

CAELUM SEAPORT-E TEAM

EXPERIENCE

3.1 RESEARCH AND DEVELOPMENT SUPPORT

(N00167-00-D-0047) General Dynamics provides R&D enhancing the survivability and acoustic performance of surface ships and submarines for NSWC Carderock. Efforts encompassed the technology areas of structural acoustics, structural dynamics, hydrodynamics, composite materials, and survivability analysis, including shock, vibration and whipping.

(Cairo/F/LP/SF/A&T/2000/7) General Dynamics designed and developed a research diver propulsion vehicle, Sea Shadow, and has delivered 28 systems to date.

(F42650-01-C-7218 #000005) SPARTA provides support for manned and unmanned aircraft, avionics, systems RDT&E, Electronics Warfare RDT&E, threat simulation, stimulation, and emulation, range correlation, and anechoic chamber development and operations for the Air Force Flight Test Center at Edwards AFB, CA.

3.2 ENGINEERING, SYSTEM ENGINEERING, AND PROCESS ENGINEERING SUPPORT

(HQ0006-03-C-0049) SPARTA developed a state-of-the-art decision theory concept called Decision Architecture to provide sensor fusion, and sensor and weapon resource management for ballistic missile defense Block 06 delivery for the Missile Defense Agency (MDA).

(N00024-01-D-7017) CSC supported the development of the LHD 1 Class ships being built by NGSS in Pascagoula, MS. CSC supported PMS 377 in the design and development of alternatives to the boiler propulsion plant for LHD 8, developed ship specifications sections and engineering change proposals, and monitored the production of the ship to ensure that it meets contract specifications. They also supported the DDG 51 Class Post Shakedown.

(GS00T99ALD0204 TO T0001AJM025) CSC provides comprehensive engineering and technical services to NSWC Corona Division. CSC installs and operates embedded and special purpose data collection systems, instrumentation, telecommunications systems, and distributed network architecture on ships and aircraft as well as training ranges. CSC also performs missile systems engineering, risk assessment, and weapon systems analysis for the AEGIS Combat Systems and Missile Defense Agency.

3.3 MODELING, SIMULATION, STIMULATION, AND ANALYSIS SUPPORT

(NN-G-04-DA00-C) Caelum provides spacecraft modeling to the Near Earth Networks Services (NENS) program at Goddard Space Flight Center (GSFC). We provide detailed emulators and simulators representing the U.S. Space Program space tracking network mission requirements.

(DAAH01-00-D-0012) CSC provided an upgraded Dual Mount Stinger Trainer (DMST) to Taiwan through the Army Aviation and Missile Command (AMCOM) in Huntsville, AL. Used to train gunners and unit commanders, the DMST features a physical replica of the weapon system, simulation of visual, infrared, and thermal sight acquisition and engagement systems, as well as high-fidelity terrain and target aircraft models.

(N61339-00-D-0705) CSC is upgrading two ship bridge training simulators and providing two new shipboard crane training simulators to the Army Transportation School in Fort Eustis, VA and the Army PEO Simulation Training and Instrumentation (STRI).

3.4 PROTOTYPING, PRE-PRODUCTION, MODEL-MAKING, AND FABRICATION SUPPORT.

(N00421-05-C-02) Honeywell Technology Solutions Inc (HTSI) has provided more than 15 years of support in design, manufacture, and testing on the Navy LAMPS program for NAVAIR, Patuxent River, MD, including the development of prototype test sets and test interfaces.

(N61331-03-C-0026) General Dynamics engineered, designed, and fabricated shipping and storage containers for the AMNS system supporting NSWC-PC.

(N68936-97-D-0297) New Mexico State University Physical Science Lab (NMSU/PSL) produced a prototype antenna system for the Surface Ship Control Center under NAVSEA. This antenna provides telemetry data from the MK-21 Vertical Launch System (VLS) canister for the Standard Missile System.

3.5 SYSTEM DESIGN DOCUMENTATION AND TECHNICAL DATA SUPPORT

(DCA 100-01-D-4004) COMTek provides a broad range of program and technical support, including executive-level strategic planning and review, critical infrastructure protection, transition planning and implementation, standards development, technical analysis, and new technology development for the NCS for the Department of Homeland Security.

(N63394-03-D-1126) NMSU/PSL maintains all documentation and provides all technical data support for the Navy Desert Ship, NAVSEA, White Sands Missile Range, NM.

3.6 SOFTWARE ENGINEERING, DEVELOPMENT, PROGRAMMING, AND NETWORK SUPPORT

(NN-G-04-DA00-C) Caelum develops and modifies software applications to emulate and simulate mission telemetry between the space vehicles and the NENS ground and space-based tracking networks for testing and training purposes. Additionally, we provide hardware in-the-loop testing for spacecraft prior to launch through a compatibility test van that verifies transmission and receipt of required signals. Caelum is an industry pioneer in advanced image processing and artificial intelligence, which were applied to medical diagnostic device. Our software development methodology conformed to the Quality System Regulation, 21 CFR Part 820 (published in the Federal Register (61 FR 52602)). This process is consistent with the Software Engineering Institute's (SEI) Capability Maturity Model (CMM) standards equivalent of SEI CMM Level 3. In April 2001 our design team was audited by the FDA and was awarded the Certificate of Good Manufacturing Practices (GMP) as a result. In April 2003, FDA Quality Assurance Team conducted bi-annual audit of the device, Caelum engineers provided all the documentation and design modification material to satisfy FDA audit; and there was no deficiency was found in the audit.

(F19628-02-C-0010) ITT supports the Systems Engineering and Sustainment Integrator (SENSOR) contract that is responsible for the sustainment and modernization of the nation's missile warning and space surveillance radars and electro-optical systems, which are located around the world. The primary office is located in Colorado Springs, CO, with a field office at Eglin AFB, FL.

(DABK39-03-C-0053) On ISOSS, Caelum provides software engineering and information systems support services to WSMR, NM. We provide network engineering, including high-end programming and system administration, advise on software and hardware selection, modify code and develop unique applications, and conduct workstation training. The Army Test and Evaluation Command adopted one of our products (SOFIMS-SOMARDS Financial Information Management System) as its execution module for the financial enterprise interface system.

3.7 RELIABILITY, MAINTAINABILITY, AND AVAILABILITY (RM&A) SUPPORT

(N00024-01-D-7017) CSC assessed the Reliability, Maintainability, and Operational Availability of key MPF(F) cargo handling system capabilities. CSC prepared RM&A analyses to identify failure modes and their criticality.

(F42650-01-C-7218 sub 000005) SPARTA's subsidiary (Spiral Technology, Inc) provided analysis of MTBF and RAM in support of testing the Electronic Warfare suite of sensors and primary EW systems for the Air Force Flight Test Center at Edwards AFB, CA

3.8 HUMAN FACTORS, PERFORMANCE, AND USABILITY ENGINEERING SUPPORT

(N00167-96-D-0006) General Dynamics provided extensive support to NSWCCD for execution of the AN/BQH-9(V) development program, including a concentration on Human Factors issues.

(N61331-00-D-0144) General Dynamics provided engineering analysis, system integration, and test support for the Organic Mine Countermeasures (OAMCM) crew systems working group. The group's purpose is crew interface design and how it affects the design and development of a carriage stream, as well as tow and recovery systems for the MH-60R helicopter.

(NAS4-02-02021 sub P9606) SPARTA supported human factors engineering efforts related to manned and unmanned aircraft, avionics, and systems RDT&E for NASA Dryden Flight Research Center, Edwards AFB, CA.

3.9 SYSTEM SAFETY ENGINEERING SUPPORT

(N00178-00-D-3012), General Dynamics provides NSWCCD support for Weapon System Explosive Safety Review Board (WSESRB) and missile firing panels, and assists in creating and reviewing Test and Evaluation Master Plans (TEMPs), Operational Requirements Documents (ORDs) and Mission Needs Statements (MNSs).

(N61331-01-D-0018/Delivery Order #0037) General Dynamics provides engineering support to the Marine Corps in the form of system Safety Assessment Reports and engineering analysis for the Oxygen Transfer Pump System (OTPS) and the Diver Propulsion Device. This includes a detailed analysis of the hazards associated with components used in high-pressure oxygen systems for the OTPS and Rapid Deployment OTPS design engineers.

(N63394-03-D-1126) NMSU/PSL performs and/or coordinates the design, development, integration, testing, and documentation of FTS in support of missile, munitions, rockets, aerial, and ballistic/guided targets for the Port Hueneme Division, Naval Surface Warfare Center, White Sands Detachment, White Sands Missile Range, NM.

3.10 CONFIGURATION MANAGEMENT (CM) SUPPORT

(NN-G-04-DA00-C) Caelum's Quality Assurance Managers perform CM functions for the ground and space networks on NENS, including developing, monitoring, inspecting, and maintaining the CM processes to ensure we control, document, and maintain all changes that affect NENS hardware and software configuration items.

(NAS5-98144) Caelum provided CM support for Outsourcing Desktop Initiative for NASA (ODIN) at KSC, Marshall Space Flight Center, and Stennis Space Center under the leadership of Jimmy Akin. Caelum maintained both system servers and individual workstations under configuration control to ensure compliance with agency standards. At KSC, we provided CM support for the center's electronic mail system.

(DABK39-03-C-0053) Caelum is responsible for the majority of customer communications interface support at WSMR from the installation "backbone" to the multiple users and platforms, ensuring operation of 125 servers and approximately 3,000 workstations. Our programmers, system administrators, and network engineers observe a rigorous process in identifying, documenting, and managing system changes to guarantee seamless system performance. Caelum is currently preparing for ISO 9001/2000 certification, anticipated in August 2005.

3.11 QUALITY ASSURANCE (QA) SUPPORT

(NN-G-04-DA00-C) Caelum develops, monitors, inspects, and maintains our ISO 9001/2000 program for the ground and space networks on NENS. Caelum employees serve as the Quality Assurance Managers.

(N00024-01-D-7017) CSC provides QA services monitoring the LPD 17 design development, manufacture, testing, and introduction of ships, systems, and components; they also perform QA inspections for LMSR ships built at Avondale.

(DABK39-03-C-0053) On ISSOS, Caelum provides continued QA service supporting several disciplines along with delivery of system applications and database development/administration. Services and products are governed by the standards set forth in ISO 9001/2000 guidelines.

3.12 INFORMATION SYSTEM (IS) DEVELOPMENT, INFORMATION ASSURANCE (IA), AND INFORMATION TECHNOLOGY (IT) SUPPORT

(NN-G-04-DA00-C) Caelum's IT Managers maintain the GSFC IT security systems on NENS. Caelum's IT responsibilities span computer platforms, operating systems, and various levels of IT security for multiple mission laboratories, as well as desktop systems.

(NAS5-98144) Caelum provided desktop and network support at three NASA sites for government and contractor users. Our network engineers reviewed requirements for system upgrades and installed modifications in accordance with documented procedures, and our system administrators performed hardware and software problem analysis and resolution for both system servers and desktop configurations.

(DABK39-03-C-0053) Caelum manages multiple LANs/WANs supporting 6,000 seats. Caelum operates the WSMR Telecommunications Center (TCC) for the Defense Messaging System, SIPRNet hubs, and manages all classified message traffic. Caelum is the majority entity, in conjunction with the Government Communications Engineers, responsible to the WSMR Commander for assuring the integrity of all IT communication. .

3.13 SHIP INACTIVATION AND DISPOSAL SUPPORT

(N62470-95-D-6007) Earth Resources Technology, Inc (ERT) provides hazardous, toxic, and radioactive waste (HTRW) management services as well as ordnance safety and environmental compliance technology services to Carderock, Indianhead and White Oak Naval Surface Weapons Centers, and Patuxent Naval Air Station.

(GS-35F-5206H/Task 4TWG21024219) SPARTA performs shelf-life analysis and disposal support for the Army Program Office for Aviation, Rockets, and Missiles in Huntsville, AL. In addition, SPARTA employees determine the disposition of not-ready-for-issue (non-RFI) Hydra-70 rockets.

(N68936-97-D-0297) NMSU/PSL maintains the Desert Ship for the White Sands Detachment of the Port Hueneme Division (PHD) of NSWC. To that end, PSL visits decommissioned ships, identifies useful equipment and puts it back into service at White Sands Missile Range

3.14 INTEROPERABILITY, TEST AND EVALUATION, TRIALS SUPPORT

(N00167-98-D-0003) General Dynamics provided NSWCCD technical services to the SEAWOLF Noise Reduction Program Office assisting in resolution of design and construction of acoustic deficiencies based on acoustical trial results.

(GS23F-0076K/Task Order N61331-03-F-1618) General Dynamics provides interoperability and field trial support for the DJCC program. This includes setup and takedown of tents, framesets, and infrastructure in the field, supporting the Pre-Deployment Checkout of the infrastructure and the IT portion of the prototype system, providing assistance with HMMWV operations in positioning and pre-positioning of vehicles as necessary during field operations; and providing technical assistance to the Aircraft Loadmaster for the shipment of the equipment in support of Fleet and Joint Warfare exercises.

(N68936-97-D-0297) PSL has provided extensive Test and Evaluation support for PHD NSWC WS at test sites throughout WSMR, NM. PSL supported Developmental Testing (DT) and multiple evaluation exercises by the Operational Test and Evaluation Force (OPTEVFOR) for the Evolved Sea Sparrow Missile program at WSMR. Included were ESSM Control Test Vehicle (CTV), Guidance Test Vehicle (GTV), and S-band tests.

3.15 MEASUREMENT FACILITIES, RANGE, AND INSTRUMENTATION SUPPORT

(N00241-02-C-3052) CSC provides operations and maintenance support services to the Navy's Atlantic ranges and facilities; to the test article preparation departments of the mid-Atlantic test and training range operations, telemetry operations, antenna receiving and processing operations, and aircraft instrumentation and modification efforts.

(Open Telemetry Interactive Setup [OTIS] Software Product Suite) SPARTA's OTIS suite of software products provides for comprehensive support of the Inter-Range Instrumentation Group (IRIG) Telemetry Standard (IRIG-106) Telemetry Attributes Transfer Standard (TMATS).

(DABK39-03-C-0053) Caelum operates the Digital Data Control Facility, the Operations Control Display Facility, the Telemetry Data Center, and the Transportable Real-Time Augmentation Control Systems for WSMR in support of all Real-Time systems testing events. We also operate the Optical Data Measurement Systems in support of the Data Reduction Facility to provide pre-

cise optical and digital measurement of range testing events. These events are unique and must be captured without fail the

3.16 ACQUISITION LOGISTICS SUPPORT

(MDA904-93-C-G101, subcontract CONS-389) C4CSI led a team comprised of multiple intelligence agencies in developing an Acquisition Logistics Support Plan (ALSP) for fielded materials worldwide for the NSA; they also coordinated the ALSP with site representatives to facilitate fielding the equipment.

(GS35F-5206H Task#4TWG21014219) SPARTA provides UHPMO Recapitalization, HTI, Standardization, Commonality, and Total Ownership Cost Reduction (TOCR) Technical Assistance Support to the U.S. Army Program Executive Office (PEO) Aviation, including Cost Acquisition and Life Cycle Support (CALC), and UH-60 A to A Recapitalization Rebuild Program support.

(K01SS040S00) Maden Technologies projected spare and repair part requirements for the Integrated Logistics Data System in support of the Ground Theater Air Control Systems (GTACS) architecture program at Hill AFB, UT.

3.17 SUPPLY AND PROVISIONING SUPPORT

(N00167-00-D-0088) General Dynamics provides data processing support to develop, enhance, and operate routines used to analyze and present model-scale acoustic data range calibration and performance data for the Intermediate Scale Measurement System (ISMS) located at NSWCCD's Acoustic Research Detachment.

(N00024-00-G-6309/Delivery Order HR03) General Dynamics coordinates AMCM Fleet Readiness provisioning efforts with the Naval Inventory Control Point via the Interactive Computer Aided Provisioning System for AN/AQS-14 Support Equipment Components.

(F19628-02-C-0010) ITT furnishes all supply support requirements for the Pacific Missile Range Facility (PMRF), carrying an inventory of 21,379 line items worth more

3.18 TRAINING SUPPORT

(NN-G-04-DA00-C) Caelum's Certification and Training Managers oversee the NENS Certification and training program to maintain mission-ready personnel supporting real time operations. We develop and teach classroom, web-based and self-study courses ranging from electronic equipment to operational concepts and personnel certification compliance for the NASA space and ground network spacecraft tracking assurance. Caelum also develops the certification skill catalogs so that local management can monitor trainee progress.

(DTFA01-00-C-0047) CSC developed the Enhanced Tower Simulator (ETOS), which encompassed system development, training and course development, engineering services support, and technology integration of new air traffic control tower simulations. This training was devised to support the individual and collective training requirements of the U.S.

(DABK39-03-C-0053) Caelum trains WSMR employees on new applications and new workstation configurations, including initial orientation, information assurance constraints and requirements, COTS and agency-specific software applications.

3.19 IN-SERVICE ENGINEERING, FLEET INTRODUCTION, INSTALLATION, AND CHECKOUT SUPPORT

(N0030-01-C-0024) ITT's office in Arlington, VA identifies, develops, and implements engineering and design improvements to extend life expectancy of reentry systems for the Navy Strategic Systems Program Office in Crystal City, VA.

(N61331-01-D-0018/Delivery Order 0054) General Dynamics provides Engineering Support to the USMC and Damage Control Technical Support to the Fleet with on-site personnel to refurbish, test, calibrate, install, and checkout Raid and Reconnaissance equipment for the Marines and Damage Control and Life Support Systems for the Navy.

(F42650-01-C-7218, J-Tech s/c 000005) SPARTA provides RDTE for Navy and Air Force manned and unmanned aircraft avionics, systems, and electronic warfar

3.20 PROGRAM SUPPORT

(NN-G-04-DA00-C) Caelum provides both program and site management support to our prime contractor at GSFC. In this capacity, Caelum integrates multiple IT and engineering disciplines between the prime contractor, NASA, and other companies. This "badgeless" operations environment results in seamless transition of products and services.

(NAS5-98144) Caelum Senior Manager served as the ODIN Deputy Program Manager at KSC, participating fully in all aspects of prime contract project management, including planning, organizing, staffing, controlling, and leading the total team effort. Caelum provided 50 employees, serving approximately 2,000 users from multiple organizations, ensuring interoperability across a variety of system configurations.

(DABK39-03-C-0053) Caelum is responsible for the IT/IA/IS support provided to the WSMR installation encompassing an area of over 4,000 square miles. Services cover the full spectrum of traditional IT support plus non-traditional IT systems designed and uniquely operated at the test range. Unique demands require versatile and agile project management that gets the job done on time and within budget.

3.21 ADMINISTRATIVE SUPPORT

(NN-G-04-DA00-C) Caelum facilitates all inter-company administrative activities and intra-company coordination for Caelum within GSFC. In addition to overseeing routine clerical support, we assist the GSFC Customer Support Engineering staff by representing NASA with both foreign and domestic mission customers.

(NN-G-04-DA00-C) Caelum provides support on the NASA NENS program at MILA, KSC, FL. Functional administrative support includes CBA management, maintenance of training records, scheduling employees for training, monitoring time keeping functions, scheduling overtime based on union seniority rolls and handling employee queries on benefits.

(DABK39-03-C-0053) Caelum supports WSMR administrative mission, ranging from routine clerical support such as work order processing and budget support to being an authorized user of the Defense Courier Service (DCS) for the receipt/disbursement of classified material and equipment, as well as providing classified hand carry courier services.

3.22 PUBLIC AFFAIRS AND MULTIMEDIA SUPPORT

(NN-G-04-DA00-C) Caelum Multi-Media Specialists develop photographic, audiovisual, and multimedia presentations for both the Training Group and Public Affairs Office at GSFC.

(NAS99-8100) Caelum supported training initiatives on the Consolidated Space Operations Contract (CSOC), which serviced 23 different sites, providing both classroom and computer-based training. We supported training at six NASA sites - JPL, JSC, GSFC, KSC, MSFC, and WSC.

(DASG60-02-D-0009) SPARTA supports the Army's Space and Missile Defense Command's Public Affairs Office in Huntsville, AL by providing the entire range of multimedia products, including speech writing, press release coordination, publishing newsletters and articles for national magazines, and briefings for public forums.