

**ALANNA KROLIKOWSKI**

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**CURRENT POSITION**

**Harvard University.** Fairbank Center for Chinese Studies. Cambridge, MA. Princeton-Harvard China and the World Program postdoctoral fellow. Sep. 2013 to present. Advised by Professor Alastair Iain Johnston. Main projects are preparation of academic book manuscript and articles and new research on related areas.

**EDUCATION**

**University of Toronto.** Department of Political Science. Toronto, Canada. PhD in Political Science with major concentrations in Comparative Politics and International Relations (IR) defended Aug. 2013.

Dissertation title: *China and the United States in civil-commercial air and space: Specialist cultures and international relations in high-technology sectors*

Co-advisors: Professor Emanuel Adler  
Professor Joseph Wong

**University of Toronto.** Department of Political Science and Munk Centre for International Studies. Toronto, Ontario. MA in International Relations 2006.

**McGill University.** Department of Political Science and International Development Studies. Montreal, Canada. First Class BA (Dean's Honour List) with Joint Honours in Political Science and International Development Studies and Minor in Advanced East Asian Languages (Chinese) completed 2004.

**SELECTED AWARDS**

Harvard University Post-Doctoral Professional Development Grant. 2014.  
Princeton-Harvard China and the World Program Fellowship. 2013-2014.  
Social Sciences and Humanities Research Council Post-Doctoral Fellowship. 2013-2015.  
Sylvia Ostry Doctoral Fellowship in International Policy. 2012.  
Chiang Ching-Kuo Foundation Doctoral Award. 2011-2012.  
Fulbright Foundation Student Award, Canada-United States. 2010-2011.  
University of Toronto Department of Political Science Student Award. 2010.  
Social Sciences and Humanities Research Council Joseph Armand Bombardier Canada Graduate Scholarship. Fall 2007 to spring 2010.  
Taiwan Familiarization Program grant, Inter-University Program for Chinese Language. 2009.  
Social Sciences and Humanities Research Council Canada Graduate Scholarship Michael Smith Foreign Study Supplement. 2009.  
Massey College Research Travel Grant. 2009.  
University of Toronto Department of Political Science Student Award. 2009.  
Dr. David Chu Scholarship for Asia Pacific Studies. 2008-2009.  
Box-Steffensmeier Award from the Inter-University Consortium for Political and Social Research. 2008.  
University of Toronto Department of Political Science Award. 2008.  
Canada-China Scholar's Exchange Program Scholarship. 2007-2008 (declined).  
Dr. David Chu Scholarship for Asia Pacific Studies. 2007-2008.  
Ontario Graduate Scholarship. 2007-2008 (declined) and 2006-2007.

## **PUBLICATIONS**

### **Peer-reviewed**

Alanna Krolkowski. "State Personhood in Ontological Security Theories of International Relations," *Chinese Journal of International Politics* 2 (2008): 109-133.

Alanna Krolkowski and Emmanuelle David. "Commercial On-Orbit Satellite Servicing: Emerging Policy Considerations." *New Space Journal* 1: 1 (2013): 1-14.

### **Contributions to edited volumes and other**

Alanna Krolkowski and Michael Raska. "China's Defense Aviation Industry: AVIC's Innovation Strategies and Challenges," in ed. Tai Ming Cheung (Title TBC, forthcoming 2015).

Kevin Pollpeter, Patrick Besha, and Alanna Krolkowski. "The Highest Secret: Research, Development, and Acquisition in the Beidou Navigation Satellite Programs," in eds. Tai Ming Cheung and Kevin Pollpeter (Title TBC, forthcoming 2015).

Alanna Krolkowski. "Is there a Chinese Culture of Defense Technology and Innovation?" in ed. Alice L. Miller (Title TBC, forthcoming).

Alanna Krolkowski. "Specialist Communities: People and Cultures in China's Defense Science and Technology System" in *The Human Dimension of China's Defense Science, Technology, and Innovation System*, Tai Ming Cheung and Kevin Pollpeter, eds. (La Jolla, CA: University of California Institute on Global Conflict and Cooperation, 2015): 1-6.

Kevin Pollpeter, Patrick Besha, and Alanna Krolkowski. "Policy Brief 2014-7: The Research, Development, and Acquisition Process for the Beidou Navigation Satellite Programs" in *Getting to Innovation: Assessing China's Defense Research, Development, and Acquisitions System*, Kevin Pollpeter, ed. (La Jolla, CA: University of California Institute on Global Conflict and Cooperation, 2014): 57-61.

Alanna Krolkowski and Michael Raska. "China's Military Aviation Industry: In Search of Innovation." *Research brief 2013-5, Study of Innovation and Technology in China Project* (San Diego, CA: Institute for Global Conflict and Cooperation, 2013): 37-39.

Alanna Krolkowski. "In Different Orbits? China is Steadily Forging Ties with Other Countries' Space Programs – Except the U.S." *AmCham China Brief* 20, no. 1 (2012): 8-10.

Alanna Krolkowski. "Leveraging Commercial Air and Space: How China's Industries Seek, Find and Create New Opportunities Abroad" (in Chinese and English) in *China and the United States: New Scholarship on the Intersection of Trade, Nonproliferation and Security*, eds. Gary Bertsch and Zhu Liqueun (Beijing, China: Institute of International Relations, China Foreign Affairs University, 2011): 361-383.

John Logsdon and Alanna Krolkowski. "Enhancing U.S.-China Relations in Space." *China-U.S. Focus*. (2011, online).

Alanna Krolkowski. "Kazakhstan and Xinjiang: A Discussion of Competing Explanations," in *Revolution or Evolution? Emerging Security Threats in the 21<sup>st</sup> Century* (Halifax, NS: Dalhousie University Centre for Foreign Policy Studies Press, 2006): 139-166.

### **Under review or in progress**

Alanna Krolkowski. *Partners in Aviation, Rivals in Space: Specialist Cultures and High-Tech Trade Between China and the United States*. Book proposal and partial manuscript under consideration by a university press.

Alanna Krolkowski. “Shaking Up and Making Up China: How the Party-state Compromises and Creates Ontological Security for its Subjects.” Article manuscript under review, submitted as part of a forum guest-edited by Catarina Kinnvall and Jennifer Mitzen.

Alanna Krolkowski. “China in International Space Exploration Missions: The Chinese Space Policy Community and Prospects for Partnership.” Revise and resubmit, revisions in progress.

Alanna Krolkowski. “Trade and Security in High Technology: How Specialist Cultures Matter in China-U.S. Trade in Commercial Air and Space.” In preparation for submission to a political science journal.

## TESTIMONY

“Inputs into China’s Space Programs: Vision, Policy, and Organization.” Hearing of The U.S.-China Economic and Security Review Commission titled *China’s Space and Counterspace Programs*. Feb. 2015. Washington, DC.

“China’s Civil and Commercial Space Activities and their Implications.” Hearing of The U.S.-China Economic and Security Review Commission titled *The Implications of China’s Military and Civil Space Programs*. May 2011. Washington, DC.

## SELECTED PRESENTATIONS AND INVITED TALKS

“Partners in Aviation, Rivals in Space: Specialist Cultures, Trade, and Security between China and the United States in Dual-use Sectors” (Lecture). Georgia Institute of Technology. 2015. Atlanta, GA.

“The Sector-specific Logic of Export Controls on Dual-use Items: Why Trade and Cooperation are Difficult in Space, but Easy in Aeronautics” (Paper). 66<sup>th</sup> International Astronautical Congress. 2014. Toronto, ON.

“China’s Beidou Vision: Defense and Industrial Strategy Behind the World’s Fastest-growing Global Navigation Satellite System” (Paper, with Kevin Pollpeter and Patrick Besha). 66<sup>th</sup> International Astronautical Congress. 2014. Toronto, ON.

“Shaking Up and Making Up China: How the Party-State Compromises and Creates Ontological Security for Its Subjects” (Paper). Annual meeting of the International Studies Association. 2014. Toronto, ON.

“Specialist Communities in China’s Defense Technology Modernization: The Programmatic and Policy Influence of Aeronautic and Space Experts” (Paper). Conference on Chinese Defense Science, Technology, and Innovation. University of California (UC), San Diego. 2014. La Jolla, CA.

“China and the United States in Civil-Commercial Air and Space: Specialist Cultures and International Relations in High-Tech Sectors” (Lecture). Harvard University. 2013. Cambridge, MA.

“Asia-Pacific Trade and Industrial Partnerships in Civil-Commercial Aircraft and Spacecraft Manufacture” (Paper). 65<sup>th</sup> International Astronautical Congress. 2013. Beijing, China.

“China and the United States in Civil-Commercial Air and Space: Specialist Cultures and International Order in High-Technology Sectors” (Lecture). Princeton University. 2013. Princeton, NJ.

“Ontological Security in International Relations and State Actorhood: Observations from Contemporary China” (Paper). Workshop on Ontological Security. 2013. Lund, Sweden.

“China-U.S. Relations in Commercial Space and Aircraft Manufacture: Specialist Cultures and Transnational Industry Integration” (Paper). 64<sup>th</sup> International Astronautical Congress. 2012. Naples, Italy.

“Commercial On-Orbit Satellite Servicing: Policy Considerations Raised by Industry Plans” (Paper, with Emmanuelle David). 64<sup>th</sup> International Astronautical Congress. 2012. Naples, Italy.

“Innovation in China’s Defense Aviation Industry” (Paper). Workshop on China’s Defense Industry at UC San Diego. 2012. La Jolla, CA.

“China-U.S. Relations in Civil-Commercial Air and Space: Specialist Cultures and International Order” (Lecture). Bovay Series in Science and Technology Studies. Cornell University. 2011. Ithaca, NY.

“China’s Civil and Commercial Space Activities” (Briefing). U.S. Department of Commerce. 2011. Washington, DC.

“U.S.-China Cooperation and Competition in Civil-Commercial Air and Space” (Lecture). Center for International and Security Studies at the University of Maryland. 2011. College Park, MD.

“Technical Controversy and the Management of Sensitive Technologies” (Presentation). ISODARCO Beijing. 2010. Beijing, China.

“Transnational Technical Cooperation in Aircraft Manufacture” (Presentation). Avionichina International Avionics Conference. 2010. Xi’an, China.

“China’s Aerospace Development Strategy: European and American Technology Transfers in the Aircraft and Space Sectors” (Paper). British Inter-University China Council conference. 2009. Manchester, UK.

“Scientists and Technologists in IR Theory: Insights from China Studies and Science Studies” (Paper). Annual meeting of the American Political Science Association. 2008. Boston, MA.

#### **LANGUAGE, METHODS, AND OTHER TRAINING**

**Harvard Graduate Business Club.** 2014. Cambridge, MA. One-month ‘mini-MBA’ course introducing the case method of teaching and core topics.

**Study of Innovation and Technology in China Training Course.** University of California Institute on Global Conflict and Cooperation. 2011. San Diego, CA. Two-week intensive course on science, technology, and innovation for national defense and modernization in China.

**Inter-University Program for Chinese Language Study at Tsinghua University (IUP).** 2009. Beijing, China. Two terms of courses in advanced spoken and written Mandarin.

**Inter-University Consortium for Political and Social Research at the University of Michigan.** 2008. Ann Arbor, MI. Courses in basic and advanced game theory; course in rational choice theory.

**Beijing Language and Culture University.** 2007. Beijing, China. Intensive summer Mandarin courses in newspaper and periodical reading; news-program listening.

**Nankai University.** 2002. Tianjin, China. Intensive courses in intermediate spoken and written Mandarin.

#### **TEACHING, RESEARCH, AND RELATED PROFESSIONAL EXPERIENCE**

**Harvard University.** East Asian Studies program. Thesis reader. Spring 2014. Cambridge, MA.

**The George Washington University.** Space Policy Institute. 2010-2011. Washington, DC. Visiting scholar, supervised by Professor Scott Pace.

**Chinese Academy of Social Sciences.** Institute of World Economics and Politics. 2008-2009. Beijing, China. Visiting doctoral research student, supervised by Professor Li Shaojun.

**University of Toronto.** Department of Political Science. 2006-2008. Teaching assistant and head teaching assistant to Professor Lilach Gilady for the course *POL 208 Introduction to International Relations*.

**Canadian Embassy in Beijing, China.** 2005. Research and policy analyst in political-economic section.

**Department of Foreign Affairs and International Trade.** China and Mongolia Division. 2004. Ottawa, Canada. Political research analyst.

#### **COMMUNITY ENGAGEMENT AND SCHOLARLY SERVICE**

***Science and Public Policy* journal.** Reviewer by invitation of editor. 2014.

***International Studies Review* journal.** Reviewer by invitation of editor. 2015.

***Review of International Studies* journal.** Reviewer by invitation of editor. 2015.

***International Studies Perspectives* journal.** Reviewer by invitation of editor. 2015.

***International Journal of China Studies.*** Reviewer by invitation of editor. 2015.

**Space Generation Advisory Council (SpaceGen).** Executive council member and other roles. 2011 to 2014. Project coordinator; expert at 2013 Congress; organizing team member for 2014 Fusion Forum.

**Project Ploughshares Space Security Index 2012.** 2013. External reviewer.

***jilir* (Journal of International Law and International Relations).** Munk Centre and Law School at the University of Toronto. 2007 to 2010. Senior editorial board.

## **DISSERTATION ABSTRACT**

### **China and the United States in Civil-Commercial Air and Space: Specialist cultures and international relations in high-technology sectors**

Doctor of Philosophy Degree  
Department of Political Science, University of Toronto  
August 2013

Why are some high-technology sectors trans-nationally integrated while others are sites of interstate competition? This dissertation explores this question through a comparison of China-U.S. relations in two strategic, high-technology sectors: civil-commercial aircraft manufacture and civil-commercial spacecraft manufacture. Between 1989 and 2009, China-U.S. relations took strikingly different trajectories in these two sectors. In the aircraft sector, the two countries' industries traded and integrated their activities and their civil agencies cooperated. In contrast, in the space sector, their industries did not trade or integrate, their civil agencies did not cooperate, and the two countries engaged in a form of technological competition. The divergent trajectories taken by China-United States relations in these two sectors are puzzling because both sectors present similar incentives and disincentives for both transnational integration and interstate competition. Theories of international relations do not fully explain this sectoral variation. This research indicates that this variation is traceable to underlying differences in how specialists in each sector, including technical and policy experts, implicitly reason about and represent technologies in general. In both countries, the air and space specialist communities each hold distinct understandings of the relationship between humans and technology. Performing representational practices that reflect these distinct assumptions, aeronautic and space specialists discursively constitute each sector and its technologies as distinct objects of policy, requiring different forms of state action. In air, these include policies adopted by both countries to enhance bilateral trade, industrial partnership, and technical cooperation. In space, these include measures to inhibit bilateral trade and cooperation while preparing for a coming bilateral confrontation.