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SPACE SOVEREIGNTY VS DEPENDENCY – SPACE POLICY FOR NEW SPACE POWERS

Abstract

In October 2017, at the inaugural session of the 2017 International Astronautical Congress (IAC) in Adelaide, South Australia, the Australian government formally announced the formation of Australia's new space agency, marking an important step forwards for Australia embracing a more substantial role in space. The space agency was formally established on July 1st, 2018. Australia is taking its first steps in its journey into space, but faces some challenging issues going forward, which are applicable to other states seeking to follow in Canberra's footsteps.

This paper examines the transition from dependency to sovereign capability in space. Since the dawn of the space age, Australia has traditionally depended on others for provision of space capabilities – notably the 'space segment' comprising satellites and launch capability – whilst choosing to develop its own ground segment. Now, with the establishment of not only a space agency, but also a burgeoning space industry, Australia has the opportunity to develop greater sovereign space potential, including satellite development and manufacturing, space launch, and space operations. So, using Australia as a case study of a new space actor, how can states make this transition from dependency to sovereign space capability? When is sovereign capability necessary, and when is it better to collaborate? What does collaboration consist of that benefits both parties?

The authors have worked together to address this issue as a broad question to inform more detailed examination of defence and national security aspects of emerging Australian space policy. We've developed a matrix of space capability for Australian space interests, which we believe can be easily applied to other states' decision-making on space policy. It breaks down capability vs mission requirement and can inform choices over all aspects of state's space ambitions. It allows us to model interaction between Space 1.0 (government-run space activities) and Space 2.0 (commercial sector / private industry) and explore differing approaches to space technology to meet government and commercial requirements.

We'll discuss this approach, considering key Australian space requirements such as ISR and SATCOM support for maritime domain awareness; broad ubiquitous SATCOM requirements; and specialized tasks such as space-based space surveillance and space-based missile early warning. How might Australia exploit sovereign space capability to meet these tasks, and how does Australia's example inform other would-be space actors?

Keywords: Space Policy, Australia, Space 2.0, Defence, National Security