

Defence Responses to the Consultation Paper IFC 35-2017

Improved Planning for Small Satellites (CubeSats, Nano- Satellites, and similar)

1. In the absence of an ITU harmonised arrangement for small satellites, the majority use is tending to frequencies specified by US manufacturers and the US military, which generally constrains to the use of the US ISM band (902 – 928 MHz), which overlaps the band to be reconfigured. A typical required bandwidth range for one Cubesat is 2 MHz.
2. The above scenario applies for a number of current co-operative projects between the Australian and US military, where the frequencies are not modifiable by Australian partners (for example, the Biarri and Buccaneer projects).
3. Defence recommends that improved planning for small satellites be incorporated into the reconfiguration of the 900 MHz bands. This would be a confidence-building step that would provide a level of technical and business certainty, for this increasingly important market sector.
4. Options for the use of this band by small satellites could include:
 - a. Identifying a frequency block (eg Block 5) that could be reserved for small satellites, at specific locations around Australia. Such locations could include those identified for commercial satellite parks (eg Mingenew, WA). Having a specific block for small satellites would reduce the risk of interference to mobile broadband services (compared to the creeping default scenario, where small satellites are accessing parts of Block 1, 2, 3, 4, 5, on a case-by-case basis).
 - b. Provision of access for small satellites, across all proposed new blocks.