



## Submission to the Consultation on Australia's Satellite Utilisation Policy

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The Australian Academy of Science welcomes the opportunity to comment on the draft Satellite Utilisation Policy. As described in the draft Policy, and also in the Academy's Decadal Plan for Australian Space Science 2010-2019, our country is dependent on services delivered from space-based technologies and a related network of ground-based infrastructure. Science, Technology, Engineering and Mathematics (STEM) disciplines underpin their operations, and their vulnerability to the space environment.

The Academy congratulates the Government for the development of this Policy which represents an important next step in Australia's ongoing journey in space. This step is critical as Government, industry and the science community work together to build an innovative Australia capable of meeting the challenges of the future. Many elements of the draft Policy are particularly relevant to the Australian science community. Discussion and recommendations on these are provided below.

1. The Academy recommends that to support Principle 6 - Support innovation, science and skills development, an additional goal, to create opportunity for advancement in the space sciences, be added to the list of National Goals.
2. The Academy notes the identification of science and research as critical aspects of Australia's effort to achieve ongoing, cost-effective access to space capabilities and agrees with the policy position of placing priority on science and research that relate to space applications of national significance – namely, Earth Observation from Space (EOS), Satellite Communications (SATCOM) and Position, Navigation and Timing (PNT).
3. The Academy agrees that much science and research should be collaborative with industry so as to promote innovation.
4. The Academy recommends that opportunity be created for emerging / blue sky areas of space science, such as Space Situational Awareness (SSA), to improve future opportunities as well as safeguard asset use. The Academy also recommends that any future targeted funding opportunities take account of the full range of underpinning science and technology necessary to support the applications identified, as well as research and innovation in niche areas of excellence.

5. Recognising the success of the Australian Space Research Program (ASRP) developed by the Government, the Academy recommends that a successor to the ASRP be described in the draft Policy which would be established as soon as funding permits, to provide continuity in space science development to safeguard Australia's needs as summarised by the Policy. The Academy is willing to help shape Government's policy implementation in the development of a successor to the ASRP.
6. The academy recognises the excellent job of the Space Policy Unit (SPU) as the central point of contact and coordination for all of Australia's national and international civil space activities, and recommends its continuation with no reduction in capability in order to ensure that this role is provided for. Furthermore it suggests that its name be changed to the Australian Space Coordination Office to better convey its mandate to the domestic and international communities.
7. The scientific community is committed to working with Government and industry in the development of Australia's space capabilities. To enable this, stronger interaction between the science and research community and the industry sector with the Space Coordination Committee (SCC) would be advantageous. The Academy recommends that an additional standing (permanent) Working Group incorporating the research and industry sectors be established under the SCC to provide regular input to the SCC, rather than just via "invited submissions" as currently suggested in the Policy.
8. The Academy acknowledges that space technologies are dual-use, which has significant potential impact on the activities of the space-related science and research community. The Academy recommends that the Policy acknowledge this and that it provide for suitable representatives from the science and research communities to gain clearances and participate in relevant national security discussions, to the extent necessary to safeguard the national research effort.
9. Several years ago, the space science community saw the need to build Australia a long term, productive presence in space via world-leading innovative space science and technology, strong education and outreach, and international collaborations. This led to the development of the Academy's Decadal Plan for Australian Space Science 2010-2019, and has played a role in the evolving national space narrative that has now reached the stage of the draft Policy development. The space science community is committed to working with government and industry in the coming months and years so that our national goals in space are realised. In this evolving context, it is appropriate to now review the themes and details described in the Decadal Plan. The Academy, through the NCSS, intends to undertake this review in the months to come, and to align the Plan with the Policy.

10. When the Principles document was released at the 2011 Australian Space Science Conference, the anticipated name of the policy was the National Space Industry Policy. Among the professional space community (including the space science community), reference explicitly to space is not taken to mean high cost astronomical activities conducted by space agencies, but is more representative to our international partners both of our intent to be intelligent users of satellite applications as well as custodians of the valuable resource that constitutes the space environment - it would therefore be appropriate to bring Space back into the name of the policy and capture these elements by renaming it Australia's National Space Policy.

In conclusion, the Australian Academy of Science thanks the Government for the development of the draft Satellite Utilisation Policy, which provides a framework for Government, industry and the science and research communities to work together to ensure Australia's access to the space capabilities upon which we depend. The Academy, through the National Committee for Space Science and its other space-related Committees, is committed to doing so.