

NUNN-MCCURDY (NM) UNIT COST BREACHES

- Unit cost reporting is required by 10 USC §2433. A "Nunn-McCurdy" unit cost breach occurs when a Major Defense Acquisition Program (MDAP) experiences an increase of at least 15% in Program Acquisition Unit Cost (PAUC) or Average Procurement Unit Cost (APUC)¹ above the unit costs in the Acquisition Program Baseline.
- For programs with unit cost increases of at least 25%, a SECDEF certification is required. Certification responsibility has been delegated to the Under Secretary of Defense(AT&L)(USD(AT&L)), who, by law, must certify that:
 - Such acquisition program is essential to the national security;
 - There are no alternatives to such acquisition program which will provide equal or greater military capability at less cost;
 - The new estimates of the program acquisition unit cost or procurement unit cost are reasonable; and,
 - The management structure for the acquisition program is adequate to manage and control program acquisition unit cost or procurement unit cost.
- If a certification is not provided to Congress by the due date (30 days after the Selected Acquisition Report (SAR) is due to Congress), funds for RDT&E, procurement, and military construction may not be obligated for major program contracts (>\$40M). If a certification is provided later, funding obligations may only resume after 30 days of continuous session of Congress following submission of the certification.
- If a unit cost breach is due to a termination or cancellation of the program, certification is not required.
- By law, a Program Manager is required to notify his Service Acquisition Executive when there is a reasonable cause to believe there is at least a 15% increase in PAUC or APUC. This is a potential breach pending a determination by the Secretary of the Military Department, who is responsible for notifying Congress of programs that have breached unit cost thresholds.
- To support certification for programs with at least 25% unit cost increases, the Military Departments submit written information to OUSD(AT&L) addressing the four statutory certification requirements.
- Details about the unit cost breach also are included in the Unit Cost Summary of the SAR.

Summary Table at <http://www.defenselink.mil/news/Apr2002/d20020411sarsummary.pdf>
SAR Program Acquisition Cost Summary in Dollars at
<http://www.defenselink.mil/news/Apr2002/d20020411costsummary.pdf>

¹ APUC includes procurement costs divided by the number of fully configured units delivered.

NUNN-MCCURDY CERTIFICATION INFORMATION -- USMC H-1 UPGRADE PROGRAM

Program Description -- The program updates/re-manufactures 180 AH-1W (Cobra) attack helicopters and 100 UH-1N (Huey) utility helicopters into more capable variants. Major modifications include a new 4-blade composite main rotor system, a new 4-blade tail rotor, new engine and transmission (Huey), and a new, fully integrated cockpit and avionics. These improvements will increase maneuverability, speed, and payload and give the 1960-80 vintage Huey and the 1980 vintage Cobra 20 years of new life.

Nunn-McCurdy Breach Explanation -- The primary reasons for unit cost growth are a revised estimate for development cost; increased testing requirements, increased contractor overhead rates based on a contraction in business base, an increased estimate of production labor hours, and increased cost of materials.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- The H-1 program is essential to national security as an element of the current and future operational concept for Forward deployed Marine Air Ground Task Forces. Action is needed to maintain or enhance the required capabilities of the H-1 force.

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- At this time, there are no such alternatives. However, the Navy has been directed to explore introducing competition into the production phase through a detailed feasibility analysis. This analysis will be completed prior to Low Rate Initial Production.

New Estimates of Unit Cost Are Reasonable -- The revised cost estimate for the H-1 production program is based on analysis of actual development costs for labor and materials and is considered reasonable. The design and manufacturing of the Engineering and Manufacturing Development (EMD) air vehicles is almost complete and the revised cost estimate for completing the expanded test program also is considered reasonable.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is considered adequate to manage and control unit costs. The prime contractor has made positive steps to improve program management by installing a new senior management team, and instituting a new integrated product team management structure with the Navy/USMC. Finally, the Navy has been directed by the USD(AT&L) to define process improvements to reduce production costs and improve production quality, identify high payoff cost reduction initiatives, and develop a detailed Transition to Production Plan.

In addition, USD(AT&L) oversight for this program will be enhanced, with an increased emphasis on monitoring and analyzing cost and schedule performance monthly and by requiring the Navy to provide OSD the same detailed, cost and schedule performance analysis explaining top level trends that is prepared for the Program Manager.

NUNN-MCCURDY CERTIFICATION INFORMATION -- SPACE BASED INFRARED SYSTEM (SBIRS) HIGH PROGRAM

Program Description -- The Space Based Infrared System (SBIRS) program is an integrated satellite system consisting of multiple space and ground elements, with incremental deployment phasing to satisfy four mission areas: Missile Warning, Missile Defense, Technical Intelligence, and Battlespace Characterization. The SBIRS-High component consists of four satellites in Geosynchronous Earth Orbit (GEO), two hosted sensors in Highly Elliptical Orbit (HEO), and associated ground elements. The SBIRS-High program provides improved sensor flexibility and sensitivity for multiple missions, and provides early detection and tracking for theater and national missile threats.

Nunn-McCurdy Breach Explanation -- The increase in PAUC and APUC costs is primarily attributed to increased complexity and software for the HEO payload, added software development costs for the Mission Control Station, redesign and increased complexity and weight for the GEO payload, and increased development costs for the mobile vans.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- The SBIRS High program is essential to national security because of the advanced capabilities it provides for Missile Warning, Missile Defense, Technical Intelligence, and Battlespace Characterization.

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- The current SBIRS High program is the product of almost six years of technology development, software development, and systems integration efforts. There are no program alternatives that could deliver all of the SBIRS High capabilities for less cost.

New Estimates of Unit Cost Are Reasonable -- The latest unit cost estimates for SBIRS High are reasonable. They reflect an improved understanding of the RDT&E and production components of the program. As such, the latest estimates of PAUC and APUC are reasonable.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is adequate to manage and control unit costs. The Department has undertaken the following initiatives: (1) the System Program Office (SPO) has initiated a new award fee incentive plan to control costs; (2) the SPO created a Program Management Board (PMB) that meets regularly and that addresses content changes as well as disposition of cost and schedule variances; (3) both the government and the prime contractor have brought in stronger, more experienced management leadership; (4) the SPO is strengthening its Systems Engineering (SE) capability by transferring experienced SE personnel onto the program and by creating a special SE training program for engineers; (5) the Total System Performance Responsibility (TSPR) clause has been removed from the contract and replaced with a joint government/industry co-chaired process; and (6) the Joint Program Office (JPO) has established an interim Earned Value Management (EVM) System to provide a more meaningful program to manage, track, and evaluate team progress on near-term key milestones.

After certification, program management, oversight and responsibility will transfer to the Air Force in accordance with the recommendation of the Space Commission, as implemented by the Secretary of Defense, to assign Milestone Decision Authority for Space Systems to the Under Secretary of the Air Force.

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NUNN-MCCURDY CERTIFICATION INFORMATION -- MLRS UPGRADE

Program Description -- The Multiple Launch Rocket System (MLRS) Upgrade Program consists of an Improved Launcher, the Guided MLRS (GMLRS) Rocket, and the Extended Range (ER) Rocket. The program satisfies the need for a non-nuclear, all-weather, indirect, area fire weapon system to strike counter-fire, air defense, armored formations, and other high-payoff targets.

Nunn-McCurdy Breach Explanation -- The Nunn-McCurdy breaches to PAUC and APUC are primarily due to increased design complexity to meet requirements, changes in acquisition strategy from multi-year procurement to annual buys, funding decreases in FY03-07 that reduced quantities, technical problems in the Guidance Set, contractor rate increases, and an increase in submunition costs.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- The MLRS Upgrade program is essential to national security because it enhances the current system in three essential ways and provides transformational capabilities that now do not exist. It provides MLRS with improved accuracy that significantly reduces the number of required rockets, thus also reducing logistics burden. Precision also reduces the chances of collateral damage and fratricide, and reduces mission times (resulting in increased system survivability).

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- There are no program alternatives that provide equal or greater military capability at less cost. The Army requires both Dual Purpose Improved Conventional Munition bomblets and unitary warheads to effectively attack area and point attack targets of varying degrees of hardness in all environmental conditions and with reduced collateral damage.

New Estimates of Unit Cost Are Reasonable -- New estimates of the program acquisition unit cost and procurement unit cost are reasonable. They are based on actual contractor cost experience in Engineering and Manufacturing Development, and the Army has developed a realistic production profile that it will fund to the Office of the Secretary of Defense (OSD) estimate in FY04-09.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is adequate to control unit costs. The Army and the prime contractor have improved the management structure. The prime contractor brought program costs under control, and its ability to maintain cost discipline is evidenced by its cost performance over the past year, in which it achieved a 98.1% Cost Performance Index. The government has increased its oversight of the contractor through a series of "lean manufacturing" meetings. A March 2001 contract restructure established a realistic and manageable program baseline, and since then, schedule variance has been minimal. The results of these management improvement initiatives indicate that the new management structure is adequate to manage and control the program acquisition unit cost and the procurement unit cost.

In addition, Under Secretary of Defense (Acquisition, Technology & Logistics) oversight for this program will be enhanced, by monitoring and analyzing cost and schedule performance monthly and by requiring the Army to provide OSD with the same detailed cost, schedule, and performance analysis, explaining top-level trends, that is prepared for the Program Manager.

NUNN-MCCURDY CERTIFICATION INFORMATION -- LPD 17 PROGRAM

Program Description -- The LPD 17 Advanced Amphibious Transport, Dock Ship will embark, transport, and land elements of a landing force in an assault by helicopters, landing craft, and amphibious vehicles. The twelve LPD 17 ships will address the shortage in amphibious lift by working with the rest of the amphibious fleet inventory of LHA/LHD and LSD ships.

Nunn-McCurdy Breach Explanation -- The contractor could not achieve the aggressive design schedule due to: underestimating design complexity; fewer, less expert design resources; and poor performance. The poor design performance resulted in a two-year delay to lead ship delivery. The contractor also significantly underestimated labor hours. Due to schedule delay, program cost increases, and Navy budget constraints, the program procurement profile was reduced in the out-years, which further increased costs.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- LPD-17 is essential to maintaining the required US forward deterrence posture and forcible-entry capability to assure friends and allies and deter threats and coercion against US interests.

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- No alternative to the LPD 17 program provides equal or greater military capability at less cost. The alternatives either cost significantly more or provide less capability than mandated by military requirements.

New Estimates of Unit Cost Are Reasonable -- The new unit cost estimates are reasonable. Research, Development, Test and Evaluation costs are mostly sunk, and the FY03 President's Budget funds the production program to the OSD cost estimate. Outfitting and post delivery costs are reasonable.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is adequate to manage and control unit costs. The program's contracts are appropriate for constraining cost growth. Contracts for the first four ships have been converted to Cost Plus Incentive Fee with Award Fee and focus technical, program management, and production objectives directly to cost performance. A new Navy Program Manager has increased emphasis on schedule and cost adherence, and a new contractor management team has been installed. Management practices have been modified to incorporate best practices supported by monthly program reviews. In January 2002, an Integrated Baseline Review embodying the rigorous application of Earned Value Management Systems validated that the contractor has an effective management team in place.

In addition, USD(AT&L) oversight for this program will be enhanced, with an increased emphasis on monitoring and analyzing cost and schedule performance, monthly and by requiring the Navy to provide OSD the same detailed, cost, schedule and performance analysis, explaining top- level trends, that is prepared for the Program Manager.

NUNN-MCCURDY CERTIFICATION INFORMATION -- CHEMICAL DEMILITARIZATION

Program Description -- The program consists of the Chemical Stockpile Disposal Project (CSDP) and the Non-Stockpile Chemical Materiel Project (NSCMP). The CSDP demilitarizes the stockpile at Aberdeen Proving Ground, MD; Anniston, AL; Blue Grass, KY; Newport, IN; Pine Bluff, AR; Pueblo, CO; Tooele, UT; and Umatilla, OR, and Johnston Island in the Pacific Ocean. NSCMP activities are: Binary chemical warfare material (CWM) disposal; destruction of former U.S. chemical weapons production facilities; miscellaneous CWM disposal; recovered CWM disposal; and research, development, and acquisition of disposal systems.

Nunn-McCurdy Breach Explanation -- The unit cost breach to the CSDP was due primarily to (1) revised processing rates, (2) schedule extensions, (3) new environmental regulations, (4) worse-than-expected condition of the stockpile, (5) increase in equipment, labor rates, and construction costs, and (6) higher emergency preparedness costs. The unit cost breach to the NSCMP was due primarily to increased development and operational costs for the Pine Bluff Non-Stockpile Facility, Binary chemicals, Pine Bluff Arsenal Ton Containers, and the Explosive Destruction System. Increases also resulted from adding the Munitions Assessment and Processing System and more CWM disposal research and development.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- The Chemical Demilitarization Program differs from a typical weapons acquisition program. It is essential to national security because the United States has signed the *Convention On The Prohibition Of The Development, Production, Stockpiling And Use Of Chemical Weapons And On Their Destruction*, mandating their complete destruction by 2007 (deadline is extendable to 2012). Destruction of the stockpile is also mandated by 50 USC §1521 and by the need to destroy these chemical munitions as quickly and safely as possible to eliminate the risk of agent release from an accident or a terrorist attack.

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- There is no alternative to the program that addresses all of the requirements associated with the disposal of assembled chemical munitions (e.g., decontamination/disposal of energetics, munitions bodies, contaminated/ uncontaminated waste disposal, etc.) that would provide equal or greater capability at less cost.

New Estimates of Unit Cost Are Reasonable -- The FY03 President's Budget fully funded the program to the latest, most realistic OSD cost estimates. The 9/11 terrorist attacks make it necessary to accelerate the program, which reduces the schedule and life-cycle costs, but significantly increases near-term costs.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is adequate to manage and control unit costs. OSD and Army oversight of the Chemical Demilitarization program will be enhanced through more frequent briefings to USD(AT&L) (monthly) and to the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs) (weekly), more frequent interaction with environmental

regulators and state/local government officials, and increased emphasis on program management through the selection of a new Program Manager (PM).

In addition, USD(AT&L) oversight for this program will be enhanced, with an increased emphasis on monitoring and analyzing cost and schedule performance monthly and by requiring the Service to provide OSD the same detailed, cost and schedule performance analysis explaining top level trends that is prepared for the Program Manager.

**NUNN-MCCURDY CERTIFICATION INFORMATION -- CH-47 IMPROVED
CARGO HELICOPTER (ICH) PROGRAM**

Program Description -- The CH-47F ICH program, currently in Engineering and Manufacturing Development, is a rebuild and upgrade of the current CH-47D helicopter to extend platform service life by twenty years, increase operational performance (lift capability and range), and upgrade the cockpit with digital communication/navigation capability allowing interoperability on the digital battlefield.

Nunn-McCurdy Breach Explanation -- The prime contractor experienced labor rate and overhead rate increases at its plant that exceeded those estimated by the contractor and the government. In addition to these rate increases, "Over and Above" costs were similarly underestimated. These costs reflect additional work requirements due to poorer than expected aircraft condition, thus requiring greater rehabilitation during the upgrade. Underestimated material costs also contributed to the Nunn-McCurdy breach, as did a new U.S. Army requirement called "Recapitalization" that will "zero-time" selected parts that are not part of the CH-47F rebuild. This "zero-time" philosophy is expected to bring overall fleet average age down to a more acceptable level.

Nunn-McCurdy Certification Requirements

Program is Essential to National Security -- The CH-47F ICH program is essential to national security because it rectifies H-47 deficiencies and mitigates aircraft aging problems. As such, it will provide a means of maintaining or enhancing the capabilities of the H-47 fleet, while extending its service life. The H-47 fleet plays an integral role in Army and Special Operations Command missions by transporting heavy equipment, bulk liquids, and supplies, and by supporting long-range infiltration/exfiltration missions.

No Program Alternatives which Provide Equal or Greater Military Capability at Less Cost -- There are no alternatives to the CH-47F ICH program that would provide equal or greater military capability at less cost. The CH-53E (and its derivatives) is the only possible U.S. alternative to the H-47 aircraft. The Russian MI-26 is the only possible foreign alternative. The procurement cost of each alternative is two to three times that of the H-47 procurement cost. The technologies for a new heavy lift aircraft are uncertain, not proven, or too costly at this time.

New Estimates of Unit Cost Are Reasonable -- The new estimates of unit cost are reasonable. The Army will fund the program to the latest OSD estimate and procurement profile for FY04-09 and beyond.

Management Structure Adequate to Manage and Control Unit Costs -- The management structure is adequate to manage and control unit costs. The Army will undertake additional cost reduction work to explore means to achieve future cost savings. Contract Cost Data Reporting will be improved to provide better visibility of program costs. The existing and proposed contracts contain appropriate incentives to the contractor to control costs. The prime contractor also has set up a "focused factory" under a Lean Production Preparation Process.

USD(AT&L) oversight for this program will be enhanced, with an increased emphasis on monitoring and analyzing cost and schedule performance monthly and by requiring the Service to provide OSD the same detailed, cost, schedule, and performance analysis, explaining top-level trends, that is prepared for the Program Manager.