

**CAPSULE SUMMARY
OF ACTIVE TASKS**

April 1, 2007

UNITED STATES MEMBER STATE SUPPORT PROGRAM TO IAEA SAFEGUARDS

**DEPARTMENT OF ENERGY
DEPARTMENT OF STATE
NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF DEFENSE**

**INTERNATIONAL SAFEGUARDS PROJECT OFFICE
BROOKHAVEN NATIONAL LABORATORY
UPTON, LONG ISLAND, NEW YORK 11973**

Currently Active Tasks

TaskID	Subtask	Title [Agency# / Task Officer]	Organization	Total Budget	Total Spent	Comments
A.202		Separation of Plutonium Isotopes for the Production of High Purity Spike Reference [USA A 909 / D. Donohue]	LANL	\$17,100.00	\$17,100.00	There was no activity planned for this quarter.
			NBL	\$147,225.00	\$76,924.00	There has been no activity during this quarter. During the USSP Annual Task Review, the IAEA reported that it is still waiting for Russia's approval of the contract offered by the IAEA for the separation work. ISPO suggested that a Steering Committee Meeting be held to review and to discuss the contract.
			ORNL	\$101,612.00	\$101,612.00	There has been no activity during this quarter. The remaining activity on this task is to ship the production portion (4.5g) of the FP-33 to the IAEA. The IAEA will notify ORNL when the shipment should occur, which will probably in late 2007.
A.218		Controlled Potential Coulometry of 1 mg Pu with SRL Coulometer [USA A 1049 / S. Balsley]	SRNL	\$363,023.00	\$306,129.00	SRNL continued to provide routine support via email to the IAEA. The coulometer is running well. The IAEA has requested that SRS send a spare working and counter electrode for the cell assembly. ISPO is waiting for an official letter request.
A.223		Technical Support to the Clean Laboratory [USA A 1081 / D. Donohue]	LLNL	\$29,000.00	\$0.00	SIMS Technical Support - The SSTS approved funding on February 21, 2007, for Doug Phinney to assist the IAEA's Safeguards Analytical Laboratory (SAL) with maintenance of its SIMS instrument. Dr. Phinney worked with SAL for two weeks in March, when he put the ion probe back in working order for the environmental sample analysis team. The approved scope of work is complete. The IAEA expects to request additional support in the next quarter.
	A.223.10					
A.233		NDA Verification Techniques for BRN Enrichment Plant [USA A 1157 / R. Lafolie]	ORNL	\$561,870.00	\$561,870.00	This task is on stand by.

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A.241		Development of Integrated Review Software for UMS [USA A 1238 / C. Liguori]	LANL	\$402,000.00	\$355,097.79	LANL Integrated Review Software (IRS) - This task will create and define the architecture within the IRS suite of software tools that supports plug and play software libraries performing similar functions. Minor updates were needed to the interface specification to reflect recent changes to the Analysis Component Interface Specification. The last two interface specifications remain to be developed to provide a fully comprehensive plug and play architecture which includes reports and displays, the last two critical elements of the IRS. ISPO redirected funding from nearly completed subtasks E.122.08 and E.122.11 to this subtask, because the existing A.241 funds were older
	A.241.01		LANL	\$168,870.00	\$105,259.56	Adoption of Operator Provided Declarations (OPD) Data into Generic Software - This subtask will provide OPD Software with a more flexible data interface. The basic operator declarations display and manipulation interface has been completed. Work has started on the declaration file interpretation modules. Extensible markup language (XML) files are the first file type to be interpreted. The design document is being developed in parallel with the XML file interpretation effort, as some prototyping is needed to fix the design.
	A.241.02		LANL	\$123,000.00	\$64,779.42	Prototype Analysis COM in Radiation Review - LANL is creating an Analysis Manager in the prototype analysis COM module (Find Events), for Radiation Review (RAD) to coordinate the various analysis modules for RAD and to update related specifications. The completion of the Rokkasho/NDAR project has required most of the LANL programming resources for this quarter. ISPO redirected the remaining funding in subtask E.122.12, "Decomposition of Radiation Review to COMs" to subtask A.241.02, "Prototype Analysis COM in Radiation Review." The purpose of this redirection was to consolidate
	A.241.03		LANL	\$27,000.00	\$4,986.17	Implementation of Virtual Extension Interface (VXI) Integrated Fuel Monitor (VIFM) Analysis into Radiation Review (RAD) - LANL is working with the IAEA to develop an analysis module for VIFM data. The IAEA has put this subtask on hold. There was no activity this quarter. Work has restarted on subtask A.241.02, the completion of which is a prerequisite for work on this task.

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	A.241.04		LANL	\$74,000.00	\$8,268.40	Integrated Review Software (IRS) Upper Layer Redesign and Standardization - This subtask will redesign the upper layer communication protocols and architecture used by the IRS suite of tools. Redesign work began on this project with a plan and layout of the messaging structure to be employed by the IRS tools to greatly simplify issues faced by the IAEA in configuring the upper layer. The simplification to the upper layer is expected by the IAEA in the Unattended Monitoring System (UMS) Baseline 3 delivery within eight months. Configuring the upper layer is difficult and confusing and needs to be modified to enable the IAEA to control this element of the software, which is critical to analyzing UMS data effectively and in an integrated manner.
A.242		Evaluation of Miniature GRAND Electronic Unit [USA A 1239 / Y. Lee]				
	A.242.02		LANL	\$220,000.00	\$206,889.00	MiniGRAND Commercialization - The IAEA has submitted a letter request for MiniGRAND dual-current mode board investigation, producing a functional test procedure for the MiniGRAND and revision of the software (Automated Testing System - ATS) for the environmental test chamber for the MiniGRAND.
	A.242.06		LANL	\$724,000.00	\$717,528.62	MiniGRAND Master Processor Board (MPB) Upgrade - LANL discovered issues with bus interface and Error-Checking and Correcting (ECC) memory timing. LANL continued to work on the firmware to make the MiniGRAND functionality with the DMPB match that of the current MiniGRAND using the old MPB. Mike Browne and Bob Parker visited Canberra Albuquerque to assist in bringing up boards and delivering firmware. Environmental tests were performed on the boards in preparation for sending three to the IAEA. The Dragonball MiniGRAND User Guide was developed from the old MiniGRAND User Guide. LANL is analyzing and acting on results of
	A.242.09		LANL	\$19,000.00	\$17,383.92	MiniGRAND and Auxiliary Communication Device (ACD) Testing - This subtask involved testing and evaluation of the Master Processor Board (MPB), Mini-Gamma Ray and Neutron Detector (MiniGRAND)/Auxiliary Communication Device (ACD) integrated device instrument. The approved scope of work for this subtask is complete. ISPO is awaiting IAEA concurrence that this subtask may

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A.247		Support for the Development of the SG System at Rokkasho Reprocessing Plant [USA A 1351 / C. Creusot]				
	A.247.05		LANL	\$814,000.00	\$815,544.26	Rokkasho Reprocessing Plant (RRP) Integration of Inspection Equipment - The aim of this task is to provide additional detectors for the vitrified canister assay system (VCAS) and to assist the IAEA with the implementation of the temporary canister verification system (TCVS). The calculation of the calibration curves for TCVS has been completed and the values were transmitted to the IAEA. This completes the outstanding work under this task. LANL has submitted a proposal for additional funding to be used to provide spare custom built modules for the IAEA.
	A.247.18		LANL	\$191,000.00	\$153,292.68	Stand Alone Integrated Review Software (IRS) and Training - This task involves the provision of an IRS based on the generic LANL software but tailored for use at the Rokkasho Reprocessing Plant (RRP). This system is intended to be used as an interim and backup review system to the Integrated Inspector Information System (IIS). The calibration constants have been supplied to the IAEA. These values are being reviewed before incorporation in the review software database. Support work will continue in 2007, as the inspectors receive data from all NDA systems as the plant goes into full
	A.247.19		LANL	\$1,028,500.00	\$991,440.05	Unattended and Remote Monitoring (UNARM) Tool COM Support for NDAR - This subtask involves the conversion of existing LANL software to component object modules (COMs) to support the Nondestructive Assay Review (NDAR) system at the Rokkasho Reprocessing Plant (RRP). Formal testing of the COM modules was completed by LANL. The modules were delivered to the IAEA. The IAEA has not accepted the LANL COM delivery. LANL and Eurware used different Microsoft programming languages. The IAEA hired Microsoft to perform an independent assessment of LANL-Eurware integration issues. Microsoft has submitted the initial results of their review. LANL has submitted a proposal to address LANL COM-Eurware integration issues.
	A.247.20		LANL	\$109,000.00	\$85,674.99	Calibration of Safeguards Equipment at RRP - This subtask involves the calibration of three Rokkasho Reprocessing Plant (RRP) systems: the Improved Plutonium Canister Assay System (iPCAS), the Directional Canister Passage Detector (DCPD), and the Mixed Oxide Storage Containment and Surveillance System (MSCS). The analysis of the iPCAS calibration exercise is complete. The values are being reviewed by the IAEA. LANL will review the data collected during the tests of the DCPD and MSCS, which are scheduled for the next month

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A.248		Gate Monitor at LWRs Loaded with MOX Assemblies [JNT USA A 1356 / T. Pochet]	LANL	\$330,000.00	\$326,574.00	Electrical work was completed on hardware components to prepare the generic gate monitor system to ship to Vienna within the next few
A.250		Enhanced ANM Capability for HKED Software at SAL [USA A 1369 / N. Doubek]				
	A.250.02		LANL	\$266,000.00	\$136,216.92	A collection of uranium-only and mixed uranium-neptunium samples was prepared by Norbert Doubek at the IAEA Safeguards Analytical Lab (IAEA-SAL) for the purpose of testing the LANL HKED version 2007 software. The content of these samples was chosen specifically to highlight the relative prominence of the germanium x-ray escape peaks of uranium k-beta x-rays, and to quantify the bias effect of these escape peaks on the neptunium concentration. The U and U-Np samples were measured at IAEA-SAL, and provided to LANL for analysis. Methods for reducing the Ge escape peak bias effect were studied, and a bias reduction method was developed for implementation during Phase 2 of this project. The new XRF feature as described in the statement of work for this project will be called "Low-Level X-Ray Fluorescence" (LLXRF) analysis, to apply terminology that was used at the August 2006 technical meeting at IAEA-SAL. The LLXRF analytical feature was added to the LANL HKED 2007 code. The LLXRF method requires that a quality control sample be measured prior to the measurement of an unknown sample, to compensate for day-to-day changes in x-ray tube intensity. The new LLXRF analytical feature is scheduled to be tested by LANL at the La Hague reprocessing plant in France and at the Institute for Transuranic Elements in Germany, during the next quarter.

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A.252		Field Support and Implementation [USA A 931 / R. Carchon]				
	A.252.14		LANL	\$146,000.00	\$137,050.42	FDMS and RR Codes - LANL did preliminary preparation and analysis towards the resolution of the three FDMS software improvements suggested by the IAEA in October 2006. LANL expects that each FDMS issue will be resolved in the next IRS baseline, anticipated in
	A.252.19		ORNL	\$78,000.00	\$77,089.00	ORIGEN Evolution Code Development for Safeguards - The RBMK-1000 SCALE/TRITON models were used to develop ORIGEN-ARP libraries. These SCALE models were validated in nuclide-assay comparison studies. Libraries were prepared for three enrichment levels (1.8%, 2.0%, and 2.2% of 235U) and for coolant densities from 0.15 to 0.80 g/cc. The burnup range covered was to 25,000 MWd/T at a power level of 16 MW/T. A set of libraries was prepared that covered the burnup range in 10 steps. A separate 20 step set was prepared also. These libraries were verified against TRITON sample runs. The report on the generation of ORIGEN-ARP RBMK-1000 cross-section libraries (ORNL/TM-2006/139, November 2006) was transmitted to the IAEA and ISPO on January 25, 2007. Copies of the libraries were transmitted to staff at the IAEA.
	A.252.22		LANL	\$86,138.73	\$92,183.33	Advanced Experimental Fuel Counter (AEFC) - The AEFC field implementation in Australia was completed in December 2006. The system was returned to LANL in January 2007. The final report documenting the field use and the results of the IAEA verification was published and sent to the IAEA and ISPO at the end of January (LA-UR-07-0012, ISPO No. 526). This subtask is complete.
A.258		Detection System for In Situ Measurements of Neutron Signatures from Spent Fuel Storage Containers [USA A 1434 / Y. Lee]				
			LANL	\$180,000.00	\$225,120.03	This task involves the design of a detector for in-situ reverification of nuclear material inventory inside dry storage casks (both concrete and metal). Work on this project has stopped due to a cost overrun. The IAEA has prepared a Users Requirements Document for the detector. LANL has submitted a proposal for follow on work. ISPO and the IAEA have reviewed the LANL proposal. ISPO will forward the proposal to the SSTS for funding consideration.

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A.262		Coordinated Experts' Meeting on Noble Gas Monitoring and Sampling [JNT USA A 1494 / J. Whichello]	PNNL	\$96,694.00	\$90,453.33	The IAEA and ISPO agreed during the 2007 USSP Annual Task Review that this task may be closed.
A.263		Traceability of DA Measurements - Provision of NBL Certified Reference Materials [USA A 1496 / S. Balsley]	NBL	\$103,000.00	\$37,449.00	NBL continued to work with the IAEA on the project plan dealing with the production of the CRM's and their expected delivery date. NBL will qualify on bulk analysis by participating in the first round of analysis of the new set of QC swipes provided by IAEA. NBL will provide metrology expertise to the IAEA's AQCS program by assisting in the certification of transuranic elements in IAEA reference
A.264		Analytical Quality Control - Participation of SAL in NBL SME Programme [USA A 1497 / S. Balsley]	NBL	\$25,000.00	\$21,332.00	NBL did not perform any work on this task during this quarter.
A.265		Environmental Sampling Evaluation Support [USA A 1498 / W. Fuhr]	ORNL	\$212,000.00	\$212,000.00	
	A.265.02		ORNL	\$179,000.00	\$120,657.00	This task is an umbrella support task for providing technical support related to environmental sampling (ES) evaluation and data interpretation. Diane Fischer consulted for three weeks in Vienna from February 5 to 23, 2007. She provided ES evaluation support to SGIM-IDS, which included researching and documenting nuclear activities and materials present at facilities where environmental samples have been taken. The final report on commercial uses and characteristics of depleted uranium has been reviewed and submitted for technical editing. Mark Laughter is compiling ORIGEN-S fuel burnup data, in a format compatible with existing IAEA software, to aid

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A.266		Expert - Unattended and Integrated Monitoring Systems [USA E 1584 / B. Wishard]	IAEA	\$230,000.00	\$136,032.94	The CFE Diana Langner is assisting with the Measurement System for the Fuel Monitoring Facility (FMF) in Japan, which monitors spent fuel moving from the Joyo reactor to the FMF. A new measurement system has been proposed to measure the neutron balance for the relatively limited amount of SNM that moves into and out of the FMF. This measurement approach has been accepted by both Operations A and the Japanese. Design of the measurement system based on simple slab detectors has begun. Ms. Langner is supporting the J-MOX Project through project and equipment budget planning exercises, as well as the identification of the requirements for these systems. She focused on the evaluation of preliminary data from the hold-up measurement system, the Glove-Box Unattended Monitoring System (GUAM). The preliminary data indicate that the system will perform as planned and may provide additional process flow information as well. A Monte Carlo study of Fuel Assemble Assay System (FAAS) is almost complete. A report has been drafted. Some development is required to demonstrate modern liquid scintillators' suitability for safeguards. A small contract has been entered into with the All Russian Scientific Research Institute of Experimental Physics to perform a feasibility study, which will include Monte Carlo calculations for the application of liquid scintillators for safeguards use. A strategic planning exercise was begun to engage safeguards experts in planning for the next generation neutron pulse collecting electronics approach. Both the GUAM and the liquid scintillator projects will exploit more of the information that is in a neutron pulse stream than what is used currently with shift register electronics. A workshop is being planned for April 24 to 26, 2007, that will bring experts together to discuss how to best adapt advances in modern digital electronics to further safeguards.
A.267		Development of ISOCS Self Modeling Capabilities [USA A 1607 / L. Bourva]	IAEA	\$193,000.00	\$0.00	This project is on hold, until the IAEA places a purchase order with Canberra Albuquerque.

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A.268		Improvement of NWAL Capability in Gamma Spectrometric Anlysis for U/Pu and Fission and Activation Products [USA A 1619 / M. Nikkinen]	LLNL	\$180,000.00	\$123,575.06	Reports were submitted to ISPO on tasks 1 and 2, covering purchase and set up of the detector and modifications to the GAMANAL software used to interpret spectra. Characterization of the system under Task 3 identified the need for additional upgrades to GAMANAL, which have been made. Characterization is proceeding. The use of the MGA codes for isotopic determinations for U and Pu (Task 4) has been explored. Reports on Tasks 3 and 4 are being prepared. A list of samples to use for evaluating the system's performance has been agreed upon. The IAEA is expected to ship them to LLNL shortly.
A.269		Support for Novel Technologies [USA A 1616 / J. Whichello]	LLNL	\$0.00	\$0.00	This task is on stand by, pending requests from the IAEA for
	A.269.01		PNNL	\$6,200.00	\$4,533.68	
A.270		Expert - SAL SIMS [USA A 1639 / Schmitzer]	IAEA	\$200,000.00	\$42,725.56	The expert John Cliff arrived at the Safeguards Analytical Laboratory (SAL) in Seibersdorf on February 1, 2007. Dr. Cliff evaluated the status of the Cameca SIMS instrument. A series of repairs to the vacuum system were made to allow it to be returned to an operating condition. Maintenance and mechanical and electronics repairs were done. A Cameca/SIMS service engineer worked on scheduled replacement of a pumping system, advanced maintenance, and trouble shooting of known and newly occurring problems. Dr. Cliff began an evaluation of the measurement capability of the instrument, assisted by Douglas Phinney (LLNL).
			ISPO	\$5,181.00	\$0.00	
			PNNL	\$15,200.00	\$14,601.55	John Cliff (PNNL) visited the Safeguards Analytical Laboratory (SAL) from January 13 to 21, 2007, to become familiar with the staff and the equipment. Dr. Cliff met with the IAEA and the VIC housing office, in preparation for his upcoming assignment to the SAL. He stopped for a day at NIST, on the way to Vienna. Dr. Cliff began his CFE assignment in February.

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A.271		Junior Professional Officer: Support for the Section for NDA and Seals [/ A. Lebrun]	IAEA	\$100,000.00	\$28,623.36	Adam Shephard began his JPO assignment with the Section for Resident NDA in January. He was assigned to study non-destructive assay (NDA) techniques for use in verifying the contents of a CASTOR HAW 19/21 cask containing fully specified vitrified waste containers. Mr. Shephard performed a literature search, developed a MCNP model of the CASTOR HAW 19/21 cask, acquired a MCNP model of the detector, and developed a MCNP model of a vitrified waste container and its contents. He analyzed the activity of vitrified waste contents from source materials. Mr. Shephard designed, conducted, and analyzed the results from a scoping experiment. The scoping simulations show no strong spectral function shape differences between full and deficient casks at detection points exterior to the cask. The range of interest for gross neutron detection is shown to be in the .01 – 10 MeV range.
A.272		Junior Professional Officer: NDA Assistant - Research Position, Nuclear Physics [/ R. Carchon]	IAEA	\$100,000.00	\$0.00	The IAEA nominated Zia Tompkins for this position. ISPO conducted an e-poll to obtain SSTS approval of this candidate. The SSTS deferred its decision, pending a review of CFE and JPO priorities. This position will be addressed during the April 6, 2007, SSTS
A.273		Spent Fuel Fissile Measurements Using Self Induced Neutron Resonance Densitometry [USA A 1668 / A. Lebrun]	LANL	\$160,000.00	\$0.00	The SSTS approved this task at its February 21, 2007 meeting. LANL has been funded for the first phase feasibility study which includes development and validation of the simulation models, a sensitivity study to address IAEA diversion scenarios, and reviewing results to determine whether it is appropriate to continue with the second phase.
B.080		Training Workshop in Design Information Review for the Entire Life Cycle of Research Reactors [USA B 984 / P. Rodriguez]	BNL/SAC	\$305,000.00	\$305,000.00	This task is on stand by.
			ORNL	\$0.00	\$0.00	This task is on stand by.
	B.080.01		ISPO	\$90,200.00	\$90,200.00	This task is on stand by.

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B.082		Safeguards Training Course: Enrichment Technology [USA B 1001 / M. Hunt]	ORNL	\$567,020.00	\$493,739.00	The IAEA has requested that a course be conducted from June 11 to 15, 2007, in Vienna. ORNL has submitted a proposal and is awaiting authorization from the SSTS to proceed.
B.084		Revision of Introductory Course on Agency SG (ICAS) [USA B 1106 / H. Barroso]	Sonalysts	\$528,718.00	\$516,467.00	This task is on stand by.
B.088		Enhanced Communication Skills [USA B 1245 / M. Hunt]				
	B.088.01		Sonalysts	\$57,297.00	\$32,220.00	Dr. Sonja Haber (Human Performance Analysis (HPA)) and Mr. Colin Carroll (Sonalysts) provided training on Enhanced Observational Skills and Enhanced Communication Skills to the IAEA, from January 15 to 26, 2007. HPA and Sonalysts met with two Safeguards inspectors to discuss revisions to the role play scenarios for the Enhanced Communications Skills Course, during the afternoons of the week of January 15. These scenarios were used when the Enhanced Communications Course was presented to the ICAS students, during the week of January 22.
B.090		Workshop on Quality Assurance Techniques [JNT USA B 1277 / D. Neal]				
	B.090.02		IAEA	\$180,000.00	\$41,415.63	A Quality Management training session five day workshop was held in Vienna during the week of March 12, 2007, followed by a two day seminar for managers on March 19 and 20, 2007. A second five day workshop was held in Vienna during the week of April 16, 2007, followed by a two day seminar on April 23 and 24, 2007.

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B.091		Training on Remote Monitoring and Unattended Monitoring [USA B 1337 / P. Hypes]				
	B.091.03		LANL	\$404,500.00	\$275,736.79	Radiation Review Software Training - A proposal was submitted to ISPO to present another two MIC and Radiation Review courses in Vienna. This year, the two requested courses are proposed to be taught in consecutive weeks. This approach would result in considerable cost savings, due to saved travel and preparation time. The SSTS approved funding on March 8, 2007, for the two courses, which are to be presented in May 2007.
	B.091.03		Sonalysts	\$124,530.00	\$92,451.00	
B.093		IAEA Participation in U.S. Sponsored Training Courses [USA B 0086 / P. Hypes]				
	B.093.05		LANL	\$1,092,986.00	\$842,377.97	Advanced Plutonium Verification (APVT) Course - The preparation for the March APVT course was completed. Final detector checkout/calibration occurred on Monday, March 5, 2007. The IAEA arrived in Los Alamos on March 13, to begin the course on March 14. There were numerous new rules, regulations, and compliance issues.
	B.093.06		LANL	\$1,225,748.00	\$1,144,245.71	NDA Training - All of the activities associated with the August 2006 course have been completed. The IAEA has requested an additional session for August 2007.
	B.093.07		BIL	\$24,500.00	\$0.00	This task is on stand by.
	B.093.07		LANL	\$101,550.00	\$96,176.48	Expert Support to ICAS - An expert in neutron based NDA techniques supported the instruction of the NDA module of ICAS for two weeks. Instruction included class room presentations, laboratory exercises, both with and without nuclear material, and assistance in subject review and student evaluation. The neutron pulse simulator (NPS) (which was developed under POTAS Task B.94) was used for the first time in the course to simulate the measurement of an assortment of special nuclear material in several different assay systems. The NPS allows for the simulation of more realistic NDA measurements when nuclear material is not available. The incorporation of the neutron pulse simulator into the laboratory exercises was successful. This subtask is complete.
	B.093.07		SRNL	\$47,000.00	\$45,065.00	This task is on stand by.

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B.096		Workshop on Additional Protocol Activities [USA B 1415 / M. Hunt]				
			BNL/NCT	\$343,061.00	\$340,883.00	
	B.096.01		BNL/NCT	\$196,000.00	\$16,085.00	
						The SSTS approved funding for the Additional Protocol/Complimentary Access (APCA) course on March 19, 2007. The course will be delivered in June 2007.
	B.096.01		LANL	\$31,000.00	\$0.00	
						The SSTS approved funding for the Additional Protocol/Complimentary Access (APCA) course on March 19, 2007. The course will be delivered in June 2007.
B.098		Enhanced Observational Skills [USA B 1446 / M. Hunt]				
			Sonalysts	\$243,056.00	\$243,056.00	
	B.098.02		Sonalysts	\$41,000.00	\$39,832.00	
	B.098.03		Sonalysts	\$48,000.00	\$35,855.00	
						Dr. Sonja Haber (Human Performance Analysis (HPA)) and Mr. Colin Carroll (Sonalysts) provided training on Enhanced Observational Skills and Enhanced Communication Skills to the IAEA, from January 15 to 26, 2007. HPA and Sonalysts presented the Enhanced Observational Skills Course to students attending the Introductory Course on Agency Safeguards (ICAS) during the mornings of the week of January 15. Ten students participated in the course, seven were new inspectors participating in the entire ICAS Training, and three were from other Safeguards Divisions who were attending several, but not all, modules of the ICAS. HPA and Sonalysts presented the Enhanced Observations Skills course again to a group of fifteen experienced inspectors from different Divisions within the Department of Safeguards, during the week of January 22.
B.099		Physical Inventory Taking Computer Based Training [USA B 1464 / V. Cisar]				
			BMI	\$192,152.06	\$114,363.17	
						This project is under new management. A review of the status of the task indicated that an extension is needed. BMI is reviewing the final set of slides with the IAEA.

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B.101		Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures [USA B 1418 / Crete]	IAEA	\$450,001.01	\$378,369.36	The CFE Phil Hypes delivered ICAS Module 6. Discussions continued regarding the new unattended monitoring system courses (a course for Facility Officers to teach them to fulfill their responsibilities in an unattended monitoring system, and a course for the Agency technicians who are responsible for the installation, configuration, and maintenance of unattended monitoring systems). Work began on knowledge capture for the benefit of the next NDA specialists who will work in the training section, in case there is no overlap for face-to-face handoff. Dr Hypes prepared for the Advanced Plutonium Verification Techniques course held at LANL in March 2007 and attended as the IAEA Safeguards Training representative. Impromptu training was conducted for experienced inspectors who were preparing to go on inspections. Training was coordinated and developed in cooperation with various state support programs.
B.102		Pyroprocessing Training Course [USA B 1669 / M. Hunt]	INL	\$80,000.00	\$0.00	The SSTS approved funding on February 28, 2007, for this course, which will be delivered in the fall of 2007.
C.111		Safeguards System for Chernobyl Unit 4 [JNT USA E 1445 / A. Zatsepin]	Sonalyts	\$246,000.00	\$214,261.00	The IAEA forwarded User Requirements for a data network that would link all Unattended Monitoring Systems (UMS) at the Chernobyl site to the Chernobyl nuclear power plant (ChNPP). ChNPP will evaluate the User Requirements, propose options for implementing the system, and provide cost estimates for performing the work. The IAEA is evaluating options for repairing the Mobile Monitoring Container Transport (MMCT) system. IAEA believes that the best option at this time is for them to repair the MMCT themselves. ChNPP requested that the IAEA provide design information for the MMCT, which will be installed on the new wagons that ChNPP plans to build.
	C.111.01		LANL	\$60,900.00	\$62,601.35	Instrument Assistance to the Chernobyl Shelter - There was no significant activity during this quarter. A quotation from Maxus Instruments for manufacturing of two more MCA sets has been prepared and sent to Canberra Albuquerque.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
C.112		Consultant - Development Support for Integrated Safeguards [USA C 1451 / D. Hurt]				
	C.112.03		BNLCONTR	\$63,000.00	\$0.00	The consultant James Larrimore assisted the IAEA in the development of documentation for integrated safeguards. He consulted in Vienna from February 26 to March 23, 2007. Dr. Larrimore provided assistance in developing a hierarchy for safeguards objectives for integrated safeguards including the formulation of safeguards objectives, the role of indicators in meeting specific sub-objectives and in determining safeguards activities, the legal bases, and the necessary safeguards capabilities. Dr. Larrimore reviewed the SIR for 2005 and made suggestions for reformulations, in particular for the overall safeguards objectives. He provided advice on requirements for verification of light water reactor spent fuel transferred to dry storage under integrated safeguards, including background on the requirements under traditional safeguards. Dr. Larrimore planned for further assistance to the project to develop the integrated safeguards approach for geological repositories.
C.113		Development of Techniques to Estimate the Separative Capacity of R&D Isotopes [USA C 1476 / W. Bush]				
			LLNL	\$55,000.00	\$55,000.00	The final report included a main report and a separate, more sensitive, appendix. It was distributed in January 2007. This task is complete.
C.115		Quality Management Specialist [USA C 1555 / D. Neal]				
			IAEA	\$250,000.00	\$166,866.48	The Corrective Action Procedure is approved for Department use. Training was provided to the Quality Managers. A total of twenty-four Corrective Action Reports were initiated in 2006. The expert Rick McCullough facilitated efforts of the Canadian Safeguards Support Program to develop a computer based training program for Quality Management System (QMS), including interviews with various staff members on the benefits of implementing a QMS. Mr. McCullough participated in two training modules regarding root cause determination and process improvement. He conducted Continual Improvement and Corrective Action Training for the IAEA staff at the Tokyo Regional Office. Mr. McCullough identified several areas for improvement that have been assigned to the Tokyo Quality Management representative. He assisted with the five day QMS Workshop and the two day QMS Seminar. Both projects are being sponsored by the USSP.

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C.116		Determination of Decommissioned Status of Facilities [USA C 1561 / Y. Touil]	BNL/NCT	\$130,000.00	\$39,019.00	ISPO contracted Dr. Brian Boyer (LANL) to participate in the study with representatives from Brookhaven National Laboratory and Sonalysts, Inc. The team conducted an organizational meeting in March 2007 to make plans for completing the study.
			LANL	\$93,000.00	\$0.00	The SSTS approved funding in February for Brian Boyer to continue working on this task from his new position with LANL. BNL, LANL, and Sonalysts will collaborate to complete this task.
C.117		Expert - Enrichment Plant Safeguards [USA C 1571 / R. Fagerholm]	IAEA	\$400,000.00	\$235,888.67	The CFE Michael Uzzle generated a spreadsheet to estimate the quantity of plutonium produced in safeguarded power reactors during the period December 1, 2005 to November 30, 2006. The information will be incorporated into the Safeguards Implementation Report (SIR) for 2006. A presentation will be given to the Section for Concepts and Approaches (CCA) to summarize the steps involved in developing the spreadsheet. Revisions to the Uranium Enrichment and Heavy Water volumes of the Physical Model have been completed. Final editing is in progress to accommodate inclusion in the QMS Document Control system. A MSSP task has been initiated to revise the Conversion 1 and Conversion 2 volumes. Dr. Uzzle provided a technical analysis on December 8, 2007, that related to plutonium enrichment using the AVLIS process, in support of a State Evaluation.
C.118		Application of Safeguards to Geological Repositories (ASTOR), Group of Experts [JNT USA C 1611 / M. Diaz Menendez]	ISPO	\$0.00	\$0.00	There was no activity during this quarter. The next meeting is planned for June 14 to 15, 2007, in Belgium.

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D.122		Systems Engineering Process for SGIT [USA D 1158 / G. Cherif]				
	D.122.01		CGE&Y	\$250,969.45	\$162,839.00	This task has been postponed until April 2007 because of the workload associated with the IRP project. A meeting with Cap Gemini has been scheduled for April 11, 2007, to continue the task. The next step is to conduct a workshop to find the best implementation strategy of SSEP 2.3 in the Section for Information Collection and Analysis.
	D.122.02		BIT	\$70,000.00	\$67,868.30	There was no activity during this quarter.
	D.122.03		IAEA	\$70,000.00	\$0.00	There was no activity during this quarter.
	D.122.04		IAEA	\$10,500.00	\$3,267.88	There was no activity during this quarter.

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D.137		Consultants - Assistance on Information Collection and Information Systems [USA D 1126 / V. Braguine]				
D.137.01			BNL	\$16,000.00	\$0.00	Activity on this task was put on hold, pending an SSTS review. A briefing for open source information consultants was developed. The consultants were briefed. The USSP is ready to consider the IAEA's needs for continued support in 2007.
D.137.01			BNLCONTR	\$10,000.00	\$0.00	Allen Locke - There was no activity planned for this quarter.
D.137.01			ISPO	\$73,840.00	\$64,031.00	Allen Locke - There was no activity planned for this quarter.
D.137.03			LANL	\$96,995.00	\$82,712.00	Jeff Bedell - The consultant's previously planned assignment in January 2007 was deferred.
D.137.04			LANL	\$258,511.00	\$228,384.95	Arvid Lundy - The consultant's previously planned assignment in January 2007 was deferred.
D.137.06			PNNL	\$246,000.00	\$245,964.91	Ned Wogman - There was no activity during this quarter.
D.137.07			BNLCONTR	\$66,000.00	\$45,917.00	Joyce van Berkel - Ms. Van Berkel's contract with BNL has been completed. She will now consult with the IAEA under an agreement with SNL.
D.137.07			SNL	\$272,962.90	\$124,625.20	Joyce Van Berkel - The restructured Division of Safeguards Information Management (SGIM) is streamlining the provision of open source information to the Safeguards Department. Ms. Van Berkel consulted with the IAEA from March 5 to 23, 2007. She developed a concept of operations for providing three levels of service and an interim method for tracking tasks for the restructured Information Analysis Unit (IAU) in the Information Collection and Analysis Section (ICA). An interim Task Management System (TMS) was developed for use until the Department implements MS Project Server. The TMS will be migrated to that software, when Project Server is implemented in SGIM. Two competing Document Management Systems (Livelink and MS SharePoint) are being evaluated for use in SGIM. Procedures will be developed for the selected system, when a decision has been reached on which system to use for IAU products.
D.137.08			LLNL	\$197,000.00	\$184,387.77	George Anzelon - There was no activity during this quarter.

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	D.137.09		LLNL	\$108,515.00	\$108,683.52	William Domke - There was no activity during this quarter.
	D.137.11		LLNL	\$159,982.27	\$146,995.90	Roger Miller - There was no activity during this quarter.
	D.137.12		LANL	\$129,494.00	\$124,396.65	Rick Wallace - There was no activity during this quarter.
	D.137.13		LLNL	\$62,500.00	\$65,166.63	Doug Vogt - There was no activity during this quarter.
	D.137.14		LLNL	\$62,500.00	\$59,917.21	Jim Hassberger - There was no activity during this quarter.
	D.137.19		ORNL	\$0.00	\$0.00	Leonard Phillips - There is no activity during this quarter.
	D.137.20		ORNL	\$80,000.00	\$79,058.00	James David Snider - There is no activity during this quarter.
	D.137.22		BNL	\$35,000.00	\$30,495.00	Maryam Tatavosian - Ms. Tatavosian continues to provide support to the Section for Information Collection and Analysis (SGIM-ICA) Information Analysis Unit (IAU). The IAEA selected Ms. Tatavosian in March for one of three new Junior Professional Officer (JPO) positions that will support the IAU. This subtask will be complete when the new JPO position begins.
	D.137.22		M. Tatavosian	\$108,200.00	\$99,015.00	Maryam Tatavosian - Ms. Tatavosian's consulting arrangement through Mercyhurst College is complete.
	D.137.23		J. Essner	\$66,965.00	\$66,755.00	Jonathan Essner - Mr. Essner completed his assignment with SGIM-ICA in January. This subtask is closed.
	D.137.24		LANL	\$20,000.00	\$3,327.79	LANL Consulting - There was no activity during this quarter.
	D.137.25		LLNL	\$15,000.00	\$15,542.19	LLNL consulting - LLNL worked on follow-up questions from consulting visits during the previous quarter. They hosted discussions with the SGIM Director, the SGIM-ICA Section Head, and two other SGIM officials during their visit to Livermore from February 28 to March 1,

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D.141		Internship Program [USA D 1396 / A. Hamilton]				
	D.141.05		IAEA	\$176,577.48	\$140,593.38	Chris Dalton continues to assist with oversight of the I3S software development. Mr. Dalton worked to resolve the issues related to the software delivered by LANL.
	D.141.10		BNL/OEP	\$79,000.00	\$7,863.00	The SSTS approved funding in January 2007 for BNL's Office of Educational Programs (OEP) to assist ISPO by recruiting candidates for future JPO positions. Catherine Osiecki (OEP) discussed IAEA opportunities with students at the ANS Annual Student Meeting in Oregon in March 2007.
D.148		Expert - Special Technology Coordinator [USA D 1443 / M. Nicholas]				
			CFE	\$620,002.66	\$531,478.77	The expert John Hilliard visited with analysis centers at LLNL and PNNL to discuss analytical processes and various analytical tools. The MITRE organization hosted a meeting at their facility for nVISION vendors to discuss additional ways to support the Department of Safeguards. Mr. Hilliard continued work on the joint paper entitled: "Need for a New Approach and New Tools to Analyze Proliferation Networks," which will be presented at the ESARDA meeting in May. He arranged a presentation on VITA, a visualization tools for unstructured data, for SGIM management to address the VITA enhancements that have been recommended by the IAEA task officer. The IAEA worked with the Canadian Safeguards Support Program on developing an analysis WIKI utilizing Microsoft Sharepoint, which would allow for collaboration by analysts in the Section for Information Collection and Analysis. Mr. Hilliard continued informational briefings to Safeguards divisions to collect analysis portal needs and requirements.
D.149		Specialist Training for IAEA's Imagery Analysts [USA B 1442 / F. Claude]				
	D.149.01		IAEA	\$8,501.00	\$8,501.00	SDI and GIS Training - There was no activity during this quarter. Training needs will be communicated to the USSP, as soon as the geospatial laboratory system prototype is completed.
D.150		Expert - Systems Analyst [USA D 1460 / J. Smith]				
			CFE	\$600,000.00	\$496,722.06	There was no report provided.

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D.151		IAEA Safeguards Information System Re-engineering Project [USA D 1461 / R. Kirkgoeze]	TBD	\$0.00	\$0.00	This task provides a mechanism for POTAS-funded support to the ISIS Re-engineering Project. Non-POTAS support is tracked under task SP.62.
	D.151.03		AWST	\$17,673.00	\$0.00	Technical Review of IRP Reverse Engineering Project - The SSTS approved funding at the December 2006 meeting for AWST to perform a technical review of deliverables for the IAEA's IRP reverse engineering project. The contract with AWST was placed by BNL. When AWST began the project, they found that the IAEA had completed the work on its own. ISPO and AWST discussed the situation with Jean-Michel Becar (IAEA). SGIM has additional work that AWST could perform. ISPO suggested that the current contract with AWST be terminated and that the funds be applied to another scope of work to be defined by the IAEA. ISPO will place a new contract for
D.152		Software, Hardware and Database Provision for Satellite Imagery Analysis Support [USA D 1477 / S. Robb]	IAEA	\$100,000.00	\$0.00	A requirements review meeting was held in Denver in March 2006. A follow-up design review was held in September 2006. Teleconferences are held when the need arises. A Factory Acceptance Test is planned for April 2007. The final installation of the geospatial system upgrade will begin in May 2007. A three week training and familiarization program and final System Acceptance Test will follow the installation.

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D.153		Junior Professional Officer for the JNFL Project [USA X 1513 / C. Creusot]	IAEA	\$220,000.48	\$170,521.79	The JPO Greg Gerrein managed contracts for Activity List Subsystem (IALS), IGUI-Framework, SURS, and Near Real Time Accountancy (NRTA). Mr. Gerrein is responsible for the daily monitoring, maintenance, and support of inspectors using the I3S system at Rokkasho. AWST is developing the Inspector IALS. Mr. Gerrein was involved in focus meetings where the inspectors are invited to give immediate feedback to implemented requirements. With regard to the IGUI-Framework, Arbyte is developing a portal-like framework system, which will allow all I3S subsystems to "snap-in" to a more seamless architecture in look and feel, and also technically. Mr. Gerrein presented the current status of I3S at technical meetings at Rokkasho. He was involved in meetings regarding the current and future submission process of Operator Declarations (OPDs). Mr. Gerrein developed an OPD converter that will take current OPD formats and convert them into the new XML format, which is necessary for other I3S systems. He developed enhancements, including a variety of programming scripts, to the Data Feeder application.
D.154		Expert - IAEA Safeguards Information System Re-engineering Project [USA D 1520 / J. Baute]	IAEA	\$157,679.96	\$157,679.96	This task is on stand by.
D.156		Software Development Support: LIMS for the SAL [USA D 1523 / S. Balsley]	IAEA	\$55,000.00	\$55,000.00	This task is on stand by.
D.157		Windows/Office 2003 Migration for Safeguards [USA D 1548 / R. Gronvius]	IAEA	\$87,750.00	\$0.00	Approximately fifty per cent of the desktops have migrated to Windows XP/Office 2003. A comprehensive project has been launched to roll out a secure desktop product by the end of the year. The effort will complete the roll out of Windows XP/Office 2003 and will increase the security level of every desktop in the Department of

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D.158		Expert - Design, Development and Implementation of Data Collection and Evaluation Software for [USA D 1556 / R. Gaetano]	IAEA	\$278,453.00	\$177,894.30	The expert Joseph Damico is leading a team of contractors, consultants, and staff in the development, testing, installation, start-up, and operation of the RRP Integrated Inspector Information System (I3S). This task was reorganized into the new Systems Engineering Unit of SGTS. Effort was made to help the SGTS management understand the current state of the I3S, the plans for completion of development in 2007, and to developing a clear agreement on roles and responsibilities for the I3S development, operations, and maintenance between SGTS, SGIM, and SGOA. A draft Service Level Agreement was generated under this task and is the basis for the ongoing discussions about SGIM's IT support for RRP. A physical inventory verification (PIV) was performed at RRP in January, 2007. The NDAR contractor continued to find issues with integrating the LANL COMs. To resolve whether the issues were with the NDAR integration code or the LANL COMs, the I3S team contracted Microsoft through the ISPO office. Microsoft set up a test system and ran test code provided by the NDAR contractor. The Inspector Activity List Subsystem (IALS) development contract was completed. The design for Near Real Time Accountancy Release 2 for the I3S was completed and put out for bid. A contract to develop a web framework for the I3S graphical user interface (IGUI) was launched and completed. This framework will provide a uniform look for the I3S user, and provide tools and guidance for other subsystem developers to improve their GUIs to fit in the framework. The I3S team drafted a proposal for a high-level design of the JMOX data collection network, based on experiences with the RRP system.

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D.159		Design and Definition for an Enhanced Information Analysis Architecture [USA D 1564 / M. Murray]				
			LLNL	\$25,749.24	\$25,749.24	This task is on stand by.
			SNL	\$14,000.00	\$12,728.38	This task is on stand by.
	D.159.01		PNNL	\$32,000.00	\$5,082.37	The SSTS approved funding in February for Paul Thurman to consult with the nVision development team. Mr. Thurman is planning a visit to Vienna in May.
	D.159.02		PNNL	\$10,000.00	\$8,385.51	NVision 2007 Visit - Jennifer Tanner and Tom Shea (PNNL) hosted Jacques Baute (Director of the Division of Safeguards Information Management (SGIM)), Malcolm Nicholas, Phil Caulfield, and John Hilliard (SGIM) at PNNL on Friday, March 2, 2007. The IAEA presented an overview of SGIM issues and challenges. PNNL presented and demonstrated various laboratory developed information analysis tools and information system architectures. The meeting ended with a discussion on future areas for information technology cooperation. The approved scope for this subtask is complete.
D.160		SPRICS 2.0 [USA D 1617 / V. Firbasova]				
			CAPGEMINI	\$165,000.00	\$0.00	The IAEA placed a contract with Cap Gemini for the development of SPRICS 2.0. The project has been delayed due to IRP activities, but it is expected to be completed by January 2008.
D.161		Expert - SALIMS Upgrade Project Leader [/ S. Balsley]				
			CFE	\$200,000.00	\$0.00	The selected candidate for this position withdrew. The IAEA requested that the USSP consider other candidates. ISPO identified two candidates and asked the SSTS to approve the candidates for review by the IAEA. The SSTS deferred a decision, pending its review of all CFE and JPO positions to be conducted on April 6, 2007.
D.162		State-Level Follow-up Action System [USA D 1638 / Walter]				
			AWST	\$85,000.00	\$0.00	ISPO met with IAEA procurement officials in May and learned that the contract with AWST for this system is in progress.

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D.163		Junior Professional Officer: Enhanced Information Analysis Architecture (n-Vision) [USA D 1644 / Hilliard]	IAEA	\$0.00	\$0.00	The selected candidate declined the Agency's offer of employment. The nVision team requested that ISPO identify new candidates.
D.164		JPO - CIR Mobile [/ Becar]	IAEA	\$100,000.00	\$6,074.52	The JPO Mikhail Fayer joined the Division of Safeguards Information Management Section for Information Architecture and Projects (IAP) in March, 2007. Mr. Fayer began work on the Computerized Inspection Report (CIR) Mobile 2. He studied the CIR Part II section of the Safeguards Manual in preparation for drafting of use cases, which are required for the extension of CIR Mobile application to cover CIR-Part
D.165		JPO - Open Source Information Collection [/]	IAEA	\$100,000.00	\$0.00	The IAEA selected Kimberly Birdsall for this position. Ms. Birdsall is a graduate of Georgetown University with a MS in Foreign Service. The SSTS approved this new JPO position in March 2007.
D.166		JPO - Open Source Information Analysis [/]	IAEA	\$100,000.00	\$0.00	The IAEA selected Maryam Tatavosian for this JPO position. Ms. Tatavosian is a graduate of Mercyhurst College with a Master's degree. She is a former USSP intern (2004 - 2005). Ms. Tatavosian consulted for the IAEA through a BNL contract with Mercyhurst during her last year of graduate school (September 2005 - June 2006). The SSTS approved this new JPO position in March. Ms. Tatavosian is expected to begin in May.
D.167		JPO - Open Source Information Collection [/]	IAEA	\$100,000.00	\$0.00	The IAEA selected Yana Feldman for this position. Ms. Feldman is a graduate of the London School of Economics with a MS in International Relations. The SSTS approved this new JPO assignment in March.

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D.168		Expert - IT Vulnerability Management [/]	IAEA	\$200,000.00	\$0.00	The IAEA selected Peter Zachry for this CFE position. The SSTS approved this position during its April 6, 2007, teleconference.
E.119		Upgrading of GARS Review Software and Software Factory Support [USA E 1249 / B. Wishard]	Aquila	\$110,000.00	\$65,500.00	This task is an IAEA direct service contract with Canberra to provide quick response to software upgrades for the Canberra-designed General Advanced Review Software (GARS) and related products. The IAEA has accepted the software release for DIS-SW-8, DCMLOG parser, DIS-SW-9, and GARS HAWK-SG based Digital Imaging Surveillance (HDIS) system.
	E.119.01					

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E.122		URM Systems Standardization and Support [USA E 1274 / T. Pochet]				
	E.122.06		LANL	\$556,500.00	\$551,076.85	Auxiliary Communication Device (ACD) Firmware Update - This subtask involves enhancing the ACD firmware to include sub-second time/date stamping and to perform testing of these upgraded ACDs produced by Canberra Albuquerque (CA), prior to use with the Rokkasho safeguards system. No activity has been reported for this quarter. The IAEA may contact LANL for technical assistance when the ACDs are installed at Rokkasho.
	E.122.08		LANL	\$142,000.00	\$113,523.26	Unattended Monitoring System (UMS) Software Modifications - This subtask provides the IAEA with support for UMS software modifications and technical support. LANL is working on data filtering software, which is required to analyze Chernobyl instrument settings. Additional implementation and testing of this software was completed. The final software deliverable will be sent to the IAEA in April 2007.
	E.122.11		LANL	\$116,000.00	\$91,510.74	Generic Software Components for the Chernobyl Conditioning Facility - This subtask provides technical support in correcting issues and updates to the Unattended Monitoring System (UMS) components, which were integrated and designed for use at the Chernobyl facility. Coordination of remaining issues with individual software engineers was conducted to assess the status and work required to close remaining issues. The final status report of all issues and the final deliverables are expected to be delivered to the IAEA in April 2007.
	E.122.12		LANL	\$241,077.00	\$108,977.27	Decomposition of Radiation Review (RAD) to COMs - This subtask will convert RAD capabilities into component object modules (COMs), which will allow third-party programs to retrieve data from RAD modules. LANL continued development of the event analysis module, the Gamma Radiation and Neutron Detector (GRAND) import module, and the Shift Register (SR) import module.
	E.122.13		LANL	\$288,000.00	\$230,617.54	Control Board and Baseline Release Management and Support - This subtask was created to establish a software control board to better manage the Unattended and Remote Monitoring (UNARM) software product from LANL N-1. The proposal for UNARM Baseline 2 Revision 1 (B2R1) was completed and submitted.
	E.122.14		LANL	\$259,500.00	\$168,282.79	INCC and ISO COM Conversion - This subtask involves the conversion of IAEA Neutron Coincidence Counting (INCC) and Isotopic Review (ISO) codes to Component Object Modules (COMs). Work resumed on the INCC module, finishing some of the details not required by the NDAR code. LANL is finishing the INCC COM module interface specification document.

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	E.122.15		LANL	\$55,000.00	\$37,490.88	LANL Software and Hardware Technical Support - This subtask provides technical support for LANL unattended monitoring system (UMS) software products, and LANL developed software and hardware for RRP. Minor software discrepancies were corrected to address issues discovered in several software components in the UMS software suite, including firmware modifications. Technical support was provided to the IAEA on configuration issues. DCOM libraries (recently delivered to Rokkasho) were updated and modified to re-enable dialog capabilities, which had been disabled for the Rokkasho delivery. The changes made to the library allow them to be used seamlessly within the next formal Baseline delivery for the Unattended Monitoring System, with no user code changes required.
	E.122.19		SNL	\$189,000.00	\$181,606.02	Equipment Security Support - Keith Tolk has continued to support the IAEA in the area of equipment security. Mr. Tolk met with the IAEA and ISPO to discuss the scope of work for follow-on activities for this task. He met the IAEA's new security expert, Joanna Gorwitz, to discuss helping her take over the equipment security tasks for which he has been responsible and how best to support her in her new role. A new proposal has been submitted for additional funding for these activities. There are also some deliverables still due under the existing funding. Mr. Tolk is working to finish these.
	E.122.20		LANL	\$15,000.00	\$0.00	Unattended and Remote Monitoring (UNARM) Baseline 2 Revision 1 (B2R1) Release - The IAEA has requested a revision to the B2R0 release, prior to deploying the software in the field. The new software revision will be called B2R1. ISPO approved funding for LANL to prepare a Digital Video Review (DVR) Requirements Specification. Canberra Albuquerque needs this document to submit a proposal for B2R1 DVR work. ISPO has polled the SSTS for LANL funding
E.127		Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination (Regula) [USA E 1350 / M. Zendel]	CFE	\$724,700.00	\$642,392.71	The expert James Regula achieved secure satellite communications testing in Daejeon, South Korea. A 2.5m C-Band VSAT antenna was installed at KAERI (Korean Atomic Energy Institute), along with a mobile INMARSAT antenna. A series of file transfer and video conferencing tests were performed over a secure Virtual Private Network (VPN) tunnel. Specifications for a new Remote Monitoring data center were drawn up. Building Management (BM) was made aware of infrastructure needs in anticipation of a May-June 2007 startup. New server, network switch, and rack procurement has been started. A mailbox system was built with VPN/Firewall in a tamper-indicating cabinet, as a pilot test for German facilities. A VPN connection to the Monju facility in Japan was established from Vienna to monitor data transfer tests.

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E.133	E.133.04	Factory Support for DIS [USA E 1108 / B. Wishard]	IAEA	\$286,000.00	\$112,226.50	Kent Brown and Anthony Gonzalez continued to provide factory support for the IAEA's existing digital imaging surveillance (DIS) systems. Mr. Brown continued working on the review software design for the Next Generation Surveillance System (NGSS). Significant time was spent addressing the SDIS 2007 date issue involving code fixes and testing of all programs related to DIS image processing. Testing of flashcards for surveillance use is ongoing. Mr. Gonzalez continued testing and upgrading DIS equipment for field use. He is involved in the planning and coordination of DSOS installations and the maintenance of DCM-14 based surveillance systems.
E.134	E.134.01	Mobile Safeguard System for SF Transportation from Chernobyl NPP to Conditioning Facility [USA E 1375 / G. Ingrao]	IAEA	\$55,000.00	\$55,000.00	
	E.134.02		SNL	\$814,355.28	\$784,745.97	MMCT decontamination - The equipment located at the Regulated Waste/Nuclear Material Disposition facility at SNL is a portion of the MMCT system installed originally in the rail transport car at the Chernobyl NPP in January 2003 and removed by the IAEA in 2005 to accommodate the renovation of the railcar. After it was shipped back to SNL for upgrading and subsequently uncrated, the preliminary survey indicated the presence of surface contamination. The decontamination process has been completed. The items that are suitable for release are awaiting the determination of disposition.
	E.134.03		LANL	\$259,295.00	\$259,295.00	
	E.135.01	Safeguards Systems for Chernobyl SF Long Term Dry Storage (Part 3/3 of Chernobyl Transfer and Conditioning Campaign) [USA E 1376 / G. Ingrao]	Aquila	\$121,088.00	\$98,403.00	
E.135	E.135.01		LANL	\$3,923.00	\$3,923.00	This task is on stand by.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.137		Next Generation Camera Module and Server-Based Surveillance Systems [JNT USA E 1437 / B. Wishard]				
	E.137.01		Sonalysts	\$109,666.00	\$101,446.00	There was no activity during this quarter.
	E.137.03		IAEA	\$299,000.00	\$0.00	Phase II of the NGSS project was concluded on March 30, 2007, at the IAEA, during a meeting of project participants. The development of the review software is on-going. It was agreed to use an MPEG format for image data compression. The development of the Data Consolidator is on-going. Phase III will see the prototype development of the data consolidator. The length of Phase III is ten months after
	E.137.04		IAEA	\$870,000.00	\$0.00	Phase III of the NGSS Project - There was no activity during this
	E.137.05		Sonalysts	\$11,000.00	\$0.00	Colin Carroll (Sonalysts) participated in an NGSS progress meeting in Vienna, from March 29 to 30, 2007. The meeting participants included representatives of the IAEA, Dr. Neumann Consulting (DNC), Canberra Albuquerque, ISPO, and the European Commission. DNC and Canberra Albuquerque delivered the NGSS detailed design to the Agency. The deliverables included the designs for the Safeguards Core Component (SCC), camera housing design options, an engineering model of the image taking device, SCC firmware, prototype data review software, and a Data Consolidator design. This work represented the completion of the second of four NGSS project phases. DNC and Canberra Albuquerque stated that the submitted design meets the specifications of the NGSS User Requirements.
E.139		Expert - Digital Image Surveillance, Unattended Monitoring System Integration and Remote Monitoring Systems Engineer [USA E 1463 / B. Wishard]				
			CFE	\$529,900.00	\$494,113.49	The expert Lee ReFalo traveled to Lithuania INPP to replace defective UPSs, upgrade all VPN hardware, and to implement a temporary fix for the SDIS data problem. Mr. ReFalo created a draft implementation document for installation and upgrades at the Chernobyl NPP. The goal is to install remote monitoring for the facility and improve reliability of the systems. Equipment was received to upgrade most systems in PFPF. Equipment has been received to incorporate the FAAS system into the remote monitoring system. Equipment preparations are complete and testing is in progress. Mr. ReFalo provided technical input on data sharing and remote monitoring considerations, carried out maintenance and testing activities for various remote monitoring systems including system integration, and continued to improve the NDA and DMOS State of Health software.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.140		Enhancement of Cobra Fibre Optic Seal System [USA E 1475 / G. Weeks]	IAEA	\$726,400.00	\$344,200.00	This task will improve the usability and reduce the vulnerability of the COBRA seal system (seal and verifier) used by the IAEA safeguards inspectors. Development of the AutoCobra prototypes is on-going. The new 3D barcode has been implemented successfully.
E.143		Junior Professional Officer - Engineers Support to Unattended Monitoring [USA E 1531 / B. Wishard]	IAEA	\$230,000.20	\$166,053.11	Plans are underway to implement a time-saving, data download method for UNARM systems at locations where there are combined radiation and surveillance systems (namely, Chernobyl and BN-350). This will reduce the inspector time necessary for the retrieval of data, which is significant because multiple cameras are attached to these dual systems. A PIP computer failure was identified at the BN-350. Unattended Monitoring Systems Unit (UMS) engineers identified the problem by speaking with inspectors while they were on-site. A trip was made at the end of March to fix the problem. Work on the Chernobyl project began anew in January 2007. The three identified projects for the year are site data integration (which involves some aspects of remote monitoring), troubleshooting the MMCT, and the Shelter Reactor Hall project. Site data integration is the networking of all Chernobyl Safeguards monitoring systems (unattended and surveillance/seals) such that data are retrievable in a centralized location. This is mainly to reduce inspector PDIs and to prepare for the Conditioning Facility, but will also increase technician efficiency by allowing for centralized access to data and detailed equipment status-of-health. The MMCT is under review. After discussion and an on-site observation of the safeguards systems in Lithuania which includes a railcar system, an interim plan to fix the major shortcomings of the MMCT was proposed to OC2 in January. The Shelter Reactor Hall project will be mainly the responsibility of the Section for Surveillance, Seals, and Remote Monitoring.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.144		Ultrasonically Interrogated Metal Seal [USA E 1532 / M. Goldfarb]	INL	\$15,000.00	\$14,402.00	INL's work on this task is on stand by, pending further authorization and funding.
			PNNL	\$120,577.00	\$120,577.00	PNNL's work on this task is on stand by, pending further authorization and funding.
	E.144.01		PNNL	\$240,000.00	\$67,373.20	This subtask involves the development of an instrument capable of detecting tampering of the two types of IAEA metal seal wires. Probe development was conducted to increase sensitivity to tamper related anomalies and increase specificity by decreasing sensitivity to normal wire variations. The performance evaluation task focused on the preparation of wire specimens to estimate performance.
E.145		VOID-3 Vulnerability Assessment [USA E 1533 / H. Udem]	LANL	\$296,000.00	\$303,277.12	LANL is providing technical assistance to the IAEA to improve the IAEA's existing VOID pressure sensitive adhesive label seal. A brief vulnerability assessment was conducted on the existing seal. Tests, evaluations, and recommendations were provided for various prototype versions of the next generation seal. LANL is awaiting the final version of the new VOID seal from the IAEA to finish the final report and to complete the project. LANL met with the IAEA in Vienna in February to discuss findings and recommendations informally.
E.146		Feasibility Study for Change Detection Software Applied to Metal Seal Signatures [USA E 1534 / H. Udem]	INL	\$55,674.00	\$49,979.00	INL has submitted a proposal to ISPO for delivering CDS capability to the IAEA. The SSTS has deferred a decision on funding this proposal at this time.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.147		MMS Software Update [USA E 1535 / G. Weeks]	SNL	\$33,000.00	\$29,042.84	This task involves the possible upgrade of the Material Management System (MMS) software located at the K-Area Material Storage (KAMS) facility at Savannah River. Per IAEA request, SNL has considered the possibility of writing a new, less complicated, review software package, instead of modifying the existing code. SNL discussed the requirements for the new system briefly with the IAEA in October 2006. SNL has indicated that funding does not exist to prepare a proposal for new software.
			SRNL	\$8,000.00	\$0.00	Please see Task E.147, contractor: SNL.
E.148		Expert - Senior Sealing Systems Engineer [USA E 1545 / M. Zendel]	CFE	\$350,430.00	\$163,088.54	The expert Halvor Udem assisted the IAEA Sealing and Containment group. The 2007 Sealing Systems and Containment Verification Technical Meeting was held in Vienna from February 12 to 16, 2007. Phase II of the Laser Surface Authentication (LSA) feasibility study has been completed, resulting in the requirement to revisit Phase I and develop a more complex intrinsic signature acquisition method. Work on the eddy current (EC) wire probe for tamper detection is in progress. Press-sample runs of "Prototype 2" of the next Agency adhesive seal have been shipped to the Agency for test and
E.149		Vulnerability Assessment of the "Sign and Forward System' (SNFS)" [USA E 1581 / A. Alessandrello]	SNL	\$179,000.00	\$113,211.26	The purpose of this task is to complete an independent vulnerability assessment (VA) of the Sign and Forward System (SNFS) developed by the IAEA, with primary emphasis on the software. The SNFS will provide the IAEA with a secure means of adding authentication signatures to data files when transferring these files between computers. SNL has finished most of the vulnerability analysis and is

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.150		Development of a Conduit Monitoring System [USA E 1588 / G. Weeks]	ORNL	\$194,000.00	\$85,863.00	ORNL is developing an enhanced distributed capacitance sensor system, employing Electrical Signature Analysis (ESA) to detect tampering of IAEA conduit and cable hardware. Initial experiments with the 150 m sensor cable indicated that the cable capacitance created conflicts with the preamplifier. Preamplifier design modifications have been completed to address those challenges and to incorporate additional enhancements identified last quarter. Sensitivity tests with the 150 m cable are in progress.
E.151		Vulnerability Assessment of the Tamper Indicating Foil [USA E 1608 / G. Weeks]	SNL	\$79,000.00	\$57,566.38	The purpose of this task is to complete an independent vulnerability assessment (VA) of the tamper indicating foil proposed for use in newly developed safeguards field equipment, which is used by all IAEA Operations Divisions. The VA team loaded software into a computer for monitoring seals. The IAEA sent SNL the requested updated software from Neumann Consultants, so that the VA team would be able to perform system tests. The experimental work is progressing. Some documentation has begun.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.152		New Shift Register Development [USA E 1613 / T. Pochet]				
	E.152.01		LANL	\$251,000.00	\$146,138.61	New Shift Register Development - Under this subtask, LANL will design and produce a new prototype shift register multiplicity board (SRMB), which is needed by the IAEA for unattended monitoring applications as a replacement of the obsolete JSR12 and the advanced multiplicity shift register (AMSR). The IAEA approval of the Shift Register Multiplicity Board (SRMB) design has been received. Prototype boards have been fabricated. Power supplies on the SRMB have been tested and are working properly. Communications via the Expansion Bus have been tested and one change to the board will be required to make this communication work properly. LANL has added an on-board jumper on the prototype to solve this problem. Future revisions of the printed circuit board will include this fix. LANL has received two sets of support boards from Canberra Albuquerque and is waiting for the mounting hardware.
	E.152.02		Aquila	\$127,250.00	\$0.00	Commercialization of New Shift Register Multiplicity Board (SRMB) - Canberra Albuquerque has been contracted by ISPO to produce the commercialized version of the new SRMB. Canberra is near completion of the end-of-life analysis for selected parts for the Shift Register Multiplicity Board. A MiniGRAND board stack was provided to LANL to test the initial SRMB. A new front panel and final mounting hardware are scheduled for shipment to LANL.
E.153		Expert - Unattended Monitoring System Engineer [USA E 1659 / K. Baird]				
			IAEA	\$200,000.00	\$11,399.67	The CFE Kenneth Baird began his assignment in the Division of Safeguards Technical Support Unattended Monitoring Systems Unit in March.
F.032		Consultant - Services Safeguards Issues (R. Hooper) [USA C 1134 / J. Cooley]				
			IAEA	\$606,858.00	\$560,063.00	The IAEA requested a no-cost time extension of Richard Hooper's contract to support SGCP. ISPO approved the no-cost time extension on April 6, 2007.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
F.036		Fixed Term Assistant - Procurement Services [USA F 1472 / A. Hamilton]	IAEA	\$531,000.00	\$449,293.74	The CFE Philip Beuparlant is assigned to the ISIS (IAEA Safeguards Information System) Re-engineering Project (IRP), the Rokkasho Program, the Chernobyl Program, and other Safeguards related procurements. The ISIS contract was amended for Change Request 1-7 and issued to Cap Gemini. An order for additional Microsoft licenses was put on hold. The Microstrategy Expert procurement was placed in March 2007. The procurement for Optimal Trace training with Compuware is in process. A request for Proposal was sent to Cap Gemini for the first Phase III effort: State Supplied Data Handling (Phase A: Requirements Gathering/Specification). The proposal was received and is under Technical Evaluation. The Statement of Work (SOW) for Reference Data is in process. The SOW for the Base Security Project is in process. AWST's contract related to the Integrated Inspector Information (I3S) was placed in March for Phase I efforts. The contract for the State Level Action Plan (SLAPS) is being finalized internally. The contract for SPRICS 2.0 was awarded to Cap Gemini for Modules 1-5. A contract for a Safeguards Data Centre consultancy was placed in December 2006. Seven orders were placed in March related to the construction effort to build a Safeguards Data Centre. Mr. Beuparlant was assigned by the DIR-MTPS to negotiate a new Travel Services Contract (AMEX). The negotiation is in progress. He was requested to lead the contracting effort for Agency Enterprise Resource Planning (ERP) Procurement.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
F.037		SAL Feasibility Study Workshop [USA F 1620 / S. Balsley]				
			John Cappis	\$10,000.00	\$9,165.00	John Cappis participated in the SAL Feasibility Workshop which was held from November 27 to 30, 2006. Dr. Cappis' participation in this task is complete.
			NBL	\$11,000.00	\$0.00	Steve Goldberg attended the IAEA workshop in December 2006, on the possible upgrade of the Seibersdorf Analytical Laboratory.
			ORNL	\$20,000.00	\$20,000.00	Diane Fischer participated in the workshop which took place from November 27 to 30, 2006. Ms. Fischer made a presentation entitled: "The Role of the Safeguards Analytical Laboratory (SAL) in Environmental Sampling." As chair of the working group concerning environmental sampling, she drafted a report that summarized the findings of the working group regarding the future needs and capabilities of SAL to meet the SG requirements for analyzing environmental samples. This report was delivered to the IAEA in January and was included in the final report from the workshop. ORNL's scope of work is complete for this task.
			Sonalysts	\$86,500.00	\$69,911.00	The IAEA convened a meeting of technical experts in Seibersdorf, Austria, in November 2006 to help prepare the Safeguards Analytical Laboratory (SAL) to meet the future needs of the Department of Safeguards. Critical components of SAL's nuclear laboratory are nearing the end of their design lifetime. The IAEA must respond with an appropriate plan for facility infrastructure improvement, either by renovating the existing structure or by building a new laboratory. The workshop participants comprised thirty-five experts from the Department of Safeguards, the Department of Nuclear Sciences and Applications (NA), the Network of Analytical Laboratories (NWAL), several Member States, and the European Commission. The workshop report was completed in January. The approved scope of work for this task is complete.
F.038		Expert - Nuclear Technologist [USA E 1663 / J. Whichello]				
			IAEA	\$200,000.00	\$11,427.77	The CFE Cynthia Annese began her assignment in the Division of Safeguards Technical Support Novel Technologies Unit in February.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.026		The Design and Development of an Orientation Course for U.S. CFEs and IAEA Staff [USA X 943 /]	ISPO	\$395,487.00	\$395,487.00	Susan Pepper met with Jeanne Anderer to discuss the next revision to the Guidebook. It was decided that there would be no revision in 2007. The next revision is to be completed in July 2008.
S.037		ISPO Recruitment Program [USA X 942 /]	ISPO	\$276,422.00	\$276,422.00	Donna Occhiogrosso (ISPO), Cathy Osiecki (OEP), and Christine O'Brien (ANL) participated in the ANS Annual Student Conference in Corvallis, Oregon, from March 30 to 31, 2007. The next interagency recruitment video conference is scheduled for April 26, 2007.
S.049		IAEA Travel for US Support Program Tasks [USA X 1306 / A. Hamilton]	IAEA	\$2,377,432.37	\$1,901,029.58	This task provides funding to the IAEA for task-related travel. The SSTS responds to quarterly travel projections compiled by the IAEA's Support Program Administration.
S.057		USVC Funding in 2001 for SG Equipment [USA X 1393 / A. Reynaud]	IAEA	\$10,154,770.44	\$9,355,065.41	This task was established to track the IAEA's expenditure of funding provided in the 2001 US Voluntary Contribution for the procurement of Safeguards equipment.
S.060		Contracts Labor Charge [/]	ISPO	\$322,748.00	\$307,483.00	This task provides funding for the labor charges which are incurred by the BNL Procurement and Property Management Division, while executing contracts and purchase orders for USSP tasks.
S.061		2002 U.S. Voluntary Contribution for Safeguards Equipment [USA X 1490 / A. Reynaud]	IAEA	\$6,634,575.73	\$5,673,274.09	This task was established to track the expenditure of the 2002 US Voluntary Contribution for Safeguards equipment.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.062		ISIS Reengineering [USA X 1491 / M. Strohmayer]	IAEA	\$9,069,516.67	\$358,740.58	This task was established to track US Voluntary Contributions to the ISIS Re-engineering Project (IRP). POTAS-funded IRP activities are tracked under Task D.151.
	S.062.01		IAEA	\$612,943.33	\$546,184.03	NPT Accounting Software - The IAEA indicated that this project is complete. This subtask is closed.
S.065		NDF 2002	IAEA	\$4,157,661.00	\$3,610,408.87	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2002. The NDF office approved funding for high priority NDA and surveillance equipment. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remainder of the funding and to close out the account.
S.066		2003 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$7,700,000.00	\$4,611,283.78	This task was established to track the IAEA's expenditure of funding provided in the 2003 US Voluntary Contribution for the procurement of Safeguards equipment.
S.069		2004 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$4,359,600.00	\$2,007,450.98	This task was established to track the IAEA's expenditure of funding provided in the 2004 US Voluntary Contribution for the procurement of Safeguards equipment.

TaskID	Subtas	Title [Agency# / Task Officer] [/ P.Hypes]	Organizatio	Total Budget	Total Spent	Comments
S.071		NDA Training Course Relocation	IAEA	\$0.00	\$0.00	This task is on stand by.
			INL	\$45,000.00	\$31,039.00	This task is on stand by.
			ISPO	\$13,861.00	\$13,861.00	This task is on stand by.
			LANL	\$23,500.00	\$23,500.00	This task is on stand by.
S.073		2005 USVC for Safeguards Equipment [/ A. Reynaud]	IAEA	\$4,241,850.41	\$0.00	This task was established to track the IAEA's expenditure of funding provided in the 2005 US Voluntary Contribution for the procurement of Safeguards equipment.
S.077		Web-based ISPO Information System [/]	LANL	\$99,999.81	\$91,549.79	The LANL Information Systems Analysis and Development team has been tasked with building the ISPO Information System (IIS). In December, members of the team traveled to BNL to meet with ISPO and then traveled to Washington to meet with SSTS members. The system was demonstrated to both groups. Changes were requested for several modules, including the SSTS review of requests, the meetings section, and the task section. LANL has been working on the financial module. LANL completed the transfer of all financial data and all active task records in March. Completed work was reviewed during twice-weekly conference calls between LANL and ISPO. The recruitment module was demonstrated to ANL and State Department recruiters by Donna Occhiogrosso. LANL worked with ISPO to develop a path forward for the system. Susan Pepper and Al Queirolo demonstrated elements of the system to the IAEA in March, for consideration during the development of SPRICS 2.0. Once the IIS is complete, ISPO will ask four organizations, including BNL and LANL, to begin using the system to upload cost information and, potentially, capsule summaries.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.079		Facilitation for Sealing Systems and Containment Verification Workshop [/]				
			LANL	\$19,000.00	\$27,589.06	Roger Johnston participated in the Sealing and Containment workshop held at the IAEA from February 12 to 16, 2007.
			ORNL	\$20,000.00	\$19,246.00	Chris Pickett participated in the Sealing and Containment workshop held at the IAEA from February 12 to 16, 2007. Mr. Pickett made a presentation on "Technologies for Real-Time Monitoring and Surveillance of High Valued Assets."
			PNNL	\$19,400.00	\$17,807.29	Jennifer Tanner made a presentation at the Sealing and Containment workshop held at the IAEA from February 12 to 16, 2007.
			SNL	\$17,000.00	\$18,091.53	Keith Tolk participated in the Sealing and Containment workshop held at the IAEA from February 12 to 16, 2007.
			Sonalysts	\$78,000.00	\$47,358.00	Colin Carroll and Don Estes (Sonalysts) facilitated the Sealing and Containment workshop held at the IAEA from February 12 to 16, 2007. Mr. Carroll worked on the Summary Report. The Seals Workshop participants agreed that the R&D strategy that SGTRSR developed in 2004 is still valid and continues to be a good basis for their R&D activities. Workshop participants noted that SGTSR periodically updates their strategy to reflect what they learned from feasibility studies that they commissioned and from their experiences with unexpected technology innovations. The technologies currently under study by SGTSR have the potential to solve present and future safeguards sealing and containment verification problems. Investigations into these technologies should continue. The working group made the following recommendations: develop detailed containment verification user requirements that specify the Agency's needs, system capabilities, and the conditions and constraints under which equipment must operate, request that Member State Support Programs (MSSPs) identify government and private organizations that are conducting research in areas of interest to the Agency and, acting as the Agency's advocates, communicate Agency requirements to these organizations, establish a knowledge management database that SGTS staff can use to develop detailed user requirements, review and update the technology roadmap based on the results of the 2007 workshop, and establish an effective and sustainable communications mechanism to facilitate the exchange of information between the Agency, MSSPs, and the technical community.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.080		2006 USVC Equipment List [/]				
			IAEA	\$1,684,357.93	\$0.00	This task was established to track the IAEA's expenditure of funding provided in the 2006 US Voluntary Contribution for Safeguards Equipment.
S.081		Workshop on Advanced Sensors for Monitoring Safeguards Activities [/]				
			ISPO	\$22,139.00	\$0.00	ISPO made arrangements for audio visual support and conference space at the Lodge at Santa Fe for the Advanced Sensors Workshop that is planned for April 23-27, 2007.
			LANL	\$5,000.00	\$0.00	ISPO approved funding for LANL participation at the workshop.
			LLNL	\$10,000.00	\$0.00	The SSTS approved funds for LLNL participation in the workshop.
			OAC	\$184,000.00	\$69,216.00	OAC worked to identify speakers for the workshop on Advanced Sensors for Safeguards. They also worked with the IAEA to develop scenarios for the breakout sessions. ISPO, OAC and the IAEA started weekly conference calls to facilitate planning for the meeting.
			ORNL	\$10,000.00	\$0.00	The SSTS approved funds for ORNL participation in the workshop.
			PNNL	\$10,000.00	\$6,564.71	The SSTS approved funds for PNNL to attend the workshop.
S.083		Proposal for Development of Equipment Quality Program [/]				
			Time Solutions	\$11,400.00	\$0.00	ISPO made plans to meet with Time Solutions and Wyle to discuss product quality improvement for USSP projects on April 10 at BNL.
			Wyle	\$10,000.00	\$0.00	Please see Task S.083, Contractor: Time Solutions.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.084		Experts Meeting on New Approaches to Neutron Coincidence Data Acquisition and Analysis for Safeguards [/]	LANL	\$36,000.00	\$0.00	The IAEA requested the USSP to nominate individuals to participate in its meeting on New Approaches to Neutron Coincidence Data Acquisition and Analysis for Safeguards, which will be held in Vienna from April 23 to 27, 2007. The purpose of the meeting is to review the current status and future direction of data processing and collection electronics for use with neutron-based NDA and monitoring instruments. The IAEA suggested that Martyn Swinhoe and Matthew Newell be nominated from the United States. Dr. Swinhoe submitted an abstract to be presented at the meeting. The SSTS approved the attendance of representatives from Canberra.

POTAS CONSULTANTS AND COMPANY REPRESENTATIVES

NAME	TASK #	TASK TITLE	AFFILIATION	TELEPHONE #
Bloodworth, Diane	D.122.02	Systems Engineering Process for SGIT	BIT, Inc.	703-295-9700 Ext. 105
Carroll, Colin	B.88 B.98 C.111 E.137 F.37 SP.79	Enhanced Communication Skills Enhanced Observational Skills Safeguards System for Chernobyl Unit 4 Next Generation Camera Module and Server-Based Surveillance Systems Feasibility Study on Upgrading SAL Infrastructure Facilitation of Sealing and Containment Workshop	Sonalysts, Inc.	860-326-3799
Dinkel, Andreas	D.160 SP.62	SPRICS 2.0 ISIS Re-engineering Project	Cap Gemini Ernst & Young	43-1-211-63-8717
Hooper, Richard	F.32	Consultant - Services Safeguards Issues	Wind River Consulting	360-573-4650
Hamilton, Bernie	B.90	Workshop on Quality Assurance Techniques	STAT-A-MATRIX	732-906-6150
Stein, Marius	E.119.01 E.133 E.152.02	Factory Support for GARS Factory Support for DIS New Shift Register Commercialization	Canberra Albuquerque	43-1-969-00502
Larrimore, Jim	C.112	Consultant - Development Support for Integrated Safeguards	Private	858-509-9604
Nunn, Hannah	B.99	Physical Inventory Taking Computer Based Training	Battelle Corporate	614-424-6151
Wuester, Jan	D.146	Quality Control Verification Software for Member States Nuclear Material Accounting Reports	SAIC/AWST	43-1-586-1314

U.S. - ISPO/IAEA EXPERTS

TASK	NAME	TITLE	START (First Contract)	END	SUPERVISOR
A.266	Langner, Diana	Unattended and Integrated Monitoring Systems	July 31,2006	July 30, 2008	Pickrell
A.270	Cliff, John	Expert - SAL SIMS	February 1, 2007	January 31, 2008	Poths
B.101	Hypes, Philip	Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures	July 4, 2005	July 3, 2007	Crete
C.115	McCullough, Richard	Expert - Quality Management Specialist	January 2006	January 2008	Patten
C.117	Uzzle, Michael	Expert- Enrichment Plant Safeguards	February 13, 2006	February 12, 2008	Fagerholm
D.148	Hilliard, John	Expert - Special Technology Coordinator	November 3, 2003	November 2, 2007	Nicholas
D.150	Miller, Scott	Expert - Systems Analyst	February 2, 2004	February 4, 2008	Smith
D.158	Damico, Joseph	Expert - Design, Development and Implementation of Data Collection and Evaluation Software for RRP	January 1, 2006	December 31, 2007	Becar
D.161	Zachry, Peter	Expert - SALIMS Upgrade Project Leader	TBD	TBD	Schmitzer
E.127	Regula, James	Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination	May 13, 2002	May 12, 2008	Zendel
E.139	ReFalo, Lee	Expert - Digital Image Surveillance, Unattended Monitoring System Integration, and Remote Monitoring Systems Engineer	April 11, 2004	July 10, 2007	Zendel

U.S. – ISPO/IAEA EXPERTS (Cont'd)

TASK	NAME	TITLE	START (First Contract)	END	SUPERVISOR
E.148	Undem, Halvor	Expert - Senior Sealing Systems Engineer	February 1, 2006	January 31, 2008	Zendel
E.153	Baird, Kenneth	Expert - Unattended Monitoring System Engineer	March 5, 2007	TBD	Pickrell
F.36	Beuparlant, Phil	Fixed Term Assistant - Procurement Services	July 1, 2004	July 1, 2008	Hesling
F.38	Annese, Cyndee	Expert - Nuclear Technologist	March 1, 2007	TBD	Whichello

Junior Professional Officers (JPO's)

TASK	NAME	TITLE	START (First Contract)	END	SUPERVISOR
A.271	Shephard, Adam	JPO - Support for the Section for NDA and Seals	January 8, 2007	January 7, 2008	Lebrun
A.272	Thompkins, Zia	JPO - NDA Assistant - Research Position, Nuclear Physics	TBD	TBD	Carchon
D.153	Gerrin, Gregory	JPO - For the JNFL Project	July 4, 2005	July 3, 2007	Becar
D.163	TBD	JPO - Enhanced Information Analysis Architecture			Nicholas
D.164	Fayer, Mikhail	JPO - CIR Mobile	TBD	TBD	Gaetano
D.165	Birdsall, Kimberly	JPO - Open Source Information Collection	TBD	TBD	Nicholas
D.166	Tatavosian, Maryam	JPO - Open Source Information Analysis	TBD	TBD	Nicholas
D.167	Feldman, Yana	JPO - Open Source Information Collection	TBD	TBD	Nicholas
E.143	Wilson, Nina	JPO - Engineers Support to Unattended Monitoring	July 12, 2005	July 11, 2007	Pickrell

LIST OF POTAS LABORATORY REPRESENTATIVES

ACRONYM	ORGANIZATION	CONTACT	TELEPHONE #
ANL	Argonne National Laboratory	Charles Roche	630-252-3432
BNL	BNL - Nonproliferation and Counter Terrorism	Jae Jo	631-344-2337
EML	Environmental Monitoring Laboratory	Paul Goldhagen	212-620-3645
INL	Idaho National Laboratory	Pete Wells Trond Bjornard	208-533-7152* 208-526-6328
ISPO	International Safeguards Project Office	Susan Pepper	631-344-5979
KCP	Kansas City Plant	Douglas Byron	816-997-7201
LANL	Los Alamos National Laboratory	Kelly Michel	505-665-1606
LLNL	Lawrence Livermore National Laboratory	George Anzelon Mona Dreicer	925-422-5038* 925-422-7588
LMIT	Lockheed Martin Idaho Technology	John Hartwell	208-526-9366
NBL	New Brunswick Laboratory	Jon Neuhoff	630-252-2492
ORNL	Oak Ridge National Laboratory	Diane Fischer	865-241-3116
PNNL	Pacific Northwest National Laboratory	Carrie Mathews Jennifer Tanner	509-375-6783 509-375-6626*
PTH	Protection Technology Hanford	Steven Schlegel	509-372-1495
SNL	Sandia National Laboratories	George Baldwin Keith Tolk	505-284-5054 505-845-2306*
SRNL	Savannah River National Laboratory	Susan Collins Justin Halverson	803-725-4474 803-725- 9625*
STL	Special Technologies Laboratory	Steve Koppenjan	805-681-2453

* Alternate