

**COMMENTS ON LEGISLATIVE PROPOSALS PAPER FOR  
REFORM OF THE SPACE ACTIVITIES ACT  
24 April 2017**

**Introduction**

The SIAA welcomes this opportunity to comment on the Legislative Proposals Paper entitled *'Reform of the Space Activities Act 1998 and associated framework'* prepared by the Department of Industry, Innovation and Science. We commend the Department for its work in the review of the Space Activities Act and the preparation of this document.

The SIAA has consistently argued that any regulatory framework for Australian space activities must:

- 1) Establish a constructive and supportive environment to attract and foster investment in Australian space activities
- 2) Ensure that any obligations imposed on business entities attempting space activities from Australia are clear, unambiguous, workable and free from arbitrary determinations
- 3) Be no more onerous for Australian participants than is the case in other space-faring nations.

Our primary concern is to ensure that the regulatory scheme is realistic in terms of the operational requirements of space launch for both the applicant and the regulator. The scheme described in the Legislative Proposals Paper appears to address these goals and if implemented should provide Australian launch proponents and satellite owners with a more workable set of rules that are no more onerous than those of Australia's competitors. We would also like to see a statement in the legislation that makes it clear that one of the

objects of the legislation is that Parliament wishes to create a supportive regulatory environment for the growth and encouragement of Australian space activities.<sup>1</sup>

With this in mind the SIAA provides its comments on the Proposals outlined in the Legislative Proposals Paper. While we support the intent of most of the proposals, the actual wording of the Act will be critical to achieving that intent. Some of our members have considerable experience in the practicalities of launching and operating satellites and for this reason, in addition to submitting these comments, we would welcome the opportunity to review a draft version of the Act and any subordinate legislation.

Another key message in this response is that we urge the Government to establish an ongoing consultative mechanism with the SIAA and other stakeholders in relation to the operation of the legislation and subordinate instruments, to ensure that problems are identified and addressed.

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<sup>1</sup> As an example, the United States Commercial Space Launch Activities Act states the following purposes: “The purposes of this chapter are—

- (1) to promote economic growth and entrepreneurial activity through use of the space environment for peaceful purposes;
- (2) to encourage the United States private sector to provide launch vehicles, reentry vehicles, and associated services by—
  - (A) simplifying and expediting the issuance and transfer of commercial licenses;
  - (B) facilitating and encouraging the use of Government-developed space technology; and
  - (C) promoting the continuous improvement of the safety of launch vehicles designed to carry humans, including through the issuance of regulations, to the extent permitted by this chapter;
- (3) to provide that the Secretary of Transportation is to oversee and coordinate the conduct of commercial launch and reentry operations, issue permits and commercial licenses and transfer commercial licenses authorizing those operations, and protect the public health and safety, safety of property, and national security and foreign policy interests of the United States; and
- (4) to facilitate the strengthening and expansion of the United States space transportation infrastructure, including the enhancement of United States launch sites and launch-site support facilities, and development of reentry sites, with Government, State, and private sector involvement, to support the full range of United States space-related activities.”

## Comments on Proposals

### Section 4.2 Structure

#### Proposal 4.2.1

That new (rather than amendments to existing) legislation be developed which provide a higher level of flexibility and responsiveness in meeting stakeholder needs and at the same time achieve desirable Government outcomes

This proposal is supported. The SIAA acknowledges that a freshly drafted piece of legislation would be useful to address some of the proposed changes envisaged by the Government and to streamline the process.

#### Proposal 4.2.2

Subordinate instruments may deal with more operational issues such as, for example, the application process/requirements.

This proposal is supported. The SIAA endorses the approach of a tiered structure of an Act with subordinate instruments and supporting guidance material. We recommend that the intent should be a focus on maximizing flexibility with these instruments so that advancements and innovations in the launch industry including but not limited to launch methods, types of launch vehicles and launch operations can be swiftly and readily accommodated within the new structure without the need for parliamentary approval.

As we understand it, one of the benefits of subordinate instruments is that the relevant Minister would have power to review and revise their provisions without the need to submit legislative amendments to Parliament. This should make it easier for industry and other stakeholders to offer feedback on the operation of the rules and to propose appropriate changes. This will ensure that any unintended obstacles and anomalies can be quickly rectified, hopefully through changes to subordinate instruments. The goal should be to make the regulatory system more flexible and therefore more easily able to be adapted to the rapidly changing technological scene.

### Section 4.3 Purpose

#### Proposal 4.3.1

That the purpose of the legislation remains the same

The SIAA agrees that the primary purpose of the Act should be the regulation of launches and returns. However, as stated above, we note that similar legislation in at least one other jurisdiction has recited the importance of supporting or assisting economic growth and entrepreneurial activity in the space sector. We therefore recommend including a statement of Parliament's intent to provide a supportive environment for Australian space activities, or at least those activities that will be the subject of the legislation.<sup>2</sup>

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<sup>2</sup> Compare this with Section 3 of the current Act which has no similar statement

Is it also worth noting that space-related legislation in other jurisdictions includes legislation on remote sensing, satellite communications, asteroid mining, space agency, space-related R&D and other space-related activities. Consistent with the SIAA's policy position on the need for a permanent national space program overseen by a national space agency<sup>3</sup>, it is conceivable that if Australia's national space program develops and expands, there will be proposals to regulate, as well as to encourage, other space activities. In that event, we would seek a similar opportunity for constructive engagement on the drafting of such legislation.

## **Section 4.4 Object**

### **Proposal 4.4.1**

*That the objects of the legislation be streamlined, to emphasise appropriately balancing risk and Australian benefit, including a focus on Australia's international obligations and the establishment of a system of regulation for those activities*

As stated immediately above, the SIAA is of the view that that the Act should not be seen as merely an opportunity to regulate and implement treaty obligations. In relation to a statement of objects in the new Act, our view is that a simple recognition of Australia's international obligations and the need to have a system of regulation for launch activities is appropriate. We would also argue that in addition to a reference to balancing risk and benefit, there should be a more explicit statement of the nature of the benefit. The creation of a supportive environment for Australian space activities should also be an important object of the legislation, and this statement could be relevant when the Government is required to weigh various competing interests in exercising its discretionary powers under the legislation.

## **Section 4.5 Title**

### **Proposal 4.5.1**

*For the title of the new Act to be a variant on the Space Activities Act reflecting its purpose to regulate the launch and return of space objects. For example: Space Activities (Launches and Returns) Act*

We agree. The SIAA would welcome a change in the title of the Act to reflect its scope which is limited to launch and return activities. We agree that the title in the example ('Space Activities (Launches and Returns) Act') would be an appropriate title.

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<sup>3</sup> See <http://www.spaceindustry.com.au/prezi.php>

## Section 4.7 Authorisations

### Proposal 4.7.1 Payload licence

#### That introduction of a licence type to authorise payloads be considered

We support a streamlining of the Overseas Launch Certificate to make it more practicable for applicants and to focus on the provision of information relevant to the payload rather than the overseas launch service. However, we have the following questions and concerns:

- 1) How will a 'payload' be defined?
- 2) Is the Payload Licence intended to effectively replace the Overseas Launch Certificate?
- 3) Does the Payload Licence apply to Australian launched payloads or only overseas launched payloads?<sup>4</sup>
- 4) What is meant by greater emphasis on payload matters? What additional measures are contemplated? What additional practical information is the Government seeking that will assist in assessing its risk? It is important to emphasise that the information should not be an unrealistic hurdle or result in a cost that out of proportion to the cost of the mission. Will it be possible to translate such broad language into legislative provisions that will not be more onerous for Australian owners of payloads than those of their international competitors?
- 5) What 'life cycle' and end of life considerations are intended? We do not read the proposals document as proposing new regulatory burdens on Australian payload owners that are not imposed on their competitors. We note that some end of life requirements, especially in relation to the current generation of smaller low earth orbiting satellites would not be technically feasible.<sup>5</sup> Please also see our submission in relation to Proposal 4.8.1 – International Obligations.

We note that the Maximum Probable Loss (MPL) requirements for the Overseas Launch Certificate are difficult for the applicants to calculate, given that most of the critical data must be supplied by the overseas launch provider.<sup>6</sup> In practice, this information has often been difficult to obtain from an overseas launch provider. We also note that in most cases the Australian Government is indemnified by an insurance policy covering third party liability eliminating its risk, hence the MPL calculations become superfluous in the context of evaluating Australian Government risk. Consequently we submit that the MPL requirements should be removed as one of the requirements of obtaining an Overseas Launch Certificate or the newly proposed Payload Licence.

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<sup>4</sup> In some cases, the payload licence is applied for before the exact launcher is determined. In the future the option to launch Australia or from overseas should be taken into account.

<sup>5</sup> The unavailability of effective de-orbiting technology would mean that any imposition of a time limit on the licence or requiring end of life management would have adverse implications for the Australian Space Industry in general and for the small satellite development sector in particular.

<sup>6</sup> It is often the case for small payloads that the payload owners do not have direct access to the launch provider and can with can be many layers removed from them. In the case of the QB50 project, for instance, the relationship of the Australian QB50 teams was with VKI, while VKI and ISIS were dealing with Nanoracks, who in turn were linked to NASA, who procured the launch from ULA. This can make it very difficult for the applicant for the payload licence to provide the information or obtain insurance through the launch provider.

We are keen to ensure that the broad approach outlined above does not introduce significant new burdens on Australian payload owners and we would request an opportunity to comment on the specific requirements being considered for the new Payload Licence so that we can provide input on this issue more completely.

#### **Proposal 4.7.2 Launch Facility**

*That requirements currently outlined in the Space Activities Regulations 2001, which are more relevant to launch rather than establishment of a launch facility, be transferred to the proposed new 'Australian launch permit'*

The SIAA supports the changes outlined in the text in this section of the Legislative Proposals Paper for the Space Activity Act changes. The new Act must be flexible enough to deal with a wide range of launch facilities ranging from the traditional launch site to airports, aircraft and even balloons. The specific definition of a launch facility can become blurred in some instances, as for example an aircraft from a traditional airport is used as the first stage to lift a rocket and payload over international waters, before the rocket ignites. In a case such as this the facility owner, i.e. the airport owner, would not expect to obtain a launch facility licence as currently in place. We support a revision of the launch facility rules to more specifically target the areas of risk as different launch options emerge.

Transferring obligations to the launch, rather than the facility owner will enable launch proponents to use a wide range of facilities that may never have previously been conceived of as a launch facility (e.g. airports) and hence potentially increase the range of launch facility options. As we understand it, this means that launch permits will not be strictly limited to the holders of a facility licence and that entities other than holders of a facility licence should also be able to obtain launch permits. This will provide greater flexibility under the Act to cater for emerging non-traditional launch arrangements and potentially enable new launch arrangements.

We also endorse a more 'phased' approach to the licencing process. There are many steps that must be covered to obtain a facilities licence and launch permit and it is of great value to the proponents to be able to show other interested parties (such as investors) that they have completed certain steps in the process. A phased approach where each step is transparent and can be publically acknowledged when completed would be a very useful feature to assist in entrepreneurial and innovative ventures.

We also note the footnote about streamlining the process in relation to protected assets. We agree that the rules governing this process should be reviewed with a view to streamlining and more directly addressing the actual risks.

#### **Proposal 4.7.3 Australian Launch Permit**

*That the launch facility licence provisions include sea launch platforms based in Australian territory; while an Australian launch permit (or variant of it) include a launch from Australian vehicles in flight or (potentially) from Australian airspace*

This proposal seems to be more related to the launch facility provisions rather than an Australian launch permit. Nevertheless we agree with the intent that the launch facility

licence provisions should be flexible enough to cover all current launch operations and those envisaged in the future. This would include sea launch platforms and launch from vehicles in flight or from Australian airspace. This may involve re-examining the definition of launch facilities and possibly not all provisions would apply to all facilities (i.e. a commercial airport may not need many of the launch facility provisions if it is only used as a take-off point for an aircraft carrying a rocket that will be subsequently be launched over international waters). We agree that many non-traditional launch concepts are complex and need to be carefully considered. We are willing to work with the Government to outline the possibilities and help identify workable scenarios for variants of the launch facility provisions. The split of provisions between a launch facility and a launch permit could vary based on the actual launch method. Given the complexity of this issue and the potential for unintended consequences we would encourage the Government to allow us to review the draft legislation and provide comments to enable potential revision before public release of the draft legislation.

#### **Proposal 4.7.4 Australian Launch Permit No 2**

*That DIIS consider cases of potential return of Australian launched payloads (without a launch vehicle) to Australia*

This proposal is supported. We concur that the new Act should have the flexibility to issue a licence for the return of a payload independent of a launch vehicle. We recognise that this might involve the redefinition of a space object and the structure of the Act itself. In this context the Government should ensure that the Act is flexible enough to cover not only the return of a payload but also the return of spent rocket stages to earth particularly under powered descent as currently used by SpaceX, Blue Origin and others. Consideration should be given to all the various options (i.e. whether launched from Australia or overseas, whether recovered in Australia, on a barge in Australian waters or elsewhere on the surface of the earth). Different methods of launch may incur different levels of risk and hence attract differing regulations. For example, we would expect that an aircraft used to transport a rocket to a specific altitude which then returns under power to an airfield, would be treated very differently (i.e. with only normal aircraft regulations) compared to a rocket stage with a powered descent. The drafting of the Act needs to be able to distinguish between these differing levels of risk in a workable and sustainable way. Again we are willing to review the draft wording of the Act to ensure a workable outcome for all parties.

#### **Proposal 4.7.5 Flight Safety Code for launches from Australia**

*That the Flight Safety Code be retained, and refreshed in the future*

We acknowledge that some form of Flight Safety Code is appropriate for Australian launches. However, the SIAA has made a previous submission regarding the flaws and concerns with the current Flight Safety Code<sup>7</sup> and recommends that a review of the Flight Safety Code be conducted as part of the preparation of the Act. As it currently stands the Flight Safety Code requires a higher degree of safety and places limitations on Australian launches that are unique among world launch jurisdictions. Rather than facilitating

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<sup>7</sup> Submission to DISR on the proposed Flight Safety Code and Maximum Probable Loss Methodology Guidelines under the Space Activities Regulations 2001, SIAA 5 June 2001

launches from Australia these more onerous regulations are more likely to act as a deterrent to Australian launch projects. We recommend that the Flight Safety Code be completely reviewed to ensure that it is in line with global launch industry norms. A comprehensive review of the Flight Safety Code would take into account the advances in technology that have occurred since this document was originally developed.

The US International Traffic in Arms Regulations (ITAR) restrictions are a very real concern with the current Flight Safety Code. In the past these restrictions have made it very difficult for SIAA members to engage US organisations to conduct the necessary analysis. We support the identification and use of Australian capability and we believe that this capability does exist in Australia. We understand that the Australian Government is not in the practice of assessing the technical data supplied under the Flight Safety Code, but relies on external consultants to perform this task. We understand that this leads to a situation where the launch proponent must acquire, develop or contract expertise to conduct the required analysis for the Flight Safety Code, and then the Australian Government must contract expertise to check what has been submitted. We submit that given the specialist level of the expertise required, it might be more practical for the proponent to work together with the Government or experts designated by the Government, to eliminate the double processing of the data required by the Flight Safety Code. We are willing to have further discussions with the Government about these issues.

#### **Proposal 4.7.6 Designated and Protected Assets**

*To retain a framework whereby designated and protected assets can be identified on an as needed basis. Suggestions in relation to identification of assets are requested*

The SIAA submits that the framework of Designated and Protected Assets is unique to Australia and needs to be reviewed with particular attention to the specific nature of the risks involved. It is not at all clear that the restrictions are commensurate with the actual risk. This entire framework should be streamlined with a view towards minimising the restrictions on launch activities while ensuring that important assets are protected from real identifiable risks.

There are serious issues with the current regulation surrounding Designated and Protected Assets that go beyond ensuring the safety of existing assets. There are no safeguards in the Regulations or the Flight Safety Code that guarantees the launch providers, having met all the safety requirements at the time of issuance of a space licence, will be able to continue to use their chosen flight paths. The overall construction of the Flight Safety Code document, and in particular the requirement that a protected asset be at least 10km outside the  $10^{E-7}$  impact probability isopleth, allows the possibility that the creation of new protected assets under an existing flight path would render this flight path unusable. The potential that major revenue earning flight paths, and potentially the entire launch site, will be rendered unusable through actions outside the control of the launch provider has a major impact on a launch provider's ability to raise commercial funding for these activities, given that several years of successful operation to recoup the investment funds would be required. This approach is unlikely to attract the investment funding needed to ensure a viable commercial launch industry in Australia. It is a fact of nature that there are only a finite number of launch inclinations for placement of satellites into useful orbits from a

specific place on the earth's surface. These will be specified as part of the space licence application. The SIAA submits that once these flight corridors are approved as part of the licensing process they should remain accessible to the launch provider for the duration of the space licence. In practice this would mean that parties who wish to build high value assets under an approved flight path must do so at their own (minimal) risk. It should not be possible to halt the flight activities of the launch provider by the construction of such facilities under a known flight path and these new assets should not be capable of being deemed protected assets.

#### **Proposal 4.7.7 High Altitude Activities**

*That consideration be given to the drafting of a new subordinate instrument, for 'high altitude' activities as described/specified in the subordinate instrument*

This is a complex issue. The SIAA submits that while some of the characteristics of suborbital flight might warrant the type of regulations currently imposed on orbital launches. In other cases the characteristics of the flight (including intended altitude and rocket thrust capability) are less critical compared to that of an orbital flight. It is hard to see how the same regulations could realistically apply to both. For example, would an organisation offering suborbital flights be required to meet the same requirements for a launch facility licence as those for orbital flight? What about flight testing of a rocket from a balloon launch? We submit that if High Altitude activities are introduced into the Act, separate regulations relating to these activities will need to be developed to account for the decreased risk and scope for these activities. A regulatory approach that includes these suborbital activities under the same regulations as orbital activities runs the risk of impeding Australian innovation in this domain which is often a practical testbed for technology that will eventually be used on larger systems.

#### **Proposal 4.7.8 Accepted Launch Facilities**

*For a list of 'standard' launch facilities to be prepared and made available (in either a subordinate instrument or elsewhere), to streamline the application process*

The SIAA supports this proposal. This would be a positive step forward for the application process and avoids duplication of information that the Government often already has at its disposal. We submit that this could easily be extended to launch vehicles as well - the main international options for commercial satellite launches are well known. It should be possible for the Government to give in principle approval for a particular facility and launch vehicle in order to reduce the information requirements to those matters that are unique to a particular launch. We would recommend avoiding the word 'standard' in this context. Rather we would suggest that a list of approved facilities and vehicles be maintained and published which can be reviewed and revised as circumstances change.<sup>8</sup> Facilities and vehicles outside these approved facilities are not excluded but would be subject to additional information to show that they meet the safety requirements.

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<sup>8</sup> The SIAA would be happy to suggest a process for compiling and maintaining this database as a free service to industry participants.

### **Proposal 4.7.9 Safety Officers**

*That the functions of the Launch Safety Officer and accident safety investigator remain*

This proposal is supported.

### **Section 4.8 International Obligations**

#### **Proposal 4.8.1 Debris Mitigation**

*That consideration be given to the new Act including a high level statement committing applicants to consider the space environment. Detail on how this might be achieved may be provided in a subordinate instrument and/or guidance material. The ability for the Minister to provide exemption from this requirement is also proposed*

Our broad position is that as a nation we must value the space environment and endeavour to preserve it. This is best done by encouraging all players to observe best practice and to encourage research into space debris mitigation (including de-orbiting strategies) and strategies to clean up the space environment.

In our original submission to the Space Activities Act Review we said that effective legislation that supports Australian space innovation should be consistent with ensuring that Australia is in step with international efforts to address environmental problems on Earth and debris and traffic problems in space. Global standards for the long term sustainability of orbital activity are not yet settled and this is a topic that is still the subject of international discussion and debate, including at the United Nations. Australia will continue to be an active player in research and development in relation to space situational awareness and debris mitigation.

As noted in Professor Freeland's paper a Departmental document entitled 'Guidelines for Applicants seeking to apply for an Overseas Launch Certificate pursuant to the Space Activities Act 1998', states that an applicant for an overseas launch certificate should provide a debris mitigation strategy that addresses the Space Debris Mitigation Guidelines of the United Nations Committee on the Peaceful Uses of Outer Space.

We further note that UN Guidelines recognise two broad categories of space debris mitigation measures: those that curtail the generation of potentially harmful space debris in the near term – minimisation of the production of mission-related space debris and the avoidance of break-ups; and those that limit their generation over the longer term – end-of-life procedures that remove decommissioned spacecraft and launch vehicle orbital stages from regions populated by operational spacecraft.

Given that it is clearly in the interest of satellite operators to take all feasible steps to avoid the risk of generating dangerous space debris in both categories and provided the subordinate instrument or guidance material takes into account the practical limitations on the manoeuvrability and therefore end-of-life procedures of certain types of satellites, we accept that the new legislation should include a high level statement about the importance of considering the space environment as part of the licence application process for particular payloads but it should not be prescriptive as to threshold matters that could

prevent the issue of a licence, but rather encourage or provide incentives for good design and best practice.

In this context we recognise the growing international importance of mitigating the impact of space debris for existing satellite systems but this should be balanced with the potential economic and social benefits of the new generation of miniaturised satellites, such as the systems recently launched and currently being proposed by Australian universities and companies. For these reasons we favour a light-handed regulatory approach, such as proposed above.

#### **Proposal 4.8.2 Nuclear Power Sources**

*That consideration be given to applicants being required to indicate the presence of both fissionable material and nuclear power sources*

The SIAA does not have any specific objection to this proposal and notes that this is already covered in the current Act.

#### **Proposal 4.8.3 Contamination**

*Consideration be given to applicants having regard to the COSPAR Planetary Protection Policy, as appropriate*

The SIAA does not have any specific objection to this proposal as long as the requirements on Australian parties are no more onerous than on those in other jurisdictions.

#### **Proposal 4.8.4 Registration**

*That access arrangements to the domestic register be updated and streamlined*

This proposal is supported. The SIAA concurs that updating and streamlining access to the domestic register of space objects should be conducted as part of the development of the new Act.

We also note the following finding:

*‘Consideration could be given to establishing scaled indemnity levels on the basis of a risk assessment process undertaken by the DIIS based on information provided by the applicant.*

This idea is supported by the SIAA. We suggest that the nature and purpose of the payload and the potential public or social benefit should also be relevant considerations. If implemented, this would be an excellent example of the use of the regulatory power to promote and assist innovation and technological development in the satellite sector.

### **Proposal 4.8.5 Liability and Insurance Requirements**

*To allow greater flexibility in relation to updating as need arises, that consideration be given to insurance and fees being located in a subordinate instrument*

This proposal is supported. The SIAA concurs that insurance levels and fees should be in a subordinate instrument to allow greater flexibility and discretion and the ability to quickly change these to ensure Australia remains competitive internationally.

The SIAA agrees with the first finding in this section that the current insurance and financial requirements are higher than those of other space-faring nations and consequently an inhibitor or disincentive for Australian launch activities. We agree that a review is warranted to identify the actual (rather than perceived or potential) risks to the Australian Government and reconsider the insurance and financial requirements in light of these actual risks to set any insurance or financial requirements at a level that will stimulate greater participation and innovation by Australian organisations in the space sector.

The SIAA agrees that scaled indemnity levels are a concept that should be explored in detail. The current system takes a one size fits all approach which is driven by the largest satellites and is greatly out of step with the smaller budgets for smaller satellites. A more critical review of actual risks (particularly taking into account indemnifications provided by the launch providers in most cases) would enable a more nuanced and perhaps tiered approach which is likely to be more in line with the smaller size of smaller projects. If it is not feasible to apply blanket waivers of financial or insurance requirements for some classes of satellites, the ability to evaluate each project separately and apply the appropriate minimum financial requirements would be of great benefit.

The SIAA recommends a review of the proportion of risk carried by the Commonwealth, given that there have been so few instances of actual liability claims in the 60 year history of spaceflight. We also recommend that the Australian Government take into account practices in other space-faring nations, the majority of which have specified a much lower cap on liability. The SIAA is willing to work with the Government on developing appropriate liability schemes.

### **Proposal 4.8.6 Outer Space Treaty**

*That DIIS consider cases, including the likelihood of cases, where Australia may be responsible under the Outer Space Treaty, but not liable under the Liability Convention*

It is not clear to us what DIIS is proposing here or more specifically how it is intended to reflect this in the proposed legislation. The SIAA believes that, in respect of launch and return activities, the proposed new legislation puts the Australian Government in the position of adequately authorising and continually supervising such national space activities and that it is difficult to see that anything further would be required.

SIAA would welcome further discussion on this matter when there is a more specific view of what is intended under this proposal.

## **Section 4.9 Fees**

### **Proposal 4.9.1 Charging Model**

*That an appropriate charging model be developed*

This proposal is supported. The SIAA concurs that an appropriate charging model should be developed and contained in a subordinate instrument to allow greater flexibility and discretion and the ability to quickly change the fee structure to ensure Australia remains competitive internationally.

The SIAA agrees with both of the findings in this section. It is clear that innovation activities are conducted by a range of entities - not just scientific or educational organisations. We agree that all Australian entities (including commercial entities) be able to access a lower fee structure if appropriate based on the nature of the activity rather than the organisation conducting it. We also agree with the concept of a sliding scale of fees for commercial activities based on the limited resources available to smaller firms. This will actively encourage participation and innovation in the space sector and send a strong signal about Australia's intent to promote these types of activities to grow the sector.

## **Section 4.10 Exemption**

### **Proposal 4.10.1 Exemption**

*That exemption in entirety from each of the authorisations and in addition, in relation to element/s associated with each authorisation, based on considerations including emergency, safety and liability be considered*

This proposal is supported. The SIAA concurs that a facility for exemptions to the Act both in its entirety and in relation to elements associated with each authorisation be adopted in the new Act.

### **Proposal 4.10.2 Australian Government Provision of Information**

*That the Australian Government be invited to be guided by the new legislation, as it considers appropriate. That the Government be invited to provide information consistent with that of a non- Government entity (as appropriate), when authorisation is in relation to a public/private partnership*

This is an important issue particularly as the SIAA foresees increased collaboration between Australian Government departments (particularly Defence) and private industry on payloads and satellites in the future. It is essential that the lack of provision of information by an Australian Government Department not impede any approval and licensing process that may still be required. The SIAA agrees that the Australian Government Departments should be encouraged to provide the information, but insists that lack of this information not delay the approval process.

This also raises question about the financial and insurance requirements of commercial operators when the Australian Government also participates on the satellite/launch and is directly a 'launching state'. The SIAA suggests that in this instance the commercial operator

should not be required to indemnify the Commonwealth, since the Commonwealth is already directly involved.

## **Section 4.11 Application Process**

### **Proposal 4.11.1 Delegation of Ministerial Powers**

*That the ability for the Minister to delegate his powers, be provided for in the new legislation*

This proposal is supported. The SIAA concurs that the application process should be streamlined and agrees that there should be the ability for the Minister to delegate his powers under the new legislation.

### **Proposal 4.11.2 Phased Application Process**

*That provision be made in relation to payload and launch facility authorisations for establishing a phased application process*

This proposal is supported. The SIAA recommends that the application process be structured in a phased manner which enables the applicant to achieve Government signoff on specific phases while still pursuing other required aspects of the process.

We note that for complex applications a phased approach that gives applicants early indication of the likelihood of meeting the requirements or the ability to adjust to meet the requirements is of tremendous value and should be implemented in this revision of the legislation – probably in a subordinate instrument.

We also note the proposal that the applicant provide summary information against the suggested early indicator criteria for the proposed Payload Licence. It is not clear to us what constitutes summary information. Is it simply text that these conditions can be met or is something more substantial expected? Also the wording of the various elements seems to come directly from the Act and appears rather broad. It would probably be much more helpful to the applicant to indicate more directly (perhaps by use of examples of the type of information desired) what the Department would like to see in the summary information to get its approval at this stage. For example with the first phrase, it is not clear whether the Department expects simply some text affirming that this can be met (i.e. because the launch is similar to others conducted by the organisation) or requires the actual probability figures to verify that the risk of damage it is sufficiently low. Guidance on the level of detail expected by the Department in this summary information would be helpful.

We agree with the modular approach for a facility licence where individual modules may be submitted and approved building up to the final overall licence approval. We would recommend that rather than rigidly adhering to specific stages, the individual modules should be allowed to be submitted in any order. This will enable the applicant flexibility to best apply their resources to the approvals process. For example, the Environmental Plan listed in the proposed Stage 1 text is generally a long lead item involving external consultants. The applicant should have the flexibility of submitting the Organisational Structure, or technology security plan (listed in the text as in Stage 2) while it is waiting for the Environmental Plan to be completed.

### **Proposal 4.11.3 Utilising Information Already Provided by Applicant**

*That DIIS continue its current practice of utilising information already provided by an applicant with their permission*

This proposal is supported. The SIAA endorses any procedures which minimise duplication of effort and speed up the application process. This would appear particularly apt for the current Overseas Launch Certificate. The SIAA is not clear however, whether the Department intends to specifically mention this in the Act or in the subordinate instruments. We recognise that specifying this existing practice in the appropriate place in the Act or subordinate instruments would provide clarity for all parties.

## **Section 5 Guidance Material**

### **Proposal 5.1 Coordination of Australian Government Summary Material in One Place**

*That DIIS coordinate summary information from the Australian Government (and make it available in one place)*

This proposal is supported. The SIAA concurs that the provision of summary information regarding the roles of various Australian Departments with respect to space activities in a single location is not only helpful, but exceedingly valuable to all applicants and other parties seeking to understand the process for space launch activities in Australia. This is an excellent proposal. Ensuring that this information is available online and easily accessible regardless of which Australian Department is first contacted will greatly assist all involved in these processes. This is a potentially a project that might be appropriate for collaboration with the SIAA.

## **Section 7 National Security**

### **Proposal 7.1 High Level description of framework for national security evaluation**

This is proposed in the text but not specifically assigned a number. We feel that a general description of the framework used and factors considered with respect to the national security aspects of applications would be helpful to potential applicants. We recognise that this may change from time to time and may be better addressed in subordinate instruments or guidelines, rather than the new Act itself.

Some space-related national security concerns and their associated solutions may be uniquely in the knowledge of industry, rather than government. This is especially the case in respect of critical space infrastructure. The SIAA proposes that DIIS, together with Department of Defence and others, consider modes of participation by industry in identifying national security concerns and establishing the related framework. Such an approach would also give industry the opportunity to actively participate in developing innovative solutions.

## **Section 8 Next Steps**

The SIAA recommends that DIIS engage with us as much as possible during this process of developing the new legislation so that the Government has the benefit of the considerable practical operational knowledge regarding space launch activities within the SIAA membership. In particular, we recommend that DIIS invite us to review the draft legislation before it is finalised to ensure that there are no unintended consequences in the actual wording of the clauses and that the new Act be as practical and workable as possible for both Government administrators and the Australian applicants. We would also be available to meet with the drafters of the legislation prior to the start or during their task to answer any questions that might arise. We stand ready to work together with the Government, as we did during the development of the current Space Activities Act, to help create a new Act that is practical, workable and flexible enough to ensure Australia can actively and safely participate in space launch activities in the 21<sup>st</sup> Century.