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POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

It was March 2003, and Herb Anderson was watching the latest CNN report on the Iraqi warfront. He observed the potent effectiveness of a remarkable new confluence of existing weapons technologies connected by state-of-the-art computing. Northrop Grumman's C^4ISR system connected pilots, ground teams, and sensors in the real-time Computer Command, Control and Communication of Intelligence, Surveillance, and Reconnaissance of battlefield operations. Each of these independent elements had already been the best in the world a few years ago, but they were much more so when integrated into the C^4ISR system, as it was called. Advances in IT enabled the interconnection of several different systems, improving the performance of each individual system and reducing what the military referred to as "the fog of war."[1]

At the same time that Northrop Grumman Information Technology (NGIT) made integration possible on the battlefield, it also worked to integrate a series of acquisitions at its sector offices in Herndon, Virginia. Anderson, president of NGIT, sought to acquire other companies that would enable it to extend the strengths of its own corporate systems to the future needs of the defense and private sectors. Northrop used an iterative process to develop a merger integration methodology that helped the company avoid the fog. Over the years, the company's approach to integration earned it several accolades.

Now, having just digested the integration of Litton Industries and more than 50 acquisitions from the previous nine years, Anderson was contemplating the challenge ahead presented by the acquisition of TRW Space Systems and Missile Defense businesses.

[1] Prussian military strategist Carl von Clausewitz used fog as a metaphor for doubt and unease in his 1832 classic manual, *On War*. "War is the realm of uncertainty," he observed, because vital information about the enemy's strength and intentions is often missing, incomplete, or wrong. In war, von Clausewitz said, "all action takes place, so to speak, in a kind of twilight…like fog."

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Growing Northrop through a Series of Mergers after the Cold War

Jack Northrop entered the aviation business in 1927 as cofounder of Lockheed Aircraft. He founded Northrop in 1939, and in the 1940s developed a series of "Flying Wing" designs that eventually developed into Northrop's most successful cold war product: the B-2 bomber.[2] By the end of 1989, the majority of Northrop's revenue came from the B-2 bomber program.[3] The 1991 collapse of the Soviet Union served as a harbinger of change in defense spending: annual production dropped from 132 to 75, as battlefield technology shifted away from products designed to counteract a single superpower enemy.[4] Management predicted that defense spending would continue to slow, and that Northrop's strategy needed to evolve.

In the early 1990s, Northrop Grumman Chairman and CEO Kent Kresa formed a small strategy group to consider how the defense industry and Northrop were going to be affected by the new environment. The group concluded that defense readiness would come from (1) enhancing the effectiveness of existing and known platforms and (2) improving their interoperability. Northrop had developed integrated-systems design expertise as the lead contractor for the complex B-2 bomber, so it decided to apply it to other projects.[5] The company began a series of mergers that transformed Northrop's capabilities to address the need for integrated battlefield systems.

Because of its prior defense system partnerships with other industry players, Northrop found itself well-positioned to evaluate potential merger partners:

> Virtually any defense program of any size requires multiple participant companies at all levels, and we have had an opportunity to work with many other players in the industry. Peers in the industry know each other extraordinarily well. So, once you know what your strategic vision is, you almost automatically know what companies are of interest to you and how to prioritize them on your list of potential partners. After that, it is simply a process of establishing the right kinds of contacts and dialogs and coaching things along to support your aims.[6]

In 1992, Northrop purchased a 49% interest in Vought Aircraft Company, a major supplier of aerostructures. Two years later, Northrop purchased the Grumman Corporation, as well as the remaining 51% of Vought. In addition to broadening Northrop's existing airplane business, these two acquisitions doubled Northrop's electronics-related systems business. The

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[2] See http://www.invisible-defenders.org/programs/b2/beginning.htm for a history of Northrop Grumman and the development of the B-2 bomber.

[3] Quotation from Loren Thompson, The Lexington Institute, in P. Sellers, "The Sweetest Revenge: He was Passed Over for CEO of TRW. Now Ron Sugar Is About to Run It—and a Lot More Besides," *Fortune* (2002): 113–118.

[4] J. Berr, "Why Northrop's Shareholders Are Nervous: Northrop Grumman CEO Kent Kresa Has Gone on an Acquisition Binge That Has Unsettled Investors," *Bloomberg* (2002).

[5] Interview with Albert F. Myers, *The Northrop Grumman Review* 2 (2002) : 10–13.

[6] Myers.

Grumman acquisition also included a $350 million IT services business called DSSD. As Northrop's CIO, Herb Anderson was placed in charge of DSSD.

In 1994 CEO Kent Kresa refocused Northrop according to his vision of how the military would evolve in the post-Cold War world. One analyst noted "It was clear that needs were emerging related to regional conflict and peacekeeping—and, in between, periods of terrorism. More than anyone else in the defense industry, Kent saw that Cold War era weapon systems were going away."[7]

Northrop's 1996 $3.6 billion acquisition of radar-system manufacturer Westinghouse Electronics set the company on a course where its electronics business would exceed its aircraft business. Northrop Grumman also pursued expansion of its information technology (IT) business. The May 1997 announcement of the acquisition of Logicon added a roughly $600 million IT company to Northrop Grumman's existing $400 million DSSD business. The deal closed in August of 1997, and the combined $1 billion IT business later took on the name Logicon.

Lockheed Martin and Northrop Grumman

On July 3, 1997, Lockheed Martin and Northrop Grumman announced a stock-based merger that would create the world's largest defense company, but during the merger review process, both the Department of Defense and the Department of Justice expressed concern about the new entity's potential market power. One publication noted:

> Ostensibly the government's objections focused on what effect the merger would have on competition in the defense industry, particularly in the area of defense electronics. The move marked a central shift of attitude for the Pentagon, which previously had encouraged consolidation in efforts to foster an orderly downsizing of the defense industry in the post-Cold War era. The Defense Department [had] allowed six mergers, each worth greater than $1 billion in 1997 alone, and both Lockheed Martin and Northrop Grumman were the products of mergers that had occurred in the past three years.
>
> Since the government's announcement, representatives of the two companies have been meeting with Pentagon and Justice officials in an effort to negotiate an agreement that would allow the merger to go forward. Proposals included spinning off specific portions of the two companies and creating internal "firewalls" or other safeguards to avoid creation of a monopoly. Lockheed Martin announced its decision to call off its merger bid after the stock market's close on July 16, 1998.[8]

[7] P. Sellers, "The Sweetest Revenge."
[8] http://www.ciaonet.org/pbei/cdi/cdi29.html.

The Justice Department torpedoed the $8.3 billion merger of Northrop and Lockheed on antitrust grounds—after the two companies had spent a year working on integration.[9] The termination of the deal sparked waves of conjecture in the media, in Washington, and even among some employees within Northrop Grumman. The article noted:

> The future of Northrop Grumman has become a topic of some speculation. Relegated from the first tier of U.S. defense contractors, which includes Lockheed, Boeing and Raytheon, Northrop will now likely compete against second and third tier companies as a subcontractor for industry leaders. . . . Other industry experts believe that Northrop's future may lie in developing closer ties to, if not actually merging with, a foreign partner. A number of European companies have indicated an interest in getting into the U.S. defense market by working with U.S. firms.[10]

Kent Kresa described the effect of the deal in an interview several years later. "When the merger failed, there was a perception internally and externally that we had failed, that we couldn't survive, we were gone," said Kresa. As the stock price sank 50%, he laid off 10,000 workers and sold assets to pare down debt. "It was terribly debilitating," he said. "I didn't believe we were gone, but one option was to sell ourselves to someone else."[11]

One executive within Northrop Grumman's Logicon unit described the atmosphere in the office on the day that the merger fell through. "I sat at my desk, thought about the past year, and thought to myself, 'What now?' Luckily, Kent Kresa came in with an answer. He immediately got out there and spoke to the people and had a plan. That was one of the biggest things that pulled the company together. They were looking for a leader."

A Triple and a Double: Growing the IT business

As Northrop Grumman re-embarked on the strategy to add value by integrating existing weapons systems, the IT business itself grew through acquisitions to meet these needs. Almost one year after the 1997 acquisition of Logicon, it was integrated with the DSSD business. By early 2000, Northrop Grumman had acquired three other IT companies (INRI in 1998, DPC in 1999, and Comptek in 2000). Annual IT business revenues more than tripled in fewer than three years, growing from roughly $400 million in 1997 to $1.5 billion in early 2000.

The $5.1 billion acquisition of Litton Industries in 2001 dramatically expanded the operations of both Northrop Grumman and NGIT. It provided Northrop with a large presence in shipbuilding, with shipyards in Louisiana and Mississippi, and an electronics business including a ship navigation division in Charlottesville, Virginia. In addition to the shipbuilding and

[9] P.Sellers, "The Sweetest Revenge."
[10] http://www.ciaonet.org/pbei/cdi/cdi29.html.
[11] P. Sellers, "The Sweetest Revenge."

electronics assets, the acquisition also included two substantial IT operations that had heretofore operated independently: Litton-TASC and Litton-PRC.

These 2001 acquisitions alone presented a formidable integration challenge. The existing $1.5 billion Logicon business would have to be integrated with $500M Litton-TASC and $900M Litton-PRC. In addition to the Litton companies, Northrop Grumman acquired two other IT companies during the second half of 2000: $650M Federal Data Corp and $175M Sterling Federal. In the course of one year, Logicon's revenues would increase from $1.5 billion to $4.0 billion, which twelve months earlier had been spread among five separate legacy organizations. (See **Exhibit 1** for a list of Northrop Grumman Acquisitions. **Exhibit 2** shows the growth of sales and headcount at Logicon)

Herb Anderson, now president and CEO of Logicon, set 60 days after the Litton acquisition as the target to announce the realigned business structure and staffing of senior positions. Post-merger integration became a mission-critical capability for the new $4 billion IT business.

Merger Integration and Project Management

Al Myers, Northrop Grumman's corporate vice president for Strategy and Technology, described the company's integration process:

> The successful integration of companies is complex, difficult, and critical to future success. When Northrop acquired both Grumman and Vought in 1994, we developed a thorough process that included every functional area. The approach used was both open and inclusive—although there was still some oversight from corporate, the activity was accomplished by functional teams from both Northrop and the acquired companies at the operational level. The objective was to put together the best new company and not just impose the Northrop way. With each acquisition since then we have continued to refine the process. [12]

The IT division of Northrop Grumman started honing its abilities in corporate integration as early as 1990, well before the series of major acquisitions. In 1990, Herb Anderson, then Northrop's CIO, sought to centralize Northrop's internal IT services to reduce costs. At the same time, Anderson began to lobby for the chance to leverage these IT capabilities and provide them to outside users. The goal of integrating internal IT businesses with the acquired Grumman DSSD and extending them to the external market was the seed of Northrop Grumman IT. It also provided the means to create a methodology for post-merger integration. Five cultural attributes proved essential to Northrop's integration process: *Project Management, Speed, Best of Both, Communication, and Focus on the Customers.*

[12] Interview with Albert F. Myers, *The Northrop Grumman Review* 2, 2002: 10–13 (available on-line at http://www.northropgrumman.com/news/rev_mag/2002_review_issue2.pdf).

Project management: Anderson attributed NGIT's post-merger integration skill to having a strong culture of project management. Because of its defense business, "We know how to manage programs like you wouldn't believe." The organization treated the integration process like a program, with a formal plan and time targets. The integration team was staffed with dedicated full-time and part-time employees, and a room was set as project headquarters. Anderson appointed himself as head of the integration team.

Speed was essential. Several managers interviewed used words such as "attack" to describe the company's approach to integration. One example of the importance of speed was the firm's application of the 80/20 rule: make decisions that solve 80% of the issue right now, and use an iterative process to get back to the 20% later. The company believed that it is better to have something mostly right now than to get it 100% right so far in the future that everyone has gone.

Best of Both denoted the idea that the goal of integration was to capture the best processes and the best people from each legacy company, not for Northrop to impose its will on the most recent acquisition. As one manager noted, "NG views integration as an opportunity to both learn and teach."[13]

Communication was a central activity throughout the integration. To communicate the spirit of integration, Northrop took several steps on Day One and throughout the rest of the integration process. Common e-mail, signage, and security badges were implemented at new sites to send the message that everyone was part of the same company. Integration updates from senior management were distributed using whatever medium was widely used within the recently acquired company. One acquired employee noted that she had heard about Northrop's acquisition of her own company from a colleague down the hall who had seen it on the Internet. Since joining Northrop, she learned about acquisitions from management at the same time that the public did. Even the speed of the integration process sent a message. "Our speed is unusual," said one integration project manager. "I was riding in an elevator in a new office when two new NG employees entered, looked at each other's new NG badges, and commented on how quickly it had taken place. They had a look on their face that said, "These guys are serious."

Finally, it was imperative to maintain *focus on the customers* during integration. To ensure a seamless transition and maintain business momentum, 80 to 90% of the organization's time was focused on continuing business operations and delivering on operating commitments. The other 10% to 20% focused on integration tasks. The integration staff felt that "if everybody does both, no one will do either."[14] As part of this focus, the company closely monitored key profit drivers, reviewing business-unit results at least as frequently as during normal operational times.

Although the integration process would occupy 10% to 20% of total managerial capacity, it would not be evenly distributed. To reach this average, a select few managers focused all of their time on the integration, although most managers focused the majority of their efforts on customers,

[13] C. Reynolds, *Mergers and Acquisitions: How to Survive* (Herndon, Virginia: Northrop Grumman, 2003).
[14] "Integration without Indigestion," Company Document.

with only a small percentage of their time working on the integration. The integration project followed a predetermined schedule, with timed deliverables due as soon as day one, and as far out as three years.

Structuring the New IT business: Poker Chips, Jump Balls, Color-Coded Charts, and a New Name

On Thursday, March 29, 2001, federal antitrust authorities approved the Litton acquisition. On Tuesday, April 3, twenty senior managers from the existing and acquired companies were brought together into a conference room in Logicon's Herndon, Virginia, headquarters to determine the structure of the new $4 billion business. The team had already been working for two days when the deal officially closed on April 5, 2001.

The senior managers in the room had been in charge of eleven major divisions, with 50 legacy subdivisions (see **Exhibit 3**). The new structure would consist of no more than seven major divisions, meaning that some of the managers in the room would lose their positions with the company or be reassigned to a level of lesser responsibility. To represent the basic components of the seven new businesses, one wall in the conference room was covered with 50 sheets of paper, dubbed "poker chips," each of which represented a major business area of roughly $100 million dollars; these sheets were located on the wall based on their legacy origins. On the other wall was a space where the poker chips would be shuffled into a new structure. The managers' task was to use these poker chips to redesign the business in the way that would best meet customer needs over the next two to three years.

Anderson charged the managers not to concern themselves about what divisions they might lead while making their decisions, but instead to focus on the best structure for the new company. He pointed out that they had the rare opportunity to completely redesign a $4 billion business, and should focus on that opportunity. Anderson then left the room.

Within 48 hours, the group had agreed on the broad structure of the new organization. Some of the poker chips, however, fit into more than one of the new divisions. These poker chips were deemed "jump balls," and were reassigned in later meetings among the leaders of the new business units under the philosophy of pushing decision making down to the lowest appropriate level. Unresolved issues would get input from Deloitte consultants, and, if needed, from Herb Anderson, who maintained a hands-off approach as much as possible.

After one week, the group finished restructuring the eleven divisions of the five legacy companies into seven new divisions (**Exhibit 4**). It was now time for Anderson to select the seven new group presidents. Anderson personally interviewed each of the eleven presidents over the next 30 days. Throughout the merger, he had said that it was important to take the best from each of the companies. When the new leaders were announced, an organization chart was developed to show the new leaders, and was color-coded to show their legacy organizations.

Three of the seven leaders were from outside Northrop Grumman, as was the new vice president of Human Resources and Administration (see **Exhibit 5**).

On "realignment day," June 1, 2001, Logicon e-mailed all of its employees a copy of the new organizational structure and the color-coded senior organization staffing chart. Fewer than sixty days had passed since closing.

The next step would be for each of the seven group presidents (Level Ones) to select vice presidents for their 5–10 operating groups (Level Twos), each of which consisted of one or more poker chips. Anderson encouraged them to use the same method that he had for the next two or three layers down (Levels Three and Four), and he wanted the new leadership structure in place within another 60 days. The selection process was completed by the first week in August, fewer than 130 days after the merger had closed.

Shortly thereafter, a branding study was concluded, and the newly formed $4 billion IT sector was renamed Northrop Grumman Information Technology (NGIT).

Synergy Capture Process and Working Groups

With the new structure and staff in place, the merger team moved to systematically identify and capture synergies originally identified by the due diligence (DD) team during negotiations. The DD team had some interface with the managers of the operating businesses, who provided insights regarding the ability to capture synergies. Once the deal was executed and the leadership staffed, management would document the synergies. Over the next one to three years, integration teams would be responsible for reporting on the synergies expected and synergies achieved.

A series of small working groups were created at both the functional levels and business unit levels to ensure the capture of synergies. These teams met first to identify and list potential synergies, and they continued to update the expected synergies with the realized gains. The checklists for synergies were distributed to the lowest possible level of the company, ensuring that synergies could be achieved from the bottom up, rather than dictated from above. From this point forward, the integration team continued its push to move decisions to the lowest possible level, continuing to manage integration as a project.

The "best of both" policy extended from personnel to best practices. Some Northrop business activities, like the ERP systems, ethics guidelines, and even the corporate name were deemed "best practices" and would remain the same. Other things, however, were adopted from the acquired company. One manager recalled, "At that point, Northrop Grumman did not have a salary planning system. TASC did. We saw it, loved it, and implemented their system throughout the Sector."

Results of the Integration

The benefits of a long-term collaborative perspective were significant. At a recent meeting, Northrop calculated that it achieved greater than 90% of the synergies that it expected to receive from a previous merger. One manager noted that at his former company the acquisition process was more financially driven: Companies were acquired but never integrated. At NGIT, the integration process had both short- and long-term horizons.

During and after integration, the company identified and executed projects designed to continue to maximize the efficiency of the integrated organization. For example, the company reduced its number of ERP programs from eighteen systems to two, and it consolidated several hundred different benefits plans into a single plan.[15] The company also established a structure to ensure that it would bid on projects as a single company, rather than as several divisions. These longer-term projects continued the synergy capture after the initial integration of people, structures, and customer foci.

The company's turnover rate averaged 10%, including retirements, in an industry where 20% was the norm.[16]

The integration process was not entirely without friction. Many legacy employees viewed their association with Northrop as an opportunity for expanded employment opportunities that were only available with a growing firm. Others experienced cultural shock as they shifted from being a high-level employee in a small organization to a lower-level employee in a large organization. For example, one acquisition had four times as many vice presidents in its organization as Northrop Grumman had in the entire company. (Many acquired vice presidents lost their titles.)

Management employees of Northrop faced uncertainty during each integration, as their positions might have been repeatedly up for grabs. Each acquisition promised the possibility of having to interview for one's job again. Northrop Grumman was aware that reorganization could lead to internal competition among workers as well, because having the "best of both" worlds also applied to staff selection.[17] Every employee with whom the casewriting team spoke felt that the process might occasionally be tough, but that Northrop did an excellent job of keeping them informed and integrating acquisitions.

New Challenges

Kent Kresa recently described integration at Northrop Grumman:

> Many times I say that the new Northrop Grumman is a company of immigrants. If you think about the company over the last decade from where we started, only

[15] As of April 2003, the integration of benefits plans was not yet final.
[16] Herb Anderson mentioned this statistic. This was the norm in the IT industry overall.
[17] Reynolds, *Mergers and Acquisitions: How to Survive*.

> about 10% of the people are originally from the core companies. We're all from various companies and we sort of think like immigrants. We honor our past, we're delighted [about] … the things that each of our companies have done independently. But the only thing that matters is what we do together and where we're going and how well we can do in the future with this company.[18]

Northrop's success in acquisitions played a vital role in the survival and success of the company (see **Exhibit 6** for financials). Early acquisitions broadened the business away from a declining defense program and expanded a competence in program management and integration into the electronics and information-systems spaces. After enduring one year of merger integration uncertainty, Northrop rebounded from the Lockheed Martin "nondeal" through another series of acquisitions that strengthened the business. The company did not become a "second or third tier" supplier as some in the media predicted. In fewer than ten years, Northrop earned the reputation of being an excellent integrator of businesses. Most of all, it built a corporate culture that thrived on constant and rapid change and restructuring to meet the demands of the market.

Northrop continued to expand after the Litton acquisition. In November 2001, the company acquired Newport News Shipbuilding for $2.1 billion, enabling it to build and repair nuclear ships and submarines. In 2002, Northrop acquired TRW for $6.7 billion in stock and the assumption of $4 billion in TRW debt, bringing in Space Systems and Missile Defense technologies. The combined company expected $25 billion to 26 billion of revenues in 2003, when it would replace Boeing as the nation's second-largest defense contractor behind Lockheed Martin (see **Exhibit 7**).

Soon after the TRW acquisition, Kent Kresa reached Northrop's mandatory retirement age, and Ron Sugar ascended to the presidency of the company. Sugar, a legacy Litton employee, had spent a substantial part of his earlier career at TRW, and appeared well-poised to run the combined company. Kresa and Sugar predicted that TRW would be Northrop's last major acquisition, acting as the final piece in the integrated defense offerings puzzle. But Sugar predicted that Northrop would continue to shape its portfolio through smaller acquisitions and divestitures.

[18] "Company of Immigrants," *Aerospace Daily* 203**,** vol. 1 (2002).

Exhibit 1

POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Selected Northrop Grumman Corporate Acquisitions History

Date Announced	**Company** Divisions	Cost ($MM)	**Major Business Area** Products
1994	**Vought**	n/a	**Airplanes** Aero structures
1994	**Grumman Corp.** DSSD	2,100	**Airplanes** **Airborne Surveillance Systems** **Information Technology**
1996	**Westinghouse**	3,600	**Electronic Systems** Airborne Radar
1997	**Logicon**	976	**Information Technology** Command, Control, and Intelligence.
1998	**INRI**	55	**Information Technology** Multi-source data integration
1999	**Ryan Aeronautical**	140	**Unmanned Aviation**
1999	**Aerojet General**	93	**Space Systems** Sensors
1999	**DPC**	33	**Information Technology**
2000	**Comptek Research**	132	**Electronics**
2000	**Litton** TASC PRC	5,102	**Defense Electronics** **Shipbuilding (conventional)** **Information Technology**
2000	**Federal Data Corp.**	302	**Information Technology**
2000	**Sterling Software**	150	**Information Technology** Software
2001	**Newport News**	2,508	**Shipbuilding (Nuclear)**
2002	**TRW**	13,706	**Space Systems** Satellite design and construction
2002	**Fibersense Technologies**	55	**Defense Electronics** Fiber optic Communications

Source: Bloomberg, using amended costs when available, announced costs otherwise.

Exhibit 2

POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Northrop Grumman Information Technology (Logicon):
Annual Sales and Headcount 1997–2002

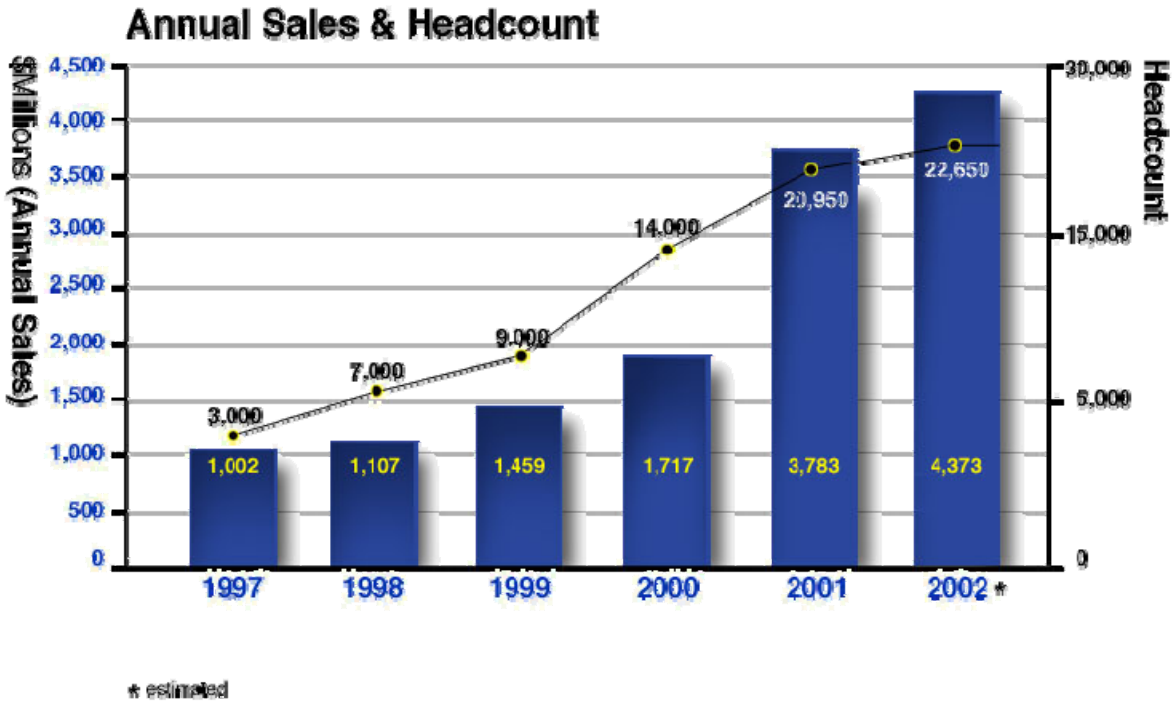

Exhibit 3

POST-MERGER INTEGRATION AT
NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Legacy Companies Combined into Northrop Grumman Information Technology

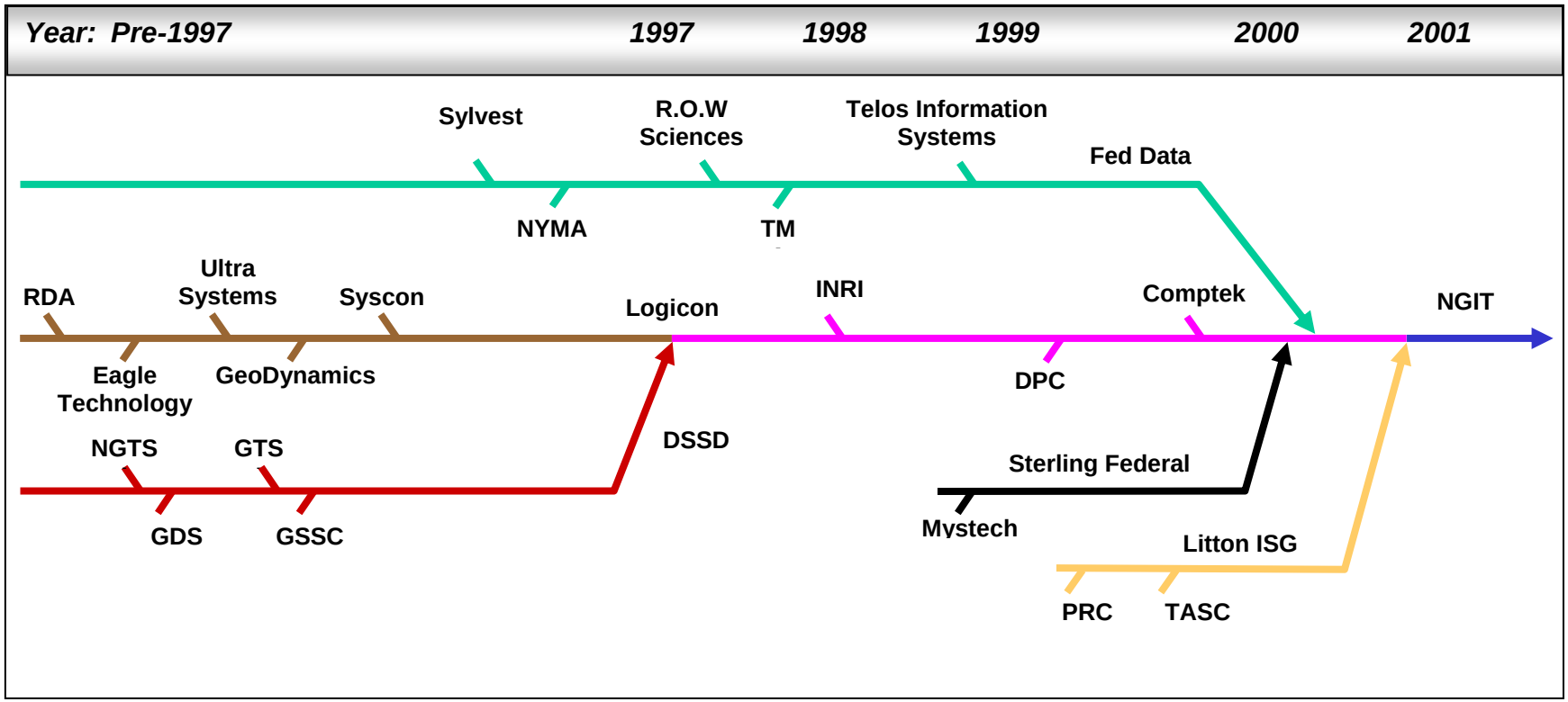

Exhibit 4

POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

New Organizational Design (Partial): Poker Chips Placement

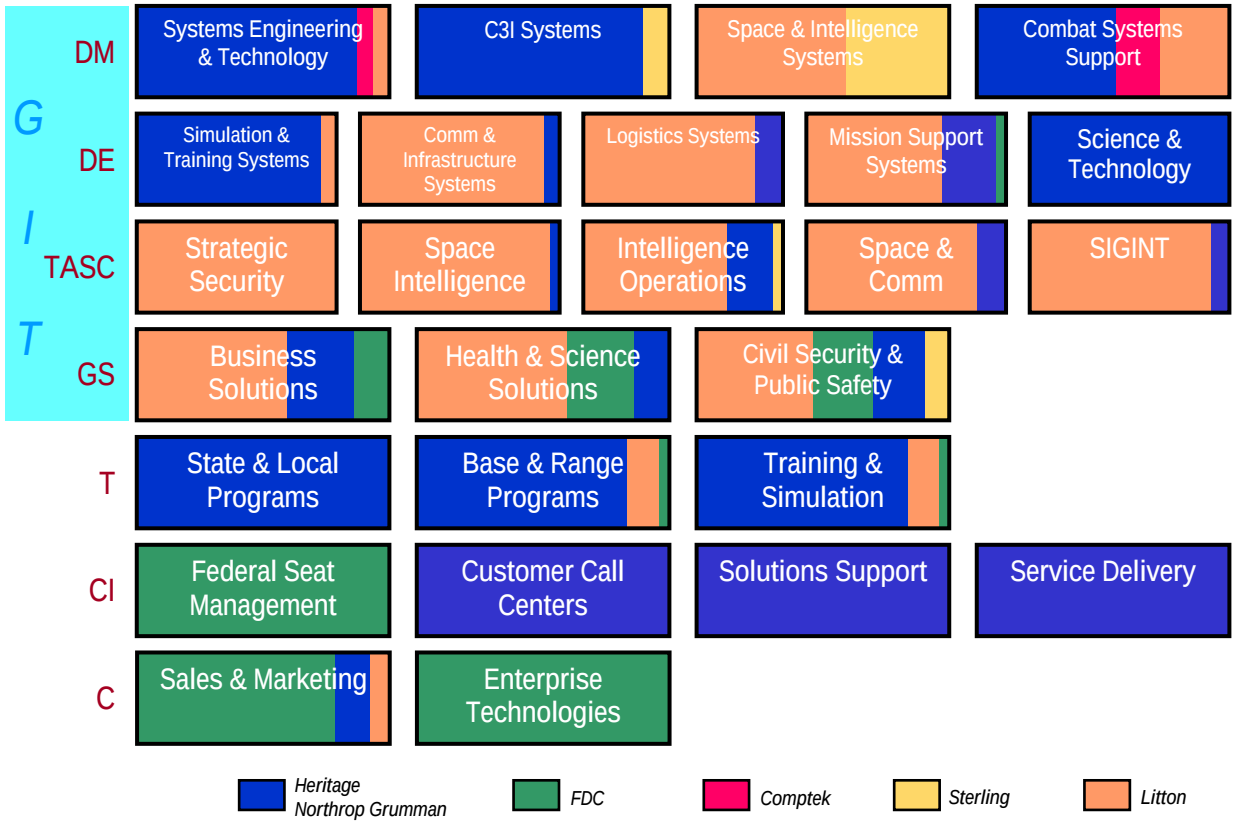

Exhibit 5

POST-MERGER INTEGRATION AT
NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Color-Coded Organization Chart: Northrop Grumman Information Technology

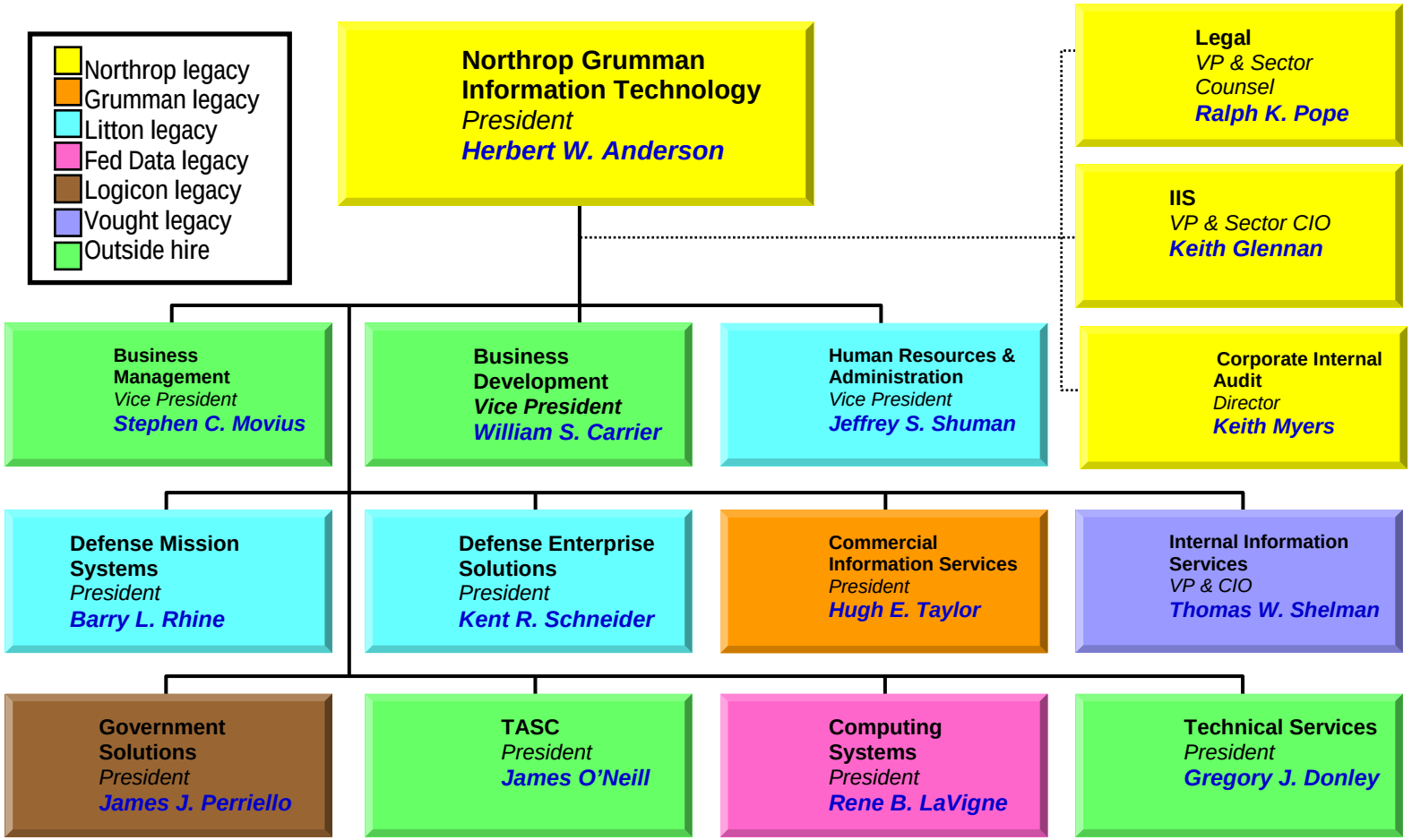

Exhibit 6

POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Northrop Grumman Corporation Income Statement (left) and Balance Sheet (right) (in millions of dollars except shares) 1998–2002

Year Ending:	12/31/98	12/31/99	12/31/00	12/31/01	12/31/02
Termination Benefits	—	—	—	—	—
Total Expenses	**6,615**	**6,662**	**6,520**	**11,979**	**15,815**
Operating Income	**752**	**954**	**1,098**	**1,033**	**1,391**
Interest Expense	(232)	(224)	(175)	(373)	(422)
Other, Net	(211)	17	52	67	40
Income Before Taxes	**309**	**747**	**975**	**727**	**1,009**
Income Taxes	116	273	350	268	312
Income After Taxes	**193**	**474**	**625**	**459**	**697**
Preferred Dividend	—	—	—	(18)	(25)
Net Available to Common, Before Extraordinary Items	**193**	**474**	**625**	**441**	**672**
Discontinued Ops.	1	9	(17)	(32)	(201)
Extraordinary Item	—	—	—	—	—
Accounting Change	—	(16)	—	—	(432)
Net Available to Common, Including Extraordinary Items	**194**	**467**	**608**	**409**	**39**
Average Shares (basic)	68.52	69.25	70.58	84.46	115.53
Earnings Per Share (basic), Before Extraordinary Items	**2.817**	**6.845**	**8.855**	**5.221**	**5.817**
Earnings Per Share (basic), Including Extraordinary Items	**2.831**	**6.744**	**8.614**	**4.843**	**0.338**
Average Shares (diluted)	69.51	69.70	70.88	85.26	117.43
Dilution Adjustment	—	—	—	—	—
Earnings Per Share (diluted), Before Extraordinary Items	**2.777**	**6.801**	**8.818**	**5.172**	**5.723**
Earnings Per Share (diluted), Including Extraordinary Items	**2.791**	**6.700**	**8.578**	**4.797**	**0.332**
Common Dividend Share	1.6000	1.6000	1.6000	1.6000	1.6000
Cash/Equivalents	44	142	319	464	1,412
Accounts Rcvbl.	1,507	1,402	1,557	2,643	2,889
Inventories	1,373	1,190	585	1,098	1,091
Dfrd. Income Tax	24	23	21	36	662
Prepaid	85	36	44	125	160
Assets Held-Sale	—	—	—	1,207	9,621

Year Ending:	12/31/98	12/31/99	12/31/00	12/31/01	12/31/02
Refundable Taxes	—	—	—	—	—
Total Current Assets	3,033	2,793	2,526	5,573	15,835
Land	170	163	144	300	350
Buildings	785	777	700	1,162	1,538
Mach./Equipment	2,014	1,860	1,444	2,189	2,948
Leasehold	89	95	55	81	160
Depreciation	(1,784)	(1,655)	(1,328)	(1,148)	(1,391)
Goodwill/Intang.	4,176	4,230	4,899	9,571	18,970
L.T. Investments	63	50	55	—	—
Other LT Assets	990	972	1,594	3,686	4,616
Amort./Intang.	—	—	(467)	(596)	(760)
Total Assets	9,536	9,285	9,622	20,818	42,266
Notes Payable	69	25	10	30	22
Cur.Port.LT Debt	200	200	—	420	203
Accounts Payable	416	490	564	982	1,427
Accrued Comp.	337	366	365	827	1,018
Oth. Curr. Liab.	1,345	1,383	1,569	2,360	8,250
Loss Provision	—	—	180	481	453
Total Current Liabilities	2,367	2,464	2,688	5,100	11,373
Total Long Term Debt	2,562	2,000	1,605	5,038	9,398
Deferred Taxes	—	64	276	669	—
Other LT Liabs.	1,757	1,500	1,134	2,620	7,173
Total Liabilities	6,686	6,028	5,703	13,427	27,944
Common Stock	989	1,028	1,200	4,451	12,511
Retained Erngs.	1,892	2,248	2,742	3,011	2,870
Unearned Comp.	—	—	—	(18)	(11)
Other Compr.	(31)	(19)	(23)	(53)	(1,048)
Total Shareholders' Equity	2,850	3,257	3,919	7,391	14,322

Note: Figures from annual income statement. *Net available to common* refers to net income available to common shareholders, which is net income minus profit used to pay dividends on preferred stock, when applicable.
Data source: Multex.

Exhibit 7

POST-MERGER INTEGRATION AT NORTHROP GRUMMAN INFORMATION TECHNOLOGY

Northrop Grumman Corporation Organizational Chart