CFO

FINANCE ON THE FRONT LINE

DEFENSE CONTRACTORS ARE BENEFITING FROM NEW CONTROLS THEIR CFOs HAVE INSTALLED.

BY ROY HARRIS

In the year since terrorists attacked New York City and Washington, D.C., the United States and its industries have suffered in ways both unexpected and predictable. Between arming the nation for overseas conflicts and bolstering its security at home, though, the defense industry has been thriving.

Not since the Vietnam War has the defense budget risen so sharply in a single year, driven largely by the need to procure high-tech weaponry like that used in the campaign against Afghanistan, and potentially to be used in Iraq. As a result, Lockheed Martin, Boeing,

PHOTOGRAPH BY NICK SINCLAIR

L-3 Communications president and CFO Robert V. LaPenta says that finance is no longer considered "the short leg of the three-legged stool" within the defense industry, but now holds its own with engineering and marketing.

Northrop Grumman, General Dynamics all weathered the bear market with relatively few scratches (at least until July). Those five industry leaders, along with many second-tier contractors, also had better-than-expected earnings in the first half of 2002.

Still, their sustained good fortune can't all be attributed to the recent turn in world events. Throughout the Cold War and into the 1980s Reagan arms buildup, the boom in defense contracting was routinely punctuated by industry tailspins.

But that isn't expected this time. After a rocky decade of decline in the industry following the Soviet Union's collapse, U.S. defense-industry leaders turned to their finance departments for help, for the most part in the late 1990s. They made major organizational changes and installed new approaches to cost control, while abandoning many old, counterproductive practices.

"There's been a broad acceptance of financial disciplines and controls that simply were absent in the Cold War environment," says Robert V. LaPenta, president and CFO of defense-electronics concern L-3 Communications Corp. No longer, he says, is finance "the short leg of the three-legged stool for many defense companies," deemphasized compared with engineering and marketing.

"It's a matter of managing the businesses as businesses," rather than seeing themselves mainly as equipment providers for the military, says Northrop Grumman Corp. vice president and CFO Richard Waugh, who has watched the industry develop over two and a half decades at the company, the last nine years as its finance chief. At Northrop, he says, finance now contributes by carefully planning the integration of its acquisitions, and with "earned-value measurement systems," which are manufacturing cost-control programs that "go down four or five or six levels to tease apart the cost of various work efforts," and help the company achieve specific reductions. To a large extent, he credits Northrop's seven-year-old compensation system, which rewards management efforts that benefit shareholders rather than merely grow the company.

The emphasis on finance is quite a switch from the old days, when the emphasis was on pleasing "the customer," as the Pentagon has always been known. Indeed, in the bad old days, arms makers played games with their bidding strategies. "Companies asked themselves what it would take to win a program, as opposed to what the program would cost," explains LaPenta, whose industry finance experience also goes back to the 1970s. "It was a case of bidding to win it, then hoping somewhere down the road to make that money back," he says.

Waugh agrees: "In the distant past, the effort was to not worry about what the contracts say, or how we'll perform, but to be on the leading edge from a technology standpoint." Today, he believes, finance has finally become a "change agent" in defense, focusing "on winning programs at the appropriate value."

A HONDA INSTEAD OF A FERRARI

The government played a major, if accidental, role in making contractors more finance-conscious. As the 1980s wound down, the United States encouraged new competitors to enter defense production, which increased capacity while hurting old-line contractors with already-thin margins. Then, with the fall of the Soviet Union, the federal arms procurement budget started a steady decline (see chart, next page), and the United States began pushing for industry consolidation, creating a flood of mergers and acquisitions.

"There were 55 prime contractors in the 1980s, and we're down to 5 now," says Chris Kubasik, senior vice president and CFO of Lockheed Martin Corp. His own company, he points out, "comprises 17 of the heritage companies that would have been among those 55."

Acquirers took on massive debt. But at the same time, the government funded less and less of companies' research and development, helping heat up the corporate competition for capital. Suddenly, contractors found their finances being reviewed carefully by the investment community, which often didn't like what it saw. The total defense budget, $462 billion at its Cold War peak in fiscal year 1985 (in today's dollars), had fallen by a third in 1998, to $295 billion.

The Pentagon lowered the cost-ceilings on new weaponry, such as the F-35 Joint Strike Fighter (JSF). For the Air Force, the $37 million cost of each stealthy JSF is about the same price it pays for old-tech F-16Cs. Defense contractors began to get the message: find cheaper ways to produce high-tech arms and more efficient ways to merge, even if that meant reinventing the finance department.

"Today, cost is of the essence to the customer, because the customer doesn't have the budget it used to," explains Northrop's Waugh. He views the change in U.S. weapons-buying as similar to how a wealthy family might react to a sudden plunge in income. "When you and your wife have lots of money, you go out to buy a Ferrari and a Rolls-Royce." But in the aftermath, "you say to the wife, 'I'm not even sure you need a Lexus. And wouldn't a Honda be OK just to move the kids around in?'"

CONTRACTING AND EXPANDING

The industry's newly empowered finance executives, eager to make the best of program shrinkage, also were instrumental in helping companies define their core operations and reshape themselves to fit the revised view—starting with the sell-off of noncore operations. The most dramatic early divestiture drive was by General Dynamics Corp., based in Falls Church, Virginia, which disposed of its huge fighter-plane, missile, and space-launch businesses, among others, and at one point seemed ready to liquidate completely. Finally, it decided to focus on tanks, ships, and electronics, and began acquiring again. Acquiring companies learned—sometimes the hard way—that M&A must be done selectively and care-

INDEPENDENT COST EVALUATION, ALWAYS A KEY LOCKHEED PROCEDURE, ONCE INVOLVED REPORTING "TO THE LEADERS OF EACH BUSINESS AREA, WHICH OFTEN DIDN'T REACH THE CFO."

fully. Lexington, Massachusetts-based Raytheon Co. encountered severe growth pains after its buying spree, and only lately has seemed to regain its health.

Efficiencies in The Boeing Co.'s defense programs help improve the overall corporate profit margin. The commercial airliner segment has been deflated by competition and overcapacity. The conventional view among aerospace-industry watchers is that Boeing got a huge boost during Debby Hopkins's 17 months as CFO, starting in 1998, when she came from General Motors to help shape up the finance operation. (She left for a short-lived term as Lucent Technologies's finance chief.) Boeing says Hopkins's efforts to train all executives in finance principles were expanded by her successor, Michael Sears, who was in charge of development and production of military aircraft at Boeing after its merger with McDonnell Douglas.

Paul Nisbet, an analyst who specializes in defense stocks for JSA Research, in Newport, Rhode Island, praises this "new Boeing" for the openness that has evolved under Hopkins and Sears, as well as for its performance. "Boeing never said anything that was the least bit enlightening before them," he says.

WOWED ON DAY ONE

One of the most complete finance reinventions has been at Lockheed Martin, which used M&A to become both the industry's largest company—its sales will approach $26 billion this year—and for a time its most debt-laden. The quest for scale was part of the problem that came to a head three years ago for Lockheed. With profits punished by troublesome acquisitions, in 1999 CEO Vance Coffman put finance in charge of launching a two-year divestiture plan, something almost unheard-of for Lockheed. In a program led by then-CFO Robert J. Stevens, now president and COO, the company sought to eliminate six lines of business and realign its balance sheet.

"I give the whole management team a lot of credit," says current CFO Kubasik, who was hired as controller that same year. While selling the business lines was step number one, "number two was to focus on free-cash-flow generation, and number three was to take proceeds and reduce debt." Today, free cash flow has increased to nearly $2 billion from $873 million at the beginning of the campaign, and the $12 billion debt level of 1999 has been sliced by almost $4.5 billion, with more reductions targeted. Behind those very visible efforts, though, has been the creation of a whole new structure for centralizing reporting to the CFO, rather than within the business units. Kubasik calls it his "early warning system," and one that gives operating people "a clear understanding of the underlying financial performance of the corporation."

He remembers vividly his first impression as controller of what lay ahead for Lockheed. "My first day on the job, I just said wow," recalls Kubasik, who had spent 17 years at Ernst & Young LLP, and had observed Lockheed's post–Cold War appetite for growth. But Stevens's plan to streamline Lockheed and begin reducing the debt load soon became a full-time project. Many on Wall Street didn't believe the company could change course so rapidly. "But we did it, and it really built our confidence," Kubasik adds. "This was the start of our credibility with the analysts, the Street, shareholders, and our debtholders."

Among the functions redesigned to report directly to Kubasik was that of independent cost evaluation (ICE), in which as many as 75 analysts evaluate program costs. "It's a key control in this industry, and we'd always had an ICE function, but before, the reporting was to the leaders of each business area, which often didn't reach the CFO," says Kubasik.

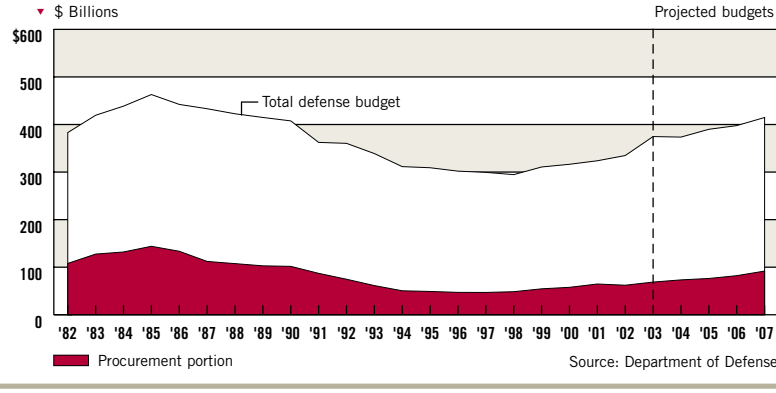
Lockheed is lavishing its cost-control efforts on a program that may offer the largest potential: JSF. To fill the needs of the three services, the United States plans to purchase 2,852 aircraft, potentially for $200 billion. Building the plane under strict cost controls is a challenge for Lockheed, but one it feels ready to meet. In addition to the early warning system of ICE, Kubasik and Stevens have instituted "continual assessment" programs and a process called anchor point management (APM), to track progress by closely examining certain pre-identified elements in development, spurring "prediction reports" that go to the CFO. APM relies on a series of tests that use a so-called critical item network—about 3,000 activities "that have the potential of being on the schedule critical path for some major program milestones, such as first flight," now scheduled for 2005, with delivery scheduled to begin around 2008.

JSA Research analyst Nisbet says Lockheed's closer attention to detail may help account for the company's apparent ability recently to avoid losses on a range of programs. "They were ignoring such things as early warnings when they were in a consolidation mode," he says. "Until Bob Stevens, there was nobody with the authority to make it happen."

SAVING OUR SHIP

When most commercial manufacturers find ways to cut production costs, they can pocket the savings through higher margins. But that's rarely true for defense contractors, which must return any savings to the customer when they are operating under the typical cost-plus-incentives arrangements. Under such contracts—as opposed to the fixed-price arrangements that more closely resemble commercial production terms—arms makers accept a certain margin rate and the government picks up costs, within agreed-upon limits.

ON A WARTIME FOOTING *Additional funding to combat terrorism signals an end to the post–Cold War defense-spending doldrums.*



But as is true in any industry, says Northrop's Waugh, "to get costs down, we have to incur costs. And those costs we incur hit those same programs." That's not all. "Our projected savings, from conducting our business more professionally, is put into the pricing," so future margins on programs don't reflect cost efficiencies, either.

Why work to cut costs on weapons systems? In the new industry environment, says Waugh, "we are all terribly concerned about the affordability of our products," the increasingly high-tech weapons systems the military relies on. Even if a bigger return on investment doesn't result from Northrop spending on plant and equipment improvements and thus reducing overall costs, "it makes sense if you think you're going to lose the program without that investment," he says.

"COST IS OF THE ESSENCE TO THE CUSTOMER, BECAUSE THE CUSTOMER DOESN'T HAVE THE BUDGET IT USED TO."

Northrop has made cost reduction its mantra. And the approach has reshaped the finance departments, too, at acquired companies like Litton Industries, purchased in 2001. Litton, for example, hadn't assigned a business manager to each of its five separate programs, choosing instead to have one manager for an entire location. "Quite frankly, you don't get the insight and analysis you need unless you have one for every program," says Waugh. "There was too much 'smoothing' of information" among discrete programs, robbing finance of insights into problems and successes.

In one case, building the $815 million LPD-17 amphibious transport ship for the Navy at the former Litton Avondale operations in New Orleans, Northrop estimates that a series of efficiencies will allow it to cut $100 million annually from the overall program, beginning in 2004. The benefit to Northrop from passing on the margin increases to the government? A congressional committee had put the LPD-17 on a list of programs being investigated for elimination because of their poor cost performance. And the ship is now off the list.

"There's an example where by turning that program around, it saved the business base, and it will allow us to make money on the program in the future," says Waugh.

The acquisitive Northrop, which recently agreed to buy space-systems company TRW Inc. for $7.8 billion in stock, has also attracted attention for its ability to integrate its targets quickly and efficiently. It has redesigned its business around ships, space systems, electronics, and unmanned surveillance aircraft like the Global Hawk, a star in the Afghan conflict; Northrop considers this approach a "battlefield management" strategy.

"SIMULATING" EFFICIENCIES AT L-3

Waugh says the greatest achievement of the Northrop finance department, though, may be its restructuring of management compensation, using a "warranted equity value" system. The system, started in 1994, now makes up 60 percent of the company's cash bonuses, available to 7,000 of its 100,000 employees.

In the early 1990s, Waugh was looking for a metric that correlated better with stock-price movement. Northrop's earlier programs, like those used by most defense contractors, set goals based on sales, margin, and cash. That wasn't bad, says Waugh, "but you could drive cash and sacrifice margin, for example," to the detriment of the overall company.

The new compensation approach, based on a cash-flow-return-on-investment model used by portfolio managers, assigns each individual operation at Northrop an imputed stock value reflecting debt and cash flow. That value must grow during the year for any bonus to be paid, and there are no exceptions— not even for CEO Kent Kresa or CFO Waugh. Since the Pentagon offers payments for such things as achieving program milestones, there are individual incentives for doing things that benefit program results— something that did not exist under the old incentive systems.

Among the "mezzanine" defense contractors, L-3 Communications has sought to grow with small to midsize defense acquisitions. And what makes the acquisitions good deals, says CFO LaPenta, is that these targets often have been far slower than the big contractors to learn about the benefits of tight financial controls.

"Eight times out of 10 we replace the vice president of finance," he says. Like General Electric, New York–based L-3 Communications targets only those companies that are either number one or number two in their markets. Among the organizational changes L-3 installs: corporate must review new program bids, and all hires of more than $125,000 a year must go to CEO Frank Lanza and LaPenta for approval first.

The system has worked well for L-3, which has built itself into a company with $4 billion in annual sales, about eight times the size it started at in 1997. And sometimes, L-3 finds a gem among the operations that others have put on the market.

Take the Link Simulation and Training business bought by L-3 from Raytheon in 2000 for $160 million. The deal gave L-3 the world's leading flight-simulator business, with $300 million in annual sales, though losses ran about $50 million. "Here, not only the vice president of finance went, but also the controller, president, and program management," says LaPenta. "Within 60 days of acquiring the company, we cut it back to $250 million, and became more selective about bidding for business." Last year, Link contributed $35 million in operating to L-3, and LaPenta projects more than $40 million from Link this year.

POLITICAL WARS

The government has been granting the industry some breaks in contracting terms in recent years, which have been good for cash flow. Early last year, the rate of government progress payments on programs was boosted to 80 percent from 75 percent. Other restrictions were loosened on performance-based payments, allowing contractors to get paid earlier as specific program milestones are reached. And in 2000, the so-called paid-cost

rule—forbidding contractors from billing the United States until the company paid its subcontractors—was eliminated.

Replacing the paid-cost rule was especially beneficial, says Lockheed Martin's Kubasik. "When I first came on board we were paying our invoices in seven days on average," he explains. "Basic cash management would suggest you stretch that out." (Lockheed has done so, realizing a nearly $100 million one-time benefit in the third quarter of 2000, after the rule was changed.)

Of course, politics still plays a powerful defense-industry role largely outside the influence of its finance chiefs. And that certainly won't change—unless it increases.

TARGET SHOOTING

If the price holds, the Joint Strike Fighter seems a bargain.

Lockheed Martin's F-35 Joint Strike Fighter is expected to cost $37.3 million for its Air Force version (left), $46.1 million for the Marines' short-takeoff version, and $48.3 million for the Navy's aircraft carrier–based version. The Air Force F-16C it replaces (right) costs "in the mid-to-high $30 million range," according to Lockheed.

A STAR IN THE AFGHAN CONFLICT, NORTHROP'S UNMANNED GLOBAL HAWK IS PART OF ITS "BATTLEFIELD MANAGEMENT" PRODUCT STRATEGY.

In the case of Lockheed Martin's enormous JSF program, for example, development is being handled in an international arrangement that is a break from past policy, which called for warplanes first to be designed and built in the United States, then marketed abroad. The company has already won commitments from the United Kingdom, Canada, Denmark, the Netherlands, Norway, Turkey, and Italy to participate in development. The global venturing spreads developmental risk while potentially doubling the total market compared with U.S. sales alone.

But Lockheed's rivals suggest that unmanned aircraft now being designed—planes that don't expose a pilot to enemy fire—may well replace large numbers of manned JSF planes in future budgets. And these rivals see the JSF's global marketing as largely a political ploy.

"With so many of our allies signed up for the JSF," notes analyst Nisbet, "it would be a very hard plane for the U.S. to kill," even if the fighters were no longer needed. ✳

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NO PLACE LIKE HOME

LaPenta

LIKE AN ALARM IN THE NIGHT, the 9/11 terrorist attacks woke one defense-industry market that had been sleepy for years: homeland security.

The new cabinet-level department with that name would have a $38 billion first-year budget, and encompass 22 existing federal entities, including the Customs Service, Secret Service, Federal Emergency Management Agency, and Coast Guard. Companies that already have contracts in those areas—and other fields classified as homeland defense, from fingerprint identification to creating missile shields—are analyzing ways to expand that business at a time of greatly heightened national interest.

The Boeing Co. won a contract to produce Transportation Security Administration airport bomb-detection machinery, while Lockheed Martin Corp. will work on passenger-screening systems, beating out Raytheon Co. and Northrop Grumman Corp. for the business. But there will be plenty to go around. A recent contract to Northrop and Lockheed to manage the Coast Guard's $11 billion modernization, for example, is likely to be an open door to more antiterrorist business. And Raytheon is developing a "first responder" vehicle for emergency command and communication.

"That $38 billion is a starting point, just accumulating the costs of all the agencies right now. That will go way up," says Robert LaPenta, president and CFO of L-3 Communications Corp., which itself is active in numerous homeland-security areas, including bomb detection.

But he expects a greater challenge in the bidding for contracts against defense companies that have become financially better-conditioned. Says LaPenta: "Certainly, the industry will be more competitive now in trying to win them." ✳ *R.H.*

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