Australian Government
Department of Defence

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Secretary
Department of Communications and the Arts
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Australia

Dear Dr Smith

DEFENCE SUBMISSION TO CONSULTATION ON SPECTRUM REFORM

1. Thank you for the opportunity to provide comment on the exposure draft of the Radiocommunications Bill 2017 and other elements of the spectrum reform consultation package, including the papers on spectrum pricing and Commonwealth held spectrum, released by the Department of Communications and the Arts on 18 May 2017.

2. As detailed in the enclosed submission, Defence acknowledges the benefits of transitioning to modernised legislation. However, this does not diminish the critical and growing dependence Defence has on access to spectrum to support communications, navigation, sensors and weapons systems.

3. Defence proposes to include a national interest test in the Bill related to licensing and to clarify the application of exemptions to defence, contractors and foreign forces.

4. Defence will continue to remain engaged with your department in relation to spectrum reform to ensure Defence interests are captured. The proposed Government Spectrum Steering Committee will facilitate ongoing engagement on these issues.

5. My Point of Contact for the Defence submission is the Director Defence Spectrum Office, Mr David Murray (02 6144 4522, david.murray8@defence.gov.au).

Yours sincerely,

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Enclosure:
1. Radiocommunications Bill 2017: a platform for the future – Defence Submission

Radiocommunications Bill 2017: a platform for the future

Defence Submission

Spectrum is vital to Defence capability. Efficient and effective spectrum management is required to support Defence access to this shared national resource.

Defence acknowledges that technology has changed significantly since the 1992 Act; however, it should also be emphasised that this is also the case for Defence technology and associated capability.

The Australian Government has committed to increase the Defence budget to two per cent of GDP by 2020–21. The Government will spend approximately $200 billion over the next decade on the Defence Integrated Investment Program to create a more potent and capable Defence Force, and grow local defence industry. This increase in Australian Defence capability cannot be delivered without adequate access to spectrum for defence. Programs such as the naval shipbuilding program, which will invest $89 billion to develop the Royal Australian Navy of the future, and the F-35 Joint Strike Fighter, have an associated growth in spectrum requirements that must be supported to enable Defence to deliver the capability required by Government.

The vast majority of Defence capability is directly dependent on spectrum – the radar and communications systems on all major platforms require spectrum; as do many strategic communications, navigation and surveillance systems.

Although, in many ways, Defence requirements for spectrum are similar to those of civil users – the fundamental radio technologies and physical principles are the same – there are key differences, particularly in the nature of Defence use. Where many civilian applications utilise spectrum at a fixed location on a daily basis, many Defence applications are mobile, have very intensive spectrum requirements within their area of operation, but are fortunately not required to operate everywhere, all the time. However, spectrum access must be guaranteed when and wherever required – historically this has meant that Defence spectrum is managed independently by Defence and access for non-Defence users is necessarily limited. Defence applications also often use a mix of technologies sharing the same spectrum space. This requires specialist operator and spectrum management skills.

Defence has been provided adequate access to spectrum under the existing Radiocommunications Act (the 1992 Act) framework, the implementation of which has evolved over time. Defence values its close working relationship with the ACMA, a relationship which must continue to ensure that the implementation and management of the new framework meets the objectives of the reform while ensuring Defence continues to be provided adequate access to spectrum.

As stated in Defence's previous submissions to the review, Defence acknowledges the benefits of transitioning to modernised legislation that removes prescriptive process and streamlines allocation and licensing. Chief among these reforms is the single licensing framework proposed in the Bill – this is a significant change that will require the ACMA to design and develop a range of new arrangements if the

objectives of the reform are to be realised. The importance and extent of this work should not be underestimated. Under the broad legislative framework provided by the Bill there is scope to support many different possible models of planning for and licensing of Defence spectrum. It is this next level of implementation detail that has the greatest potential to impact Defence (and other Commonwealth spectrum users). The proposed Government Spectrum Steering Committee will have an important role to play in assisting the ACMA to design, develop and transition to the new licensing system.

Policy principles

The principles-based approach taken to this reform is sound; however, there is a risk that *simplicity* in the framework may only succeed in transferring additional complexity to implementation and administration. As spectrum management is an inherently technical domain, a degree of complexity in implementation cannot be avoided. This complexity must ultimately be traded off against *transparency*, *efficiency* and *consistency*, just as *flexibility* must be balanced with *certainty*. The ACMA must be resourced (as it was to manage the transition to digital television) to ensure that the unnecessary complexity that exists in the 1992 Act, and its current administrative implementation, is not transferred to administrative measures under the new framework.

The approach taken to transitioning Defence apparatus licences to the single licensing framework is an example of where the six principles of *transparency*, *efficiency*, *flexibility*, *certainty*, *simplicity* and *consistency* are extremely relevant; however under both the 1992 Act and the draft Bill, the ACMA has a large scope to design licensing measures in whatever way the Authority sees fit. Defence will of course work very closely with the ACMA on the development of any such measures.

Preliminary (Objects of the Bill)

Defence supports the revised objects of the Bill. The inclusion of an explicit reference to defence, distinct from other public and community purposes, recognises both the importance of spectrum to Defence and the importance of defence to the long-term public interest of Australia.

Defence has some concerns about the regulation of space services under the draft Bill. Space objects in Australia are covered by the draft Bill under Section 16. However, further explanation would be beneficial in relation to the intent of the changes from the 1992 Act. The criterion in the draft Bill '*If a space object is in Australia…'* is ambiguous, and is not further clarified by the note that *'Under Section 15, a space object above Australia is taken to be in Australia.'* For example, a satellite in geostationary orbit is necessarily above the equator, and therefore not above Australia; however if such a satellite is providing services to Australia it would seem appropriate that its emissions should be covered by the draft Bill. The shift from foreign versus Australian space objects to space objects within Australia and space objects outside Australia may not be a useful distinction. The ACMA should be given the power to regulate any space object where it determines it is appropriate to do so, whether the space object is inside or outside Australia however such a distinction is made.

Ministerial powers

Defence broadly welcomes the drafting of Ministerial powers that provide for oversight of spectrum policy and management, while reducing the need for the Minister to be involved in the day to day administrative processes of the ACMA. Defence would expect that the Ministerial policy statements provided for in Part 2 of the draft Bill could include matters of importance to Defence such as:

- the allocation of spectrum to support Defence capabilities;
- measures to support Defence operational and training requirements;
- measures to support Defence industry in the development of spectrum dependent systems;
- measures to support initiatives such as the United States Force Posture Initiatives and Australia-Singapore Military Training Initiative.

A Ministerial policy statement relating to Defence prior to the commencement of the new legislation could assist Defence and the ACMA in the transition to the new framework.

ACMA's work program

The draft provisions in the Bill that formalise the requirement for the ACMA to prepare and publish an annual work program are a natural progression on the work initiated by the ACMA in developing the Five Year Spectrum Outlook (FYSO). The proposal to align this with the ACMA's corporate reporting cycle will assist in ensuring the alignment of other related activity of the ACMA and will also assist stakeholders in providing submissions on such issues. However, the proposed minimum 14 day timeframe for submissions is much shorter than the timeframe usually allowed by the ACMA in relation to the FYSO. Although Defence assumes that in practice the ACMA will allow a greater than two-week consultation period, consideration might be given to lengthening this time frame in the draft Bill.

The content of the FYSO has matured from the first version released in 2008 and previous similar documents such as the DC to Daylight Spectrum Management Strategy released by the ACMA's predecessor, the Australian Communications Authority, in 2004. Where earlier versions had a direct focus on spectrum planning, the document is now more holistic, encompassing spectrum management aspects such as pricing, compliance and allocation. Under the new legislation this broader focus will be critical, particularly to set out the ACMA's work program for the transition from the 1992 Act to the new regulatory framework.

As stated in Defence's previous response, the proposed Government Spectrum Steering Committee (GSSC) could play a role in contributing to the development of the ACMA's work program.

Radiofrequency plans

Defence supports the simplified, single planning power provided for the ACMA by the draft Bill. The draft Bill also, consistently with the new Objects, provides for parts of the spectrum to be reserved for the general purposes of defence. Although this could be seen as a reduction in the requirement included in the 1992 Act that the ACMA designate one or more bands for defence, Defence appreciates that the consolidated planning power strikes the right balance between the core properties of a radiofrequency plan and the necessary flexibility for the ACMA to use as a tool to manage spectrum.

Under the 1992 Act, the ACMA has shown a clear preference to use administrative arrangements as an alternative to its legislated planning powers. As has been noted in Defence's previous response, the use of administrative mechanisms where possible is the preferred means of providing detailed technical assignment and licensing instructions. Such arrangements are more flexible and more readily updated to reflect changes in use and technology. However, legislative plans do provide much greater certainty. In this context, the more recent legislative band plans made by the ACMA appear to be predominantly used to support specific uses of spectrum rather than to provide more broadly applicable bounds on spectrum use. For example, the *Radiocommunications (Mid-West Radio Quiet Zone) Frequency Band Plan 2011* and the *Television Outside Broadcast (1980-2110 MHz and 2170-2300 MHz) Frequency Band Plan 2012*.

In contrast, the *Australian Radiofrequency Spectrum Plan 2017* (ARSP) provides almost 200 pages of provisions which place constraints on use of all spectrum, much of which may not be relevant to domestic spectrum management considerations. The transition to the new framework provides an opportunity for the purpose and the structure of the ARSP to be reviewed.

Section 25 of the draft Bill appears to contain some differences to the provisions of the 1992 Act in relation to the issue of a licence that is inconsistent with a radiofrequency plan. Specifically that such a licence must not be issued for more than 6 months and that the licence cannot be renewed. Defence believes that the ability for the ACMA to issue such a licence for purposes relating to defence is

appropriate; however there would be benefit from further explanation of the rationale for the changes over section 104 of the 1992 Act.

Operation of radiocommunications devices

Defence notes the changes included in the draft Bill that remove the ability of the ACMA to determine that certain radiocommunications receivers are required to be licensed. There may be benefit in further exploration of the impact of this change on the ability of the ACMA to plan and regulate the reception of space services in particular in Australia.

Licences

Defence is of the view that a national interest test is necessary to ensure the ACMA and/or the Minister has the ability to refuse, suspend or cancel a licence if it is in the national interest to do so. These measures would be intended to ensure appropriate transparency in the trading, ownership or use of spectrum by foreign interests (including by subordinate companies or contractors). Clauses should be inserted into the draft Bill that:

a) cause notification to the Minister of the above intentions;
b) provide for constraints on spectrum access by the reported entity to be imposed by the Minister;
c) provide for the denial of spectrum access to the reported entity to be imposed by the Minister;
d) allow the ACMA to deny a radiocommunications licence based on the above.

Note that there are parallels in relation to this issue with the Telecommunications Sector Security Reforms currently being considered by the Parliamentary Joint Committee for Intelligence and Security.

Defence proposes the following text be incorporated into the draft Bill:

> The ACMA may request information from an applicant or licensee on:
>
> (1) the general purposes for which the licence is or will be used, including use by foreign entities; and
> (2) any foreign entities which are current, planned or potential users of the licence.
>
> The ACMA may deny, suspend or cancel a licence if the issue of the licence is contrary to the national interest.
>
> The Minister may direct the ACMA to deny, suspend or cancel a licence if the issue of the licence is contrary to the national interest.
>
> The ACMA may issue a licence that includes a condition specifying:
>
> (1) any purposes for which operation of radiocommunications devices is not authorised under the licence; and
> (2) any foreign entities not authorised to operate radiocommunications devices under the licence.

Defence acknowledges that the move to a single licensing system is one of, if not the, most significant part of the spectrum reform. As noted in previous responses, Defence supports the principle of merging Spectrum and Apparatus licences into a single licence category. The proposed implementation included in the draft Bill appears to provide for the necessary mechanisms to achieve this outcome. However, the concepts of designated statements and regulatory undertakings have the potential to transfer significant complexity from the licensing system to the licences themselves.

As designated statements and regulatory undertakings will have a direct bearing on how a licence may be dealt with and how the ACMA will regulate the relevant part of the spectrum in the future, these statements and undertakings will directly impact, among other things, the value of the licence. For this

reason, the designated statements and regulatory undertakings must be readily and transparently available to all radiocommunications users to facilitate coordination, sharing and trading. To facilitate maximum benefit of automated spectrum management technology this would need to be done through the register of radiocommunications licences (RRL). This will likely require additional ACMA resources to ensure that the RRL is capable of managing this information in a suitably accessible database.

In addition, designated statements and regulatory undertakings would need to be structured in such a way as to appropriately balance flexibility in use of spectrum and certainty of rights under the licence.

As noted by both DoCA and the ACMA, fundamental to the reforms is the desire to shift away from the current high levels of centralised control to a more decentralised approach. Under the 1992 Act and the ACMA's current approach, the majority of apparatus licences prescribe specific conditions that do not facilitate use of the spectrum concerned for any alternative purpose. For example, a land mobile licence will prescribe an assigned frequency at specified geographic coordinates for a specific transmitter power and emission designation. This is despite the fact that, from a user perspective, the desired service is a two-way radiocommunications capability over a specified area. There may be multiple ways to provision such a service within a specified portion of spectrum; however by nature of the apparatus licence only one method is authorised. Indeed, a completely different service, for example a radiolocation service, could be operated in the same spectrum within the same geographic area, but the specific conditions of the apparatus licence would not permit such an application. This is in stark contrast to the boundary conditions that are generally used to define a spectrum licence, which facilitate technology flexibility to allow the licensee choice in technology and network architecture to provide the desired service.

The sample licences produced by the ACMA in the supporting material for the draft Bill do not provide an example of how these two contrasting approaches are to be harmonised in order to meet the objectives of the legislation. For example, could multiple sited licences be acquired and aggregated to authorise the operation of an area-wide system with a different architecture albeit operating in the same spectrum and geographic area? Is this a desired objective of the reforms? If so, what would the licence conditions, regulatory undertakings and designated statements need to look like?

Spectrum authorisations

Defence supports the approach provided in the draft Bill which broadly replaces class licences under the 1992 Act with the proposed concept of spectrum authorisations.

Certified Operators

Defence supports the approach provided for Certified Operators in the draft Bill replacing the Qualified Operators provisions in the 1992 Act. Defence understands that it would be considered an authority of the Commonwealth for the purposes of Section 108 of the draft Bill, and the ACMA could therefore delegate its powers under this Part to Defence should this be appropriate in certain circumstances. Defence does not currently play a role in the Qualified Operator provisions under the 1992 Act; however, in a related example, certain Royal Australian Navy qualifications are recognised by the Australian Maritime Safety Authority.

Interference management

Defence welcomes the proposals in the draft Bill that facilitate more flexible procedures to allow the resolution of interference disputes. With the resources of the ACMA increasingly limited, there is a need to facilitate the ability of licensees to 'self-help' in relation to managing interference. The proposal for the ACMA to develop interference management guidelines appears to be a useful tool to assist licensees in this regard. Notwithstanding this, the ACMA must retain the ability to investigate and resolve instances of interference if licensees are unable to do so.

Defence notes that under Section 114 there are specific provisions prohibiting the broadcast of radio and television programs into Australia from overseas. Although these provisions mirror provisions in the 1992 Act relating to foreign aircraft, vessels and space objects; there may be merit in reviewing their intent. Should the prohibition include other services? For example internet services and other satellite communication services. Also, are international broadcasting services captured appropriately? For example HF radio broadcasts.

Equipment

Defence acknowledges the need to update the approach to equipment regulation to take into account modern supply chains. The provisions in the draft Bill appear to achieve this goal. However, in developing equipment rules under the new framework, the ACMA must take into account Defence requirements in the supply of equipment to Defence and the supply and use of equipment by visiting forces.

Emergency orders

The proposal to streamline the ability of the Minister to make emergency orders is supported.

Accreditation

As acknowledged in the material accompanying the draft Bill, the ability of the ACMA to grant accreditation is now vital in assisting the ACMA to perform its spectrum management activities. Defence supports the provisions of the draft Bill.

Industry codes

Defence agrees that the provisions for the ACMA to register industry codes may provide a useful alternative to black-letter law in some circumstances. However, Defence suggests that it may be appropriate for the ACMA to be required to conduct public consultation prior to registering such a code.

Information gathering powers and enforcement

Defence supports the provisions of the draft Bill which enhance the ACMA's ability to manage interference through a wider choice of regulatory tools than available to it under the 1992 Act.

Spectrum access charges

As noted in the information paper, the provisions in the draft Bill are similar to the existing arrangements and would appear to provide the ACMA with the necessary tools to levy appropriate spectrum access charges. Further comments on the issue of spectrum pricing are provided below.

Delegation

Defence supports the widening of the ACMA's ability to delegate spectrum management functions through the development of management rights agreements. Such an approach may provide for more efficient management of spectrum in certain circumstances, including potentially the delegation of spectrum management functions to Defence in the management of Defence spectrum. However, the delegation of the ACMA's general licensing functions or powers must not impede Defence's ability to access the spectrum it requires. In particular, these arrangements should not impede Defence access to encumbered spectrum for temporary requirements in support of training and other activities that arise from time to time.

Defence understands that it would not be considered an eligible Australian corporation under the definition provided in the draft Bill. Defence would appreciate further clarification about the intent, if any, for Defence to play a greater role in the management of spectrum in this regard. Defence currently relies on the use of APS employees who are accredited persons under the 1992 Act to ensure licences can be issued to Defence in a timely manner. Defence would welcome feedback on whether a

memorandum of understanding between the ACMA and Defence could be used to achieve something equivalent to a management rights agreement.

Review of decisions

Defence supports the provisions of the draft Bill that facilitate the review of certain decisions made by the ACMA.

Provisions extending the concept of radiocommunication

Defence notes that it makes use of such systems, particularly in relation to HF communications.

Exemptions

Increasingly, Defence relies on external service providers to support the development, acquisition and sustainment of Defence systems. These industry providers work in conjunction with military and APS staff to facilitate the operation and management of Defence capability. In addition, the Australian Government has a number of agreements in place with other countries to support the presence of their forces in Australia. Notably, Australia has agreements in place with the United States and Singapore, but Australia also supports other foreign forces coming to Australia for Australian approved activities (such as exercises). Under the 1992 Act, limited provision has been made to exempt Defence suppliers and visiting forces in support of Defence requirements through Determinations made by the ACMA under Section 27 of the 1992 Act. Defence believes that it is necessary to extend the exemptions applicable to Defence Force and APS employees under the 1992 Act to Defence suppliers and foreign forces in Australia for Australian approved activities.

Defence proposes that the text below be incorporated into the draft Bill. This proposal will facilitate appropriate management of modern Defence capability, where Defence industry is viewed as a Fundamental Input to Capability and is integrated into the acquisition life cycle. In respect to foreign forces in Australia, provision must be made to allow support for visits, training and exercises in a similar manner that these exemptions support Defence's own requirements.

220 Exemptions for defence research and intelligence

(1) This Act does not apply in relation to anything done or omitted to be done by a person if:
- (a) that person is:
  - (i) a member of the Defence Force, or an APS employee in the Defence Department; or
  - (ii) the person is supplying goods or services to the Defence Force or the Department of Defence in accordance with a written contract signed by:
    - (A) the person; and
    - (B) a member of the Defence Force, or an officer of the Department of Defence, in the performance of his or her functions as such a member or officer; or
  - (iii) the person is a member of a foreign defence force or an employee of a foreign department of state that has responsibility for defence matters, authorised by the Australian Government to be in Australia for a defence related activity; and
- (b) the purpose of which the act or omission relates to the performance of his or her functions or duties in relation to the operation of an organisation that is part of the Defence Force or part of the Defence Department; and
- (c) the purpose of which relates to:
  - (i) research for purposes connected with defence; or
  - (ii) intelligence.

(2) This Act does not apply in relation to anything done or omitted to be done by or on behalf of:
- (a) the Australian Secret Intelligence Service; or

(b) the Australian Security Intelligence Organisation.

221 Exemptions for special defence undertakings

This Act does not apply in relation to anything done or omitted to be done by a person performing a function or duty in relation to the operation of a facility that is:

(a) jointly operated by the Commonwealth and a foreign country; and

(b) a special defence undertaking for the purposes of the *Defence (Special Undertakings) Act 1952*.

222 Additional exemption for defence matters

(1) Parts 5, 9 and 10, and the equipment rules, do not apply in relation to anything done or omitted to be done by a person, if:

(a) that person is:

(i) a member of the Defence Force, or an APS employee in the Defence Department; or

(ii) supplying goods or services to the Defence Force or the Department of Defence in accordance with a written contract signed by:

(A) the person; and

(B) a member of the Defence Force, or an officer of the Department of Defence, in the performance of his or her functions as such a member or officer; or

(iii) a member of a foreign defence force or an employee of a foreign department of state that has responsibility for defence matters, authorised by the Australian Government to be in Australia for a defence related activity; and

(b) the act or omission takes place in the performance of one of his or her functions or duties as such a member or employee; and

(c) the function or duty concerned is, under the legislative rules, taken for the purposes of this subsection to be a function or duty that relates to:

(i) military command and control; or

(ii) intelligence; or

(iii) weapons systems.

(2) Subsection (1) has effect subject to subsection (3).

(3) The legislative rules may provide for the application, in specified circumstances, of:

(a) all or any of Parts 5, 9 and 10, or any of the provisions of those Parts; or

(b) the equipment rules, or a provision of the equipment rules;

to a person in the performance of one of his or her functions or duties as mentioned in subsection (1).

Defence suggests the term 'military' be used in place of the phrase 'naval, military or air force' where used in relation to foreign countries acting in cooperation with the Defence Force of Australia as this term encompasses land, maritime and air forces.

Miscellaneous

Defence notes that Australia is a party to international agreements relating to defence matters that may be relevant under Section 235 of the draft Bill. Other international agreements, for example agreements concerning support to foreign space agencies, must not constrain Defence access to spectrum.

In regard to the Legislative rules (Section 236), Defence understands that these replace the Regulations provided for in Section 314 of the 1992 Act. To clarify the reference to the legislative rules under Section 222 of the draft Bill, Defence requests that a draft of any proposed legislative rules be provided to be read in conjunction with further consultation on the draft Bill. This would also assist in clarifying any other aspects of the legislation where the legislative rules may apply.

A proposed approach to transition from the 1992 Act to the Radiocommunications Bill

Proposed approach

1. What are the major issues to be addressed in designing the transitional arrangements?

2. Are there other approaches to transition that could be considered?

3. Are there other measures that would reduce complexity during transition?

Defence supports the use of a 'Hybrid' approach to transition as the most workable of the three options. Defence believes that for the reforms to have the desired outcome, the ACMA must be given sufficient time to design new licensing and administrative arrangements that facilitate the flexibility intended in the legislation. Defence is concerned that many of the benefits that could be realised to improve the management of spectrum under the new legislation could be lost if transition is rushed. If the ACMA is forced, by time and/or budgetary pressures to simply replicate the current complex array of licence types and associated administrative arrangements under the new system there will be no benefits realised from the reform.

Proposed implementation

4. Should the Australian Radiofrequency Spectrum Plan be revised at commencement, or should it be considered "to be made" under the new arrangements/Bill?

Defence is of the view the ACMA should take the opportunity provided by the new arrangements to conduct a comprehensive review of the purpose and the structure of the ARSP. The ARSP is Australia's highest level spectrum planning instrument, and the draft Bill is in fact an opportunity for a broader review of the overall spectrum planning and frequency assignment framework. Defence called for such a review in its submission to the 2017 ARSP update. The ARSP under the new legislation could be significantly different to its current form; it could be made more relevant to actual Australian use and licensing arrangements rather than simply replicating Article 5 of the ITU Radio Regulations. In doing so, there is likely room for significant simplification or replacement of the current system of Australian and International footnotes to the Table of Frequency Allocations.

Because desirable changes are likely to be significant, it would be appropriate for the ACMA to conduct separate consultation after the commencement of the new legislation. As an interim arrangement, Defence would support the proposal to consider the existing ARSP "to be made" under the new arrangements until such time as the ACMA is able to introduce a new high level *radiofrequency plan*.

5. Are there any existing legislative band plans that should be remade at commencement?

6. How should the transition to equipment rules occur? Should equipment rules start at commencement or should they be staged over time? Why?

7. Are there other elements of the new legislation that should start at commencement?

8. Are there any elements proposed to start at commencement that should be staged over time? Why?

Among other elements of the current system, the *Radiocommunications (Interpretation) Determination 2015* defines a number of apparatus licence types including the *defence licence*. Defence would anticipate that this Determination would be re-made to allow for continuity of licensing until such time as the ACMA is in a position to establish arrangements under the single licensing framework. However, when the new licensing framework is implemented, inflexibilities in these definitions must be reviewed.

Licensing

9. When should the work program for transition be available? What criteria should be used to determine which licences should transition when and in what order?

10. Is 12 months notification for licence transition sufficient?

It would appear that 12 months notification for licence transition is a sufficient period for relatively straightforward cases where neither the conditions of the licence or licence fees are subject to significant change. Where changes to conditions and/or fees are significant, a period of 2-5 years may be more appropriate to allow licensees to plan and budget for their spectrum.

Class licences

11. Should class licences become spectrum authorisations at commencement? Why/why not?

12. Are there any existing class licences that should not transition to spectrum authorisations upon commencement because of interdependencies with existing apparatus licences?

13. Should any interdependent class licences become spectrum authorisations as at commencement or remade as spectrum authorisations when the related apparatus licences are transitioned to the new licence system?

In general, Defence has no objection to class licences becoming spectrum authorisations at commencement.

Spectrum licences

14. If considered a licence under the new Act, are there any elements of an existing spectrum licence that would be adversely affected?

Defence holds two spectrum licences issued under the 1992 Act. These licences support military satellite communications and are due to expire in 2021. Defence requires ongoing access to this spectrum and will seek to ensure it continues to have certainty in relation to access to this spectrum. Defence is willing to examine measures that could harmonise the licensing arrangements of this spectrum with other spectrum held by Defence under apparatus licences.

Transition of existing licence types

15. Should licences be grouped to transition? If so, how (e.g. by category/band/combination)?

16. What is the appropriate duration of licence replacement windows?

17. Do you have any other comments regarding transitional arrangements?

The indicative timeline developed by the Department provides a reasonable starting point for discussion of the transition of licences to the new system. The scenario that has Defence licences transitioning

after 4 years would appear to provide sufficient time for the ACMA and Defence to develop appropriate arrangements for the treatment of Defence spectrum under the new system. There are no obvious apparatus licence types that share significant similarities with the defence licence type that would benefit from simultaneous treatment.

An additional important categorisation for transition may be whether licences are area-wide (particularly Australia-wide or state-wide licences) or sited. Also, as mentioned above, there is benefit in looking at whether the services provided under the licence are area-based (eg land mobile services, fixed point-to-multipoint) or strictly sited (eg fixed point-to-point). Defence understands that Ofcom utilises an area-based system of licensing for business radio licences in the UK in contrast to the fixed location and pre-defined service model currently used for equivalent apparatus-licensed systems in Australia by the ACMA.

Broadcasting Spectrum

Defence supports the better integration of broadcasting spectrum into the broader spectrum management framework.

Spectrum Pricing

The ACMA faces a significant challenge in transitioning its spectrum pricing arrangements to the new single licensing framework. The concepts and proposals discussed in the Spectrum Pricing consultation paper are not new, and have been explored to varying degrees by the ACMA throughout the life of the 1992 Act. Defence welcomes greater transparency and consistency in the calculation of administratively set fees; however, any changes in the way fees are calculated that results in dramatic changes in licence costs must be transitioned over an extended period to allow licensees to adjust and for the ACMA to monitor the impact of these changes.

Although pricing and market-based allocations do have a role in providing incentives to licensees to improve efficiency of spectrum use and to share spectrum where possible, Defence is of the view that the ACMA must play a role in planning spectrum use in such a way as to maximise possible 'utilisation' rather than maximising the price paid. In some cases this may mean designing sharing mechanisms into the planning arrangements before spectrum is put to market (this may reduce the value of an individual licence as a trade-off for greater utilisation by a more diverse group of users). Experience suggests that sharing arrangements are unlikely to eventuate through market mechanisms alone and therefore require regulatory intervention.

Defence spectrum requirements are set by its capability needs. Like most government users of spectrum, it is not in a position to compete for access in an open market with commercial users and does not have any ability to derive an income from the spectrum it holds. It therefore falls to the ACMA to effectively regulate the spectrum to ensure that commercial and government requirements are balanced appropriately in the national interest.

Defence notes that it invests significant resources in the management of its spectrum holdings. Defence is required to accommodate heterogeneous systems in many frequency bands. For example, the frequency range 4 400–4 940 MHz is used to accommodate Defence requirements for UAV command and control links, high capacity line of sight links for tactical communications, point-to-point

links for fixed infrastructure, wideband mobile video links, as well as high power tropospheric scatter systems. Management of the Defence spectrum in the UHF band is similarly, if not more complex.

Defence is required to invest in personnel and software tools to ensure effective management of its spectrum holdings. Defence also participates in international radiocommunications meetings at its own cost. Increasing congestion and potential requirements to share with non-Defence applications will require additional investment in spectrum management capability. The costs of managing spectrum, which would otherwise fall to the ACMA should be taken into account in the calculation of spectrum access charges.

Commonwealth Held Spectrum

As emphasised in its engagement with the Spectrum Review to date, many Defence capabilities are critically dependent on the electromagnetic spectrum to perform their roles in Defence of Australia. Consequently, Defence is a very heavy user of spectrum both in terms of the diversity of applications and the amount of spectrum allocated to Defence. The analysis of Commonwealth spectrum use provided in the consultation paper is somewhat superficial, and Defence would caution in particular about making international comparisons where there are many significant differences between the Australian and overseas contexts. However, consistent with its previous input, Defence is broadly supportive of the proposals outlined in the paper.

Defence has a keen interest in ensuring that the provision of adequate spectrum for defence is a key spectrum priority for Government. As noted in the consultation paper, there is a lack of clarity of the spectrum priorities of Government. Also, there is a lack of clarity on which decisions are best made by the regulator and which are policy decisions for Government. For this reason, Defence supports the establishment of an advisory committee comprising relevant Commonwealth government agencies to provide advice to the Minister for Communications. Defence is well placed to contribute as a member of such a committee.

It is reasonable to establish consistent and standardised reporting requirements that can be used to inform the management and prioritisation of Commonwealth government spectrum use. However, it will not be possible to establish useful measures to consider such data in isolation from the spectrum regulatory framework implemented by the ACMA which necessarily drives and constrains Commonwealth spectrum use. The proposal that the committee should focus on trading or sharing of spectrum should be supported by a corresponding analysis of the demand drivers for access, and the applicability of foreign government approaches in the Australian context. For example, most of the bands being explored for sharing and/or release by government in the UK and the US have already been released to the market in Australia.