

# **Comment Response Document**

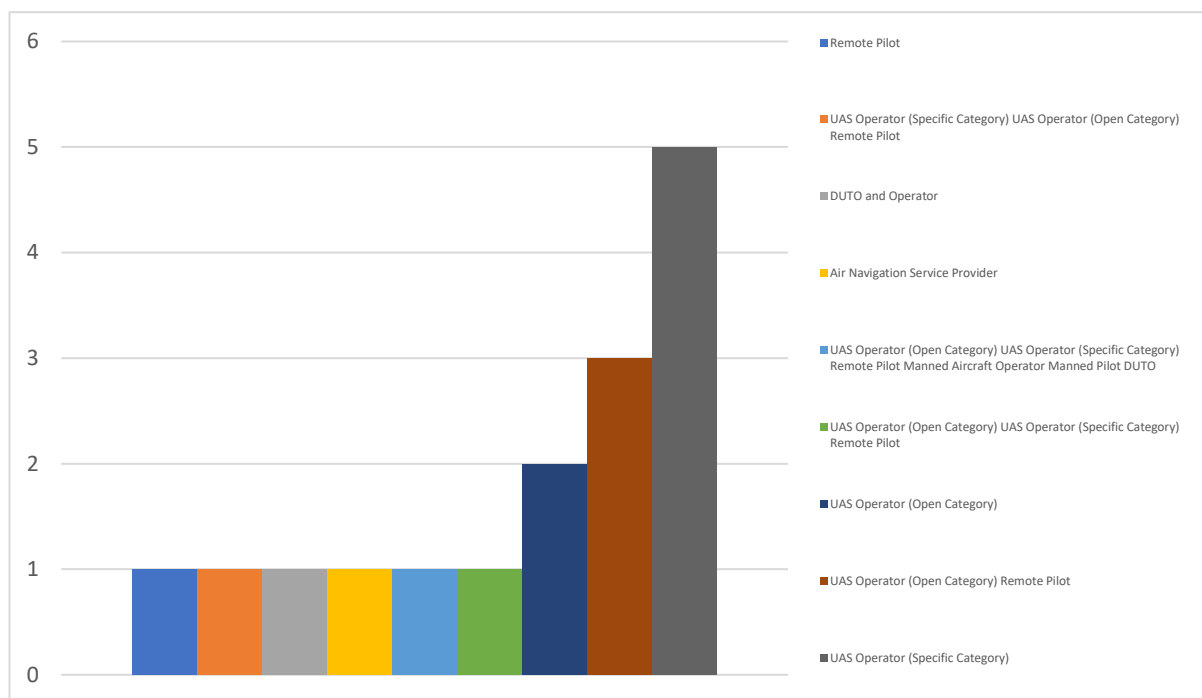
**Irish Aviation Authority**

**Unmanned Aircraft Systems**

**(Drones) Order 2022**



## 1. Summary.



Note: Legacy SOP & PCC not captured.

## 2. Individual Comments & Responses.

In responding to the comments, the following terminology was applied to attest the Irish Aviation Authority (IAA), Safety Regulation Division (SRD) position:

- **Accepted** – IAA, SRD agree with the comment & any proposal is wholly incorporated.
- **Partially Accepted** – IAA, SRD either partially agrees with the comment, or agrees with it but the proposed amendment is only partially incorporated.
- **Noted** – IAA, SRD acknowledges the comment, but no change to the existing proposals is considered necessary.
- **Not Accepted** – The comments or proposed amendments are not agreed by IAA, SRD

### RESPONSE 1

|  |   |
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| Role   | UAS Operator (Open Category);Remote Pilot;  |
| Article 3 - Applicability  | I have a comment regarding the phrase in paragraph (a): "...drones, which are operated in or over the State." It is my (perhaps incorrect) understanding that the IAA has regulatory authority over Irish airspace, and that this airspace does not extend into the interiors of buildings. A drone used indoors (such as in a warehouse) is operated "in the State", but is not operating in Irish airspace. Does this Order apply to such a drone? Does the IAA have remit to regulate flights inside private premises? If an incident occurs inside a premises I assume the Garda have the authority to respond to it, but does the IAA then have the authority to carry out the investigation as per Section 8? I suggest clarifying this point, if possible. |
| Response   | <b>Noted.</b> The responsibility of the authority extends beyond just airspace to aircraft and their operation.   |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS | Please see my comment on Article 3.   |
| Response   | <b>Noted.</b> See response to article 3.  |
| Additional Comments  | It is good to see a more engaged and active IAA with relation to UAS (Drones). Thank you for your support and progress in relation to this new and exciting technology.   |
| Response   | <b>Noted.</b>   |

### RESPONSE 2

| Role                                 | UAS Operator (Specific Category);  |
|--------------------------------------|--|
| Article 2 - Definitions              | OK   |
| Response                             | <b>Noted.</b>  |
| Article 3 - Applicability            | OK   |
| Response                             | <b>Noted.</b>  |
| Article 4 - Directions               | OK   |
| Response                             | <b>Noted.</b>  |
| Article 5 - Insurance                | There are a number of Drone retailers in Ireland now offering rental of a variety of Drones. None of these retailers appear to make mention of Insurance requirements in their advertising or in their rental paperwork. Does the IAA have a plan to address this issue and either enforce retailers to bring insurance requirements to the attention of the renter or as with car hire could it be possible for the retailer to offer one off insurance cover in the rental package to cover the rental period? |
| Response                             | <b>Noted.</b> Out of scope of the consultation.  |
| Article 6 - Privacy Rights           | No mention of GDPR. GDPR has become a bit of a buzz word these days. Should reference be made to this to avoid any confusion? Operators may be confused, is it a specific Irish requirement / law or is it GDPR, or is it all the same thing? many people can be easily confused.  |
| Response                             | <b>Not Accepted.</b> See 6.b.  |
| Article 7 - Reporting of Occurrences | Currently operators are asked to use the European portal to report occurrences. Many do not like to use a 'European' portal and would rather report to a local email, website, or hotline. In addition the European portal presents a lengthy process to complete. Does the IAA have a plan to change/improve this process. Also has the IAA a plan to regularly publish a list of occurrences, solutions and penalties (names or registration details withheld) as an aid to learning in the Drone community?   |
| Response                             | <b>Noted.</b> Out of scope of the consultation.  |

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| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS                        | OK, however the Garda still seem unsure of their own powers in relations to incidents involving Drones.   |
| Response  | <b>Noted.</b>   |
| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | We need to see more action (convictions) taken in relation to Rogue operators and those who blatantly break the rules.  |
| Response  | <b>Noted.</b>   |
| Article 11 - Investigations   | OK. Results of investigations and any punitive action against law breaking operators should be published on a regular basis (within the restraints of GDPR/Privacy laws).                                       |
| Response  | <b>Noted.</b>   |
| Article 12 - Power to Prevent UAS Flying  | OK, however once again the Garda seem unsure with regard to their powers relating to the Operation of Drones. Is there now an established training programme for the Garda to familiarise them with Drone laws? |
| Response  | <b>Noted.</b>   |
| Article 13 - Revocations  | OK  |
| Response  | <b>Noted.</b>   |
| Additional Comments   | It is good to see a more engaged and active IAA with relation to UAS (Drones). Thank you for your support and progress in relation to this new and exciting technology.   |
| Response  | <b>Noted.</b>   |

| RESPONSE 3               |  |
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| Role                     | UAS Operator (Open Category);  |
| Article 5<br>- Insurance | <p>Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. Operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature</p> <p>I fully agree that all UAS should be insured, however in the case of other Government Departments it is not possible to purchase private insurance. As such something needs to be added to cover operators in the various Gov. Depts. This may be in the 'definition' of insurance or in the subsequent 'directions issued by the Authority'. The usual case as regards vehicle insurance etc. is that the Minister indemnifies all 3rd partys.</p> |
| Response                 | <p><b>Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Any resulting directions may be worded to address this concern. Article amended for clarity <i>"Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature."</i></p>   |

| RESPONSE 4                   |   |
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| Role                         | Air Navigation Service Provider;  |
| Article 2 -<br>Definitions   | Can I suggest you add a definition of Just Culture and Annex 13 Serious Incident  |
| Response                     | <b>Partially Accepted.</b> Just Culture not referenced with the S.I. Serious Incident definition added.   |
| Article 3 -<br>Applicability | Points (a) & (b) Should this order not apply to operators or organisations operating UAS, generally referred to as drones, which are operated in or over the state. |

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| Response                             | <b>Partially Accepted.</b> The S.I. is with respect to the operation of UAS which encompassed both the UAS and the operator. Amended for clarity.   |
| Article 4 - Directions               | Include Serious Incident in title   |
| Response                             | <b>Not Accepted.</b> - Art 4 refers to directions not incidents   |
| Article 5 - Insurance                | Insurance<br>Include organisations of UAS shall be insured or is this inferred by the use of word operators?  |
| Response                             | <b>Not Accepted.</b> Operator may be natural or legal persons.  |
| Article 7 - Reporting of Occurrences | (a) When an accident, serious incident or incident to .....<br>Include serious incident   |
| Response                             | <b>Accepted.</b> Amended to clarify differing actions for incident, and serious incident or accident.   |
| Additional Comments                  | If it is discovered during the course of an investigation that an operator has knowingly flown into protected airspace or used a drone for nefarious/criminal reasons will the SI have the legal power to seek judicial review? I am not sure if this is clear or maybe this is not the remit of an SI                              |
| Response                             | <b>Not Accepted.</b> A Judicial Review <i>"is a mechanism by which an application can be made to the High Court to challenge the decision making processes of administrative bodies and lower courts"</i> . Out of scope of this S.I. ( <a href="https://www.courts.ie/judicial-review">https://www.courts.ie/judicial-review</a> ) |

| <b>RESPONSE 5</b>                        |  |
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| Role                                     | UAS Operator (Open Category);UAS Operator (Specific Category);Remote Pilot;  |
| Article 12 - Power to Prevent UAS Flying | When any person is flying in a area of SAR Search And Rescue including Drone SAR and SAR Helicopters , the general public drone operators should not fly / operate in these areas at any point including SAR training I generally believe a law should be brought into force including very heavy fines and or imprisonment for any person who operates , this should include known flight paths , and training areas , this is a constant risk for all SAR operators , i also believe The IAA should provide a Irish UAS SAR Operators Id |
| Response                                 | <b>Not Accepted.</b> - Existing regulations includes the requirement for UAS operator to avoid manned aviation. SAR operators may request UAS Geographical Zone restrictions around specific areas if they wish. SAR operators may register as UAS operators and obtain a UAS operator registration number if they wish. Work has commenced with respect to developing fixed charge penalties for breaches of the UAS Regulations, but this does not form part of this S.I., rather it is contingent on the enactment of the ANTB.         |

| <b>RESPONSE 6</b>      |  |
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| Role                   | UAS Operator (Specific Category);  |
| Article 2 - Article 13 | Irish Aviation Authority<br>Unmanned Aircraft Systems (Drones) Order 2022 Draft. Respondent has copied and pasted the sub-headings 2-10 of the Order 2022 Draft. |
| Response               | Respondent has copied and pasted the sub-headings 2-10 of the Order 2022 Draft.  |
| Additional Comments    | No additional comments have been added.  |
| Response               | N/A  |



| <b>RESPONSE 7</b>          |   |
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| Role                       | UAS Operator (Open Category);Remote Pilot;  |
| Article 2 - Definitions    | Can't understand why it is necessary to report an incident if only the UAV is damaged. I believe it should be similar to car accidents, only involve authorities if there is some property damage or person injured.  |
| Response                   | <b>Not Accepted.</b> Reporting requirement fall out of existing legislation and regulation.   |
| Article 3 - Applicability  | No issue of concern here.   |
| Response                   | <b>Noted.</b>   |
| Article 4 - Directions     | No issue really, but seems a very broad statement, would be helpful if more clarity was provided.   |
| Response                   | <b>Noted.</b>   |
| Article 5 - Insurance      | Think this is very heavy handed in relation to sub 250g Drones, while I have insurance, I feel adding this cost to an owner/operator of sub 250g Drones is harsh.   |
| Response                   | <b>Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Any resulting directions may be worded to address this concern. Article amended for clarity " <i>Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed,</b> operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature.</i> " |
| Article 6 - Privacy Rights | Again too broad a statement, there is a danger that this could allow individuals to have rights over the sky of their property, I would prefer this to be left with the IAA only.   |
| Response                   | <b>Not Accepted.</b> This article establishes the ability for the authoristy to issue directions to set minimum heights and conditions to the operation of UAS. It does not grant airspace rights to individuals.   |

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| Article 7 - Reporting of Occurrences  | For this to work satisfactorily, there would need to be a dedicate Drone section within An Garda Siochana, it is too open to misinterpretation otherwise, as we know from experience of other legislation.  |
| Response  | <b>Noted.</b>   |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS                        | As above.   |
| Response  | <b>Noted.</b>   |
| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | No issues   |
| Response  | <b>Noted.</b>   |
| Article 11 - Investigations   | Investigations should be led by Gardai, with assistance from the Authority only.  |
| Response  | <b>Not Accepted.</b> This is an extension of existing processes for manned aviation.  |
| Article 12 - Power to Prevent UAS Flying  | This is very heavy, and open to all kinds of abuse of authority, I expect if this is not amended, there will be a number of challenges through the courts. Effectively, this could have a big impact on a UAV operator's ability to use his/her drone to make a living. |
| Response  | <b>Not Accepted.</b> This direction formalises the powers already outlined in the act and which are already in use with manned aviation.  |
| Additional Comments   | I would welcome a review of the restrictions to flying around airports, 5km ifrom the centrepont seems ridiculous.  |

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| Response | <b>Not Accepted.</b> Out of scope of consultation. The air risk to VFR aircraft is mitigated through the standard 5km prohibited zone around the airport & a restriction of 120m AGL beyond. The air risk to IFR aircraft is mitigated through the utilisation of ICAO Annex 15 terrain & obstacle dataset surfaces, specifically areas 1 & 2. See <a href="https://www.iaa.ie/docs/default-source/default-document-library/comment-response-document---uas-geographical-zones-consultation-june-2021-v1-3.pdf">https://www.iaa.ie/docs/default-source/default-document-library/comment-response-document---uas-geographical-zones-consultation-june-2021-v1-3.pdf</a> |
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| <b>RESPONSE 8</b>  |  |
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| Role   | UAS Operator (Open Category);  |
| Article 6 - Privacy Rights   | Will the IAA be issuing guidance to the many auctioneers in this country, many flying illegally, as to their GDPR responsibilities and requirements. A quick look at local papers and property websites, its plain to see this is an area that needs looking at. |
| Response   | <b>Noted.</b> We will explore engaging with auctinoeer representative bodies.  |
| Article 7 - Reporting of Occurrences   | Is there a dedicated drone reporting unit proposed for Gardai, many rural Garda stations remain closed for the most part, communicating an occurance in rural areas could be a problem   |
| Response   | <b>Noted.</b> No.  |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS | How will a Garda determine his thoughts on an accident or occurance or the legality of a flight?   |
| Response   | <b>Not Accepted.</b> Out of scope of consultation.   |
| Article 12 - Power to Prevent UAS Flying   | Have the IAA put in place some form of training to help Gardai in making these decisions, most rank and file have no idea about drone regs and the impact of Gdpr. Will there at least be some form of notice sent to every Garda station to help educate them ? |
| Response   | <b>Noted.</b> IAA currently engaging with AGS and Dept. of Justice.  |
| Article 13 - Revocations   | How will the IAA police such revocations? Will there be a list of suspended operators published?   |

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| Response | <b>Not Accepted.</b> Article refers to the revocation of the previous S.I. not to operator authorisations or registrations. |
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| <b>RESPONSE 9</b>  |   |
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| Role   | Remote Pilot;   |
| Article 2 - Definitions  | Clear   |
| Response   | <b>Noted.</b>   |
| Article 3 - Applicability  | Clear   |
| Response   | <b>Noted.</b>   |
| Article 4 - Directions   | Clear   |
| Response   | <b>Noted.</b>   |
| Article 5 - Insurance  | Agree   |
| Response   | <b>Noted.</b>   |
| Article 6 - Privacy Rights   | As perGDPR  |
| Response   | <b>Noted.</b>   |
| Article 7 - Reporting of Occurrences   | Contact details for IAA incident reporting should be published here   |
| Response   | <b>Not Accepted.</b> Contact details will be published on the website and / or guidance material. It would not be appropriate to publish within a Statutory Instrument. |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS | Agree   |
| Response   | <b>Noted.</b>   |

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| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | Agree   |
| Response  | <b>Noted.</b>   |
| Article 11 - Investigations   | Agree   |
| Response  | <b>Noted.</b>   |
| Article 12 - Power to Prevent UAS Flying  | Concerned that members of An Garda Siochana who are unfamiliar with this Order or air law in general could interfere with the lawful and normal operation of a UAS.   |
| Response  | <b>Noted.</b> This S.I. will give clarity to existing powers already present within the act rather than introducing new powers. Subject of consultation with AGS.   |
| Article 13 - Revocations  | Expected  |
| Response  | <b>Noted.</b>   |
| Additional Comments   | I have had two occasions where AGS attempted to prevent a normal operation of UAS with ATC permission and ground control measures in place, land owners permission (private property and Dublin City Council). In one case they were overstepped their jurisdiction in preventing the operation taking place in and in the second case we had to explain to two beat members the legality of an operation while the UAS was airborne. Communication and education is key not just operators and UAS pilots but also state bodies who could interfere with lawful and normal UAS operations. |
| Response  | <b>Noted.</b>   |

| <b>RESPONSE 10</b>         |  |
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| Role                       | UAS Operator (Open Category);UAS Operator (Specific Category);Remote Pilot;Manned Aircraft Operator;Manned Pilot;DUTO;   |
| Article 2 - Definitions    | Definition of "Unmanned Aircraft System" includes the term Unmanned Aircraft which is not defined. Defining Unmanned Aircraft would assist in understanding what the difference is between and unmanned aircraft and an unmanned aircraft system.<br>Should be a definition of model aircraft.<br>Definition of Incident is fine but need further guidance on the types of incidents that would be deemed minor or major incidents   |
| Response                   | <b>Partially Accepted.</b> Definitions of Occurrence, Incident, Accient, and Serious Incident updated. Reporting updated to reflect differences between incident, and serious incident and accident.   |
| Article 3 - Applicability  | Nil  |
| Response                   | <b>Noted.</b>  |
| Article 4 - Directions     | Nil  |
| Response                   | <b>Noted.</b>  |
| Article 5 - Insurance      | Should this article mention the open vs specific category and that the IAA may issue directions in relation to insurance but that EASA regulations relating to insurance must be adhered to?   |
| Response                   | <b>Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Any resulting directions may be worded to address this concern. Article amended for clarity<br><i>"Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature."</i> |
| Article 6 - Privacy Rights | (b) DPIA is regulated/required under National Regulations as well as GDPR and this should be included  |

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| Response  | <b>Not Accepted.</b> See 6.a.  |
| Article 7 - Reporting of Occurrences  | Minor and Major occurrences should be mentioned and guidance provided outside of SI  |
| Response  | <b>Partially Accepted.</b> Updated actions for incidents, and serious incidents and accidents. Will consider publishing additional guidance material.  |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS                        | Nil  |
| Response  | <b>Noted.</b>  |
| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | Nil  |
| Response  | <b>Noted.</b>  |
| Article 11 - Investigations   | Article 11<br>(a) Should go further than “Hazardous effect on the operation of a UAS”. A UAS does not have to be operated in a manner that has a “hazardous effect on the operation of a UAS” to cause a hazard to an uninvolved person. |
| Response  | <b>Accepted.</b> Updated <i>"...in respect of an occurrence, related to the operation of a UAS which caused or could have caused a hazardous effect."</i>  |
| Article 12 - Power to Prevent UAS Flying  | Nil  |
| Response  | <b>Noted.</b>  |
| Article 13 - Revocations  | Nil  |

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| Response            | <b>Noted.</b>  |
| Additional Comments | It should be a criminal offence to interfere with a drone operation when being carried out by a state entity such as SAR etc by another drone operator. Also for an individual to interfere with a drone during flight as it is somewhat of a stretch to use existing national Air Navigation Order under piracy or hijack if an individual on the ground interferes with an aircraft in flight. |
| Response            | <b>Not Accepted.</b> Already provided for under existing legislation.  |

| <b>RESPONSE 11</b>                   |   |
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| Role                                 | UAS Operator (Open Category);Remote Pilot;  |
| Article 3 - Applicability            | Must be specified which drones. Is it applicable for the weight under 250g?   |
| Response                             | <b>Not Accepted.</b> Applies to all drones.   |
| Article 5 - Insurance                | There is no specification of what type of drones should have an insurance. For example : Drones over 250g in weight.  |
| Response                             | <b>Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Any resulting directions may be worded to address this concern. Article amended for clarity <i>"Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature."</i> |
| Article 7 - Reporting of Occurrences | There is no specification of what type of drones should have an insurance. For example : Drones over 250g in weight.  |
| Response                             | <b>Not Accepted.</b> Article 7 relates to reporting of occurrences.   |



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| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS | Again: there should be clear statement that drones under 250g should not be in this as it will be really crazy if a member of Garda will be bothered with such small things and they don;t know which drones are which. If for example there is an accident with DJI Mavic PRO drone - that should be considered in the incident investigation but such a small bird like Mini, Mini2 or Mini3 which are under 250g weight should not be considered and that should be clearly known by everyone. Exception would be if that small bird crash into a plane or bigger drone.             |
| Response   | <b>Not Accepted.</b> Applies to all UAS.  |
| Article 12 - Power to Prevent UAS Flying   | It is completely unnecessary to detain the equipment. Taking a picture of the equipment and UAS operator Number and ID details is absolutely enough. In later stage all data can be requested such as flight records etc.   |
| Response   | <b>Not Accepted.</b> Detention is often required to properly inspect the UAS and associated equipment, e.g. SD Card.  |
| Article 12 - Power to Prevent UAS Flying   | This is gonna put a lot of stress for everyone. What if the person who have the power to prevent UAS flying is in wrong? Who will be responsible for the loss? What about the UAS operator will have to sue those who try to prevent his operation and caused him some kind of a loss (financial, lot of time wasted, or in equipment) ? These powers will be very limiting for UAS operations as everywhere we go there are people thinking you can't operate the drone and in fact there is so much unnecessary stress. There will be much much more after this would be implemented. |
| Response   | <b>Not Accepted.</b> This direction formalises the powers already outlined in the act and which are already in use with manned aviation.  |
| Additional Comments  | I think this is not quite clear to which kind of drones it is about. Does it applies to drones under 250g? Also this proposal will put a lot of stress for everyone. Members of an Garda Siochana will have to be specially trained about it so there will be no misinformation regarding the type of drones, locations, accident types ect.  |
| Response   | <b>Noted.</b> Yes to all UAS.   |

| <b>RESPONSE 12</b>          |  |
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| Role                        | UAS Operator (Specific Category);UAS Operator (Open Category);Remote Pilot;  |
| Article 11 - Investigations | I don't think investigations need to take place for other occurrence which COULD have caused a hazardous effect on the operation of a UAS. Could being the operative word, I don't know of one serious 'accident' in Ireland : means an occurrence associated with the operation of an aircraft which takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which: a person is fatally or seriously injured; (b) (c) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component; or the aircraft is missing or is completely inaccessible. |
| Response                    | <b>Not Accepted.</b> See recent prosecution for overflight of an assembly of people.   |

| <b>RESPONSE 13</b>    |  |
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| Role                  | UAS Operator (Specific Category);  |
| Article 5 - Insurance | It is very difficult to get insurance and these new regulations will stop most compliant drone operators but not the part time hobbyist.   |
| Response              | <b>Partially Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Article amended for clarity " <i>Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature.</i> ". |
| Additional Comments   | I understand the need for compliance with all IAA regulations as a former PPL holder.  |
| Response              | <b>Noted.</b>  |

| <b>RESPONSE 14</b>      |  |
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| Role                    | UAS Operator (Specific Category);  |
| Article 2 - Definitions | <p>'unmanned aircraft system' - Definition is too restrictive and makes potentially incorrect assumptions about future UAS tech development that would hinder implementation and industry growth. UA are being developed without engines and propellers, e.g. Ion propelled with no moving parts, which, if this Order were approved, would not be able to be flown remotely piloted. Recommend being more tech-agnostic to enable the full suite of UA(S) designs and proof against future development.</p> <p>Under Regulation (EU) 2019/947 (27), "model aircraft are considered as UAS". Not all model aircraft have engines and propellers, e.g. radio controlled gliders. The definition appears to exclude model aircraft.</p> <p>'Non-installed equipment' is vague because it is not clear from its position in the draft text whether the non-installed equipment is specifically related to the means of control of the UA remotely or other non-installed equipment, e.g. other gear in an UAS operations packing list that has nothing to do with control of the UA.</p> <p>Suggested alternative definition: 'unmanned aircraft system' ('UAS') means an unmanned aircraft and any other individual system elements necessary to enable flight, including equipment or system of equipment to control unmanned aircraft remotely'.</p> <p>'Unmanned aircraft' should be defined separately considering that 'UAS' is defined but 'UAS' and 'UA' are not the same thing and the distinction should be clear within the SI to assist understanding. Recommend applying the definition contained within Regulation (EU) 2018/1139 'Basic Regulation', Article 3 (30): "Any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board."</p> <p>'accident' – Recommend specifying 'unmanned aircraft' rather than just aircraft, which would be clearer for UAS operators and still consistent with SI No. 460/2009</p> |

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|                 | <p>Clause (a) as drafted could be interpreted as someone who has been fatally or seriously injured during the flight and occurrence without having come into contact with the aircraft, e.g. they tripped, hit their head and died from their injury, which would not, I believe, be the intent of the text. The text needs to specify that the fatal or serious injury has been sustain by coming into contact with the aircraft. An expansion of the definition is consistent and contained within SI No. 460/2009</p> <p>Suggested alternative definition: ‘accident’ means an occurrence associated with the operation of an aircraft which, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:</p> <p>(a) a person is fatally or seriously injured as a result of:</p> <ul style="list-style-type: none"> <li>- direct contact with any part of the aircraft, including parts which have become detached from the aircraft</li> </ul> <p>(b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repaid or replacement of the affected component; or</p> <p>(c) the aircraft is missing or is completely inaccessible</p> |
| <p>Response</p> | <p><b>Partially Accepted.</b> Definitions for UAS amended to align with Reg (EU) 2019/947 and definition for accident updated for to specifically reference UAS.</p>   |

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| Article 3 - Applicability | (a) Referencing ‘drones’ is misleading as model aircraft are also UAS under Regulation (EU) 2019/947 and model aircraft are not commonly considered as ‘drones’. Including ‘drones’ may imply to model aircraft operators that the Order does not apply to them. Recommend removal of ‘, generally referred to as drones’. (b) Further to our response to Article 2 – Definitions, specifically definition of ‘unmanned aircraft system’, we recommend changing the definition of UAS in Applicability along the lines of what we have already proposed. Also, it is not clear what the intent is behind specifically referencing the likes of blue light service uses of UAS rather than UAS use generally. It gives the impression that the Order only applies to operators of UAS in these circumstances and not to UAS operators generally. Please clarify. |
| Response                  | <b>Not Accepted.</b> The term UAS is predominantly used throughout. As drone is a common term we reference it here. Blue light services are not referenced.   |
| Article 4 - Directions    | Recommend describing persons more specifically as ‘legal or natural person’ for consistence with Regulation (EU) 2019/947 i.e. Any legal or natural person operating or intending to operate one or more UAS.   |
| Response                  | <b>Noted.</b> Updated accordingly.  |

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| Article 5 - Insurance      | <p>The text as drafted is misleading and needs more clarification but also places more onerous obligations on all UAS operators that currently regulated at the European level, specifically in relation to model aircraft operators and recreational-only users of RPAS. Regulation (EU) 785/2004 requires most aircraft operators, irrespective of the purposes for which they fly, to hold adequate levels of insurance in order to meet their liabilities in the event of an accident; however, Article 2 (b) of Regulation (EU) 785/2004 states that the Regulation does not apply to ‘model aircraft with a MTOM of less than 20kg’ but the term ‘model aircraft’ is not defined within the Regulation itself. The IAA should provide an interpretation in relation to the applicability of the insurance regulation specifically. ICAO and EASA define model aircraft as “any small aircraft being used for the sole purpose of recreational flying”. Within the insurance regulation only, therefore, it may be assumed and should be interpreted that unmanned aircraft below 20kg used for recreational purposes only do not require insurance; however, it may be recommended, as it is under Point 8 of the IAA Drone FAQs. Under the insurance regulation, it should be interpreted that operators of UAS for non-recreational use should be required to have insurance, as they do under the regulation.</p> <p>Recommend explaining which UAS operators require insurance and which do not, potentially removing the ‘shall’ requirement in the current, which would not be consistent with Regulation (EU) 785/2005, and change to ‘should’. Ultimately, the Order should not lead to creation of any additional requirements on all UAS operators without evidence-based assessment, explanation of the need to do so and taking a risk-based approach.</p> |
| Response                   | <p><b>Partially Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Article amended for clarity "<i>Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature.</i>".</p>  |
| Article 6 - Privacy Rights | No comments  |
| Response                   | <b>Noted.</b>  |

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| Article 7 - Reporting of Occurrences  | (a) Amend to 'accident and serious incident'. An 'incident', defined under SI No. 460/2009 is too broad and may lead to over-reporting of issues not related to safe operations. Also, the requirement for all incidents to be reported is not consistent with SI. No. 460/2009, which only requires accidents and serious incidents to be reported.<br>(b) See (a) |
| Response  | <b>Accepted.</b> Updated to make reporting of incidents voluntary.  |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS                        | In line with comments on Article 7, Article 8 should only be focused on 'accidents' and 'serious incidents' rather than all 'incidents', as defined.  |
| Response  | <b>Not Accepted.</b> Any occurrences may require investigation and associated powers.   |
| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | No comments   |
| Response  | <b>Noted.</b>   |

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| Article 11 - Investigations              | <p>(a) Regarding ‘hazardous effect on the operation of a UAS’, a UAS does not have to be operated in a manner that has a “hazardous effect on the operation of a UAS” to cause a hazard to an uninvolved person. Perhaps the intent may be “hazardous on and from the operation of a UAS”. Recommend adaptation based on the clear intent. In addition. ‘hazardous effect’ is not defined so it is not clear what would constitute a hazardous effect on the operation of a UAS; however, assuming hazardous effect from the operation of a UAS is also intended, ‘hazardous effects’ could be easily defined within the SI based on definitions of ‘fatal injury’ and ‘serious injury’ in Regulation (EU) 996/2010, Article 2, (5) and (17) respectively</p> <p>(i) Remove ‘incident or other’. Occurrence, as defined under SI No. 460/2009, covers accident, serious incident or incident, therefore alone is sufficient. Further to Article 2, the definition of an ‘occurrence’ should be included in this Order. Also, the effect is not just on the operation of the UAS but also other aircraft and any other person. Suggest amending to: “Cause such investigations or inspections as it considers appropriate to be made in respect of an occurrence which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person and includes in particular an accident or serious incident’.</p> |
| Response                                 | <p><b>Accepted. Updated</b> "...an occurrence, related to the operation of a UAS which caused or could have caused a hazardous effect.. "; "incident" removed, agreed occurrence sufficient. Occurrence added to defs.</p>  |
| Article 12 - Power to Prevent UAS Flying | No Comments   |
| Response                                 | <b>Noted.</b>   |



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| <p>Additional Comments</p> | <p>6. Article 2 'Definitions' - Additional Information</p> <p>- Why is an ‘occurrence’ or ‘serious incident’ not defined? Only including ‘accident’ and ‘incident’ does not provide sufficient instruction and guidance for UAS operators to consider actions they will need to take in the event of an incident, which if not corrected or addressed, could endanger an aircraft or cause an accident or serious incident.</p> <p>Recommend inclusion:</p> <p>- 'occurrence' means any safety related event which endangers or which, if not corrected or addressed, could endanger and an aircraft, its occupants or any other person and includes in particular an accident or serious incident.</p> <p>- ‘serious incident’ means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of flight and primary propulsion system is shut down.</p> |
| <p>Response</p>            | <p><b>Accepted.</b> Defs added.</p>  |

| <b>RESPONSE 15</b>        |  |
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| Role                      | DUTO and Operator;   |
| Article 2 - Definitions   | <p>i) UAS definition: Would be better to use EU947 Art2 - Definition "unmanned aircraft system' ('UAS') means an unmanned aircraft and the equipment to control it remotely"</p> <p>ii) Accident Definition: "... refers to time aircraft is ready to move with the purpose of flight ...". This effectively excludes occurrences which occur pre-start and during start of motors / engines eg battery misconnection fire and explosion, prop failures during start, engine fires during start etc.</p> <p>(iii) Accident definition: re sub para (b) Unlike manned aircraft, the range of UAS varies from a few grams / cm to for example 150kg / several metres in size and the definition therefore seems too general and further thought should be given to this to make it appropriate. For example the effect of a broken propellor on a 150kg drone would be significantly more serious than a propellor on say a dji Mavic which weighs 1kg. The Mavic Mini which is not much bigger than a hand weighs less than 250g and although less restricted in operations than larger drones, is still captured by this definition. If not careful with the definition and the SI is followed, the IAA, AIU and Gardaí could be swamped with numerous reports of accidents of a very minor in nature, which might be better captured in a different way. eg a voluntary reporting database.</p> |
| Response                  | <b>Partially Accepted.</b> UAS def updated. Accident def, no change as derived from existing regulation.   |
| Article 3 - Applicability | Para (a) effectively says it applies to all drones operated in over the State. Para (b) seems to reiterate the same point, but clarify that it also specifically applies to customs, police, firefighting etc drones. Is this the intention or is something else intended in which case the wording may need to be reviewed.   |
| Response                  | <b>Noted.</b> Para (b) specifically directs certain operators to EASA regulation as otherwise they would be exempt under the scope of the Basic Regulation.  |

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| Article 4 - Directions               | This Para is somewhat confusing. eg " ... other than written permissions and authorisations referred to herein ..." not sure what is being referred to here. Similarly "A condition specified in or with a written permission or in relation to an exemption ... under this Order " is not easily understood and then specifically requires it to be complied with. I suspect general readers will be puzzled by what this means and it might be worth reviewing and rewriting.   |
| Response                             | <b>Accepted.</b> Removed.   |
| Article 5 - Insurance                | As the Order applies to ALL DRONES operated in or over the state it effectively requires all drone operations to hold Public Liability insurance. Is this the intention? If it is I think thought will need to be give to how this is managed / enforced. If not then will need review and rewording.   |
| Response                             | <b>Partially Accepted.</b> This insertion allows for the IAA to issue directions with respect to insurance. Article amended for clarity " <i>Operators of UAS shall be insured as regards their aviation-specific liability in respect of third parties in accordance with directions issued by the Authority. <b>Where directed</b>, operators of UAS shall ensure that insurance cover exists for each and every flight, regardless of whether the UAS operated is at their disposal through ownership or any form of lease agreement, or any other agreement of the same nature.</i> " |
| Article 6 - Privacy Rights           | Seems to restate what is in some of the DP Regulations. Am unsure why it needs to be restated here? Para (b) effectively requires a recreational operator of a very small drone to carry out a DPIA. Is that the intention? Para (c) could be useful in that it will allow the IAA to set some heights / conditions but without understanding the context of the paragraph, it is unclear how this is intended to be used?  |
| Response                             | <b>Accepted.</b> Updated for clarity. " <i>Operators of UAS shall prepare a Data Protection Impact Assessment, <b>where required</b>, in accordance with Regulation (EU) 2016/679 (General Data Protection Regulation).</i> "   |
| Article 7 - Reporting of Occurrences | See earlier comments re Accident definition. The paragraph seems fine except it could technically require reporting of large numbers of minor issues to the IAAU and Garda Síochána. This may prove ineffective, reduce operator compliance levels, make enforcement difficult and miss the whole point of the reporting system.  |

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| Response  | <b>Accepted.</b> Updated. Voluntary only reporting for incidents.  |
| Article 8 - Powers of the Authority in relation to accidents and incidents affecting UAS                        | No comment   |
| Response  | <b>Noted.</b>  |
| Article 9 - Revocation, Limitation, and Suspension of Permissions, Exemptions and Authorisations and Directions | No comment   |
| Response  | <b>Noted.</b>  |
| Article 11 - Investigations   | <p>“...caused or could have caused a hazardous effect on the operation of a UAS.” Think this could be better worded.</p> <p>“Have access to any place or premises” I am not a lawyer but suspect this would be difficult to enforce. My understanding is that even a Garda needs a warrant on some occasions.</p> <p>Para iii looks good as means IAA can delegate</p> |
| Response  | <b>Partially Accepted.</b> Updated for clarity <i>"an occurrence, related to the operation of a UAS which caused or could have caused a hazardous effect"</i>  |
| Article 13 - Revocations  | <p>Para (a) “... is likely to be operated ...” Consider adding “or is being operated”</p> <p>Para (b) “ clashes slightly with 8(b). 12(b) requires the Garda to handover the UAS etc whereas 8(b) says UAS detained etc by Garda it may be examined or removed by the IAA.</p>   |
| Response  | <b>Partially Accepted.</b> Assume comment is for investigations not revocations; If "being operated" it is likely to continue "being operated"; Updated requirements on AGS.   |
| Additional Comments   | It would be easier to comment if the broader context of the various paragraphs were understood in advance.   |

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|          | Also I suggest consider including a paragraph explaining the purpose of the SI                    |
| Response | <b>Not accepted.</b> This would not be the norm for S.I. Explanatory memo included alternatively. |