

**COMMUNICATIONS
ALLIANCE LTD**



**DEPARTMENT OF INDUSTRY, INNOVATION AND
SCIENCE**

REVIEW OF THE SPACE ACTIVITIES ACT 1998

COMMUNICATIONS ALLIANCE SUBMISSION

APRIL 2016

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INTRODUCTION

Communications Alliance welcomes the opportunity to provide this submission in response to the *Review of the Space Activities Act 1998 Issues Paper* by the Department of Industry, Innovation and Science (the *Issues Paper*).

Executive Summary

Communications Alliance applauds the Department of Industry, Innovation and Science for taking the initiative to review this important aspect of space legislation. The Space Activities Act (the Act) as it stands, reflects where the Australian industry was almost twenty years ago. The policy focus at that time was on the potential development of commercial satellite launch facilities in Australia - an activity that has not eventuated and which appears unlikely to in the near future. With this in mind, this review has been a long time coming and was highly anticipated by our members.

In undertaking this review, Communications Alliance notes that the Government is considering whether the foundation rationale for the Space Activities Act remains appropriate to Australia's transition from an industrial structure characterised by lower value-added activities to an advanced economy that cultivates and commercialises innovative technologies.

The review of the Act should ensure legislative arrangements governing civil space activities provide a balance between supporting emerging commercial opportunities and ensuring Australia meets its international obligations for the use of space. At the same time it is appropriate to re-cast the questions so that they are of contemporary relevance. Communications Alliance has taken the opportunity to propose amendments to the questions in Section 9 of this submission.

About Communications Alliance

Communications Alliance is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to provide a unified voice for the telecommunications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of Communications Alliance is to promote the growth of the Australian communications industry and the protection of consumer interests by fostering the highest standards of business ethics and behaviour through industry self-governance. For more details about Communications Alliance, see <http://www.commsalliance.com.au>.

1 SCOPE OF REVIEW

Communications Alliance wishes to highlight the following aspects of the scope of the review of the Act:

- the Act reflects the Australian industry as it was almost twenty years ago at a time when the focus was on the potential development of launch facilities in Australia - an activity that has not eventuated and appears unlikely to in the near future.
- there is a perception within industry that the development of a stronger and more diverse Australian commercial satellite industry – for which selective potential does exist – has not had the sufficient Government focus in recent years.
- the review may benefit from further consideration of the Government's policy goals, objectives and a vision about the potential for industry growth, leveraging upon the existing Australian capabilities in the space sector.
- in addition to the growing small Australian satellite sector of micro, pico and nano satellites, any review needs to acknowledge the global growth trend in broadband activities and services within the space industry.
- notably areas that have been excluded from the review are those of spectrum availability and spectrum pricing. Although these are subject to other reviews, they will have an influence on policy setting in relation to the Act.

2 INNOVATION

Communications Alliance supports the Government's innovation agenda and recognises that the review of the Act by the Department is timely in this context. We note that:

- it is important for government policies to support innovation by reforming and updating existing regulatory frameworks.
- space technologies will contribute to Australia's innovative future, with the emerging small satellite market being a contributing factor to the Government's innovation agenda. However, along with the benefits flowing from the new commercial opportunities in this sector, certain risks need to be identified and addressed, such as the consequences arising from the potential increase in space debris.
- spectrum pricing can inadvertently be a barrier to investment and innovation in space activities – and drive potential investments offshore.
- careful consideration concerning the types of innovation that the Government chooses to support through policy will be an influencing factor. Correct policy setting has the capacity to create a welcoming environment through various tools such as Government concessions, appropriate levels of taxation and an assistive regulatory framework.

3 COMMERCIAL CONSIDERATIONS / OPPORTUNITIES

Communications Alliance recognises the need for a vibrant, commercial sector and offers the following comments:

- the importance of maintaining a focus on the large commercial communications satellite sector, which has a significant presence in Australia.

- Australian researchers and companies have shown world-competitive ability in the past in niche areas e.g. in the development of C- and Ku-band antenna technology, including up/down converters.
- the commercial satellite industry represents three quarters of space-related activities. The Australian Space Capabilities Report states that commercial space activities constitute 76% of the global space economy¹.
- in Australia, existing commercial interests include ground/terrestrial infrastructure, Telemetry, Tracking and Control (TT&C) stations, gateways, user terminals. There is untapped potential for Australia in this sector.
- recognition that the space industry supports many critical national interests. The following list highlights the broad nature of these interests: earth observation, national security, border protection, extending Australian industry overseas, monitoring weather and climate change, mining, assistance in natural disasters (a key component), consumer and business demand for broadcasting and two way fixed communications, broadband mobile communications for aircraft, ships and land mobiles.
- the following examples of commercial activities have been provided by our members to demonstrate some of past and present initiatives that are making an impact to the Australian environment:
 - **UniSA** – their business developments that have been spun out of their activities, including in the space and Internet of Things (IoT) fields.
 - the **Advanced Instrumentation Technology Centre (AITC)** at Mt Stromlo. Industry could harness the capabilities that the centre offers. See <http://rsaa.anu.edu.au/technology/advanced-instrumentation-technology-centre>.
 - the **Culgoora Solar Observatory**. CSIRO was commissioned to develop antenna technology that was used in by OTC and also used overseas in countries such as Vietnam, Kazakhstan and Laos.
 - services such as receive-only television reception of worldwide and Australian programming, electronic news gathering, broadband fixed and mobile communications especially in rural and remote areas, satellite navigation services and weather forecasting.

4 INVESTMENT

Some Communications Alliance members believe that existing Australian satellite regulation is acting to restrict investment. One of the reasons being because of the public liability insurance requirements for an overseas launch. However, these requirements can be easily be satisfied at no cost, through appropriate negotiations with the launch provider. The regulations need to encourage the relevant parties to attend to this matter which exposes Australian taxpayers to unnecessary risk. The law could be amended to give users better guidance on how to do this. Currently the law is opaque and leads applicants for a launch licence down the path of working out 'maximum probable loss' which is not a useful direction.

¹ Department of Industry, Innovation and Science - A selective review of Australian space capabilities
<http://www.industry.gov.au/industry/IndustrySectors/space/SpaceIndustryDevelopment/Pages/SelectiveReviewAustralianSpaceCapabilities.aspx>

5 GOVERNMENT IMPACT ON COMMERCIAL ASPECTS

Communications Alliance wishes to offer the following observations:

- Communications Alliance recommends that the Government consult with the industry when considering investments in the satellite industry. Without industry consultation, it is difficult for commercial operators within the industry sector to appropriately target their own investment plans.
- to foster a healthy commercial sector, the Government needs to carefully consider the most relevant commercial activities that it undertakes through Public Private Partnerships (PPPs).
- existing cost structures (especially taxes) are a barrier to establishing gateways in Australia. These cost structures can be very prohibitive and lead to lost opportunities for Australia to become a communications hub. A recent example is Inmarsat's Global Xpress earth station centre contract going to New Zealand.
- spectrum pricing can be a disincentive to investment (e.g. as industry has previously submitted Ka Band spectrum pricing in Australia is much higher than in many comparable markets). The spectrum licence arrangements should not be simply used as an instrument of taxation.

6 GOVERNMENT COORDINATION AND ROLES

Communications Alliance wishes to offer the following observations with respect to the roles of Government Departments and Agencies:

- to highlight the importance of inter-department coordination, with an aim of avoiding duplication and reducing where appropriate any unnecessary multiple layers of regulation and the associated administration burden.
- the division of roles/responsibilities between agencies. In Australia arrangements are workable but could be streamlined. Communications Alliance suggests international comparisons of arrangements, such as those employed the USA, to identify what aspects here are working and what could benefit from a review.
- the interaction between policy setting and regulatory agencies could be strengthened when considering the needs of an investing industry. The relevant Government Departments include DIIS, DoCA, Finance and the Attorney Generals.
- the limited remit of the ACMA with respect to the relevant international treaties.
- to compare with overseas regulatory administrations. Communications Alliance notes as one example ARSAT in Argentina. Although not to use as a model for Australia, it is of interest to see how the Argentinian Government has harnessed the expertise of its commercial sector.

7 GOVERNMENT AND INDUSTRY LIABILITY

In considering the Issues paper, Communications Alliance recognises that one of the significant drivers for the review of the Act is the Commonwealth liability associated with space-related activities. On this issue we wish to make the following comments:

- this aspect of the review was raised during the presentation by Dr Anne Byrne at the ACMA Radcomms Conference 2016.

- with regard to responsibilities and liabilities, we believe that the Act is not clear in this respect. Our understanding is that the liability is attached to the ACMA requests.
- we recognise that these are important issues for both Geostationary Satellite Orbit (GSO) operators and, to an increasing extent, Non-Geostationary Satellite Orbit (NGSO) operators.
- There is a danger that LEO bands will become increasingly congested with space debris, particularly as the number of small satellites is growing rapidly, resulting in increased potential damage resulting from collisions.
- we note that the UK is currently thinking about exempting small satellite operators, for example satellite university expeditions, from being insured. Contrary to this, consideration should be given with respect to those who create the risks/liability should bear the responsibility.
- the regulator (or other industry operators) should not be placed in the position of having to subsidise the risks being created by small satellite operators.

8 SCOPE OF LEGISLATION

Communications Alliance would like to make the following observations:

- there is an opportunity to re-purpose the focus of the Act on what is relevant for Australia. The launch component (i.e. heavy launches) may no longer be as high a priority.
- there is an opportunity to redress the lack of continuity that has been apparent in the development over the years of consolidated space legislation in Australia.
- Government should take into account the relationship of the Act to other related legislation/regulation, e.g. dealing with foreign and Australian Space Objects for regulatory purposes.
- Government should take into account the Australia Satellite Utilisation Policy in the context of this review and consider the relationship of legislation for objects in the stratosphere and above (i.e. beyond the scope of the Australian Radiocommunications Act) which is controlled by the regulator. There is a number of different technologies, for instance used in aviation, and high altitude platforms and sub-orbital vehicles. A local case in point is unfolding in New Zealand with Google's Project Loon, which is championing new technologies.

9 QUESTIONS ASKED IN THE ISSUES PAPER

In addition to our comments above on issues raised by our members in our review of the Issues Paper, Communications Alliance would like to offer the following comments to the specific questions listed in the Issue Paper. Please note that a number of questions have been modified (see **bolded text**) to be able to provide a response that our members feel is a better reflection of the space industry in Australia.

TOR 1	Support for innovation and the advancement of space technologies	
TOR 1.1	Statement: The Government recognises appropriate space technologies as being an important contributor to Australia's innovative future.	<i>Strongly agree</i>

	Statement: The public is not in a strong position to judge the value of space technologies as being an important contributor to Australia's innovative future.	<i>Strongly agree</i>
	Statement: The Australian space industry recognises space technologies as being an important contributor to Australia's innovative future.	<i>Strongly agree</i>
TOR 1.2	How can space technologies contribute to Australia's innovative future?	Through selective development of products and services, and partnerships with foreign suppliers
TOR 1.3	Provide an example of where Australia's existing space-related regulation has impacted upon the pursuit of an innovative idea.	Lack of Government incentives and the mitigation of risk
TOR 2	Entrepreneurship, investment and participation in global markets	
TOR 2.1	Statement: Space regulation provides investment certainty for space-related business activities.	<i>Agree</i>
	Statement: Space regulation should include ensuring the responsible use of space by Australians.	<i>Strongly agree</i>
	Statement: Space regulation should include proactive and realistic elements that may help facilitate entrepreneurship and private investment.	<i>Agree</i>
TOR 2.2	Provide an example of where Australia's space regulation has limited your capacity or inclination to invest in commercial space activities.	Pricing of spectrum
TOR 2.3	How could Australia's civil space regulation proactively facilitate entrepreneurship and private investment?	Through a comprehensive national strategy
TOR 3	Commonwealth responsibility for national space activities and liability for damage caused by space objects	
TOR 3.1	Statement: The Government has a responsibility to protect taxpayers' money against liability generated by private space-related activities.	<i>Agree</i>
	Statement: It is appropriate for public monies to be used sparingly to underwrite private sector risk for space activities	<i>Neither agree nor disagree</i>
TOR 3.2	What contribution can space technologies make to Australia's overall economic prosperity?	Bring more contemporary broadband fixed and mobile services into Australia
TOR 3.3	What might be the net benefit to the Australian population of the Government taking a greater share of the financial risk arising from space activities?	The net benefit would be to encourage investment
TOR 4	Emerging issues	

TOR 4.1	Statement: Recent changes in technology and its impact on how space is accessed necessitate changes to Australian space regulation.	Agree
TOR 4.2	What emerging space technologies or practices should the Government consider in reviewing the Act?	Terrestrial opportunities, (gateways, TT&C, receive only and two way comms). Small satellite construction.
TOR 4.3	Considering your answer to Q4.2, what impact might regulating specific emerging technologies have on Australia's space capability?	Technology should not be regulated but regulation should be flexible to handle developments
TOR 4.4	What alternative mechanisms, other than regulation, could the Government utilise to manage the potential impact of these technologies?	Public education, political strategies, supporting framework
TOR 5	Alignment with Australian legislation and international obligations	
TOR 5.1	Are the roles of the following agencies prominent or known regarding the regulation of a space-related activity?	
	– Department of Industry, Innovation and Science	No
	– Civil Aviation and Safety Authority	Yes
	– Australian Communications and Media Authority	Yes
	– Other (please specify) DoCA	Yes
TOR 5.2	Is it necessary to deal with more than one of these agencies with regard to the regulation of a single space-related activity? Yes; Please provide additional comment.	Aircraft communications etc.
TOR 5.3	What areas of alignment, if any, do you think exist between Australia's space-related legislation?	The space activities Act is relatively opaque to the commercial satellite industry
TOR 5.4	What risks, if any, are associated with having streamlined processes between Australia's space-related legislation?	There should actually be reduced risk
6	Other comments	
	Q6.1 Are there any other issues that you think should be considered in the context of the review?	The review needs to be much more serious in its quest if there is to be best value for Australia



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**COMMUNICATIONS
ALLIANCE LTD**

Level 12
75 Miller Street
North Sydney
NSW 2060 Australia

PO Box 444
Milsons Point
NSW 1565

T 61 2 9959 9111
F 61 2 9954 6136
E info@commsalliance.com.au
www.commsalliance.com.au
ABN 56 078 026 507