

The Manager
Wireless Broadband Section
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

ACMA Consultation: - Review of the 2 GHz band spectrum licence technical framework
[Consultation 38/2022](#) - CSIRO Comments

Dear Manager, Wireless Broadband Section,

CSIRO thanks ACMA for the opportunity to comment on the ACMA [Consultation 38/2022](#) - Review of the 2 GHz band spectrum licence technical framework.

CSIRO is responsible for the management and operation of the Canberra Deep Space Communication Complex (CDSCC) and other NASA facilities in Australia under a government to government treaty between Australia and the USA as well as a Cooperating Agency Agreement between CSIRO and NASA. CSIRO is also responsible to manage the operations of the European Space Agency (ESA) space research activities in Australia, including the operation of the Space Research Services (SRS) earth station at New Norcia in W.A. under the provisions of a long-standing Treaty between the Australian government and ESA. Therefore CSIRO, in addition to its role as manager of CDSCC, in making this submission also represents its partner space agencies (NASA and ESA) for whom it provides these Treaty level services at CDSCC and New Norcia, respectively.

CSIRO has reviewed the consultation document titled "Review of the 2 GHz band spectrum licence technical framework" dated November 2022 and submits the following comments for ACMA's kind consideration. These comments are presented as a constructive contribution in the spirit of our continued very close, collaborative and mutually beneficial partnership we have enjoyed over many decades in providing the ongoing protection and assurances for the Space Science Service operations at CDSCC and New Norcia. ACMA has continued as a key regulatory participant and partner in enabling the global space science exploration endeavour, both near-Earth and Deep Space, to continue to be viable through the critically important protection of these sites from RF interference.

CSIRO Comments.

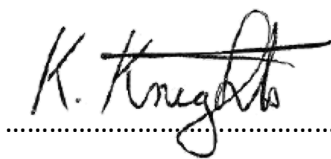
While CSIRO agrees with the general thrust of the proposals presented in this document for the review of the 2 GHz band, there are two matters that CSIRO raise for consideration.

- a. HAPS exemption from registration (pages 25 and 31). The unique sharing arrangements between HAPS and the SRS present some potential matters of concern due to the combination of the line-of-site nature of HAPS operations and the requisite extreme sensitivity of the Space Research stations at CDSCC and New Norcia. While CSIRO greatly appreciates that HAPS may operate in the 2110 – 2170 MHz range on a no protection and no interference basis, its location could conceivably exceed the protection levels for the extremely sensitive SRS station receivers in the 2200-2290 MHz frequency band. The issue of concern here relates not so much to the possibility of interference (which admittedly if encountered, could be stopped through HAPS ceasing its offending emissions) but more to the possibility that the source of the interference might not be locatable by the SRS operators if the HAPS service is not registered. CSIRO acknowledges that given that this license condition already exists, this criteria might not be changeable as part of the current consultation. However, perhaps in a spirit of collaboration, there might be scope to work with the ACMA to in some way be advised of a HAPS station that might be established within a TBD distance of the SRS stations.
- b. Registration Exemption for non-HAPS transmitters. While the exemption of transmitters of less than 25 dBm EIRP from registration is understood and agreed, the translation of this enabling criteria to one based on TRP presents increased potential for exceedance of the SRS protection criteria through the usage of the dynamic phased array AAS. While recognising that operators are required to protect other services CSIRO is seeking from ACMA an assurance that there is no scope for these non-registered operators to exceed their actual EIRP emission limits (25 dBm EIRP) within that sector of their AAS that encompasses the SRS stations.

Conclusion.

In conclusion, CSIRO offers these comments for ACMA consideration. CSIRO thanks ACMA for the opportunity to review this consultation document and submit our thoughts/concerns which we are happy to present as a constructive contribution.

Yours Sincerely,



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