

The politics of space security: strategic restraint and the pursuit of national interests. By James Clay Moltz. Stanford, CA: Stanford University Press. 2008. 367pp. Pb.: £19.95. isbn 978 080476 010 2.

There are 19,000 space objects tracked by the US Strategic Command, but only roughly 900 of them are working satellites. The rest can be loosely grouped into the category of space debris. As James Clay Moltz points out in his book, *The politics of space security: strategic restraint and the pursuit of national interests*, it is a wonder that there is not even more debris up there. The United States and the Soviet Union engaged in a space race while at the same time rushing to bulk up their nuclear arsenals. However, while the Cold War resulted in tens of thousands of nuclear weapons, the two rivals held a much smaller number of anti-satellite weapon tests and eventually agreed that weaponizing space would be far too costly.

This outcome was not predetermined. As Moltz illustrates, space was a factor in many of the arms control talks between the two superpowers. He takes the reader through a history of the Cold War, but from the different perspective of how it affected space issues. His footnotes are almost as interesting a read as the text itself.

In the space community, there is much discussion as to what constitutes a space weapon: is it an item based in space, or something that attacks objects in space? Does it destroy them entirely or just cause reversible damage? Moltz creates a working definition of a space weapon—'any system whose use destroys or damages objects in or from space' (p. 43)—which is a good jumping-off point for future discussions of the issue.

After breaking down the four schools of thought about space weaponization—space nationalism, global institutionalism, technological determinism and social interactionism—Moltz gives a chronology of the Cold War, explaining how the US and Soviet Union worked their way through nuclear weapons and rocketry development to the point where both sides felt ready to commit to real arms control agreements and cooperative measures. He highlights points where it could have gone either way, where different decisions or reactions by the leaders could have resulted quite easily in a space war. As he says, any such conflict would have 'grounded human scientific and commercial aspirations permanently on the Earth, rendering late twentieth-century economic globalization a dream' (p. 49).

But just as both sides realized that testing nuclear weapons in space created far too much radiation for satellites and manned space missions to function, they also came to the conclusion that it would be better not to clutter the space environment with debris from space weapons. It took a while. Moltz explains how domestic political issues, economic restraints, international balance of power concerns, missile defence programmes and personal interests (or lack thereof) by leadership on both sides had much to do with their level of interest related to cooperating on space restraint.

The relevance of the book is quite pressing, as Moltz argues that 50 years after Sputnik, we are now in a new space age. The United States under the Bush administration and its emphasis on space nationalism (pulling out of the 1972 Anti-Ballistic Missile treaty, attempting to fund space weapons programmes, and releasing the 2006 National Space Policy that held out for the possibility of weaponizing space) damaged much of the hard-earned collective space restraint that had arisen between the United States and Russia. The new Obama administration has spoken about the need for ensuring access to space, but nothing definite has been proposed. Meanwhile, there are new space powers on the horizon, state actors (including China and India) and commercial entities that also have much to lose from a cluttered space environment.

This need for cooperation to prevent future space debris was unintentionally highlighted this February, when an Iridium satellite and an inactive Russian communications satellite crashed at an altitude of just under 800 kilometres, with the force of the collision jettisoning debris hundreds of kilometres above and below the point of impact. Between this incident and anti-satellite tests by China (January 2007) and the United States (February 2008), we are on the verge of a new space age where bellicose military policies could make space unusable.

Yet what one comes away with from this book is a sense of hope for future cooperation in space. Moltz ends with the counsel that 'space will continue to be a highly interactive environment. Great care will be required to manage this important experiment in environmental security, technological development, and human conflict prevention' (p. 329). If the United States and the Soviet Union managed at the height of the Cold War to avoid weaponizing space—not out of high-minded ideals, but because it was mutually recognized that the costs would be too high—then today a similar commitment is possible as well.

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