

Business operating procedure

Submission and processing of applications for earth, earth receive apparatus licences and device registrations under area-wide apparatus licences for fixed earth stations

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Amendment history

Version	Date of effect	Comments
1.0	6 August 2014	Initial release.
1.1	3 May 2016	Update to include procedures to be followed by APs.
2.0	19 December 2017	Updated to include further detail and information on procedures and checks undertaken by the ACMA. Refer IFC 19/2017 Update of licensing procedures for space-based communications systems .
3.0	November 2019	Draft for industry consultation. Refer IFC 38/2019 Review of space licensing procedures .
3.1	August 2020	Finalisation of IFC 38/2019.
3.2	October 2020	Update to include arrangements for earth stations authorised to operate under an area-wide apparatus licence in the 28 GHz band
3.3	September 2021	Draft for industry consultation Updates for consistency with procedures for space/space receive apparatus licences. Refer Updating regulatory requirements for earth stations in motion - consultation IFC 33/2021 .
3.4	August 2022	Finalisation of IFC 33/2021 following industry consultation, with following changes: <ul style="list-style-type: none"> > Included paragraph in background to emphasise that the ACMA encourages cooperation and coordination between satellite operators to achieve mutual benefit > moved conditions for when Recorded in the MIFR with an unfavourable finding into a separate section in Appendix A for clarity. > Clarified that Appendix C provides examples of Information required for regulatory assessment and is not a mandatory list

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Applicants or accredited persons must read the [Disclaimer](#) in conjunction with the procedures set out below.

1 Purpose

This business operating procedure (BOP) outlines the technical and regulatory framework applicable to the apparatus licensing of fixed earth stations, as well as the procedures to be followed when:

- > seeking the issue of licences for fixed earth stations, and
- > preparing to register an earth station under an area-wide apparatus licence (AWL) in the 27–30 GHz band.¹

It covers the apparatus licensing options of *fixed earth*, *earth receive* and *AWL* (limited to the range 27–30 GHz).

The procedures outlined in this BOP cover the assessment of the space-related² aspects of the licence application, or device registration in the case of operation under an AWL, process only. The accredited person or applicant must provide the response from this process with the subsequent *fixed earth* or *earth receive* apparatus licence application. The ACMA will only issue a *fixed earth* or *earth receive* apparatus licence where the space-related assessment supports the application. An earth station must not be operated or registered under an AWL unless the AWL licensee has received advice from the ACMA supporting the space-related assessment in accordance with this BOP.

The procedures in this BOP are reflective of the status of satellite networks associated with typical licence applications and cover the majority of licensing scenarios only. Cases outside those outlined will be treated on a case-by-case basis.

2 Background

In considering licence applications under the [Radiocommunications Act 1992](#) the ACMA is required to consider a range of matters. Under section 100 (4) of the Act:

In deciding whether to issue an apparatus licence, the ACMA must have regard to:

(a) all matters that it considers relevant; and

(b) without limiting paragraph (a), the effect on radiocommunications of the proposed operation of the radiocommunications devices that would be authorised under the licence.

The procedures outlined in this document record the typical satellite regulatory matters considered by the ACMA when deciding whether to grant an application for a *fixed earth* or *earth receive* apparatus licence or support an earth station to be registered under an AWL. Depending on the specific of an application the ACMA might be required to consider additional matters and request additional information or seek the

¹ AWLs are issued prior to any device coordination. However, the procedures in this BOP must be followed before an earth station, to be operated under an AWL, can be operated and its details included in the Register of Radiocommunications Licences. More information on AWLs in the 26 GHz and 28 GHz band is contained in RALI MS 46.

² The term *space-related* used here is intended to mean space-based network or space system, and not to mean *space* or *space receive* apparatus licence type.

views of Australian satellite operators (satellite operators on whose behalf the ACMA has submitted a satellite filing to the ITU).

We encourage cooperation and coordination between satellite operators to achieve mutual benefit, without the burden and delays of additional prescriptive regulation. In line with this approach, it is our view that coordination matters between foreign-filed satellite networks are the responsibility of the filing administrations and satellite operators. Accordingly, Australia's, and the ACMA's role is limited to the domestic licensing of these systems.

Typically, the assessment process may require:

- > consideration of consistency with current regulatory arrangements, including the international (International Telecommunication Union—ITU) regulatory status and the international (ITU) registration details of the satellite network that will cover operation of the proposed fixed earth station
- > relevant government organisations to be consulted in relation to the application
- > frequency coordination for the proposed fixed earth station with existing licensed radiocommunications services
- > the licence type(s) (including AWLs), necessary to authorise operation of the fixed earth station, to be determined
- > appropriate special condition(s) and/or advisory note(s) to be applied to the licence.

This BOP provides an overview of the processes associated with each of these steps.

Additional information on the arrangements for *fixed earth* and *earth receive* stations can be found in the [Apparatus licences](#) area on the ACMA website.

Where consideration of additional matters or consultation with Australian satellite operators is required the ACMA will consult with accredited person (AP) or applicant.

3 Regulatory considerations

As with all radiocommunications services, frequency assigning and licensing needs to be consistent with current regulatory arrangements. At a high level, this means consistency with requirements as specified in the [Radiocommunications Act 1992](#), the [Australian Radiofrequency Spectrum Plan](#) (the Spectrum Plan), frequency [band plans](#) (both legislative and administrative) and [spectrum embargoes](#).

For the licensing of space-based communication systems (in this case *fixed earth* and *earth receive*, or under an AWL in the range 27–30 GHz), there is an additional requirement to consider the international (ITU) regulatory status and the international (ITU) registration details of the satellite network that will cover operation of the proposed fixed earth station. This assessment is undertaken by the ACMA's satellite coordination area using information provided by the applicant or accredited person (AP). The applicant or AP is advised of the result of the assessment and the appropriate special conditions and advisory notes that are to be included on the licence. More information on the special conditions and advisory notes can be seen in Section 7.

Further information on the assessment of the ITU regulatory status and the ITU registration details of satellite system is below.

3.1 Determining the ITU regulatory status

Prior to technical coordination, it is necessary to ascertain the ITU regulatory status of the satellite network that the proposed fixed earth station is part of.

Information about the ITU regulatory status of a satellite network can be found by checking the ITU's Master International Frequency Register (MIFR). Knowing how the network is progressing through the ITU coordination process will be used to inform the ACMA's decision-making. The results of these checks are used in part to determine appropriate special condition(s) and/or advisory note(s) to be applied to the licence.

3.1.1 Recorded in the MIFR with favourable finding

If a satellite network is recorded in the ITU's MIFR with a favourable finding, then it is more likely that the risk of interference in Australia from the proposed service to existing licensed services is lower than for networks yet to be recorded in the ITU's MIFR. Special conditions and advisory notes that are specific to the situation must be applied to the apparatus licence (refer to section 7).

3.1.2 Recorded in the MIFR and 11.41

If a satellite system is recorded under ITU RR No. **11.41** in the MIFR with an unfavourable finding against a licensed satellite network operating in Australia, the ACMA will require additional information that explains why the risk of interference should be considered low, as well as a letter of assurance (LOA).

In the case where an unfavourable finding is against an Australian-filed satellite that is not licensed in Australia, only a LOA is required.

3.1.3 Not recorded in the MIFR

In the case where a satellite network is not yet recorded in the MIFR but is progressing through the ITU coordination process, the ACMA may seek information using a LOA about its ITU coordination status from the satellite operator (via the applicant or AP) to ascertain whether or not the proposed satellite network is likely to be recorded in the MIFR.

The LOA is where the satellite operator advises the ACMA of any ITU published references, including coordination requests and/or notification notices and particulars of any unresolved coordination issues. The LOA will also include a statement of the measures that will be taken to ensure that the operation of the satellite network in Australia will not cause interference to other satellite networks/systems operating in accordance with the ITU Radio Regulations. Details on the measures to be undertaken to not cause interference should be included in the LOA. The format of the LOA is at Appendix D.

Where the ACMA is assured of a likely successful outcome, the ACMA will progress the licence application, or support the registration, for the fixed earth station licence. However, special conditions and advisory notes that are specific to the situation will be applied to the apparatus licence (refer to Section 7).

If information on a satellite system is yet to be published or processed by the ITU, the ACMA is unlikely to issue a licence or support a device registration, given the unknown scope or additional risk of interference.

3.2 Checking consistency with ITU registration details of the satellite network and proposed use

Upon determination of the ITU regulatory status of the satellite network, the ACMA needs to further check whether the ITU registration details of the satellite network are consistent with the characteristics of the proposed fixed earth station, as specified in the licence application or prospective device registration, and that the service is consistent with the Spectrum Plan.

Checking consistency of ITU registration details with the proposed service and the Spectrum Plan may include (but is not limited to) the following factors:

- > the frequency ranges:
 - > the frequency ranges of the proposed fixed earth station must be covered by the frequency ranges of the satellite network
- > the class of station:³
 - > the service purpose/function of the proposed fixed earth station must be consistent with the station class(es) of the satellite network
- > the service area:
 - > the location of the proposed fixed earth station must be within the service area of the satellite network
- > technical characteristics of the associated earth station:
 - > the technical characteristics of the proposed fixed earth station must be within the envelope of the associated earth stations of the satellite network.

3.3 Launch and transfer orbit support services and/or in-orbit testing

Due to the transitory nature of launch and transfer orbit support services (TOSS) and/or in-orbit testing (IOT) services, such services are often not identified in the ITU regulatory information. Consequently, the related licence applications are considered on a case-by-case basis, with conditions determined depending on the specifics of the applications.

Consideration of launch/TOSS/IOT are divided into two sub-categories:

1. Temporary fixed earth stations that provide launch and TOSS services and/or IOT services for a specific space mission. Such licences are normally limited to the period of mission event and are non-renewable with maximum licence period of one year.
2. Ongoing fixed earth stations that provide launch and TOSS services and/or IOT services for any number of space missions.

Applicable special conditions and advisory notes that must be applied to the apparatus licence for these types of applications are discussed at Section 7.

3.4 Information required for regulatory assessment

To assess the proposed fixed earth stations against the above requirements for the ITU regulatory status and the ITU registration details of the related satellite network, applicants or APs may submit completed *earth* and/or *earth receive* application form(s) (depending on the type of licence being sought)⁴, or alternatively and in the case of earth stations to be operated under an AWL, provide the information as listed at Appendix C in a summary table format to satellite.coordination@acma.gov.au.

Depending the specifics of certain licence applications, the ACMA may seek further information from the applicant or AP to assist with the assessment.

³ See lists of space station class of station and earth station class of station in [Preface to the BR IFIC \(Space services\)](#).

⁴ The application forms can be downloaded via [this link](#).

3.5 Interference management requirements

Information on how that applicant has assessed the risk and likelihood of interference to and from existing services licensed in Australia, both space-based and terrestrial, and what process the applicant will use to manage interference should it occur will be used to inform the ACMA's decision-making. The results of these checks are used in part to determine appropriate special condition(s) and/or advisory note(s) to be applied to the licence. Information required in this regard is outlined below.

3.5.1 Interference point of contact

The applicant is required to provide a point of contact that can assist in addressing any suspected cases of interference and cease transmission if directed by the ACMA. The details of the point of contact must be kept up to date.

3.5.2 Very large earth stations

For licensing applications for NGSO satellite networks, the applicant is required to demonstrate compatibility with very large earth stations notified under No. **9.7B** and No. **9.7A**⁵. The ACMA would normally consult with the organisation that notified these earth stations as part of the assessment requirements.

3.5.3 Protection for the Mid-West Radio Quiet Zone

The [Radiocommunications \(Mid-West Radio Quiet Zone\) Frequency Band Plan 2011](#) (band plan), which establishes a radio quiet zone (RQZ) in the Mid-West region of Western Australia, facilitates the development and use of new radioastronomy technologies at that site by maintaining its 'radio-quietness'. The band plan specifies the geographic zone affected.

The band plan permits use of the frequency range 70 MHz to 25.25 GHz in the RQZ for radioastronomy purposes. It also states that additional services which operate in the inner zone of the RQZ are considered secondary services to radioastronomy services. Secondary services are required to not cause harmful interference to radioastronomy services and cannot claim protection from harmful interference from radioastronomy services.

[Radiocommunications assignment and licensing instruction \(RALI\) MS32](#) coordination of apparatus licensed services within the RQZ provides a framework for the interference protection of radioastronomy activities sited within 50 km of the centre of the RQZ. A potential frequency assignment falls within the scope of this RALI if the assignment is for an apparatus-licensed transmitter of a coordinated terrestrial service station or earth station, and its frequency and geographical location is within the RQZ.

Earth and earth receive licensees are subject to RALI MS32 and the requirements of the relevant band plan, and as such are responsible for ensuring they do not cause harmful interference to radioastronomy services in the RQZ. The ACMA is unlikely to issue a licence within 70 kilometres distance from the Murchison Radioastronomy Observatory without the approval of the entity responsible for operating the Murchison Radioastronomy Observatory. Contact details for the entity responsible for operating the Murchison Radioastronomy Observatory are contained in RALI MS32.

⁵ Note that in addition to the requirement to demonstrate compatibility with notified earth stations, there are GSO to GSO coordination requirements under No. **9.7** for the affected satellite networks associated with the very large earth stations. While these requirements should be considered (for example, as part of demonstrating that due diligence has been undertaken), they are considered separately to the requirement to demonstrate compatibility with notified earth stations.

4 Consultation with relevant government organisations

Due to possible security issues associated with foreign ownership of aspects of space communications, some applications may be subject to wider government consultation. In general, the ACMA will consult with relevant organisations in the following situations:

- > new missions by existing ground stations that support (or suggest support) of foreign space systems, including the launch or early orbit phases
- > new foreign-owned, or partly foreign-owned, earth stations and space support equipment⁶
- > new Australian-owned earth stations that will provide support to foreign space systems including launch or early orbit phases, except where the foreign space system is used solely for commercial communications (for example, television broadcasting).

The applicants or APs should note that additional time may be required to process applications that are subject to wider government consultation.

5 Frequency coordination

Assignments in support of fixed earth station apparatus licences must be consistent with the [Australian Radiofrequency Spectrum Plan](#) (the Spectrum Plan).

Depending on the frequency band of operation, the proposed fixed earth station may need to be coordinated with incumbent radiocommunications services operating in or adjacent to the proposed band of operation. Coordination criteria for some bands are detailed in relevant [Radiocommunications Assignment and Licensing Instructions \(RALIs\)](#).

The requirements of other business operating procedures should also be taken into account, including the BOP [Restriction on earth station licensing near Alice Springs](#).

For frequency bands or sharing scenarios for which the ACMA has not published coordination criteria, the relevant ITU Recommendations should be considered. APs should also consider the matters detailed in section 5 of the [Radiocommunications \(Frequency Assignment Certificates\) Determination 2014](#).

6 Licensing arrangements for fixed earth stations

6.1 General licensing arrangements

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

The first option requires operators to obtain apparatus licences for each of their earth stations individually: an *earth licence* or *AWL*⁷ for the uplink and an *earth receive*

⁶ Space support equipment includes equipment that assists in the calibration of early orbit and on-orbit systems.

⁷ Currently limited to AWLs in the range 27–30 GHz.

licence for the downlink. Under this approach, a licence is not required for the space stations aboard a satellite.

The second option involves a combination of apparatus and class licences. In certain bands specified in the Communication with Space Object Class Licence, it requires operators to obtain a licence for the space stations aboard a satellite with 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.

A key requirement irrespective of which approach to licensing is used is that the satellite system must normally be filed with the International Telecommunication Union (ITU) by the ACMA or equivalent national administration of an ITU member state.

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 [Radiocommunications \(Foreign Space Objects\) Determination 2014](#).

For fixed earth station operation, the *fixed earth* licence type may be used to authorise operation of uplink frequencies (that is, Earth-to-space direction) and *earth receive* licence type to authorise operation of downlink frequencies (that is, space-to-Earth direction) for one or more fixed earth stations. These licence types are generally used to support:

- > ongoing general communications between an individual earth station and a satellite
- > ongoing telemetry, tracking and control (TT&C) for the purpose of providing permanent 'station keeping' services for a specific satellite
- > one-off requirement to provide launch and TOSS and/or IOT for a specific space mission
- > ongoing requirement to provide launch and TOSS and/or IOT for any number of space missions.

6.2 Earth stations authorised under an AWL

The ACMA has made available for issue AWLs in the 26 GHz (24.7–27.5 GHz) and 28 GHz (27.5–30 GHz) bands. AWLs provide service and technology flexible access to a frequency range and geographic area specified on the licence. Conditions applicable to all AWLs in the 26/28 GHz bands are detailed in the [Radiocommunications Licence Conditions \(Area-Wide Licence\) Determination 2020](#) (the AWL LCD). AWLs are used to authorise earth stations in the range 27–30 GHz.

Assignment and coordination requirements for AWLs in 26/28 GHz bands are contained in [RALI MS 46](#). As detailed in RALI MS 46, AWLs are issued prior to device coordination. AWL licensees need to meet the requirements in the BOP and undertake necessary device coordination prior to including applicable devices in the Register of Radiocommunications Licences (RRL).

7 Special licence conditions and advisory notes

The [Radiocommunications Licence Conditions \(Apparatus Licence\) Determination 2015](#) (LCD) specifies general conditions of operation that are common to most apparatus licence types. Additional conditions not in the LCD can be included on individual apparatus licences to address issues specific to an assigned service. These conditions are printed on the licence under the heading 'Special Conditions'.

In addition to the above, 'Advisory Notes' may also be included on licences to inform licensees of matters relevant to a particular service. Unlike licence conditions, advisory notes do not impose a legal obligation on the licensee.

With regards to AWL-authorised earth stations, special conditions and advisory notes are not printed on the licence but are instead attached to the relevant device registrations in the RRL.

Appendixes A and B detail the special conditions and advisory notes that are to be included on *fixed earth* and *earth receive* apparatus licences. Where a special condition or advisory note is not pre-defined, an AP will need to request the ACMA to include the appropriate conditions or advisory notes on the licence.

8 Further information

Please contact the ACMA's Customer Service Centre at info@acma.gov.au.

Appendix A: Standard special conditions and advisory notes

This appendix applies to ongoing communications by individual fixed earth stations with a specific satellite system (including ongoing telemetry, tracking and control for the purpose of providing permanent station keeping services for a specific satellite system). The listed special conditions and advisory notes are relevant to all licence types, unless otherwise stated.

A.1 Recorded in the MIFR with a favourable finding

The following special conditions and advisory notes are to be applied where the satellite system has been successfully coordinated and is recorded (notified) in the ITU's Master International Frequency Register (MIFR) with a favourable finding:

A.1.1 Special Conditions

Pre-defined (EC)

1. Operation of this earth station must be in accordance with frequency assignments recorded in the Master International Frequency Register (MIFR) of the International Telecommunication Union.

[Note: Operation in accordance with frequency assignments recorded in the MFIR includes the operation in accordance with any Administration agreements reached as a result of an ITU frequency coordination process]

Pre-defined (EQ)

2. The licensee shall advise the ACMA of changes to the point of contact provided for the purpose of tracing any suspected cases of interference.

User-defined

For inclusion on fixed earth and earth receive apparatus licences:

3. This licence authorises communications with [ITU satellite network name].

For inclusion on the relevant AWL device registration:

4. This device registration applies to communications with [ITU satellite network name].

[Note: Operation of this earth station (AWL device registration) is only authorised if the frequency assignments of the satellite network recorded by the ITU with which communications are authorised by this licence are not cancelled or suppressed.]

A.1.2 Advisory Notes

Pre-defined (EI)

1. The Master International Frequency Register (MIFR) is maintained by the International Telecommunication Union (ITU) in accordance with the Radio Regulations.

A.2 Not recorded in the MIFR

The following special conditions and advisory notes are to be applied where the satellite system is still under coordination and has not as yet been recorded (notified) in the ITU's Master International Frequency Register (MIFR):

A.2.1 Special Conditions

Pre-defined (EJ)

1. Prior to the frequency assignments being recorded in the Master International Frequency Register (MIFR), this earth station may operate in accordance with the operating parameters published by the ITU in Special Sections of International Frequency Information Circulars, and in accordance with any agreements reached as a result of an ITU frequency coordination process.

Pre-defined (EH)

2. Transmissions must not occur in circumstances that result in harmful interference to stations outside of Australia where these stations are operating in accordance with the Radio Regulations of the ITU, except where the transmissions are in accordance with any agreements reached as a result of an ITU international frequency coordination process.

Pre-defined (EQ)

3. The licensee shall advise the ACMA of changes to the point of contact provided for the purpose of tracing any suspected cases of interference.

User-defined

For inclusion on fixed earth and earth receive apparatus licences:

4. This earth station is authorised to communicate with space station(s) of the [ITU satellite network name] satellite network as published by the International Telecommunication Union (ITU) in Special Section [ITU reference—take the most recent document number] of International Frequency Information Circular [IFIC number].

For inclusion on the relevant AWL device registration:

5. This device registration applies to communications space station(s) of the [ITU satellite network name] satellite network as published by the International Telecommunication Union (ITU) in Special Section [ITU reference—take the most

recent document number] of International Frequency Information Circular [*IFIC number*].

[Note: Operation of this earth station (AWL device registration) is only authorised if the frequency assignments of the satellite network recorded by the ITU with which communications are authorised by this licence are not cancelled or suppressed.]

A.2.2 Advisory Notes

Pre-defined (EI)

1. The Master International Frequency Register (MIFR) is maintained by the International Telecommunication Union (ITU) in accordance with the Radio Regulations.

Pre-defined (ED)

2. Coordination agreements reached as a result of an ITU international frequency coordination process are intended to minimise the potential for harmful interference to radiocommunications stations. A radiocommunications station operated prior to a frequency assignment being recorded in the MIFR cannot necessarily claim protection from harmful interference from radiocommunications stations of other countries.

A.3 Recorded in the MIFR with an unfavourable finding

The following special conditions and advisory notes are to be applied where the satellite system has been successfully coordinated and is recorded (notified) in the MIFR with an unfavourable finding under provision No. 11.41 of the ITU Radio Regulations.

A.3.1 Special Conditions

Pre-defined (EC)

1. Operation of this earth station must be in accordance with frequency assignments recorded in the Master International Frequency Register (MIFR) of the International Telecommunication Union.

[Note: Operation in accordance with frequency assignments recorded in the MIFR includes the operation in accordance with any Administration agreements reached as a result of an ITU frequency coordination process]

Pre-defined (EQ)

2. The licensee shall advise the ACMA of changes to the point of contact provided for the purpose of tracing any suspected cases of interference.

Pre-defined (EM)

3. Upon receipt of a report of harmful interference under International Telecommunication Union Radio Regulation No. 11.42 all necessary steps shall be taken to immediately eliminate the harmful interference or cease operation.

User-defined

For inclusion on fixed earth and earth receive apparatus licences:

4. This licence authorises communications with [ITU satellite network name].

For inclusion on the relevant AWL device registration:

5. This device registration applies to communications with [ITU satellite network name].

[Note: Operation of this earth station (AWL device registration) is only authorised if the frequency assignments of the satellite network recorded by the ITU with which communications are authorised by this licence are not cancelled or suppressed.]

A.3.2 Advisory Notes

Pre-defined (EI)

1. The Master International Frequency Register (MIFR) is maintained by the International Telecommunication Union (ITU) in accordance with the Radio Regulations.

Appendix B: Special conditions and advisory notes for launch and TOSS/IOT use

This appendix applies to launch, and transfer orbit support services (TOSS) and/or in-orbit testing (IOT). The listed special conditions and advisory notes are relevant to all licence types, unless otherwise stated.

B.1 A specific space mission

The following special conditions and advisory notes are to be applied where the temporary fixed earth station provides launch and transfer orbit services and/or in-orbit testing for a specific space mission:

B.1.1 Special Conditions

Pre-defined (E8) (for inclusion on *fixed earth* and *earth receive* apparatus licences only)

1. This licence authorises radiocommunications with space stations for the purpose of performing transfer orbit support services and/or in-orbit testing.

Pre-defined (ER) (for inclusion on the relevant *AWL* device registration only)

2. This earth station is authorised to communicate with space stations for the purpose of performing transfer orbit support services and/or in-orbit testing.

Pre-defined (EA)

3. No harmful interference shall be caused to radiocommunications stations operating in accordance with the provisions of the Constitution, the Convention and the Radio Regulations of the International Telecommunication Union.

Pre-defined (EQ)

4. The licensee shall advise the ACMA of changes to the point of contact provided for the purpose of tracing any suspected cases of interference.

User-defined

For inclusion on *fixed earth* and *earth receive* apparatus licences:

[Note: Operation of this space station and associated earth stations is only authorised if the frequency assignments of the satellite network recorded by the ITU with which communications are authorised by this licence are not cancelled or suppressed].

5. This licence authorises communications with [ITU satellite network name].

For inclusion on the relevant *AWL* device registration:

6. This device registration applies to communications with [ITU satellite network name].

B.1.2 Advisory Notes

Pre-defined (EB)

1. Protection is not afforded for interference caused by radiocommunications stations operating in accordance with the provisions of the Constitution, the Convention and the Radio Regulations of the International Telecommunication Union.

B.2 Any number of space missions

The following special conditions and advisory notes are to be applied where the ongoing fixed earth station provides launch and transfer orbit support services and/or in-orbit testing for any number of space missions:

B.2.1 Special Conditions

Pre-defined (E8) (for inclusion on *fixed earth* and *earth receive* apparatus licences only)

1. This licence authorises radiocommunications with space stations for the purpose of performing transfer orbit support services and/or in-orbit testing.

Pre-defined (ER) (for inclusion on the relevant *AWL* device registration only)

2. This earth station is authorised to communicate with space stations for the purpose of performing transfer orbit support services and/or in-orbit testing.

Pre-defined (E9)

3. Before commencing transmissions to each space station, the licensee must inform ACMA of the International Telecommunication Union identity of the space station and the dates of commencement and completion of transmissions.

[Note: Operation of this space station and associated earth stations is only authorised if the frequency assignments of the satellite network recorded by the ITU with which communications are authorised by this licence are not cancelled or suppressed].

Pre-defined (EA)

4. No harmful interference shall be caused to radiocommunications stations operating in accordance with the provisions of the Constitution, the Convention and the Radio Regulations of the International Telecommunication Union.

Pre-defined (EQ)

5. The licensee shall advise the ACMA of changes to the point of contact provided for the purpose of tracing any suspected cases of interference.

B.2.2 Advisory Notes

Pre-defined (EB)

1. Protection is not afforded for interference caused by radiocommunications stations operating in accordance with the provisions of the Constitution, the Convention and the Radio Regulations of the International Telecommunication Union.

Appendix C: Examples - Information required for regulatory assessment

Table 1: Examples - Information required for *fixed earth, earth receive and area-wide licences*

	Example 1	Example 2
Licence/device registration number:	9876543/1	1234567/1
Licence type:	Fixed earth	Earth receive
Licence renewability (ongoing/non-ongoing) and licence period:	Non-renewable (12 months)	Renewable (initial 1 year)
Direction:	Uplink	Downlink
Frequency lower bound (MHz):	14301	1526
Frequency upper bound (MHz):	14302	1527
Service purpose (Communications, TT&C, Launch/TOSS, or IOT):	Launch/TOSS	Communications
The related ITU satellite network name: ⁸	SAT-A	SAT-B
The orbital longitude of the satellite network:	NGSO	140E
The location of the fixed earth station:	Landsdale, WA	Sydney, NSW
The maximum e.i.r.p. of the earth station transmitter (for fixed earth licence and AWL only):	-3 dBW	N/A
The antenna 3dB beamwidth (for fixed earth licence and AWL only):	0.5 degree	N/A
The antenna maximum gain (for fixed earth licence and AWL only):	30 dBi	N/A

⁸ Failure to provide accurate ITU satellite network information will delay the process. The ITU SNL database (Part B) is a useful tool for checking the accuracy of the satellite network name. See <http://www.itu.int/net/ITU-R/space/snl/bsearchb/spublication.asp>.

Note 1: depending on the specifics of certain licence applications, the ACMA may seek further information from the applicant or AP to assist with the assessment.

Note 2: Where a new earth station is to be authorised under an AWL, the relevant licence number should also be provided. For variations under an AWL the existing device registration number is required. For variations under earth/earth receive licences the current licence number/station identification number is required.

Note 3: the above are only examples indicating the type of information required when applying for an *earth* or *earth receive* licence.

Appendix D: Letter of assurance pro forma

This pro forma is to be used when a satellite filing has not been successfully recorded in the Master International Frequency Register (MIFR) or a satellite filing has been recorded in the MIFR but with unfavourable findings under 11.41.

The application for [a licence / device registration assessment] to communicate with [satellite commercial name] in the frequency bands [insert frequency bands] will use the [ITU satellite filing name] satellite filing, for which the International Telecommunication Union (ITU) has published 'special sections' such as [CR/C xxx in IFIC XXXX (only include one—preferably the CR/C publication)]. This filing has been made by the Administration of [country name] and has orbital position/characteristics of [XXX E/W (GSO) or contains a constellation of P satellites in Q planes at R inclination and S altitude (NGSO)].

[Satellite operator] provides the following assurances⁹ to the ACMA to support applications for licences within Australia:

- | <i>Not recorded in the MIFR</i> | <i>Recorded in MIFR under 11.41</i> |
|--|--|
| <ol style="list-style-type: none">1. Coordination with other administrations for the [ITU satellite filing name] satellite filing has begun but has not yet resulted in a 'favourable finding' (Part II-s) notification published by the ITU in a fortnightly international frequency information circular (IFIC). | <ol style="list-style-type: none">1. Coordination with other administrations for the [ITU satellite filing name] satellite filing has resulted in (Part II-s) notification published by the ITU in fortnightly international frequency information circular(s) (IFIC) IFIC-number. |
| <ol style="list-style-type: none">2. To the best of our knowledge, operation in accordance with the [ITU satellite filing name] satellite filing will not cause harmful interference to other satellite networks operating as per the ITU Radio Regulations. | |
| <ol style="list-style-type: none">3. That in the event of any actual case of harmful interference (to other satellite networks operating as per the ITU Radio Regulations), all efforts will be made to immediately address and resolve such interference. | |

⁹ If the above assurances do not cover all communications to/from the satellite, please indicate the limits of this assurance (for example, if it only applies to a particular frequency band or company).