The Department of Defense Awards Program for Excellence in Performance Based Logistics
Nomination – Section 2

Summary of Accomplishments

Weapon System Availability: All product lines covered by the Auxiliary Power Unit Total Lifecycle Support (APU TLS) contract were historically subject to weapon system availability degradation. Both the S-3 APU and F-404 Main Fuel Control, in particular, are mission essential to the S-3 and F/A-18 A-D aircraft respectively. Poor weapon system availability on these product lines degraded the readiness of the aircraft they support. The APU TLS program provides increased spares availability and guaranteed reliability improvements, and a 75% improvement in logistics response time. APU TLS material availability has increased across all product lines, from 65% availability in fiscal year 2000 to 97% availability at the latest performance review.

Life Cycle Cost Management: Declining support budgets and degraded readiness drove the Auxiliary Power Unit/Total Logistics Support (APU TLS) Performance Based Logistics (PBL) initiative. The APUs were aging and support costs were escalating as reliability and availability were declining. Component Improvement Program (CIP) and Reliability Centered Maintenance (RCM) funding was not available to apply to APUs. An innovative way to improve APU support within the existing budget constraints was needed. The original contract, awarded in June 2000, was priced on an all-inclusive price per flight hour basis for a total of $189 million dollars for ten years. Along with contractual availability and reliability guarantees, a firm fixed price by the flight hour contract incentivizes Honeywell to improve reliability (i.e. minimize depot repairs). TLS

mitigates Chief of Naval Operations (CNO) Executive Board findings that Flying Hour Program (FHP) costs are predominantly driven by aging engines. Price by the flight hour allows for precise accounting of FHP/Aviation Depot Level Repairable (AVDLR) expenditures for APUs, adding stability to the FHP budget. TLS is funded entirely by Navy Working Capital Fund, compensated by the FHP, and provides for APU depot repair, engineering and logistics support, reliability centered maintenance, and fleet reps while reducing the Navy/Marine Corps Intermediate Maintenance Activity (IMA) manpower requirement. Because of this total support package, in addition to a minimum savings of $70M to the FHP over 10 years, savings also are realized in the Component Improvement Program (R&D funding), Program Related Logistics (OM&N funding), Aircraft Procurement Navy (modification funding), Naval Air Technical Data and Engineering Service Command (publications and fleet reps) and manpower budgets. The contract was designed to be a corporate contract; and since the original contract award has been expanded to include additional Honeywell products (F/A-18E/F and C-130 APUs, F404 Main Fuel Controls, and P-3 Engine Driven Compressor); total contract value at present is nearly $500M. Efforts are just beginning to add Air Force APUs to TLS. The inclusion of additional business lowers the price per flight hour by spreading the fixed cost over a larger business base.

Government/Industry Teaming and Contracting Mechanisms: The contract vehicle is a FAR Part 12, ten-year, firm-fixed price requirements contract, consisting of a five-year base period with five additional one-year options. The original contract was priced on an all-inclusive price per flight hour basis for a total of $189 million dollars over the next ten

years. Current contract value, including all product lines, is now nearly $500M. The total benefits (savings and cost avoidances) from the original contract were estimated to be in excess of $50 million dollars; total benefits including all product lines is now total $70M. A Gain Share provision is included in the contract whereby the Government will share in contract cost avoidances/savings in the event that the reliability improvements are greater than 25% above the guaranteed minimum improvement identified for each aircraft platform. The APU TLS team also runs a parallel long-term contract that provides TLS-like support to foreign military sales customers.

Public-Private Partnering To satisfy the requirements of Title 10 USC Core Logistic Capability requirements, the APU TLS program implemented the DoD public/private-partnering agreement. Under this arrangement, Honeywell signed a subcontract with NADEP Cherry Point, the ISO 9002 certified maintenance, engineering, and logistic support center for a variety of aircraft engines and components. Honeywell, as the prime contractor and original equipment manufacturer, assumed responsibility for supply chain management, configuration management, commercial technology insertion and total system performance, but subcontracted most of the repair labor hours back to the NADEP. This relationship stands on the performance based management approach utilizing their respective "best repair practices" to jointly establish a streamlined APU repair process, improve utilization of materials, reduce logistics cycle time, and decrease the total cost of ownership. This original partnering agreement between Honeywell and NADEP Cherry Point has served as a DoD model, paving the way for many other contractors and depots,

including NADEP Jacksonville, with whom Honeywell has also partnered on this contract for the F404 Main Fuel Controls.

This contract also utilizes a partnering arrangement between Honeywell and Caterpillar Logistics Services Inc. (CAT), a company recognized as a world-leading supplier of Third Party Logistics (3PL). The Honeywell and CAT Alliance combines the strengths of both companies to provide superior, time sensitive, logistics support to the Navy

Systems Engineering Approach: The TLS contract introduced a holistic approach to configuration management and engineering change proposals via the contractor/government Customer Satisfaction Board (CSB). The TLS approach provided expanded Class II authority to Honeywell, which incentivizes them to introduce changes that increase reliability and reduce long-range costs. Class II changes submitted to the Navy CSB representative are approved in 5 days; Class I changes are approved in 30 days. The streamlined configuration management process under TLS has allowed for the incorporation of numerous reliability improvements since program start.

Footprint Reduction: Contractual metrics continuously reviewed by the government are: Supply Availability and Delivery Response Time (90% on time); and Reliability (Mean Time Between Unscheduled Removals), which vary by product line. During the most recent performance cycle, Supply Availability was 97%. The all-inclusive contract structure and efficiencies of the APU TLS process have allowed for a 25% inventory reduction, and corresponding logistics footprint reduction since FY 2000.

Obsolescence Management: As an all-inclusive, "no excuses" contract, Honeywell is obligated to mitigate obsolescence issues, at no additional cost, in order to meet contractual performance metrics. Honeywell's obsolescence management process includes a proactive approach to qualify new sources for obsolete parts, initiate life of type buys, and recommend material/component design changes. Expanded Class II ECP authority allows Honeywell to quickly implement required changes that are vetted by the Customer Satisfaction Board. Since contract award, Honeywell has initiated three ECPs due to obsolescence, two of which were due to "pure" obsolescence issues where parts or processes no longer exist, not issues where new technologies/processes/materials make the old method "obsolete".

Reliability, Maintainability, and Supportability Improvements: Along with contractual reliability improvement guarantees that range from 25% to 300% (depending on product line), a firm fixed price by the flight hour contract incentivizes Honeywell to improve reliability, maintainability, and supportability (i.e. minimize depot repairs) in order to maximize profit. Since contract award, 90 improvements to the various product lines have been introduced. Of those, 20 were reliability improvements. All APUs processed under TLS received a full overhaul at the first depot visit and coupled with the reliability improvements, are staying on wing longer – significantly reducing the fleet maintenance burden. Honeywell has also deployed field service engineers to the fleet to provide training and assist the maintainers in troubleshooting the intermediate level repair process, reducing the need for depot level repair. At NADEP, the Honeywell/Depot team

utilized their respective "best repair practices" to jointly establish a streamlined APU repair process, improve utilization of materials, and reduce logistics cycle time.

The Department of Defense Awards Program for
Excellence in Performance Based Logistics
Achievements – Section 4

Proposed Citation: *APU TLS has led the way for PBL...* with unprecedented program performance and savings of $70M. Due to TLS success, NAVAIR and NAVICP have continued to aggressively promote and implement PBL programs, with the APU TLS PBL serving as both a model for PBL and a valuable resource for lessons learned. APU TLS led to the establishment of a NAVAIR PBL Department, with a mission to develop NAVAIR PBL policy and assist programs in the implementation of PBL candidates. Due in part to the success of APU TLS, PBL has been incorporated into the DOD 5000.2R as the preferred approach to product support. TLS stands as a strong example of performance based acquisition logistics, performance contracting, and government-industry partnering. Additional Navy programs have been added to the corporate contract since award (C-130, F/A-18 E/F, P-3 EDC, F-404 MFC), and the Air Force has expressed interest in adding their APUs to this contract. Honeywell has established a TLS website which includes features such as a program review, performance tracking, and total asset visibility. Best practices are being shared across DoD, Government and Industry. The benefits of these new practices will be leveraged across Defense (commercial and government). A dramatic, positive impact has been made by thinking "outside of the box" and seeking innovation to benefit the government and industry in a win-win partnership.