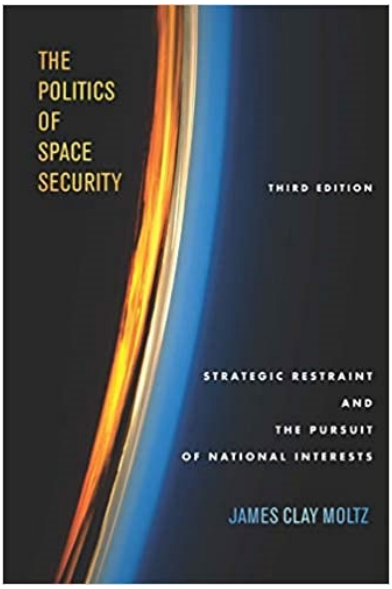
Journal of Military and Strategic Studies

VOLUME 20, ISSUE 3



James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*, 3rd ed. Stanford, CA: Stanford University Press, 2019.

Dr. Mark T. Peters II, USAF, Retired

Celebrating the US Space Force's 23 December 2019 founding provides an appropriate opportunity to review an excellent work summarizing past international space interactions. James Clay Moltz's *The Politics of Space Security* explores a century's worth of US, Chinese, Russian and other states' decisions about space-based security. The chronological approach discusses all players individually and collectively during

ISSN : 1488-559X

various historical landmarks including the Sputnik launch, Outer Space Treaty, and the International Space Station. Moltz favors the US perspective, while acknowledging other states along the way which drove and deterred space development. This history may be the best space summary currently in publication as individual events are linked to comprehensive national policy, with every item demonstrating complete narratives, comprehensive source data, and outstanding accuracy. Beginning by examining space's unique physical characteristics, the historical element starts with WWII's captured German scientists, races through Cold War nuclear tests, and finishes strongly with future speculations. This volume, having earned its third edition, should be a key reference for all scholars and strategists exhibiting any space interests.

The Politics of Space Security pursues a structured, historical exploration based on two separate pillars – political applications and environmental characteristics. Four political theories characterize space interactions; space nationalism, technological determinism, social interactionism, and global institutionalism. Space nationalism and global institutionalism define opposite poles where the first appears as traditional state conflict extended into the upper atmosphere while global institutionalism favors transnational organizations such as working through roles defined by the United Nations. The middle theories favor increased interaction, the first driven by the technological costs associated with space and the other by the advantages possible only if states and organizations share space security responsibilities. Moltz further defines three space activity channels; space science and exploration, space utilities, and military applications. Further limiting space interactions, the harsh space environment remains defined by physical restrictions emerging from high radiation levels, low gravity, and dangerous orbital debris. Applying these analytic elements to various events over the past century enables Moltz to deliver this top-rate and easily understandable history.

Space security's roots emerged through the 1920's scientific discoveries, moving to rocket usage during WWII, and then advanced with US and Soviet teams acquiring fleeing Nazi German scientists. The first nuclear weapons led to missile and ICBM tests, with the Soviet's 21 August 1957 Sputnik satellite launch officially beginning the Cold War's space race. Both powers' struggles to agree and implement from the United Nations' space framework are thoroughly researched and extensively footnoted, as is the entire text. Initial satellite orbits quickly led to manned flight, and then the moon

race. High-altitude nuclear tests and other experimentation are expertly used to highlight the increased space dangers posed by debris and radiation from careless use. US and Soviet actions began along similar paths towards nationalism but rapid leadership turnovers with Kennedy's death and Kruschev's departure shifted the two sides towards policies favoring increased interaction and cooperative restraint. Late 1960's security concerns featured increased nuclear test bans, strategic détente, the US moon landing, and the first satellite intelligence applications. US and Soviet space civil programs are shown as suffering from declining budgets as military strategic superiority, or at least dual-use technologies, are favored.

The 1980s saw surging US space budgets during Reagan's Strategic Defense Initiative (SDI) planning, with a focus returning to nationalistic outcomes. The increased budgets were sufficient to allow general scientific research increases concurrent to military development while the competition strained Soviet resources when they tried to keep pace with American developments while also supporting war in Afghanistan. Focused strategic engagement led to nuclear inventory reductions, arms control agreements like SALT and START, and continued test bans prohibiting unrestricted high altitude activity. SDI's strong start eventually fell to congressional opposition based on growing expenses, uncertain technical feasibility, and treaty limitations; US Congress' political undertones favored more technological determinism and social interactionism approaches. The Soviet Union's 1991 dissolution proved to be the final coffin nail for the Cold War on land as well as in space and left the way clear for a new space security era with new ideas.

This new era, highlighted by shifting economics and political motivation, was significantly more unstructured during space security pursuits than any previous decade. Several new states emerged as China, India, and the European Union stepped up their program while Russian space tourism fueled commercial growth, the X–prize sparked the first private orbital flights, and commercial satellite usage for communications and observation increased. China's 1990's ASAT tests led to increased international cooperation attempts to limit orbital debris, and debates at the UN Committee for Preventing an Arms Race in Outer Space (PAROS), founded in 1957, to ban ASATs and space weapons altogether. The 9/11 attacks in the US significantly changed the global security dimension and relegated space concerns to lower on the

security ladder for almost a decade. The text spends only ten pages evaluating recent events from the Obama administration's 2008 beginning to Trump's first years. The conclusion shares future visions about space traffic control, Space Situational Awareness (SSA), radio frequency crowding, and geostationary orbit slot allocation. Each concern appears as it will be potentially confronted through each of the four political theories and provides a satisfactory way ahead for global space security concerns.

As a third edition, eight years after the previous, *The Politics of Space Security* had an excellent opportunity to deliver substantial changes based on recent developments. The overall material continues to be outstanding at providing historical background on well-defined subject matter but changes from the previous publication till now are under-examined, with less than a page a year about topics from 2008 until 2018. Another welcome addition would be a section describing changes from previous editions to help those who own earlier copies. The book has well-sourced, extensive footnotes, and features a comprehensive index, but the addition of charts, tables, or timelines would still have been welcome.

Overall, *The Politics of Space Security* by John Clay Moltz delivers a comprehensive look at space security's past century along a well-defined framework. Each chapter contains a defined time period, typically about twenty years, and advances through each from multiple perspectives. The perspectives expertly allow readers to visualize how different theories drove space security decisions. This third edition may be the most comprehensive volume available on space security politics and should be a must purchase for all security practitioners. While the book format makes for a difficult cover to cover read, the reference value alone should have this added to all strategists' purchase lists. I plan on placing this volume prominently alongside other desk references as a significant resource for future space writing.

Dr. Peters served 22 years as an intelligence officer with the US Air Force. Familiar with strategy and operations across a variety of levels, he specialized in space and cyber applications including commanding a space intelligence squadron. He is the author of "Cashing in on Cyberpower" examining over 10 years of cyberattacks for their economic impacts. Holding degrees from the US Air Force Academy, Troy University, and Henley Putnam University, he

currently works as Cybersecurity expert for Technica Corporation as a defense contractor supporting USAF cyber weapon systems.