

Select Upcoming Events

AFRICA AND THE ARMS TRADE TREATY

Wednesday, April 23, 2014

1:00 p.m.–2:30 p.m.

CSIS, 1616 Rhode Island Ave., NW

HOW FIRMS COPE WITH CRIME AND VIOLENCE: EXPERIENCES FROM AROUND THE WORLD

Wednesday, April 23, 2014

1:00 p.m.–3:00 p.m.

CSIS, 1616 Rhode Island Ave., NW

U.S. AIR FORCE ENGAGEMENT IN THE ASIA PACIFIC

Featuring General Herbert “Hawk”

Carlisle, Commander, Pacific Air Forces

Monday, May 5, 2014

11:15 a.m.–12:15 p.m.

CSIS, 1616 Rhode Island Ave., NW

PONI 2014 SUMMER CONFERENCE

June 3–4, 2014

Lawrence Livermore National Laboratory

Livermore, California

Select Recent Events

ARE PAKISTAN’S ECONOMIC POLICIES PUTTING IT ON A PATH TO STABILITY?

Featured a panel discussion on

Pakistan’s bold economic reform

initiatives, moderated by Robert Lamb.

CREATING A LEGACY FOR THE NUCLEAR SECURITY SUMMIT

Featured a panel discussion hosted by the

Proliferation Prevention Program on the

results of the March 2014 Nuclear Security

Summit in The Hague.

MILITARY STRATEGY FORUM: THE FUTURE OF THE U.S. AIR FORCE

Featured a discussion with Chief of Staff

of the Air Force General Mark Welsh.

IS NUCLEAR WEAPONS MODERNIZATION AFFORDABLE?

CLARK A. MURDOCK

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At the end of 2010, the Obama administration and Senate Republicans (led by then-Senator Jon Kyl) reached a deal on New START ratification, namely that the Senate would ratify the treaty in exchange for administration support of modernization of U.S. nuclear weapons and the complex that supports them. Almost immediately, there was controversy over what the deal meant: was the administration committed to sustaining the nuclear triad and its supporting infrastructure or was it committed to the exact budget numbers—\$225 billion for the nuclear weapons and their delivery system and \$85 billion for the complex—in the 1251 Report submitted to Congress? Moreover, the fiscal context for nuclear modernization changed significantly in August 2011 with passage of the Budget Control Act of 2011, which mandated defense budget cuts totaling \$487 billion over FY2012–2021.

How affordable is nuclear modernization? The first question: compared to what? In 2011, the United States spent \$34 billion, which is more than all of the other nuclear powers combined. Yet that amounted to less than 5 percent of the Defense Department’s budget. In contrast, Russia spends almost 13 percent of its budget on its nuclear forces, the United Kingdom and France about 7.5 percent, and Pakistan almost 30 percent. Only China, if their budgetary data is accurate, spends less of its defense budget (about 4.4 percent) on nuclear weapons. Nevertheless, modernizing all three legs of the nuclear triad will be expensive—a replacement for the Ohio-class submarine could cost \$6 billion. This is roughly the same cost as the 1 percent decrease in the cost-of-living adjustment to the pensions of working-age military retirees that was part of the Ryan-Murray budget agreement early this year. And Congress repealed that. In this fiscal climate, the cost of nuclear modernization will be much debated, despite its relative affordability. ■

LOCALIZING DEVELOPMENT ASSISTANCE TO ENHANCE EFFECTIVENESS

ROBERT D. LAMB

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While development assistance has helped many communities build opportunities for a better life, it has been less effective in helping communities recover from violence and conflict. The most obvious reason for this is security. Aid projects are difficult to carry out in conflict zones or where implementers risk being attacked.

But another reason might have to do with a lack of understanding of local conditions, needs, and expectations. The situation on the ground can change rapidly, and outsiders cannot gather information quickly and safely enough to keep up.

Locals, however, have a better perspective about the shifting alliances and motivations and how to cope with the violence. And even in communities affected by violence and conflict, people often find ways to meet basic needs and resolve disputes with their neighbors. Schools and businesses sometimes continue to operate. And most people try to find solutions that avoid harming others.

I recently authored a case study of how local businesses in Medellin, Colombia, coped with the violence they faced during the city's most difficult period. It is included in the World Bank's *How Firms Cope with Crime and Violence: Experiences from around the World*, by Michael Goldberg, Kwang Wook Kim, and Maria Ariano (January 2014), which includes assessments of Brazil, Jamaica, Mexico, Nepal, and Rwanda as well. Some businesses relocate to safer neighborhoods, those that remain hire private security, many negotiate an accommodation with armed actors, and some find collective ways to contribute to peace.

These solutions were found in most of the cases in the book. But what the outside world needs to learn from them is that the most successful coping mechanisms were adapted to very specific local conditions. That means that, when the opportunity to help arises, outside donors need to build on those local solutions, not replace or displace them.

I'll be hosting a book launch with the authors at CSIS on [April 23 at 1:00 p.m.](#) ■

THE END OF MOORE'S LAW...NO REALLY THIS TIME

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For decades we have benefited from Moore's Law—the predicted doubling of computer power every two years per unit of cost. Now, the leader of DARPA's Microsystems Technology Office and others are predicting the demise of Moore's Law in a decade. That prediction is generous—Moore's Law will cease much sooner.

One cause for the coming deceleration in expanding computing power is a problem producing cost-competitive chips in larger quantities. To overcome this problem, some have considered increasing the size of the silicon wafer from 300 mm to 450 mm, roughly the difference in diameter between a vinyl record and a basketball hoop. Although it may seem like

Multimedia



WATCH "The Launch of the Global Youth Wellbeing Index," hosted by the CSIS Project on Prosperity and Development, which included a plenary panel discussion featuring Kathleen Hicks.



WATCH "Afghanistan's Elections: What Comes Next?," featuring assessments by Stephanie Sanok Kostro and Anthony Cordesman of the recent election and what it means for the future of Afghanistan.

LISTEN to Rob Wise interview Adam Isles, CSIS senior associate and managing director at the Chertoff Group, on the FY2015 Homeland Security Budget Request as part of the Homeland Security and Counterterrorism Program's latest podcast.

a modest increase, the change coupled with improvements in advanced lithography could put Moore's Law back on schedule, at least until we reach the physical limits of the technology later this decade. With estimates for building new fabrication facilities to create these larger silicon wafers well above \$10 billion, and only a few currently breaking ground, it will be a decade before this new production technique takes off.

The impending expiration of Moore's Law comes at a time when budgets are stretched thin and cost efficiency is as important as ever. Continued improvement in computational abilities would benefit the millions of users in the government and commercial sectors whose computers and operating systems are outdated (approximately 10 percent of U.S. federal government computers still run on Windows XP, for instance). More critically, realizing the potential for significant advances in virtualization, phones and wearable devices, weapons systems, smart city initiatives, health informatics, and other areas depend on our continued improvement in computational abilities. The end of Moore's Law should thus signal to lawmakers and companies the need to invest more heavily in the research and development of 3D designs, photonics, materials beyond silicon, and eventually the quantum realm. ■

INITIAL ANALYSIS OF THE IMPACT OF SEQUESTRATION ON DoD CONTRACTING

JESSE ELLMAN
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There has been significant anecdotal evidence that sequestration has had a profound effect on contracting by the Department of Defense (DoD). To date, however, there has been virtually no hard data. This lack of reliable information on the impact of sequestration can now be remedied with the availability of FY2013 DoD contracting data through the publicly available

Federal Procurement Data System (FPDS). Leveraging nearly a decade of experience in using FPDS data to analyze DoD contracting trends, the CSIS National Security Program on Industry and Resources (NSPIR) has started work on the FY2013 update of our series "U.S. Department of Defense Contract Spending and the Supporting Industrial Defense."

Between 2012 and 2013, overall DoD contract obligations declined (in constant 2013 dollars) by 16 percent, from \$368 billion in 2012 to \$308 billion in 2013. This represents the largest one-year decline in DoD contract obligations in the 2000–2013 period. The decline under sequestration was over twice as large as the decline between 2011 and 2012 (-6 percent), and four times the rate of decline for the 2009–2012 budget drawdown period (-4.1 percent 3-year compound annual growth rate).

In the News

"You have to spend a lot more to sustain a bomber than a hole in the ground."

—Clark Murdock to the *Wall Street Journal* on why the Pentagon is cutting nuclear bombers and submarines while intercontinental ballistic missile launchers remain largely untouched.

"Israel is asking for a lot, and there's going to have to be compromise on both sides. So you won't get, for example, Iran to forego a civilian nuclear program. It's just not going to happen."

—Sharon Squassoni to *Mashable* on the Iranian nuclear negotiations.

"The department needs to shift its culture from a linear, industrial age series of exhausting "pitched battle" strategy debates to an agile, 21st century approach of continual strategy development, assessment and execution."

—Kathleen Hicks in a *Defense News* op-ed, "21st Century Strategic Planning."

Within contracts, most of the major DoD components (such as the Army, the Air Force, and the Defense Logistics Agency) saw declines of between 18 percent and 23 percent between 2012 and 2013, but Navy contract obligations declined by only 2 percent. Similarly, contract obligations for products (as defined by government Product or Service Codes) declined at a rate comparable to that of overall DoD contract obligations, while contract obligations for services declined more slowly (-14 percent) and contract obligations for research and development (R&D) declined more rapidly (-21 percent).

The NSPIR study team expects to release a brief analysis of these trends in the coming weeks, in preparation for the release of the full report later this spring. The full report will analyze trends in contract characteristics like level of competition and use of fixed-price contract types, as well as the impact on the industrial base. The report will also dig deeper into some of the more notable trends, such as the Navy's minimal decline in contract obligations and the steep decline in R&D. ■

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Please contact Mr. T.J. Cipoletti, Research Associate, ISP, at TCIPOLETTI@CSIS.ORG with any comments, suggestions, or questions about FYSA content or ongoing ISP activities.

Recent Publications

READ “The State of U.S. Power: Perceptions across the Globe” for a conversation with some of CSIS’s most prominent regional scholars, led by Kathleen Hicks, on foreign views of U.S. leadership.

READ *Exploring New Ways to Provide Enduring Strategic Effects for the Department of Defense*, by Clark Murdock and Sam Brannen, the result of an eight-month study to explore new “ways” of using U.S. military power to achieve enduring effects.

READ *Nuclear Notes: Volume 4*, a publication of the CSIS Project on Nuclear Issues, featuring articles on a wide range of topics by rising experts in the nuclear field.

CSIS Critical Questions

READ “Outcomes from the 2014 Nuclear Security Summit,” by Sharon Squassoni.

READ “Turkish Shootdown of Syrian Fighter Jet,” by Sam Brannen.

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