Centralized procurement—not mergers and acquisitions—stifles innovation and competition

The Defense Monopoly

BY HARVEY M. SAPOLSKY AND EUGENE GHOLZ

N THE FALL OF 1993—AT A DINNER THAT BECAME KNOWN as "the Last Supper"—then-Deputy Secretary of Defense William Perry told the audience of defense contractors that budget cutbacks required a major restructuring of

the defense industry. Thus, the Department of Defense (DOD) encouraged an unprecedented wave of mergers and acquisitions in the defense industry. Soon, such icons as Grumman, Martin Marietta, McDonnell Douglas, Hughes, and Rockwell were absorbed into larger defense-focused enterprises, while Ford, Goodyear, IBM, General Electric and other Fortune 500

mainstays sold their defense contracting divisions.

More recently, however, DOD has blocked several proposed mergers. Deputy Secretary John Hamre and Under Secretary for Acquisition and Technology Jacques Gansler now argue that any further reduction in the number of firms in "key" markets—segments of the aircraft, ship, and armored vehicle sectors—will impair the military's ability to obtain innovative, cost-effective weapons. Fears of vertical and horizontal integration have led DOD to reject proposed mergers between Lockheed Martin and Northrop Grumman and between Newport News Shipbuilding and Ingalls Shipbuilding.

We believe that neither Perry's "let the market decide" policy nor the present regime's "it is time to worry about the number of surviving competitors" view is the proper guideline for restructuring the post-Cold War defense industry. On the one hand, the major defense firms' political leverage does not allow the market to decide. On the other hand, neither vertical nor horizontal concentration among defense firms threatens DOD's efficiency or effectiveness. The real threat comes not from the sellers of weapons but from the

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buyer of weapons—from the *demand* side. It is there that the government should end collusion.

DEFENSE PROCUREMENT AND THE COLD WAR

BEFORE THE COLD WAR, CONTRACTORS SUPPLEMENTED public production as America armed, often building weapons designed by government arsenals. When a war ended, contractors would revert to commercial production because there was little money to be made by supplying America's small peacetime forces.

But a different pattern emerged during the costly, halfcentury Cold War, which began just a few years after the end of World War II. Many of the contractors then demobilizing had new technologies to develop and saw the prospect of a sustainable business in a protracted conflict with the USSR.

Thus, private contractors stayed in the defense business, and in the course of the Cold War, they replaced the public arsenals. In contrast to the arsenals, which the armed services saw as too autonomous and tradition-bound, contractors were considered responsive to the services' respective preferences and better able to attract the scientific and technical talent needed to develop advanced weapons.

Defense contractors gained an increasing share of the funds available for weapon development and nearly all of

the production assignments. Such now-familiar names as Lockheed, McDonnell Douglas, and General Dynamics vied to become the biggest government contractor. When the defense budget declined after the Korean and Vietnam conflicts, government arsenals and shipyards were closed to preserve funding for defense contractors. The defense industry gradually became the repository of the nation's weapon-development and production skills. Without formal recognition, the United States created a system of private arsenals during the Cold War—firms on which the government depended, to varying degrees, for its access to the technologies required for waging modern warfare.

To be sure, it was possible for defense contractors to go out of business during the Cold War, but only if they al-security consequences; it is easy for Congress to ignore military preferences and to base its budget decisions on the preservation of jobs. Contrary to the views of military-industrial complex theorists (most prominently, James Kurth), it took the *end* of the Cold War to ensure that weapon-assembly lines would stay open.

In the new politics of post-Cold War weapon procurement, it is not surprising that defense companies do not expect to consolidate assembly lines following a merger or acquisition. The same companies that quickly eliminate excess capacity in overlapping commercial lines, such as in space launch and satellite construction, do not close "excess" weapon lines. Such lines continue to generate government contracts, with a bit of lobbying effort, which

is aimed mainly at Congress rather than the White House or the military. Because today's defense contractors are more organized and effective in their lobbying efforts than were the proponents of government arsenals and shipyards during the Cold War, private facilities have remained open—in contrast to the fate of public facilities.

Although more than a million employees of defense contractors have lost their jobs since the Cold War began to wind down in 1986, there are still 400,000 more contractor employees working on defense projects than there were in 1976, at the low point of Cold War defense budgets. There was then the Warsaw Pact and Soviet Union; there is today no "peer competitor" to justify a high level of procurement to mobilize for war. Yet every one of the eight military aircraft lines, six private yards building major warships, and five military helicopter lines that was open at the end of the Cold War is still open and producing—if more slowly and perhaps under a different corporate banner.

The wave of mergers and acquisitions encouraged by DOD changed the corporate face of the industry, not the way in which the industry operates. Boeing took over Rockwell and McDonnell Douglas. Lockheed merged with Martin Marietta and absorbed Loral, which previously had acquired the defense electronics businesses of IBM, RCA, and a half-dozen other firms. Raytheon purchased the defense business of Texas Instruments and most of Hughes. General Dynamics-which had sold its missile lines to Hughes, its space launch division to Martin Marietta, and its fighter aircraft business to Lockheed-more recently bought two shipyards, Bath Iron Works and NASSCO, to complement its Electric Boat division, a builder of submarines. Northrop and Grumman merged, bought Vought Aircraft, and later acquired the radar business of Westinghouse. FMC and BMY, builders of armored vehicles and gun platforms, formed a partnership they called United Defense. Despite all that logo-changing, joint-venturing, and deal-making, not one weapon assembly line has closed since Perry's famous "Last Supper" speech.

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were foolish enough to offend their customers, the army, navy, and air force. The Curtiss-Wright Corporation, a prime producer of fighter aircraft and aircraft engines, was America's second biggest manufacturing firm in 1945, but it nearly disappeared at the height of the Korean War buildup. Curtiss-Wright's main customers, the air force and navy, decided that because of the company's uncooperative attitude—constantly demanding larger government subsidies-it did not deserve new prime contracts. As a result, Curtiss-Wright began to place an unrewarded third or fourth in every development competition it entered, its jet engine designs losing most often to Pratt & Whitney's. Ironically, Pratt & Whitney's military engine business suffered severely in the early 1980s after the firm rebuffed an air force request made outside of existing contracts to improve the reliability of the F-16's engines. And Vought, Republic, and Fairchild left the military-aircraft business during the well-funded Reagan years because they failed to meet either the air force or navy's design expectations.

FUNDAMENTAL CHANGES WITH THE END OF THE COLD WAR

THE CLEAR THREAT TO NATIONAL SECURITY FADED WITH the end of the Cold War, and with it the services' dominance of the weapon-procurement process. Congress's growing influence has changed the procurement process far more than the mergers and acquisitions among defense contractors. Whereas the armed services give heavy weight to contractors' commitments to meet performance goals for weapons, members of Congress tend to worry most about employment in their districts. In today's low-threat environment, acquisition decisions do not carry obvious nation-

DEMAND-SIDE COMPETITION IS WHAT REALLY MATTERS

The Deck Is Stacked Against Sellers The U.S. market for defense goods is hardly a normal market: there is a single buyer, the federal government. Moreover, when manufacturers wish to sell military equipment to other governments, America's allies or not, they must have the federal government's permission, and often its assistance, to market and support their products.

It matters little how many suppliers there are when there is but one buyer. The defense market cannot collapse into the economists' standoff of "bilateral monopoly" because the government, as the one buyer (monopsonist) is not a mere company—it is the State. Sellers in such a market are foolish to antagonize the monopsonist, as several defense contractors learned to their regret during the Cold War. Eight sellers or one, every seller must respond to the preferences of the monopsonist or leave the business.

Thus, the defense industry was shaken in 1998 when, without warning, DOD began to oppose some mergers. As of now, the biggest merger to be blocked is that of Lockheed Martin and Northrop Grumman, which would have com-

bined six active military aircraft lines and significant electronic-warfare capabilities. Before the government's decision, the merger had been received warmly on Wall Street. Senior defense officials, supported by the Justice Department's antitrust division, argued that such mergers threatened innovation and price competition in weapons by vertically integrating the design function

and creating monopolies in particular types of weaponry.

Like the parties to other recently thwarted mergers, the suitors in the Lockheed-Northrop merger did not challenge the government's analysis of competition in the industry, either in the courts or in the press. If they had chosen to challenge the government, they could have made a strong case that its fears about the state of competition in defense were misplaced: the competition that matters is the competition among the buyers of defense goods, not the sellers of those goods.

INTERSERVICE RIVALRY VS. JOINTNESS

RIVALRY AMONG THE SERVICES—OR THE LACK OF IT—determines the rate and direction of innovation in weapon systems. Such rivalry is necessary for meaningful competition among the contractors and government facilities that conceive and develop innovative technologies. But, with increasing success, the government has been trying for decades to suppress interservice rivalry.

Because each military service strives to pursue its own procurement agenda, several autonomous or quasi-autonomous buyers represent the government, intentionally or not. Buyer-side competition for roles and missions prevailed during World War II and in the early phases

of the Cold War, as each service specified its technological requirements and determined how many new weapons would be produced.

A Perverse Trend But the trend has been away from rivalry in the development and acquisition of weapons. Robert McNamara, as Secretary of Defense in the Kennedy and Johnson administrations, famously (and disastrously) began to suppress interservice rivalry with the TFX project, an effort to develop a fighter-bomber for use by both the air force and navy. Neither service wanted (or needed) the same airplane and they resisted cooperating on a centralized design. The navy eventually withdrew from the project and bought its own systems. TFX became the air force's not very well loved F-111.

The present form of centralized procurement is less controversial because the services have learned to hide their differences on "joint" weapon projects. Disputes are kept within the military staff and hostile interlopers are kept on the sidelines. The joint strike fighter (JSF) project, for example, involves the collaboration of the air force, navy, marines, and the British in the development of three

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versions of a lightweight and versatile combat aircraft. It is likely that there will not be another major fighter aircraft-development project for quite some time.

The Case for Interservice Competition The quest to create more "jointness" among the armed services should be viewed as a danger to national security. At a minimum, jointness squanders the dynamic organizational competition that helped win the Cold War. In the race with the Soviets to develop intercontinental ballistic missiles and a secure nuclear deterrent, it was competition among the armed services that quickly produced the right answer: solid-fueled ballistic missiles fired from nuclear-powered submarines-the navy's Polaris system. Without that competition, unwelcome as it was by air force and senior defense officials, the United States probably would have had to work through a painfully long and costly sequence of bombers, more bombers, land-based liquid-fueled ballistic missiles, and land-based solid-fueled ballistic missiles before hitting upon the submarine-based system.

Interservice rivalry later proved its value, again and again. Because the air force was so focused on nuclear missions it lacked the right equipment and training for the Vietnam War and had to adopt navy-designed tactical air-

craft, ordnance, and training to fight effectively. Then, worried about its ability to fight conventional wars, the air force worked hard to improve its performance in air superiority, battlefield interdiction, and close air support. By the time of the Gulf War, naval aviation was the laggard—the navy not having invested enough in the precision-guided munitions required to attack targets in the face of modern air defenses while avoiding civilian casualties.

Similarly, because of the competition that had prevailed among the armed services (and between the services and the intelligence agencies), the U.S. military has better attack helicopters, amphibious warfare capabilities, satellite communication and surveillance systems, and special operations forces than it would have had absent the competition.

The Price of Bureaucratic Peace Defense officials—apparently forgetting which ideology won the Cold War—nev-

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ertheless prefer to centralize the choice of weapons under the rubric of jointness. Because competition among the armed services tends to be politically chaotic, it can bring into the open fundamental differences among the services about military priorities, combat doctrines, and the relative effectiveness of technological options. Those who are intent on building a personal reputation for managing defense effectively, however, prefer a quieter organizational life, one in which there are no acknowledged internal conflicts, where there is no questioning of the administration's goals, and where no one appeals to outsiders for support. The dream of effective five-year plans and absolute acquisition czars is now found only in the Pentagon.

A Case Study The case of the Joint Surveillance Target Attack Radar System (JSTARS) typifies the failures of jointness. JSTARS, a battlefield surveillance aircraft, was one of the "heroes" of the Gulf War, providing radar images of an Iraqi attack at Khafji just before the ground war started and of the "Highway of Death" that marked the war's end. The plane that flew those missions was still in development; it was brought to the fight to persuade doubters of its value. More funds were allocated to JSTARS and its development was accelerated following the publicity it gained in the Gulf War, but nearly a decade later only a few of the aircraft have been completed.

To understand the delay in the deployment of JSTARS, one must look back 20 years, when the army had a workable

battlefield surveillance system ready for deployment on light planes or helicopters. Senior defense officials, however, forced the army into a joint development project with the air force to create an integrated surveillance system. Used Boeing 707 commercial jets were selected as the aircraft platform for JSTARS. But used 707s proved to be extremely costly to rehabilitate—each rehabilitation costing much more than the price of a new airliner—because most of the needed parts are no longer available. Worse yet, debates about the configuration of JSTARS and its interfaces with ground-control systems, precipitated by the combination of army and air force requirements, have so delayed the acquisition of JSTARS that its electronics are several generations out of date. Now there is talk of a new, advanced JSTARS with modern electronics and a different airframe that would carry two separate surveillance radars, one for the army and one for the air force. JSTARS, still far from routine oper-

> ational use, is but one step away from being carved into the two independent projects that were its origins.

> The Present State of Competition Jointness and the political facts of life undermine DOD's arguments about competition among suppliers. Hardly anyone believes that the remaining fighter-aircraft contract to be let—the contract for the joint

strike fighter—will go entirely to the winner of the Boeing vs. Lockheed Martin design competition. The losing firm, or at least one of its assembly lines, could be put out of business by a winner-take-all award. Thus, the award is likely to be split 60-40, as has become usual for military jet-engine contracts. Such allocated production shares are not the stuff of the free market.

Similarly, hardly anyone believes that production awards for navy ships are decided competitively. Ingalls Shipbuilding and Bath Ironworks divide the construction of destroyers, currently DDG-51 Arleigh Burke destroyers, soon to be replaced in the yards by the allocation of a new "land attack" DD-21 destroyer. Most support-ship construction is allocated to NASSCO and Avondale.

And the navy discovered the total folly of its plan to save money by excluding Newport News (in Virginia) from submarine construction by concentrating all the work at Electric Boat (in Connecticut). Congress persuasively corrected the navy's "mistake" by insisting on sharing the work on the astutely named Virginia-class attack submarine between the two yards. Each manufacturer will make part of each submarine, and the parts will be welded together at one or the other site, in turn.

RESTORING COMPETITION IN DEFENSE PROCUREMENT

DEFENSE PROCUREMENT POLICY SHOULD BE REFORMED in two ways. First, DOD (with Congress's authorization) should encourage interservice rivalry; specifically:

- · Close joint development offices, which tend to cobble together an integrated list of requirements that can be fulfilled rarely and which always stifle innovation. (If legislative and executive fascination with jointness were to recede, for example, JSTARS could be split into independent efforts to solve the problems of battlefield surveillance and reconnaissance.)
- Even more important, curtail the role of the military's central planning institution, the Joint Staff, in the acquisition business. Its Joint Requirements Oversight Council (JROC), headed by the vice chairman of the Joint Chiefs of Staff, is a forum in which the services make deals on budget priorities, set

development goals for new weapon projects, and agree on industrial-base management strategies. Without such a forum, the services would be less able to collude and more likely to compete.

Second, Congress should recognize-and deal with-the fact that the growth of weapon-production capacity during the Reagan years still imposes a heavy burden on the

defense budget. It will take more than base closings to respond to post-Cold War overcapacity.

The scale of the defense industry doubled in the 1980s, and since then each production line has been fed a steady diet of production contracts, despite America's huge post-Cold War surplus of war matériel. There are large inventories of first-class weapons, and there is little danger that potential enemies soon will develop systems to make those weapons obsolete. Of course, there are shortages of some of the newest weapons (e.g., the JDAM satellite-guided bomb used in the Kosovo campaign). But such shortages are aggravated by the inefficient policy of producing old weapon platforms (aircraft, ships, and armored vehicles) at low rates, just to keep the lines open in various political jurisdictions.

Now is a good time for Congress to deal with the legacy of the Reagan buildup. How?

- · Restructure the defense industry by buying out excess capacity, paying off workers, compensating communities, and flattening excess plants.
- Overcome political resistance to restructuring by making "severance payments" to the defense firms and workers who would otherwise lobby for additional production contracts. The capital and labor now stranded in the defense industry could move to more productive uses. And one-time severance payments would be less costly than the "corporate welfare" that keeps production lines open to turn out

small quantities of older weapons, needlessly and at great expense.

Of course, it is doubtful that more than a few members of Congress will seize on such initiatives. It is better, politically, to fight the good fight to keep a line open by forcing additional production of an unneeded weapon.

But it is in the interest of the armed services to be certain that U.S. forces are properly equipped and trained to protect national interests. The services' reluctance to mount a sustained challenge to congressional pork-barreling reflects the true state of America's security: billions can be spent on defense-industry welfare without leaving the nation vulnerable to attack. Rather than reveal

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> that news to taxpayers, however, the armed services have colluded to hint darkly that more resources are needed for the readiness and recapitalization of the military.

> As long as there is jointness in the business of designing and acquiring weapons, the natural rivalries among the services will remain suppressed. Too much defense spending will be invested in the wrong weapons and not enough effort will be invested in truly innovative projects. Such are the wages of the defense monopoly.