



Law Society
of Scotland

Consultation response

Spaceport and spaceflight activities

21 October 2020



Introduction

The Law Society of Scotland is the professional body for over 12,000 Scottish solicitors. With our overarching objective of leading legal excellence, we strive to excel and to be a world-class professional body, understanding and serving the needs of our members and the public. We set and uphold standards to ensure the provision of excellent legal services and ensure the public can have confidence in Scotland's solicitor profession.

We have a statutory duty to work in the public interest, a duty which we are strongly committed to achieving through our work to promote a strong, varied and effective solicitor profession working in the interests of the public and protecting and promoting the rule of law. We seek to influence the creation of a fairer and more just society through our active engagement with the Scottish and United Kingdom Governments, Parliaments, wider stakeholders and our membership.

Our Mental Health and Disability, Environmental Law Sub-committees and Criminal Law Committee welcome the opportunity to respond to the Department for Transport and UK Space Agency's consultation on Spaceport and spaceflight activities: regulations and guidance¹ (the consultation). We have the following comments to put forward for consideration.

General Comments

The consultation includes three draft set of regulations, namely

“The Space Industry Regulations”²

“The Spaceflight Activities (Investigation of Spaceflight Accidents) Regulations 2020”³

“The Space Industry (Appeals) Regulations 2020”⁴

These sets of regulations are required to support the Space Industry Act 2018 (the 2018 Act) that created legal framework to enable commercial spaceflight and associated activities to be carried out from the UK. These Regulations cover a wide spectrum of interests including environmental, mental health and disability and criminal.

¹ <https://www.gov.uk/government/consultations/spaceport-and-spaceflight-activities-regulations-and-guidance>

² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904345/the-space-industry-regulations-2020.pdf

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904520/spaceflight-accident-investigation-regulations.pdf

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904903/the-space-industry-appeals-regulations-2020.pdf

We note that there have been some earlier discussions with the Devolved Administrations⁵ though the detail of these in so far as Scottish interests are concerned have not been specified.

We understand that there is the intention to publish a further consultation on the proposed approach of relating to insurance requirements under section 38 of the Space Industry Act 2018.

We have not answered all the Questions in the consultation, but we have included them for reference purposes.

Questions

1. Do you have any comments on our approach to assessment of environmental effects?

We note that Existing Environmental Impact Assessment (EIA) regulations cover the establishment of a spaceport but will not cover ongoing operations. It is important that the assessment of environmental effects (AEE) process is sufficiently robust to ensure that all relevant criteria are met, particularly where a previously prepared EIA is being used. The Statutory Guidance to be issued under section 11 of the 2018 Act should clearly set out how the AEE process will fit with the existing EIA provisions.

2. Would you welcome a Traffic Light System for orbital operator licence applications under the Space Industry Act 2018?

3. Do you have any comments on the proposed Traffic Light System?

4. Do you have any comments on our approach to orbital activities?

5. Do you have any comments on the Regulator's Licensing Rules?

As far as Questions 2-5 are concerned, we have no comment to make.

6. Are there any matters addressed in the Context and Background Information section of the consultation document on which you would like to comment?

With regard to the commencement provisions that are set out under the "Structure of the instruments and guidance,"⁶ it outlines the need for transitional provisions to be put in place to govern applications made under the 1986 Act when the Space Industry Act 2018 comes into force. It is very important that for those affected that there is timing and publicity about the proposed implementation of the relevant sections. We assume that the Government will be working with the relevant bodies to ensure that ample notice is given of the proposed

⁵ Page 7 Executive Summary of the Consultation https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904255/unlocking-commercial-spaceflight-for-the-uk.pdf

⁶ Page 16 of the Consultation https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904255/unlocking-commercial-spaceflight-for-the-uk.pdf

implementation.

Part 1: Preliminary

7. Are there any terms used in the regulations that are not defined that you think should be defined?

We have no comment to make.

Part 3: Grant of a licence - general

8. Are there any other considerations you think the eligibility criteria and prescribed roles regulations or guidance should address?

We refer to the eligibility criteria set out in Regulation 6 of The Space Industry Regulations with regard to the circumstances in which an individual will be ineligible for an operator licence we suggest that the reference to “indicatable” and the foot note to the Interpretation Act 1978 for a definition does not apply to Scotland.

9. Are there any other considerations you think the grant of licence regulations or guidance should address?

We have no comment to make.

Part 4: Grant of a spaceflight operator licence - risk

10. Schedule 1 details the types of information required by the operator on the manifested payload(s) ahead of launch, and the use/presentation of this information within the safety case, as well as how this information will be used by the regulator. Do you have any comments on the proposed approach?

11. Paragraph 5 of Schedule 1 requests a schedule of the preparatory events linked to the safety of a launch campaign. This includes grouping events into ‘days ahead of launch.’ Do you have any comments on the fidelity of the events?

12. The Regulations explain how the safety case can be used to demonstrate the safety of single or multiple missions. Do you have any comments about this approach?

13. The Regulations set out the elements of the safety case for spaceflight operators, including the minimum requirements. Do you have any comments on the safety case or the minimum requirements?

14. The information the safety case must contain is set out in Schedule 1 – is there any further information you think it should be necessary for the safety case to contain or anything currently in the requirements that should not be in the safety case?

- 15. What do you understand by the phrase (the launch vehicle or carrier aircraft's) "method of operation" in the safety case requirements set out in Schedule 1?**
- 16. Do you agree with the list of safety critical systems in paragraph 11 of Schedule 1?**
- 17. Do you think licensees should share their safety cases with other users/potential users of the spaceport or those other users who have prepared a safety case?**
- 18. If you intend to apply for a spaceflight operator licence, would you share your safety case with other users/potential users of the spaceport or those other users who have prepared a safety case?**
- 19. Are there any other considerations you think the spaceflight regulations or associated guidance should address with regards to safety?**

We have no comment to make in relation to Questions 10-19.

Part 5: Grant of a spaceport licence

- 20. If you intend to apply for a spaceport licence, would you share your safety case with other users/potential users of the spaceport or other users who have prepared a safety case?**
- 21. Regulation 39(3)(a) requires the spaceport licence applicant to take into account any operator licence applicant in developing its safety case. Similarly, regulation 31(4)(b) requires an operator licence applicant to consult any proposed spaceport licensee on its operating manual. Do you see a need for a specific requirement for spaceport and operator licensees to share their respective safety cases and ground safety analysis?**
- 22. It is foreseeable that there will be an overlap between the ground safety analysis conducted by a launch operator and the spaceport's safety case. Regulations are drafted to meet the specific requirements for each type of licence. Do you see any aspects of the spaceport safety case regulations that should more closely align with regulations 30 and 31?**
- 23. Are there any other considerations you think the grant of a spaceport licence regulations and associated guidance should address?**

We have no comments to make in relation to Questions 20-23.

Part 6: Range control services

24.The regulations allow licensing of range control services from a designated site, but this does not preclude more than one licensee from operating at the same site at different times. The licensing system will also allow a licensee to operate from more than one site if desired, or to apply for their existing licence to cover a new site, under a licence variation. Do you think there are any drawbacks to the overall approach to sites for range control licensees?

25.The range regulations have been drafted to facilitate different models of range control emerging in the future, and separate out the different functions that a range control licensee might provide such as issuing of notifications or monitoring of hazard areas. Note though that our intention is to ensure that there is a single range licensee providing services for a launch operation, rather than allowing multiple licensees to work together to provide different elements of the range control services needed for that launch. This is to ensure that there is a single point of accountability, given the safety-critical nature of range control services. The Act however does allow a range licensee to use another organisation to provide additional range services as its agent through sub-contracting under their licence.

Do you agree that there should be a single licensee providing the range control service for a launch operation?

26.The proposed licensing model for range control allows an applicant to apply for a licence based on their proposed operation and the equipment, personnel and qualifications needed to provide it. Therefore, if the applicant wished, they could apply for a licence based on these attributes ahead of identifying the designated site that they intend to operate from, and identify this site at a later date. The regulator would still need to assess the licensee to be assured that their services will operate effectively from the designated site. This could be desirable for applicants in that it allows greater flexibility and reduces barriers to enter the market, but some concerns have been raised that this introduces greater uncertainty into the licensing process in that it means site-specific assessments will be happening later in the process, and potentially closer to the time of launch. Do you think that the system should allow a range licence to be awarded without the designated site being identified?

27.Do you think that the requirements to ensure the independence of the range function are proportionate?

28.Are there any other ways of ensuring this independence?

29.Are there any other considerations you think the range control regulations and associated guidance should address?

We have no comments to make in relation to Questions 24-29.

Part 7: Training, qualifications and medical fitness

30. Do you have any comments on regulation 61 “responsibilities of licensees” (and dependant training regulations)? We are particularly interested in whether you think the training requirements should concentrate solely upon the listed relevant individuals (i.e. those who must be qualified).

31. Do you think the requirement for licensees to keep their training, qualifications and medical fitness records for at least two years beginning on the first day of the calendar year after they were created is appropriate?

32. The Regulations (see regulation 73(5)) currently only mention the need for the operator to perform simulations prior to launch to demonstrate safety. Do you think this should include rehearsals?

33. Do you have any comments on the type of rehearsals or simulations that are/could be required?

We have no comment to make in relation to Questions 30-33.

34. Are there any other considerations you think the training, qualifications and medical fitness regulations or associated guidance should address?

We note that Regulation 78 of The Space Industry Regulations” sets out the consideration which licensees must make in deciding whether spaceflight participants with a disability or reduced mobility may take part in a spaceflight.

People with disabilities should not be disadvantaged in the context of spaceflight or spaceport use. Is there an intention to undertake any Equality Impact Assessment in relation to the Regulations?

Part 8: Safety of operator’s spaceflight activities during the launch operator licence or the return operator licence

35. Is it clear to whom these safety regulations will apply?

36. Is it clear where a spaceflight activity will begin and end to which these safety regulations will apply?

37. Do you have any comments with regards to the definition of ‘flight’ or the ‘flight envelope’ for the purposes of regulations 92, 103, 104, or paragraph 19 of Schedule 5?

38. With regard to the events and matters set out in regulation 83, are there any other instances or occurrences that you think should necessitate a review and/or revision of the safety case and risk assessment?

39. Are there any other considerations you think should be accounted for regarding the roles of the safety manager, accountable manager, launch director or the flight termination personnel, or that guidance should address?

40. Is a technical requirements specification a suitable basis for the spaceflight operator to present the essential requirements of the launch vehicle and ground support equipment?

41. If you answered no, please say which document(s) should be referred to or might be used instead of a technical requirements specification.

42. Do you agree that regulation 97 allows for an appropriate verification and validation approach to be taken in relation to a spaceflight activity?

43. Pre-launch preparation of the launch vehicle and spaceport involves a number of activities, from maintenance of the infrastructure to loading of propellant onto the launch vehicle and/or satellite. How do you foresee these responsibilities being split between the launch operator and spaceport licensees?

44. How do you foresee the safety responsibilities for pre-launch activities being reflected in the respective safety cases for launch operator and spaceport licensees?

45. Regulation 102 details the conditions for commencing the spaceflight activities ranging from the need to confirm that the launch vehicle is fit for operator's activities to the procedures for launch authorisation. Do you have any comments on the conditions for commencing the operator's spaceflight activities?

46. Concerning regulation 103 (during flight: monitoring and termination) do you think it is reasonable to require a launch operator to monitor the launch and flight of their vehicle in real-time so as to be aware of a vehicle malfunction? Y

47. Should the requirement be for the monitoring to be done only if necessary to carry out the spaceflight activity safely (e.g. the operator sets out in the safety case why such monitoring might not be necessary)?

48. Do you envisage any additional duties/responsibilities of the flight termination personnel?

49. Do you think it is likely that a launch vehicle returning from orbit will need a flight safety system and therefore might also need monitoring for the purpose of detecting malfunctions so that flight termination personnel may take action to safely terminate the flight (assuming there is no automatic flight safety system installed in the launch vehicle)?

50. Referring to the sequential mission phases covered by regulations 102, 103 and 104 and the guidance provided, is the intent and purpose of these regulations clear?

51. Regulation 104 and Schedule 1 identify a number of requirements for parts of the launch vehicle that reach orbit or for any sub-orbital launches that interfere with the space environment. These seek to minimise the interference of the spaceflight activity with other space objects and ensure the operator considers aspects such as space debris mitigation in their mission. Do you have any comments about the requirements relating to the launch vehicle during operator's spaceflight activities?

52. Do you understand the link between these regulations and the spaceflight operator's safety duty set out at regulation 82, in as far as the regulations refer to the operator's spaceflight activities being carried out safely?

53. In the Regulations the scope of activities considered under the return operator licence are outlined. Do you have any comments about the type of activities envisaged under the return operator licence?

54. Are there any other considerations associated with the safety of the operator's spaceflight activities that the launch operator licence or the return operator licence regulations or associated guidance should address?

We have no comments in relation to Questions 35-54.

Part 9: Spaceport safety

55. Do you think the maximum period of five years in paragraph 1 of regulation 143 is a suitable interval between reviews (and, where necessary, revision) of the safety case?

56. Are there any circumstances not already covered in paragraph 2 of regulation 143 that you think would result in a review of the safety case?

57. Is three years a suitable interval between emergency response plan testing? Y/N. If you answered no, what do you think would be a suitable interval?

58. Are there any other considerations you think the spaceport safety regulations or associated guidance should address?

We have no comments in relation to Questions 55-58.

Part 10: Security

59. Do you have any comments on the draft security regulations?

We have no comments in relation to Questions 59.

Part 11: Informed consent

60.Regarding regulation 197, a maximum time limit of one-month has been established because information provided before that time is more likely to be out of date. The minimum period to examine the information and ask questions has been established as 12 hours. Do you agree with this approach or should some other time limits be established?

61.If you do not agree, what balance, in regard to these time-limits, do you see as adequate between the needs of the licensee versus the needs of the participants?

62.Do you think the requirement for the human occupant to sign the consent form not more than 24 hours before taking part in spaceflight activities is suitable?

63.The draft regulations do not require a witness to the signing of the consent form.

Do you agree with this approach?

We have no comments in relation to Questions 60-63.

64.Do you think the regulations and associated guidance capture everything that is needed to properly provide informed consent for spaceflight activities?

Regulation 204(1) of “The Space Industry Regulations”⁷ refers to the requirement for a human occupant to sign the consent form and Regulation 204(3) provides that an electronic signature is sufficient. However, it is not clear how the needs of those who may not be able to physically sign a consent form or utilise an electronic signature may be accommodated. This may include some people with disabilities.

Consideration should be given to including a mechanism which will allow such individuals to participate in spaceflights on the same basis as others, whilst also ensuring that suitable evidence of consent is obtained. This again refers to the issue of any equality impact assessment that may have been carried out.

We note the terms of Regulation 193(2) of “The Space Industry Regulations relates to mental capacity. Given the risks involved, it is appropriate that those participating in spaceflight can understand the risks involved in the operator’s spaceflight activities and the meaning of signifying their consent to take part in those activities.

However, in terms of Article 12 of the United Nations Convention on the Rights of Persons with Disabilities,⁸ people with disabilities should be provided with support to exercise their capacity.

⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904345/the-space-industry-regulations-2020.pdf

⁸ <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html>

Consideration should be given to mechanisms to ensure that such appropriate support is provided to people with disabilities, in order that they are able to participate in spaceflight activities on the same basis as others.

Part 12: Liabilities and indemnities

65. Are there any other persons you think should be included in the scope of regulation 206?

We have no comments in relation to Questions 65.

Part 13: Monitoring and enforcement

66. Are there any other considerations you think the monitoring and enforcement regulations, or guidance should address?

Regulation 210 of The Space Industry Regulations⁹ creates an offence for obstruction. The sentence on conviction in Scotland is specified as a maximum of 6 months which is the same period as for England and Wales.

We would draw attention to the operation of The Presumption Against Short Periods of Imprisonment (Scotland) Order 2019¹⁰ which was brought in to extend the time period for the presumption against short prison sentences. This now stands at 12 months. This means any custodial sentence for this offence is exceptionally unlikely (and the same point applies to Regulation 244.)

We do not consider that the provisions as set out in Regulations 213-215 of The Space Industry Regulations¹¹ to be proportionate. We would suggest that the following comments are considered:

- Regulation 214(1) permits the regulator to serve notice requiring the provision of any information it thinks necessary. This provides an unfettered discretion which is not subject to any mechanisms to object to what is being requested. Could this mean that the person to whom the Information notice is sent could be asked to provide evidence of having committed an offence? There should be a process where objection can be taken to what is being requested.
- There is then latitude under Regulation 214(3) for such information to be provided by any means necessary which is again not subject to any mechanism for objection as to the means being specified.
- The way in which the response is to be provided under Regulation 214(3) again affords total latitude.
- There is no limitation as to the period of such notice which should be amended to include “reasonable” under Regulation 214(4).
- Under Regulation 214 (7), it could be very challenging to translate or transcribe every document. Its operation should be constrained by the inclusion of “reasonably required.”

⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904345/the-space-industry-regulations-2020.pdf

¹⁰ <https://www.legislation.gov.uk/ssi/2019/236/made>

¹¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904345/the-space-industry-regulations-2020.pdf

- Though there is a defence of reasonable steps and due diligence to any prosecution, this is not sufficient in our view to offset the unfettered provisions of Regulation 214. What this means is that the onus will lie with the defence to satisfy the court on the balance of probabilities that they have taken reasonable steps and used due diligence. This is an example of a reverse burden where the courts have held, that where such a legal burden is imposed, it must be legitimate and proportionate. Where it is not proportionate, the offending provision should be ‘read down’ to impose only an evidential burden on the defendant. The law in this area is complex where we suggest that the various provisions regarding the service of an information notice should be qualified to avoid a failure that results in prosecution.

We refer to Regulations 219 and 222 of The Space Industry Regulations¹² given that there is provision for imprisonment on indictment in England and Wales if that is not specifically to apply to Scotland. All that seems to be envisaged is summary as opposed to solemn proceedings and a fine instead of a custodial sentence.

Regarding Regulation 257 of The Space Industry Regulations” which refers to criminal sanctions about the failure to comply with a Stop Notice. We can see that the level of fine is specified not to exceed £20,000 which we assume is a deliberate policy intention to increase the penalty which would normally be restricted to the statutory maximum. A similar point refers to the presumption against short sentences specified above. Does this equate to the level of fine in England and Wales?

Part 16: Duty to inform the regulator

67. Part 16 outlines provisions that apply to any information provided by a relevant person. There are also specific obligations in other regulations that create a duty for licensees to inform the regulator of changes. Do you agree that the general provision in regulation 270 should exist in addition to the specific obligation in other regulations?

- **The Spaceflight Activities (Investigation of Spaceflight Accidents) Regulations**

68. Are there any other considerations you think the accident investigation regulations or guidance should address?

We suggest though the term “justice” is defined correctly under Regulation 24(8) to refer to a sheriff or summary sheriff, there may be confusion as the term “justice” in Regulation 24(2) would normally mean Justice of the Peace in Scotland.

We query with regard to Regulation 45 given that there is provision for imprisonment on indictment in England and Wales if that is not specifically to apply to Scotland. All that seems to be envisaged is summary as opposed to solemn proceedings and a fine instead of a custodial sentence.

¹² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904345/the-space-industry-regulations-2020.pdf

In relation to the publication of the Report as outlined in Regulation 32, we wondered how this interacts with the role of the Coroner and in Scotland, the Crown Office and Procurator Fiscal Service (COPFS). Certainly, COPFS are responsible for investigation into sudden and unexpected deaths including those that result from the accidents outlined in these Regulations. They may well wish to instruct a Fatal Accident Inquiry which would presumably require evidence of the Report and possibly oral evidence from the Inspector. These are conducted in the sheriff court- and not the Court of Session.

- **The Space Industry (Appeals) Regulations**

69.Are there any other considerations you think the appeals regulations or guidance should address?

We have no comment to make in relation to Question 69.

Impact Assessment

70.What is your organisation?

n) another type of business or organisation

We are a professional and representative body as outlined above.

71.Is your organisation considering applying for a licence under the Space Industry Act 2018?

No

72.Which of the UK launch forecast scenarios in Annex 3 of the accompanying Impact Assessment do you think is most realistic? Please choose one option.

We are unable to answer this question.

73.If you answered 'none of the above' to question 72, please explain why including evidence if possible.

N/A

74.Have any stakeholders affected by the proposed secondary legislation not been captured in the accompanying Impact Assessment? Y/N. Please provide details, including the details of these stakeholders and how they may be affected, and costs and/or benefits in £ if possible or qualitative costs and/or benefits if not monetisable.

Yes. We see no mention in the Impact Assessment¹³ with regard to equalities and the need to factor in these requirements in the implementation of the consultation's policy objectives. Reference is made above in our response to areas where specific consideration should be made as to disabilities and to equal rights.

75. Will your organisation have to purchase any equipment or systems to comply with the proposed secondary legislation?

No

76. Will you or your organisation have to implement or change any processes to comply with the proposed secondary legislation?

No

77. Are there any benefits associated with the proposed secondary legislation that are either misrepresented or not captured in the accompanying Impact Assessment?

We have no comment to make.

78. Are there any costs associated with the proposed secondary legislation that are either misrepresented or not captured in the accompanying Impact Assessment?

We have no comment to make.

79. Will you or your organisation familiarise themselves with the secondary legislation and accompanying guidance?

We are commenting on the consultation in a scrutiny perspective. We would be interested in the details of the discussions held with the Devolved Administrations.

80. If you answered 'yes' to question 79, please provide details of the type and number of employees you expect to familiarise themselves with the secondary legislation and accompanying guidance for your organisation.

We refer to our answer to Question 79. It does not affect the Society, but members of the profession may be required to provide legal advice on the regulations in due course.

81. If you answered 'yes' to question 79, please also include an estimate of how long you expect this take (in working days) and an estimate of the cost in £ if possible.

We have no comment to make.

¹³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904349/consultation-impact-assessment.pdf

82.If you answered ‘yes’ to question 79, what type and number of employees do you expect to engage with the regulator on behalf of you and/or your organisation during:

- a) The licensing process**
- b) The regulator’s monitoring regime**

We refer to our answer to Question 80.

83.If you answered ‘yes’ to question 71, how long (in working days) do you expect you and/or your employees in your organisation to spend on:

- a) Engaging with the regulator during the licensing process**
- b) Engaging with the regulator to monitor compliance**

N/A

84.If you answered ‘yes’ to question 71, what type and number of people are you likely to designate and/or employ for the prescribed roles set out in the proposed secondary legislation?

N/A

For further information, please contact:

