

**ABILITY OF THE UNITED STATES DEFENSE  
INDUSTRIAL BASE TO EFFECTIVELY  
MEET OUR CURRENT AND  
FUTURE NATIONAL SECURITY NEEDS**

**By:**

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**To:**

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# **Agenda**

- 1. There is direct correlation of contractors' health to U.S. National Security**
- 2. Projected costs of war against Iraq**
- 3. Collateral economic damage threatens future defense funding**
- 4. Enable "Committed Contractors" to raise investment capital to partially-offset potential defense shortfall, while driving transformational technologies**
- 5. Five distinct "Epochs" in defense in the 1990s**
- 6. What has changed after September 11, 2001 Acts-of-War?**
- 7. Institutional Investors have currently parked funds in defense stocks, but it is unclear how long the defense funding surge will last**
- 8. Two resounding McAleese messages to Stakeholders/Shareholders since January 2001 of new Administration**

## **AGENDA (CONT.)**

- 9. “Full Subsystem Capability” Model drives transformational technologies for DoD & earnings for Shareholders**
- 10. Four McAleese Recommendations**
- 11. DoD must aggressively drive transformational technologies to maximize weapon systems’ lethality, survivability and combat capability**
- 12. Specific examples of transformational technologies that will increase lethality, survivability, and combat capability**
- 13. Specific programs that represent advances in lethality, survivability, and combat capability**
- 14. McAleese Recommended National Security/Business Actions**

# **1. There Is A Direct Correlation Of Defense Contractors' Health To Long-Term U.S. National Security**

- Today, the aerospace & defense industry serves two masters:
  - 1) **Long-term National Security**, with all of its key “Stakeholders,” and
  - 2) **Shorter-term Shareholders on Wall Street.**
- Our “**National Security/Business**” Model must integrate both long-term National Security and shorter-term Shareholder drivers to:
  - 1) **Drive transformational technologies to maximize lethality, survivability, and combat capability at both systems & subsystems-level, and**
  - 2) **Manage greater technical/schedule/financial risks to develop/field “rapidly-deployable” advances in short-term (18-24 months).**

- **Current surge in defense funding is desperately-needed, BUT TOTAL AMOUNT, AND DURATION is unclear.**
- Contractors must **raise capital by issuing stock or bonds** (to unilaterally develop/acquire new R&D expertise or even finance major production).
- **“Value Investors”** will commit to **lower-profit/lower-growth** defense so long as there is **strong cash-flow**, **reasonable profit**, and **“controlled-risk.”**
- **But the bulk of Emergency Supplemental funding, plus the vast majority of \$355 for FY03 will be consumed by O&M, Personnel (Reserve/Guard for Homeland Defense) and Readiness (spares, training, force protection, and replenishment of war reserves).**

**The High Cost of Waging The Global War Against Terrorism Must Also Be Supported By Wall Street.**

## **2. Cost of Operation Desert Storm/Desert Shield in 1991:**

- **655,000 Military Personnel** (424K Active; 231K Reserve).
- **Total cost** of the operation was \$61.1B.<sup>1</sup>
- **After foreign contributions**, the total cost to the U.S. was \$7.3B.<sup>2</sup>
- **Tonnage of bombs dropped was 60,624.** (85% bomb tonnage dropped per month by U.S. during WWII).<sup>3</sup>
- A total of **109,876 sorties flown.**<sup>4</sup>
- 92% of the munitions expended were unguided.
- **Cost of PGMs represented 84% of total cost of all munitions used.**<sup>5</sup>
- **Examples of Sortie Costs for Operation Desert Storm in 1991:**<sup>6</sup>
  - F-117: **\$15,700** per typical sortie.
  - F/A-18: **\$17,200** per typical sortie.
  - **210,004 unguided bombs** for a total cost of **\$432M (\$2K each).**
  - **9,342 guided bombs** for a total cost of **\$298.2M (\$31K each).**
  - **332 Cruise Missiles** for a total cost of **\$913.8M (\$2.7M each).**

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<sup>1</sup> [www.sci.fi/ufta/stats.htm](http://www.sci.fi/ufta/stats.htm)

<sup>2</sup> [www.sci.fi/ufta/stats.htm](http://www.sci.fi/ufta/stats.htm)

<sup>3</sup> [www.fas.org/man/dod-101/ops/desert\\_storm.htm](http://www.fas.org/man/dod-101/ops/desert_storm.htm)

<sup>4</sup> Id.

<sup>5</sup> [www.fas.org/man/GAO/NSIA97134/letter.htm](http://www.fas.org/man/GAO/NSIA97134/letter.htm)

<sup>6</sup> [www.fas.org/man/gao/nsiad97134/APP\\_o4.htm](http://www.fas.org/man/gao/nsiad97134/APP_o4.htm)

# **Authorization for Use of Military Force Against Iraq Resolution of 2002 (H.R. 114)**

- Iraq Resolution (H.J.Res. 114) passed both Houses of Congress (296-133 House vote on Oct. 10, 2002; 77-23 Senate vote on Oct. 11, 2002).

## **Sect 3. AUTHORIZATION FOR USE OF UNITED STATES ARMED FORCES.**<sup>7</sup>

**(a) AUTHORIZATION-** The President is authorized to use the Armed Forces of the United States as he determines to be necessary and appropriate in order to –

- (1) defend the national security of the United States against the continuing threat posed by Iraq; and**
- (2) enforce all relevant United Nations Security Council resolutions regarding Iraq.**

**(b) PRESIDENTIAL DETERMINATION – . . . the President shall, prior to such exercise . . . but no later than 48 hours, [alert Congress that] –**

- (1) reliance by the United States on further diplomatic or other peaceful means alone either**
  - (A) will not adequately protect the national security of the United States against the continuing threat posed by Iraq; or**
  - (B) is not likely to lead to enforcement of all relevant United Nations Security Council resolutions regarding Iraq**

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<sup>7</sup> Certain portions of Resolution language is underlined for convenience of audience presentation.

## Varying Estimates of Cost of War with Iraq in 2002:

DoD's private estimate <sup>8</sup>	<b><u>\$50 Billion</u></b>	
White House, Chief Economic Advisor Lawrence Lindsey <sup>9</sup>	<b><u>\$100B - \$200B</u></b> - Estimated 1% to 2% of GDP - In line with 1991 Gulf War Costs after inflation - Estimate later disavowed by OMB	
OMB Director Mitch Daniels <sup>10</sup>	<b><u>“Lindsey estimate very, very, high.”</u></b>	
House Budget Committee Democratic Caucus <sup>11</sup>	<b><u>\$30.6B - \$39.4B</u></b> - 125,000 Troops - 30-60 Day War	<b><u>\$48.3B - \$59.8B</u></b> - 250,000 Troops - 30-60 Day War - “Lindsey is in the ball park.”
Congressional Budget Office <sup>12</sup>	<b><u>\$25B - \$31.1B</u></b> - Air Heavy - 250,000 Troops - 30 - 60 Day War	<b><u>\$32.8B - \$40.3 B</u></b> - Ground Heavy - 370,000 Troops - 30 - 60 Day War

<sup>8</sup> WSJ, September 16, 2002.

<sup>9</sup> WSJ, September 16, 2002; Lindsey/National Economic Council has not provided detailed analysis of the war costs; Lindsey projected “upper bound” of war costs at between 1% and 2% of U.S. gross domestic product – U.S. GDP at approx. \$10 trillion.

<sup>10</sup> HBC, Democratic Caucus Letter accompanying War Cost Analysis, September 23, 2002.

<sup>11</sup> House Budget Committee, Democratic Staff, War Cost Analysis, September 23, 2002; does not include Occupation Costs or Interest Costs.

<sup>12</sup> CBO Budget Analysis, *Estimated Costs of a Potential Conflict with Iraq*, September 2002; includes high-range estimate of \$3.8B for post-war occupation; does not include Interest Costs.



## DoD FY03 Budget Request By Service (Billions)<sup>13</sup>

	<u>FY02</u>	<u>FY03</u>	<u>\$ Change</u>
ARMY	80.9B	<b>90.9B</b>	<b>+10B</b>
NAVY/MARINE CORPS	98.8B	<b>108.3B</b>	<b>+9.5B</b>
AIR FORCE	94.3B	<b>107.0B</b>	<b>+12.7B</b>
DEFENSE EMERGENCY	3.5B	<b>20.1B</b>	<b>+16.6B</b> (includes \$10B contingency)
DEFENSE WIDE <sup>14</sup>	53.7B	<b>52.9B</b>	-0.8B
<b>TOTAL</b>	<b>\$331.2B</b>	<b>\$379.3B<sup>15</sup></b>	<b>\$48.1B</b>
		[\$369.3B without \$10B contingency]	[\$38.1B without \$10B contingency]

**Conference Committee outcome for FY03 Defense Appropriations Bill provides \$355.1B and does not include \$10B war contingency fund requested by the Administration.**

<sup>13</sup> Source: DoD Press Briefing 2002.

<sup>14</sup> Includes Defense Health Program and MilCon

<sup>15</sup> **Administration requested \$10B for contingency funds that Congress did not authorize as part of FY03 funds.**

## **Final FY03 Defense Appropriations Bill of \$355B Is:**

- **\$58.6B RDT&E** (\$9.9B increase from FY02) (**20%**)
- **\$71.6B Procurement** (\$10.7B increase from FY02) (**18%**)
- **\$93.6B Military Personnel** (\$11.5B increase from FY02)(**14%**)
- **\$114.8B O&M** (\$9.7B increase from FY02)(**9%**)
- **\$16.5B Defense Health and Other**

### **\$355.1 Total FY03 Defense Appropriations Budget<sup>16</sup>**

- **Congress did not give the Administration the \$10B contingency It requested.**

**The \$100 - \$200 Billion in projected costs for Iraq War are not included.**

<sup>16</sup> Does not include projected MilCon appropriations for approx. \$10.5B  
Does not include any emergency supplemental funding.

## Future Year Defense Plan FY03 to FY07 (\$Billions)<sup>17</sup>

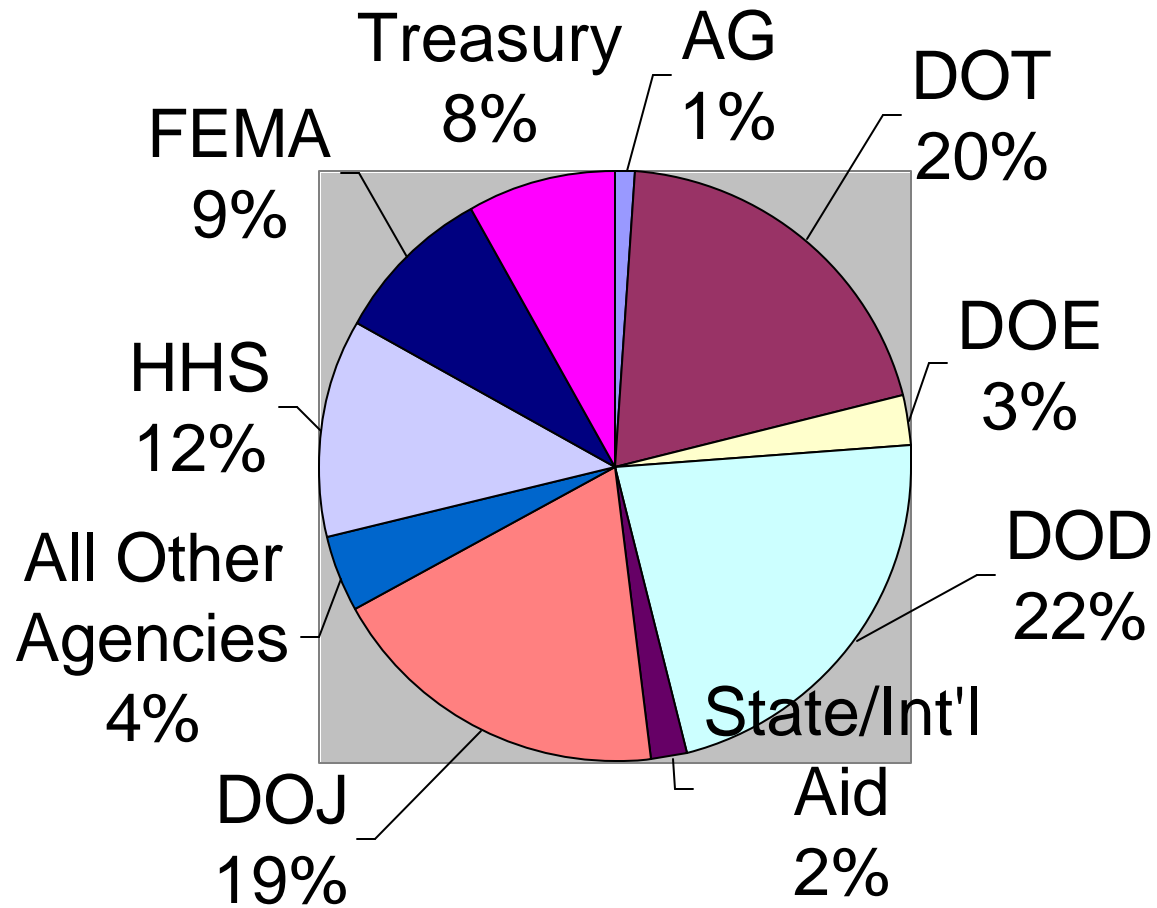
	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>
FY02 Baseline <sup>18</sup>	314.4	323.2	332.2	341.5	351.1
FY03 Budget	<b>379.3</b>	<b>387.9</b>	<b>408.8</b>	<b>429.6</b>	<b>451.4</b>
<b>Dollar Change</b>	<b>\$64.9B</b>	<b>\$64.7B</b>	<b>\$76.6B</b>	<b>\$88.1B</b>	<b>\$100.3B</b>
<b>% Change</b>	<b>20.6%</b>	<b>20%</b>	<b>23.1%</b>	<b>25.8%</b>	<b>28.6%</b>

<sup>17</sup> Source: DoD Press Briefing 2002.

<sup>18</sup> FY02 Baseline are pre-September 11, 2001 figures; based on Current Dollars; appears to include MilCon, Family Housing and Revolving Funds.

# Homeland Security Funding (\$37.6B)<sup>19</sup>

Of FY03 Request Distribution By Agency<sup>20</sup>



<sup>19</sup> This funding is government wide and will not be satisfied solely from DoD funding.

<sup>20</sup> Source: Securing the Homeland Strengthening The Nation, President George W. Bush, [www.homeland/homeland\\_security\\_book.html](http://www.homeland/homeland_security_book.html)

### **3. Collateral Economic Damage Threatens Defense Funding**

- **“Existing-home sales slipped in August, signaling that a key source of support for an already-sluggish economy may be weakening.” (WSJ, September 26, 2002).**
- **Overall household debt is currently more than 100% of disposable income (income after taxes) - highest percentage ever on record. (WSJ, October 9, 2002).**
- **The U.S. poverty rate increased in 2001 for the first time in eight years. (WSJ, Sept. 25, 2002).**
- **“The Commerce Department reported Friday that retail sales sank 1.2% in September from August, the biggest decline since November 2001. The weakness in retail sales suggested that the losses in stock-market wealth are hitting home.” (WSJ, Oct. 14, 2002).**
- **“The 18% drop in the Dow Jones over the July to September [2002] quarter was the worst quarterly performance since 1987, and September’s 12% decline alone was the worst for that month since 1937.” (WSJ, Oct. 14, 2002).**
- **“It’s probably a safe bet that sudden, sharp rises in world oil prices will ensue [in an Iraqi conflict], at least in the short-term. This must be a chilling prospect indeed for [airline] carriers, given the tremendous financial pressure they’re already under . . .” (Aviation Week, September 16, 2002).**

- **“The commercial aerospace sector is expected to remain lackluster . . . Airlines are forecast to lose \$10-14 billion in 2002 as a result of (1) . . . cheaper fares, (2) continued weakness in business travel, and (3) rising fuel costs. This scenario means there is little chance of seeing new aircraft orders this year.”** (*Global Capital Goods Monthly*, Credit Suisse, Sept. 13, 2002).
- **“With the U.S. airline industry showing no sign of pulling out of its economic nose dive, the world’s largest aircraft maker is expected to ratchet down jet production through at least 2004, a year longer than originally anticipated.”** (*WSJ*, Oct. 14, 2002).
- **“Bush’s fiscal 2003 budget, released in February, projected deficits of \$106 billion in the current fiscal year and \$80 billion in fiscal year 2003. That document projected a return to surpluses in fiscal 2005 . . .”** (*CQ Daily*, July 9, 2002).
- **“[T]he new CBO report foresees deficits through at least 2006, and a surplus of only \$1 trillion or so for the next 10 years – down sharply from a 10-year surplus of \$5.6 trillion in January 2001, when Mr. Bush took office.”** (*WSJ*, August 28, 2002).
- **President Bush has threatened to veto the FY03 Defense Authorization bill if Congress does not eliminate new pension benefits for disabled military retirees that would cost \$18.B - \$58B over the next 10 years.** (*WSJ*, October 7, 2002). (\$1.8B - \$5.8B per year).

- **“Although the [FY02 Supplemental Appropriations Act] provides \$28.9 billion . . . it gives the President the option not to spend \$5.1 billion of that amount . . . Bush, who signed the supplemental into law Aug. 2, said he will not use the \$5.1 billion because it is “extra spending I didn’t ask for.” (*Aerospace Daily*, Aug. 14, 2002). (Initial request was for \$27.1B)**
- **“Budget analysts [are] most focused on what CBO Director Crippen termed the ‘astounding decrease’ in government tax collections. For its estimate of one year - fiscal 2002 – the CBO has now gone from about \$2.24 trillion in January 2001 to about \$1.86 trillion now – a fall of almost 17%.” (*WSJ*, August 28, 2002). (\$380B reduction).**
- **“Rumsfeld worries that ballooning costs in current programs won’t allow the U.S. to buy the newer technology needed to make the military lighter, quicker and easier to deploy.” (<http://www.bloomberg.com>, June 25, 2002).**
- **“Public opinion in favor of increasing defense spending dropped much more than expected. It is possible that the weak economy has also hurt public support. If so, the rising deficit could start to hurt defense.” (George Shapiro, Analyst, Salomon Smith Barney Research Report, October 8, 2002).**
- **“We believe that while the funding picture may not change in the medium term for procurement, the growth outlook for the sector may become more company-specific in the post-Iraq world, as the Pentagon may turn its attention back to dealing with the over-programmed procurement picture, and Congress may become somewhat more sensitive to defense spending as a whole.” (*Aerospace & Defense Electronics 3Q02 Earnings Preview*, Deutsche Bank, Oct. 7, 2002).**

# **The Economy Directly Impacts Defense Funding**

## **(July 15, 2002 OMB Mid-Session Report)**

- The Federal Government will spend at least \$165B more than it collects in FY02 taxes, up from the \$106B deficit projected only six months ago. (\$2T in Outlays but only \$1.86T projected tax receipts.) (MSR p.6)
- Projected FY02 tax receipts are estimated to be at least 6% (\$124B) below FY01 collections, the lowest level since 1955. (MSR p.8)
- Capital Gains taxes were \$118B in FY00, driven primarily by Stock Market (MSR p.8)
- Individual income taxes account for nearly all of this year's projected drop in tax receipts. Capital Gains Taxes closely track the Stock Market. (MSR p.9)
- Capital Gains taxes from FY02 will not be paid until April 15, 2003, suggesting the potential for a significant implosion in actual collected tax receipts. (MSR p.9)
- Projected \$109B deficit for FY03, directly assumes entire Federal growth is capped at 5% per year, including all Defense. (MSR p.12) (historical 7% annual growth)
- Return to a balanced budget requires all non-DoD funding be capped at 2% annual growth to pay for the War on Terrorism and Homeland Security. (MSR p.14)

#### **4. Enable “Committed Contractors” to Raise Investment Capital to Partially-Offset Potential Defense Funding Shortfall, While Driving Transformational Technologies**

- **“Committed contractors” must assume major technical/schedule/financial risks to aggressively drive “transformational” technologies.**
- **We must re-dedicate ourselves to ensure all actions have both a compelling “National Security Case” and a compelling “Business Case:”**
  - 1) **Complete long-overdue consolidation of excess capacity in mid-tier defense base.**
  - 2) **Establish clear “risk-to-reward” relationships with “committed contractors,” to generate reasonable Return-on-Investment with controlled-risk, and**

**Enable “committed contractors” to raise capital to partially-offset potential defense funding shortfall, while driving transformational technologies for the Warfighter.**

## **5. Five Distinct “Epochs” In Defense In The 1990s**

- First, the mergers of the U.S. “Big 3” were driven heavily by DoD following the defense budget “implosion” after the fall of the Berlin Wall.
- Second, Acquisition Reforms were incrementally undertaken by DoD, which had the effect of delegating program management to platform primes.
- Third, mergers and Acquisition Reforms collectively triggered “Vertical Integration” concerns. (Leading to a philosophical collision during the attempted Lockheed/Northrop merger).
- Fourth, DoD encouraged Trans-Atlantic defense mergers to integrate the dual directives of coalition warfare and real-time use of “smart weapons.”
- Fifth, stark abandonment of historic “Military/Industrial Complex” by Wall Street in 1999-2000 ultimately triggered actions by key National Security Stakeholders for long-term preservation of defense industrial base.

## **6. What Has Changed After September 11, 2001 Acts-of-War?**

- Suddenly, the Administration has global directive to combat terrorism.
- Creates major surge in O&M, Personnel (Reserve/Guard) and Readiness costs (spares, training, force protection, and war reserves).
- Accelerates limited “Transformation,” in those offensive capabilities that can be “rapidly-deployed” (18-24 months).
- Triggers major costs for Homeland Defense, that strain FY03 defense top-line (\$37.7B Budget Request for Homeland Security in FY03).
- Most Transformation and Procurement was already pushed out to FY03 before September 11, 2001 Acts-of-War.

**Sustained Anti-Terrorism Campaign could add as much as \$60B-\$100B per year for next 2-3 years.  
(Political patience will be tested.)**

## **7. Institutional Investors Have Temporarily “Parked” Investment Funds in Defense Stocks as a “Defensive Measure,” But Unclear How Long Defense Funding Surge Will Last.**

- **Bulk of immediate defense funding surge is required for:**
  - **O&M, Personnel, and Readiness**
  - **Rapidly-deployable transformational technologies** (special operations, UAVs, SSGNs), while
- **This will lead to major Budget/Procurement collision in FY07-09. (Maybe even as early as FY04 or FY05.)**
- **Enable “committed contractors” to drive transformational technologies by offsetting potential defense funding gap with investment capital.**

**“Value Investors” will commit \$billions of investment capital on a long-term basis (3-4 years) if DoD will reward those “committed contractors” with program workshare and clear “risk-to-reward” relationships.**

## **8. Two Resounding McAleese Messages To Stakeholders/ Shareholders Since January 2001 of New Administration:**

- 1) **DoD must have robust long-term defense industrial base to achieve the Administration's strategic objectives of:**
  - a) **Missile Defense, (QDR)**
  - b) Cost-effective, **tactical air superiority**, such as the F-22, (QDR)
  - c) Real-time, **precision-strike** capabilities, (QDR)
  - d) **Deep-strike** capabilities, e.g., **bombers, UCAVs, etc.**, (QDR)
  - e) Strengthened **tactical airlift** (lightning-strike), (QDR)
  - f) Survivable, **netted-C4ISR** capability, (QDR) and
  - g) Vital **special-mission aircraft** for airborne surveillance and jamming, i.e., **high-demand/low-density** assets. (QDR).
  
- 2) **Defense industrial base must be well-capitalized by shorter-term “Value Investors,” who will accept limited profit percentages and limited long-term top-line defense growth in exchange for strong “Cash-Flow-Return-on-Investment” (CFROI) and “controlled risk.”**

## 9. “Full Subsystem Capability” Model Drives Transformational Technologies For DoD & Earnings For Shareholders

- Collectively, Acquisition Reforms have largely delegated traditional DoD subsystem authority to primes. (e.g., TSPR).
- This shift away from DoD subsystem development means subsystem selection is now “make-or-buy” decision by the platform prime.
- Supplier’s primary Customer is now no longer DoD, but platform prime. (Particularly in **defense-unique/R&D-intensive subsystems**).
- Creates enormous pressure for “black box” houses to develop **“Full Subsystem Capability,”** to hold program workshare, let alone market share.
- **“Full Subsystem Capability”** means the ability to **design, manufacture, integrate and maintain entire defense-unique/R&D-intensive subsystem.**

- While primes have consolidated to two houses for most platforms, suppliers have yet to consolidate in many defense-unique/R&D-intensive subsystems.
- For each two competing platforms, there is only one of each major on-board subsystem (e.g., ECM, IFF, fire control radar), and only one platform will survive “winner-take-all” downselect.
- However, in many cases, there are **still four-to-six independent subsystem houses** that produce each **defense-unique/R&D-intensive subsystem**.
- Consequently, “committed contractors” must develop “Full Subsystem Capability” to become #1 or #2 in their core defense subsystem to:
  - 1) Manage the greater technical/schedule/financial risks in driving transformational technologies, and
  - 2) Accelerate deployment of transformational technologies. (UAVs, comms, sensors).

# **10. Four McAleese Recommendations**

- 1) **Break-out work to commercial firms that is not defense-unique.**
- 2) **Consolidate redundant defense-unique/NON-R&D-intensive houses to drive down cost (to 2-3 per discipline).**
- 3) **Grant favored treatment to committed defense-unique/R&D-intensive contractors to drive transformational technologies at both systems & subsystems-level.**
- 4) **Direct program workshare and establish clear risk-to-reward-relationships with “committed contractors” in exchange for increased technical/schedule/financial risks of fielding transformational technologies.**

## 11. Transformational Technologies Drive Lethality, Survivability and Combat Capability <sup>21</sup>

To maximize lethality, survivability, and combat capability on the battlefield, DoD must take immediate steps to field transformational technologies in three key categories:

**Category I:** Modify platforms with “rapidly-deployable” advanced sensor/kill technologies and improved command & control;

**Category II:** Accelerate acquisition of ‘high-demand/low-density’ sensor/control platforms; and

**Category III:** Expedite block upgrades of transformational technologies to truly integrate the “digitized battle-space.”

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<sup>21</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee On Armed Services, Subcommittee On Military Procurement.

## 12. Specific Examples of Transformational Technologies That Will Increase Lethality, Survivability, And Combat Capability<sup>22</sup>

- 1) **Automatic Target Recognition** -- to defeat stealthy and camouflaged targets;
- 2) **Laser Communications** -- to maximize situational awareness and enable time-sensitive kills;
- 3) **Suppression of Enemy Air Defenses** (SEAD) -- to enable close-in helicopter troop transport and strikes;
- 4) **Robust Interlocking Bandwidth** -- of Ultra-High Frequency, laser, satellite and acoustic media;
- 5) **Data Fusion** -- to maximize situational awareness at all levels;
- 6) **Unmanned Combat Aerial Vehicles** (plus unmanned ground combat vehicles, and also unmanned underwater vehicles);
- 7) **Advanced Antennae & Sensors** -- to increase communication data-rates, as well as detect camouflaged targets via multi-spectral media;
- 8) **Directed Energy Weapons** -- to maximize lethality of light/airliftable forces;
- 9) **Data Mining Technologies** -- to avoid warfighter “overload at lower levels;”

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<sup>22</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee On Armed Services, Subcommittee On Military Procurement.

- 10) **Fully-Integrated Battle Management Command, Control & Communications** (BMC3) -- to provide real-time “kill data” beyond line-of-sight with minimal risk of fratricide;<sup>23</sup>
- 11) **Miniaturized computing capability** -- to distribute processing power down to individual combat units to maximize situational awareness;
- 12) **Improved Gas Turbine Technology** -- to enable deep-strike or extended small unit operations;
- 13) **Standardized Military Communication Systems Technology** -- to provide military Services communication commonality;
- 14) **VTOL Aircraft and Rotorcraft Technology** -- to provide an order-of-magnitude advance in platform performance, such as speed, range, endurance, payload, and hover capability;
- 15) **Embedded Diagnostics Technology** -- to provide common diagnostic systems (e.g., Health-Usage-Maintenance or “HUMs”) for surface and air platforms;
- 16) **Hybrid/Full Cell Propulsion Technology** -- to enable extended operations;
- 17) **High Power Microwave** -- to provide area-denial (non-lethal/variable-lethality) technology;

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<sup>23</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee On Armed Services, Subcommittee On Military Procurement.

## McAleese Category I<sup>24</sup>

### Rapidly-Deployable Sensor/Kill Technologies and Command & Control<sup>25</sup>

- **DDG-51** Insertion of improved C4ISR suites will enable DDG-51s to operate as independent Command & Control ships at remote “hot spots,” relieving some of the burden of CVN Battle Groups);
- **SSN ERO** Critical for undetected, long-loiter signals intelligence and time-sensitive tactical strike;
- **LPD** Provides forward presence and capabilities for expeditionary and special operations forces;
- **CG-47 Conversion Program** Critical warfighting improvements to the Area Air Defense, and Force Protection capabilities of the CG-47 cruisers. Part of Single Integrated Air Picture and enabler of Sea-Based Missile Defense;
- **FA-18E/F** Accelerate procurement with updated suites of sensors, targeting, and communications equipment to provide combat bridge until full fielding of JSF); and
- **MH-60** Provide the Navy with next-generation mine hunting equipment to defeat littoral anti-area denial strategies critical to next stage of campaign against terrorist regimes.

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<sup>24</sup> These charts contain excerpts from McAleese Congressional Testimony in March 2002. That Testimony recommended funding for programs that were either not funded or were not fully funded in the FY03 Budget request. Obviously, the author is fully supportive of those Army, Air Force, and Navy programs that were already fully funded within the FY03 Budget request.

<sup>25</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee on Armed Services, Subcommittee on Military Procurement.

**McAleese Category II<sup>26</sup>**  
**Accelerated Acquisition Of “High-Demand/Low-Density”**  
**Sensor/Control Platforms<sup>27</sup>**

- **Unmanned Aerial Vehicles (UAVs)**: (To allow for unmanned reconnaissance and surveillance, C4ISR linking capability, and long-range hunter/killer capabilities).
  - TUAUVs for Army/Marine Corps
  - Global Hawk
  - Accelerated production of interim armed UAVs and Accelerated UCAV-USAF/UCAV-Navy production
  
- **Specialty C4ISR Aircraft** are playing an enormous role in Afghanistan, and as such continue to be in high demand. These include:
  - JSTARS
  - EA-6B upgrades
  
- **UUV Technology Acceleration** -- Accelerate production of Unmanned Underwater Vehicles (UUV) to provide enhanced reconnaissance capabilities by extending sensors off-hull.

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<sup>26</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee on Armed Services, Subcommittee on Military Procurement.

<sup>27</sup> These charts contain excerpts from McAleese Congressional Testimony in March 2002. That Testimony recommended funding for programs that were either not funded or were not fully funded in the FY03 Budget request. Obviously, the author is fully supportive of those Army, Air Force, and Navy programs that were already fully funded within the FY03 Budget request.

## McAleese Category III<sup>28</sup>

# Block Upgrades of Offensive Transformational Technologies<sup>29</sup>

Block Upgrade strategies should then be pursued as significant improvements in lethality and combat capability are matured. These will include evolutionary weapons systems development such as:

- **DDX and CVN-X series** (Spiral development programs for the DDG-51 and CVN replacements. The DDX program will act as the development test-bed for other classes of surface combatants)
- **Airborne Laser Program** (Prototype airborne missile defense interceptor utilizing laser weapons. Will be the platform for leap-ahead developments in other laser applications such as ground and sea-based lasers)
- **Consolidated C4ISR Wide-bodied Aircraft** (clear preference for 767s if reasonable price can be obtained) (Next-generation C4ISR to supplement/replace JSTARS and AWACs. Provide next-generation C4ISR airborne platform to integrate battlefield information grid)
- **Stealthy long-range UAVs** (UAVs for ultra-distance, deep target surveillance, reconnaissance, and strike missions); and

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<sup>28</sup> Source: Written Testimony of James McAleese on March 19, 2002 before The House Committee on Armed Services, Subcommittee on Military Procurement.

<sup>29</sup> These charts contain excerpts from McAleese Congressional Testimony in March 2002. That Testimony recommended funding for programs that were either not funded or were not fully funded in the FY03 Budget request. Obviously, the author is fully supportive of those Army, Air Force, and Navy programs that were already fully funded within the FY03 Budget request.

## **13. National Security/Business Model Recommendations**

- 1) **Reassess Acquisition Strategies** in selective “winner-take-all” competitions, to rejuvenate the anemic industrial base.
- 2) **Implement Draft DoD 5000 Interim Guidelines**, as proposed by Defense Secretary Rumsfeld, to tailor acquisition programs and accelerate transformational subsystem/payload technologies.
- 3) **Suppliers must adopt “Full Subsystem Capability” Model** to drive rapid deployment of block upgrades in **defense-unique/R&D intensive** subsystems.
- 4) **Reshape antitrust evaluations** to the realities of the “Full Subsystem Capability” Model to support “committed contractors.”
- 5) **Negotiate Capital Leases and/or Operating Leases for platforms**, to leverage expected outyear shortfalls in Procurement.

- 6) National Security Stakeholders must work hand-in-hand with Industry Management to **restructure troubled “legacy” programs to develop clear risk-to-reward relationships**, e.g.:
- (a) **Recapture schedule** slippages
  - (b) **Restructure scope**, (de-scope obsolete effort)
  - (c) Negotiate “technology work-arounds” via **Engineering Change Proposals**
  - (d) Convert contract to a **lower-risk type**
- 7) **Revise Cost Principles** of FAR Part 31 to finally allow for contractor **recovery of various indirect costs** inherent in all businesses. (interest, goodwill from corporate acquisitions, etc.)

**This consensus will enable “committed contractors” to manage the aggressive technical/schedule/financial risks, and drive transformational technologies to directly save American lives in combat.**

**McALEESE**  
**SUPPLEMENTAL CHARTS**

## Antitrust Evaluations Must Be Scoped to Support “Full Subsystems Capability” Model

- Either Justice or the FTC will, in conjunction with DoD, standardly perform a five-part test to determine “market power:”
  - 1) Designate the “relevant markets” that will be impacted.
  - 2) Identify the “geographic market.”
  - 3) Identify “market participants” in the relevant market for that geographic area.
  - 4) Identify potential alternative competitors likely to enter the market in response to an exercise of “market power.”
  - 5) Evaluate whether likely post-merger “efficiencies” outweigh potential anti-competitive risk. (increasingly rare)

**Bottom line is whether a hypothetical monopolist could raise its prices by an arbitrary 5% for at least 1-2 years without an influx of competition.**

# **Excerpts from 2001 QDR-“State of the U.S. Military”**

- **DoD will achieve six operational goals:**

- 1) **Protect bases, defeat the threat of CBRNE weapons, (develop missile defenses).**

- 2) **Assure information systems and conduct effective information operations.**

- 3) **Project and sustain U.S. forces in distant anti-access and area-denial environments.**

- **Accelerating development of the Army Objective Force. (Army FCS)**
- **Enhancing power projection and forcible entry capabilities.**
- **Defeating long-range means of detection.**
- **Enabling long-range attack capabilities.**
- **Enhancing protection measures for strategic transport aircraft. (LAIRCM)**
- **Ensuring U.S. forces can sustain operations under chemical or biological attack.**

## **Excerpts from 2001 QDR-“State of the U.S. Military” (Cont.)**

### **4) Deny enemies sanctuary by persistent surveillance, tracking, and rapid engagement.**

- **Manned and unmanned long-range precision strike assets.**
- **Related initiatives for new small munitions. (small diameter bomb)**
- **Ability to defeat hard and deeply buried targets. (PGM)**
- **Accelerate the conversion of 4 SSBNs to SSGNs.**
- **Procure unmanned UAV/UCAVs.**
- **Increase procurement of precision weapons.**
- **Special Operations Forces with enhanced C4ISR capabilities.**

### **5) Enhance the capability and survivability of space systems.**

- **Develop interoperable joint-C4ISR.**

### **6) Fund end-to-end C4ISR capabilities.**

**Residual: DoD will selectively recapitalize legacy forces of:**

- **Abrams tanks, (GDLS)**
- **B-1 bombers, (Boeing)**
- **Navy ship self-defense (LMNESS, Raytheon, NOC), and**
- **Amphibious assault vehicles (GDLS)<sup>30</sup>**

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<sup>30</sup> 2001 DoD QUADRENNIAL DEFENSE REV. REP. 30

## Excerpts From 2001 QDR-“Current Forces:”

- **Army**
  - **Divisions (Active/National Guard)** 10/8
  - **Active Armored Cavalry/Light Cavalry Regiments** 1/1
  - **Enhanced Separate Brigades (National Guard)** 15
- **Navy**
  - **Aircraft Carriers** 12
  - **Air Wings (Active/Reserve)** 10/1
  - **Amphibious Ready Groups** 12
  - **Attack Submarines** 55
  - **Surface Combatants (Active/Reserve)** 108/8
- **Air Force**
  - **Active Fighter Squadrons** 46
  - **Reserve Fighter Squadrons** 38
  - **Reserve Air Defense Squadrons** 4
  - **Bombers (Combat-Coded)** 112
- **Marine Corps (3 Marine Expeditionary Forces)**
  - **Divisions (Active/Reserve)** 3/1
  - **Air Wings (Active/Reserve)** 3/1
  - **Force Service Support Groups (Active/Reserve)** 3/1<sup>31</sup>

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<sup>31</sup> DOD QUADRENNIAL DEFENSE REV. REP 22