

Summer Training Workshop on the Relationship Between National Security and Technology

Instructors

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Richard A. BITZINGER is a Senior Fellow with the Military Transformations Program at the S.Rajaratnam School of International Studies, where his work focuses on military and defense issues relating to the Asia-Pacific region, including force modernization and defense transformation, regional local defense industries and armaments production, and weapons proliferation. Mr. Bitzinger has written several monographs and book chapters, and his articles have appeared in such journals as *International Security*, *Orbis*, *China Quarterly*, and *Survival*. He is the author of *Towards a Brave New Arms Industry?* (Oxford University Press, 2003), "Come the Revolution: Transforming the Asia-Pacific's Militaries," *Naval War College Review* (Fall 2005), and *Transforming the U.S. Military: Implications for the Asia-Pacific* (ASPI, December 2006). He is also the editor of *The Modern Defence Industry: Political, Economic and Technological Issues* (Praeger, 2009). Mr. Bitzinger was previously an Associate Professor with the Asia-Pacific Center for Security Studies (APCSS), Honolulu, Hawaii, and has also worked for the RAND Corporation, the Center for Strategic and Budgetary Affairs, and the U.S. Government. In 1999-2000, he was a Senior Fellow with the Atlantic Council of the United States. He holds a Masters degree from the Monterey Institute of International Affairs and has pursued additional postgraduate studies at the University of California, Los Angeles.

Tai Ming CHEUNG is associate research scientist at the UC Institute on Global Conflict and Cooperation. He is in charge of the Institute's Minerva project "The Evolving Relationship Between Technology and National Security in China: Innovation, Defense Transformation, and China's Place in the Global Technology Order" and serves as an associate adjunct professor at the School of International Relations and Pacific Studies at UC San Diego. He is a long-time analyst of Chinese and East Asian defense and national security affairs. Cheung was based in Asia from the mid-1980s to 2002 covering political, economic and strategic developments in greater China. He was also a journalist and political and business risk consultant in northeast Asia.

Cheung manages IGCC's Northeast Asia Cooperation Dialogue (NEACD), a Track Two program that brings together senior foreign ministry and defense officials as well as academics from the United States, China, Japan, South Korea, North Korea, and Russia for informed discussions on regional security issues. He is also the program manager of "The Future of Multilateral Security Cooperation in Northeast Asia: Exploring Regional Security Architecture and the Economics-Security Nexus," a research project in collaboration with the University of Tokyo and Yonsei University funded by the John D. and Catherine T. MacArthur Foundation, and of "The Evolving Relationship Between Technology and National Security in China: Innovation, Defense Transformation, and China's Place in the Global Technology Order," a five-year research and training program examining China's efforts to become a world-class science and technology power is funded by the U.S. Department of Defense.

Cheung received his Ph.D. from the War Studies Department at King's College, London University in 2006. His latest book, *Fortifying China: The Struggle to Build a Modern Defense Economy*, was published by Cornell University Press in 2009. He is an associate adjunct professor at the School of International Relations and Pacific Studies (IR/PS) at UC San Diego, where he teaches courses on Asian security, Chinese security and technology, and Chinese politics.

Rogers HOLLINGSWORTH is the author or editor of 18 books and numerous scholarly articles, mostly in comparative political economy. He has published widely on the study of radical innovations in various

economic sectors within and across countries. He has lectured at numerous universities in North America, Europe, Asia, and Africa, and is the recipient of honorary doctorates from both sides of the Atlantic.

David MEYER is professor of mathematics and the George W. and Carol A. Lattimer Campus Professor at UC San Diego. He works on a wide range of topics in mathematics and physics, including discrete models for quantum gravity, knot theory, and the foundations of quantum mechanics. His recent research has focused on quantum information processing, a subject into which he introduced the ideas of quantum lattice gas automata and quantum games, and on topological data analysis, specifically of partially ordered data and in connection with wavelet analysis of scaling dimensions.

Meyer's interest in the latter topics is largely motivated by his interest in mathematical modeling of social systems. As part of the IGCC project, "The Evolving Relationship Between Technology and National Security in China: Innovation, Defense Transformation, and China's Place in the Global Technology Order," he is designing relational databases to organize qualitative data on China's science and technology development system, and developing statistical methods to analyze the data therein. Meyer received his B.A. and M.A. in mathematics from the Johns Hopkins University and his Ph.D. in mathematics from the Massachusetts Institute of Technology. He has held visiting and postdoctoral positions in the mathematics and physics departments at Syracuse University, the physics department at Duke University, and the physics department at UC San Diego before joining the Mathematics Department, first as a research scientist, and since 2001, as professor.

Alice Lyman MILLER is a research fellow at the Hoover Institution and teaches in the Departments of History and Political Science at Stanford University. She is also a senior lecturer in the Department of National Security Affairs at the U.S. Naval Postgraduate School in Monterey, California. Prior to coming to Stanford in 1999, Miller was an analyst at the Central Intelligence Agency from 1974-1990. From 1990–2000, she was associate professor of China Studies and, for most of that period, director of the China Studies Program at the School of Advanced International Studies (SAIS) at Johns Hopkins University in Washington, D.C. She also held a joint appointment as adjunct associate professor in the Department of Political Science at Johns Hopkins from 1996–99, and as adjunct lecturer in the Department of Government, Georgetown University from 1996–98.

Miller's research focuses on foreign policy and domestic politics issues in China and on the international relations of East Asia. She is currently editor of the *China Leadership Monitor*, which, now in its ninth year, offers authoritative assessments of trends in Chinese leadership politics. Additionally, she is author of two books: *Science and Dissent in Post-Mao China: The Politics of Knowledge* (University of Washington Press, 1996) and, with Richard Wich, *Becoming Asia: An International History Since World War II* (Stanford University Press, 2011). She is currently working on two book projects, one with IGCC Director Susan Shirk on the politics of oligarchy in China, and the second, tentatively entitled *The Evolution of Chinese Grand Strategy, 1550–Present*, which brings a historical perspective to bear on China's rising power in the contemporary international order.

Barry NAUGHTON's most recent book is *The Chinese Economy: Transitions and Growth*, a comprehensive survey of the Chinese economy that was published by MIT Press at the beginning of 2007. Naughton is an economist and professor at the University of California, San Diego, who was named the So Kuanlok Professor of Chinese and International Affairs at the Graduate School of International Relations and Pacific Studies in 1998. Naughton has published extensively on the Chinese economy, with a focus on four interrelated areas: economic transition; industry and technology; foreign trade; and Chinese political economy. His pioneering study of Chinese economic reform, *Growing Out of the Plan: Chinese Economic Reform, 1978-1993* (New York: Cambridge University Press, 1995) won the Masayoshi Ohira Memorial Prize.

Naughton's research on economic interactions among China, Taiwan and Hong Kong, focusing on the electronics industry, led to the edited volume *The China Circle: Economics and Technology in the PRC*,

Taiwan and Hong Kong (Brooking Institution, 1997). Since then, Naughton has continued to follow the electronics industry and technology policy in China and Taiwan, and has published several solo and co-authored articles on related subjects. A recent volume, co-edited with Dali Yang, is entitled *Holding China Together: Diversity and National Integration in the Post-Deng Era* (New York: Cambridge University Press, 2004). Naughton publishes quarterly analysis of China's economic policy online at *China Leadership Monitor*.

Kevin POLLPETER is China Program Manager at Defense Group Inc. (DGI). Before working at DGI, Mr. Pollpeter was an analyst at RAND from 2000-2004. Mr. Pollpeter's research focuses on China military and Chinese military-related research and development and science and technology issues. In particular, Pollpeter focuses on the Chinese space program.

Pollpeter has authored or coauthored numerous publications on the Chinese military and national security issues. His space-related publications include a monograph entitled *Building for the Future: China's Progress in Space Technology During the Tenth Five-year Plan and the U.S. Response* and a book chapter entitled "The Chinese Vision of Space Military Operations." He has also written frequently for *China Brief*. Pollpeter has also coauthored many works, including *Dangerous Thresholds: Managing Escalation in the 21st Century* and *Entering the Dragon's Lair: Chinese Anti-access Strategies and Their Implications for the United States*.

Pollpeter received his Master's Degree in International Policy Studies from the Monterey Institute of International Studies and his Bachelor's Degree in China Studies from Grinnell College.

Susan SHIRK is director of the University of California system-wide Institute on Global Conflict and Cooperation and Ho Miu Lam professor of China and Pacific Relations at the UCSD School of International Relations and Pacific Studies. Shirk first traveled to China in 1971 and has been doing research there ever since. During 1997-2000, Shirk served as Deputy Assistant Secretary of State in the Bureau of East Asia and Pacific Affairs, with responsibility for China, Taiwan, Hong Kong and Mongolia. She founded in 1993 and continues to lead the Northeast Asia Cooperation Dialogue (NEACD), an unofficial "track-two" forum for discussions of security issues among defense and foreign ministry officials and academics from the United States, Japan, China, Russia, and the Koreas.

Shirk's publications include her books, *China: Fragile Superpower*, *How China Opened Its Door: The Political Success of the PRC's Foreign Trade and Investment Reforms*, *The Political Logic of Economic Reform in China*, and *Competitive Comrades: Career Incentives and Student Strategies in China*. Shirk served as a member of the U.S. Defense Policy Board, the Board of Governors for the East-West Center (Hawaii), the Board of Trustees of the U.S.-Japan Foundation, and the Board of Directors of the National Committee on United States-China Relations. She is a member of the Council on Foreign Relations, and an emeritus member of the Aspen Strategy Group. As Senior Adviser to The Albright Group, Shirk also advises private sector clients on China and East Asia.

May-Britt STUMBAUM serves as Senior Research Fellow and Head of EU - China Project within the China and Global Security Programme in Stockholm. Previous institutions included the Weatherhead Center for International Relations (Harvard), the German Council on Germany (DGAP) and fellowships at renowned institutes in European countries and China. A graduate from the FU Berlin and the London School of Economics, May-Britt Stumbaum has published widely on EU-China security relations. She is a co-founder and former president of Women in International Security Deutschland (WIIS.de).

Richard P. SUTTMEIER is a Professor of Political Science, Emeritus at the University of Oregon. He has written widely on science and technology development issues in China. His current research includes an NSF-supported study of the role of science and technology in China-US relations (<http://china-us.uoregon.edu/index.php>), the role of technical standards in China's technology policy, and Chinese

approaches to the management of technological risks. Recent publications include: “‘The Sixth Modernization?’ China, Safety, and the Management of Risks.” *Asia Policy* 6 (June, 2008); “State, Self-Organization, and Identity in the Building of Sino-US Cooperation in Science and Technology.” *Asian Perspective* 32, 1, 2008; and *Standards, Stakeholders, and Innovation: China’s Evolving Role in the Global Knowledge Economy*. (with Scott Kennedy and Jun Su). National Bureau of Asian Research. September, 2008.