| # | Question   | Answer   |
|---|--|--|
| 1 | <b>Slide 5:</b> I find it utterly unacceptable that sectors themselves were not directly surveyed. Of the Civil Aviation Rules Part 102 and Part 101 organisation that we consult none –ZERO of them were contacted by this survey process. The Report states that commercial organisation were sought from Equifax. Yet I believe the Civil Aviation Authority New Zealand (CAA) who has all the contacts details for the Part 102 organisations and many of the Commercial Part 101 organisations should have supplied the contact details so the survey could take data from actual Commercially operating RPAS organisations. Part 102 organisations especially must keep records of all operations. Why was this data not used? | The Equifax sample was used as a sample source of all New Zeala<br>businesses that used drones. Open source links were created and<br>New Zealand (MFNZ) so they could invite users and members to co<br>As mentioned, this Survey is just one piece of data that Government   |
| 2 | <b>Slide 6:</b> I think the survey misses the mark with the use of drone. Not only is the word drone not used in International Civil Aviation Organisation (ICAO) or in fact recognised with the CAA, but it forces all different manner of remotely piloted aircraft into the one category.   | The term 'drone' is used by the CAA for external facing purposes (sunderstood by the general public. This is consistent with the approximation both in New Zealand and in other countries. Although there are more Rules, drones cover Unmanned Aircraft, i.e. Remotely Piloted Aircraft Aircraft Systems (UAS) and Unmanned Ariel Vehicle (UAV).        |
| 3 | Slide 7: There numbers are estimated not factual from a board cross section of industry. If the facts are more important then issues the survey to all Part 102 operators and known Part 101 operators and make the survey mandatory.<br>The commercial Category is massively overstated.  | The survey took a broad definition of commercial operators – any of<br>for work reasons in the last six months was counted. The number of<br>101 can't be estimated using the number being operated under Pau<br>definitional difference in your definition of commercial operators and<br>survey. This survey was not designed for a specific category. |
| 4 | <b>Slide 7 Continued:</b> 1 in 5 flights may occur in restricted airspace without permission – I do not doubt the number in this statement in fact I believe it is higher. BUT what I cannot palette is the miss use of the word restricted. Most are not easily accessed. If in fact you are referring to flights in controlled airspace, then correct the term used. It falsifies the entire data set.   | Colmar Brunton did not mean the term "restricted airspace" to be p<br>covered in the definition is included as a footnote to the chart. Colm<br>zone" or "controlled" because the definition was broader than a "Co  |
| 5 | <b>Slide 10:</b> Commercially I have already suggested that the number of Commercial companies using RPAS is more likely to be around 1500 so nearly 8000 is ridiculous and needs to be urgently qualified.  | As noted previously, the survey used a much broader definition of the businesses which have made use of drones, regardless of whether themselves.  |
| 6 | <b>Slide 10:</b> Has any consideration been given to the number of decommissioned or crashed RPAS that companies have but are not using. Our company has 70 RPAS with 63 pilots on the Part 102 Certificate but not all of these are operation and do not all fly at the same time. Of these 70 RPAS 63 are used as one 1pilot, 1 RPAS and the other 7 are owned by one person – me.   | The difference you see in numbers is most likely due to the definition<br>more businesses are captured and therefore more drones are capt  |
| 7 | <b>Slide 11,12:</b> Small and cheap are of no relevance to safety at all. A \$89.00 RPAS that collides with manned aviation will have just the same outcome as a \$4000 RPAS of the same mass.   | These slides simply outline a profile of the drones in New Zealand. relationship between size or cost and safety.  |
| 8 | Slide 15: A business are unlikely to have 200 pilots operating RPAS – these numbers seem to insinuate the toilet cleaner and accounts administrator will operate RPAS in the business size category.<br>It is interesting that New Zealand's largest commercial industry for RPAS – Real Estate is not even mentioned and yet is likely to be responsible for 80% of the complaints made to CAA about RPAS   | The data suggests that there are 242 organisations that are using of Zealand. It does not suggest that all people within those organisation those organisations fly a drone.<br>Real Estate agents were captured in the category <i>Rental, hire, and</i>  |

land Businesses, not just d sent to AirShare and Model Flying complete the survey. ent used.

(see website) as it is more easily bach taken in many other agencies ore technical definitions in the craft Systems (RPAS), Unmanned

organisation that has used a drone of businesses operating under Part art 102. There seems to be a nd the target audience for this

pejorative. The definition of what is mar Brunton did not use "control control Zone."

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ional difference of commercial – otured in the Survey.

I. There is no statement about the

drones for commercial use in New ions fly a drone – few people within

d real estate.

| #  | Question   | Answer   |
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| 9  | <b>Slide 16:</b> If there is only 3% operating on Part 102 and the survey results are suggesting there are 7939 businesses that have used an RPAS in the last 6 months that would mean there are 238 Part 102 Operators which is false by the CAA website as of Aug 7, 2020. It is unlikely that an organisation has gone to the effort of becoming a Part 102 would operate under Part 101 as well – we certainly teach and encourage organisation to be one or the other. You cannot be a little bit pregnant.   | The proportion who claim to be operating under Part 102 is slightly rounded up to 3%.<br>It must also be noted that there is a lack of knowledge around what operating under (e.g. 24% said they weren't aware or didn't know and 102) and how this would lead to inaccuracy of reporting. |
| 10 | <b>Slide 17:</b> The age category of recreational users in the Hobby and sport category 0 Model Flying New Zealand (MFNZ) are mostly over the age of 60. If the survey canvased MFNZ directly this information would have been freely given.   | The Survey sought to understand drone use broadly, not just by the   |
| 11 | <ul><li>Slide 24: IT is interesting that one of the most commercially used DJI S Series of larger RPAS is missed from your survey all together. I know of at least 5 Part 102 Organisations still using this airframe.</li><li>It is also interesting to note that Freefly being the world leader in TV and Film is also missing from this category and get consumer models like gopro have made the selection.</li></ul>  | The makes and models with few mentions were captured in the 'or  |
| 12 | Slide 26: Cost of maintenance – since there is no standard around maintenance it is up to the operator to set a maintenance programme – if the survey had consulted with Part 101.202 organisations or Drone Depot or Ferntech NZ these dreadful statistics could have been accurately factored.<br>Frequency of Maintenance – Part 102 organisations are all required to at least have an annual check of airworthiness- many Part 102 and 155 that we have written and 57 that are active of the 125 active all have wither six monthly or 25 hourly checks.<br>Again, had the survey contacted the Part 141 exposition writers I am sure this information would have been given freely – I would have – there are only 5 exposition writers and we all work closely together. | Within the broad scope of the survey Colmar Brunton sought to un<br>commercial users, rather than just known operators. However we<br>information and will keep this in mind when conducting future surv   |
| 13 | <b>Slide 27</b> : Our organisation has about a ratio that has 2 decommissioned RPAS to every active RPAS. With the advances in technology moving so rapidly RPAS are replaced long before they are useless and of that is they are crashed it is often uneconomical to repair them. Please refer to the insurance industry for details in this – Most RPAS organisations that are insured operate at a 200-300% portfolio as they claim well in excess of what they pay. As we have already proven from our own statistics that on average there are 1.4. RPAS for every operator and if there are at our estimates 1450 operators commercially and therefore 1750 RPAS commercially operating again the stats around 15,000+ commercial RPAS are exaggerated.                   | This reflects definitional differences of commercial users and that survey own relatively few drones and use them infrequently.  |
| 14 | <b>Slide 34:</b> People do not want to incriminate themselves as the Aviation Related Concerns with CAA would indicate that the vast majority of complaints are RPAS being flown over property that is not their own.  | Colmar Brunton's research panel are assured of their anonymity w<br>CAA does not hold or have access to the data Colmar Brunton ga   |
| 15 | Slide 35: Again, the misrepresentation of restricted airspace has made the entire data set false.  | Colmar Brunton doesn't believe this to be the case based on its un<br>asking people whether they flew with permission and/or shielded).<br>different types of airspace, but problematic because of the overlap   |

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| #  | Question   | Answer  |
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| 16 | <ul> <li>Slide 37: I do not disagree that the DJI Geozones do not match the NZ Airspace charts – this is easily rectified I would imagine should DJI be included in the discussion.</li> <li>HOWEVER, the airspace shown on the right extracted from AirShare is NOT restricted. It shows a control zone and 3 aerodromes. Again this error falsifies the data.</li> <li>It should be noted that the Wellington Aerodrome 4 km radius is also incorrect as this indicates the runway has no length other wise it would be more oval like the current AirShare maps have been updated to show.</li> </ul> | The AirShare map shown in the report is consistent with AirShare<br>done.<br>This slide was simply outlining the difference in information shown  |
| 17 | Slide 38: Of the organisations surveyed it can be seen how the Real Estate Industry represents 12% however has the number of flights conducted been surveyed the value would be much higher.<br>Using our data of the 125 Part 102 Organisations actively operating 13 of them actively conduct work for Real Estate and a further 3 that we consult with. Open2view.com operate on the FlyUAV certificate and have since 2015 conducted a little over   | This data is based on the number of users, rather than the frequer<br>counts just as much as a frequent user.<br>Additionally, it is purely based on the description entered in or reco<br>estate agent said "aerial photography" that is how it would appear   |
| 18 | Slide 39: Contrary to the last slide, Real Estate Photography is now highest use?  | This slide shows the frequency, whereas the previous was based independent of frequency.  |
| 19 | <b>Slide 41/42:</b> The same as the previous with recreational users – the airspace you have suggested on the earlier slide is a control zone – it NOT restricted by aviation terms. Therefore this data set is again FALSE.   | The label 'restricted' was only used at the reporting stage. The def<br>report definition of 'restricted' is in the footnote.   |
| 20 | When some of our members tried to complete the survey, as soon as they input their address at S11, the survey shut down. Why was this?   | We understand from Colmar Brunton that the only way this would<br>indicated they had not flown a drone in the last six months.  |
| 21 | Question A2 does not allow an answer appropriate to model aircraft. Why is this since they are a part of the survey according to the heading photos in S1?   | It is unclear to us why you believe it is inappropriate for model airc  |
| 22 | The average age of our members is almost 60 and the majority have been flying RPAS since childhood. How appropriate is it to focus questions A3a and A3b on the last 6 months and earlier than 6 months?   | We acknowledge that there are many different ways of defining a 'definitions may produce different results. Having operated a drone as the operation definition of a 'drone user' in the survey – as such more than 6 months ago.   |
| 23 | How many people answered option 3 to question B1? Using your extrapolation algorithm how does the resulting number relate to actual MFNZ membership?   | Because of the low incidence of MFNZ members in the general por<br>estimate the number of MFNZ members using an algorithm Addit<br>designed to measure those with a membership, rather it is designed<br>That said, the survey would suggest more than 800 – however this<br>saying they fly with other members of their association. |
| 24 | Why does B4 not list "registered flying site" as an option?  | Colmar Brunton was not aware of registered flying sites.  |
| 25 | Question B5b makes no allowance for flying at a registered flying site, why is this? Many of these sites allow for RPAS operation without pre-planning due to existing arrangements  | As above, Colmar Brunton was not aware of registered flying sites   |
| 26 | Is question B7 appropriate for person with 50 years flying experience? What is the relevance of discovering that model aircraft crashed harmlessly in a farmer's field 40 years ago? Or to an FPV racing drone clipping a gate (or 10 of them) in the weekend?   | We acknowledge that including a timeframe would have improved considered when future surveys are conducted.   |

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| #  | Question  | Answer   |
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| 27 | What were the response to question C2? Was there a difference between response from those who selected option 3 at Question B1 and other responders?  | This would require further analysis from Colmar Brunton, however<br>analysis from Colmar Brunton at this stage.  |
| 28 | In Question C4, seven out of the eight questions can be answered true or false correctly according to whether the responder is a member of an approved organisation or operating under CAR102. What is the correlation between these answers and those who selected option 3 to B1?   | The question reflects the way CAA summarises the rules through answer to question 11, 93% got at least 5 out of 8 correct.   |
| 29 | Was question C4, or any other questions, changed or clarified during the course of the survey being online?   | No.  |
| 30 | Question C4 options 1, 2, 5, and 8 are all possible to answer true or false correctly or incorrectly under the provisions stated, and under CAR101. Was this factored into the results?   | The questions reflect the way CAA summarises and presents the Additionally, respondents are asked to assume they haven't sough unshielded.   |
| 31 | The rules stated in Question C5 are wrong in that they are incomplete. For example, it is untrue to say "you can't fly above 400ft". You can is you are in a Danger area (MFNZ operate 27 such) or if NOTAM is in place. Asking whether a rule is reasonable is invalid if the rule is wrongly stated, was this factored into results?  | The scope of the survey was to measure the broad understanding perspective, rather than a detailed knowledge of all exceptions.  |
| 32 | The statement is incorrect. The Part 102 certificate held by Model Flying New Zealand is for the operation of Large models and for night operation. The majority of our members fly under Part 101 rules. It is membership of the approved organisation that permits flying on or near airfields, over property without permission, night flying and flying under 400ft. The above questions make question C6 impossibly to answer correctly. Was this factored into results? | No.  |
| 33 | How do the answers to C8 correlate to the B1 option 3 response?   | This would require further analysis from Colmar Brunton. However<br>further analysis from Colmar Brunton at this stage.  |
| 34 | Were any reasonableness checks, such as those above, performed on the estimated number of commercial organisation using drones for business and scientific purposes?  | Yes, Colmar Brunton note, however, there is a definitional different<br>are referring to.<br>You are basing this on operators who have applied and who have<br>survey had a much broader definition – being any organisation that<br>reasons in the last six months and includes Part 101 operations for   |
| 35 | Please explain slide 14, incidence of drone use by sector. What does the box plot for each sector look like? How many of the sample 450 commercial users were in each sector? Was the number of commercial users in each sector sufficiently large to be able to draw statistically meaningful predictions?   | The incidence rates reported in this chart are based on all organis<br>section of the survey – both the telephone and Colmar Brunton on<br>The smallest sample of an individual industry is 145 (financial and<br>larger in other categories, e.g. 426 in scientific and professional.   |
| 36 | What assurance can Colmar Brunton provide that their methodology is statistically valid and does not overstate the number of organisations using drones for business or scientific purposes by as much as 337%?   | The n=31 calculation is based on the unweighted sample size. The<br>the unweighted base size of a result to enable significance testing<br>only operators is 12, which is more in line with your expectations.<br>The commercial user sample is weighted by business size and incon-<br>observed during the telephone interviewing. This weighting allower |

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dustry based on the incidence rates ed us to integrate three different

| #  | Question  | Answer   |
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|    |   | business samples into a single nationally representative sample (we skewed by having a large number of Part 102 operators come via It must also be pointed out that there was a lack of knowledge abore commercial users and there is some inaccuracy in their reporting of Part 101 or Part 102.                            |
| 37 | Was there any attempt to ascertain the number of discrete organisations (rather than users) represented in the survey that have Part 102 Certification? Was there any attempt to obtain the name of the organisation to avoid double-counting across organisations? Was there any attempt to obtain the name of the organisation to cross-check against the list of certificated organisations on the CAA website?  | The Part 101/Part 102 question was posed at an organisational le<br>was no attempt to check the organisations names. Double countin<br>sampling/weighting approach employed.   |
| 38 | Thinking about the number of organisations listed in the note on the survey base, 348 + 42 + 31 = 412. What happened to the other 29 commercial organisations that apparently operate under neither Part 101 or 102? Does that say anything about the validity of other responses provided by those 29 commercial organisations?  | The remaining organisations stated that they did not know whether<br>Part 102. Given commercial users perception of their knowledge in<br>that some did not know which rule part they are operating under. Or<br>affects the validity of their response, it merely reflects the broad variation<br>amongst commercial users. |
| 39 | The base for organisations only flying under Part 102 is listed as N=31 users. The coloured bar for those users shows 1% of users flying under these organisations that drones were "not that important" to their profitability and productivity. That means $1\% \times 31 = 0.21$ of a person responded that drones were not that important. How is this possible? If one (1) person had given a response then the percentage would be 3%. Can Colmar Brunton please comment on this observation? | As noted above, the data is weighted and the n=31 is the unweigh<br>on which the percentages are based is 12.  |
| 40 | What assurance can Colmar Brunton provide that their methodology is statistically valid and does not overstate the number of drone up to 250%?  | As noted above, the definition of commercial used in the Survey is<br>Brunton cannot compare your database with the Survey's number  |
| 41 | Slide 24 summarises the make/model and capabilities of commercial drones. 91% of drones are stated as having cameras, which implies that 9% do not. Furthermore, 67% are stated as having GPS/GLONASS, which implies 33% do not. Do there figures give CAA any concern that the data might not be credible?   | This is not how this slide should be read. It is a Survey and those drones are capable of did so to the best of their knowledge. The data simply indicates that some people do not know the full c draw a similar result if you were to ask a car owner about the spec   |
| 42 | Slide 25 shows the year of purchase for commercial users. There appears to have been a decline from 2018 to 2019. Is this an artefact of the survey period? Is the decline statistically significant?   | While the difference is statistically significant, Colmar Brunton would had been a drop in sales because of the survey interviewing period the end of 2019 (11 November 2019 in case of the online panel survey).  |
| 43 | It is predicted that 271,121 New Zealand's have used a drone mainly for recreational purposes in the past six months. What are the error bounds around this estimate?   | +/- 1.44% at a population level or in terms of the projected numbe<br>These intervals are calculated at the 95% confidence interval.   |
| 44 | Does the estimated number of people who have used a drone in the last six months include people who might have happened to "have a go" with a mate's drone but are not regular recreational users? Is it valid to include these people as recreational users?   | Survey respondents need to have used a drone twice in the last si 271,121 – so this excludes people who had a single "go" on their is they had two "goes." We acknowledge that there are many ways consider this definition to be suitable for the purposes for which it   |

without the overall result being the Airshare sample source). out the rules amongst many of whether they are operating under

wel, rather than a user level. There ng was not a concern because of the

er they operate under Part 101 or in other questions, it is not a surprise Colmar Brunton does not think this ariation in drone knowledge

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s much broader, therefore Colmar rs.

who contributed on what their

apabilities of the drone. You would cifications of a car they own.

uld be cautious in concluding there od. That is, the survey started before urvey, and 2 December 2019 in the

r of users – 211,680 to 329,827.

six months to be included in the mate's drone but includes people if of defining a 'drone user' but was intended.

| #  | Question  | Answer   |
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| 45 | What assurances can Colmar Brunton provide that their methodology is valid and does not result in a similar level of over-estimation as is apparent for commercial drone users?   | Colmar Brunton does not agree that there is an over-estimation of commercial drone users. As noted above difference between your estimates and the survey estimates appear to be due to definitional differences.                    |
| 46 | Can someone please explain the decision to use the inaccurate and politically-charged term<br>"restricted airspace" rather than using a more neutral term that describes the category of<br>airspace more honestly?   | Colmar Brunton chose the term "restricted airspace" and did not intend it to be a pejorative term. They did not use "uncontrolled" because they though it would be interpreted as the opposite of a "control zone".                  |
| 47 | Why was the potentially inaccurate AirShare website used to classify airspace rather than a Visual Navigation Chart?  | CAA directs its users to the AirShare website and so the map on AirShare is the most commonly used. As noted previously, the survey was targeted at the general public rather than people who are familiar with the aviation system. |
| 48 | When we look at the type of airspace that recreational and commercial users flew in, there are superficial difference between commercial and recreational users. The headline of the relevant sliders is that "more than one in five recreational flights" (slide 35), and "one in five commercial flights" (slide 41). The respective numbers are 21% and 23%. Are these differences statistically significant? Does the differences in terminology justify the difference in the slide title? | The use of the term 'one in five' and 'more than five' are consistent with how Colmar Brunton would normally report such statistics. There is not significant difference between them.   |
| 49 | Thinking about the same responses and the question of whether the distributions are the same for commercial and recreational users. Let the null hypothesis be that where a user flies is independently of whether they are a commercial or a recreational user. Then a chi-squared test indicates that the difference between the distributions is significant at p=0.046. What does this means for statistical significance of the apparent differences?                                      | Colmar Brunton does not understand the intent and meaning of this question.  |
| 50 | Was there any attempt to correlate whether commercial users flew in "restricted" airspace without permission with whether they hold a Part 102 Certification? If not, why not?  | No. This was not considered at the time the analysis was undertaken.   |
| 51 | Why are people who use drones commercially excluded from this analysis?   | Due to questionnaire length constraints, not all questions were asked to all groups.   |
| 52 | For which uses is there a statistically significant difference between recreational users and non-<br>users? Does that difference depend on the level of aggregation (that is, does the significance<br>depend on whether "very" and "quite" are aggregated?)   | There are some uses that are significantly different statistically, differing by the level of aggregation.   |
| 53 | Was there any thought to asking whether people were comfortable being photographed by a stranger with a hand-held camera at the beach? If not, why not?   | This question is out of scope for the Survey, as the topic of interest was drones, not handheld cameras.   |
| 54 | Slide 55: was there any attempt to correlate commercial users' knowledge of the rules with whether they work for an organisation that holds Part 102 certification?   | No, as this would requires further analysis and is out of scope of the Survey. The Ministry will not seek further analysis from Colmar Brunton than what has already been conducted at this stage.                                   |
| 55 | Slide 57, when tested on the rules: what is the correlation matrix with the previous two slides?  | This would requires further analysis and is out of scope of the Survey. The Ministry will not seek further analysis from Colmar Brunton than what has already been conducted at this stage.  |
| 56 | Is there a statistically significant difference in knowledge of the rules between commercial and recreational operators? What about between commercial operators who operate under Part 102 and those who do not?   | This would requires further analysis and is out of scope of the Survey. The Ministry will not seek further analysis from Colmar Brunton than what has already been conducted at this stage.  |

| #  | Question  | Answer   |
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| 57 | Was any attempt made to correlate knowledge of the rules with the type of training course that a person claimed to have taken? Did the different types of courses have a statistically significant impact on knowledge levels?  | This would requires further analysis and is out of scope of the Sur<br>further analysis from Colmar Brunton than what has already been   |
| 58 | Based on the results of several surveys, Colmar Brunton predicts the number of drones and the number of drone users in New Zealand. Can Colmar Brunton please comment on why there are no confidence intervals or error bounds associated with these predictions?   | The margin of error associated with each of three survey audience<br>appendix of the Survey).  |
| 59 | Was any consideration given to asking whether the response would be the same if the option was no effective or only partially effective? If these questions were not asked, what does this imply about bias in the survey outcomes?   | This was not considered. It does not imply bias as the purpose was<br>favour of these or not. The results provide a high level indication of<br>different interventions, but policy decisions will not be made solely<br>expressed in the survey.  |
| 60 | Other questions regarding have a graduated scale of the level of comfort or favourability. Why was the same approach not utilised here?   | Scale choice varies by topic – three options were deemed sufficie  |
| 61 | Slide 67, What has most impact on non-user views. Can Colmar Brunton please comment on the statistical significance of the difference between non-users who are positive, those who are negative, and those who are neutral?  | This would require further analysis from Colmar Brunton. We do n from Colmar Brunton.  |
| 62 | Slide 74, who non-users would report inappropriate drone use to. How do these statistics compare with actual report to the Police and Civil Aviation Authority?   | Colmar Brunton did not compare these statistics with Government  |
| 63 | If the summary of the survey results are to be believed verbatim (Despite Model Flying New Zealand's alarming analysis of its veracity), fully 20% of countless hundreds of thousands of recreational and commercial UAV flights annually are conducted in controlled airspace, unshielded and unannounced to ATC. There are thousands of Wald's bullet holes in this rule, it becomes clear that if 20% of flights are breaking it, without any incidents related to breaking just this one specific rule (ie: note including incidents of flying above 120m AGL or within 4km of an aerodrome), then the rule is not important to safety. Has this been considered? | Based on the specific slide you are referring too, Colmar Brunton<br>'may'.<br>In terms of the Rule 101.207, distances from aerodromes, its basi<br>heightened risk and prevention of incidents, rather than the amoun<br>We note, however, that this rule is captured and considered in the<br>updates to the current regulatory regime. We are hoping to consu |
| 64 | Which control towers are regularly giving vectors to IFR traffic to fly under 500 feet AGL, or directing VFR traffic to similarly violate part 91 over properties and areas where people might fly UAVs?  | We do not understand the premise of this question.   |
| 65 | Shouldn't controlled airspace be some of the safest airspace to fly UAVs up to 400 feet in, with ATC carefully watching the airspace for cowboy pilots and directing the narrow part 91 exceptions to fly low in low risk areas?  | Without adequate and regulatory measures to ensure that manner<br>to detect and avoid, we do not consider this suggestion as low risk  |
| 66 | Whether aircraft flying under 500 feet outside of an aerodrome or NOTAM-defined area are being sufficiently safe, if risk mitigation is the aim of civil aviation regulations?  | We are satisfied with current rules that apply to manned aviation.   |
| 67 | Has the CAA considered firming up the regulations for manned aviation, where flying in ground proximity is already dangerous, rather than unnecessarily curtailing the exciting promise of UAV futures?   | We are satisfied with current rules that apply to manned aviation a<br>update in the regulatory framework. We agree that UAVs offer ex-<br>of the regulatory work programme is to enable the safe developm   |

rvey. The Ministry will not seek conducted at this stage.

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and are working on a potential citing opportunities, and a key focus tent of the sector.

| #  | Question  | Answer  |
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| 68 | Perhaps the current "here be dragons" pilot-guided risk approach under part 91, where a suitably qualified pilot is allowed to conduct low level operations at their own discretion under the guise of training is insufficient?  | We are satisfied with current rules that apply to manned aviation.  |
| 69 | Is the minister aware that currently under Civil Aviation Regulations, portable cranes and temporary tower constructions (part 77.5) are permitted to be erected almost anywhere, up to 60 metres or 200 feet in height, without hazard lights, without bright colouration or visual aids, and without notification to CAA? How many surveys have been taken of mobile crane operators asking whether the top of their crane has been the highest point in 100 metres in controlled airspace? | The Minister is aware of the Civil Aviation Regulations and their co<br>To our knowledge, no such survey has been undertaken.   |
| 70 | How many studies have been considered, and what outcomes were reached, on how dangerous an impact of the leading edge of a wing or rotor with the tip of a crane would be, and whether CAA should toughen regulations on cranes intruding on airspace?  | To our knowledge, no such study has been undertaken   |
| 71 | How do those study outcomes (if any) relate to the level of risk acceptable to CAA, and is that acceptable level of risk in sync with the acceptable level of risk being considered for the upcoming UAV regulation overhaul?   | To our knowledge, no such study has been undertaken   |
| 72 | How many firearms owners have been surveyed to determine if they have ever shot above the highest object surrounding them in controlled airspace?   | Firearms are outside the subject matter relevant to the Ministry of Authority.<br>If you seek further information about firearms we encourage you to website: https://www.police.govt.nz/advice-and-services/firearms-  |
| 73 | How many duck or clay pigeon shooters have been prosecuted by the CAA for violating the 120m ceiling, with genuine, bona-fide weapons?  | As noted above, firearms are outside the subject matter relevant to<br>Civil Aviation Authority.  |
| 74 | If risk is not the only determinant of CAA's regulation on UAVs, has a study been conducted or<br>an opinion been released on the comparative future utility of UAVs, as compared to other<br>calculated airspace risks such as pyrotechnics?   | To our knowledge, no such study has been undertaken. Also note policy development regarding.  |
| 75 | Has an option been considered to firm up part 91 to create a firmer 1000ft AGL minimum, so to stratify these heavier commercial delivery UAVs up to the 500-800ft space, and regulate them to have registered, identified, visible, reliable and airworthy autonomous aircraft which would further increase both separation and safety, and allow overflight of people and property?  | We are satisfied with current rules that apply to manned aviation.  |
| 76 | Have the impacts on these uniquely innovative kiwi business ventures of regulations been assessed, or are they planned to be assessed?  | Government is always keen to engage and hear from kiwi busines<br>opportunity for these businesses as well as public to provide feed<br>potential updates to the current regulatory regime.   |
| 77 | Why we would bother to change these, when the *vast* majority of UAV pilots obey them, and those that don't will fail to obey new regulations regardless, and are often self-policed by the UAV communities in New Zealand, being caught and informed of their misdeeds and how to correct them.  | The rationale for considering potential rules changes will be set our document. Operator behaviour is a core part of our ongoing policy If you wish to lay a complaint about an instance where this is no h at <u>https://www.aviation.govt.nz/about-us/contact-us/report-a-drone</u> |

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| Transport and the Civil Aviation<br>to contact Police, or visit their<br>and-safety.                               |
| to the Ministry of Transport and the   |
| e that there is also ongoing drone   |
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| ss ventures. There will be an back on the discussion document on   |
| ut in the upcoming discussion<br>/ and regulatory work.<br>happening, please contact the CAA<br>e-safety-concern/. |
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| #  | Question   | Answer  |
|----|--|---|
| 78 | Is it too much to ask that Notice to Airmen (NOTAMs) be able to be quickly filed, and IFISMobile or some other app be set up to provide notifications if a NOTAM appears near the current area?  | We have passed this information onto the appropriate officials to lo                                  |
| 79 | Should the observer rules should be relaxed in most instances where encountering low altitude aircraft is unlikely, and therefore risk is low, such as anywhere outside the 4km radius of an aerodrome, provided NOTAMs have been checked? | We note that this rule is captured and considered in the discussion<br>the current regulatory regime. |
| 80 | Shouldn't flying under 400 ft, outside of 4km from an aerodrome, be able to be conducted via FPV without an observer given the low risk?   | This rule is also captured and considered in the discussion docum current regulatory regime.          |
| 81 | Have simple measures enabling Beyond Visual Line of Site (BVLoS) been considered?  | BVLoS operations are being considered in the ongoing policy and                                       |

look into.

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