

## Senate Discusses Health of the Defense Industrial Base

Written by Nick Sanders  
Tuesday, 10 May 2011 06:10

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On May 3, 2011, the U.S. Senate Committee on Armed Services, Subcommittee on Emerging Threats and Capabilities, held a [hearing](#) on the status of the defense industrial base. Six VIPs offered testimony, and today we want to look at their written testimony.

Frank Kendall (Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics) offered the following interesting sound bites (word bites?).

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To understand this increasing dynamism and complexity the Department is pursuing multiple, concurrent efforts to map and better understand the defense industrial base. This approach is in contrast with other more traditional narrow program-focused and product-focused assessments. The Department will replace intuitive judgments about the impacts of changing domestic demand, globalization, commercial-military integration, emerging sources of innovation, and other issues with data-driven industrial base evaluations. By continuously assessing the industrial base on a sector-by-sector, tier-by-tier basis, the Department will develop a reservoir of critical and actionable information. ... Our efforts to encourage competition in the industrial base build on our commitment to gain insight about the state of the base's health before dictating oversight – insight that the Department has historically lacked, especially about the companies at the lower tiers of the industrial base. We have undertaken an aggressive effort to map and assess the industrial base sector-by-sector, tier-by-tier (S2T2). The goal is to understand the gross anatomy of the industrial base. Just as doctors do not seek to understand the functioning of every individual neuron in the central nervous system, the Department does not seek to know the exact details and reasoning behind every supplier relationship. But we do need to better understand the industrial base's nervous system, circulatory system, and bone structure.

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... For example, the Department expects to reward prime contractors for successful supply chain management, efforts that add value to DoD by reducing the costs of the components integrated further up the product stream. Understanding subtier-level connections between the Department's programs will improve our own supply chain management, helping the Department's efforts to maintain economical and stable production rates at multiple tiers. A better baseline of industrial base data will assist programs' market-research efforts, including in the area of contracted services, where market research needs particular attention and where the Department tends to pay rates above commercial rates. Comprehensive information about industry's deeper structure will help program managers develop strategies to increase

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competition, as directed under the Better Buying Power initiative.

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The Department is very conscious that the top tiers of the defense industry have already consolidated significantly, and we do not anticipate it to be in the best interest of the warfighter or taxpayer to see additional merger activity among the top prime contractors. But we do expect some increased activity at the middle and lower tiers, activity that we will monitor closely.

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The new S2T2 repository of industrial base data will also serve as a jumping off point for future assessments by all Defense Components, ensuring that data collection and analysis cumulates, thereby increasing the value of all industrial base assessment efforts. Having one office in the Department leading this effort will prevent duplication of effort that wastes the Department's resources and harasses overworked program offices and contractors with multiple, redundant requests. Sustaining and strengthening the data over time will also contribute required insight to the Department's merger, acquisition, and divestiture reviews and other industrial base policies.

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The commercial base has become increasingly global in nature. It maintains global supply chains, gets financing from global investors, and employs a global workforce. Globalization poses numerous advantages and challenges. ... On the other hand, the benefits of globalization are tempered by potential risks. Some foreign nations and non-state actors are constantly trawling global supply chains, trying to gain access to critical US technologies and information on US defense systems. Similarly, the U.S. needs to address risks that counterfeit parts or even components intentionally designed to subvert crucial defense systems could slip in through the increasingly complex, global supply chain. ... Globalization also poses unique risks of supply chain disruptions. Natural disasters can happen anywhere in the world, and even an entirely domestic defense supply chain could face disruptions. But if a disruption occurs at a domestic supplier, the Department can use Defense Priorities and Allocation authorities under the Defense Production Act to compel US industry to prioritize DoD critical orders. Those authorities do not extend overseas, so when disruptions occur at foreign suppliers, the Department may have a more difficult time adjusting. We are working to alleviate

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this challenge by increasing the use of bilateral defense trade agreements and security of supply agreements with our allies.

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DoD reimburses approximately 1200 firms in the industrial base for IR&D efforts, thus providing opportunities for innovation to both the large primes and the smaller mid and lower-tier firms. The IR&D funding is critical to ensure a healthy talent base in industry and to keep industrial design team skills sharp over the long term. The Department has recently launched initiatives to increase communication with industry regarding technology needs and operational requirements to ensure maximum return on industry's IR&D efforts, which the Department reimburses as an allowable cost. For example, the Department is preparing Vendor Communication Plans which provide clear guidance and encourage communication between industry and government about requirements and technology objectives. The Department is also reaching out to industry to find new ways to collaborate through sharing of detailed information about their IR&D projects and the Department's technology roadmaps.

We were next going to recap the testimony of Mr. Brett Lambert, Deputy Assistant Secretary of Defense, Manufacturing and Industrial Base Policy. But his written testimony was virtually verbatim—essentially word for word, that of Mr. Kendall, above. If you read Kendall's stuff, then you already know Lambert's points.

Norm Augustine, venerated former CEO of Lockheed Martin, offered the following points—

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While such topics as contract-type and the preservation of competition deservedly receive a great deal of discussion in the manufacture of defense systems, other often overlooked factors can swamp the above issues in terms of impact. Prominent among the latter are:

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Unrealistic initial estimates of the size of the total production buys and production rates—which

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lead to excessive tooling costs and amortization penalties.

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Cutbacks in planned annual purchases—which diminish the significant gains that can otherwise be realized by moving down the learning curve.

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Uncertainty in year-to-year funding—which precludes efficient purchasing quantities, discourages contractor investment in productivity measures, and leads to cancellation or renegotiation of sometimes thousands of subcontracts.

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Failure to discount future cash flows—something that would never be permitted in the private sector.

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Failure to provide reserves in proportion to the risk entailed in a task—again, something that could never be tolerated in the private sector.

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National defense today depends not only on companies generally associated with national security but also on the thousands of sub-contractors and suppliers who provide the larger firms with everything from castings and forgings to microchips and lasers. Many of these smaller firms do not possess the financial staying-power or resiliency of the larger firms and are thus even more vulnerable to turbulence in the procurement process. Viewing the environment in which both large and small U.S. firms operate today, the outlook for our nation's security, let alone the economy as a whole, is not reassuring.

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American firms spend over twice as much on litigation as on research. They commonly spend

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more on healthcare for their employees and retirees than on the basic material that go into their products. ... The patent system is ponderous and the export laws were designed for another era. The immigration laws discourage much-needed talent from remaining in our country. The prevailing tax and market structure encourages a short-term outlook and disincentivizes long-term investment—for example, research. The demise of the iconic Bell Laboratory, home of the laser, transistor and many Nobel Laureates, is but one example of the latter. If current plans are carried out the government will soon have the equivalent of two Army divisions overseeing defense procurement. While oversight is indispensable, the question of balance is nonetheless present—particularly when industry's response is likely to be to match that number of overseers within its own firms as a defensive measure.

We're not done yet. Here are the thoughts of Dr. Jacques Gansler—

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To meet the 21st Century National Security environment, the industrial base must be **flexible, adaptable, agile, responsive, and innovative; and it must provide high-quality goods and services at affordable prices, in the quantities required. To achieve this, requires the government to change the way it does its business,**

i.e. reform its laws, regulations, policies and acquisition/procurement practices. It must remove the current barriers—created through overregulation and detailed “input” specifications—and shift to an emphasis on creating incentives for industry to achieve the desired output results. [Emphasis in original.]

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Since ‘changing the way the government does its business’ and, correspondingly, ‘transforming the National Security industrial base for 21st century needs,’ is basically a *‘cultural change,’*

the literature is clear— for successful implementation of a cultural change it requires

*leadership (*

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*set of metrics)*

I have written and testified frequently about the benefits (in cost and performance) of competition. But, there are ... right and wrong ways to perform a competitive acquisition .... Weapon systems are not interchangeable commodities (so you can not just 'open the envelope' and pick the low bidder) the decision must be based on a combination of *risk* (based on 'past performance' of the firm and current status of the proposed technology) and the proposed performance, cost, and delivery (i.e. 'best value'); as well as the probability of maintaining these 'promises' in the presence of the large number of future changes (that are unavoidable in this rapidly-changing world). So,

*incentives*

are required (to achieve high performance at low cost); and the best one (over the long run) is the presence of, or a credible option for, continuous competition among two sources (known as 'competitive dual-sourcing'). The usual counterargument is that 'we can't afford the second-source start-up costs;' and 'this time will be different'—'We will manage the sole-source contractor, and allow no government-imposed changes.' But this just doesn't have any credibility!

Since the mid-90s, as the dollars and actions for DoD acquisitions were rising dramatically, the acquisition workforce was being cut. (Twenty-five percent of this was by Congressional mandate.) Even more critical than the numbers being cut, were the senior positions. For example, in 1990 the Army had five General Offices with Contracting experience; in 2007 they had none. In this same time period, the Defense Contract Management Agency went from four General Officers to none (while their workforce went from 25,000 to 10,000). And the Air Force had cut both their acquisition General Officers and their SES acquisition personnel in half. Without smart, well-trained, experienced acquisition buyers and managers, making the required changes in DoD buying practices, and achieving the required transformation of the industrial base (for 21st century National Security) will simply be unachievable.

In our next article, we'll discuss the implications of these statements.

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