

3.1.2 Scientific Program Operations

MANAGER: C. T. Statton

OBJECTIVE(S): Provide a scientific basis for evaluating site suitability. Coordinate surface-based and Exploratory Studies Facility (ESF) testing activities. Conduct site investigation activities to implement annual and long-range plans. Support suitability evaluations, license preparation, performance assessments, design, construction, and National Environmental Protection Agency (NEPA) activities. Support International program activities that impact Yucca Mountain site characterization.

3.1.2.1 Progress During Report Period

- Continued Phase II planning for the Site Investigations (Work Breakdown Structure [WBS] 1.2.3) portion of the Project Implementation Plan for FY96. Defined workscopes, schedules, costs, bases of estimate, and deliverable acceptance criteria for FY96 tasks.
- Initiated 3-shift round-the-clock operation of the LM-300 at borehole SD-12 and subsequently at borehole SD-7.
- Preliminary analysis of spring deposits indicates that 10,000 to 15,000 years ago, the water table was about 100 m higher than the current level..

3.1.2.2 Issues and Concerns

- None.

3.1.3 Support Operations

MANAGER: D. K. Chandler

OBJECTIVE(S): Provides the products and services to support the CRWMS M&O contract for the YMP in Las Vegas, Nevada, in the areas of Information Management; Training; Institutional and External Affairs; and Environment, Safety, and Regional programs. The support operations include developing computer-based information applications; processing YMP records; providing performance-based training classes; implementing environmental, radiological, and safety and health monitoring and compliance programs; conducting regional socioeconomic studies; and providing public outreach programs, media and communications support, information products, and intergovernmental interactions.

3.1.3.1 Progress During Report Period

Environmental Safety and Health

- The Notice of Intent for the Repository Environmental Impact Statement was approved by the Department of Energy Office for Environment Safety and Health (EH1) and published in the Federal Register on August 7, 1995.
- Conducted the first public scoping meeting for the Repository Environmental Impact Statement (EIS) on August 29, 1995 in Pahrump, NV. This meeting allowed the public to provide comments relating to the scope of the repository EIS.
- Received an air quality operating permit from the Nevada Division for Environmental Protection to operate a soil bio-remediation facility for hydro-carbon contaminated soils.
- Submitted the draft Transportation Impact Studies Scoping Report to the Assistant Manager for Environmental, Safety, and Health (AMESH) for review.
- Completed the final report of the Phase IV Conveyor Belt Environment, Safety and Health (ES&H) Readiness Assessment to ensure that conveyor belt operations at the ESF are undertaken and conducted in accordance with ES&H regulatory requirements.

Information Management

- Completed Audit HQ-ARC-95-09 with no corrective actions issued. The Project Planning Division (PPD) and Document Control Center (DCC) supported the audit at the pre- and post-audit meetings and at daily management meetings. Auditor feedback was excellent with both organizations getting consistently high marks on all quality-related work and audit support efforts.
- Completed two training sessions for the CAR YM-95-028 Lessons Learned. This met our commitment to provide initial training by August 7, 1995. The M&O Training Department is

developing a plan to conduct training tailored to M&O record sources. This training will be developed with the assistance of each respective Records Coordinator.

- Submitted a Controlled Document Issuance Authorization to Document Control to remove 61 controlled document cancellation pages from controlled distribution. There are no QARD requirements that document cancellation pages be maintained as controlled documents. Confirmed the decision to remove these from controlled distribution with the Yucca Mountain Quality Assurance Division. This change should result in a cost savings for Document Control.
- Submitted an FY96 Short-Range Plan.

Institutional and External Affairs

- Provided six public speaking presentations, including one educational, one technical, and four general YMP overview presentations, for a total attendance of 256 people.
- Coordinated and conducted 15 tours to Yucca Mountain for a total of 158 guests. Of special interest were tours for: Power Reactor and Nuclear Fuel Development Corporation-Japan; the Office of Environmental Programs, Florida A&M University; and Congressional staffers.
- Distributed several EIS products including six public information fact sheets.

Training

- The following training was conducted:
 - General Employee Training (GET)
 - GET Annual Refresher Test
 - Exploratory Studies Facility Visitor's Briefing
 - Standard First Aid
 - General Underground Training (GUT)
 - Time Management - First Things First
 - Myers-Briggs (Pilot)
 - Records Inventory Disposition System (RIDS)
 - M&O Program Indoctrination
 - Nevada Line Procedure (NLP)-3-10, Rev. 0
 - OCRWM AP-16.1Q, Rev. 0/AP-16.2Q, Rev. 0 (LBL)
 - Computer Security Awareness
 - Project Overview
 - General Underground Worker
 - NLP-3-25, Rev. 0
 - Total Quality Management (TQM) Awareness
 - CAR-28 Dry Run
 - IRIS
 - CAR-28 Lessons Learned
 - Records Management Orientation (deliverable completed)

- Seven Habits
- Managing Change
- YMP Orientation
- Procedure Update Training
- M&O Project Overview
- Federal Records
- Value Engineering
- Myers-Briggs
- Conflict Resolution (2 classes)
- Myers-Briggs (MBTI)
- Effective Listening.

3.1.3.2 Issues and Concerns

- None.

3.1.4 Site Construction and Operations

MANAGER: R. M. Sandifer

OBJECTIVE(S): Provide integrated Field Construction and Operations Services in support of the Yucca Mountain Site Characterization Office (YMSCO). Provide the strategic planning and technical integration of all field activities to ensure the execution of project priorities.

3.1.4.1 Progress During Report Period

Construction

- The TBM reached a major project milestone August 22, 1995, reaching construction station (CS) 12+80 meters (m) 5 weeks and 4 days ahead of schedule. The TBM advanced 237.2m/778 ft for the month, ultimately reaching CS 14+14.8 m/4,640 ft. It also achieved the best single day, 45.7 m/150 ft, and single week, 107.5 m/352.6 ft, advancements by the ESF TBM to date.
- The TBM cutterhead was inspected as part of the 500-hour maintenance and found to have significant wear. A TBM modification, the triple shoe gripper, was installed and the cutterhead was refurbished. In all, the TBM lost 7 days production during the cutterhead maintenance. The TBM resumed excavation and posted excellent advance rates the remainder of the reporting period in Category 1 ground.
- The design for Alcove #3 was approved and construction completed on the alcove this period. The final length of Alcove #3 was 36.5 meters (119.7 feet). Final mapping of the alcove is underway, and planning for the next alcove (Alcove #4) is approaching completion.
- Continued surface construction with progress being made on both the Switchgear and Change House buildings. Continued work on installing the Booster Pump Station electric lines and removing topsoil at the muck pad extension area.

Drilling

- Completed coring and reaming operations at the "Underground - Southern Nevada - Waste"; (USW) SD-12 borehole through the original geologic contacts set forth by the Principal Investigators. Borehole ending depths are 2,166.29 ft cored and 1,950.39 ft reamed. The SD-12 borehole is tentatively scheduled to be instrumented and stemmed in November 1995.
- Completed 5 days of pump and recovery tests at the USW SD-7 borehole and the progressive cavity pump was removed on August 24, 1995. Resumed coring operations on August 25, 1995. Reached an aquatard at 1,660.75 ft in the Prow Pass Unit. Set a 4-1/2 inch casing with an external casing packer. Coring progressed 30 ft for the month. Drilling operations reached 212 8-hour shifts.

- Completed a progressive cavity pump installation and U.S. Geological Survey (USGS) started pump tests at USW WT-12 on August 17, 1995. Collected and submitted water samples to the testing laboratory for water quality analyses.
- Completed installation of a 200 gpm submersible pump and five inflatable packer/instrumentation assemblies in the UE-25c #3 borehole at the C-Hole Complex on August 30, 1995.
- Started coring operations in ESF Alcove No. 2, borehole ESF-AL#2-HPF #1, on August 17, 1995. The borehole (6 inch diameter) caved in during coring operations at 86.26 ft. The drill stem separated at the upper stabilizer 58 feet down in the borehole. Fishing operations are in progress to retrieve the lost equipment.
- Submitted ESF Field Projections to the Construction Management Organization (CMO). The projection provides a geologic window approximately 200 to 300 meters ahead of the tunnel advance. Issued the Composite Borehole Log for USW SD-7.
- Issued the Work Programs for the USW WT-24 Drilling Program (YMP/WP/95-13), USW UZ-7a Borehole Instrumentation/Stemming Program (YMP/WP/95-17), and C-Hole Complex 200 GPM Pump Installation Work Program (YMP/WP/95-14).

Project Engineering

- Developed extracts of the Kiewit scope of work based on the FY96 moderate and \$250M scenario for all WBSs to provide Kiewit the latest scope assessment to compare to their proposals.
- Informed members of the NWTRB about the Calico Hills shaft and Ghost Dance development drive at an informal information exchange concerning Calico Hills. Also, based on a request by the DOE Assistant Manager of Engineering and Field Operations (AMEFO), developed a Change Request for beginning design and systems engineering activities for the Calico Hills shaft and Ghost Dance development drive in FY95. This was submitted to YMSCO for YAP-2.6Q review prior to submission to the YMSCO Configuration Control Board (CCB).
- Provided technical and management assistance to the Construction Management Organization (CMO)/Kiewit conveyor readiness review and DOE's AMESH and AMEFO readiness review assessment process. Coordinated sign-off activities for Phase IV TBM start-up. Completed TBM Phase IV Readiness Review hold points, and obtained YMSCO authorization on August 8, 1995, to begin Phase IV TBM operations (TBM tunneling operations using the muck conveyor system).

3.1.4.2 Issues and Concerns

- None.

3.1.5 Suitability and Licensing Operations

MANAGER: J. L. Younker

OBJECTIVE(S): Assure site related compliance with Nuclear Regulatory Commission (NRC) agreements, requirements, and policies. Evaluate the performance of the natural, engineered barrier, and total system for meeting regulatory standards. Manage, compile, and maintain technical data and information developed for project related activities. Develop, review and validate levels of confidence for data and information to be used in Technical Site Suitability (TSS) and Licensing Application documentation. Provide evaluations of the potential impacts to waste isolation and integrity of all in-situ disturbing activities conducted at the site.

3.1.5.1 Progress During Report Period

- Delivered the topical report "Seismic Design Methodology for a Geologic Repository at Yucca Mountain" to DOE on August 28, 1995. This "superstone" report, in preparation for more than 1 year, describes the seismic design methodology and criteria that the DOE will propose for a geologic repository at Yucca Mountain.
- Issued Seismic Topical Report II to DOE on August 28, 1995.
- Delivered the Total-System Performance Assessment (TSPA) 1995 to DOE on August 31, 1995. TSPA 1995 will form the basis of Section 6.4 of the MPC Part 60 Design Considerations Report: Preliminary Assessment of Total Repository System Performance.
- Submitted the contract deliverable for the "Site Atlas" to DOE on August 31, 1995.

3.1.5.2 Issues and Concerns

- None.

3.1.6 Business Management

MANAGER: D. B. Abel

OBJECTIVE(S): Provide overall Project Management, Project Control, Scheduling, and Administration and Facilities for the M&O.

3.1.6.1 Progress During Report Period

Project Management

- Held a Period 6 Self Assessment Kickoff Meeting on August 30, 1995. Discussed the schedule and provided guidelines for developing the Geological Division Survey (GDS) portion of the report.
- Submitted the Las Vegas FY95 Program Management and Integration (PM&I) Estimate at Completion (EAC) to Vienna Finance with year-end projections slightly under the latest plan.
- Submitted the Las Vegas FY96 PM&I forecast to DOE for review.
- Submitted the first phase of the Annual Planning System (APS) to the Dawson Production Team. The second phase will complete all of the reports required from this system.
- Submitted the first test file to the Planning and Control System (PACS) organization containing the Summary Account scope information for upload into the PACS system.

3.1.6.2 Issues and Concerns

- None.

3.1.7 Program Management Organization

MANAGER: C. Metzger

OBJECTIVE(S): The Project Management Organization (PMO) provides management support to the YMSCO, including the Project Manager (PM), Deputy PM and all of the Assistant Managers. The PMO assist the Project in the preparation of the annual planning guidance, review of the M&O's annual plan and evaluates the progress of the M&O and other Project participants. Using the PACS reports and data, the PMO provided financial and schedule analyses and recommendations. The PMO facilitates and assist in the preparation of the Director's Project Review (DPR) materials. The PMO assist the YMSCO in the preparation and review of plans, including the Yucca Mountain portion of the OCWRM Management Plan.

3.1.7.1 Progress During Report Period

- Identified 14 YMSCO activities that offer cost reduction opportunities. All of the candidate activities were supported by YMSCO.
- Completed an evaluation of 106 project and program reports. The recommendations were to eliminate 40 reports (38%), consolidate 21 reports into 5 reports, and identify 8 reports for further review for elimination.
- In conjunction with YMSCO AMSL and the M&O Performance Assessment Team, developed options analyses, integrated logic ties, and scenario components addressing a recommended TSPA-based reorientation of the YMSCO Site Suitability Evaluation Process.
- Supported YMSCO Site Suitability Team activities relating to the National Academy of Sciences (NAS) and National Research Council Board on Radioactive Waste Management Committee for Yucca Mountain Peer Review: Surface Characteristics, Preclosure Hydrology, and Erosion. Activities included August 27, 1995, NAS Peer Review Public Meeting; August 27-29, 1995, NAS field trip; and ongoing peer review activities.
- Prepared crosswalk analyses of priorities as cited in existing site characterization activities plans, TSPA sensitivity needs as identified in TSPA 1993, and developmental work in TSPA 1995.

3.1.7.2 Issues and Concerns

- None.

3.1.8 Health and Safety

MANAGER: C. W. Parker

OBJECTIVE(S): Provide management and oversight of all M&O safety and health functions. Develop and implement M&O safety and health plans, policies and procedures. Maintain recording and record keeping of injuries and illnesses. Perform fire hazards analyses and fire assessments on M&O facilities. Coordinate activities of the M&O Safety Steering Committee and the M&O Employees Safety Committee.

3.1.8.1 Progress During Report Period

- Worked with the CMO to improve fire protection at the ESF. Three hydrants were returned to operable status, and relocation of the conveyor hydraulic unit fire protection system was completed.

3.1.8.2 Issues and Concerns

- None.

3.1.9 Variances

- **CWBS 1.2 cost and schedule variances are within tolerance.**

Figure 1. Yucca Mountain Financial Status

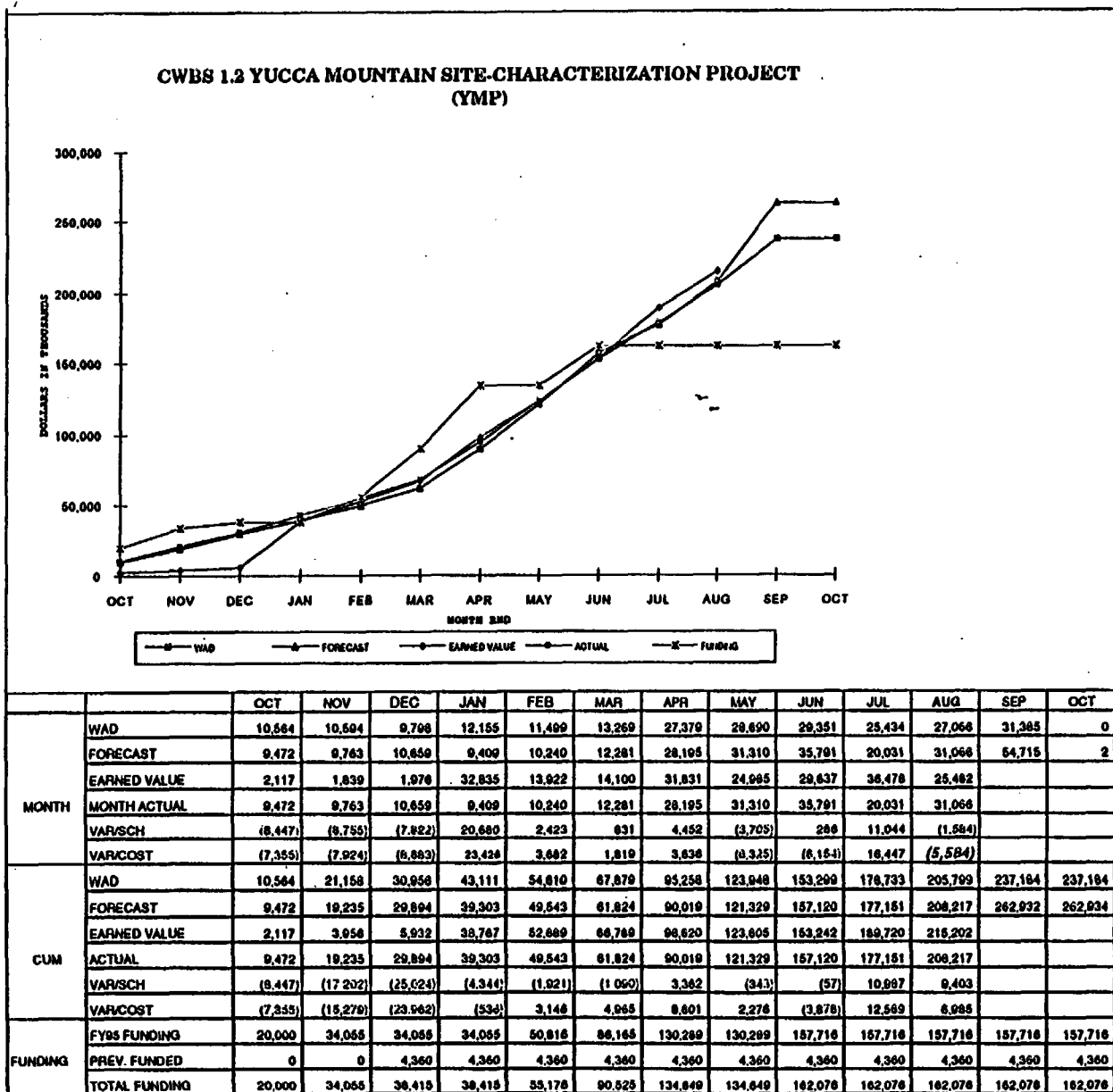


Figure 2. Yucca Mountain Staffing

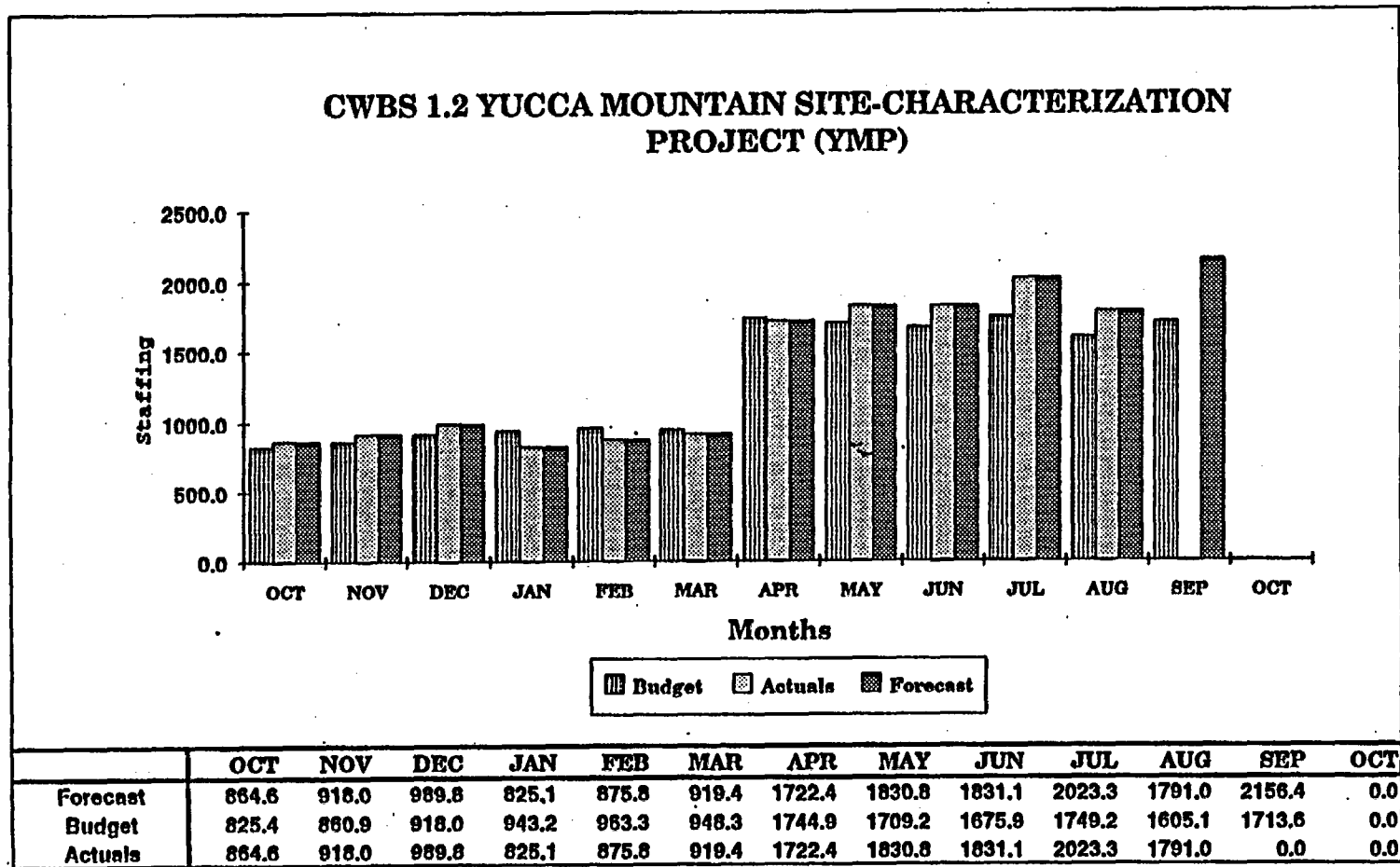


Figure 3. Yucca Mountain Key Milestone Schedule

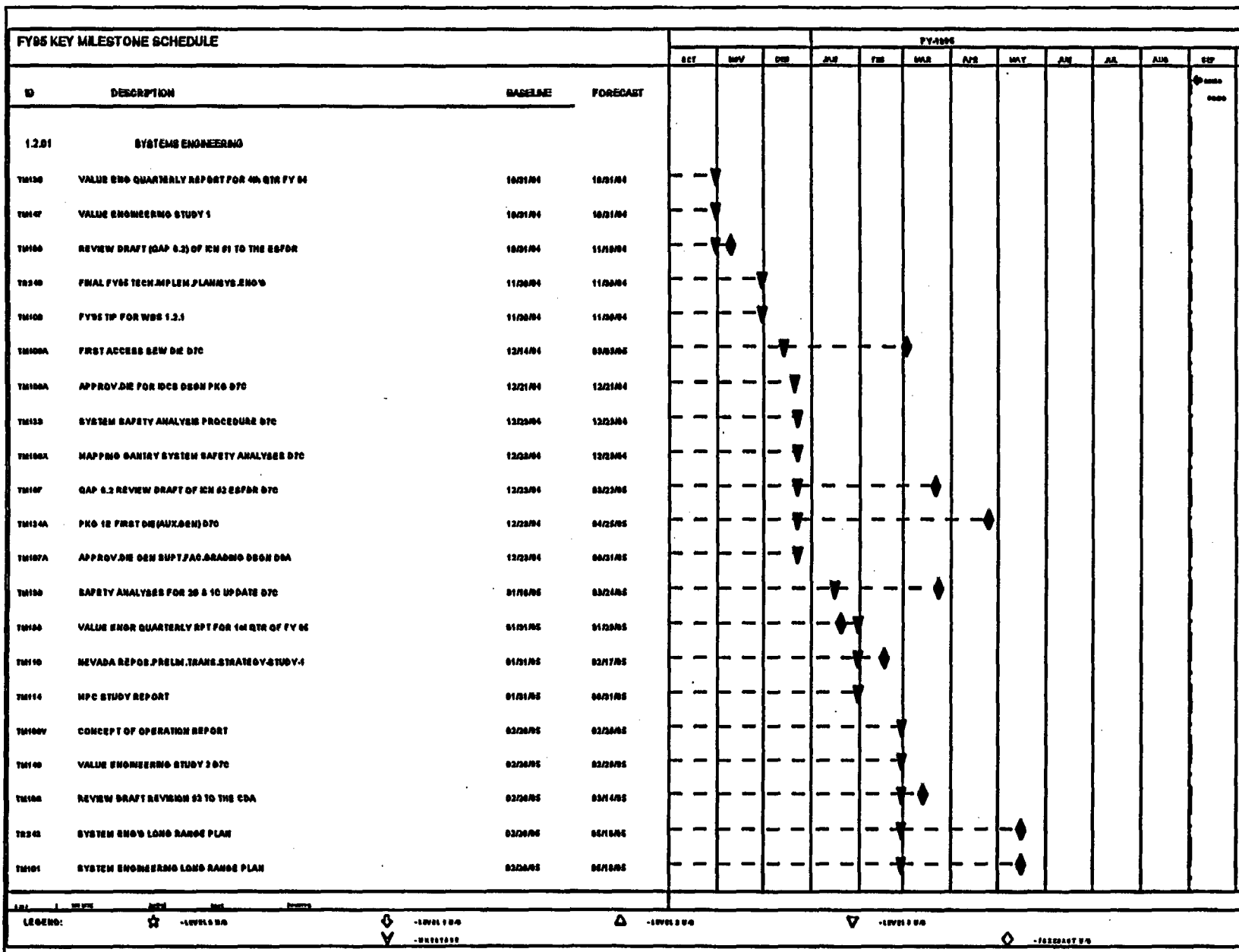


Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

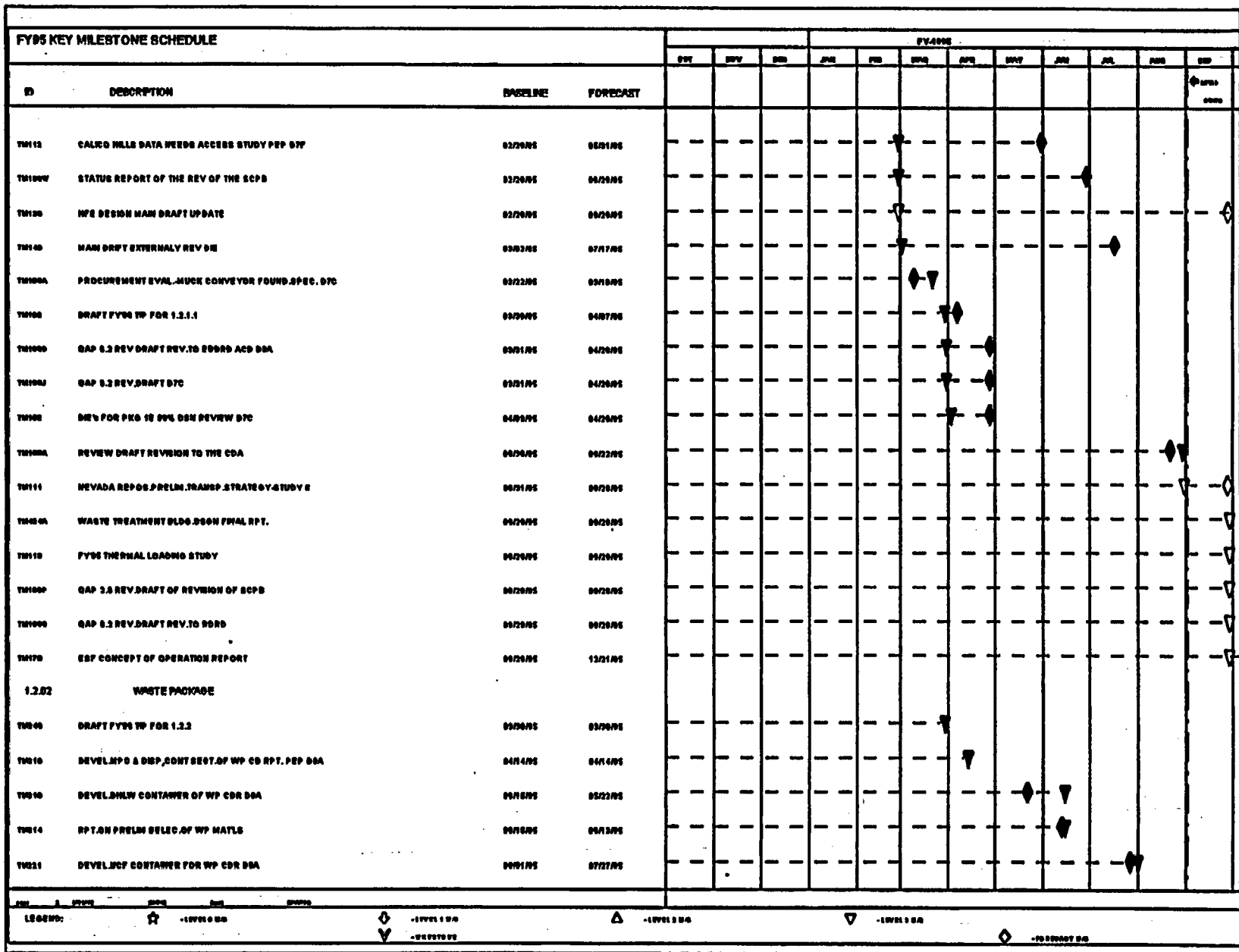


Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

FY95 KEY MILESTONE SCHEDULE				FY-1995											
				JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
ID	DESCRIPTION	BASIS	FORECAST												
00001	IMPLEMENT M&O SAFETY & HEALTH PLAN	03/01/95	04/01/95												
1.2.14	INSTITUTIONAL														
00001	EXECUTE A PLAN OF ACTION TO INTEGRATE DISTRICT/REACH ACT INTO YMP TECHNICAL AND PLANNING PROCESS	03/01/95	04/01/95												

LEGEND:	☆ - LOWEST RISK	▽ - LOWEST RISK	△ - LOWEST RISK	▽ - LOWEST RISK	◇ - FORECAST RISK
---------	-----------------	-----------------	-----------------	-----------------	-------------------

Figure 3. Yucca Mountain Key Milestone Schedule (Continued)

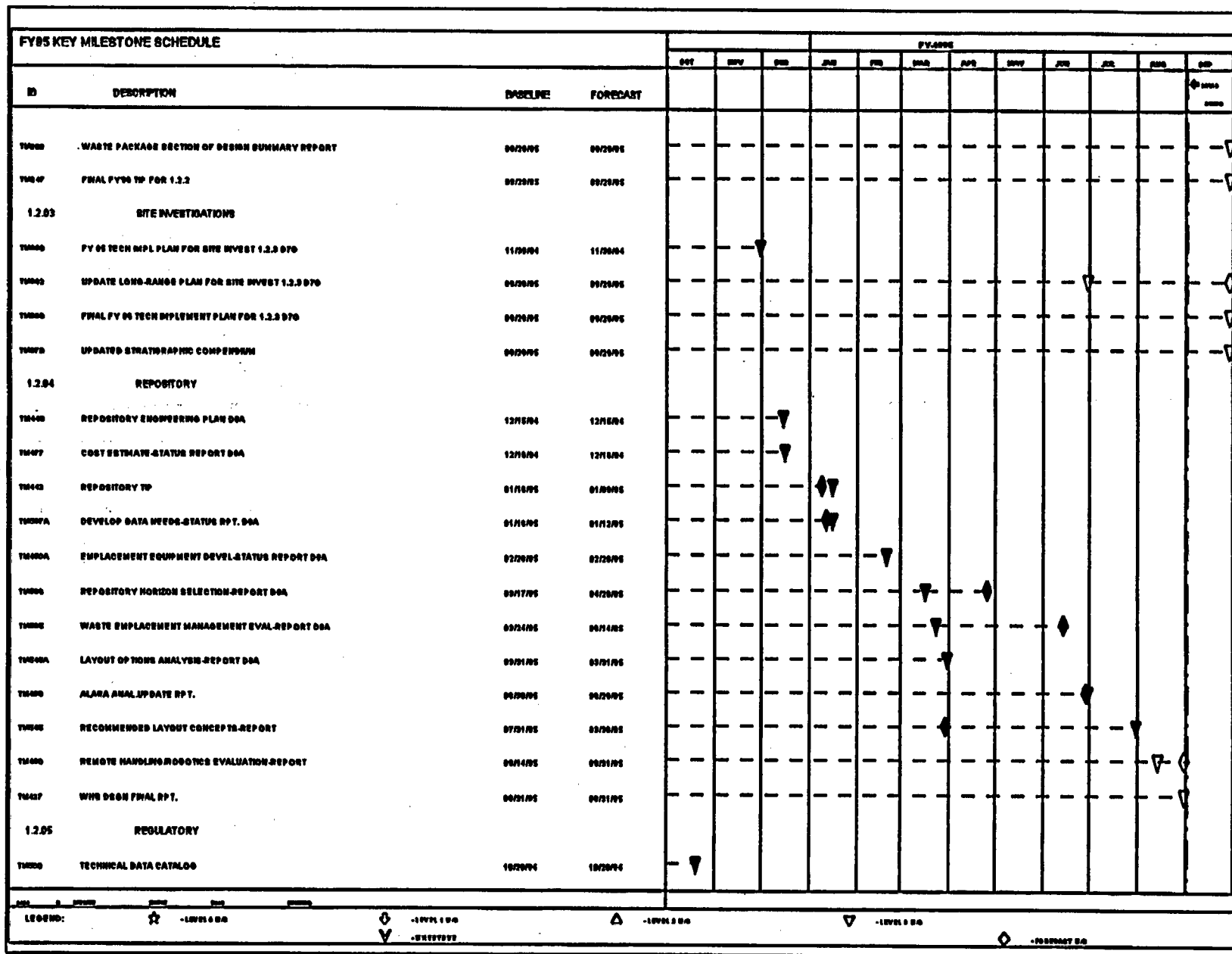
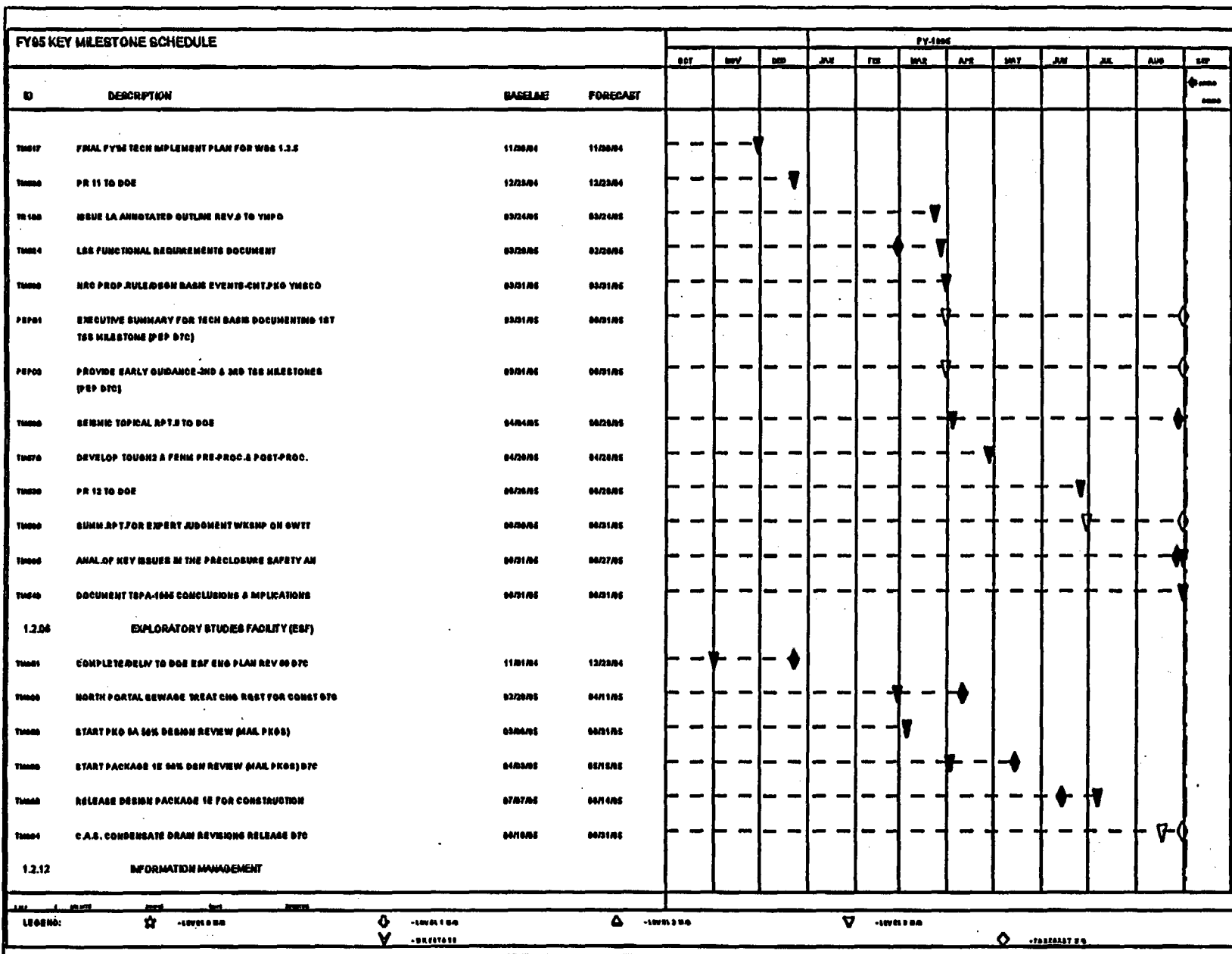


Figure 3. Yucca Mountain Key Milestone Schedule (Continued)



3.2 WASTE ACCEPTANCE, STORAGE AND TRANSPORTATION PROJECT CWBS 3.0

MANAGER: A. S. Kubo

3.2.1 Multi-Purpose Canister

MANAGER: J. R. Clark/L. S. Smith

OBJECTIVE(S): Provide technical management and integration of activities relating to development of the Multi-Purpose Canister (MPC) Subsystems and Dry Transfer System (DTS). Provide technical solicitation evaluation support and management of the MPC Subsystems subcontract. Assist the Office of Civilian Radioactive Waste Management (OCRWM) in all aspects of the Waste Acceptance, Storage and Transportation (WAST) MPC licensing process. Assist OCRWM in the development of the MPC Environmental Impact Statement (EIS). Assist OCRWM in supporting public information and institutional tasks regarding MPC activities.

3.2.1.1 Progress During Report Period

Engineering Development

- Westinghouse imposed a stop work order on PacTec, the lead MPC design subcontractor, during the first audit of PacTec design activities. The stop work order was due to inappropriately altered quality records. The stop work order was subsequently removed after required corrective actions were completed.
- Completed reviews and returned comments to Westinghouse for the MPC System Safety Plan and Certification Plan deliverables. Other correspondence included a response to a concerns letter from the Office of Quality Assurance (OQA) and an M&O management letter to Westinghouse concerning QA audit findings.
- Held an MPC Concept Design Review meeting at PacTec offices. Design alternates were presented by Westinghouse component designers and critiqued by the review group.
- Provided support for a Management Meeting on MPC Long Term Criticality Control. WAST provided Loading Curve and Strategy materials. Sufficient data or analyses are currently unavailable to determine if either aluminum-boron or stainless steel-boron will, or will not, provide adequate cost-closure criticality control in the repository waste package. It was concluded, however, that the programmatic risk of continuing to use aluminum-boron absorber material in the MPC design is acceptable.
- Completed a white paper on Independent Spent Fuel Transfer and Storage Options.
- Received a Nuclear Regulatory Commission (NRC) letter in response to Burnup Credit Topical Report submittal; developing preliminary responses to NRC comments and questions.

- In support of the MPC System Design Requirements Document (DRD) revisions, completed Revision 4 of the Traceability Analyses for MPC, MPC Transportation Cask, and COST/OSS DRD. Revision 5 of the MPC, MPC Transportation Cask, and COST/On-Site Storage (OSS) Design Procurement Specifications and Revision 1 of the DRDs are in Quality Administrative Procedure (QAP)-3-1 review with completion scheduled for September.
- Delivered the preliminary CRWMS Program concept for integration of the DTS and the DTS video to RW-40. The report identifies the advantages of using the DTS at purchaser sites, selected CRWMS Program Technology Development projects, and an interim storage facility. In addition, completed the DTS static display model.

Regulatory and Licensing

- Delivered the preliminary DTS Licensing Strategy to RW-40. The paper concludes licensing a DTS would be more difficult than initially thought, but is feasible.
- Attended meetings on August 8 and 9, 1995, with the NRC, Arkansas Nuclear One, and Rancho Seco. The utilities met with the NRC to discuss current spent fuel storage plans. Developed and delivered meeting summaries to RW-46.
- Prepared presentation materials for the International Atomic Energy Agency (IAEA) training conference on "Dry Storage in the U.S." and the "Multi-Purpose Canister." Presented this information for RW-46 in Chicago, Illinois, on August 23, 1995.
- Delivered a white paper to RW-46 for DOE on the issues and benefits associated with the NRC revising 10 CFR 51.52 (S-4 Table) to potentially preclude generic transportation issues from being contested in any DOE licensing action for an MPC Cask or interim storage facility.
- Prepared a presentation for RW-46 for the 5th International Conference on Radioactive Waste Management and Environmental Remediation (ICEM) to be held in Berlin, Germany, on September 3-8, 1995. The presentation was on dry storage needs in the United States and the MPC System.
- Developed a white paper discussing the QA programs that should be addressed in the 10 CFR Part 72 Safety Analysis Report for an MPC storage cask. This was to resolve an issue raised at an earlier NRC/Westinghouse meeting.
- Attended a meeting between the NRC and the Mescalero Apache Tribe Utility Company on August 30, 1995, to discuss the private fuel storage facility initiative. Developed and delivered a meeting summary to RW-46.
- Developed detailed schedules, activities, and budgets to support FY96 planning.
- Developed draft responses and a transmittal letter to respond to NRC questions on the Burnup Credit Topical Report.

- Robert G. Morgan and Jim Thornton received DOE "Doer of the Deeds" awards in recognition of their efforts in developing the Burnup Credit Topical Report. The topical report was the first successful topical report submittal by the Department to the NRC.

Environmental, Safety and Health

- The Notice of Availability (NOA) for the MPC EIS Implementation Plan (IP) was published in the Federal Register on August 30, 1995. Copies of the IP were sent to 22 DOE public reading rooms listed in the NOA, and approximately 1,200 IPs were sent directly to various RW and Naval Reactors' stakeholders.
- Distributed the MPC Preliminary Draft EIS (PDEIS) to the MPC EIS Integration Group (MEIG) on August 29, 1995, for external (outside RW-40, M&O, Argonne National Laboratories (ANL) review and comment. An MEIG workshop is scheduled for September 19 - 21, 1995, to resolve MEIG comments and revise the MPC PDEIS.
- Attended a meeting with RW-46, EH, and GC regarding the environmental justice appendix of the Draft Multi-Purpose Canister Environmental Impact Statement. The principal issues are the level of detail for socioeconomic data around the reactor sites, and the implications for the level of detail required in the impacts analysis. The issues will be brought to the attention of GC management prior to resolution.
- Presented a preliminary identification of requirements that DOE must comply with to successfully implement an interim storage program to RW-46 (Parker, Jones). Addressed investigations, construction, and operations permit requirements and site investigation criteria for an interim storage facility site at Nevada Test Site Area 25 as specified in the August 2, 1995, version of H. R. 1020.
- Delivered the Self Assessment Implementation Plan (SAIP) to RW-40 August 31, 1995, in accordance with the WAD.

3.2.1.2 Issues and Concerns

- None.

3.2.2 Transportation System

MANAGER: B. R. Teer/L. S. Smith

OBJECTIVE(S): Provide management and integration of all activities relating to transportation cask development, transportation planning and operations, service and maintenance of transportation equipment, application of Systems Engineering to Transportation, collection and maintenance of site-specific engineering and operations data, transportation economic and systems analysis, and integration of transportation with other Civilian Radioactive Waste Management System (CRWMS) program elements. Manage transportation database formulations, model development, and computer code development activities. Assist OCRWM in supporting policy analysis and issue resolution.

3.2.2.1 Progress During Report Period

System Engineering

- Completed the first review draft of the Transportation Geographic Information System (TGIS) Database Report. This report discusses the various ways that the TGIS can be used both as a data manager and a presentation tool in Transportation analyses.
- Prepared a Strategy for the Public Access to Transportation-Related Information, a white paper for RW-45. The paper discusses ways of providing public access to transportation data files.
- Prepared a white paper discussing transportation interface with the Unified DataBase activities.
- Completed an article entitled "Development of the OCRWM Transportation Geographic Information System" for publication in the TRW Technology Review.

Casks

- Shipped the GA-4 half-scale cask model on August 18, 1995, from Precision Components Corporation, York, PA. It arrived at the General Atomics facility on August 30, 1995. The delivery of impact limiters Units 1 and 2 was delayed again due to tooling problems at Lee Goebel Enterprises. General Atomics estimates that the units will be completed the week of September 11, 1995.
- Reviewed the GA-4 Half-Scale Model Drop Test Plan and Drop Test Procedures. A letter providing M&O comments and recommendations has been prepared and will be submitted to RW-40. Pre-testing activities at General Atomic's testing subcontractor, Maxwell Laboratories Inc., including lift rigging hardware and apparatus, data collection equipment, software, and hardware check out, continues. Dummy cask drop testing activities are anticipated to begin the week of September 11, 1995. Pending delivery of the impact limiters, scale model regulatory drop testing could begin in mid September 1995.

- The M&O's recommended revisions for the Road Profile Test and Durability Test Report on a GA-9 Legal-Weight Truck (LWT) Trailer have been approved by General Atomics and will be included in the final technical report prepared by Allied-Signal Automotive Proving Grounds.
- Reviewed a Supplier Disposition Report from Allied-Signal Automotive Proving Grounds that documents two cracks in secondary members on the GA-9 Legal-Weight Truck prototype trailer. The cracks occurred during the tractor-trailer performance and operability testing, and were reported in the Conam inspection of August 16, 1995. The recommended disposition is to continue testing and monitor cracks daily for propagation.
- Prepared a white paper on the structural buckling criteria for square casks such as the GA-4/9 Legal-Weight Truck casks. The paper will be submitted to support General Atomic's effort to respond to the NRC's comments on the GA-4 and GA-9 Safety Analysis Reports.
- Prepared a formal presentation on the GA-4/9 LWT Cask System Program for RW-40. This was presented to RW-2 on August 15, 1995, to obtain guidance and direction on the future of the program. The presentation supported the FY96 budget development.

Transportation Support Systems

- Delivered the report on the Equipment Characteristics of an Spent Nuclear Fuel (SNF) train to RW-40.
- Received the final Calvert Cliffs Barge Study report from consultant Robert Jones. Based on an examination of all candidate port facilities, the report concludes that Calvert Cliffs Nuclear Power Station is best served by the Virginia Ports, specifically Newport News Marine Terminal. The Port of Baltimore has possibilities but is under equipped.
- Conducted a meeting with M&O technical representatives, Allied Signal Automotive Proving Ground (AAPG) test engineers, and representatives from Golden Dome Productions to discuss video production scripting of a legal-weight truck test. The M&O will evaluate the script, event recommendations, and Golden Dome proposal upon receipt from AAPG. The final script will be forwarded to OCRWM for review.
- Briefed RW-2 and Ted Garrish (Vice President, Nuclear Energy Institute) on August 15, 1995. The briefing involved discussion of rail and heavy haul options to transport spent nuclear fuel from existing main rail lines to the Nevada Test Site.
- The legal-weight truck tractor and semitrailer experienced a lockup of both rear axles as a result of an apparent Anti-Lock Brake System malfunction on August 7, 1995. The lockup occurred during braking tests on a 500-foot radius curve with a reduced coefficient of friction. The cause of the lockup was investigated, and the problem has been resolved. Performance testing continues.

Project Management

- Completed the final FY96 Contingency Budget presentation package for RW-45 and RW-46. Conducted detailed reviews with each Division Director to finalize work scope and funding levels prior to presentation to RW-1 and RW-2 on August 31, 1995.
- Provided logistics support and made a presentation on Casks at the Transportation Briefing held for RW-1 and RW-2. These presentations and the subsequent discussions provided a basis for much of the work planned for FY96 to support interim storage options.

Environmental, Safety and Health

- Participated in a RISKIND Training Workshop given by Argonne National Laboratory on August 31, 1995. The purpose of the workshop was to receive guidance on the selection of appropriate inputs and examples of the scenarios and analyses used by ANL in the MPC EIS to evaluate the impacts of spent fuel transport on individuals.
- Participated in the MEIG meeting on August 29, 1995. Comments from the RW-46, M&O, and Weston internal review were incorporated into the preliminary draft MPC EIS, which was distributed to MEIG reviewers for comment.
- Reviewed and provided an evaluation of the University of Nevada, Reno, report entitled Nuclear Waste Transportation Cask Accident Testing (February 1995). This initial report documented the work activities accomplished in FY94 relating to the benchmarking of their analytical codes, and methods necessary to simulate the behavior of the generic MPC cask under both normal and routine accident conditions (as defined in 10CFR71).
- Received Revision 1 of the RISKIND code from Argonne National Laboratory. This version incorporates the changes identified in the technical review held earlier this year of the beta test version of the code. The revised RISKIND technical manual and a benchmarking report will follow in late September 1995.

Institutional

- Provided briefing materials and background information on National Environmental Policy Act (NEPA) requirements that may be imposed on DOE by H.R. 1020, in preparation for the August 16, 1995, transportation briefing.
- Developed and distributed a summary of NEPA requirements that may be imposed on DOE or NRC by H.R. 1020 and H.R. 1905.
- Issued a Communicator's Directory compiling contacts in the National Information Center (NIC), OWAIST Institutional Relations, and Institutional and External Affairs groups to improve integration in common areas.

- Researched and prepared a briefing on perception-based impacts for RW-45, L. Desell. RW-2 requested the briefing for the end of August.
- Continued work on the integrated database of stakeholder information. The Lotus Notes application is available to interested parties as the final categorization activities take place.

3.2.2.2 Issues and Concerns

- None.

3.2.3 Waste Acceptance

MANAGER: B. M. Cole

OBJECTIVE(S): Provide management and integration of all activities relating to the Standard Disposal Contract, the Spent Nuclear Fuel (SNF) Verification Plan, Waste Acceptance Criteria (WAC) for Alternative Waste Forms, Materials Control and Accountability (MC&A), Safeguards and Security, Waste Acceptance Operations Plan, application of Systems Engineering to Waste Acceptance, interaction with the Energy Information Administration (EIA), support of Integrated Database (IDB) preparation, and development of a unified database (UDB) system.

3.2.3.1 Progress During Report Period

Contract Policy and Procedures

- Continued tracking draft legislation and assessing the potential implications for waste acceptance activities and plans.
- Developed a Waste Acceptance Strategy presentation focused on acceptance queue issues and need for utility discussions to support a Transportation Briefing for RW-1/2. RW-1 guidance suggests discussions, not negotiations, with utilities on what we can or cannot do on existing schedules. Began development of an overall plan and approach for conducting and coordinating utility discussions. The goal is to attain "subagreements" under the Standard Contract with each utility in the queue regarding specific arrangements for servicing.
- Provided background information to RW-44 on Northern States Power (NSP) to support the NSP meeting with the Secretary on August 17, 1995.

Pre-Acceptance Operations

- Prepared a rapid response for RW-44 on providing service to truck reactor sites. Total SNF allocations for the truck reactor sites were compiled and compared to a number of cases where sites "must" be serviced.
- Began preparation of the Task Management Plan for the Consolidated and Reconstituted Fuel Options Paper.
- Discussed proposed Appendix F modifications with RW-44 and identified areas that need further development.
- Investigating requirements for development of a Site Access Plan to assist DOE and contractor personnel to gain entrance to purchaser sites once operations begin.

Waste Acceptance Criteria

- Drafted RW and EM roles and responsibilities supporting the RW-44 Waste Acceptance Criteria development. Supported Program Management Integration (PMI) in a waste form identification and prioritization study.
- Preparing a paper that compares the characteristics of cesium- and strontium-containing borosilicate glass canisters fabricated for the Federal Republic of Germany with the characteristics of defense and commercial borosilicate glass canisters and the cesium and strontium salt canisters at Hanford.
- Submitted a deliverable on Highlights and Issues from the Defense Waste Processing Facility (DWPF) TRG meeting in Salt Lake City on August 9, 1995. Provided DWPF Qualification Runs status.

High-Level Waste (HLW) Generator Agreement

- Continued identifying and evaluating MOA-related issues. Continued reviewing alternative fee methodologies for DOE wastes and itemizing key assumptions and issues associated with developing an MOA for disposal of such wastes.

Waste Acceptance Operations

- Submitted the final draft of the "MC&A Task Force Report."
- Revised and delivered a white paper on "Data Verification Needs for Vitrified HLW (Glass Logs)."
- Delivered a white paper on Data Verification Needs for DOE Spent Nuclear Fuel. Worked on a draft plan for identifying IAEA safeguards equipment in support of possible shipment to an Interim Central Storage Facility.
- Drafted Procedures for SNF Loading Verification and Canister Surveillance to support loading activities at Rancho Seco.

Logistics and Systems Planning

- Supported the August 7-10, 1995 DOE Operational Functions Task Team meetings with the identification of top-level CRWMS functional responsibilities.
- Began development of the Integrated Safeguards and Security Requirements Analysis (ISSRA) document and ISSRA requirements definition.
- To ensure that IAEA requirements were properly addressed, reviewed the CRWMS Requirements Document (CRD), Waste Acceptance Systems Requirements Document (SRD),

the QAP-3-1 Transportation SRD, and proposed revisions to the MPC, MPC Transportation Cask, and On-Site Transfer (OST)/OSS Design Procurement Specifications.

- Initiated development of the WA-DRD.
- Developed detailed UDB requirements to support the "Plan for Waste Acceptance" function and development of the UDB Functional Requirements Document.

Project Management

- Developed WA assumptions, activities, budgets, and milestones, including the addition of a milestone for loading verification at Rancho Seco in April, 1996, to support central storage facility operations in late 1999.
- Supported preparation of the WA section of the Director's Program Review and Contingency Program Review (Option 6) presentations, including dry runs and briefings to RW-40/44/45 management.

Quality Assurance

- Performed QAP-3-9 review of draft "IAEA Safeguards and Security Requirements for the Multi-Purpose Canister System."

Nuclear Fuel Data

- Began evaluation of the final draft of the 1994 RW-859 database.
- Continued reviewing the Draft Requirements Document for the Automated Nuclear Fuel Data Collection System 3 for consistency with the UDB data model. Completed development of a crosswalk map between the proposed RW-859 5-year supplement database, the current RW-859, and the FICA database for use in the Phase I UDB.
- Developed several briefing sheets for an RW-1 Briefing Book to support discussions with utilities.

Energy and Spent Fuel Discharge Projections

- Began evaluating the final draft of the 1995 EIA Projections database.

Unified DataBase System

- Completed a hands-on evaluation of the second release of the UDB prototype and provided the Pacific Northwest Laboratory (PNL) development team technical direction for the next release, including report screens, prototype and database queries, and scanned graphic images for eight reactors.

- Met with the UDB Prototype-Development staff at PNL to review the status of the system and assess their implementation of Phase I functional capabilities. Their work is progressing toward completion of a system to be used to demonstrate the UDB concept by September 1, 1995.
- Continued preparation of a revised UDB Phase I Technical Management Plan (TMP) and a new UDB Phase I, Safeguards and Security Subsystem, Life-Cycle Plan (QAP-SI-2).
- Developing the UDB Phase I "UDB Functional Description Document (FDD);" preparing requirements to reflect QA and CFR needs, and restructuring functional-area inputs into a uniform format.

3.2.3.2 Issues and Concerns

- None.

3.2.4 Project Integration

MANAGER: T. R. Stevens

OBJECTIVE(S): Conduct project financial and technical integration activities across the WAST project to maintain the WAST project development.

3.2.4.1 Progress During Report Period

Project Scheduling and Control

- Baseline Change Proposal (BCP)-03-95-0002 was approved by the Project Office Baseline Change Control Board on August 18, 1995. This BCP updates all WAST Project Milestones to include changes resulting from the agreement with the NRC on their review and certification of the MPC subsystem SAR Designs. It also updates the WAST Project cost baseline to the latest budget plans. Submitted the BCP to the Program Baseline Change Control Board on August 18, 1995.
- Integrated the briefing materials for the WAST Project portion of the August 30, 1995, Directors Program Review. The presentations covered accomplishments; progress, and status of major products, cost, and schedule performances including variance analysis and upcoming issues and challenges.
- Supported the FY96 Contingency Planning Review for the OCRWM Director held on August 31, 1995. The WAST Project presented the contingency planning schedule, budgets, and scope for FY96 Spent Fuel Storage, Transportation and Waste Acceptance, MPC Subsystems, and PM&I.
- Supported the development of an index to a suite of computer programs that CRWMS uses for technical analysis.

Project Systems Engineering

- Completed the Preliminary Draft of the WAST Life Cycle Cost Report (LCCR) Volume I (the executive summary and basis of estimate) and Volume II (the system description) and submitted them to RW-40 for review and comment. The WAST LCCR served as the WAST's principal basis of estimate for the recently completed CRWMS Total System Life-Cycle Cost (TSLCC).
- Released the internal draft of the WAST Project Test and Evaluation Master Plan (T&EMP) for M&O review. The WAST Project T&EMP defines how the policies and requirements of the OCRWM TEMP will be satisfied by the WAST Project. It will be the basic planning document to describe WAST Project T&E policies, objectives, requirements, general methodology, responsibilities, and T&E phase scheduling.
- Participated in the joint OCRWM and M&O Operations Function Team. This team is preparing a draft revision to the CRWMS functional hierarchy in response to a DPR action item.

3.2.4.2 Issues and Concerns

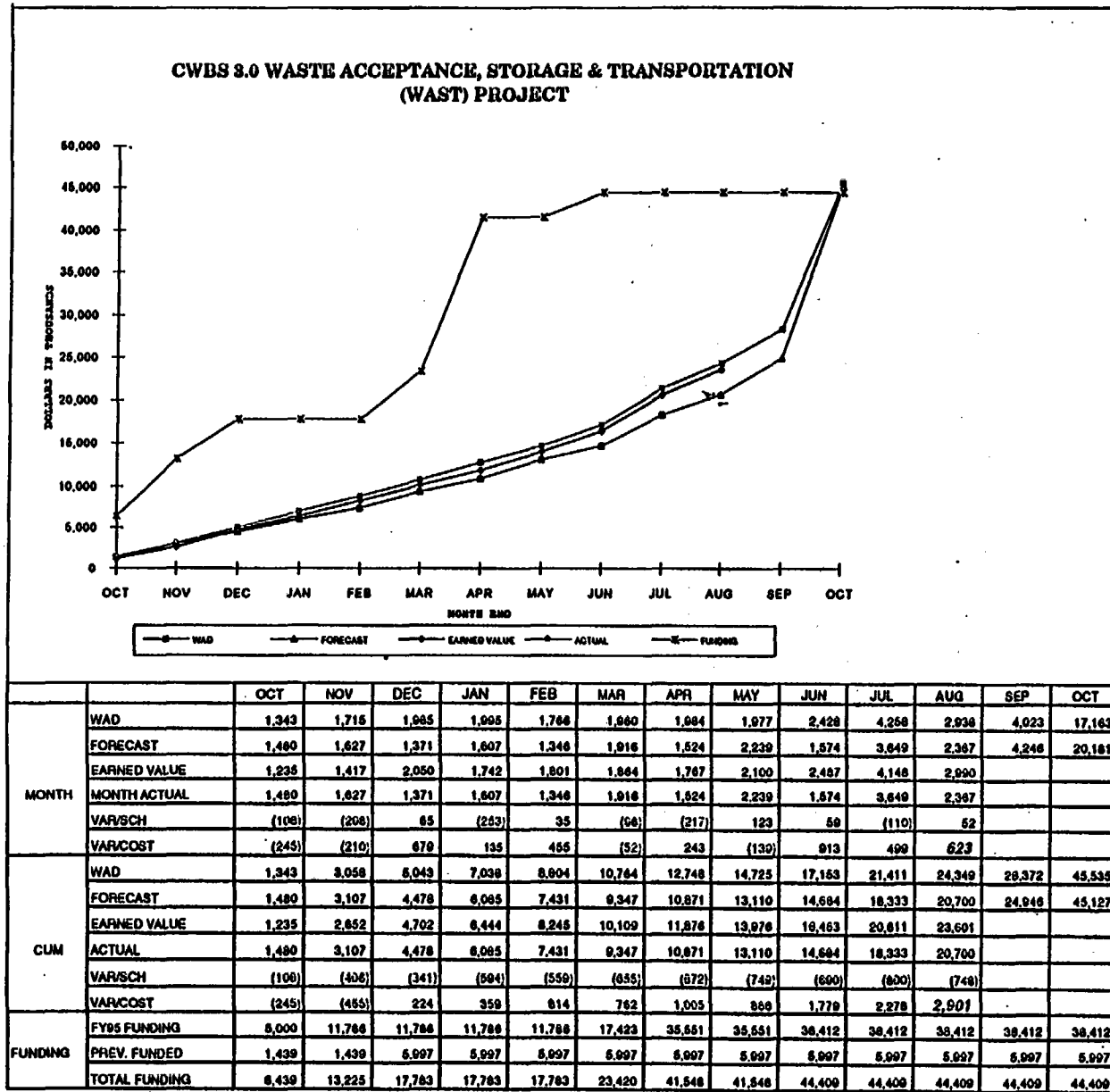
- None.

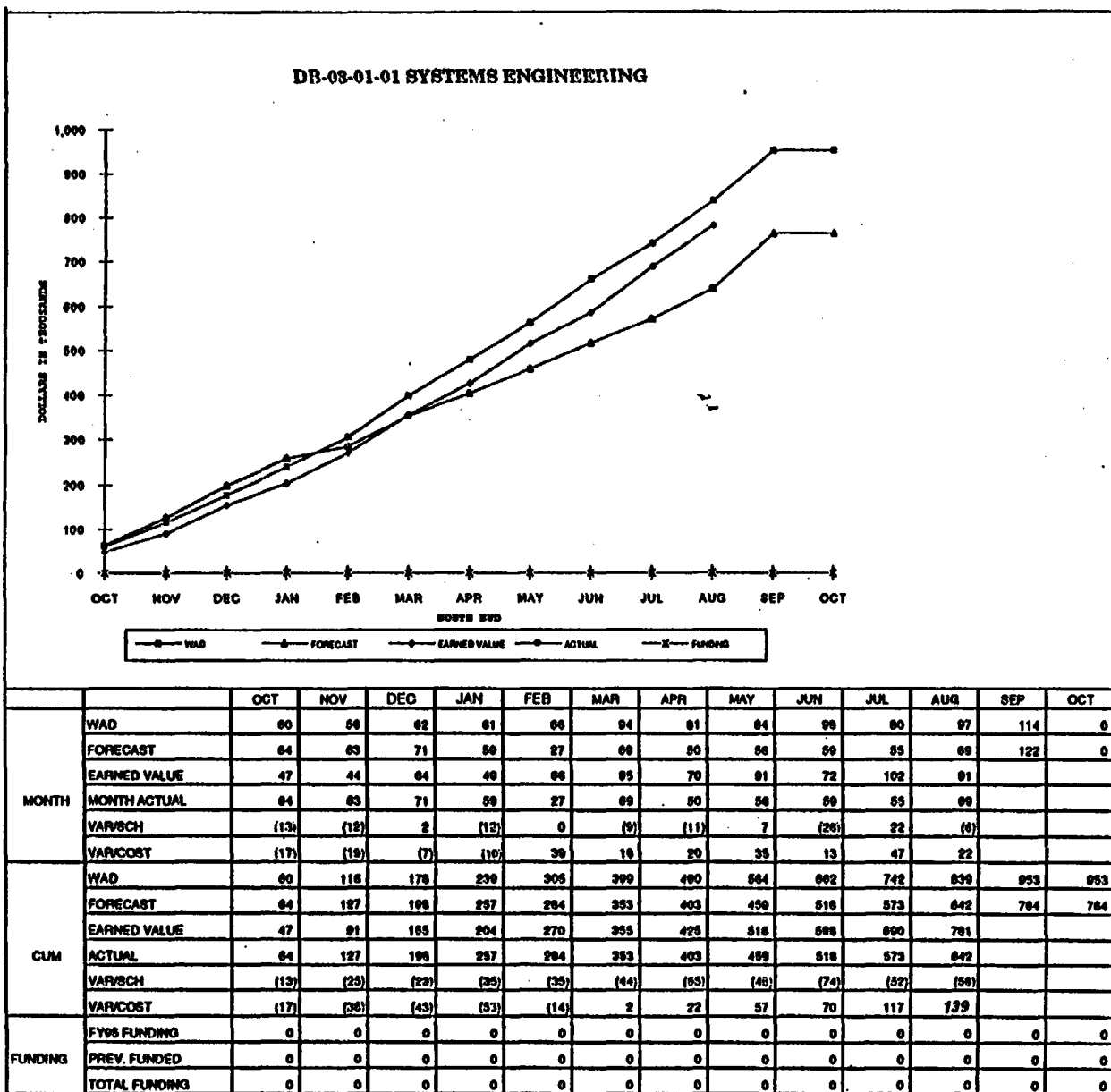
3.2.5 Variances

- The cumulative cost variance of \$2903/12% is due primarily to Project Management attrition, less support required for EIS activities than originally anticipated, MRS Institutional requirements placed on hold or cancelled, late booking of FY 94 carryover costs, delayed start of the LWT Tractor Test, and delayed tasking and billing lags for work performed at the national laboratories. The principal contributors to the overall variance follow.
- **DB03.01.01 System Engineering** - The cumulative cost variance of \$139K/17% and at complete variance of \$189K/20% are due primarily to the DRDs and Traceability effort being less complex than originally anticipated. Additionally, the Design Control ILP deliverable is no longer required, and work has stopped on this activity. A BCR was processed to redirect the resources to the OCRWM Baseline Management Plan.
- **DB03.01.03 Site Investigation** - The cumulative cost variance of \$24K/70% and at complete variance of \$19K/44% are due to the white paper on Post-Negotiator options and issues being completed and sent to RW-45 in draft form. Preparation of the draft required fewer resources than planned.
- **DB03.01.09 Project Management** - The cumulative cost variance of \$310K/19% and at complete variance of \$321K/18% are due to the loss of senior staff members including a Strategic Planner, senior Project Control Administrator, and a senior scheduler. The effort is being accomplished with less expensive temporary help and available staff working extended hours. One position has recently been filled, and hiring requisitions are in place for the other positions.
- **DB03.01.11 Quality Assurance** - The cumulative cost variance of \$31K/18% and at complete variance of \$23K/12% are due to personnel who were budgeted for WAST Project QA supporting other activities such as the MPC subcontract effort and Program QA.
- **DB03.01.13 ES&H** - The cumulative cost variance of \$247K/19% and at complete variance of \$291K/20% are due to less activity than originally anticipated for EIS activities.
- **DB03.01.14 Institutional** - The cumulative cost variance of \$279K/45% and at complete variance of \$425K/52% are due primarily to several activities being placed on hold or canceled (i.e. MRS host interactions and Negotiator support).
- **DB03.02.01 System Engineering** - The cumulative cost variance of (\$52K/13%) is due primarily to the Analytical Studies Support effort being more complex than anticipated. This task is now complete. Also, RTDA Report support is slightly overrun due to unanticipated justification and backup for cost models required for the Independent Cost Estimate (ICE) Review. The at complete variance of \$108K/17% is due to funds not being used for computer equipment procurement.
- **DB03.02.02 Systems Casks** - The cumulative cost variance of \$462K/15% is due primarily to late booking of carryover costs.

- **DB03.02.04 Support Systems** - The cumulative cost variance of \$760K/40% is due primarily to the delayed start of the LWT Tractor Test. The majority of the cost associated with this effort will not book this fiscal year.
- **DB03.02.05 Regulatory** - The cumulative cost variance of \$57K/67% and at complete variance of \$30K/18% are due to personnel budgeted for this work being reassigned to higher priority tasks. Temporary labor has been acquired at a cost less than budgeted.
- **DB03.02.11 Quality Assurance** - The cumulative cost variance of \$52K/25% is attributed to late booking of FY94 carryover costs. The at complete variance of (\$28K/12%) is due to unprogrammed support for Quality Review Board (QRBs), QAP compliance, and QA liaison support.
- **DB03.02.12 Information Management** - The cumulative cost variance of \$41K/89% and at complete variance of \$18K/37% are attributed to a less than anticipated need for management review of information and data.
- **DB03.02.13 Environment, Safety, and Health** - The cumulative cost variance of \$347K/42% is primarily attributed to late tasking of LLNL work, billing lags for work performed at ANL, and late booking of FY94 carryover costs. The LLNL effort will be deferred to FY96.

Figure 4. WAST Project Financial Status



DB-03-01-01 SYSTEMS ENGINEERING

[illegible]

DB-03-01-09 PROJECT MANAGEMENT

The graph displays four data series over a 12-month period:

- WAD (Work Authorized Dollars):** Represented by a line with diamond markers. It starts at approximately 120 in October and rises to 1,800 by September, remaining flat through October.
- FORECAST:** Represented by a line with triangle markers. It starts at approximately 120 in October and rises to 1,482 by September, remaining flat through October.
- EARNED VALUE:** Represented by a line with circle markers. It starts at approximately 120 in October and rises to 1,803 by September, remaining flat through October.
- ACTUAL:** Represented by a line with square markers. It starts at approximately 120 in October and rises to 1,482 by September, remaining flat through October.
- FUNDING:** Represented by a line with cross markers. It remains at 0 throughout the entire period.

MONTH	WAD	FORECAST	EARNED VALUE	ACTUAL	FUNDING
OCT	120	111	121	111	0
NOV	240	148	118	148	0
DEC	364	180	132	180	0
JAN	501	247	136	247	0
FEB	667	321	198	321	0
MAR	847	398	247	398	0
APR	984	467	298	467	0
MAY	1,141	533	340	533	0
JUN	1,306	606	388	606	0
JUL	1,453	678	439	678	0
AUG	1,636	778	499	778	0
SEP	1,803	866	567	866	0
OCT	1,803	866	567	866	0

Figure 8. Quality Assurance Financial Status

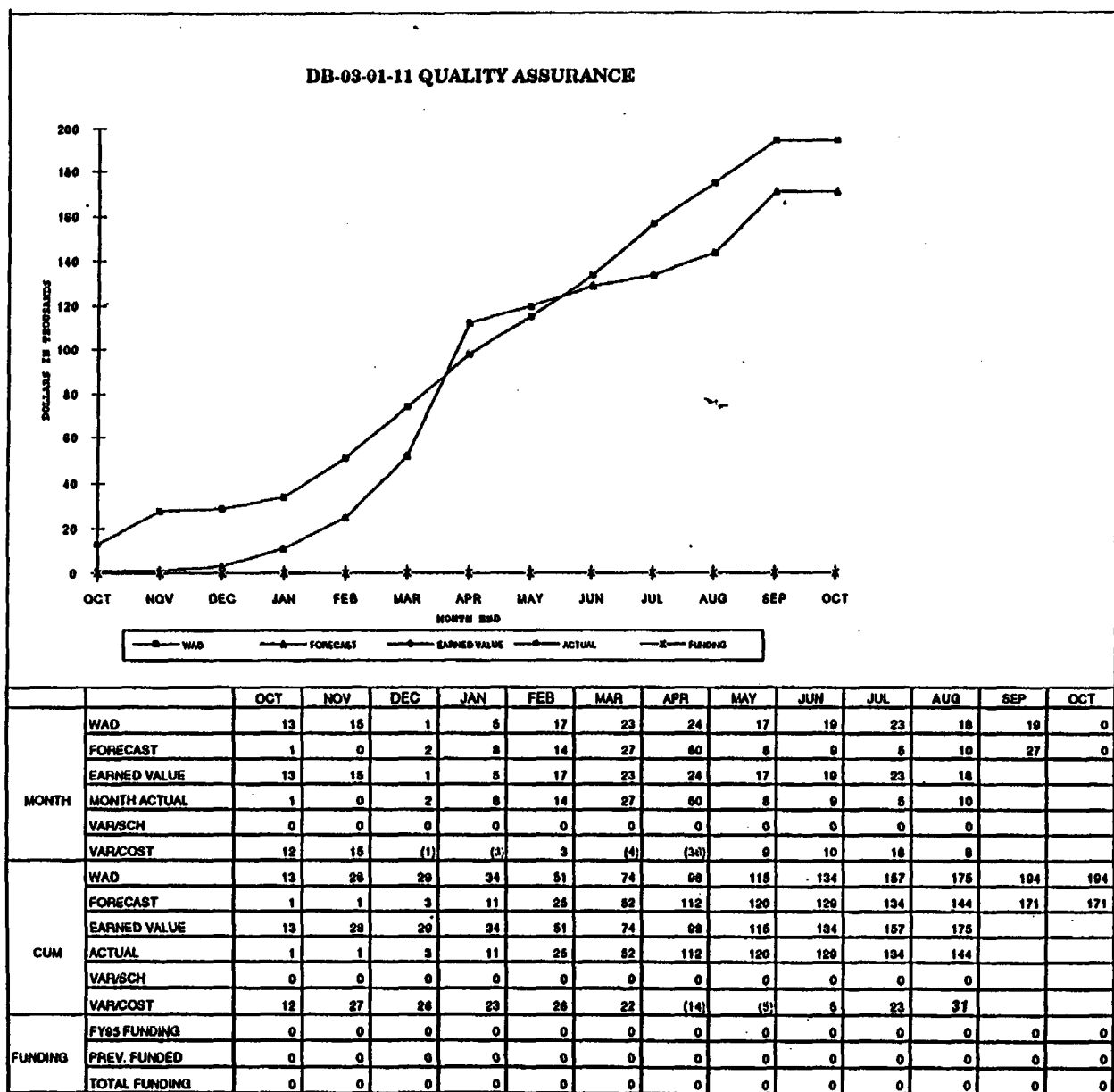


Figure 9. Environment, Safety, and Health Financial Status

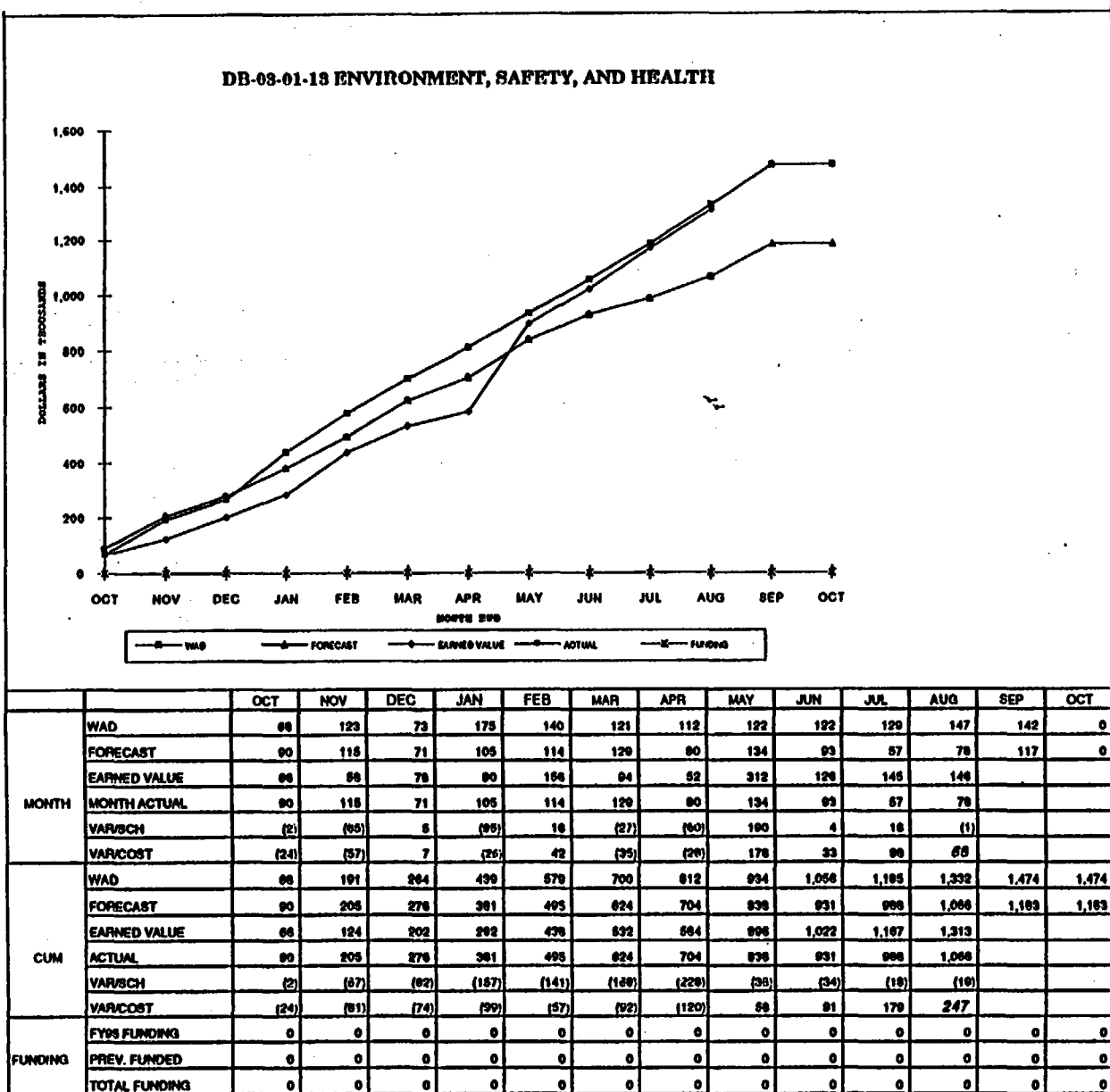
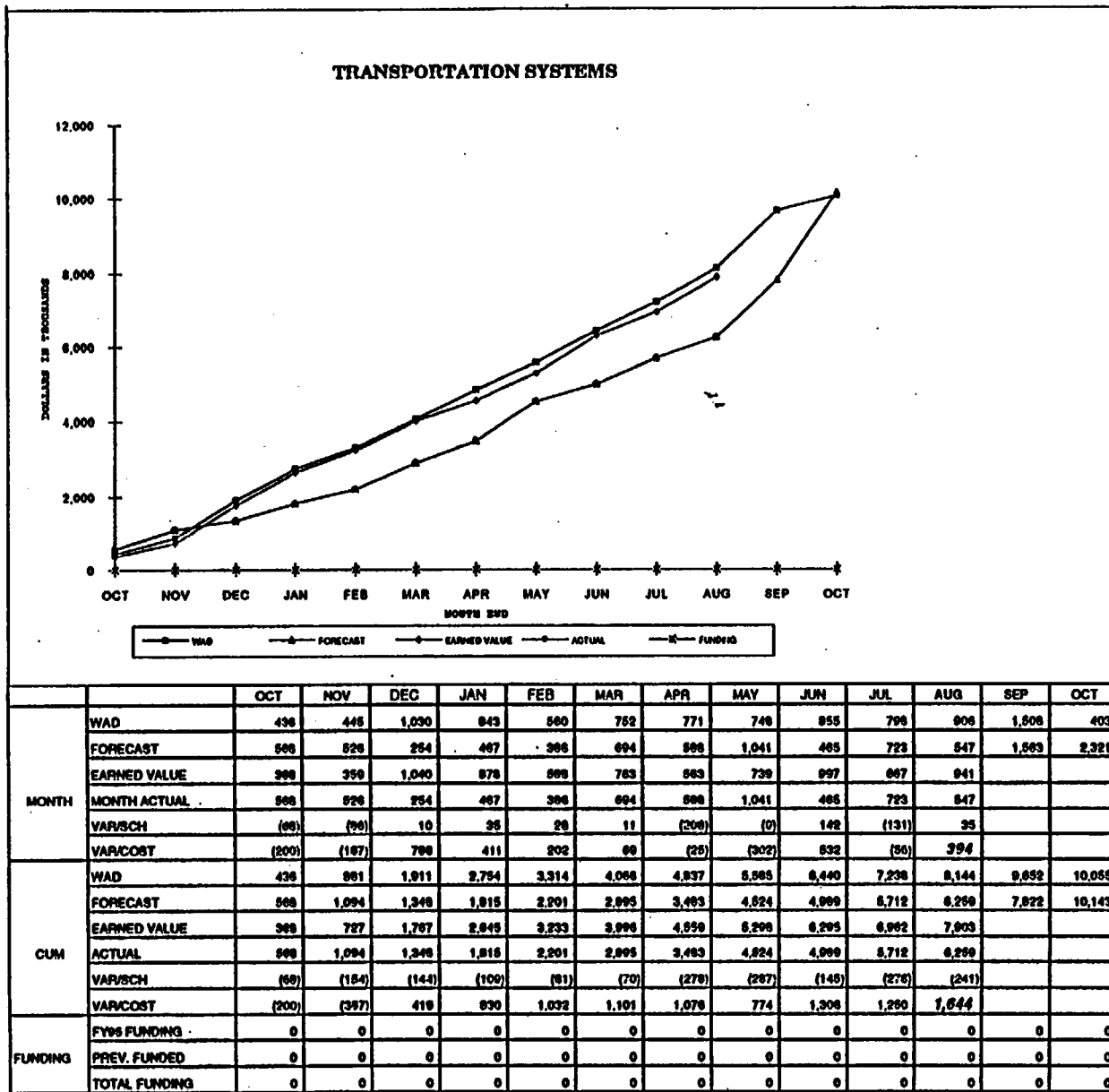
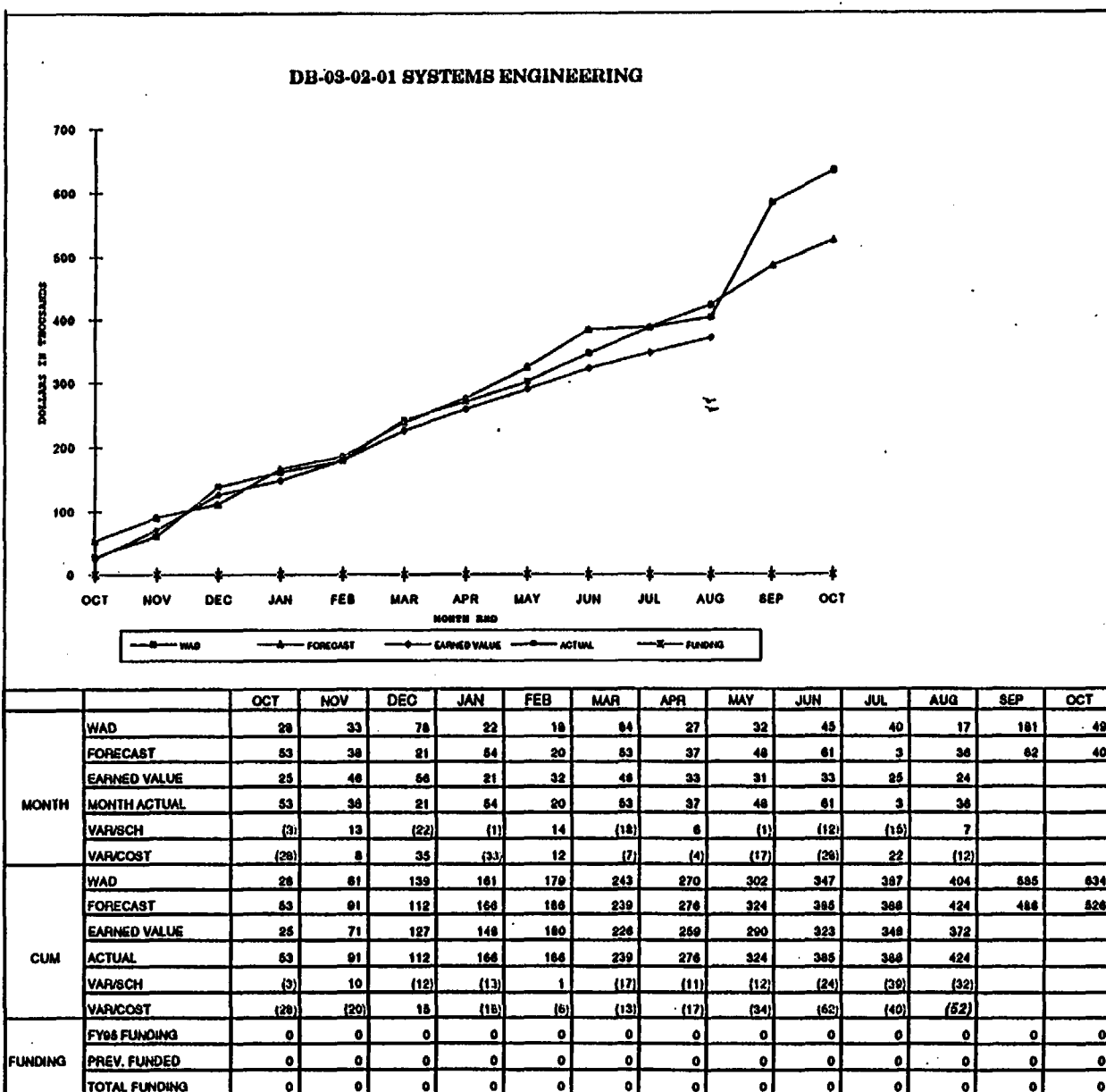
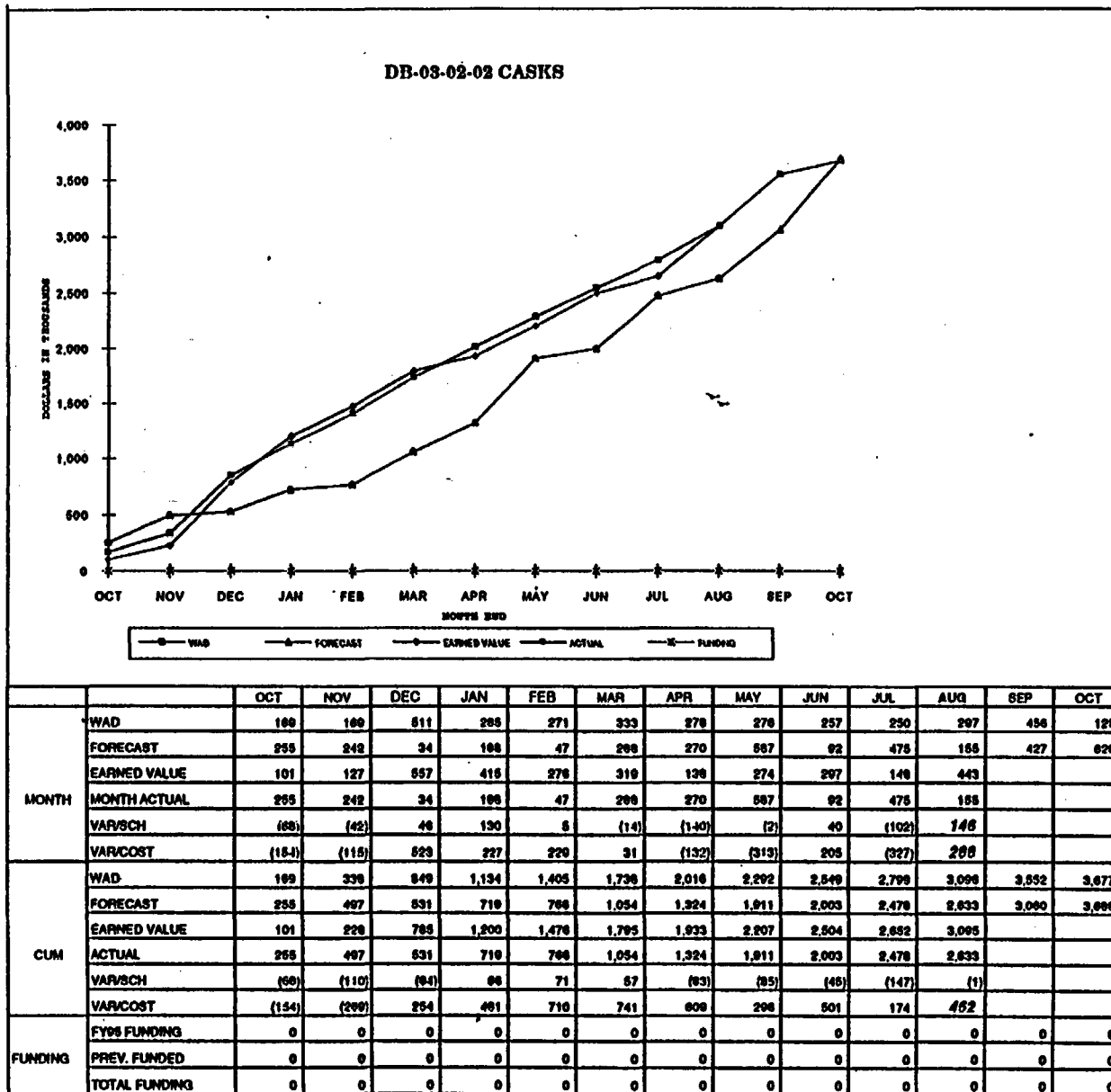


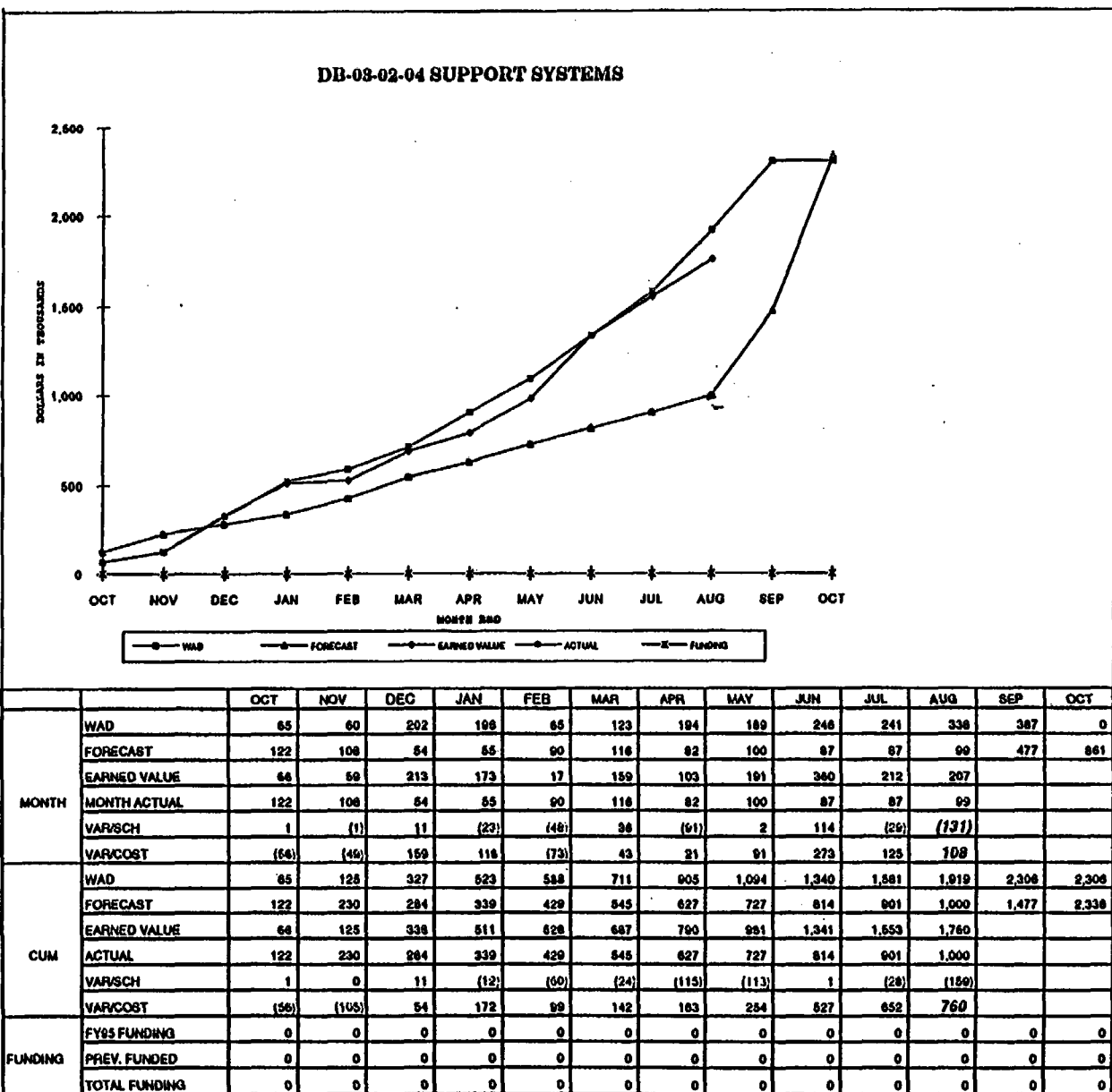
Figure 1. Transportation Systems Financial Status



DB-03-02-01 SYSTEMS ENGINEERING

DB-03-02-02 CASKS

DB-08-02-04 SUPPORT SYSTEMS

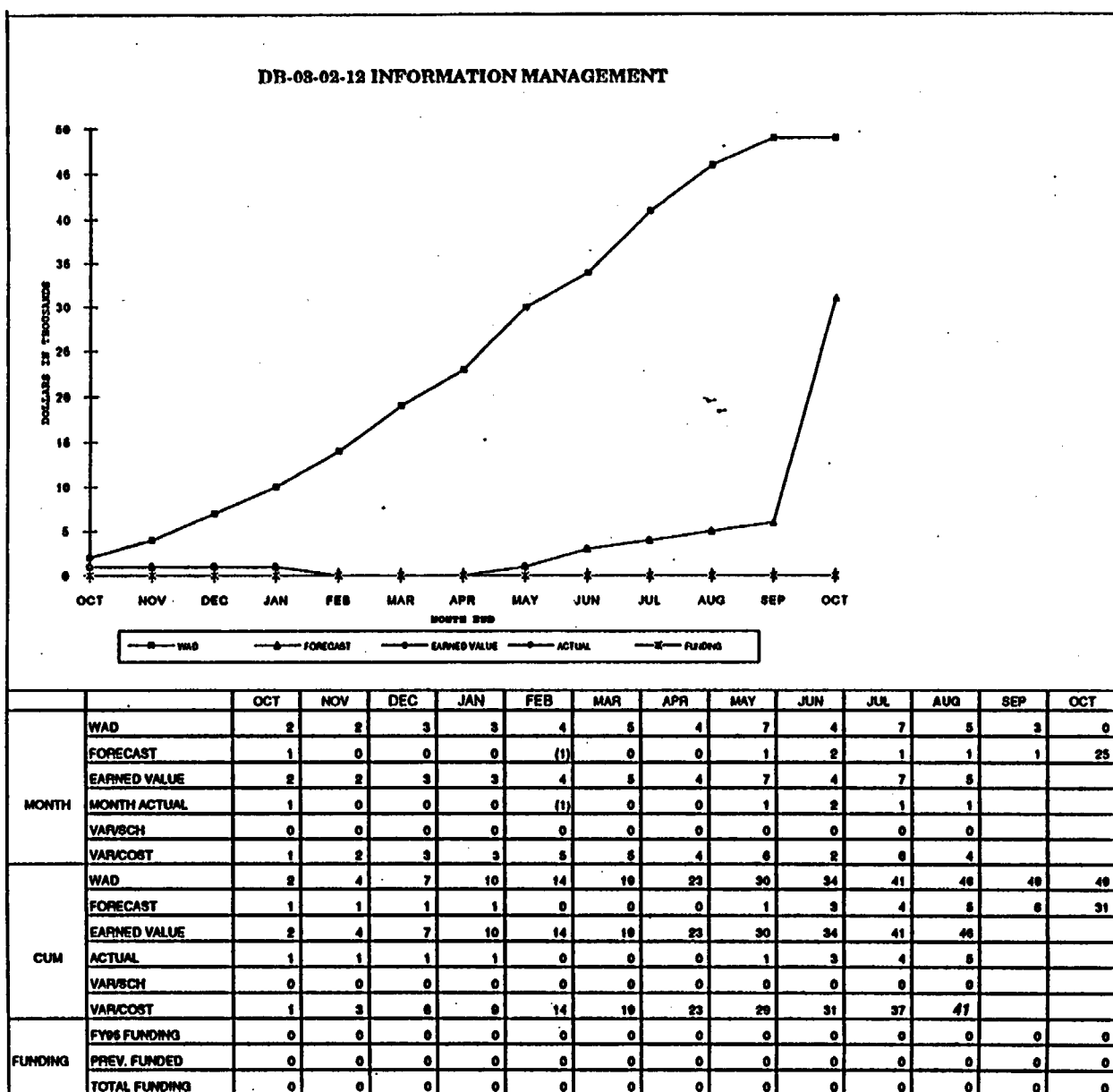


[illegible]

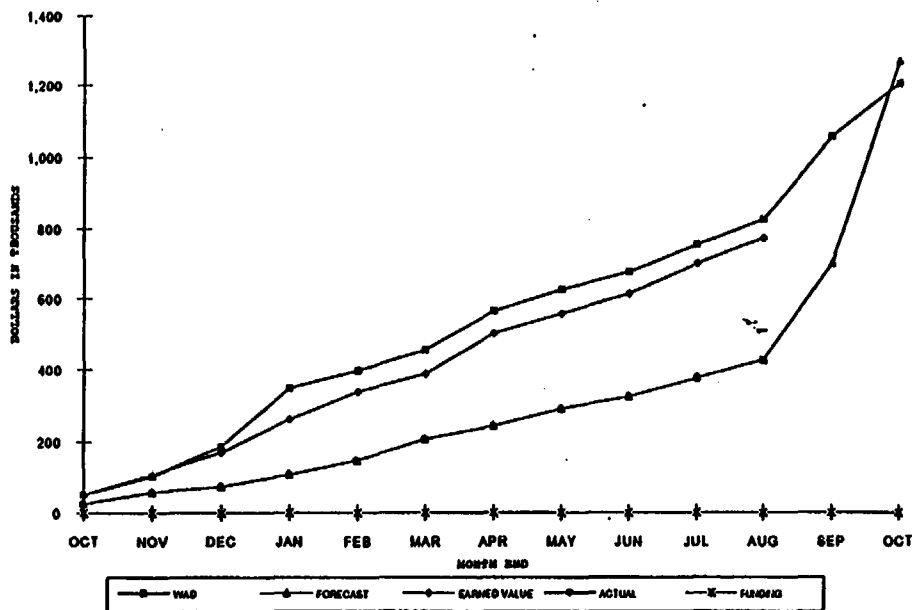
(



Figure 17. Information Management Financial Status



DB-03-02-13 ENVIRONMENT, SAFETY, AND HEALTH



		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
MONTH	WAD	51	52	84	162	48	57	111	61	50	78	71	231	147
	FORECAST	26	32	16	33	41	59	37	47	34	61	49	276	564
	EARNED VALUE	51	56	62	93	76	50	114	55	58	86	71		
	MONTH ACTUAL	26	32	16	33	41	59	37	47	34	61	49		
	VAR/SCH	0	4	(22)	(69)	28	(7)	3	(5)	6	8	0		
	VAR/COST	25	24	46	60	35	(5)	77	6	24	35	22		
CUM	WAD	51	103	167	349	397	454	565	626	676	754	825	1,056	1,203
	FORECAST	26	58	74	107	148	207	244	291	325	376	425	701	1,265
	EARNED VALUE	51	107	169	262	338	388	502	557	615	701	772		
	ACTUAL	26	58	74	107	148	207	244	291	325	376	425		
	VAR/SCH	0	4	(18)	(37)	(50)	(26)	(63)	(62)	(61)	(53)	(53)		
	VAR/COST	25	49	95	155	190	181	258	266	290	325	347		
FUNDING	FY95 FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0
	PREV. FUNDED	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL FUNDING	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 18. Environment, Safety, and Health Financial Status

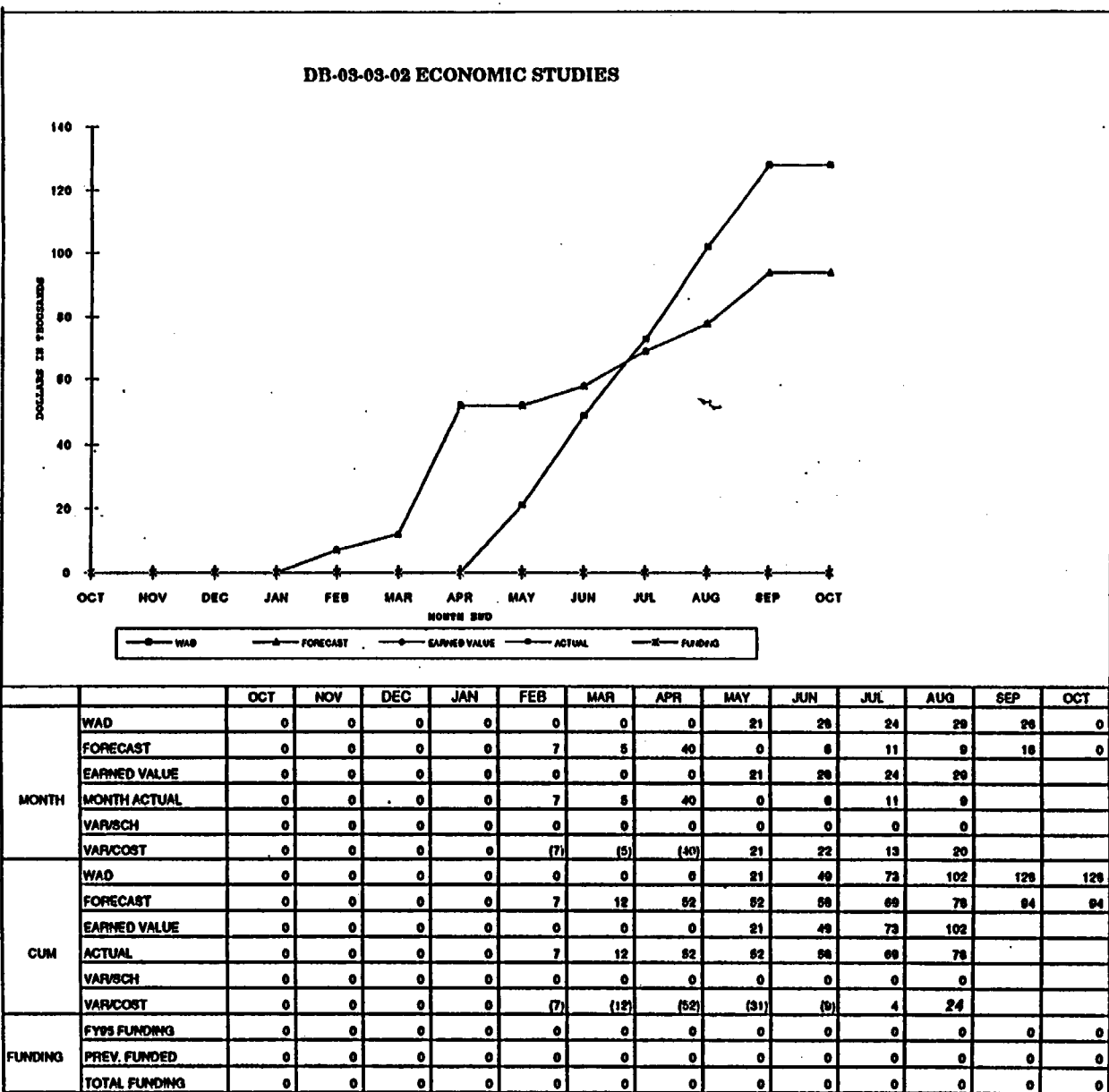
DB-03-03-02 ECONOMIC STUDIES

Figure 20. WAST Project Staffing

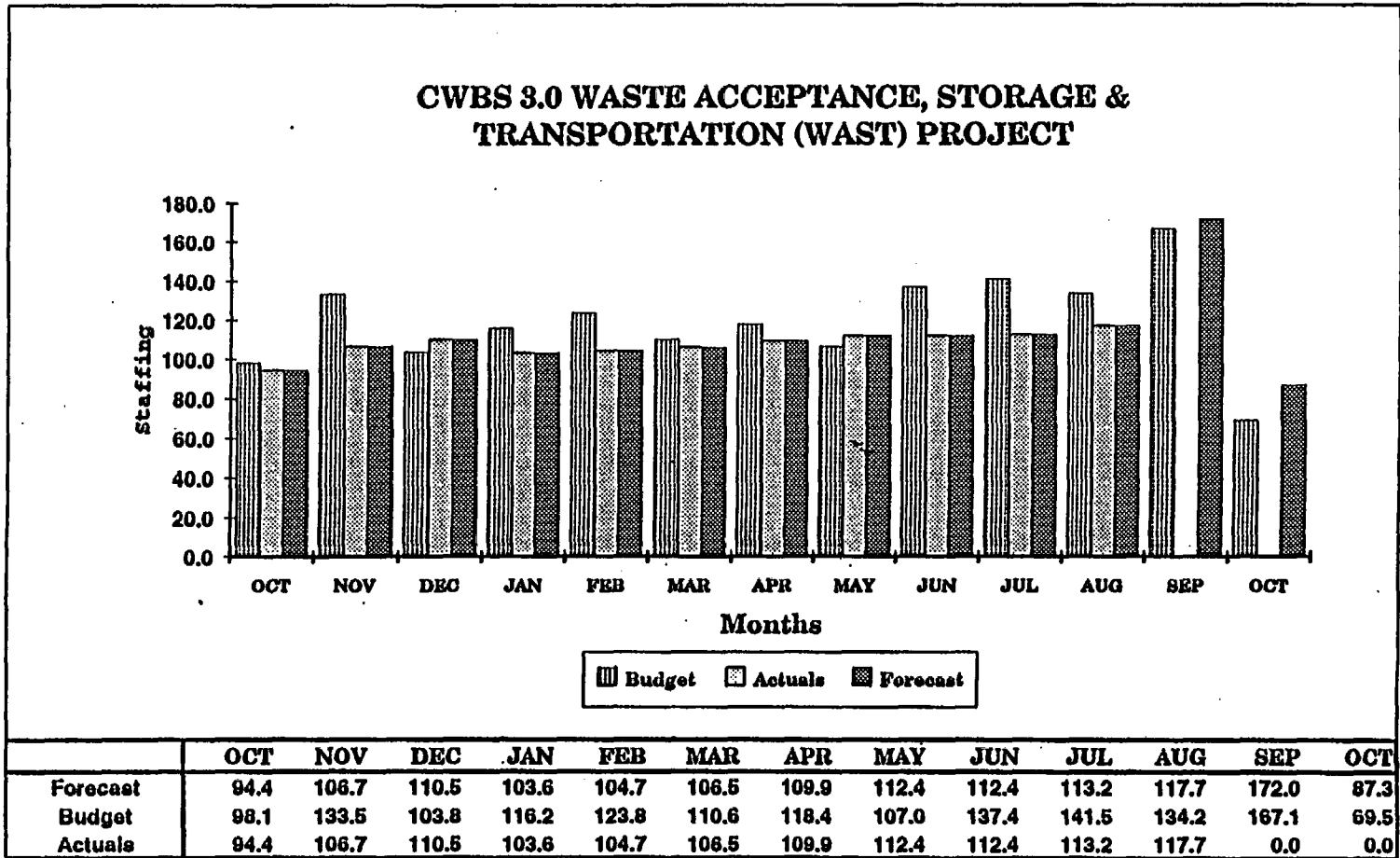


Figure 21. WAST Project Key Milestone Schedule

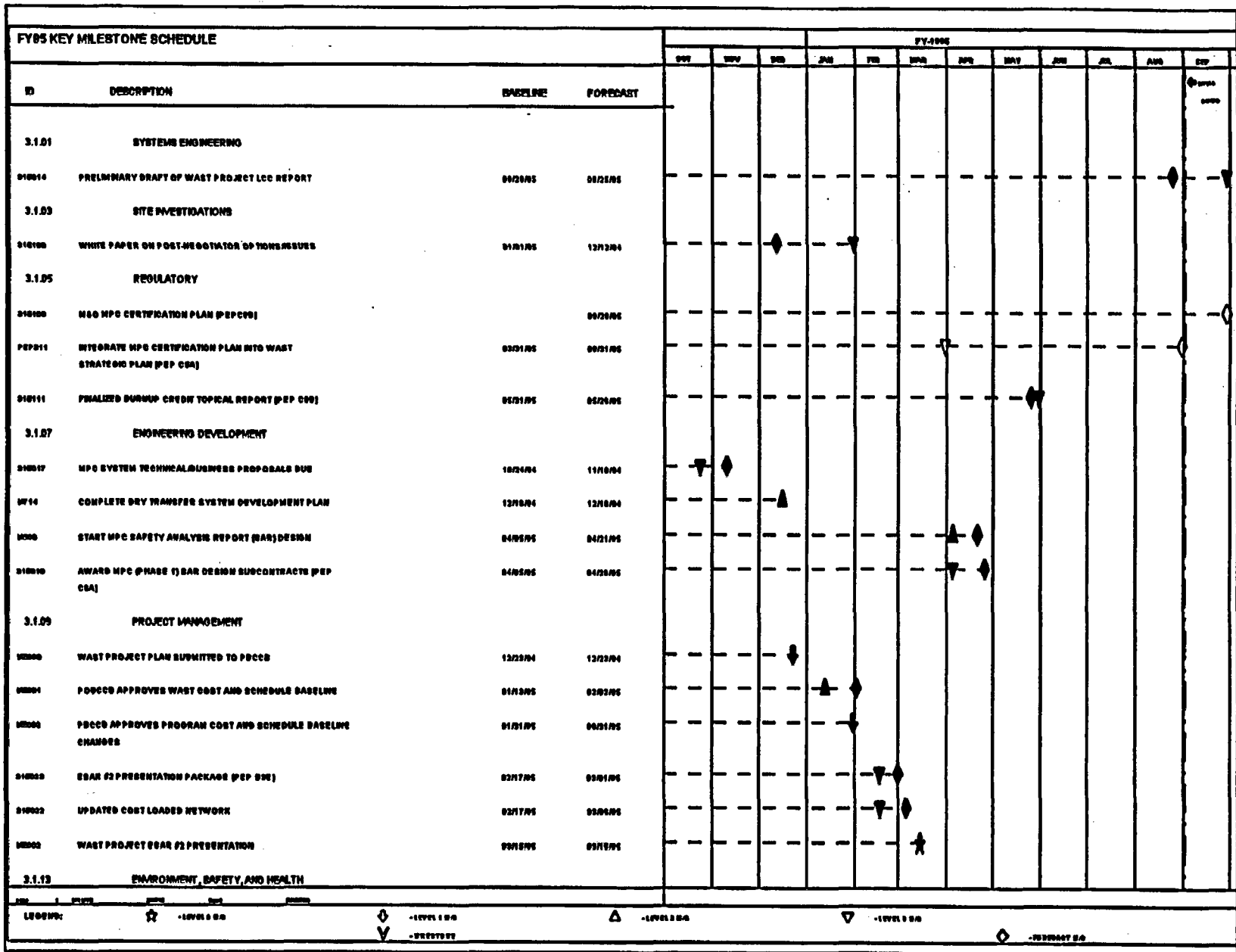


Figure 21. WAST Project Key Milestone Schedule (Continued)

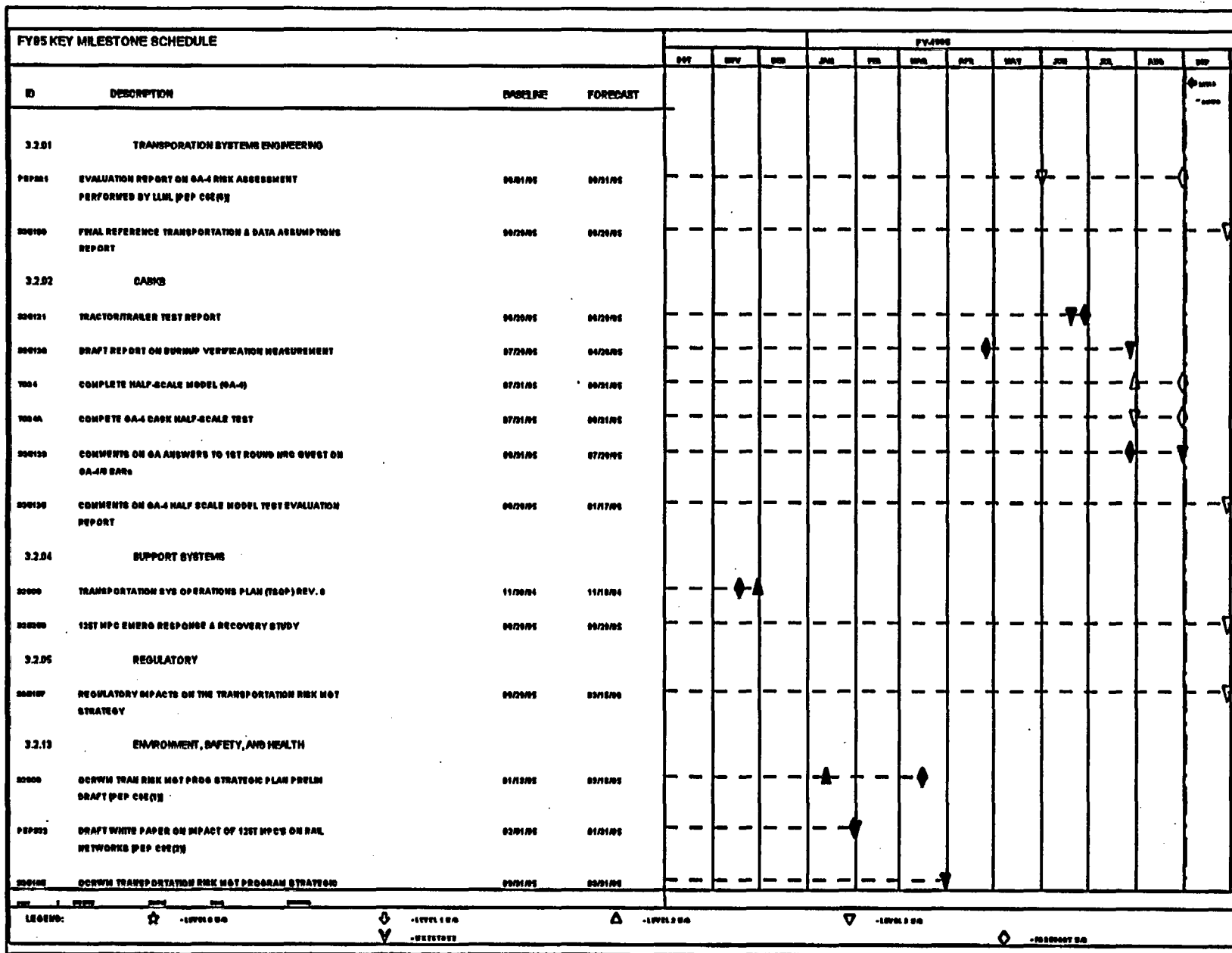


Figure 21. WAST Project Key Milestone Schedule (Continued)

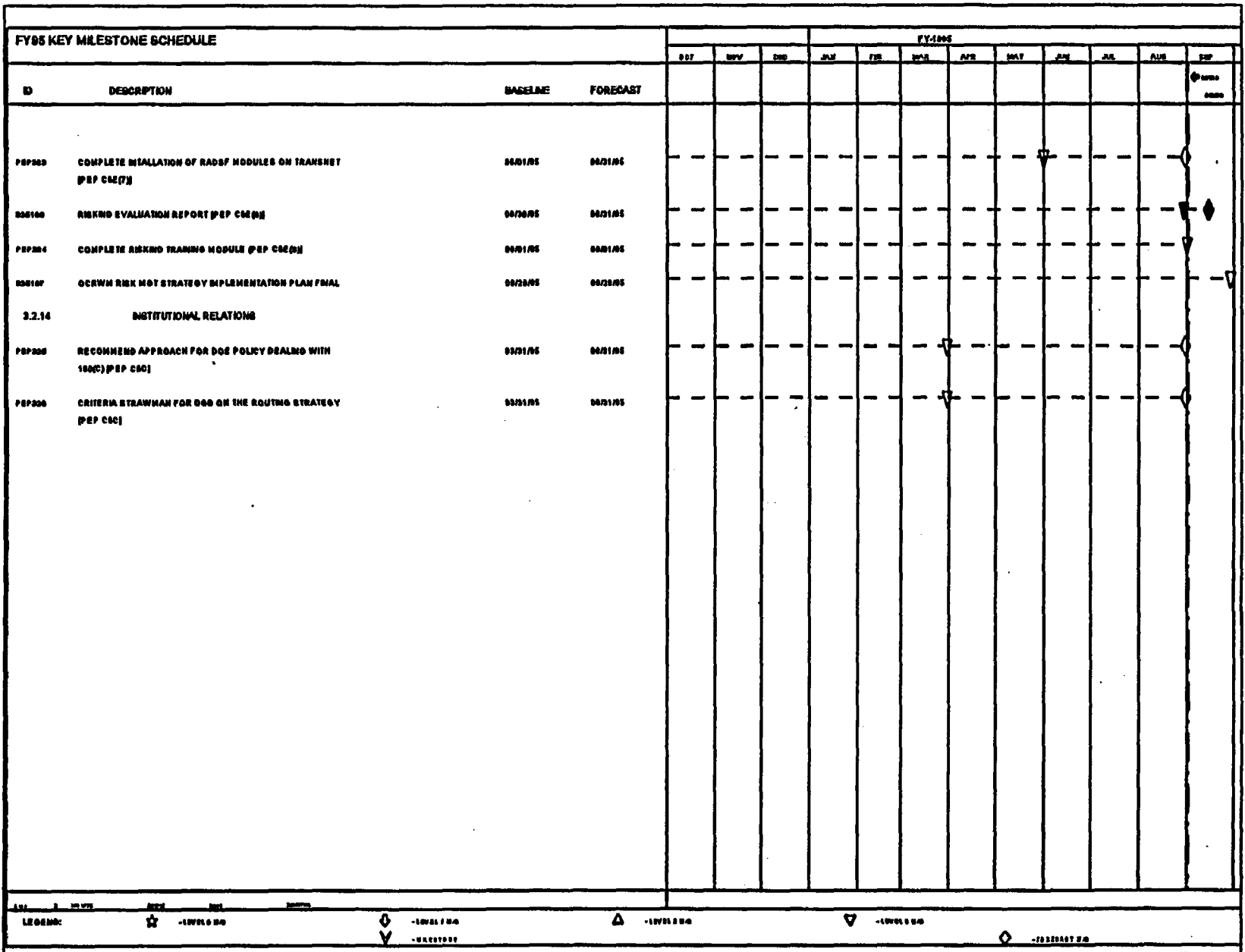
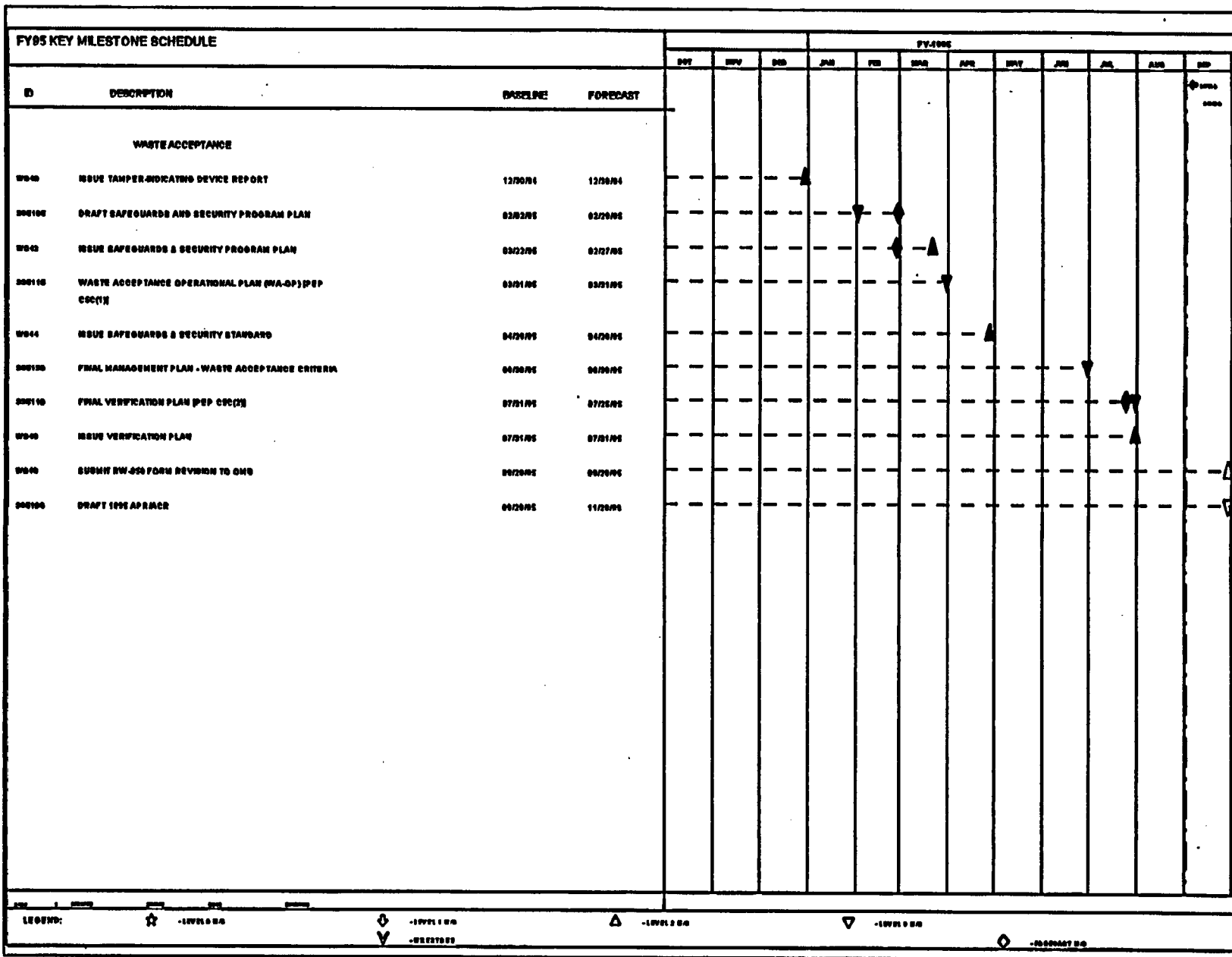


Figure 21. WAST Project Key Milestone Schedule (Continued)



INTENTIONALLY LEFT BLANK

4. PROGRAM SUPPORT

CWBS 9.0

4.1 PROGRAM QUALITY ASSURANCE

CWBS 9.1

MANAGER: R. P. Ruth

OBJECTIVE(S): Establish a quality assurance program that meets OCRWM Program Quality Assurance Requirements and Description (QARD) requirements and is maintained through surveillances and reviews of all CRWMS M&O quality-affecting activities.

4.1.1 Progress During Report Period

Las Vegas

- Approved the following procedures: Nevada Line Procedure (NLP) 3-28, Revision 0, Checklist for Design Products; NLP-2-4, Revision 0, Borehole Protection and Access; NLP-SIII-3, Revision 0, Borehole Protection and Access; NLP-SIII-3, Revision 0, Borehole History Reports; NLP-17-6, Revision 0, Record Source Responsibilities for Inclusionary Records (Nevada Site); NLP-17-7, Revision 0, Receiving and Indexing Inclusionary Records (Nevada Site); Technical and Management Support Systems (T&MSS) procedure SP 1.37, Revision 8, Deficiency Reporting System; Quality Administrative Procedure (QAP)-3-6, Revision 3 (cancellation), Configuration Items (CIs) and CI Identifiers; and QAP-3-13, Revision 3 (cancellation), Document Identifiers.
- Issued Surveillance Report 95-NSS-42 "Waste Package Development," 95-NSS-050 "Impact Review for QAP-3-4," 95-NSS-051 "Preparation of Nevada Work Instructions," and 95-NSS-052 "Field Logging, Handling, and Documenting Borehole Samples."
- Submitted the final 2nd quarter 1995 Trend Analysis Report for T&MSS in accordance with the OCRWM Transition Plan and the 2nd Quarter M&O Trend Report.
- Submitted the final June and July T&MSS Monthly Report to DOE QA in accordance with the OCRWM Transition Plan.
- Supported the Operational Readiness Review for closure of Hold Points for Phase 4 of the Tunnel Boring Machine (TBM). All Hold Points are now complete, and the TBM was given the go ahead to use the Muck Conveyor System.
- Completed Supplier Evaluation Reports for Analytics Inc. and Met One Instruments to enable these vendors to remain on the Approved Supplier List.

- Completed the Compensatory External Review in accordance with the M&O Management Plan on Waste Package Closure Development Technical Guidelines Document, Revision 00.

Vienna

- Observed the OCRWM audit of Westinghouse GESCO QA Program in Oak Ridge, TN, the week of August 21, 1995. The audit resulted in an overall unsatisfactory evaluation with unsatisfactory given in elements II, IV, VII; XVI and XVII. Expect 2 Corrective Action Requests, 11 Deficiency or Performance Reports, and 12 Deficiencies Corrected During Audit to be issued as result of the audit.
- Issued Surveillance Reports: 95-VIS-30 "Impact Reviews," 95-VIS-32 "Observation of GESCO Audit of Society of Economic Geologists (SEG)," and 95-VIS-033 "Position Descriptions and Associated Verifications." Currently working surveillances: 95-VIS-029 "Design Analyses," 95-VIS-34 "Observation of GESCO Audit of PacTec," 95-VIS-035 "MPC Deliverables," 95-VIS-36 "GESCO Evaluation of Sub-tier Suppliers," 95-VIS-039 "Qualification of ORIGEN ARP Software," and 95-VIS-040 "GESCO Surveillance of PacTec."
- Prepared OCRWM Supplier Evaluation Report on Ludlum Measurements, Inc., recommending they remain on the Qualified Supplier List without restrictions.
- Completed the Draft QA Design Systems Engineering section of the MPC Part 60 Design Consideration Report.
- The Technical Document Preparation Plan of the Interface Control Document was approved following comment resolution.
- Completed QAP-3-1 review for the following: Multi-Purpose Canister (MPC) Subsystem Design Requirements Document, Revision 01A; MPC Transportation Cask Subsystem Design Requirements Document, Revision 01A; the On-Site Transfer (OST) and On-Site Storage (OSS) Subelements Design Requirements Document, Revision 01A; and the Waste Handling Building Final Design Report.

4.1.2 Issues and Concerns

- None.

4.1.3 Variances

- The cumulative cost variance of \$415K/12% is due to underruns in labor and associated travel and relocation as a result of the January transfer of the audit function to OCRWM, the deletion of MPC potential vendor reviews, and the departure of one individual without replacement. There are no program impacts and no corrective action is required. Currently forecasting \$321K underrun at year-end.

Figure 22. Program Quality Assurance Financial Status

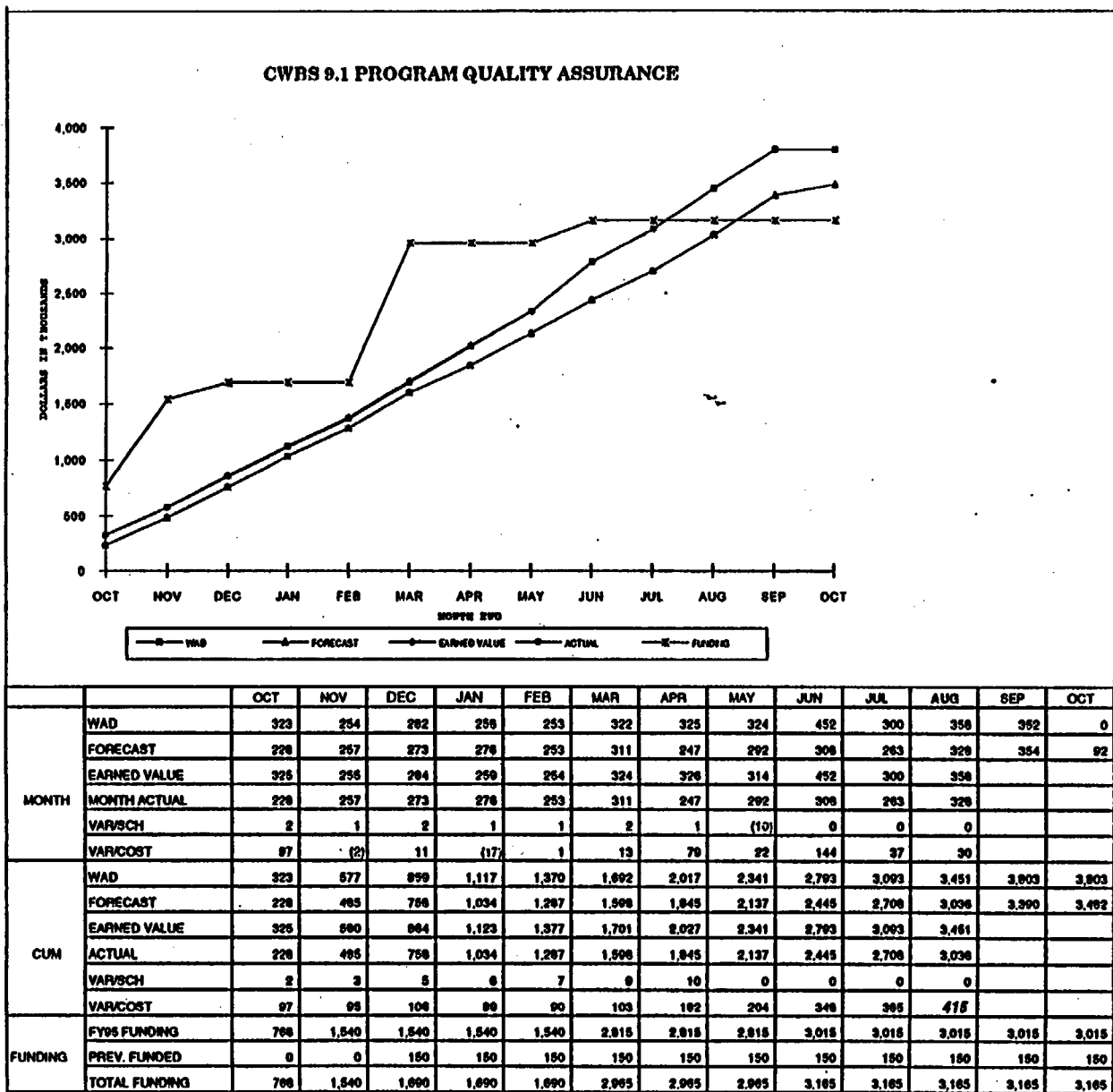
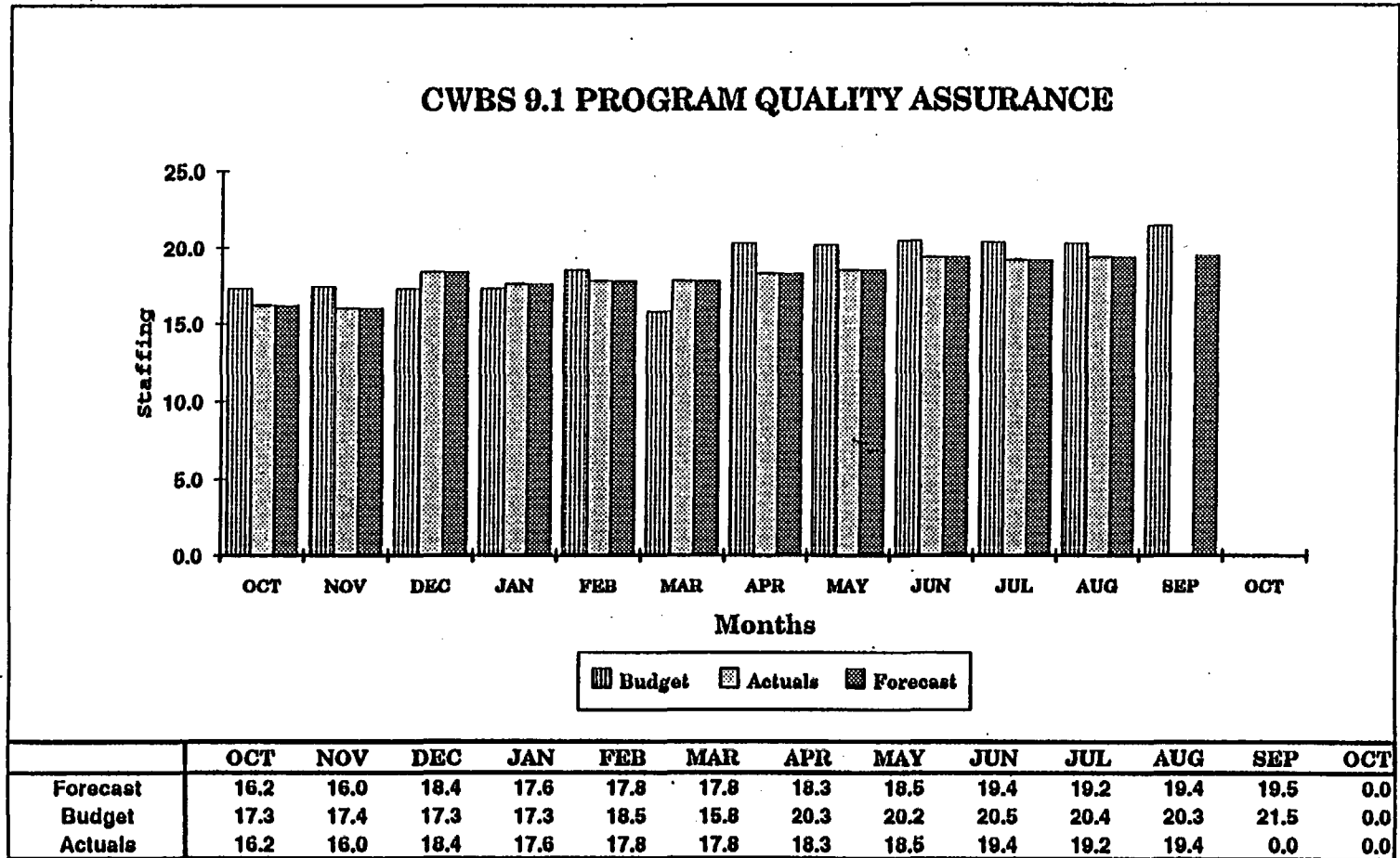


Figure 23. Program Quality Assurance Staffing



4.2 PROGRAM MANAGEMENT AND INTEGRATION

CWBS 9.2.1, 9.2.2, 9.3.2, 9.3.3, 9.3.5

4.2.1 Systems Integration

MANAGER: J. J. Miller

OBJECTIVE(S): Develop management system documentation, develop automated system for the management of system requirements, integrate engineering specialties, perform system safety and risk assessments, and establish technical performance measurement system and conducts evaluation. Identify systems analysis requirements; develop, integrate, and allocate system requirements; develop program test and evaluation program; maintain the system technical baseline; and verify the adequacy of designs and construction and compliance with system requirements.

4.2.1.1 Progress During Report Period

System Planning and Integration

- Published the final draft 1995 Total System Life Cycle Cost (TSLCC) analysis on August 14, 1995. The final draft TSLCC total cost is \$33.1B (FY94 dollars), including \$17.3B for the Yucca Mountain repository. The repository cost reflects a cost reduction of \$1.33B from the previous estimate published in May 1995. Modeling improvements and design related updates accounted for \$1.1B of the reduction. The remainder resulted from implementation of several ICE suggestions.
- Delivered a Baseline Change Proposal (BCP) for Revision 4 of the Program System Engineering Management Plan (SEMP). Established a working group composed of MGDS, WAST, and PM&I representatives to determine the scope for developing a single strategic engineering management plan in FY96. This plan will define and integrate technical efforts across the program.
- Delivered a camera-ready copy of the Program Test and Evaluation Master Plan (TEMP), Revision 0. The TEMP, which was approved by the Program Baseline Change Control Board (PBCCB) on August 17, 1995, provides the initial definition of program level policy on OCRWM test activities.
- Delivered a draft of the Program Concept of Operations (CONOPS). This version of the CONOPS, together with the Conceptual System Description delivered earlier in the year, provides the basis for a Total System Description. Several versions of the CONOPS at varying levels of detail are being considered to satisfy alternative objectives.
- DOE managers of PM&I, OWAST, and MGDS formally approved the Interface Control Working Group (ICWG) charter, which included the first definition of the interface management process to be used on a program-wide basis.

- Coordinated and participated in the program ICWG meeting on August 15, 1995. Delivered Revision 0 of the MGDS/Transportation Interface Control Document (ICD) to the ICWG for review and approval. This ICD defines the known characteristics of the interface between the MPC and Waste Package design.
- Agreed upon a process to exchange interface information through formal contractual representatives during the MPC Conceptual Design Review. Identified and discussed several issues regarding interfaces with other elements of the program.

System Requirements and Design

- Initiated the QAP-3-1 review of the Storage System Requirements Document (SRD). Comments are due by September 13, 1995.
- Participated in the requirements review of the MGDS-RD draft, Revision 02, in Las Vegas. Approximately 15 representatives of project systems engineering, design (Exploratory Studies Facility, surface, subsurface, and waste package), QA, licensing, specialty engineering, and YMSCO attended. The most detailed comments were made on Sections 3.1.5 (Major Considerations and Assumptions), 3.7.2 (Repository Segment Requirements), and 3.7.3 (Engineered Barrier Segment Requirements). Briefed and discussed comments and suggestions for changes with RW-37. Coordinated changes are now being implemented in the RW-37 review draft.
- Resolved issues, documented resolution, and completed production of the CRWMS Requirements Document (CRD) concurrence draft, Revision 02D, scheduled for distribution on September 1, 1995.
- Submitted compiled review comments on the Environmental Restoration and Waste Management (EM)-37 DOE Spent Nuclear Fuel (SNF) Planning Documents to RW-37. Comments were provided by M&O representatives, Radioactive Waste (RW), and Weston.
- Prepared a draft report for the Program Task Team to submit to the DOE SNF Steering Group. The report proposes a strategy, including specific tasks, for resolving Program Task Team issues. Issues are Physical Characteristics and Quantity, Resource Conservation and Recovery Act Determination, NEPA Coordination, Quality Assurance, and Programmatic Schedule Integration. Input has been received from EM, RW, Weston, and M&O. Distributed the draft report to the Program Task Team members for review with comments due by August 23, 1995.
- Submitted the OCRWM Drafting Symbols report to RW-37 for OCRWM approval.

4.2.1.2 Issues and Concerns

- None.

4.2.2 Regulatory and Licensing CWBS 9.2.2

MANAGER: D. F. Fenster

OBJECTIVE(S): Coordinate and develop an integrated OCRWM programmatic approach and strategies for regulatory compliance and licensing issues. Coordinate and develop regulatory interpretation and guidance documents. Lead the National Environmental Protection Agency (NEPA) policy and compliance approach process. Serve as a point of contact on policy for environmental, safety and health compliance. Coordinate and facilitate NRC interactions.

4.2.2.1 Progress During Report Period

Licensing and Regulatory Program Support

- Completed development of the Regulatory Tracking System (RTS). Successfully demonstrated RTS to RW-36 and YMSCO on August 23, 1995.
- Prepared a draft action plan for tracking and reporting periodically to RW-2 on submittals to the NRC by the Mescaleros or industry in the area of ISFSI, storage, and transportation casks.
- Provided RW-36 with a record of all correspondence between utilities and NRC relevant to ISFSIs and storage and transportation casks.
- Prepared several briefings for RW-2, including the NRC's NEPA Track Record on Licensing Actions and Lessons Learned from the NRC rejection of the U.S. Uranium Enrichment Corporation application for certification.
- Received an August 18, 1995, memorandum from the NRC providing formal notification that the Licensing Support System (LSS) Advisory Review Panel provided its final approval of the Phase 1 LSS Functional Requirements.

Programmatic Regulatory Integration Activities

- Prepared the RW-40 Informal Self-Assessment questionnaire and revised the Self-Assessment Implementation Plan to reflect the RW-40 reorganization.
- Supported the working group on the Yucca Mountain standards by preparing a comparison summary table of 40 Code of Federal Regulations (CFR) 191, DOE recommendations to the National Academy of Sciences (NAS), and the recently issued NAS recommendations to Environmental Protection Agency (EPA) regarding the Yucca Mountain standards.

External Integration

- Gave a 1-hour presentation to the Nuclear Information and Records Management Association on "Contents of the Licensing Support System."

Regulatory Policy and Requirements

- Reviewed and commented on the Preliminary Draft Nevada Test Site Environmental Impact Statement.
- Coordinated M&O HQ, Weston, RW-40, and Argonne National Laboratory comments on Draft NTS EIS Transportation Study.
- Reviewed the Chapters 1, 2, and 3 and Appendices A, B, C, and D of the Long-Term Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement.
- Provided M&O YMSCO with possible questions and answers for the Repository EIS public scoping meetings.
- Prepared a briefing titled "Repository EIS Summary Briefing" for the OCRWM NCO to present at the September 6, 1995, DOE/NRC Management Meeting.

Regulatory Compliance and Guidance Support

- Developed a rationale for OCRWM to obtain an exemption from the requirement for a 5-year ES&H Management Plan.

4.2.2.2 Issues and Concerns

- Evaluation of the OCRWM licensing strategy and regulatory compliance program in the context of a constrained budget and revised program approach is a concern.

4.2.3 Strategic Planning

CWBS 9.3.2

MANAGER: F. Ridolphi

OBJECTIVE(S): Provide complete strategic and system analyses to DOE OCRWM and to the general manager of the M&O contract

4.2.3.1 Progress During Report Period

- Provided an Estimate to Complete update at the end of FY95 for the Weston, Kenrob, and SAIC contracts to RW-1. Prepared this input in conjunction with Program Control and provided data on cost status for these contracts.
- Developed a position paper discussing the merits and disadvantages of using the Program Plan Volume I as the Program Execution Plan (PEP) for the Energy System Acquisition Advisory Board (ESAAB). The paper recommends that the Program Plan and the PEP be separate documents because the Program Plan provides the Congress and stakeholders a description of the Program through the Budget years, while the PEP provides a concise description of the Program Baseline to the ESAAB. RW-35 is evaluating the paper and will provide direction.
- Worked with Weston and RW-34 in developing a concept for a "Virtual Book" that will contain information regarding the program and its status. The "Virtual Book" is an electronic database planned to replace the Director's Resource Book and other information databases to eliminate duplication and provide up-to-date information to anyone in the program.
- Developed a draft guidance package for preparation of the FY97 OMB Budget submittal. The package was provided to RW-34 who used it to prepare OCRWM for the contingency planning discussions on August 31, 1995.
- Developed a package describing the program for the new CRWM's OMB Budget Examiner. The Package synopsized the Program Plan and identified the activities and studies currently being funded by OCRWM.
- Identified several milestone issues requiring resolution between the December 1994 Program Plan and the FY95 Annual Work Plan before finalizing a redline/strikeout of the Program Plan. The data was also used by RW-35 to brief the status of the change control process at the Directors Program Review (DPR).

4.2.3.2 Issues and Concerns

- None.

4.2.4 International Waste Management Technology CWBS 9.3.3

MANAGER: F. Ridolphi

OBJECTIVE(S): Maintain an awareness of international activities relating to the disposal of spent fuel and high-level waste (HLW) in order to integrate information from these foreign programs into the domestic program. Report on special issues regarding international program activities and provide specific recommendations.

4.2.4.1 Progress During the Reporting Period

- Reviewed existing U.S. bilateral agreements with Sweden, Switzerland, and Canada to evaluate the tasks to be carried out under the cooperative agreements and determine their relative importance to the Yucca mountain project. Budgetary analyses were subsequently made based on these priorities for work relating to the geologic disposal program to be performed at the U.S. laboratories and abroad.
- Submitted a summary report on all available data at the Department on interim storage in other countries.

4.2.4.2 Issues and Concerns

- None.

4.2.5 Program Control and Administration

CWBS 9.3.5

MANAGERS: J. L. Stern/M. H. King

OBJECTIVE(S): Provide Program Control and Administrative support to OCRWM by implementing and maintaining a Program Control System (PCS) for the program and program support elements. Prepare Monthly Program Status Reports and Charts and bi-monthly Director's Program Reviews (DPRs). Develop the FY95 Total System Life-Cycle Cost (TSLCC) analysis; maintain the Program Cost and Schedule Baseline (PCSB) and WBS dictionaries; and publish weekly and bi-weekly reports from the Management Tracking System (MTS) and Operations Management Tracking System (OMTS) databases.

4.2.5.1 Progress During Report Period

- Submitted the preliminary draft Baseline Change Proposal (BCP) to incorporate the Program Integration Element, new milestone criteria, and prior projects into the Program Cost and Schedule Baseline (PCSB). Supported the evaluation of (YMP) and WAST baselines submitted as BCPs to the Program Baseline Change Control Board. All three BCPs support the planned baselining of the Program Approach in September.
- Continued preparing the OCRWM Cost and Schedule Estimating Requirements Document and reviewing the Gruber & Flannery initial draft of the OCRWM Cost Estimating Guide. Both documents support the improvement of cost and schedule estimating throughout the OCRWM Program.
- Supported the OCRWM Management Systems Working Group whose purpose is to gain consensus on the single management policy suite supporting the Strategic System concept. Continued developing the OCRWM Planning and Control System Description under the single management policy suite and will standardize planning and control across the OCRWM organization.

4.2.5.2 Issues and Concerns

- None.

4.2.6 Program Management and Integration Variances

- PM&I cost and schedule variances are within tolerance.

Figure 24. Program Management and Integration Financial Status

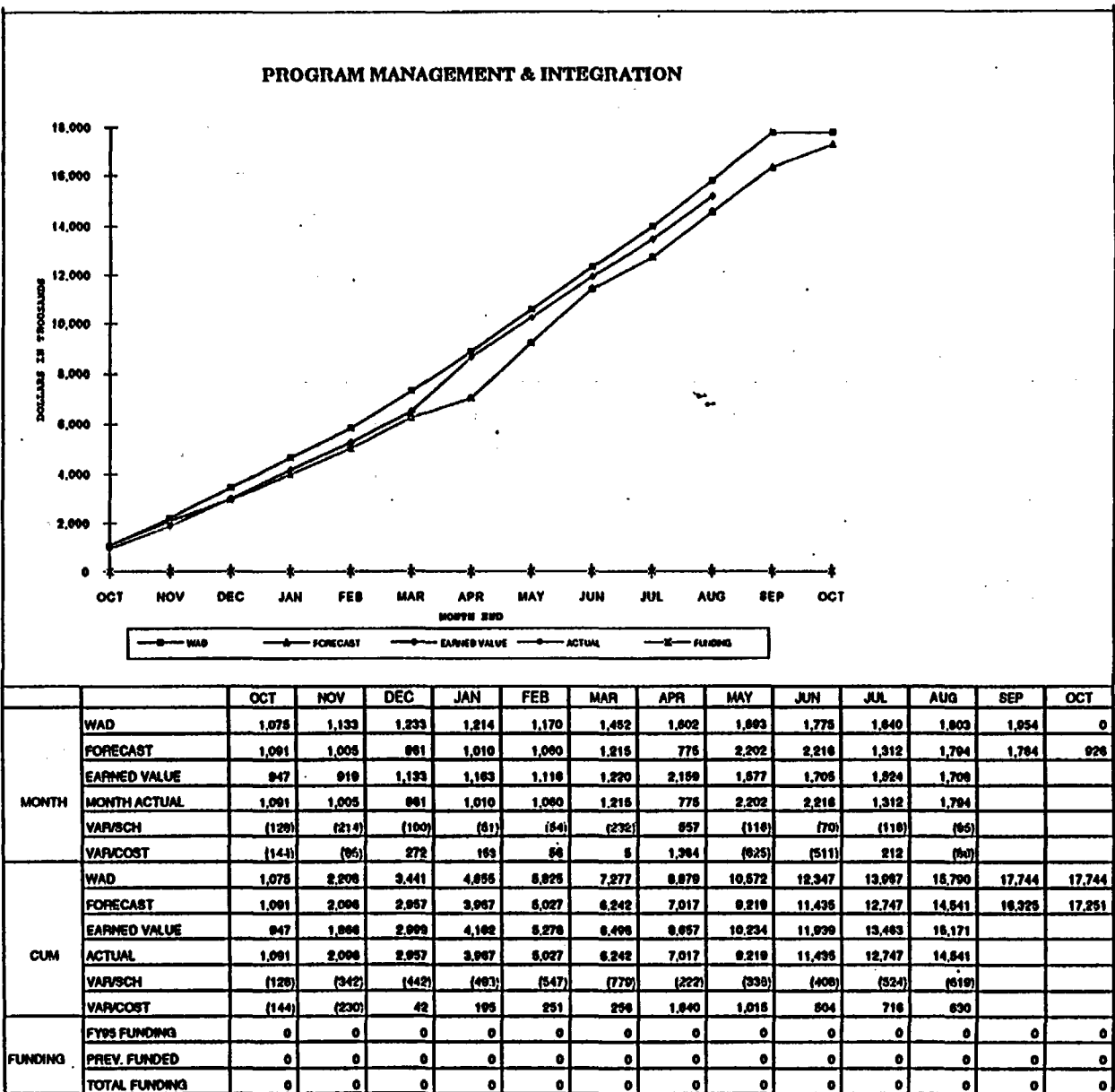


Figure 25. Program Management and Integration Staffing

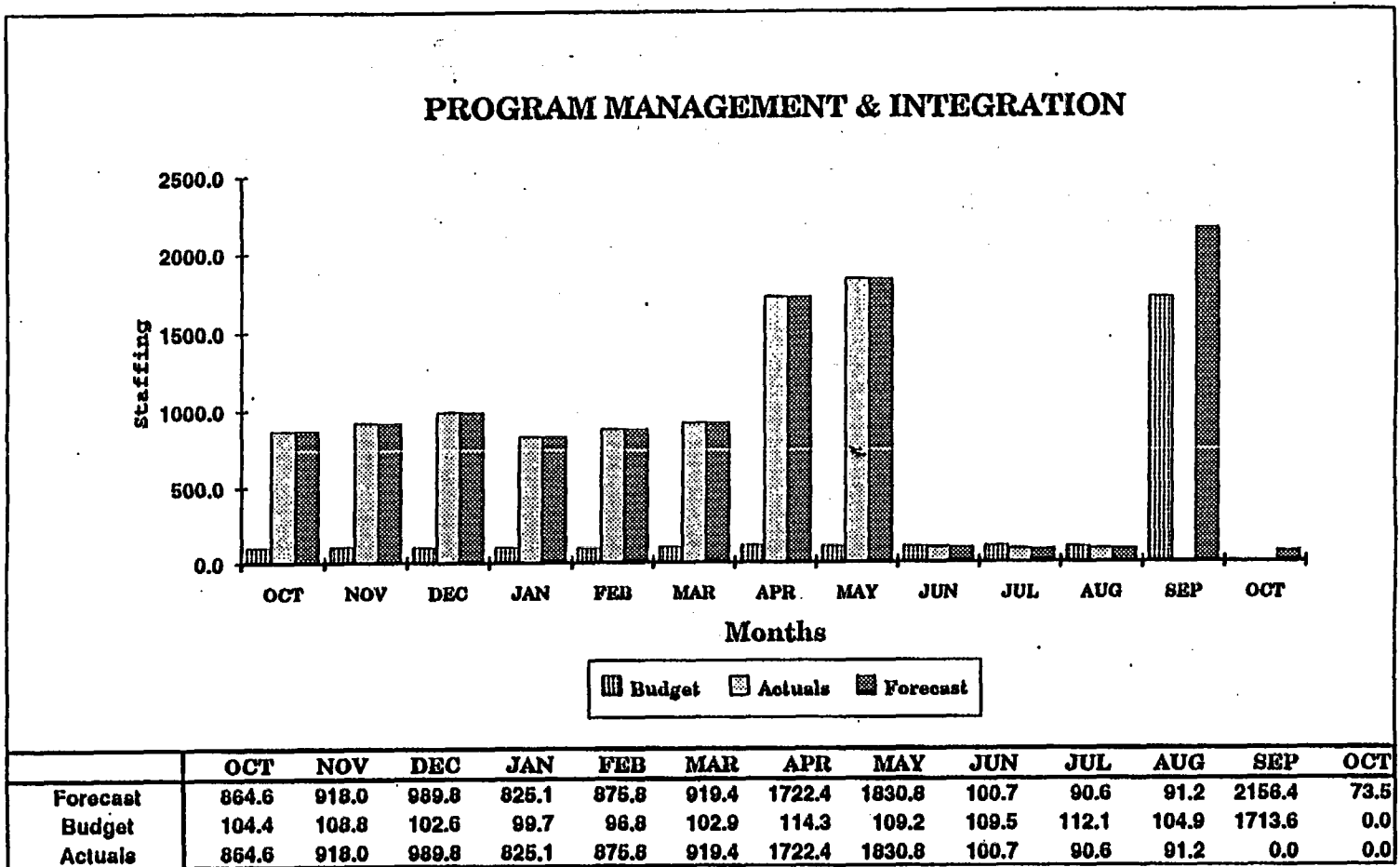
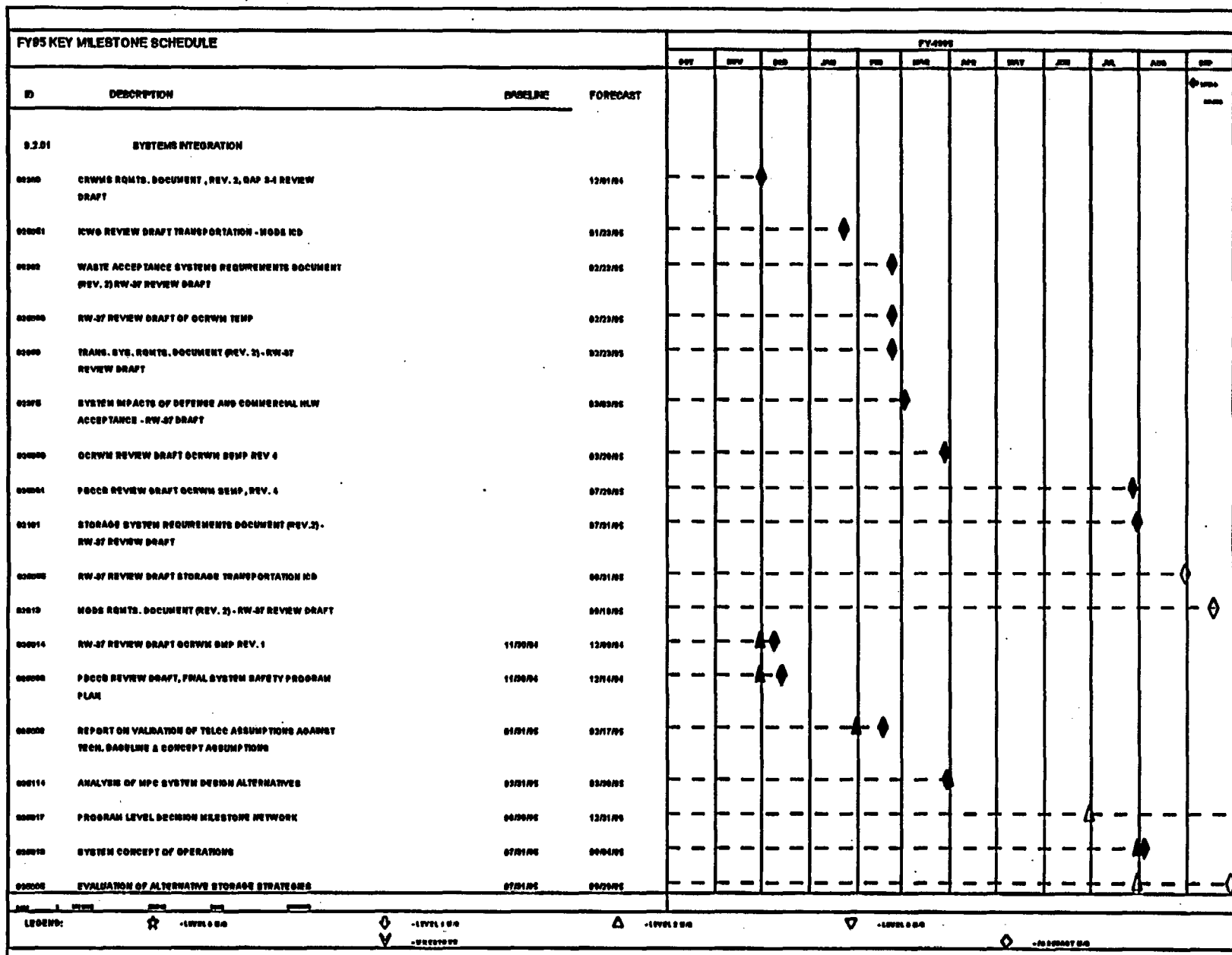


Figure 26. Systems Integration Key Milestone Schedule



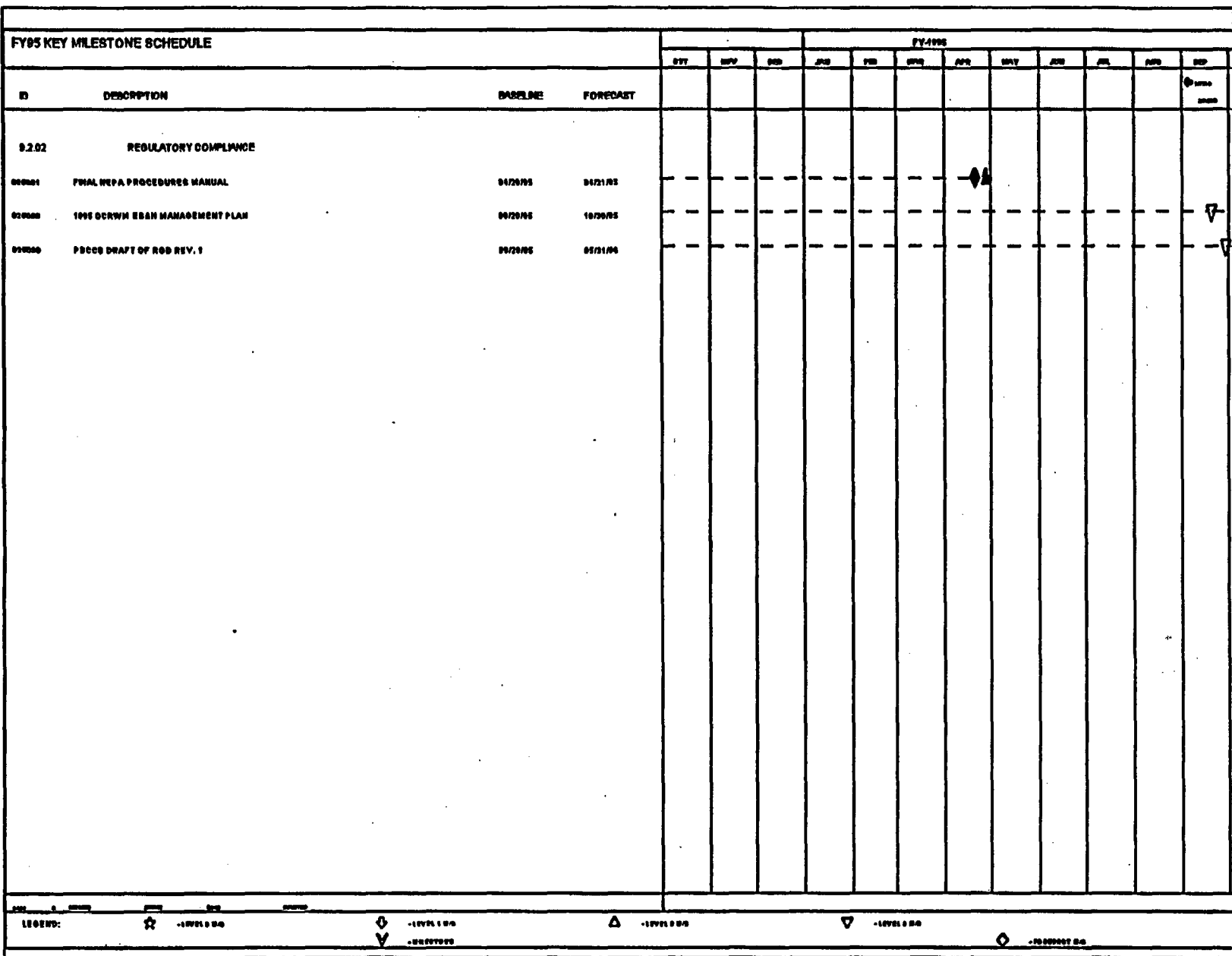
FY95 KEY MILESTONE SCHEDULE				FY-1995												
ID	DESCRIPTION	BASELINE	FORECAST	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
000013	UPDATES TO THE CONCEPTUAL SYSTEM DESCRIPTION	00/01/95	00/00/95	-	-	-	-	-	-	-	-	-	-	-	-	-
000009	DEVELOPMENT OF INTEGRATED DESIGN BASH FUEL DESCRIPTION	00/00/95	00/00/95	-	-	-	-	-	-	-	-	-	-	-	-	-
000030	PROGRAMMATIC RISK ANALYSIS	00/00/95	03/20/96	-	-	-	-	-	-	-	-	-	-	-	-	-
000037	CM PHASE 3 ACCEPTANCE TEST	10/01/96	10/01/96	-	-	-	-	-	-	-	-	-	-	-	-	-
000030	CM PHASE 3 OPERATIONAL (PEP 100)	02/10/96	02/10/96	-	-	-	-	-	-	-	-	-	-	-	-	-

100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100%
 LEGEND:

- LEVEL 1 M/D
 - LEVEL 2 M/D
 - LEVEL 3 M/D
 - FORECAST M/D

Figure 26. Systems Integration Key Milestone Schedule (Continued)

Figure 27. Regulatory and Licensing Key Milestone Schedule



4.3 EXTERNAL RELATIONS AND INFORMATION RESOURCE MANAGEMENT

CWBS 9.3.4, 9.3.6

4.3.1 External Relations

CWBS 9.3.4

MANAGER: K. H. Whitney

OBJECTIVE(S): Manage and operate the OCRWM National Information Center; develop, implement, maintain, integrate, and disseminate program-wide public, educational, and technical information materials, including publications, audiovisual resources, video productions, exhibits, presentations, briefings, INFOLINK, and OCRWM Home Page; manage the inventory of materials; and implement the program-wide integration of DOE communications policies and publications procedures.

4.3.1.1 Progress During Report Period

Communications Integration

- Delivered the Communications Integration Activity Report covering the first three quarters of FY95.
- Conferenced with M&O/YMSCO and M&O/OWAST exhibit coordinators to discuss FY96 exhibit schedules. Identified ways to reduce duplications in effort and better use resources.
- Met with Stakeholder Mailing List Working Group to finalize data formats; the OCRWM Calendar and the Utility Information Center Point of Contacts mailing lists are being converted, and the OCRWM Bulletin mailing list is being evaluated for inclusion at a later date. Took responsibility for writing the procedures manual to establish guidelines for administration, maintenance, and updating the mailing list database.

Public Information

- Delivered the summer 1995 issue of the OCRWM Bulletin. Wrote and edited articles for the fall 1995 issue and delivered the first draft to RW-15 for initial review.
- Delivered the OCRWM Standard Briefing, August 1995 edition.
- Delivered the proposed FY96 exhibit schedule.
- Prepared requests for bids to update graphics and text for nine program-wide exhibits.
- The OCRWM Home Page was accessed 21,950 times during the month of August compared with 12,954 times during July.

- Demonstrated the Digital Media Database to RW-34 and subsequently installed the system for Rapid Response Team members and provided training as requested. Added the May and August editions of the OCRWM Program Briefing Book and the January 1995 Standard Briefing to the DMD system.
- Responded to 276 requests for various types of information received from a variety of sources.
- Continued tasks relating to transition of Oak Ridge, TN, warehouse to Beatty, NV, including completing loading the entire inventory of OCRWM documents housed in the Oak Ridge facility and dispatching trucks to Nevada; developing FY95 and lifetime (January 1, 1986 through July 28, 1995) distribution information; completing preparations for shipping Oak Ridge warehouse's master record files to M&O headquarters Records Management.

Education Programs

- Prepared a camera-ready copy of the second edition of Science, Society, and America's Nuclear Waste and met with DOE/OCRWM printing specialists regarding printing specifications. Started implementing plan to market the revised curriculum, including drafting and preparing for RW-15 letters to teachers and education coordinators announcing the edition's availability; and designing and delivering advertisements for publications of the National Science Teachers Association and the National Council for the Social Studies and for Teacher Magazine, and Education Week.

International

- Delivered an International Activities Report covering the second and third quarters of FY95.

4.3.1.2 Issues and Concerns

- None.

4.3.2 Information Management Services CWBS 9.3.6

MANAGER: C. L. Kerrigan

OBJECTIVE(S): Evaluate, develop, and implement plans, policies, procedures, and information systems to facilitate the management of OCRWM program information, data, and records. Operate, maintain, and provide enhancements to the Records Data Management System (RDMS) for the storage and retrieval of electronic images of OCRWM records. Manage and operate the OCRWM Records Management System. Operate OCRWM's Quality Records Center, Correspondence Control Unit, and Mail Room. Provide computer operations and support to the M&O Vienna and Capital Gallery facilities.

4.3.2.1 Progress During Report Period

- Hosted the 19th annual Nuclear Information and Records Management Association (NIRMA) Symposium at the Washington Omni Shoreham August 27-30, 1995. The symposium included a challenging technical program, relevant vendor exhibits and presentations, and noted guest speakers including Commissioner Jackson of the NRC.
- Completed development of the Slide Show Viewer for the Digital Media Database (DMD) to enable users to view "full-size" images in sequence without having to go back to the thumb-nail for each image and enlarge it.
- Delivered modifications to the unified Quality Records Center (QRC) system. QRC will continue to evaluate the system; the final version will include migrating data from current dBASE applications.
- The Records Data Management System (RDMS) incorporated a new commercial off-the-shelf (COTS) package (Corel CD-Creator) to enable the CD writing process. The process can be done entirely in Windows with the new COTS package.
- Continued to make revisions to the Records Awareness CBT application in response to significant feedback from the pilot users.
- Submitted the OCRWM Records Management Order to HQ Administration Division Director for sign-off by RW-1.
- Provided a Uniform File System (UFS) database demonstration for the RW-1 Special Assistant to the Director for Administration, HQ Administration Division Director, and HQ IM team members. The presentation was well received, and a decision was made to use the UFS database for RW-1 and RW-2 central files. Temporary staff were hired and trained and are implementing the database.

- Received direction from the HQ IM Team Leader to defer all planned records reprocessing activities for FY95 due to anticipated budget constraints.
- Provided OCRWM IM team leaders with access to the Lotus Notes "Application Development and Enhancements" database for consideration as a tool for coordinating software activities with cognizant IM team leaders and OCRWM IM.
- Obtained HQ QA Division Director approval to manage and distribute QAPs on-line.

4.3.2.2 Issues and Concerns

- None.

4.3.3 External Relations and Information Resource Management Variances

- The cumulative cost variance of \$1,378/11% is due to a \$365K/18% underrun in External Relations and a \$1,013/10% underrun in Information Resource Management. The cost underrun in External Relations is due to ODC purchases occurring later in the fiscal year than planned and staff vacancies. The cost underrun in Information Resource Management is due to delayed or deferred staffing and delayed booking of long-lead ADP commitments. Technical Direction Letters are being processed for work being completed in FY96. Purchase order commitments not costed by fiscal-year end will book in FY96.

Figure 32. External Relations Financial Status

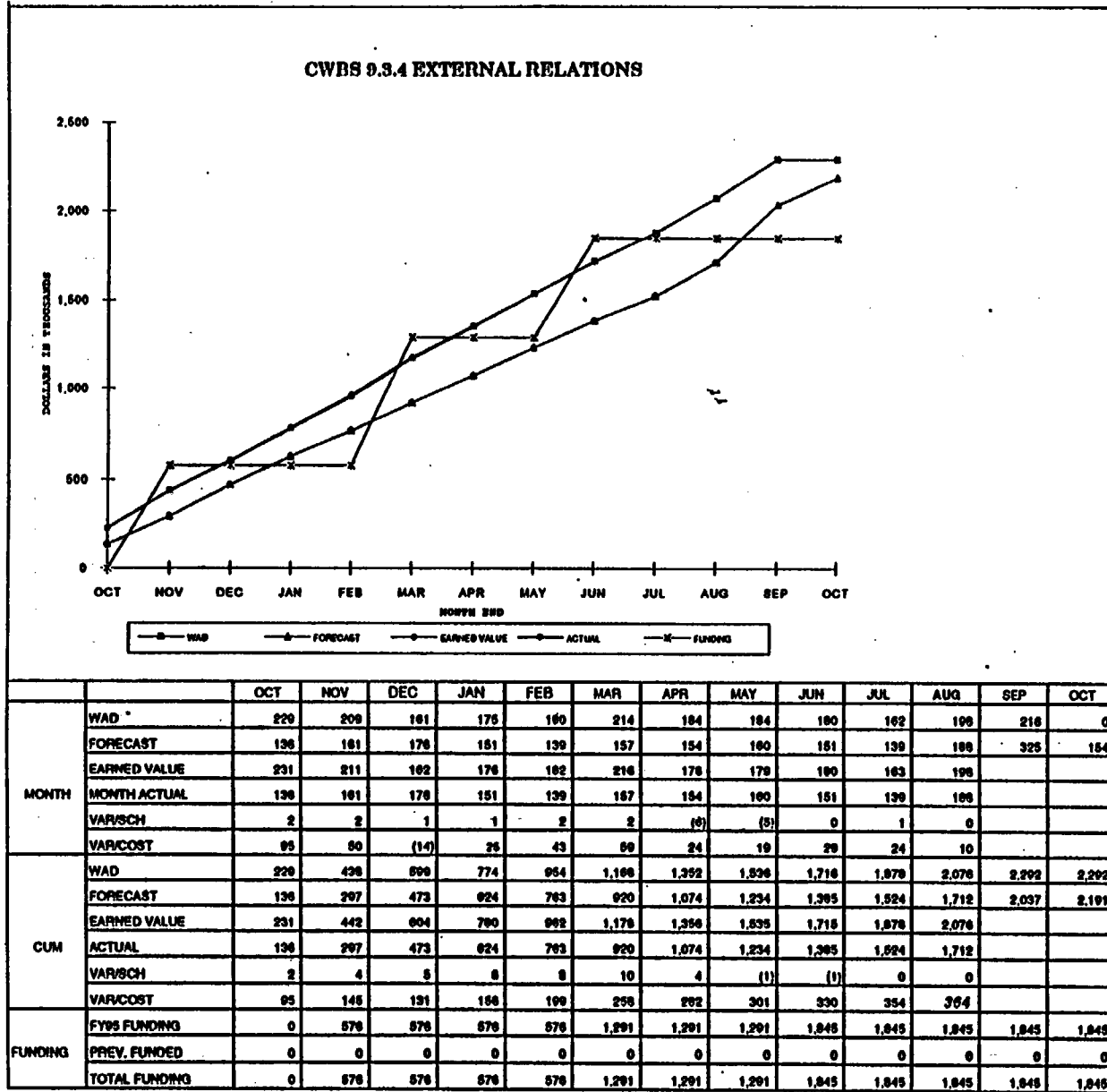


Figure 33. Information Management Financial Status

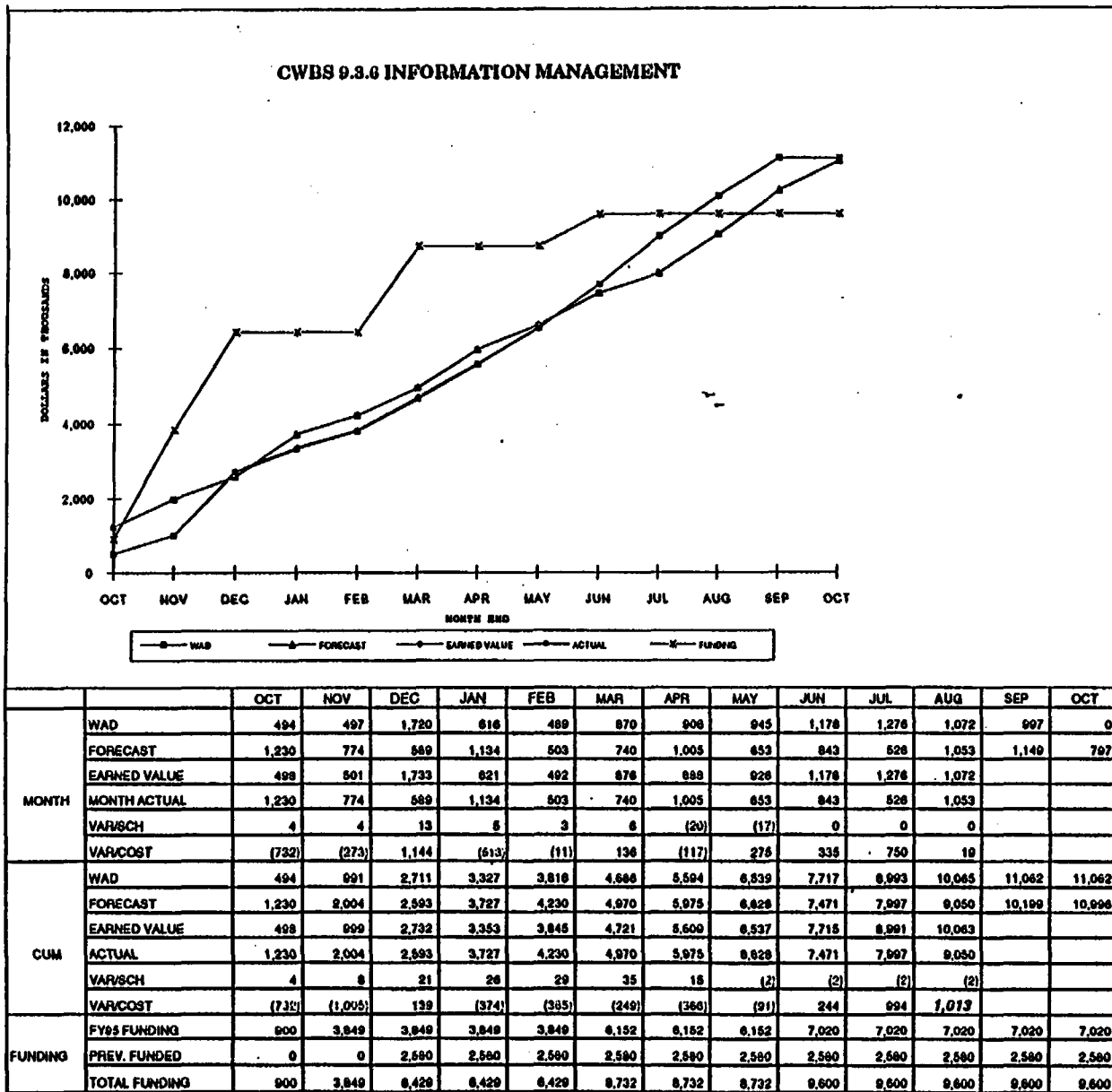
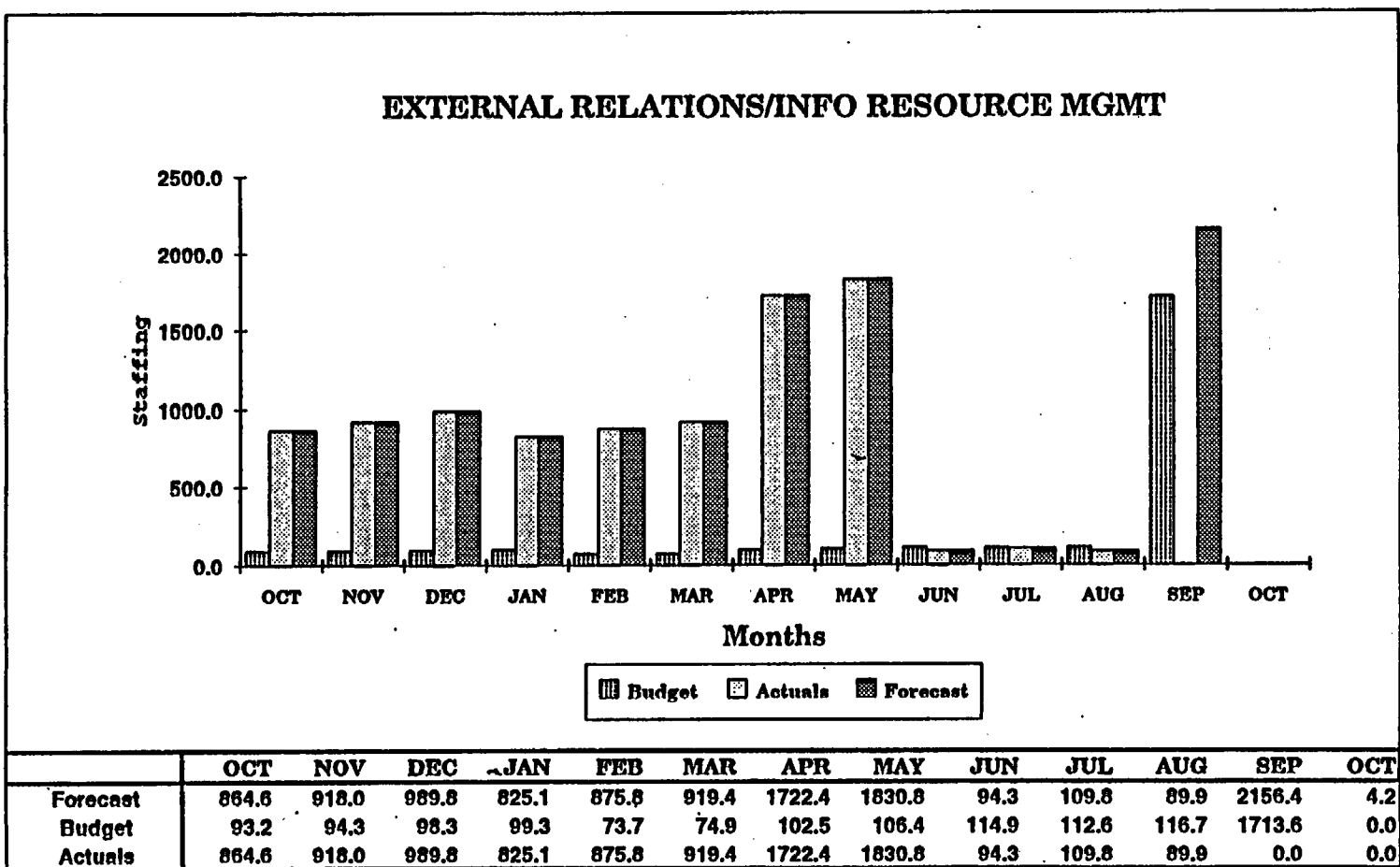


Figure 34. External Relations/Information Resource Management Staffing

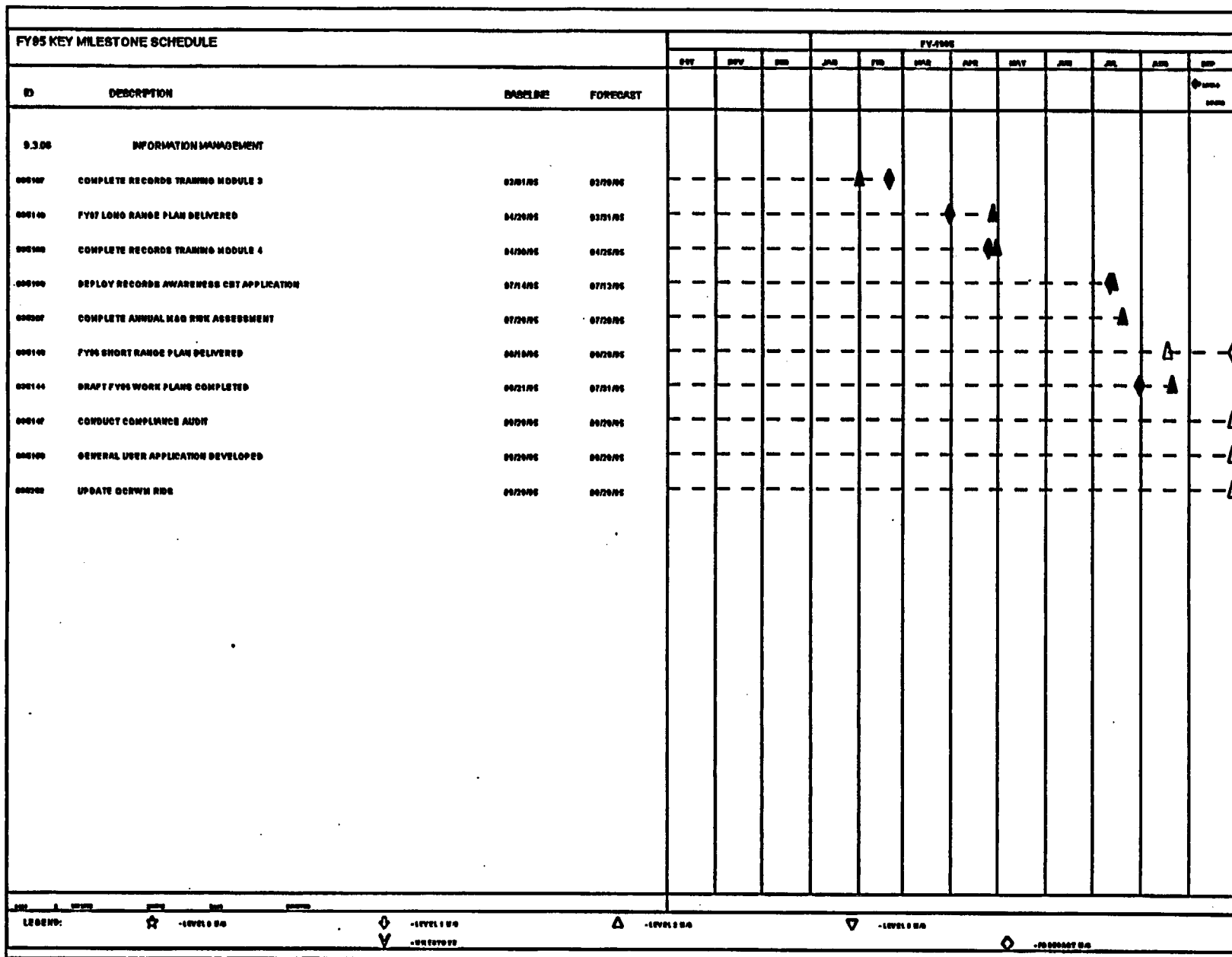


FY95 KEY MILESTONE SCHEDULE				FY1995											
				OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
ID	DESCRIPTION	BASIS	FORECAST												
9.3.84	EXTERNAL RELATIONS														
000004	DEPLOY FOR TESTING AN INTEGRATED DMITIZED AUDIOVISUAL ELECTRONIC CAPABILITY	00/00/95	00/00/95												
000010	DRAFT ANSWERS TO QUESTIONS	00/00/95	07/00/95												

LEGEND:
 ☆ - LEVEL 1 B/M
 ▽ - LEVEL 2 B/M
 ▽ - LEVEL 3 B/M
 ◇ - FORECAST B/M

Figure 35. External Relations Key Milestone Schedule

Figure 36. Information Management Key Milestone Schedule



4.4 REPOSITORY IMPACTS

CWBS 1.0.10

MANAGER: S. S. Sareen

OBJECTIVE(S): In support of a Programmatic Environmental Impact Statement (PEIS) and a DOE Record of Decision (ROD), determine the potential impact of disposing spent fuel from plutonium-burning reactors and/or plutonium immobilized with high-level radioactive waste (HLW) on the existing HLW Geologic Program. Assess the regulatory and statutory impacts, develop design basis for a repository, and initiate efforts towards a repository design.

4.4.1 Progress During Report Period

PEIS

- Inputs to the PEIS contractor are complete for Existing MOX reactors, Evolutionary MOX reactor, Greenfield Glass, and Greenfield Ceramic options.
- Criticality calculations for a degraded mode scenario, assuming no neutron absorbers, show that plutonium loading has to be between 2.5% and 4.5% to get k_{eff} values below the 0.95 specified by the NRC. Engineering options need to be evaluated to minimize the cost impact of low plutonium loading on the total alternative. Also, the mechanistic behavior of ceramic dissolution needs to be investigated to establish scenarios for degradation, both with and without neutron absorbers.
- Evaluating data inconsistencies of the Borosilicate Glass can-in-canister analysis.
- Will conduct the Can-in-Canister Ceramic evaluation following the Can-in-Canister Glass, with the Metal Immobilization evaluation to follow the Can-in-Canister Ceramic.

Alternative Team Support

- The Reactor Alternative Team completed the first review of data and submitted input.

4.4.2 Issues and Concerns

- None.

4.4.3 Variances

- The cumulative cost variance of \$209K/18% is due to continued delays in inputs to the Repository Impacts. Based on the current schedule for the PEIS development, only the Existing Reactor, Greenfield Glass, and Greenfield Ceramic options will be evaluated for repository impacts. A Technical Direction Letter is being prepared for the evaluation of the other waste

forms to be completed in the next fiscal year. Data for the PEIS and Technical Summary documents will be provided by November 1995.

Figure 37. Repository Impacts Financial Status

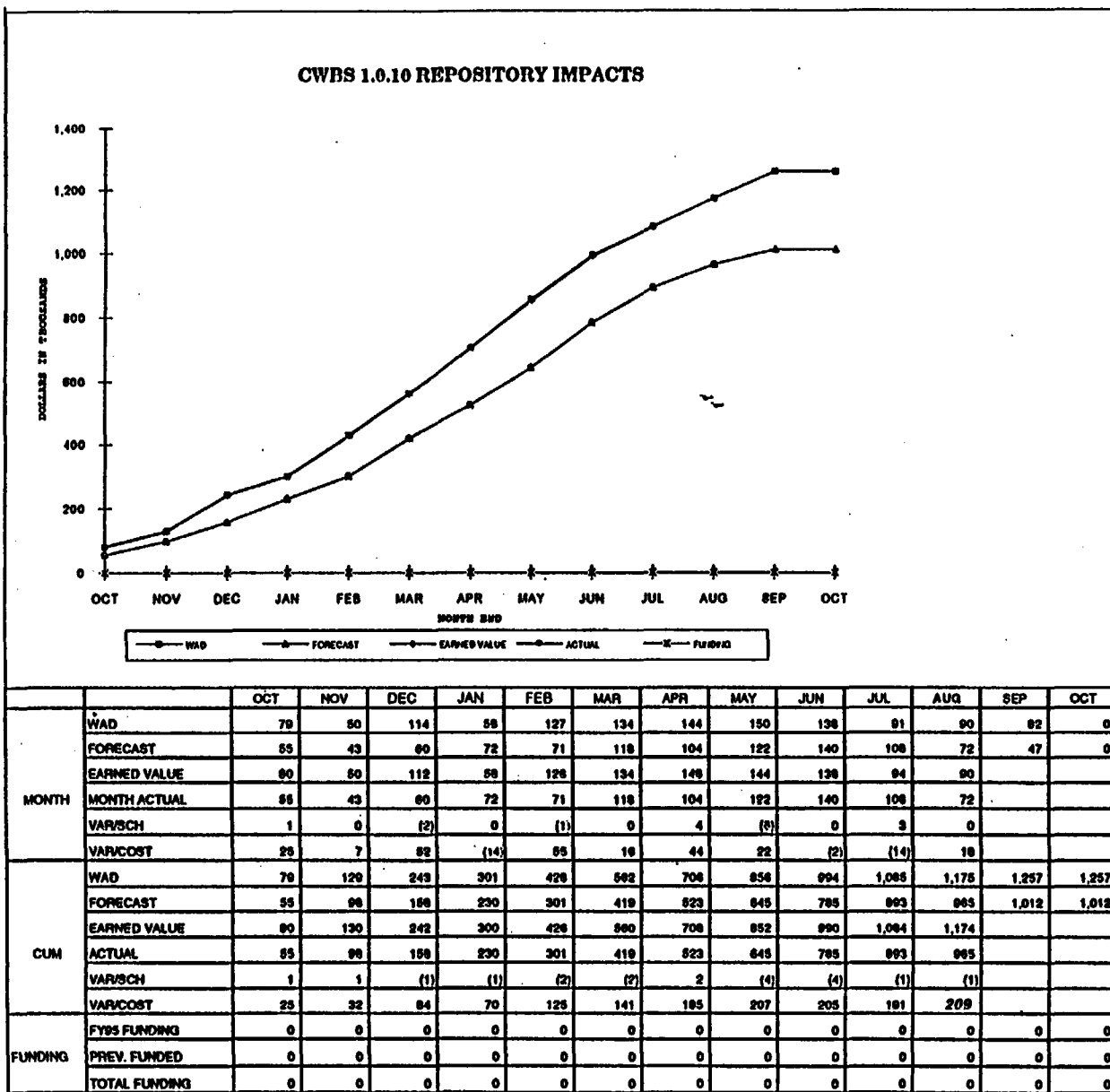
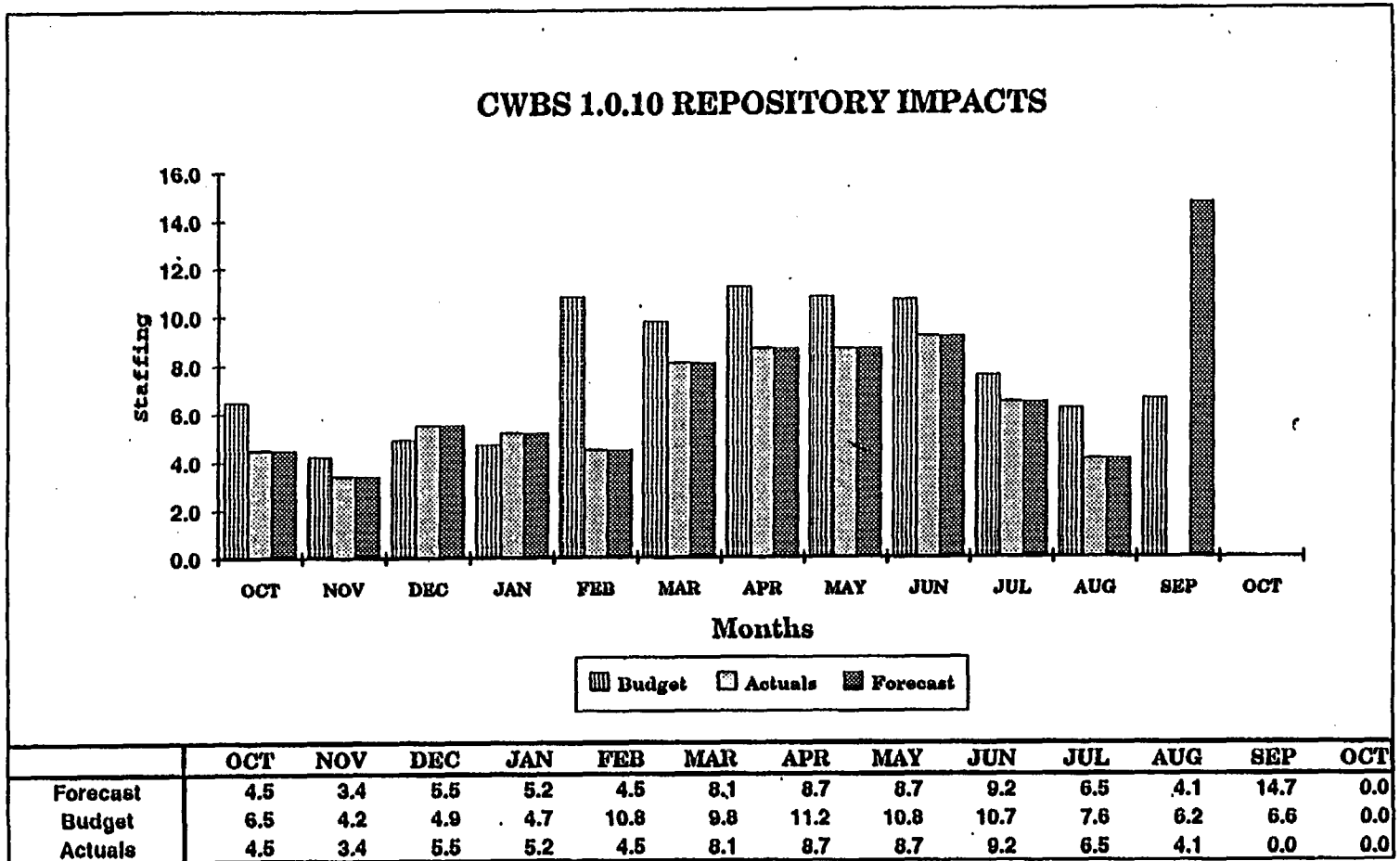


Figure 38. Repository Impacts Staffing



INTENTIONALLY LEFT BLANK

APPENDIX A

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
1.2.1	REVIEW DRAFT REVISION TO THE CDA	28-Feb-95	14-Mar-95		
1.2.1	REVIEW DRAFT REVISION TO THE CDA	25-Aug-95	22-Aug-95		
1.2.1	QAP 6.2 REV DRAFT REV TO THE RDRD	28-Sep-95	- -		
1.2.1	QAP 6.2 REV DRAFT REV TO THE BBDRD	31-Mar-95	24-Apr-95		
1.2.1	QAP 6.2 REV DRAFT REV TO THE SD&TRD	30-Mar-95	28-Apr -95		
1.2.1	CONCEPT OF OPERATION REPORT	28-Feb-95	08-Mar-95		
1.2.1	NV REPOS PRELIM TRANSPOR STRATEGY I	26-Jan-95	17-Feb -95		
1.2.1	NV REPOS PREL TRANSP STRATEGY II	31-Aug-95	- -		
1.2.1	CALICO HILLS DATA NEEDS AND ACCESS STUDY	31-May-95	31-May-95		
1.2.1	FY95 THERMAL LOADING STUDY	28-Sep-95	- -		
1.2.1	MPC SYSTEMS STUDY	31-Jan-95	13-Jul-95		
1.2.1	VALUE ENGINEERING STUDY REPORT #3	28-Apr-95	10-May-95		
1.2.1	VALUE ENGINEERING STUDY REPORT #4	30-Jun-95	- -		
1.2.1	VALUE ENGINEERING STUDY AND REPORT #5	31-Jul-95	- -		
1.2.1	VALUE ENGINEERING STUDY & REPORT #6	28-Sep-95	- -		
1.2.2	WASTE PACKAGE CONCEPTUAL DESIGN RPT	29-Sep-95	- -		
1.2.2	RPT ON PREL SEL WASTE PACTK MATERIALS	14-Jun-95	13-Jun-95		
1.2.2	INPUT TO CDA DOC	12-May-95	11-May-95		
1.2.2	ISSUE ACD MPC CONTAINER RISK ANALYSIS REPORT	14-Apr-95	14-Apr-95		
1.2.2	ACD UCF RISK ANALYSIS REPORT	14-Apr-95	14-Apr-95		
1.2.2	INITIAL DRAFT OF REPOS BURNUP CREDIT	15-Sep-95	- -		
1.2.2	TDPP FOR REPOSITOTY BURNUP CREDIT TOPICAL RPT	21-Dec-94	16-Dec-94		
1.2.2	ISSUE COST ESTIMATE STATUS REPORT	14-Mar-95	14-Mar-95		

WP.235

A-1

August 1995

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER¹	RESULT OF APPROVED BCR
1.2.3	DRAFT FINAL FISCAL YEAR 1995 TIP FOR WBS 1.2.3	30-Nov-94	30-Nov-94		
1.2.3	DRAFT FINAL FY 1996 TIP FOR WBS 1.2.3	28-Sep-95	- -		
1.2.3	UPDATED STRATIGRAPHIC COMPENDIUM	29-Sep-95	- -		
1.2.4	REP TECH IMP PLAN	13-Jan-95	09-Jan-95		
1.2.4	REPOSITORY TIP	13-Jan-95	09-Jan-95		
1.2.4	REP ENG PLAN	15-Dec-94	15-Dec-94		
1.2.4	ENGINEERING PLAN	15-Dec-94	15-Dec-94		
1.2.4	WASTE TREATMENT BLDG DESIGN FINAL REPORT	29-Sep-95	28-Apr-95		
1.2.4	WASTE HANDLING BLDG FINAL DESIGN REPORT	30-Aug-95	- -		
1.2.4	EMPLACEMENT EQUIP DEV REPORT	31-Jul-95	- -		
1.2.4	HEATING/COOLING REPORT	07-Apr-95	05-Apr-95		
1.2.4	EMPLACEMENT MODE EVAL	29-Jun-95	26-Jun-95		
1.2.4	RECOMMENDED LAYOUT CONCEPTS REPORT	30-Jul-95	28-Jul-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	13-Jan-95	13-Jan-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	14-Apr-95	13-Apr-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	14-Jul-95	12-Jul-95		
1.2.5	QUARTERLY REGULATORY INTERACTION SUMMARY REPORT	13-Oct-94	14-Oct-94		
1.2.5	COMMENT PKG NRC PROPOSED RULE ON DESIGN BASIS EVEN	31-Mar-95	23-May-95		
1.2.5	MGDS LA AO REV 5 TO YMSCO	28-Sep-95	- -		
1.2.5	SITE CHARACTERIZATION FEEDBACK REPORT LA/AO REV 4	28-Apr-95	28-Apr-95		
1.2.5	PR11 TO DOE	23-Dec-94	23-Dec-94		

WP.235

A-2

August 1995

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
1.2.5	PR12 TO DOE	26-Jun-95	23-Jun-95		
1.2.5	ISSUE LA ANNOTATED OUTLINE REVISION 4 TO YMSCO	24-Mar-95	24-Mar-95		
1.2.5	RESPONSE TO SCA QUESTION # 80	31-Mar-95	20-Sep-94		
1.2.5	SEISMIC TOPICAL REPORT II TO DOE	31-Mar-95	28-Aug-95		
1.2.5	TECHNICAL DATA CATALOG	19-Oct-94	20-Oct-94		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	19-Jan-95	24-Jan-95		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	20-Apr-95	20-Apr-95		
1.2.5	TECHNICAL DATA CATALOG SUPPLEMENT	20-Jul-95	17-Jul-95		
1.2.5	DOCUMENT TSPA 1995 CONCLUSIONS & IMPLICATIONS	30-Aug-95	- -		
1.2.5	ANLYS FAR-FIELD THERMOHYDROLOGIC RESPONSE	30-Aug-95	12-Apr-95		
1.2.6	RELEASE DESIGN PACKAGE 1D	27-Jan-95	03-Feb-95		
1.2.6	DESIGN PACKAGE 1B ACCEPTANCE	14-Jul-95	14-Jun-95		
1.2.6	ISSUE CONVEYOR FOUNDATION FOR BASELINING	21-Mar-95	21-Mar-95		
1.2.6	RELEASE DESIGN PACKAGE 2C	11-Oct-94	09-Jan-95		
1.2.6	START 8A 50% DESIGN REVIEW	03-Mar-95	- -		
1.2.6	ICDS DESIGN PACKAGE ISSUE	21-Dec-94	28-Feb-95		
1.2.13	EIS NOTICE OF INTENT (DRAFT)	15-Dec-94	04-Jan-95		
1.2.13	ANNUAL SITE ENVIRONMENTAL REPORT	02-May-95	05-May-95		
1.2.14	DEVELOP & DISTRIBUTE SPECIALTY ANNOUNCEMENT "B"	04-Apr-95	19-Jan-95		
1.2.14	DEVELOP & DISTRIBUTE SPECIALTY ANNOUNCEMENT "A"	05-Dec-94	18-Jan-95		
1.2.14	SUBMIT BULLETIN ARTICLE "A"	03-Jan-95	27-Jan-95		

WP.235

A-3

August 1995

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
1.2.14	SUBMIT BULLETIN ARTICLE "B"	27-Mar-95	14-Mar-95		
1.2.14	SUBMIT BULLETIN ARTICLE "C"	03-Jul-95	3-Jul-95		
1.2.14	SUBMIT BULLETIN ARTICLE "D"	25-Sep-95	- -		
1.2.14	COUNTY REP REPORTS (MONTHLY)	30-Sep-95	11-Aug-95		
1.2.14	YEAR-END VIDEO	23-Dec-94	11-Jan-95		
1.2.14	NEW WORK UPDATE VIDEO	30-Jun-95	30-May-95		
1.2.14	NEW WORK UPDATE VIDEOS (FOUR)	30-Sep-95	31-May-95	YMP-95-008	DELIVER 4 VIDEOS INSTEAD OF 7
3.1.1	M&O MPC ACCEPTANCE PLAN	31-Mar-95	31-Mar-95		
3.1.1	PRELIMINARY DRAFT OF REV. 2 WAST PROJECT SEMP	31-Aug-95	- -	MPC-95-017	DELETE FROM WAD
3.1.1	M&O WAST PROJECT LCCP PLAN	29-Sep-95	- -	MPC-95-017	TITLE CHANGE
3.1.1	WAST PROJECT TRACEABILITY DATABASE TOOL	29-Sep-95	- -		
3.1.1	PRELIMINARY DRAFT OF WAST PROJECT LCC REPORT	29-Sep-95	25-Aug-95		
3.1.1	PRELIMINARY DRAFT REV OF WAST PROJECT CMP AND ATTACHMENTS	31-May-95	23-May-95		
3.1.7	MPC SYSTEM TECHNICAL/BUSINESS PROPOSALS DUE	24-Oct-94	10-Nov-94		
3.1.7	AWARD MPC (PHASE 1) SAR DESIGN SUBCONTRACTS	05-Apr-95	26-Apr-95		
3.1.9	ESAR #2 PRESENTATION PACKAGE	17-Feb-95	01-Mar-95		
3.1.9	FY 1997 IRB PACKAGE PROJECT	20-Jun-95	- -	MPC-95-015	
3.1.9	ANNUAL WORK PLAN	29-Sep-95	- -		
3.1.7	INTEGRATED MPC MASTER SCHEDULE (DRAFT)	20-Dec-94	19-Dec-94		
3.1.7	V&V REPORT ON ORIGEN 21	28-Feb-95	21-Feb-95		
3.1.7	MRS/NO-MRS EVALUATION REPORT	1-Jun-95	20-Jul-95	WST-95-003	NEW DUE DATE -06/01/95

WP.235

A-4

August 1995

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER ¹	RESULT OF APPROVED BCR
3.1.7	PD REV.1 MPC DRD	29-Sep-95	- -	MPC-95-012	NEW DATE - (9/95)
3.1.7	QUALIFICATION REPORT ON SCALE COMPUTER CODE	30-Jun-95	- -	MPC-95-008	NEW TITLE & DATE - (6/95)
3.1.7	SSA DECISION	06-Feb-95	24-May-95		
3.1.13	SUBMIT MPC RCP TO PBCCB	20-Mar-95	- -	MRS-95-002	DELETE FROM WAD
3.1.5	FINALIZED BURNUP CREDIT TOPICAL REPORT	31-May-95	26-May-95		
3.1.5	MPC CRITICALITY CONTROL DECISION REPORT	29-Sep-95	- -		
3.1.1	DEFERRED - PRELIMINARY DRAFT OF WAST PROJECT T&EMP	29-Sep-95	- -		
3.2.14	TRANSPORTATION COORDINATION GROUP (TCG) MTG MINUTES	20-Jun-95	29-Jun-95		
3.2.14	TRANSPORTATION EXTERNAL COORDINATION WORKING GROUP MINUTES	30-Jan-95	16-Feb-95		
3.2.14	TRANSPORTATION EXTERNAL COORDINATION WORKING GROUP (TEC/WG) MTG	20-Jul-95	31-Jul-95		
3.2.1	FINAL RTDA REPORT	29-Sep-95	- -		WAD-95-40, Rev. 1
3.2.2	COMPLETE TRACTOR/TRAILER TESTING	20-Jun-95	26-Jun-95		
3.2.2	TRACTOR/TRAILER TEST REPORT	20-Jun-95	29-Jun-95		
3.2.2	COMMENTS ON GA ANSWERS TO 1ST ROUND NRC QUEST ON GA-4/9 SARs	31-Aug-95	28-Jul-95	TRN-95-011	NEW DATE (8/95)
3.2.2	DRAFT REPORT ON SFSX	29-Sep-95	- -		
3.2.4	TOPICAL REPORT, REV 1, ON PWR STORAGE/TRANSPORT BURNUP CREDIT	29-Sep-95	26-May-95		
3.2.4	FINAL OPERABILITY REPORT FOR LWT TRACTOR TESTING (60 DAYS AFTER TEST REPORT)	29-Sep-95	- -	TRN-95-018	DELETE FROM WAD
3.2.13	OCRWM TRANSPORTATION RISK MGT PROGRAM STRATEGIC PLAN FINAL DRAFT	31-Mar-95	31-Mar-95		
3.2.13	OCRWM RISK MGT STRATEGY IMPLEMENTATION PLAN FINAL	29-Sep-95	- -		

WP.235

A-5

August 1995

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
3.2.13	FINAL TSRA REPORT	29-Sep-95	- -		WAD-95-40, Rev. 1
3.2.14	DRAFT MATERIALS FOR 180 (c) ANOPR	20-Dec-94	10-Jan-95		
3.2.14	DRAFT MATERIALS FOR 180 (c) NOPR	30-Jun-95	30-May-95		
3.2.14	ROUTING CRITERIA DEVELOPMENT	29-Sep-95	- -		
3.3.1	PRELIMINARY PROPOSED POSITIONS - 1ST SET ISSUES	31-Jan-95	- -	WST-95-013	DELETE FROM WAD
3.3.1	DRAFT NOPR (FORMERLY REGULATORY SUMMARY PLAN)	16-Jan-95	- -	WST-95-013	DELETE FROM WAD
3.3.1	DRAFT 1995 APR/ACR	29-Sep-95	- -		Defer to 11/30/95 by TDL
3.3.1	FINAL VERIFICATION PLAN	31-Jul-95	25-Jul-95 -	WST-95-003	NEW DATE 7/95
3.3.1	WASTE ACCEPTANCE OPERATIONAL PLAN (WA-OP)	31-Mar-95	31-Mar-95		
3.3.3	PHASE I DATA ACQUISITION PLAN	31-Aug-95	- -	WST-95-005	NEW TITLE & DATE (8/31/95)
3.3.1	FINAL MANAGEMENT PLAN - WASTE ACCEPTANCE CRITERIA	30-Jun-95	30-Jun-95	WST-95-007	NEW DATE (6/30/95)
9.2.1	CIS PHASE 3 OPERATIONAL	16-Feb-96	- -	SIN-95-007	NEW DATE (2/16/96)
9.2.2	FINAL NEPA PROCEDURES MANUAL	30-Apr-95	21-Apr-95	SIN-95-001	NEW DATE (4/95)
9.2.2	TRAINING MATERIALS FOR OCRWM NEPA WORKSHOPS	29-Sep-95'	- -	SIN-95-008	CHANGE TO NON-SPECIFIC DATE 1 MONTH AFTER PROMULGATION OF ORDER 451
9.3.2	FINAL PROGRAM PLAN	20-Dec-94	20-Dec-94		
9.3.5	FINAL DRAFT COST AND SCHEDULE ESTIMATING GUIDELINE	09-Dec-94	- -	PMA-94-004	TDL 95-5 EXTEND INTO FY95
9.3.4	PUBLISH REVISED, SELECTED PROGRAM-WIDE PUBLIC INFO. MATERIAL	29-Sep-95	- -		
9.3.4	DRAFT ANSWERS TO QUESTIONS	30-Jun-95	28-Jul-95		
9.3.3	NAGRA ANNUAL PROJECT PLAN	28-Feb-95	18-Apr-95	SPI-95-001	NEW DUE DATE - 02/95
9.3.4	DEPLOY FOR TESTING AN INTEGRATED DIGITIZED AUDIOVISUAL ELECTRONIC CAPABILITY	30-Jun-95	09-Jun-95		

FY95 M&O MAJOR DELIVERABLE STATUS

WBS	MAJOR DELIVERABLE TITLE	DUE DATE	COMPLETE	BCR NUMBER'	RESULT OF APPROVED BCR
9.3.3	SKB ANNUAL PROJECT PLAN	31-May-95	15 -Aug -95	SPI-95-001	NEW DUE DATE - 05/95
9.3.3	AECL ANNUAL PROJECT PLAN	28-Feb-95	18-May-95	SPI-95-001	NEW DUE DATE - 02/95
9.3.6	DRAFT FY96 WORK PLANS COMPLETED	21-Aug-95	- -		
9.3.6	FY96 SHORT RANGE PLAN DELIVERED	18-Aug-95	- -		
9.3.6	GENERAL USER APPLICATION DEVELOPED	29-Sep-95	- -		
9.3.5	DELIVERY DRAFT PCSD TO RW-35	30-Jun-95	- -		
9.3.5	DELIVER DRAFT PMSM TO RW-35	27-Feb-95	24-Feb-95		
9.3.5	DELIVER DRAFT OPSN TO RW-35	15-Feb-95	16-Feb-95		
9.3.5	DESCRIPTION OF PROGRAM ASSUMPTIONS TO RW-35	08-Nov-94	08-Nov-94		
9.3.5	INTERIM LIFE-CYCLE COST ESTIMATES TO RW-35	27-Jan-95	27-Mar-95		
9.3.5	FINAL PRELIMINARY DRAFT TSLCC REPORT TO RW-35	28-apr-95	11-Apr-95		
9.3.5	FINAL TSLCC REPORT TO RW-35	15-Sep-95	- -		
9.3.5	DRAFT FEE ADEQUACY REPORT	28-Jun-95	- -		
9.3.5	RECEIVE PCSB APPROVED WAST PROJECT COST & SCHEDULE BASELINE CHANGES	09-Feb-95	18-Aug -95		
9.3.5	RECEIVE PBCCB-APPROVED YMP COST AND SCHEDULE BASELINE CHANGES	15-Sep-95	- -		
9.3.5	REVISED WBS RECOMMENDATION TO RW-35	10-Mar-95	07-Apr-95		

INTENTIONALLY LEFT BLANK

APPENDIX B

Figure B-1. Monthly Progress/Update Summary

M&O Monthly Progress/Update Summary (\$K) as of AUGUST 31, 1995									
B&R	B&R Title	0	1	2	3	2-3	4	1-3	0-3
		Total Budget FY95/Defer/ Committ	Cum to Date Budget/FY95/ Defer/Committ	Cum to Date Forecast/FY 95 Defer/Committ	Cum to Date Actuals	Variance (Fore-Act)	Total Funding- FY 95 & Previ- ously Funded	Variance (Cum Budget - Act)	Variance (Total Budget - Act)
DB0102010	YMP Systems Engineering	8,724	8,128	7,041	7,041	0	0	1,085	1,683
DB0102020	YMP Waste Package	9,716	8,933	7,747	7,747	0	0	1,186	1,969
DB0102030	YMP Site Investigations	44,935	38,210	39,908	39,908	0	0	-1,698	5,027
DB0102040	YMP Repository	8,931	8,143	7,142	7,142	0	0	1,001	1,789
DB0102050	YMP Regulatory	22,897	20,743	18,868	18,868	0	0	1,885	4,039
DB0102060	YMP Exploratory Studies Fac.	77,204	63,655	67,769	67,769	0	0	-4,104	9,445
DB0102070	YMP Test Facilities	9,129	8,048	9,601	9,601	0	0	-1,553	-472
DB0102090	YMP Project Management	11,460	10,358	10,986	10,986	0	0	-628	474
DB0102130	YMP Environ., Safety & Health	16,882	15,115	14,992	14,992	0	0	123	1,890
DB0102140	YMP Institutional	4,788	4,246	3,793	3,793	0	0	453	995
DB0102150	YMP Support Services	8,939	7,990	8,227	8,227	0	0	-237	712
DB0102160	YMP Quality Assurance	5,828	5,155	5,162	5,162	0	0	-7	666
DB0102170	YMP Information Management	7,749	7,078	6,999	6,999	0	0	79	750
	Total YMP	287,182	205,800	208,218	208,218	0	162,076	-2,416	28,967
	% of YMP			101.17%	101.17%	0.00%		-1.17%	
DB0301010	MRS Systems Engineering	954	839	643	643	0	0	196	311
DB0301030	MRS Site Investigations	49	34	11	11	0	0	23	32
DB0301040	MRS MRS Facility	0	0	0	0	0	0	0	0
DB0301050	MRS Regulatory	1,953	1,638	1,481	1,481	0	0	187	472
DB0301070	MRS Engineering Development	24,173	8,554	6,172	6,172	0	0	392	18,001
DB0301090	MRS Project Management	1,804	1,638	1,305	1,305	0	0	333	499
DB0301110	MRS Quality Assurance	184	175	144	144	0	0	31	50
DB0301120	MRS Information Management	0	0	0	0	0	0	0	0
DB0301130	MRS Environ., Safety & Health	1,474	1,332	1,068	1,068	0	0	266	408
DB0301140	MRS Institutional	821	612	330	330	0	0	282	491
DB0301150	MRS Support Services	0	0	0	0	0	0	0	0
	Total MRS	31,416	12,522	11,152	11,152	0	0	1,670	20,264
	% of MRS			86.97%	86.97%	0.00%		13.03%	
DB0302010	Trans. Systems Engineering	633	403	424	424	0	0	-21	209
DB0302020	Trans. Casks	3,678	3,097	2,634	2,634	0	0	463	1,044
DB0302040	Trans. Support Systems	2,307	1,920	1,000	1,000	0	0	920	1,307
DB0302050	Trans. Regulatory	169	85	28	28	0	0	57	141
DB0302090	Trans. Project Management	734	672	677	677	0	0	-5	57
DB0302110	Trans. Quality Assurance	235	207	156	156	0	0	51	79
DB0302120	Trans. Info Management	48	45	5	5	0	0	40	43
DB0302130	Trans. Environ., Safety & Health	1,203	825	426	426	0	0	399	777
DB0302140	Trans. Institutional	1,047	892	909	909	0	0	-17	138
DB0302150	Trans. Support Services	0	0	0	0	0	0	0	0
	Total Transportation Systems	10,054	8,146	6,259	6,259	0	0	1,887	3,795
	% of TRANS. SYS.			78.84%	78.84%	0.00%		23.16%	

NOTE: FIS actuals may not agree with contractual actuals since the FIS cumulative-to-date actuals include depreciation costs. Contractual cumulative-to-date costs reflect total outlays of cash for capital and expenses only. As a result, these two methods of financial reporting may not necessarily agree.

Figure B-1. Monthly Progress/Update Summary (Continued)

M&O Monthly Progress/Update Summary (\$K) as of AUGUST 31, 1995								
B&R	B&R Title	0	1	2	3	2-3	4	1-3
		Total Budget FY95/Defer/ Commit	Cum to Date Budget/FY95/ Defer/Commit	Cum to Date Forecast/FY 95 Defer/Commit	Cum to Date Actuals	Variance (Fore-Act)	Total Funding- FY 95 & Previ- ously Funded	Variance (Cum Budget - Act)
DB0303010	Waste Accept Process/Oprtns	2,942	2,557	2,482	2,482	0	0	75
DB0303020	Waste Acceptance Econ. Stud.	128	103	77	77	0	0	28
DB0303030	Waste Acceptance Data Collect.	993	721	728	728	0	0	-7
	Total Waste Acceptance	4,063	3,381	3,287	3,287	0	0	94
	% of WA			97.22%	97.22%	0.00%		2.78%
	TOTAL 3.0 WAST PROJECT	45,593	24,949	20,698	20,698	0	44,409	8,651
DB0910030	Program Quality Assurance	9,802	8,450	8,035	8,035	0	8,185	415
	% of PQA			87.97%	87.97%	0.00%		12.03%
DB0920011	Systems Engineering	6,523	5,967	5,117	5,117	0	0	850
DB0920012	Systems Planning & Integration	0	0	0	0	0	0	0
DB0920013	Configuration Management	1,208	1,091	1,168	1,168	0	0	-77
	Total Systems Integration	7,731	7,058	6,285	6,285	0	6,727	1,446
DB0920021	Regulatory Policy & Requirements	695	611	666	666	0	0	-55
DB0920022	Regulatory Integration	1,683	1,414	1,311	1,311	0	0	103
	Total Regulatory & Licensing	2,378	2,025	1,977	1,977	0	2,481	48
	% of R & L			97.63%	97.63%	0.00%		2.37%
DB0932000	Strategic Planning	1,369	1,236	1,187	1,187	0	1,117	49
DB0933000	Int'l Waste Management Tech.	4,311	3,648	3,639	3,639	0	574	9
	Total Strategic Planning & Int'l Waste	5,680	4,884	4,826	4,826	0	1,691	58
	% of SP & IW			98.81%	98.81%	0.00%		1.19%
GA0101011	Repository Impacts	1,257	1,176	966	966	0	1,803	209
	% of RI			82.21%	82.21%	0.00%		17.79%
DB0934000	External Relations	2,282	2,078	1,712	1,712	0	1,845	364
	% of ER			82.47%	82.47%	0.00%		17.53%
DB0935000	Program Control & Admin.	1,976	1,824	1,456	1,456	0	2,498	369
	% of PC&A			79.77%	79.77%	0.00%		20.23%
DB0936010	Information Mgmt Services	11,061	10,064	9,052	9,052	0	9,600	1,012
	% of IMS			89.94%	89.94%	0.00%		10.06%
DB0937000	Contract Business Mgmt	15,279	7,017	6,349	6,349	0	15,088	1,088
	% of CBM			84.78%	84.78%	0.00%		15.22%
	M&O Totals	834,160	269,722	264,170	264,170	0	250,678	5,552
	M&O Total % of WAD			97.94%	97.94%	0.00%		2.06%
	M&O Total % of NB&R			79.06%	79.06%	0.00%		1.66%

NOTE: FIS actuals may not agree with contractual actuals since the FIS cumulative-to-date actuals include depreciation costs. Contractual cumulative-to-date costs reflect total outlays of cash for capital and expenses only. As a result, these two methods of financial reporting may not necessarily agree.



Las Vegas Area Operations

EG&G ENERGY MEASUREMENTS, INC., P.O. BOX 1912, LAS VEGAS, NEVADA 89125

QA: NA
WBS: 1.2.5

September 27, 1995
NV-95-584

Mr. Wesley Barnes, Project Manager
Department of Energy
Yucca Mountain Site Characterization Project Office
101 Convention Center Drive
Las Vegas, NV 89109

AUGUST 01, 1995 - SEPTEMBER 29, 1995, PROGRESS REPORT - EG&G/ENERGY MEASUREMENTS, REMOTE SENSING LABORATORY SUPPORT TO THE YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT

Enclosed is a progress report on the EG&G Energy Measurements, Inc. (EG&G/EM) Remote Sensing Laboratory (RSL) support to the Yucca Mountain Site Characterization Project (YMP) for August 01, 1995, through September 29, 1995.

The progress report for EG&G/EM RSL support to YMP includes the following sections:

Work Accomplished
Expenditures
Status of Deliverables

This will be the last EG&G/EM YMP progress report. We have appreciated the opportunity to provide support to the project over the past several years, and would like to extend our best wishes for the project's continued success during these challenging times.


for **James Michael, Manager**
NV Program

CE:ns

Enclosures

1. Progress Report
2. Maps

Wesley Barnes

**AUGUST 01 - SEPTEMBER 29, 1995, PROGRESS REPORT - EG&G/ENERGY
MEASUREMENTS, REMOTE SENSING LABORATORY SUPPORT TO THE YUCCA
MOUNTAIN SITE CHARACTERIZATION PROJECT**

September 27, 1995

Page 2

cc w/Encl 1

- S. Ronshaugen, DOE/NV EMD
- S. Bodnar, M&O/TRW
- W. Dixon, DOE/YMSCO
- M. Dockter, DOE/NV
- R. Dyer, DOE/YMSCO
- D. Foust, M&O/TRW (Encls 1 & 2)
- J. Gandi, DOE/YMSCO
- A. Gil, DOE/YMSCO
- C. Newbury, DOE/YMSCO (Encls 1 & 2)
- M. Ryder, DOE/YMSCO
- T. Statton, M&O/WCFS
- T. Sullivan, DOE/YMSCO
- M. Tynan, DOE/YMSCO (Encls 1 & 2)
- D. Williams, DOE/YMSCO
- W. Wilson, DOE/YMSCO (Encls 1 & 2)
- J. Younker, M&O/TRW

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.3 SITE INVESTIGATIONS

WBS 1.2.3.9.5 SPECIAL STUDIES: THREE-DIMENSIONAL SITE MODEL

SA OE395A95L INTEGRATED 3-D MODEL

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: David Jefferis

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. Development of a 1:12,000 topographic surface [contours and Digital Elevation Model (DEM)] for the Geologic Framework Model was completed. The basis for the development of the 1:12,000 base is on the 1:12,000 orthophotos and contours published in the YMP Site Atlas. These orthophoto sheets are being used by the USGS Yucca Mountain Branch for field mapping.
2. An Arc/Info export file of the faults being used as the basis for the Geologic Framework model was sent to SAIC following a request from R. Spengler. The 1:24,000 DEM for Busted Butte quadrangle was sent to the USGS Geophysics Branch, Menlo Park.
3. A package was assembled and sent to Earthfield Technologies in Houston, Texas. The package contained gravity stations (in digital format), numerous geologic maps over the Yucca Mountain Area, and a geophysical map of the depth to Paleozoic basement. The aeromagnetic data required by Earthfield to develop a depth to magnetic basement map was acquired via their own source.
4. A series of geologic cross-sections (9) based on the EarthVision YMP.R2 lithostratigraphic were generated for LBL. These cross-sections were along the seismic lines shot this year under the direction of LBL. A montage showing all of the cross-sections and an accompanying index/basemap as well as a plot of each individual cross-section were produced and sent to LBL.
5. At the request of YMSCO, a basemap of the Yucca Mountain area and two cross-sections through the 3D lithostratigraphic model of the site was created. The cross-sections were annotated with the depth to perched water and depicted the potentiometric surface as well. These cross-sections were mounted on

foam core and used by YMSCO during a field trip to Yucca Mt. with the National Academy of Sciences

6. Work resumed on the enhancement of the Numerical Model Warehouse prototype. The Numerical Model Warehouse prototype was enhanced to include the Lynx Geosystems Viewer. As well, the SNL Thermal Mechanical model was added to the warehouse, as were several cross-sections generated by SNL. The Warehouse was demonstrated to YMSCO at the FOC on September 13, 1995.
7. Several 3D velocity models were constructed using the velocity check shot data collated by R. Yasek DOE/YMSCO. The data was entered into digital files by the YMPSAS database group. Two models have been constructed: (1) average velocity over the central block of Yucca Mt., and (2) average velocity within the central block of Yucca Mt. and integrated with the YMP.R2 lithostratigraphic model. Interval velocities were calculated for several horizons by constructing a 3D model of arrival times and using the top and base of the horizons to calculate the interval velocity.
8. A level 3 report documenting the work completed under WBS 1.2.3.9.5 has been written and delivered to the M&O.
9. The top of the paleozoic basement was added to the YMP.R2 lithostratigraphic model.
10. Due to transition activities, no products were generated using official EG&G/EM tracking numbers and are describe in the above text.

MAJOR PROBLEMS AND CORRECTIVE ACTION: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.3 SITE INVESTIGATIONS

WBS 1.2.3.9.5 SPECIAL STUDIES: THREE-DIMENSIONAL SITE MODEL

SA OE395B95L REMOTE SENSING MAPPING APPLICATION

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: David Brickey

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. Two Landsat TM image maps were delivered each to Mark Tynan (YMSCO) and to Warren Day (USGS):

 Nevada Test Site Region Image Map, SIGIS 95189.01, and Color Ratio
 Composite Image Map of Yucca Mountain, Nevada.

2. One 8mm tape with the two above image maps in TIFF format were delivered to Warren Day (USGS).

MAJOR PROBLEMS AND CORRECTIVE ACTION: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.3 **SITE INVESTIGATIONS**
WBS 1.2.3.9.5 **SPECIAL STUDIES: THREE-DIMENSIONAL SITE MODEL**
SA OE395E95 **3-D AND NUMERICAL MODELING QA**

REPORT PERIOD: **August 1, 1995 - September 29, 1995**

REPORT DATE: **September 29, 1995**

RESPONSIBLE INDIVIDUAL: **David Jefferis**

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. The Test Plan document was completed and approved. The Test Results document was completed and reviewed.
2. Software qualification of EarthVision was completed by Cameron Williams. The package containing the various reports have been delivered to the M&O.

MAJOR PROBLEMS AND CORRECTIVE ACTION: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.3 SITE INVESTIGATIONS

WBS 1.2.3.9.5 SPECIAL STUDIES: THREE-DIMENSIONAL SITE MODEL

SA OE395G95 STUDY PLAN FOR INTEGRATED GEOLOGY OF SITE AREA

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: David Jefferis

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. Comment resolution has be completed for SCP Study Plan 8.3.1.4.2.3 *Geological Framework and Integrated 3-D Site Model*. The Study Plan has been submitted to M&O for delivery to YMSCO.

MAJOR PROBLEMS AND CORRECTIVE ACTION: None

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.3 SITE INVESTIGATIONS

WBS 1.2.3.9.5 SPECIAL STUDIES: THREE-DIMENSIONAL SITE MODEL

SA OE395L95 COMPUTER SUPPORT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: David Jefferis

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD: None.

MAJOR PROBLEMS AND CORRECTIVE ACTION: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

**WBS 1.2.5.3.6 GEOGRAPHIC NODAL INFORMATION STUDY AND
EVALUATION SYSTEM (GENISES)**

SA OE535L94 TECHNICAL DATABASE INPUT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: Jim Beckett

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. The Environmental Sciences Department continues processing of data acquired from on-going activities.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

**WBS 1.2.5.3.6 GEOGRAPHIC NODAL INFORMATION STUDY AND
EVALUATION SYSTEM (GENISES)**

SA OE536A95 GENISES TECHNICAL DATABASE

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: J. Beckett

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. As of August 7, 1995, requests for data to be submitted or retrieved from the TDB were placed on hold. This was done to allow the database group to inventory and prepare the data and equipment for the transition from EG&G/EM to M&O/TRW.
2. Efforts continued to support the socioeconomic activities required for the environmental impact statement. The SAIC socioeconomic group have provided data acquired from the city of Las Vegas and Clark County. Jim Beckett processed the data and provided ArcView sessions for the SAIC group.
3. Work on the YMP Technical Database Data Distribution System CD-ROM is complete. The "master" for the first prototype standard format beta CD-ROM with data from the geological theme of the database was completed. It contains tabular as well as spatial data sets. It will also include all current on-line applications for real-time access to the YMP Technical Database.
4. Jim Beckett and Chris Berlien attended the quarterly meeting of the Software Advisory Group (SAG) in Dillon, Colorado. The group met to discuss planned changes to the QARD.
5. The following technical data submittals were received during this period:

GS930408312134.001 - LATE-WISCONSIN PALEOHYDROLOGY OF THE
WEST-CENTRAL AMARGOSA DESERT, NEVADA, U.S.A., BY HANS C.
CLAASEN.

RECEIVED BY THE TDB ON 01-AUG-1995.

GS950708312232.006 - PRESSURE, MASS FLOW MEASUREMENTS AND TEMPERATURE MEASUREMENTS FROM UE-25 UZ#16 BOREHOLE AIR INJECTION TESTING FOR MARCH 1994. THESE DATA SUPERSEDE THE MARCH 1994 DATA PREVIOUSLY IDENTIFIED BY DTN GS9 RECEIVED BY THE TDB ON 03-AUG-1995.

LA000000000109.002 - EOLIAN-DEPOSITED MINERALS AROUND DRILL HOLE USW SD-9 RECEIVED BY THE TDB ON 03-AUG-1995.

LA000000000122.002 - MODELING THE X-RAY DIFFRACTION OF OPAL RECEIVED BY THE TDB ON 03-AUG-1995.

GS940708314211.035 - MEASURED STRATIGRAPHIC SECTION ON THE EAST SIDE OF SOLITARIO CANYON (SECTION SC#1), BY J.K. GESLIN AND T.C. MOYER. RECEIVED BY THE TDB ON 03-AUG-1995.

GS941208314211.059 - MEASURED SECTION 94TPKTMS-1, WEST SIDE OF RIDGE SEPARATING BLACK GLASS CANYON FROM PAINTBRUSH CANYON, BY ROBERT DICKERSON. RECEIVED BY THE TDB ON 03-AUG-1995.

GS941208314211.065 - MEASURED SECTION TPKT-3, SOUTH RIDGE OF POINT JOEY 5352, COMB PEAK, BY ROBERT DICKERSON AND RONALD DRAKE. RECEIVED BY THE TDB ON 03-AUG-1995.

GS950208314211.013 - MEASURED STRATIGRAPHIC SECTION ON THE EAST SIDE OF SOLITARIO CANYON (SC#2), BY JEFFREY K. GESLIN. RECEIVED BY THE TDB ON 03-AUG-1995.

GS950608314211.025 - 44 MEASURED SECTIONS, MEASURED IN 1985 AND 1986 IN THE VICINITY OF YUCCA MOUNTAIN. RECEIVED BY THE TDB ON 03-AUG-1995.

GS940708314211.033 - MEASURED SECTION RPD92PCMS-1 OF THE CALICO HILLS FORMATION OF THE UPPER PAINTBRUSH CANYON. RECEIVED BY THE TDB ON 03-AUG-1995.

GS950308312213.003 - GRAVIMETRIC WATER CONTENT OF SELECTED SURFICIAL MATERIAL SAMPLES. RECEIVED BY THE TDB ON 03-AUG-1995.

**GS920708315215.022 - CALCAREOUS MICROFOSSIL STUDIES OF TRENCH 14 AND BUSTED BUTTE, NYE COUNTY, NEVADA.
RECEIVED BY THE TDB ON 03-AUG-1995.**

**TM0012136T1FA.002 - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT SUMMARY OF SOCIOECONOMIC DATA ANALYSES CONDUCTED IN SUPPORT OF THE RADIOLOGICAL MONITORING PROGRAM DURING CALENDAR YEAR 1994 (JUNE 1995).
RECEIVED BY THE TDB ON 03-AUG-1995.**

**LL950704205911.002 - DATA FROM A LETTER REPORT ON CRACK GROWTH RATES OF TITANIUM GRADE 12, HASTELLOY C-22, AND HATELLOY C-4 IN SIMULATED J-13 WATER AT 93 DEGREES C.
RECEIVED BY THE TDB ON 07-AUG-1995.**

**GS950308312213.002 - FY94 BOREHOLE ASSUMED DENSITY AND GEOPHYSICAL LOGGING CALIBRATION EQUATIONS. (PACKAGE ALSO CONTAINS CALIBRATION GAMMA-GAMMA COUNTS FROM WHICH THE EQUATIONS WERE DERIVED.)
RECEIVED BY THE TDB ON 08-AUG-1995.**

6. The following technical data submittal were processed into the TDB during this period:

**LA000000000100.002- FRACTURE LINING MINERALS IN DRILL CORE UE-25 UZ#16
PROCESSING COMPLETED ON 02-AUG-1995 .**

**LA000000000086.002- MINERALOGIC VARIATION IN DRILL CORE UE-25 UZ#16 YUCCA MOUNTAIN, NEVADA
PROCESSING COMPLETED ON 04-AUG-1995 .**

**SNF29041993002.001- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25 NRG-2.
PROCESSING COMPLETED ON 08-AUG-1995 .**

**SNF29041993002.003- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25 NRG-1.
PROCESSING COMPLETED ON 08-AUG-1995 .**

"PRELIMINARY" - Preliminary 3D Saturated Zone Flow Model.

PROCESSING COMPLETED ON 08-AUG-1995 .

**"PRELIMINARY" - PRELIMINARY SITE HYDROGEOLOGIC 3D
FRAMEWORK MODEL
PROCESSING COMPLETED ON 08-AUG-1995 .**

**GS950508312312.004- WATER-LEVEL ALTITUDE DATA FROM THE
CONTINUOUS NETWORK, 1994.
PROCESSING COMPLETED ON 08-AUG-1995 .**

**TM00121361T1EC.002- YUCCA MOUNTAIN SITE CHARACTERIZATION
PROJECT SOCIOECONOMIC MONITORING PROGRAM QUARTERLY
EMPLOYMENT DATA REPORT JANUARY 1995 THROUGH MARCH 1995.
PROCESSING COMPLETED ON 08-AUG-1995 .**

**GS950308312213.004- CUMULATIVE INFILTRATION AND SURFACE FLUX
RTES CONDUCTED IN FORTYMILE WASH AND NEAR UE-25 UZN#7,
CALCULATED FROM RAW MILLIVOLT READINGS.
PROCESSING COMPLETED ON 08-AUG-1995 .**

**SNF29041993002.002- YUCCA MOUNTAIN SITE CHARACTERIZATION
PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE RF#8.
PROCESSING COMPLETED ON 09-AUG-1995 .**

**SNF29041993002.005- YUCCA MOUNTAIN SITE CHARACTERIZATION
PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25
NRG-3.
PROCESSING COMPLETED ON 09-AUG-1995 .**

**SNF29041993002.007- YUCCA MOUNTAIN SITE CHARACTERIZATION
PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25
NRG-5.
PROCESSING COMPLETED ON 09-AUG-1995 .**

**GS940783117462.004- PROFILE DATA ON SCARP MORPHOLOGY FROM
STUDY OF TRENCHES AND EXPOSURES, 11/93-5/94
PROCESSING COMPLETED ON 09-AUG-1995 .**

**GS930808314212.010- GRAVITY AND MAGNETIC DATA OF MIDWAY
VALLEY, SOUTHWEST NEVADA, BY D. A. PONCE, V.E. LANGENHEIM,
AND R.F. SIKORA.
PROCESSING COMPLETED ON 09-AUG-1995 .**

GS930408312134.001- LATE-WISCONSIN PALEOHYDROLOGY OF THE

WEST-CENTRAL AMARGOSA DESERT, NEVADA, U.S.A., BY HANS C. CLAASEN.

PROCESSING COMPLETED ON 09-AUG-1995 .

SNF29041993002.004- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25 NRG-2A.

PROCESSING COMPLETED ON 14-AUG-1995 .

SNF29041993002.006- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE USW NRG-6.

PROCESSING COMPLETED ON 14-AUG-1995 .

SNF29041993002.008- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25 NRG-4.

PROCESSING COMPLETED ON 14-AUG-1995 .

SNF29041993002.014- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE UE25 NRG-28.

PROCESSING COMPLETED ON 14-AUG-1995 .

GS941108312242.002- PROTOTYPE PERCOLATION TEST: BASIC DATA REPORT ON WELDED TUFF CORE EXPERIMENTS, BY MAREK CIESNIK, JENNIFER CURTIS, ALAN FLINT, DAVID HAMPSON AND FALAH THAMIR.

PROCESSING COMPLETED ON 14-AUG-1995 .

GS940408314211.020- GRAPHICAL LITHOLOGIC LOG OF BOREHOLE USW NRG-7/7A, VERSION 1.0 BY J. GESLIN AND T. MOYER

PROCESSING COMPLETED ON 15-AUG-1995 .

GS911008315215.014- ANALYTICAL RESULTS OF URANIUM AND URANIUM ACTIVITY RATIOS IN WELDED TUFF AND QUATERNARY ALLUVIUM AQUIFERS.

PROCESSING COMPLETED ON 15-AUG-1995 .

SNF29041993002.022- BEDROCK GEOLOGY OF EXILE HILL

PROCESSING COMPLETED ON 17-AUG-1995 .

GS931208315215.036- STABLE ISOTOPE COMPOSITION OF SOIL CO₂, MARCH 93 - SEPT. 93.

PROCESSING COMPLETED ON 17-AUG-1995 .

LL950704205911.002- Data From a Letter Report on Crack Growth Rates of Titanium Grade 12, Hastelloy C-22, and Hatelloy C-4 in Simulated J-13 Water at 93 Degrees C.

Processing completed on 17-aug-1995 .

**GS940108312232.003- PRESSURE, MASS FLOW MEASUREMENTS AND TEMPERATURE MEASUREMENTS FROM UE-25 UZ #16 BOREHOLE AIR INJECTION TESTING BETWEEN 11-03-93 AND 04-01-94
PROCESSING COMPLETED ON 22-AUG-1995 .**

**"PROVISIONAL RESULT- PROVISIONAL RESULTS: INITIAL BOUNDARY CONDITIONS OF THE REGIONAL 3D GROUNDWATER FLOW MODEL.
PROCESSING COMPLETED ON 23-AUG-1995 .**

**GS950708312232.006- PRESSURE, MASS FLOW MEASUREMENTS AND TEMPERATURE MEASUREMENTS FROM UE-25 UZ#16 BOREHOLE AIR INJECTION TESTING FOR MARCH 1994. THESE DATA SUPERSEDE THE MARCH 1994 DATA PREVIOUSLY IDENTIFIED BY DTN GS9
PROCESSING COMPLETED ON 23-AUG-1995 .**

**GS950308312213.002- FY94 BOREHOLE ASSUMED DENSITY AND GEOPHYSICAL LOGGING CALIBRATION EQUATIONS. (PACKAGE ALSO CONTAINS CALIBRATION GAMMA-GAMMA COUNTS FROM WHICH THE EQUATIONS WERE DERIVED.)
PROCESSING COMPLETED ON 23-AUG-1995 .**

**SNT02052794001.001- GEOLOGIC CORE LOGS FOR USW SD-9
PROCESSING COMPLETED ON 25-AUG-1995 .**

**LL950404504242.011- POROSITY DATA OF TOPOPAH SPRING TUFF
PROCESSING COMPLETED ON 29-AUG-1995 .**

**GS950483115221.001- TEMPERATURE LOG DATA OBTAINED IN WELL USW G-2, FEBRUARY, 1995.
PROCESSING COMPLETED ON 29-AUG-1995 .**

**GS950508312134.001- GEOHYDROLOGY AND EVAPOTRANSPIRATION AT FRANKLIN LAKE PLAYA, INYO COUNTY, CALIFORNIA, BY JOHN B. CZARNECKI. THESE DATA SUPERSEDE DATA PREVIOUSLY IDENTIFIED BY GS910408312141.001.
PROCESSING COMPLETED ON 01-SEP-1995 .**

SNF29041993002.054- YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT GEOLOGY AND ROCK STRUCTURE LOG FOR DRILLHOLE USW

SD-12, 650-800 FT., REV. 0.
PROCESSING COMPLETED ON 05-SEP-1995 .

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN: None

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 **REGULATORY**

WBS 1.2.5.3.6 **GEOGRAPHIC INFORMATION STUDY AND EVALUATION
SYSTEM (GENISES)**

SA OE536B4 **GIS DATABASE, SITE ATLAS, ARCVIEW AND GIS DATA
CATALOG**

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: S. Ross

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. Verification and reproduction of the 1995 Site Atlas were completed. A Document Authorization Request was generated and submitted to YMP Plans, Procedures and Documents section. Two volumes of the Site Atlas were produced this year to accommodate both GIS map products (Volume 1) and orthophotography basemaps and hypsography maps (Volume 2). Notification was received on September 21 that the DAR had been approved. 100 copies of Volumes 1 and 2 were delivered to YMP Document Control on September 21.
2. Support for the Preliminary Transportation Strategy Study 2 was completed. The automation effort was completed including the creation of manuscript maps (134 total), and digitization and verification of 73 map sheets at 1:24,000-scale and 1:63,360-scale. 25 new map products were generated and delivered to the M&O/TRW for internal review. Final products were generated and delivered on September 20, including a report appendix.
3. The YMP GIS Baseline database continued to be evaluated, reformatted and verified to facilitate the transition activities. Compilation of Arc/Info coverage metadata into the Federal Spatial Data Metadata Standards continued.
4. David Brickey worked with the EG&G/EM Environmental Sciences Division and completed an update to the YMP Surface Disturbance map and YMP Vegetation map.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN:

The preparation of metadata in a Federal Spatial Data compliant standard format for the YMP GIS Baseline database was not completed. A status report will be issued, and all source materials required to complete the data descriptions will be transitioned to the M&O.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

WBS 1.2.5.3.6 GENISES

SA OE536C95 GIS, MAPPING AND ANALYSIS SUPPORT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: Jeff Donovan

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. GIS map products were generated to support project participants and are detailed in the "Deliverables" section of this report. New map requests were not accepted after August 7, 1995 without approval from Steve Bodnar (M&O/TRW).

2. The following photo products were generated:

NR95071903 Three 18"x23" color prints and one 18"x23" duratrans transparency of EG&G Negative #91I701L was provided to Dennis O'Leary (USGS) on August 9.

NR95080403 Four contact prints each of the following were provided to Terry Crump (M&O/TRW) on August 10:
 EG&G Perf #5826 - Frames 1 - 30
 EG&G Perf #7488 - Frames 43 - 46

NR95080402 Four contact prints each of 32 LANL photos were provided to Terry Crump (M&O/TRW) on August 10.

NR95082202 A 3'x4' black and white print of YMP-95-079.0 "Flood Inundation Boundaries of the Mid Valley Wash Area" was provided to August Matthusen (WCFS) on August 28.

NR95072602 162 photo products from the 1:6,000 scale orthophoto sheets 9, 10, 11, 15, 16, 17, 21, 22 and 23 were prepared. 270 photo products from the 1:12,000 scale orthophotos sheets 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29 and 30 were prepared for Bob Dickerson (USGS/SAIC) on September 22.

3. The following digital data transfers were provided:

- YMP-95-465.0 One 8mm tape containing Arc/Export files and FGDC documentation for 10 basemap coverages was provided to Ron Hess (UNR/NBMG) on August 1.
- YMP-95-490.0 One QIC tape containing Arc/Export files of DEM derived streams and watersheds was provided to Alan Flint (USGS) on August 2.
- YMP-95-512.0 One 8mm tape containing a digital copy of 40 borehole geophysical logs and core measurement data was provided to Peter Merkle (SNL) on August 2.
- YMP-95-511.0 One DC2120 mini-data cartridge tape containing 28 Arc/Export files and associated FGDC documentation was provided to Steve Bodnar (M&O/TRW) on August 3.
- YMP-95-514.0 One 8mm TAR tape in ASCII format with x,y,z data derived from the 10 foot elevation contours from the 1990 1:6,000 scale orthophotos was prepared for Gerald Neider-Westermann (M&O/MK) on August 8.
- YMP-95-482.0 One QIC tape of the following Arc/Info export files was provided to David Hudson (USGS) on August 31. 1) Scott and Bonk Geology modified with USGS provided data, and 2) Scott and Bonk geology dissolved on flux2.
- YMP-95-522.0 One 3.5" diskette containing ASCII files of the TFM entries from the LANL TFM database (tfmapps, tfms, and tfmaur) was prepared for Ron Oliver (LANL) on September 7.
- YMP-95-528.0 One 8mm tape containing the image of preliminary geologic map of souther Yucca Mountain by R. Scott was provided to Warren Day (USGS) on September 18.
- YMP-95-521.0 One 3.5" diskette containing field station location data files in ASCII format for 1:6,000 scale orthophoto sheets 20, 21, 22, 26, 27, 28 was provided to Scott Lundstrum (USGS) on September 20.

4. The following miscellaneous products were provided:

- YMP-95-504.0 Review comments for the 10 foot elevation contour Reference

Information Base entry were generated and provided to Shaine Bodnar (WCFS) on August 28.

YMP-95-519.0

Four floppy disks containing surficial deposit maps were provided to Scott Lundstrom (USGS) on September 26.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

WBS 1.2.5.3.6 GENISES

SA OE536E95 COMPUTER SUPPORT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: TBD

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD: None

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN: None.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

WBS 1.2.5.3.6 GENISES

SA OE536G95 CAPITAL EQUIPMENT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: Elaine Ezra

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD: None.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN:

1. FY95 capital equipment items will not be purchased by EG&G/EM.

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: None.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 REGULATORY

WBS 1.2.5.3.6 GENISES

SA OE536D95 PROJECT MANAGEMENT

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: Elaine Ezra

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

Reporting/Tracking/Planning

1. August PACS input was compiled and submitted to Robert Spiro (M&O).
2. EG&G/EM property was transferred to M&O/TRW.
3. Hardware/software/service contracts and license agreements required for transfer were identified for M&O/TRW.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN:

1. EG&G/EM staff who interviewed with TRW have not yet received job offers, as of September 26.
2. An M&O transition plan was not provided to EG&G/EM. Transition activities have proceeded according to the tasking identified under the EG&G/EM recommended transition plan. All FY95 PACs deliverables were completed by EG&G/EM. Some of the additional tasking identified under the EG&G/EM recommended transition plan were not completed. A turnover package is being prepared that will provide M&O/TRW with available transition deliverables and a status of all items identified under the EG&G/EM recommended transition plan.
3. If the software licenses cannot be transferred from EG&G/EM to TRW, the software will need to be deinstalled from the systems, and re-purchased by TRW. Harry Leake (TRW) is researching the software license transfers.

**ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT
PERIOD: None.**

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.5 SITE INVESTIGATIONS

WBS 1.2.5.3.7 SPECIAL STUDIES: TRACERS, FLUIDS AND MATERIALS

SA OE394A TRACERS, FLUIDS AND MATERIALS

REPORT PERIOD: August 1, 1995 - September 29, 1995

REPORT DATE: September 29, 1995

RESPONSIBLE INDIVIDUAL: Jim Beckett

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. Modifications to the database and the on-line application to comply with YMP-2.8 "YMP TFM Reporting and Management Procedures are complete. The modified on-line system is ready for installation. It will be included in the GENISES CD-ROM for installation by project personnel.

2. The following TFM data were received and processed during this period.

**AS BUILT - TFM USED ON THE TOPSOIL AND ROCK STORAGE PAD
RECEIVED BY THE TDB ON 09-AUG-1995.**

**AS BUILT - ESF NORTH RAMP JOB PACKAGE 9416
RECEIVED BY THE TDB ON 21-AUG-1995.**

**BAB000000-01717-22 - ESF PACKAGE 2C CONSTRUCTION/OPERATION
(TOPOPAH SPRING NORTH RAMP)
RECEIVED BY THE TDB ON 21-AUG-1995.**

**AS BUILT - SEISMIC CATALOG FOR THE SOUTHERN GREAT BASIN
SEISMIC NETWORK.
RECEIVED BY THE TDB ON 24-AUG-1995.**

**AS BUILT - TRACERS, FLUIDS, AND MATERIALS (TFMS) USED ON MUCK
STORAGE ACCESS ROAD AND FIRST ONE-THIRD OF MUCK STORAGE
AREA.
RECEIVED BY THE TDB ON 28-AUG-1995.**

AS BUILT - TRACERS, FLUIDS, AND MATERIALS, (TFMS) USED ON RAW WATER SUPPLY FROM WELL J-13 TO NORTH PORTAL RECEIVED BY THE TDB ON 28-AUG-1995.

AS BUILT - ESF NORTH RAMP JOB PACKAGE 9416
PROCESSING COMPLETED ON 20-SEP-1995 .

BAB000000-01717-22- ESF PACKAGE 2C CONSTRUCTION/OPERATION
(TOPOPAH SPRING NORTH RAMP)
PROCESSING COMPLETED ON 20-SEP-1995 .

AS BUILT - TFM USED ON THE TOPSOIL AND ROCK STORAGE PAD
PROCESSING COMPLETED ON 20-SEP-1995 .

AS BUILT - TRACERS, FLUIDS, AND MATERIALS (TFMS) USED ON MUCK STORAGE ACCESS ROAD AND FIRST ONE-THIRD OF MUCK STORAGE AREA.
PROCESSING COMPLETED ON 20-SEP-1995 .

AS BUILT - TRACERS, FLUIDS, AND MATERIALS, (TFMS) USED ON RAW WATER SUPPLY FROM WELL J-13 TO NORTH PORTAL
PROCESSING COMPLETED ON 20-SEP-1995 .

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN:

As planned activities are evaluated, a list of approved TFMs are submitted to the TFM DBA. Prior to September 1995, the DIE group submitted the information on a standard DIE form with a cover letter. In early September, the TFM DBA was notified that the formal submittal process would be terminated in lieu of the controlled document DIE. This was acceptable to the DBA at the time. However, concurrent with the change of procedures, the DIE form which listed the TFM data and their controls was eliminated from the controlled document DIEs. This means that the TFM DBA will be required to review and interpret TFM information from text, which is unacceptable. The DIE documents do not provide a set format for receiving the data and information must be interpreted in the text. The TFM DBA has requested corrective action be taken.

The YMP TFM procedure only affects data provided after the approval of the procedure. All data provided prior to this procedure will have to be reformatted and input into the new data files. The reformatting of the existing data in the TFM database will require extensive interpretation to allow an accurate transfer. All of these will have to be reverified. This is an extensive effort and will require an estimated 90 days to complete.

PROGRESS REPORT FOR EG&G/EM RSL SUPPORT TO YMP
Work Accomplished

WBS 1.2.12 **RECORDS MANAGEMENT**

SA OEC23A95 **RECORDS MANAGEMENT**

REPORT PERIOD: **August 1, 1995 - September 29, 1995**

REPORT DATE: **September 29, 1995**

RESPONSIBLE INDIVIDUAL: **J. Wiggins**

SUMMARY OF WORK ACCOMPLISHED DURING REPORT PERIOD:

1. 848 NQRs were processed into the YMP Records Processing Center, closing out EG&G/EM's YMP WBS 1.2.3 and 1.2.5 NQR records.
2. 70 QARs were processed into the YMP Records Processing Center, closing out EG&G/EM's YMP WBS 1.2.3 and 1.2.5 quality records.
3. YMP controlled documents held by EG&G/EM were decontrolled and destroyed.

MAJOR PROBLEMS AND CORRECTIVE ACTION UNDERTAKEN: **None.**

ANTICIPATED SIGNIFICANT EVENTS PLANNED DURING NEXT REPORT PERIOD: **None.**

STATUS OF DELIVERABLES FOR EG&G/EM RSL SUPPORT TO YMP

August 1, 1995 through September 29, 1995

GIS MAP SUPPORT

<u>Description</u>	<u>Requested by/ Organization</u>	<u>Date Sent</u>	<u>Size</u>	<u>No. of Copies</u>
YMP-95-468.1 Carvers, Nevada	Gehner/TRW	8/1/95	Full	1
YMP-95-506.0 Rail Map	Lechel/TRW	8/2/95	Page	1
YMP-95-507.0 Interstate Highway Map	Lechel/TRW	8/2/95	Page	1
YMP-95-509.0 Untitled, Map showing selected boreholes	Yang/Intera	8/2/95	Page	1
NTS Radiation Survey - 1994 Man Made Exposure Rate Map NTS-95-010 NTS-95-011 NTS-95-012 NTS-95-013 NTS-95-014	Tappen/SAIC	8/2/95	Page	4
YMP-95-513.0 Southern Nevada Proposed Routes, Heavy Haul Truck	Inglett/SAIC	8/3/95	Page	1
YMP-95-314.1 Belmont East, NV	Gehner/TRW	8/3/95	Full	1
YMP-95-219.1 Southern NV Proposed Routes, Heavy Haul Truck	Gehner/TRW	8/9/75	Full	1
YMP-95-508.0 Top Paleozoic Basement Based on Gravity Data	Tynan/YMSCO	8/9/95	Full	1
YMP-95-485.0 Site Area Fault Map	Zelinski/SNL	8/9/95	Full	1
YMP-95-491.0 Preliminary Surficial Deposits Map	Lundstrum/USGS	8/9/95	Full	1

YMP-95-044.2 Plate 3: Rail Corridors, Northern Route	Lindenburg/YMPO	8/10/95	Full	1
YMP-95-040.0 Existing and Planned Boreholes	Gromny/WCFS	8/10/95	Full	2
YMP-95-014.2 Preliminary Surficial Deposits Map	Bodnar/TRW	8/10/95	Full	6
YMP-95-446.0 Base Map for Accident Analysis - Southern NV	Fortkamp/Intera	8/10/95	Full	1
YMP-95-420.0 NV Land Ownership	Gehner/TRW	8/11/95	Full	5
YMP-95-382.1 Caliente Route				
YMP-95-383.1 Carlin Route				
YMP-95-384.1 Jean Route				
YMP-95-385.1 Valley Modified Route				
YMP-95-138.1 7.5 & 15 Minute Map Index for use with Preliminary Transportation Studies	Gehner/TRW	8/11/95	Full	1
Proposed Rail Corridors	Gehner/TRW	8/14/95	Full	17
YMP-95-403.0				
YMP-95-404.0				
YMP-95-405.0				
YMP-95-406.0				
YMP-95-407.0				
YMP-95-408.0				
YMP-95-409.0				
YMP-95-410.0				
YMP-95-411.0				
YMP-95-412.0				
YMP-95-413.0				
YMP-95-414.0				
YMP-95-415.0				
YMP-95-416.0				
YMP-95-417.0				
YMP-95-418.0				
YMP-95-419.0				

YMP-95-051.4	Hennessy/USGS	8/14/95	Page	1
YMP-95-052.5	Hennessy/USGS	8/14/95	Page	1
YMP-95-426.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-447.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-452.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-455.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-456.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-457.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-458.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-459.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-460.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-461.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-462.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-463.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-464.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-466.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-467.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-468.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-469.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-470.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-471.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-472.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-473.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-474.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-475.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-486.0	Hennessy/USGS	8/14/95	Page	1
YMP-95-487.0	Hennessy/USGS	8/14/95	Page	1
Surface Based Testing Activities	Ross/EG&G/EM	8/16/95	Full	18
SA95-11-01				
SA95-11-02				
SA95-11-03				
SA95-11-04				
SA95-11-05				
SA95-11-06				
SA95-11-07				
SA95-11-08				
SA95-11-09				
YMP-95-040.0 Existing and Planned Boreholes	Shillings/TRW	8/17/95	Full	1
YMP-95-498.0 Boreholes Planned	Herrin/M&O	8/21/95	Full	1

YMP-95-499.0	Planned Boreholes	Herrin/M&O	8/21/95	Page	1
YMP-95-386.0	Existing and Planned Boreholes with Sub- surface Layout	Saterlie/TRW	8/22/95	Full	2
YMP-95-509.1	Untitled, Selected Boreholes and Repository Outline	Yang/Intera	8/22/95	Page	1
YMP-95-500.0 & YMP-95-501.0	Existing Boreholes	Herrin/M&O	8/22/95	Full Page	1 1
YMP-95-510.0	Candidate Water - Quality Monitoring Sites in the YM Area and Region	Fasano/M&O	8/23/95	Full Page	2 3
YMP-95-518.0	Selected Test Pits and Preliminary Surficial Deposits Map	Lundstrom/USGS	8/24/95	Full	2
YMP-95-491.0	Preliminary Surficial Deposits Map	Lundstrom/USGS	8/24/95	Full	5
YMP-95-503.0	Area 25 Road	Giannini/TRW	8/24/95	Full	3
Proposed Rail Corridors		Gehner/TRW	8/30/95	Full	17
YMP-95-403.0					
YMP-95-404.0					
YMP-95-405.0					
YMP-95-407.0					
YMP-95-408.0					
YMP-95-409.0					
YMP-95-410.0					
YMP-95-411.0					
YMP-95-412.0					
YMP-95-413.0					
YMP-95-414.0					
YMP-95-415.0					
YMP-95-416.0					

YMP-95-417.0
YMP-95-418.0
YMP-95-419.0

YMP-95-510.0 Candidate Water - Quality Monitoring Sites in the YM Area and Region	Fasano/M&O	8/31/95	Full Page	2 3
---	------------	---------	--------------	--------

YMP-93-320.0 Selected Cross Sections Base on the Calma 3-D Model of Thermal/Mechanical Stratigraphy	Peck/M&O	9/5/95	Page	1
--	----------	--------	------	---

YMP-95-491.0 Preliminary Surficial Deposits Map	Bodnar/TRW	9/7/95	Full	5
--	------------	--------	------	---

YMP-95-493.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-494.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-495.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-502.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-219.1	Hennessy/USGS	9/27/95	Page	1
YMP-95-314.1	Hennessy/USGS	9/27/95	Page	1
YMP-95-446.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-468.1	Hennessy/USGS	9/27/95	Page	1
YMP-95-485.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-498.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-499.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-500.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-501.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-506.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-507.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-508.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-509.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-510.1	Hennessy/USGS	9/27/95	Page	1
YMP-95-513.0	Hennessy/USGS	9/27/95	Page	1
YMP-95-503.0	Hennessy/USGS	9/27/95	Page	1

TOTAL MAPS 163

TOTAL NEW MAPS 21