

Meeting date: 23 January 2020

Agenda item no: (Authority Secretariat to insert number)

Title: Update to Foreign Space Objects Determination

Description: The Authority will be asked to amend the *Radiocommunications (Foreign Space Objects) Determination 2014* to include three new foreign satellite operators.

RECOMMENDATION

That the Authority:

- A) AGREES** that the consultation undertaken in respect of the proposed instrument set out below was appropriate and reasonably practicable to undertake in accordance with the requirements of section 17 of the *Legislation Act 2003*;
- B) AGREES TO MAKE** the *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)* (Attachment A); and
- C) APPROVES** the accompanying Explanatory Statement for publication on the Federal Register of Legislation (Attachment B).

TIMING

The matter is important but not urgent. The regulatory amendments are at the request of Kepler Communications (Canada), SpaceX Services (USA) and Swarm Technologies (USA), [REDACTED]

COMMITTEE OR PROJECT BOARD CONSIDERATION

- | | |
|--|--|
| <input type="checkbox"/> Content Committee | <input type="checkbox"/> Compliance Priority (<i>please specify</i>) |
| <input checked="" type="checkbox"/> Spectrum Committee | |
| <input type="checkbox"/> Telecommunications and Consumer Committee | <input type="checkbox"/> Project Board (<i>please specify</i>) |
| <input type="checkbox"/> Compliance and Enforcement Committee | |

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File no.: ACMA2019/1309

UPDATE TO FOREIGN SPACE OBJECTS DETERMINATION

BACKGROUND

1. Three new foreign satellite operators—Kepler Communications (Canada), SpaceX Services (USA) and Swarm Technologies (USA)—are preparing to provide satellite-based communication services in Australia. These operators have approached the ACMA to commence the regulatory approvals process to eventually apply for space apparatus licences to operate in Australia.
2. All three operators are seeking access to bands listed in the *Radiocommunications (Communication with Space Object) Class Licence 2015* (Communication with Space Object Class Licence). The *Radiocommunications Act 1992* (Radiocommunications Act) requires that a foreign satellite operator must first be included in the *Radiocommunications (Foreign Space Objects) Determination 2014* (Foreign Space Objects Determination) before its satellite network can be licensed to operate in bands listed in the Communication with Space Object Class Licence.
3. On 21 October 2019, the ACMA commenced a public consultation on proposed amendments to the Foreign Space Objects Determination to include the following three foreign commercial business entities:
 - a. Kepler Communications Inc. (incorporated in Canada)
 - b. SpaceX Services Inc. (incorporated in the United States of America)
 - c. Swarm Technologies, Inc. (incorporated in the United States of America).
4. Kepler Communications Inc. is a privately held company based in Toronto, Canada. Kepler is deploying a constellation of satellites in low-earth orbit (LEO) intending to provide a multi-service infrastructure capable of supporting non-real-time data connectivity to assets outside cellular network coverage. Kepler also intends to offer a platform for low-data rate communications with remote internet of things (IoT) devices. It will also operate as a relay network for communication between satellites.
5. Space Exploration Technologies Corp., trading as SpaceX, is a private United States aerospace manufacturer and space transportation services company headquartered in Hawthorne, California. SpaceX has commenced deployment of a constellation of LEO satellites (known as Starlink) for the purpose of providing broadband connectivity around the world. SpaceX Services, Inc., a subsidiary of SpaceX, is proposed for inclusion in the Foreign Space Objects Determination as the operator and licensee of the satellites.
6. Swarm Technologies Inc. is a United States satellite company based in Mountain View, California. Swarm plans to deploy a constellation of LEO satellites to provide mobile-satellite services that will offer global connectivity for IoT and machine-to-machine sensors.

Licensing of space-based communication systems

7. As for all other types of radiocommunications, a space-based radiocommunications system may not be operated in Australia without a licence. There are two broad options for licensing of space systems in Australia:

- a. Operators obtain apparatus licences for each of their earth stations individually: an earth licence for the uplink and an earth receive licence for the downlink. Under this approach, a licence is not required for the space stations on board a satellite.
 - b. Alternatively, in certain bands specified in the Communication with Space Object Class Licence, operators may obtain a licence for the space stations on board a satellite: a space licence for the downlink and a space receive licence for the uplink. Earth stations in the network are then automatically authorised collectively under the Communication with Space Object Class Licence. This approach is typically used for satellite systems with numerous or ubiquitous earth stations. It provides an efficient means of licensing a large number of earth stations, avoiding the need to obtain a licence for every earth station in a satellite system.
8. If an operator wishes to licence a satellite system under the second option, the controlling business entity must first be included in either the *Radiocommunications (Australian Space Objects) Determination 2014* or the *Foreign Space Objects Determination*. The three foreign satellite operators that are the subject of this paper are seeking authorisation under these arrangements.
9. Inclusion of an entity in the *Foreign Space Objects Determination* does not confer a right on that entity to obtain a licence nor operate in frequency bands identified in the *Communication with Space Object Class Licence*. Rather, it is a prerequisite before a space apparatus licence can be issued.

DISCUSSION

10. Public consultation on this matter closed on 27 November 2019 (a slight extension on the originally proposed date of 19 November to allow for late submissions due to WRC-19). In response, we received eight submissions from Foxtel, Goanna Ag, Hivemind, Kepler, Myriota, Space Industry Association of Australia, SpaceX and Swarm. The [REDACTED] advised it would not be making a submission.
11. There were no objections to the proposed update. [REDACTED] and [REDACTED] submitted that the ACMA's assessment of future licensing applications from the three satellite operators must be undertaken to ensure protection of [REDACTED]. As outlined above, inclusion in the *Foreign Space Objects Determination* does not give a right to a licence in Australia. Any licence application is considered on its merits consistent with established policies.
12. Kepler, Space Industry Association of Australia, SpaceX and Swarm wrote in support of the amendment. Hivemind, a New Zealand based apiculture technology company and Goanna Ag, a Queensland based agriculture technology company, wrote in support of the addition of Swarm to the determination.

RISKS/SENSITIVITIES

13. Risk rating – Green. The proposed changes are minor and machinery in nature.
14. The consultations did not identify any additional sensitivities. The inclusion of Kepler, SpaceX and Swarm in the *Foreign Space Objects Determination* is a

procedural matter. [REDACTED]

CONSULTATION

15. The proposed amendment to the Foreign Space Objects Determination is a legislative instrument for the purposes of the *Legislation Act 2003*. Section 17 of that Act requires the ACMA to be satisfied that any consultation it considers to be appropriate and reasonably practicable has been undertaken before making a legislative instrument.
16. The proposed amendments were released for public comment from 21 October to 27 November 2019. Eight submissions were received, from Foxtel, Goanna Ag Hivemind, Kepler, Myriota, Space Industry Association of Australia, SpaceX and Swarm. There were no objections to the proposed amendments.
17. The Australian Space Agency and the Department of the Communications and the Arts were advised of the consultation. We also informed the December 2019 meeting of the Space Law Interdepartmental Working Group (convened by the Australian Space Agency) which included representatives from Attorney General's, Defence; Foreign Affairs and Trade; Home Affairs; Industry, Innovation and Science; and Infrastructure, Regional Development and Cities.
18. Legal Services Division prepared the attached legislative instrument and has cleared the explanatory statement to ensure it meets the requirements of the *Legislation Act 2003*.

COMMUNICATIONS

20. Communications strategy required? No.
21. Ministerial briefing required? No.

REGULATORY IMPACT ANALYSIS PROCESS

22. We have considered whether a regulatory impact analysis process is required by undertaking a preliminary assessment, and based on this preliminary assessment the Office of Best Practice Regulation (OBPR) has determined that the proposed regulatory change in this submission is minor or machinery in nature and has therefore verified that no further regulatory impact analysis is required – OBPR reference number 25649.

STATEMENTS OF COMPATIBILITY (SOC) WITH HUMAN RIGHTS

23. A Statement of Compatibility with Human Rights is included as part of the explanatory statements for the proposed amendment at Attachment B.

ATTACHMENTS

- A** Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)
- B** Explanatory Statement for the Foreign Space Objects Amendment Determination



Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)

The Australian Communications and Media Authority makes the following Amendment Determination under paragraph 16(1)(ca) of the *Radiocommunications Act 1992*.

Dated:

Member

Member/General Manager

Australian Communications and Media Authority

1 Name

This is the *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)*.

2 Commencement

This instrument commences at the start of the day after it is registered on the Federal Register of Legislation.

Note: The Federal Register of Legislation may be accessed free of charge at www.legislation.gov.au.

3 Authority

This instrument is made under paragraph 16(1)(ca) of the *Radiocommunications Act 1992*.

4 Amendments

The instrument that is specified in Schedule 1 is amended as set out in the applicable items in that Schedule.

Schedule 1—Amendments

Radiocommunications (Foreign Space Objects) Determination 2014 **(F2014L01584)**

1 Schedule 1 (after item 17)

Insert:

- 18 Kepler Communications Inc. (incorporated in Canada)
- 19 SpaceX Services, Inc. (incorporated in the United States of America)
- 20 Swarm Technologies, Inc. (incorporated in the United States of America)

EXPLANATORY STATEMENT

Approved by the Australian Communications and Media Authority

Radiocommunications Act 1992

Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)

Authority

The Australian Communications and Media Authority (the ACMA) has made the *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)* (the instrument) under paragraph 16(1)(ca) of the *Radiocommunications Act 1992* (the Act) and subsection 33(3) of the *Acts Interpretation Act 1901* (the AIA).

Under paragraph 16(1)(ca), the Act applies outside Australia (whether or not in a foreign country), but only in relation to foreign space objects, in the circumstances specified in a determination by the ACMA.

Subsection 33(3) of the AIA provides that where an Act confers a power to make a legislative instrument, the power shall be construed to include a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend or vary any such instrument.

The instrument is a disallowable legislative instrument for the purposes of the *Legislation Act 2003* (the LA).

Purpose and operation of the instrument

The purpose of the instrument is to amend the *Radiocommunications (Foreign Space Objects) Determination 2014* (the Foreign Space Objects Determination) to include Kepler Communications Inc. (Kepler), SpaceX Services, Inc. (SpaceX) and Swarm Technologies, Inc. (Swarm) as specified owners, controllers or operators of a foreign space object.

In certain planned radiofrequency bands, the ACMA supports the operation of ubiquitous earth stations without the requirement for individual licensing of those earth stations. Space stations on foreign space objects may communicate with those earth stations. For this to occur, the owner, controller or operator of a foreign space object needs to be identified in the Foreign Space Objects Determination. The owners, controllers or operators of foreign space objects may then apply for radiocommunication apparatus licences that authorise communications between space stations on space objects and earth stations in Australia.

Inclusion of a space object in the Foreign Space Objects Determination also has the effect of extending application of the Act to the specified space object, thereby requiring its radio emissions to be authorised by a licence issued in accordance with the Act.

The instrument amends Schedule 1 of the Foreign Space Objects Determination by adding “Kepler Communications Inc. (incorporated in Canada); SpaceX Services, Inc. (incorporated in the United States of America); Swarm Technologies, Inc. (incorporated in the United States of America)”. The inclusion of these foreign business entities in the Foreign Space Objects Determination will enable them to apply for radiocommunication apparatus licences that authorise communications between space stations and ubiquitous earth stations in frequency bands identified in the *Radiocommunications (Communication with Space Object) Class Licence 2015*.

A provision-by-provision description of the instrument is set out in the notes at **Attachment A**.

Documents incorporated by reference

The instrument does not incorporate any document by reference.

Consultation

Before the instrument was made, the ACMA was satisfied that consultation was undertaken to the extent appropriate and reasonably practicable, in accordance with section 17 of the LA.

Between 21 October 2019 and 27 November 2019, the ACMA conducted a formal public consultation process in relation to the instrument. A consultation statement and a draft of the instrument were made available on the ACMA website for comment.

The ACMA received eight written submissions in response to the draft instrument. There were no objections to the proposed amendment.

Regulatory impact assessment

The Office of Best Practice Regulation (OBPR) has considered the matter and formed the opinion that the proposed variation is minor and machinery in nature. Accordingly, OBPR advised that a Regulation Impact Statement was not required. The OBPR reference ID number is 25649.

Statement of compatibility with human rights

Subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* requires the rule-maker in relation to a legislative instrument to which section 42 (disallowance) of the LA applies to cause a statement of compatibility with human rights to be prepared in respect of that legislative instrument.

The statement of compatibility set out below has been prepared to meet that requirement.

Overview of the instrument

The *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)* (**the instrument**) amends the *Radiocommunications (Foreign Space Objects) Determination 2014* to include Kepler Communications Inc., SpaceX Services, Inc. and Swarm Technologies, Inc. as specified owners, controllers or operators of a foreign space object. The inclusion of the stated foreign business entities in the *Radiocommunications (Foreign Space Objects) Determination 2014* will enable them to access licensing arrangements for space-based communications systems that permit communications with ubiquitous earth stations.

Human rights implications

The ACMA has assessed whether the instrument is compatible with human rights, being the rights and freedoms recognised or declared by the instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* as they apply to Australia.

Having considered the likely impact of the instrument and the nature of the applicable rights and freedoms, the ACMA has formed the view that the instrument does not engage any of those rights or freedoms.

Conclusion

The instrument is compatible with human rights as it does not raise any human rights issues.

Notes to the *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)*

Section 1 Name

This section provides for the instrument to be cited as the *Radiocommunications (Foreign Space Objects) Amendment Determination 2020 (No. 1)*.

Section 2 Commencement

This section provides for the instrument to commence at the start of the day after it is registered on the Federal Register of Legislation.

Section 3 Authority

This section identifies the provision of the Act that authorises the making of the instrument, namely paragraph 16(1)(ca) of the *Radiocommunications Act 1992*.

Section 4 Amendments

This section provides that the amendments set out in Schedule 1 have effect.

Schedule 1 Amendments

Item 1

This item includes Kepler Communications Inc., SpaceX Services Inc., and Swarm Technologies, Inc. as specified owners, controllers or operators of a foreign space object for the purposes of the *Radiocommunications Act 1992*.