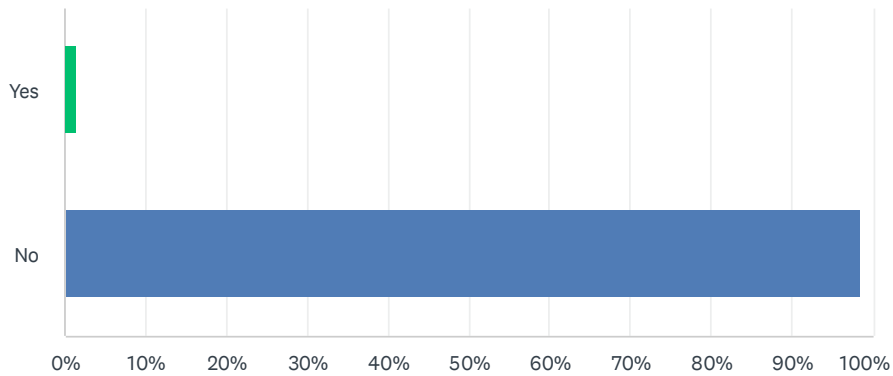
ANSWER CHOICES	RESPONSES	
Yes	1.59%	436
No	98.41%	27,061
TOTAL		27,497

APPENDIX C – FULL SURVEY

Q7 For each organisation that you reported a safety-related occurrence to, please rate how easy or difficult it was to report.Please only rate for the organisations you reported to. Leave the others blank.

Answered: 372   Skipped: 32,595
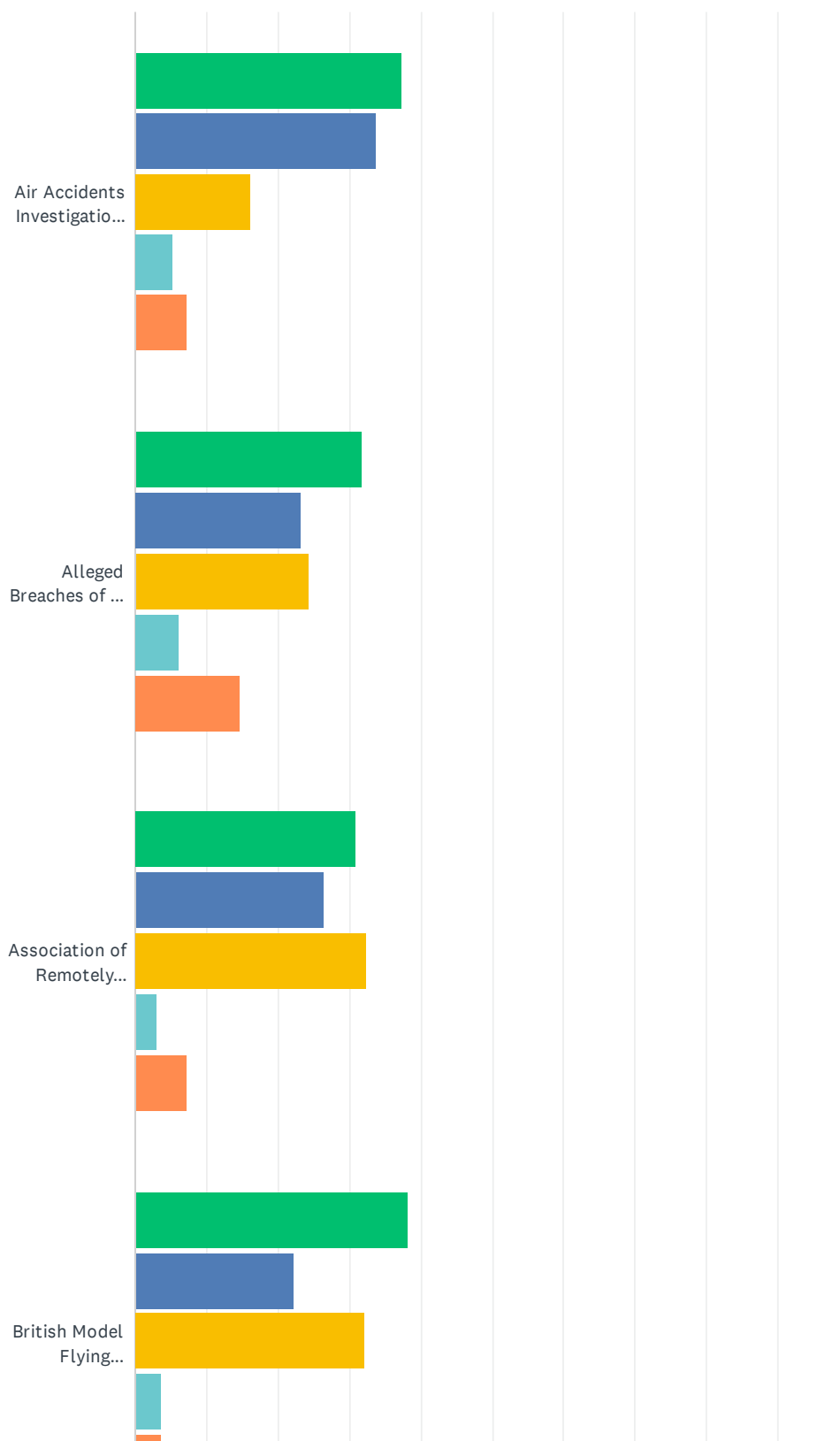
APPENDIX C – FULL SURVEY

Civil Aviation Authority...

Civil Aviation Authority (C...

Confidential Human Factor...

Drones Reunited

CAA | CAP2357 | RPAS Safety Reporting Project | Summary and Results

APPENDIX C – FULL SURVEY

Employer

Insurance Provider

Mission planning...

Police

UK Airprox Board (Airprox)

APPENDIX C – FULL SURVEY

Drone and model aircraft safety information

Legend:
- Very easy
- Fairly easy
- Neither eas...
- Fairly diffic...
- Very difficult
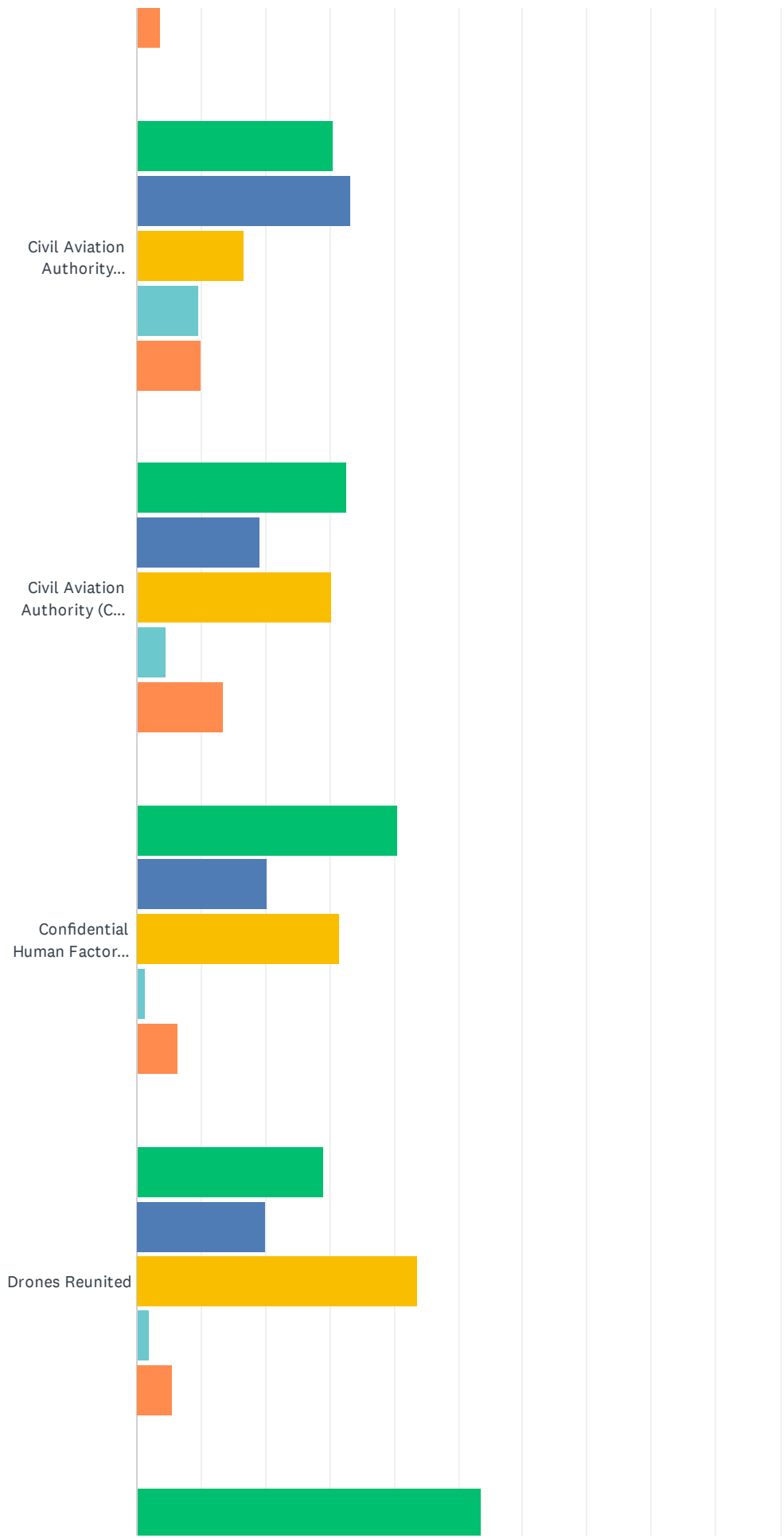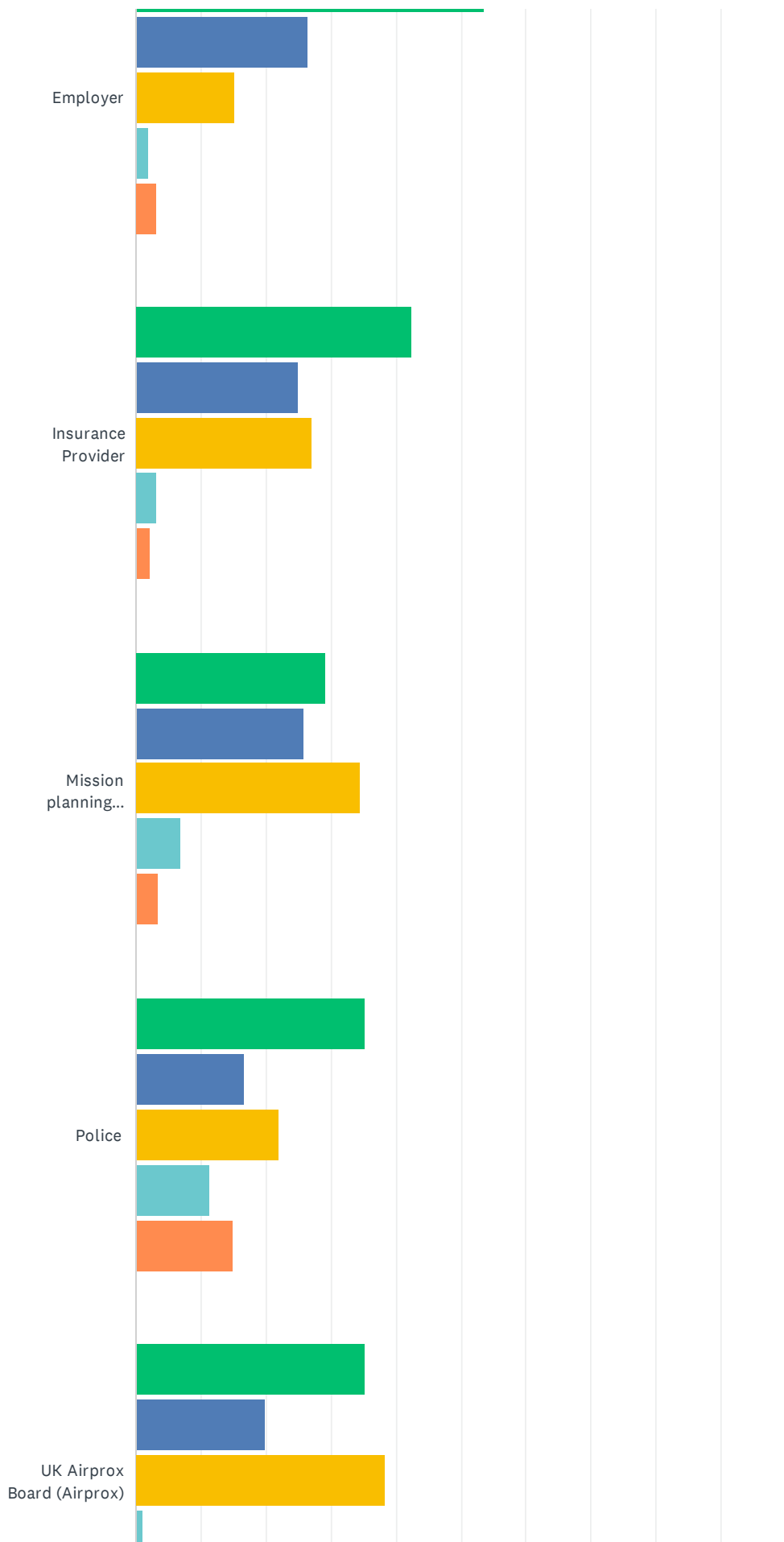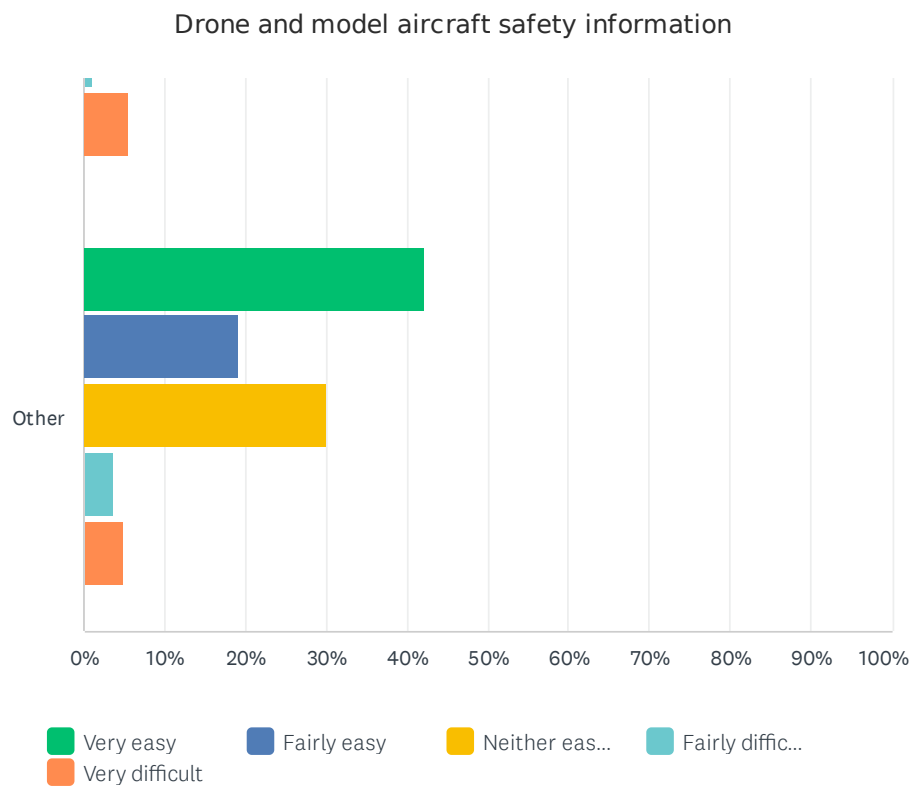
APPENDIX C – FULL SURVEY

	VERY EASY	FAIRLY EASY	NEITHER EASY NOR DIFFICULT	FAIRLY DIFFICULT	VERY DIFFICULT	TOTAL	WEIGHTED AVERAGE
Air Accidents Investigation Branch (AAIB)	37.35% 62	33.73% 56	16.27% 27	5.42% 9	7.23% 12	166	2.11
Alleged Breaches of Air Navigation Legislation (ABANL)	31.71% 26	23.17% 19	24.39% 20	6.10% 5	14.63% 12	82	2.49
Association of Remotely Piloted Aircraft Systems (ARPAS UK)	30.88% 21	26.47% 18	32.35% 22	2.94% 2	7.35% 5	68	2.29
British Model Flying Association (BMFA)	38.27% 31	22.22% 18	32.10% 26	3.70% 3	3.70% 3	81	2.12
Civil Aviation Authority (CAA), e.g. via ECCAIRS	30.48% 64	33.33% 70	16.67% 35	9.52% 20	10.00% 21	210	2.35
Civil Aviation Authority (CAA) whistleblower report	32.58% 29	19.10% 17	30.34% 27	4.49% 4	13.48% 12	89	2.47
Confidential Human Factors Incident Reporting Programme (CHIRP)	40.51% 32	20.25% 16	31.65% 25	1.27% 1	6.33% 5	79	2.13
Drones Reunited	29.09% 16	20.00% 11	43.64% 24	1.82% 1	5.45% 3	55	2.35
Employer	53.46% 85	26.42% 42	15.09% 24	1.89% 3	3.14% 5	159	1.75
Insurance Provider	42.39% 39	25.00% 23	27.17% 25	3.26% 3	2.17% 2	92	1.98
Mission planning application (e.g., UTM airspace service provider)	29.31% 17	25.86% 15	34.48% 20	6.90% 4	3.45% 2	58	2.29
Police	35.09% 40	16.67% 19	21.93% 25	11.40% 13	14.91% 17	114	2.54
UK Airprox Board (Airprox)	35.16% 32	19.78% 18	38.46% 35	1.10% 1	5.49% 5	91	2.22
Other	42.17% 35	19.28% 16	30.12% 25	3.61% 3	4.82% 4	83	2.10

Q8 Have you ever given up on reporting an occurrence because the process was too difficult?
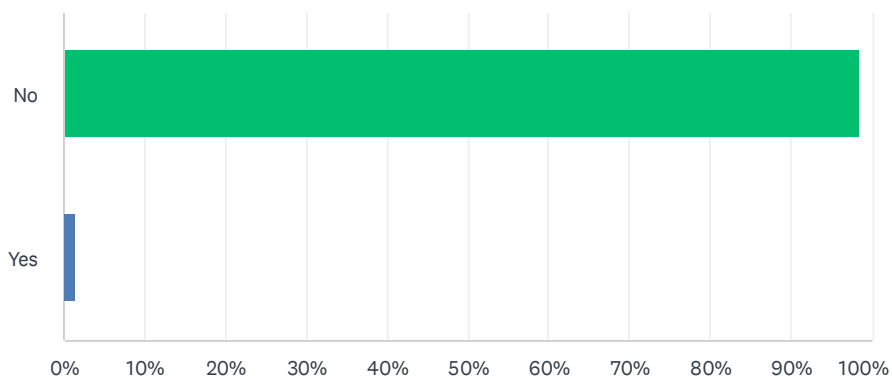
Answered: 26,564   Skipped: 6,403
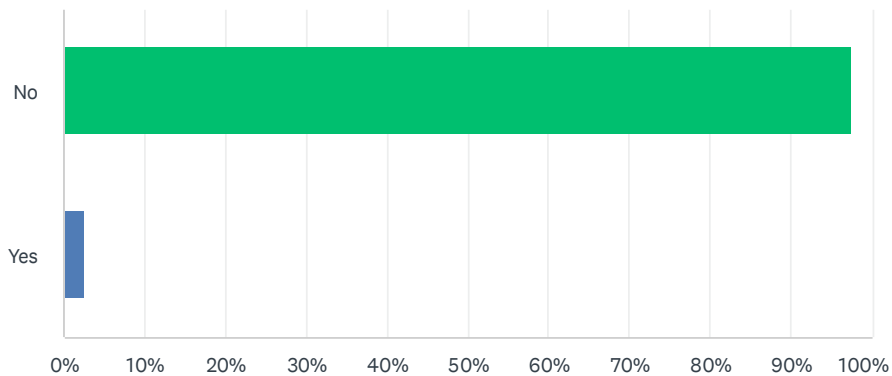
ANSWER CHOICES	RESPONSES	
No	97.50%	25,901
Yes	2.50%	663
TOTAL		26,564

APPENDIX C – FULL SURVEY

Q9 Have you ever chosen not to report an occurrence because you weren't sure who to report to or where to report to?
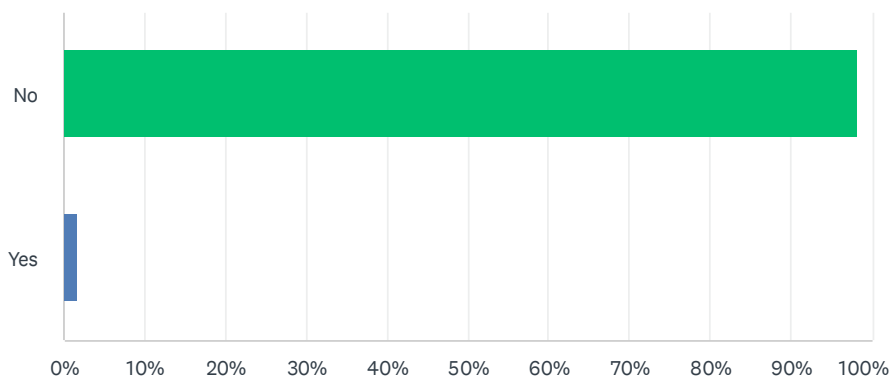
Answered: 26,607   Skipped: 6,360

ANSWER CHOICES	RESPONSES	
No	98.56%	26,223
Yes	1.44%	384
TOTAL		26,607

Q10 Have you ever chosen not to report an occurrence because you weren't sure if it should be reported?

Answered: 26,610   Skipped: 6,357

ANSWER CHOICES	RESPONSES	
No	98.21%	26,134
Yes	1.79%	476
TOTAL		26,610

Q11 The two key reasons the regulations require people to report safety-related occurrences are to help the CAA, in its role as regulator, to: identify trends in the type of safety-related occurrences that are taking place identify areas where aviation rules and guidelines could be adapted to improve aviation safety by preventing similar occurrences from happening again. With this in mind, do you believe you may have seen or been involved in an occurrence in the past that you should have reported but didn't?

Answered: 25,647   Skipped: 7,320
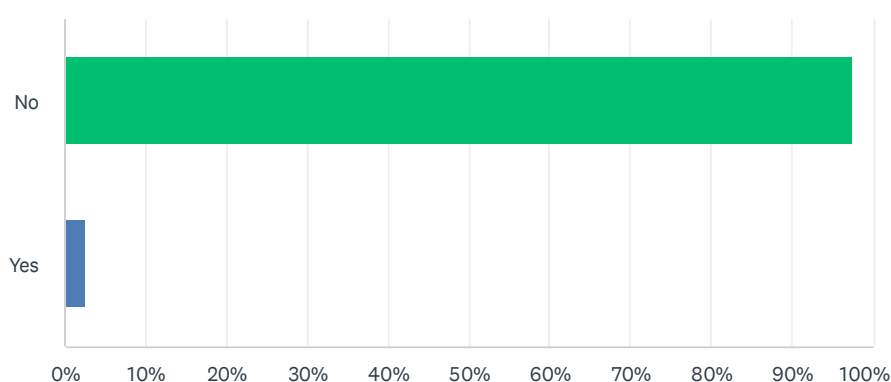
ANSWER CHOICES	RESPONSES	
No	97.51%	25,008
Yes	2.49%	639
TOTAL		25,647

Q12 Which of the following would be the greatest obstacle to you reporting a safety-related occurrence? Please choose five from the following.

Answered: 21,768   Skipped: 11,199
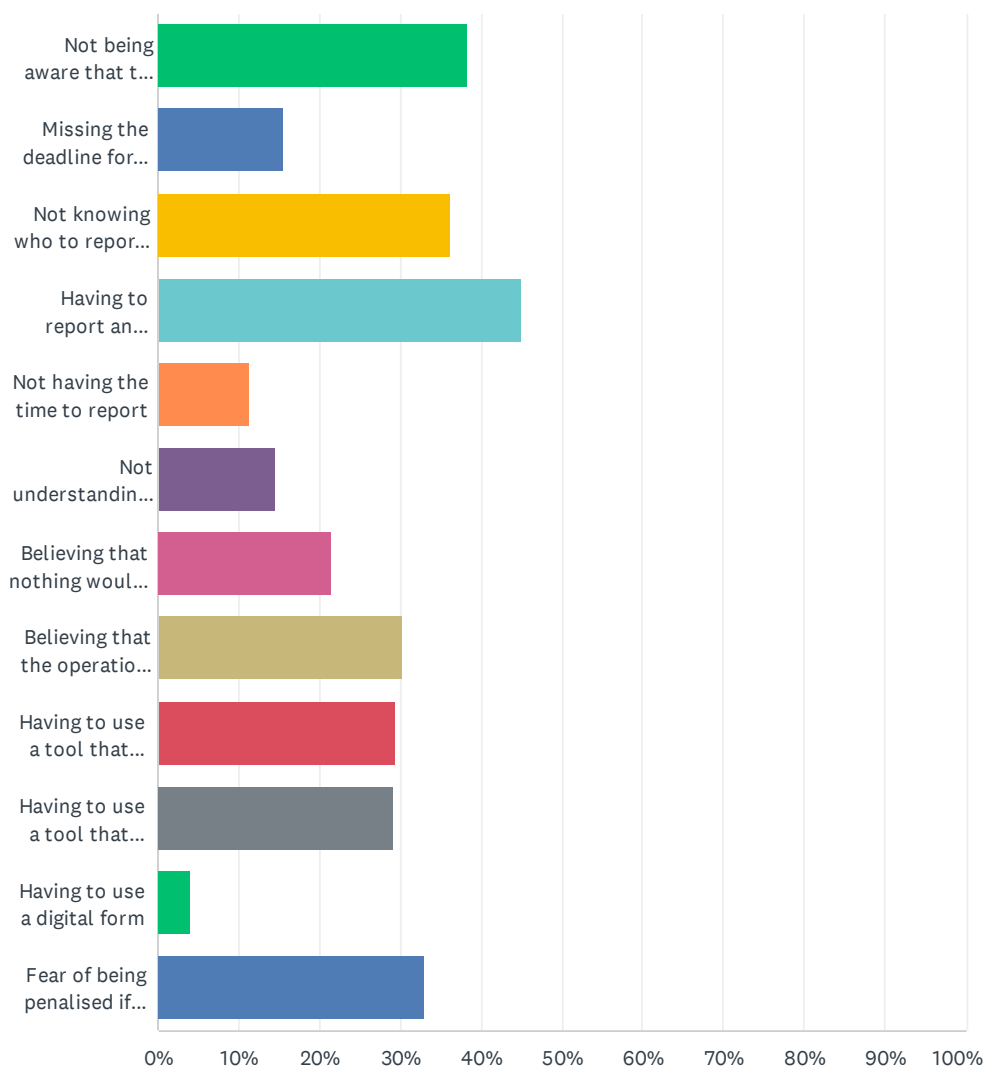
APPENDIX C – FULL SURVEY

ANSWER CHOICES	RESPONSES	
Not being aware that the occurrence must be reported	38.47%	8,374
Missing the deadline for reporting an occurrence	15.60%	3,395
Not knowing who to report to	36.21%	7,882
Having to report an occurrence to more than one organisation	44.97%	9,788
Not having the time to report	11.27%	2,454
Not understanding the benefit of reporting an occurrence	14.53%	3,162
Believing that nothing would happen with the report	21.51%	4,682
Believing that the operation was otherwise safe and legal	30.32%	6,601
Having to use a tool that does not recognise the specific characteristics of drones or model aircraft	29.34%	6,386
Having to use a tool that does not work on tablet or mobile devices	29.21%	6,359
Having to use a digital form	4.09%	890
Fear of being penalised if I was at fault	33.10%	7,205
Total Respondents: 21,768		

Q13 What type of information do you believe would be valuable to share with with other flyers and operators to help improve safety?For example, a lesson you learnt as a result of an incident or other learning point during the following activities: flight planning preparing the aircraft operation of the aircraft changing between same or different aircraft types changing components during operation human factor issues relating to operating controls. Please give details of the sort of information that could be shared.

Answered: 10,354   Skipped: 22,613

APPENDIX C – FULL SURVEY

Q14 What benefits would you like to see from a reporting system? Please choose five benefits from the following:

Answered: 20,043   Skipped: 12,924
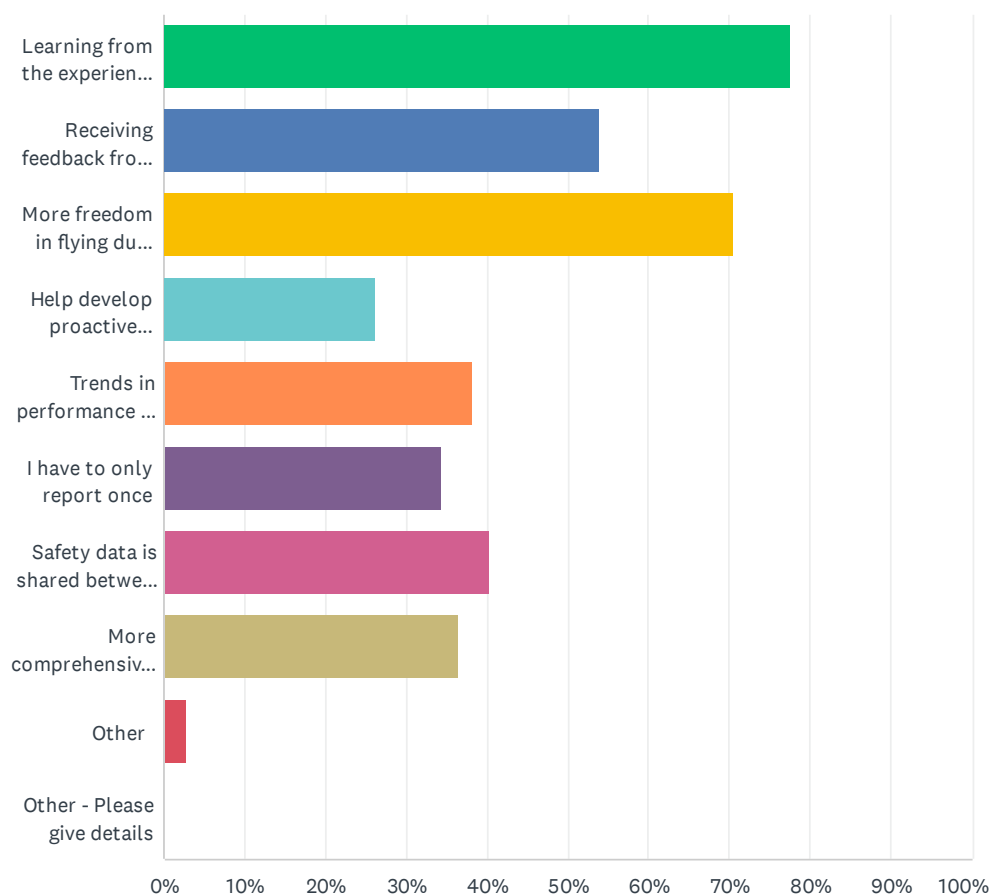
ANSWER CHOICES	RESPONSES	
Learning from the experience of others	77.56%	15,545
Receiving feedback from the CAA on reports I submit	54.00%	10,823
More freedom in flying due to better understanding of hazards	70.50%	14,131
Help develop proactive maintenance recommendations	26.23%	5,257
Trends in performance are shared with manufacturers to enable safety changes / updates	38.17%	7,651
I have to only report once	34.35%	6,885
Safety data is shared between agencies from a central source	40.38%	8,094
More comprehensive training and education	36.52%	7,320
Other	2.67%	535
Other - Please give details	0.00%	0
Total Respondents: 20,043		

APPENDIX C – FULL SURVEY

Q15 If other, please give details.

Answered: 689   Skipped: 32,278

APPENDIX C – FULL SURVEY

Q16 What would be your preferred method for reporting a safety-related occurrence? Please rank in order of preference from 1 highest to 6 lowest.

Answered: 18,958   Skipped: 14,009
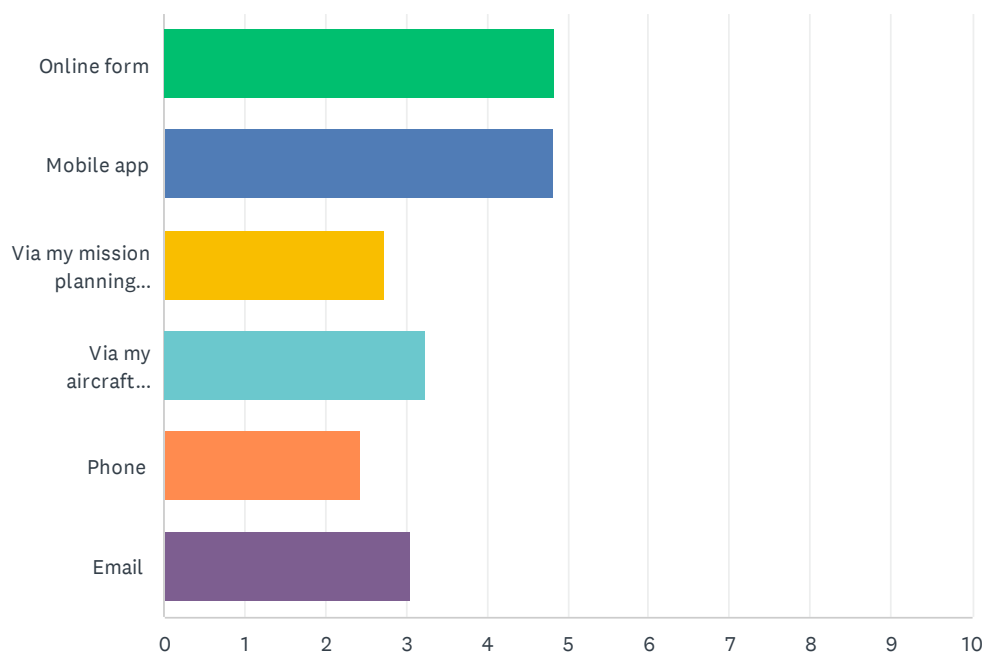
	1	2	3	4	5	6	TOTAL	SCORE
Online form	43.24% 7,823	26.48% 4,791	13.03% 2,358	9.70% 1,755	3.89% 704	3.65% 661	18,092	4.85
Mobile app	35.24% 6,324	34.50% 6,191	15.13% 2,716	8.72% 1,564	3.63% 651	2.79% 500	17,946	4.81
Via my mission planning software app	4.12% 715	8.40% 1,459	18.58% 3,227	20.88% 3,627	21.71% 3,770	26.32% 4,571	17,369	2.73
Via my aircraft control app	11.28% 1,988	11.69% 2,059	18.85% 3,320	21.66% 3,816	22.04% 3,882	14.49% 2,552	17,617	3.25
Phone	4.22% 750	5.38% 955	12.56% 2,231	20.59% 3,659	22.79% 4,049	34.46% 6,123	17,767	2.44
Email	5.44% 991	13.63% 2,481	21.82% 3,971	17.05% 3,104	24.13% 4,393	17.93% 3,263	18,203	3.05

Q17 Would you be happy for data from your drone, model aircraft, operational or mission planning apps to be used to auto-populate a reporting form?

Answered: 19,170   Skipped: 13,797
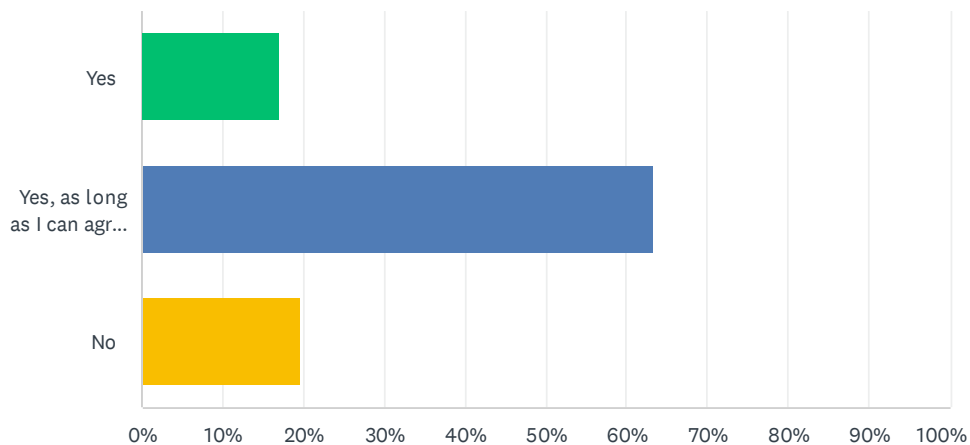
ANSWER CHOICES	RESPONSES	
Yes	17.00%	3,259
Yes, as long as I can agree in the app and the information is not submitted automatically	63.34%	12,143
No	19.66%	3,768
TOTAL		19,170

APPENDIX C – FULL SURVEY

Q18 As well as a reporting service, what other methods do you believe would be useful or would you participate in for collecting and sharing information about safety-related occurrences?Select all that apply.

Answered: 18,168   Skipped: 14,799
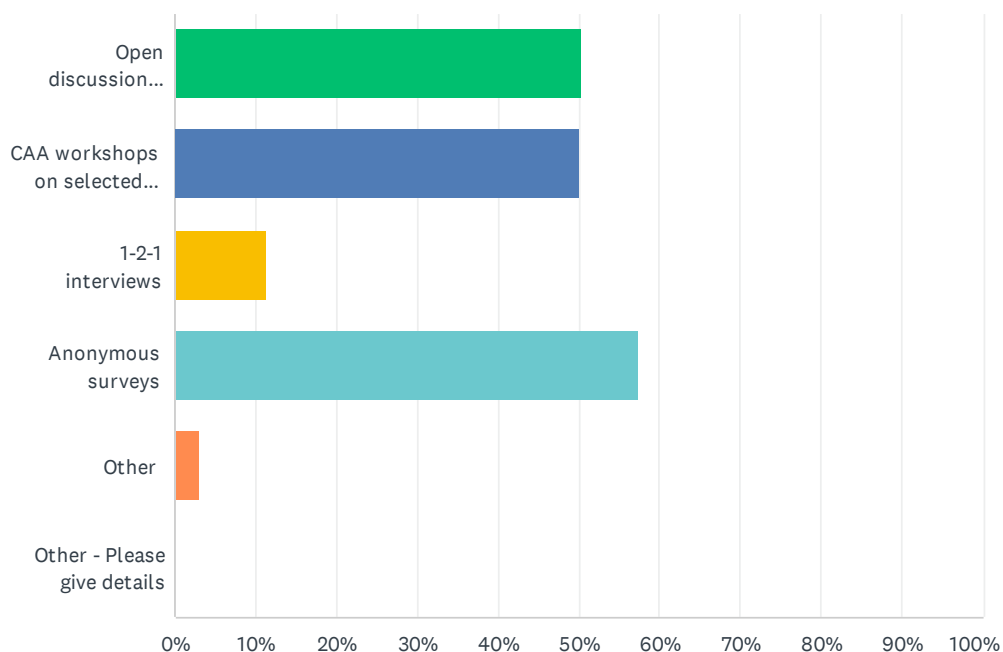
ANSWER CHOICES	RESPONSES	
Open discussion workshops, such as at flying clubs, associations and workplaces	50.28%	9,134
CAA workshops on selected topics, such as a review of UK CAP 722	50.07%	9,096
1-2-1 interviews	11.29%	2,052
Anonymous surveys	57.42%	10,432
Other	2.99%	543
Other - Please give details	0.00%	0
Total Respondents: 18,168		

Q19 If other, please give details.

Answered: 651   Skipped: 32,316

Q20 What type of information provided by the CAA would help you operate your drone or model aircraft?Select all that apply.

Answered: 18,653   Skipped: 14,314
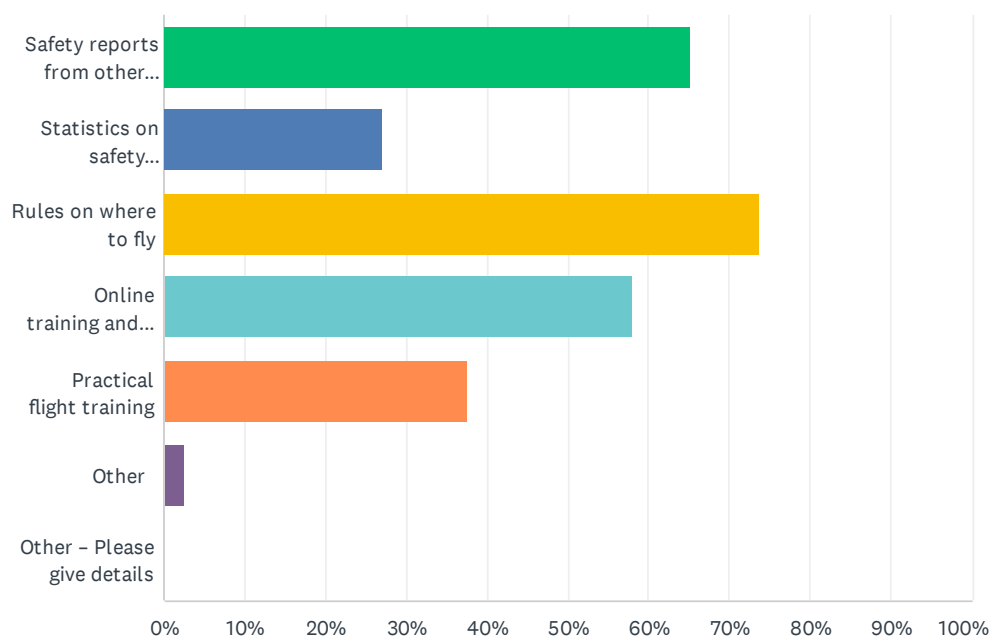
ANSWER CHOICES	RESPONSES	
Safety reports from other flyers	65.32%	12,184
Statistics on safety reporting across the RPAS industry	27.02%	5,040
Rules on where to fly	73.69%	13,745
Online training and briefing material on flying	58.00%	10,819
Practical flight training	37.45%	6,985
Other	2.63%	491
Other – Please give details	0.00%	0
Total Respondents: 18,653		

Q21 If other, please give details.

Answered: 623   Skipped: 32,344

Q22 Do you use drones or model aircraft as a hobby?

Answered: 19,179   Skipped: 13,788
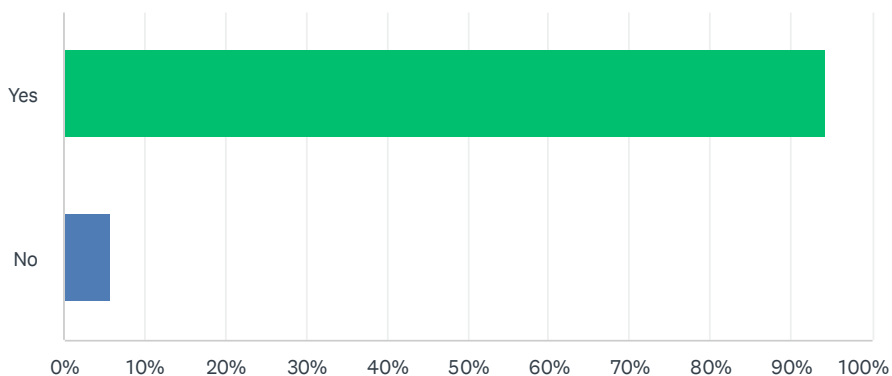
ANSWER CHOICES	RESPONSES	
Yes	94.20%	18,067
No	5.80%	1,112
TOTAL		19,179

Q23 Are you a member of a flying club or association?
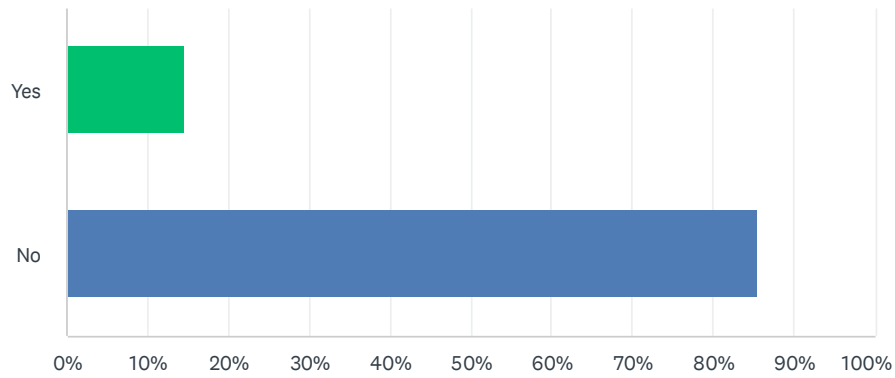
Answered: 19,171   Skipped: 13,796
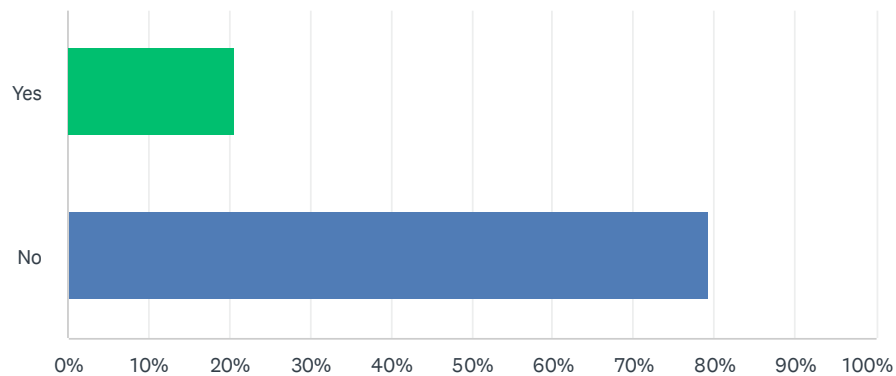
ANSWER CHOICES	RESPONSES	
Yes	20.63%	3,955
No	79.37%	15,216
TOTAL		19,171

APPENDIX C – FULL SURVEY

Q24 Do you use drones or model aircraft for work?

Answered: 19,195   Skipped: 13,772

ANSWER CHOICES	RESPONSES	
Yes	14.59%	2,801
No	85.41%	16,394
TOTAL		19,195

Q25 Is the work where you use drones or model aircraft your own business?

Answered: 2,826   Skipped: 30,141
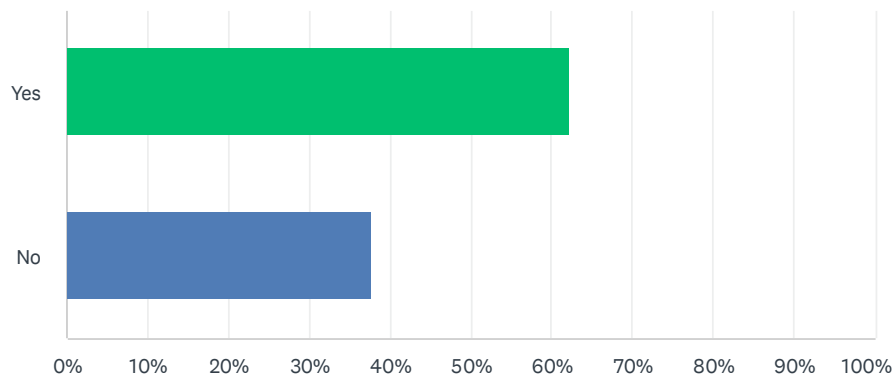
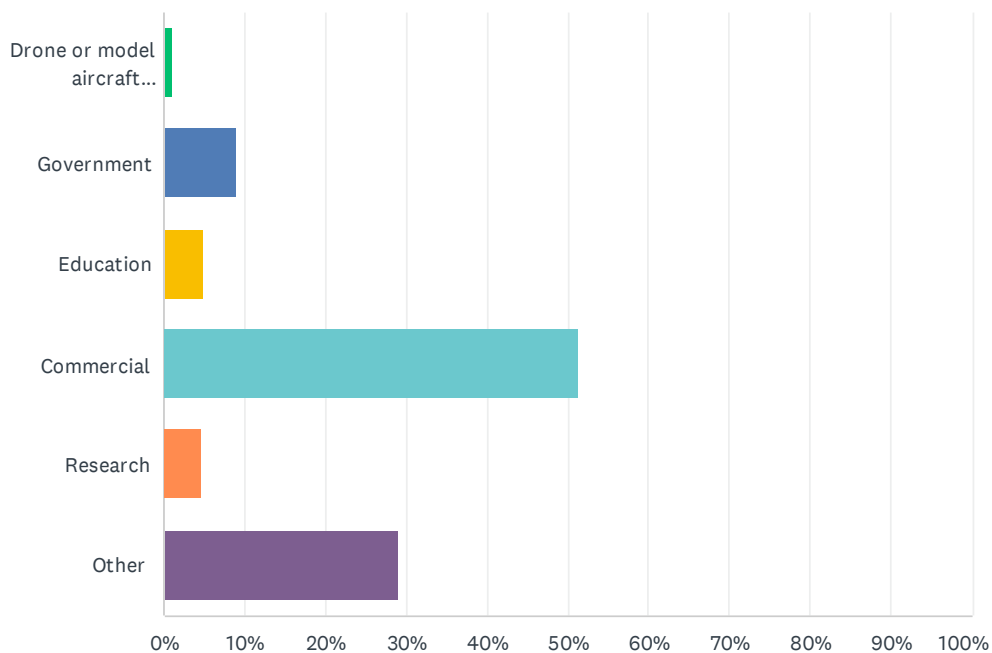| ANSWER CHOICES	RESPONSES	
Yes	62.28%	1,760
No	37.72%	1,066
TOTAL		2,826

APPENDIX C – FULL SURVEY

Q26 What sector do you mostly work in?

Answered: 2,770   Skipped: 30,197

ANSWER CHOICES	RESPONSES	
Drone or model aircraft training (Recognised Assessment Entity)	1.05%	29
Government	8.99%	249
Education	4.80%	133
Commercial	51.48%	1,426
Research	4.73%	131
Other	28.95%	802
TOTAL		2,770

APPENDIX C – FULL SURVEY

Q27 If other, please give details.

Answered: 866   Skipped: 32,101

APPENDIX C – FULL SURVEY

Q28 Do you have a drone and model aircraft flyer ID?
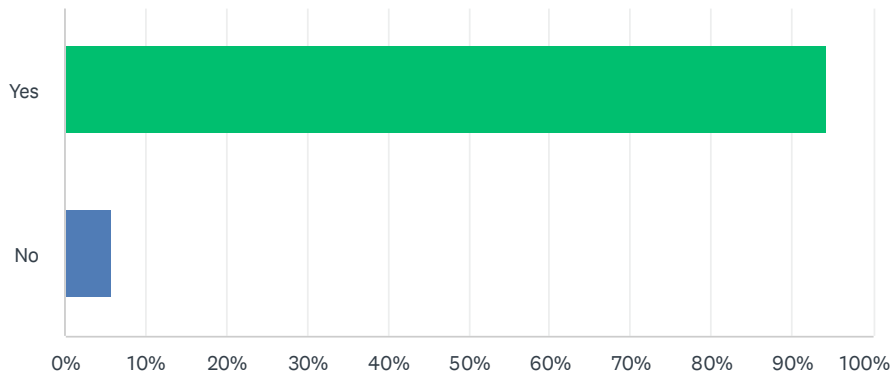
Answered: 18,878   Skipped: 14,089
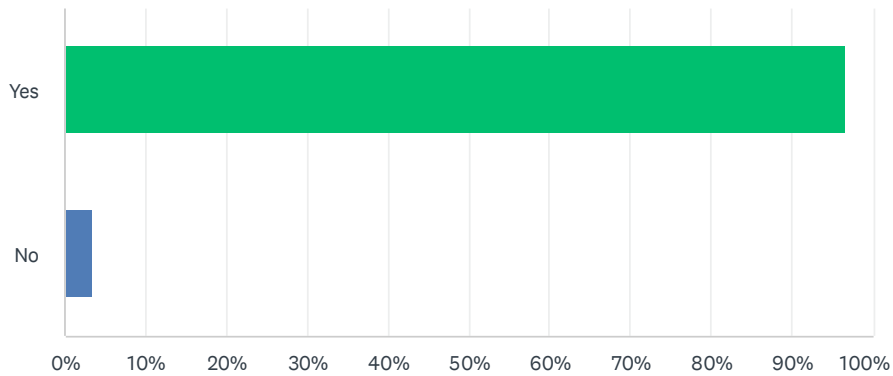
ANSWER CHOICES	RESPONSES	
Yes	96.49%	18,216
No	3.51%	662
TOTAL		18,878

APPENDIX C – FULL SURVEY

Q29 Do you have a drone and model aircraft operator ID?
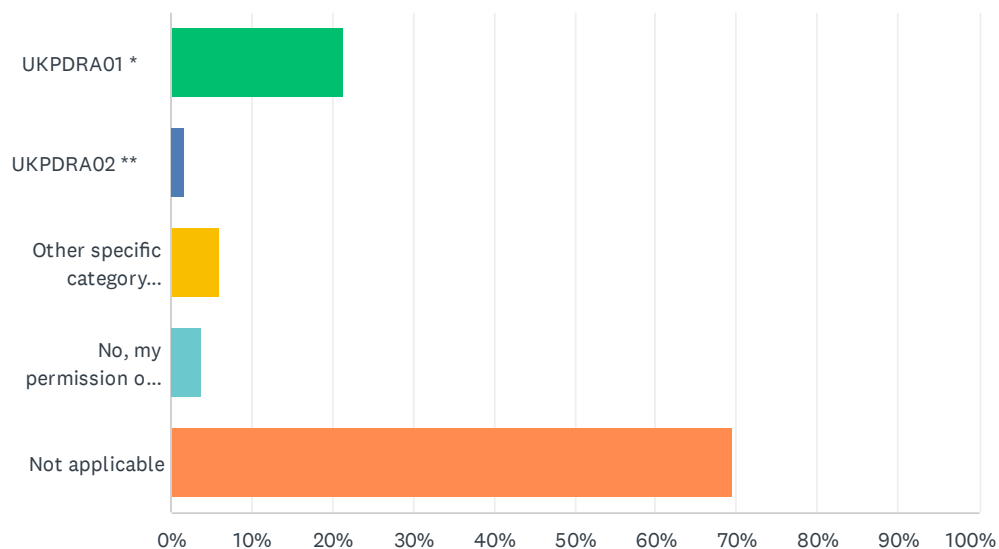
Answered: 18,843   Skipped: 14,124

ANSWER CHOICES	RESPONSES	
Yes	94.15%	17,741
No	5.85%	1,102
TOTAL		18,843

APPENDIX C – FULL SURVEY

Q30 Do you currently hold an operational authorisation (or similar) in the specific category issued by the UK CAA? Select all that apply.

Answered: 17,814   Skipped: 15,153

ANSWER CHOICES	RESPONSES	
UKPDRA01 *	21.40%	3,812
UKPDRA02 **	1.76%	313
Other specific category operational authorisation	5.87%	1,045
No, my permission or authorisation has expired	3.89%	693
Not applicable	69.52%	12,384
Total Respondents: 17,814		

APPENDIX C – FULL SURVEY

Q31 Do you have any current additional remote pilot qualifications? Select all that apply.

Answered: 18,208   Skipped: 14,759
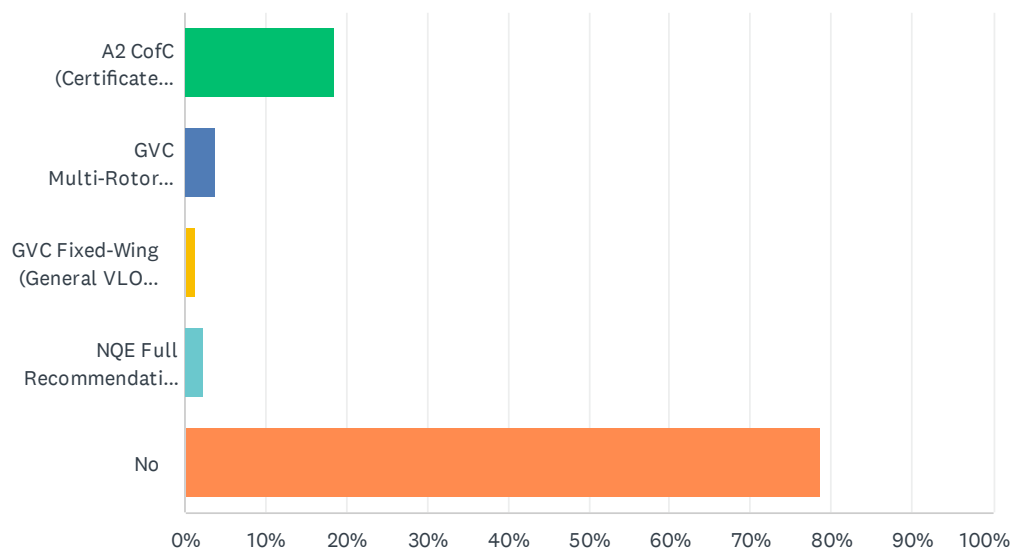
ANSWER CHOICES	RESPONSES	
A2 CofC (Certificate of Competence)	18.46%	3,361
GVC Multi-Rotor (General VLOS Certificate)	3.92%	713
GVC Fixed-Wing (General VLOS Certificate)	1.18%	214
NQE Full Recommendation (National Qualified Entity)	2.38%	433
No	78.59%	14,310
Total Respondents: 18,208		

APPENDIX C – FULL SURVEY

Q32 Typically, how often do you fly drones or model aircraft?
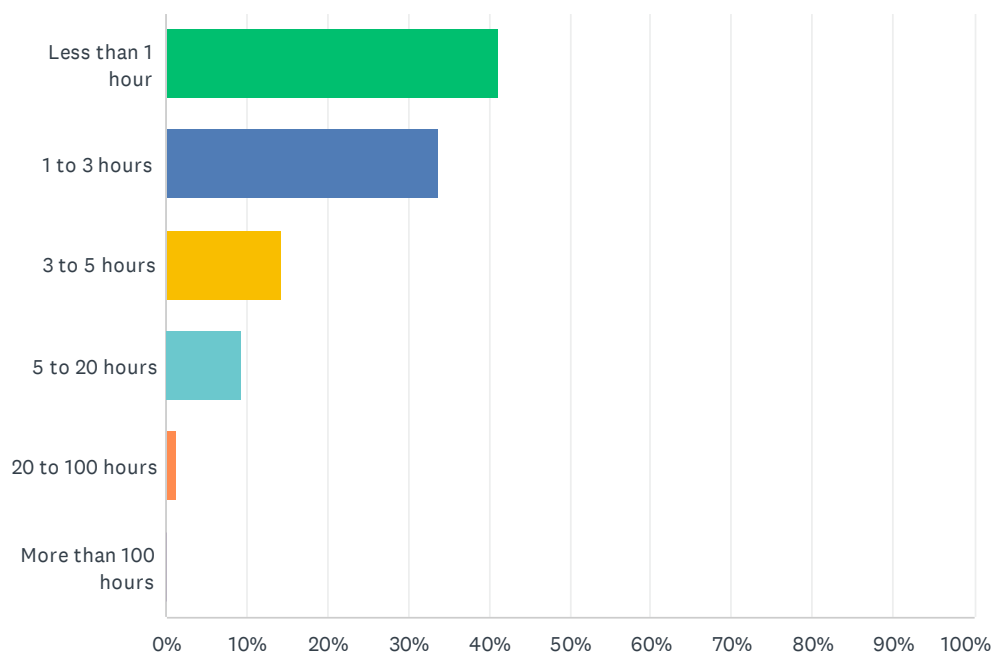
Answered: 18,716   Skipped: 14,251
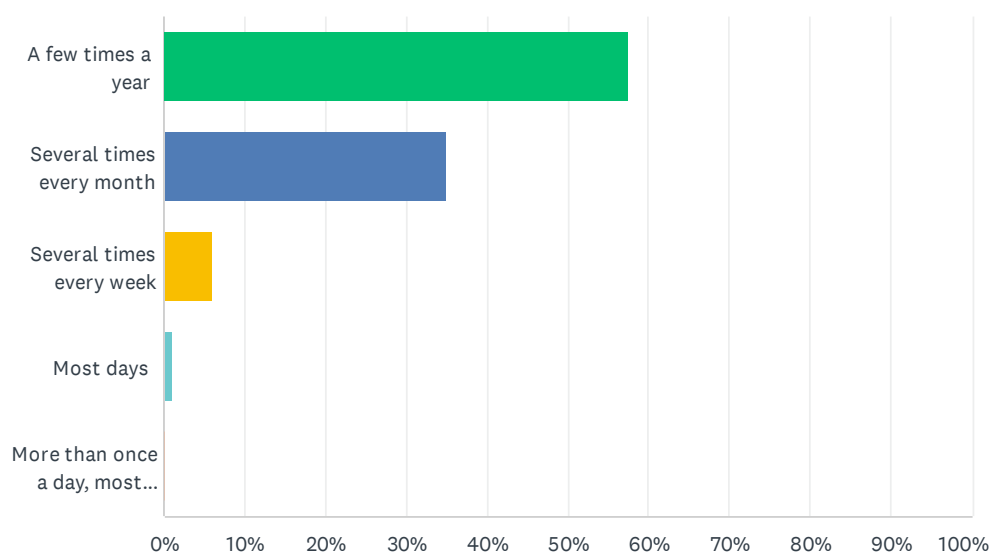
ANSWER CHOICES	RESPONSES	
A few times a year	57.61%	10,782
Several times every month	35.07%	6,563
Several times every week	5.95%	1,113
Most days	1.08%	202
More than once a day, most days	0.30%	56
TOTAL		18,716

APPENDIX C – FULL SURVEY

Q33 Approximately how many hours do you fly drones or model aircraft in an average month?

Answered: 18,742   Skipped: 14,225

ANSWER CHOICES	RESPONSES	
Less than 1 hour	41.12%	7,706
1 to 3 hours	33.63%	6,303
3 to 5 hours	14.37%	2,693
5 to 20 hours	9.37%	1,756
20 to 100 hours	1.32%	248
More than 100 hours	0.19%	36
TOTAL		18,742

APPENDIX C – FULL SURVEY

Q34 If you would be happy for us to contact you in relation to our work on this initiative, please provide an email address.

Answered: 6,340   Skipped: 26,627