

1996-1997 TEMA/DOE Oversight Annual Report

The Tennessee Emergency Management Agency (TEMA) has entered into a five-year agreement with the Department of Energy (DOE) to provide emergency response activities associated with the Oak Ridge Reservation (ORR). The Agreement in Principle (AIP) delineates the duties and responsibilities of the parties.

The agreement tasked TEMA with the following responsibilities:

- Develop Offsite Emergency Plans
- Conduct Emergency Management Training
- Develop Offsite Emergency Organizations
- Develop Emergency Communications
- Develop Emergency Facilities
- Conduct Exercises and Drills
- Provide Detection and Protection Equipment
- Develop an Emergency Staff

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DELIVERABLE 1

TEMA will develop off-site Multi-Jurisdictional Emergency Response Plans (MJERPs) in coordination with Federal, State, and local agencies, using applicable Federal statutory and regulatory criteria, and DOE and Federal Emergency Management Agency (FEMA) guidance. The MJERPs will describe the exchange of information and cooperation between the TEMA, and all other responding agencies, to ensure risks to the citizens of Tennessee are minimized in the event of an off-site hazardous materials release from the DOE Oak Ridge Reservation.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The Tennessee Emergency Management Agency was quite active during this quarter in developing the Y-12 MJERP. The Plan will be developed in time to allow state, federal and local agencies time to review and comment on the Plan prior to the scheduled January 22, 1997, functional exercise. TEMA serves as the coordination point for all comments concerning the MJERP and activities involving the Plan.

Area Coordinators have worked within the local governments to help them create or rewrite their standard operating procedures as they deal with the offsite response to any DOE activity. The TEMA Staff works very closely with all contractor and DOE staff to insure close coordination on any subject involving the Plan and its development. Annual reviews will be scheduled once the Y-12 Plan is accepted.

DISCLAIMER

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TEMA planning staff has participated this quarter in six meetings to develop and update local emergency response plans for the DOE counties. This effort was to reduce/eliminate inconsistencies between the MJERP and county plans.

3rd Quarter (January 1, 1997 – March 30, 1997)

TEMA issued the first draft of the MJERP for the Y-12 Site. The draft served as the working tool for the functional exercise on January 22, 1997 and the full participation exercise on March 19, 1997.

The Y-12 MJERP serves as the first full attempt at developing the MJERP into the Emergency Support Function (ESF) format and will serve as the Basic Plan to develop the MJERP into the ORO Site Plan. This would eliminate having three separate site plans. The ORNL MJERP will be developed as a part of the new ORO Site Plan. The MJERP for the East Tennessee Technology Park (formerly K-25) will be completed in 1998-1999 time frame.

The final draft of the Y-12 Plan was issued on March 7. This draft incorporated written comments from the following agencies:

- Department of Energy
- Lockheed Martin Energy Systems
- Division of Radiological Health
- Division of Forestry
- Department of Transportation
- Department of Human Services

Significant changes included the following:

- Addition of chapter "ESF 3.4 Water and Wastewater Systems"
- Addition of hazard assessment information
- Addition of sector map showing updated (1995) population figures
- New shelter assignments based on updated population figures
- Revised notification list
- Revised EBS messages
- Revised hospital list to reflect pending MOUs

Work has begun on the multi-site plan which will include:

- Adding EMNET information
- Incorporating the on-site integrated concept
- Adding new concepts on management of EMCC
- Verifying and adding site-specific information from previous plans and incorporating new information for the X-10 Site

TEMA area coordinators worked during third quarter to help evaluate SOPs for local government. As the Y-12 FPE was conducted, evaluators and controllers were advised to ensure that SOPs were available.

Prior to the Y-12 FPE, updates and changes of site ERPs were reviewed and found to be in synchronization with those of the MJERP. Updates to the Y-12 Plan, provided by state agencies, were also reviewed prior to implementation in the Plan.

Emergency Support Function (ESF)-based plans for local government continue to be developed and/or reviewed. Knox, Anderson, and Loudon County Emergency Management Plans are completed. The revised and corrected Roane County Emergency Management Plan will be completed and published next quarter. Requested changes by Anderson County to reflect 911 relocation and other issues will be reviewed next quarter.

TEMA area coordinators will be conducting proximity hazards next quarter to determine any demographic changes that could effect the safety of DOE sites.

4th Quarter (April 1, 1997 – June 30, 1997)

The following compilation of activities created a full quarter of activities as the TEMA continues to put closure on the Y-12 Plan and exercise and to initiate the ORNL Offsite Plan and incorporate it into a reservation plan. Part of the quarterly activities is as follows:

- Reviewed Oak Ridge Reservation Plan and submitted comments to DOE
- Developed message for Knox County Southeast Directory telephone book.
- Developed dialogic messages for DOE scenarios.
- Developed objectives for Volunteer '98 exercise.
- Acquired street maps for Anderson and Roane Counties. Currently coordinating with Knox and Loudon Counties in acquiring street maps.
- Currently writing DOE multi-site plan containing ORNL information. Tentative date of distribution is November 1 (this includes a 30-day printing time).
- Developed initial criteria to populate EIS databases. Responsibilities will be assigned once Mr. Pat Bohanan approves it.

The area coordinators reviewed SOPs during the last quarter and are projected to initiate a review of 25% per quarter during the next year. This will allow for an opportunity to review a percentage of the SOPs per quarter rather than an annual review.

Roane County has completed the rewriting of their implementing procedures for the Y-12 prior to the FPE. They now have a multi-site format for their implementing procedures.

Loudon County has also rewritten their implementing procedures as multi-site SOPs for the DOE reservation.

TEMA area coordinators have worked with the EMA directors of the counties surrounding the DOE Oak Ridge sites and established the following information concerning the demography and proximity hazards within the sectors effecting DOE sites.

ANDERSON COUNTY

In the Anderson County/Oak Ridge area, a total of eight new businesses and 50 new homes were constructed. Residential construction included three new subdivisions and 14 new streets, located near the outer boundaries of Sectors N and P.

An overview of this activity is provided below:

RESIDENTIAL

14 new streets with 28 new homes

12 existing streets with 22 new homes

COMMERCIAL

<u>Address</u>	<u>Business Type</u>	<u>Sector</u>
1302 Edgemoor	golf course	P
1062 Oak Ridge Turnpike	office	N
120 S. Illinois Avenue	auto repair shop	Y
801 Oak Ridge Turnpike	medical office	N
220 S. Illinois Avenue	office	Y
Cullers Court	nursery (flowers)	Y
40 New York Avenue	office	N
1133 Oak Ridge Turnpike	pharmacy	N

KNOX COUNTY

With regard to population increases in emergency planning zone sectors Q and R of the DOE facilities, EMA has reviewed the data compiled by the Knox County Metropolitan Planning Commission. Since January of 1996, eleven new streets have been added. Assuming that 50 persons live on each new street, this would indicate a population increase of 550 due to new construction. This review indicated no

significant industry or special needs populations, which have not been already considered.

There are two parks in these sectors, Melton Hill Park and Guinn Road Park. Melton Hill Park has two boat ramps and parking facilities for 30 cars. Guinn Road Park has one ramp and parking for no more than five cars.

There is a water treatment facility on Williams Bend Road adjacent to Melton Hill Park, which is operated by West Knox Utility District. This plant has no more than four operators. In the event that an evacuation was necessary, the plant could be shut down in 15-20 minutes. The area served by this facility extends to areas outside Sectors Q & R as far south as I-40.

LOUDON COUNTY

New Population Areas (outside Sectors A & S – none known inside)

Cordova Development – off Old State Route 95 approximately one mile SE of National Guard Armory. This subdivision is currently under construction. Streets include Cordova Lane, Del Rio Lane and La Casa Lane.

Executive Meadows and Golf Course – off Old State Route 95 approximately 1.5 miles SE of National Guard Armory. This elite subdivision is currently under construction. Streets include Executive Meadows Drive, Nicolosi Lane, Golf Club Lane, Hightower Lane and Tee Lane.

Adesa Parkway – from 1100 Hwy 321 N to Old State Route 95 near I-75 overpass. Onsite facility – Adesa of Knoxville Auto Auctions, located on West Adesa Parkway near Old State Route 95.

Medical Park Drive – 915 Hwy-321 N. Onsite facility – Ft. Sanders Medical Center, 423 Medical Park Drive.

Super Wal-Mart Store (under construction) 911 Hwy-321 N next to Ft. Sanders Medical Clinic.

Avalon Subdivision and Golf Course – 8601 Hwy 70 W (between Eaton Crossroads, Hwy 321 and Dixie Lee Junction, US Hwy 11) Outside but near Sector S. Streets within include Oak Chase Blvd., Skyview Drive, Fountainhead Ct., Deerfield Ct., Cardinal View Ct., Brookview Ct., Westchester Rd., Timberline Dr., Falcon Head Ct., The Oak Ct., Windy Oaks Ct., Arrowhead Ct., Essex Ct., Downing Ct., Barclay Ct., Windswept Dr., Chelsea Circle, Wedgewood Drive, Falcon Fire Ct., and Waterford Circle.

There are no known changes in evacuation and/or major transportation routes within Loudon County

ROANE COUNTY

The proximity report for Roane County is incomplete at this time.

DELIVERABLE 2

TEMA, in coordination with State and local agencies, will participate in functional and full-participation exercises annually in accordance with the MJERPs. All tasked agencies and emergency response organizations will participate in these exercises to include full activation of the OREOC, SEOC, JIC, EMCC, FCC, field monitoring teams, and laboratory facilities. Participation shall be of the nature and quality to amply demonstrate the capability of protecting the health and safety of the public in accordance with established exercise evaluation processes.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

Preparation for the Full Participation Exercise on March 19, 1997, has been the main focus during the quarter. Significant milestones achieved include:

- State and DOE Field Monitoring Team Exercise on October 9, 1996. Five Field Monitoring Teams (FMTs) were fielded over a four-hour period. Monitoring, communications, and simulated sampling activities were carried out.
- A Table Top / Command Post Exercise was conducted on December 4, 1996. All major organizations and political subdivisions were present.
- Command Post exercises were conducted on December 11, 1996, for Y-12 and December 18, 1996 for K-25.
- Preplanning for the Joint Information Center Exercise continued in December.
- After each exercise, critiques were held and lessons learned were developed to incorporate into exercise planning.

3rd Quarter (January 1, 1997 – March 30, 1997)

The third quarter was a very active time for DOE, contractor, and state and local governments as the anticipated functional and full-participation exercises were being refined.

The Tennessee Department of Environment and Conservation's Oversight Division and TEMA personnel participated in numerous table-top exercises and meetings to help ensure that all parties were in coordination with each other.

The exercise preparation served to enhance both professional and personal growth as parties from federal, state, and local governments grew to understand their roles and responsibilities. This experience was beneficial as the agencies proved they could plan and perform the task assigned. These learned objectives will serve as the basis for continued growth as the MJER ORO Plan is developed and we prepare for the ORNL exercise.

The functional exercise was conducted on January 22, 1997, and the FPE, conducted on March 19, served to exercise nearly all major objectives. The objective that succumbed to real events was that of recovery. All parties recognize that recovery is a very conclusive and time consuming segment of any exercise or real event.

Evaluators and controllers will hopefully make their findings available next quarter and deficiencies will be addressed at that time. Area coordinators will assist local and state agencies in training or assessment to correct any shortfalls. At the present time, these deficiencies are believed to be very few.

The Y-12 FPE allowed for the new Joint Information Center (JIC) to be utilized. The State of Tennessee's Military Department consented to one of its new spacious armories to be developed into an operational JIC. The JIC received excellent reviews for its coordination, equipment, space, and skilled DOE, TEMA and local government staff. This was, by far, the best JIC exercise ever conducted by the State and DOE.

4th Quarter (April 1, 1997 – June 30, 1997)

The fourth quarter found TEMA reviewing the Y-12 FPE and organizing for the ORNL FPE scheduled for April 22, 1998.

The ORNL FPE development course and subsequent meetings were conducted this quarter. The meetings, involving DOE-ORR, DOE HQ, LMES, TDEC-O, TDEC-DRH, and TEMA were very successful. It is speculated that the meetings have allowed the ORNL FPE to be approximately three months ahead of schedule and saved the agencies involved a total of approximately \$200,000.

DELIVERABLE 3

TEMA and affected counties/cities will maintain annual training of personnel necessary for staffing positions or functions identified in the MJERPs and/or SOPs, to include State and local government employees/officials, and volunteers. TEMA and affected counties/cities will also ensure that ERP planners, State and local Public Information Officers, exercise controller and evaluators, radiological trainers, radiological/decontamination monitors, emergency medical services and facility personnel, emergency workers, and others as needed are adequately trained. Training activities will be coordinated with DOE ERP personnel.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The Tennessee Emergency Management Agency staff developed a training profile this quarter that will be implemented next quarter. The profile will allow the area coordinators an opportunity to assist the local emergency management agencies in monitoring training and helping establish classes for those who need training,

Training classes that have been developed and are presently offered are as follows:

- Recognizing & Identifying Hazardous Materials (F233)
- IRHMI-Basic Concepts (F236)
- IRHMI-Concept Implementation (F237)
- Incident Analysis (F410)
- Incident Command System (NFA F806)
- Incident Command System (TEMA)
- HMT0 I & II
- Chemistry of Hazardous Materials (F234)
- Operating Site Practices (235)
- Fire Chemistry II (FCII)
- The Pesticide Challenge (F450)
- HAZMAT Team Workshop
- HM Fundamentals Instructor Course
- HM Contingency Planning (G311)
- IRHMI Hand-Off Course
- HAZMAT - An Introduction for Public Officials (G300)
- Introduction to HAZMAT Preparedness (G301)
- Fundamentals Course for Radiological Monitors (G320)
- Fundamentals Course for Radiological Response Teams (G326)
- RAD Monitor Instructor Course (G340)
- Fundamentals Course for Rad Defense Officers (G323)

Radiological Instructor III (E425)
Integrated Emergency Management Course (G100)
Exercise Design Course (G120)
Shelter Systems Officer (G355)
Introduction to Emergency Management (G230)
Emergency Planning Course (G235)
Basic Skills: Leadership and Influence (G240)
Basic Skills: Decision Making / Problem Solving (G241)
Basic Skills: Effective Communications (G242)
Basic Skills: Creative Finance (G243)
Civil Defense - All Hazards Approach (G245)
ICS / EOC Interface
Managing Search Operations
Basic Visual Tracking
Advanced Visual Tracking
CASSIE III - MSO
Tactical Manhunt Operations
Plan Familiarization
HAZMAT Workshop for Hospital Staff (G305.16)
Hospital Management of Radiation Accidents (G346)
Shelter Monitor and Decon Training
EM Worker and Equipment Decon

3rd Quarter (January 1, 1997 – March 30, 1997)

Training for the local and state governments, in support of the Y-12 FPE, was conducted throughout third quarter, including:

- ICS/EOC Interface
- Radiological Monitoring
- Y-12 Emergency Management Program Concept of Operations
- Controller/Evaluator Training
- Shelter Manager Course
- MJERP Review in affected counties
- JIC Procedures and Media Interface

Area coordinators continue to encourage local government to enhance the training of both their full-time and volunteer staff. (The courses made available are listed in second quarter activities.)

4th Quarter (April 1, 1997 – June 30, 1997)

The TEMA was very active this year training personnel within local governments. Of the 2,211 persons trained within the 36 East Tennessee counties from July 1, 1996 –

June 30, 1997, 674 (30.5%) were from Anderson, Knox, Loudon, and Roane Counties and the City of Oak Ridge. (See Attachment A).

To enhance training, TEMA has assisted Anderson, Knox, and Loudon Counties in having their own HAZMAT instructors. Anderson County and Knox County also have their own radiological instructors to conduct training as needed. These courses are coordinated through TEMA.

Training documentation is maintained by TEMA, both in Nashville and at TEMA East.

DELIVERABLE 4

TEMA and affected counties/cities will ensure that they, as well as other State or local ERP support agencies, will provide public information/educational support and programmatic ERP support for K-25, X-10, and Y-12.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

Public information and education have been at the forefront of the Tennessee Emergency Management Agency and the Department of Energy. Maps and population zones have been reviewed, special needs groups have been identified, and procedures for the Joint Information Center (JIC) have been developed. Local government Public Information Officers are presently being identified and training for this group will occur next quarter.

The new location for the JIC was established and equipped during this quarter. The transfer of services to the new facility has allowed the JIC to be more accessible. In most exercises, the first informational briefing can be held in less than one hour after notification is received to open the JIC.

Public information concerning an emergency at a DOE site has been developed and placed in the *Southeastern Telephone Directory*.

The Multi-Jurisdictional Report has been designed to identify evacuation routes, shelters, paired schools, etc. The Emergency Alert System messages have been identified to insure timely and accurate emergency information will be available for immediate offsite notification. The EAS messages are in the Plan for easy interpretation by the user of the MJERP.

A communications directory was developed to identify the contact numbers for the DOE, DOE contractor, TEMA, and local governments. The directory will help facilitate the communications that will be necessary for effective notifications. This directory will be reviewed quarterly for updates. Additional attention was given to the DOE counties with communication system planning, enhancements and FCC licensing.

3rd Quarter (January 1, 1997 – March 30, 1997)

To insure that the new Emergency Alert System (EAS) was in place, TEMA staff met with the EAS radio stations and developed prescribed messages for the Y-12 Site. Meetings were also held with LP1 (Local Primary 1) regarding information input from state and/or local government to EAS during emergency situations, and the National Weather Service to discuss alternate access to LP1 stations via NOAA EAS equipment.

TEMA staff coordinated with the Tennessee Association of Broadcasters, WSM radio, Regional Chapters of Society of Broadcast Engineers, NOAA weather, and the Tennessee Radio Network for scheduling of monthly statewide EAS tests.

A TEMA representative was provided to WSM for all monthly EAS tests.

Note: Per FCC rules and regulations, WSM will not activate the monthly test without a civil authority. TEMA has acted as that civil authority by either being at WSM or on the telephone with WSM when the tests were performed.

TEMA recently completed rework of the SEOC pit area to an ESF format. This will help compliment the MJERP ESF development.

TEMA coordinated with the DOE this quarter to update and correct all emergency DOE telephone directories at the SEOC, Regional EOC in Alcoa, and host and risk DOE counties.

TEMA Operations Officers have tested the communication system on a daily basis with ring-down checks, NAWAS tests, and normal day-to-day usage of telephones, NAWAS, fax machines, and radio systems/circuits with TEMA personnel and field staff.

Personnel from DOE, contractor, and TEMA met on several occasions during the quarter to upgrade maps. Various maps, ranging from wall maps to simple hand-held road maps, were used for the Y-12 exercise. After review of the field teams and operation centers, it appears that the concentrated effort to develop basic site and area maps was successful. This effort will enhance the development of maps for ORNL and will cut down on confusion and cost.

4th Quarter (April 1, 1997 – June 30, 1997)

The TEMA has initiated a review of the telephone directory and is anticipating that during the next quarter a new or revised version of the present telephone directory will be completed. A telephone directory will be developed that is "all inclusive," combining all DOE sites, the FCC, EMCC, JIC, and SEOC. It is also anticipated that all E-mail addresses will be included once all stations are identified.

The public information material for the Southeast telephone directories has been reviewed and is scheduled for revision next quarter.

Meetings concerning materials for the schools and day care centers were coordinated. The publications and a video, *If the Siren Sounds*, are being assembled for presentations to the schools and day care centers.

The annual siren test that was scheduled for this quarter has been rescheduled for September 24, 1997. The move allows new students and teaches to receive the alert information at the beginning of the school year rather than at the end.

Staff continues to be involved upgrading Emergency Alerting System (EAS) messages and equipment: The following is a list of accomplishments:

- Attended three meetings regarding the EAS:
 - (1) Met with Local Primary 1 (LP1) regarding information input from state and/or local government to EAS during emergency situations.
 - (2) Met with the National Weather Service to discuss alternate access to LP1 stations via NOAA EAS equipment and installation of recording equipment to be used in coordination with EAS and DOE host and risk county exercises and actual events.
 - (3) Met with the Tennessee Association of Broadcasters (TAB), Society of Broadcast Engineers (SBE), and Emergency Communications Auxiliary of the Mid South (ECAMS) regarding inspections of radio stations to meet required FCC compliance to EAS.
- Coordinated with TAB, WSM radio, regional SE chapters, NOAA weather, Tennessee Radio Network (TRN) and Speer Communications for scheduling of required monthly state-wide EAS tests.
- A TEMA representative went to WSM for all monthly EAS tests. Note: WSM will not activate the monthly test without a civil authority (per FCC rules and regulations). This representative acted as that civil authority for these tests each

month and was at WSM or on the telephone with WSM when the tests were performed.

- Reviewed SEOC pit area operation in the ESF format for possible changes or corrections as noted during previous quarter communications drill and full-scale exercise.
- Updated all emergency DOE telephone directories at the SEOC, regional EOC in Alcoa, and host and risk DOE counties. Coordinated with DOE on all updates, changes, and corrections.
- Operations Officers tested communications systems on a daily basis with ringdown checks, NAWAS tests, and normal day-to-day usage of telephones, NAWAS, fax machines, and radio systems and circuits with TEMA personnel and field staff.
- TEMA tested telephone lines and equipment at the SEOC pit area and Alcoa REOC pit area for operability.
- Coordinated with vendors on issues relating to routine billing, repair, and maintenance of telephones, T1 service, special circuits, pagers, cellular telephones, and mobile cellular telephone equipment.
- No major outages were noted for this quarter regarding telephones, ring-down circuits, or T1 circuits

DELIVERABLE 5

TEMA will provide an operational radiological protection system in accordance with the State MJERP and NRC/FEM requirements for the effective radiological support of the DOE ERP plan.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The operational radiological protection system, both the outcomes and products, are scheduled for completion within the next two quarters. The utilization and placement of dosimeters was accomplished at the time the radiological kits were assembled. All kits will be reviewed for calibration and deliveries are scheduled for the next two quarters.

3rd Quarter (January 1, 1997 – March 30, 1997)

The cyclic calibration and repair of radiation protection devices that are maintained by TEMA, as required for ERP purposes, suffered this quarter due to unanticipated equipment requirements, forced schedule changes, and functional and full-participation exercises within the DOE complex. Completion of this work outcome is delayed until fourth quarter.

Likewise, completion of hazard assessment and placement of detection instrumentation and personnel protective devices is delayed until fourth quarter. Prior to delivery, requirements will be coordinated with local jurisdiction and applicable agency representatives.

Thirty-five (35) self-reading dosimeters were received as replacement for inoperative units in the DOE program inventory. Expedient floor covering material for use in prevention of cross contamination of Mass Care Shelter decontamination facilities was procured this quarter.

A complete inventory of radiological instruments, that support local government, will be identified during fourth quarter.

4th Quarter (April 1, 1997 – June 30, 1997)

TEMA RIM&C facility maintained, calibrated, packaged and exchanged a total of 48 radiation detection/measurement kits containing a total of 480 individual pieces of equipment. The kits were delivered to Knox County EMA, Knoxville District Headquarters THP, and the Loudon County EMA.

The RPO conducted a review of consumable supply inventory available for use during off-site release of radioactive materials from some area of the Oak Ridge Reservation. Expedient floor covering material, decontamination equipment, and supplies needed for initial set up of Mass Care Shelter decontamination areas are in stock in sufficient quantities in secure locations accessible 24-hour-a-day.

A radiological hazard assessment was completed for each local jurisdiction and/or agency prior to delivery and exchange of radiation detection instrumentation of the jurisdiction and agencies noted above. These assessments will be valid until either additional information is presented by the jurisdictions or the next hazard assessment is completed by TEMA.

An inventory of radiological instruments was scheduled for this quarter, but due to weather-related disasters, this task will be completed next quarter.

DELIVERABLE 6

TEMA will assist DOE in maintaining EMNET.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

XLConnect, TEMA's network contractor, is working on resolving a problem that prevents the DOE portion of EMNET from logging into TEMA's side. Problems still remain with the TEMA ECOMM communications configuration, as well.

New computers were delivered to the DOE jurisdictions, including new inkjet printers, CD-ROMs, and uninterruptible power supplies.

TEMA has received digitized map sets from Lockheed-Martin for the K-25 and Y-12 sites and has integrated them into the TEMA EIS system.

TEMA has begun the process of entering data from the printed plans into the EIS databases, starting with Loudon County.

TEMA has begun negotiations with the Tennessee Office for Information Resources and Inacom Information Systems (the state's computer contract vendor) for the acquisition of new file servers in October of 1997.

3rd Quarter (January 1, 1997 - March 30, 1997)

The EMNET operation continued its quest to establish connectivity between DOE and TEMA. It is anticipated that the problems, which have prevented the DOE portion of the EMNET from logging into TEMA's side, will be resolved next quarter.

Computer training courses for TEMA personnel have been scheduled and will continue to be offered to personnel to enhance their proficiency.

4th Quarter (April 1, 1997 - June 30, 1997)

The quest to put closure on the EMNET system still exists. The TEMA EMNET was able to "ping" the DOE system during this quarter, which notes conductivity between the two points, but equipment failure has kept the units from becoming operational. A new contractor will be brought in to finish the task of EMNET connection next quarter.

DELIVERABLE 7

TEMA will ensure an operational system of communication in accordance with the State MJERP requirements for the effective communication support of the DOE ERP plan.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

TEMA Communications continued to maintain the existing radio equipment. TEMA has been working with the electrical vendor for the 911 center in Alcoa to make the necessary electrical changes that will support the microwave and radio equipment once the antennas are in place on the tower. Another electrical change being made is to provide TEMA with emergency power from the 911 center's generator.

The grounded cable entrance panel is in place and the tower erection has been completed. Antennas and microwave dishes will be mounted on the tower as weather and vendor availability permits.

TEMA has also been working with the Department of Safety to secure permission to locate a VHF repeater at their site on Walnut Mountain in Campbell County. Permission was granted to mount the antenna and feedline, but equipment cannot be placed until a replacement building can be erected. The Department of Safety has awarded a contract for the building, but winter weather has delayed the building process on the mountain. This site will give TEMA and EMCC field teams coverage in northern Anderson County and along I-75 up to the state line. TEMA has also requested permission from the City of Oak Ridge to place a repeater at their site on Louisiana Avenue to supplement portable coverage in the Oak Ridge area and serve as a back-up site. TEMA is still awaiting an answer from Oak Ridge. Negotiations with the CATV Company in Oak Ridge were unsuccessful.

TEMA Communications has been running terrain analysis of all state sites used for the DOE ERP to find areas that need supplemental coverage.

Lightning protection devices have been checked and changed out as needed at all sites that support the DOE ERP.

A total of seven meetings regarding Emergency Alerting System (EAS) were attended this quarter. One of these meetings was with the Knox County Emergency Management Agency Office. The other meetings were with the Tennessee Association of Broadcasters (TAB), the State EAS Committee, Regional EAS Committee, local

Society of Broadcast Engineers, Local Primary 1 Station WIVK for the Knoxville area. TEMA staff personnel are members of TAB, state, and regional committees.

TEMA Staff attended the TAB Annual Conference and participated as a member of a panel discussion on the new EAS system and the State of Tennessee EAS Plan, which has been approved by the FCC.

Emergency DOE telephone directories at the SEOC, Regional EOC in Alcoa, and host and risk DOE counties were updated.

Engineers, coordinated, and managed the installation of LAN/WAN circuits (Data & T1) from the SEOC to TEMA Regional Offices in Nashville and Jackson. These circuits are not funded by DOE, but may be used during an actual event.

Operations Officers tested communications systems on a daily basis with ring-down checks, NAWAS tests, and normal day-to-day usage of telephones, NAWAS, fax machines, and radio systems and circuits with TEMA personnel and field staff.

TEMA tested telephone lines and equipment at the SEOC PIT area and Alcoa REOC PIT area for operability.

Coordinated with vendors on issues relating to routine billing, repair, and maintenance of telephones, T1 service, special circuits, pagers, cellular telephones, and mobile cellular telephone equipment.

No major outages were noted for this quarter regarding telephones, ring-down circuits, or T1 circuits.

3rd Quarter (January 1, 1997 – March 30, 1997)

TEMA communications personnel worked with a local electrical vendor to complete the required wiring changes necessary to install antennas on the TEMA East tower. Withstanding any complications, antennas will be installed next quarter.

Work continued with the Department of Safety to locate a VHF repeater at their site on Walnut Mountain in Campbell County. Antenna and feedline are installed on the tower, but equipment cannot be placed until a replacement building can be erected. The Department of Safety has awarded a contract for the building, but winter weather delayed the building process on the mountain. This site will give TEMA and EMCC field teams coverage in northern Anderson County and along I-75 up to the Kentucky State line.

TEMA is awaiting a response from the City of Oak Ridge regarding our request to place a repeater at their site on Louisiana Avenue.

A purchase request has been submitted for replacement and additional radio equipment and the equipment has been ordered.

No lightning protection devices were replaced this quarter at any DOE communications site that supports the DOE plan.

TEMA tested telephone lines and equipment at the SEOC and Alcoa REOC pit areas for operability and coordinated with vendors on issues relating to routine billing, repair, and maintenance of telephones, T1 service, special circuits, pagers, cellular telephones, and mobile cellular telephone equipment.

No major outages were noted this quarter regarding telephones, ring-down circuits, or T1 circuits.

4th Quarter (April 1, 1997 – June 30, 1997)

TEMA personnel continue to enhance the links of communications between the SEOC, FCC, EMCC, and DOE.

Met with Knoxville-Knox County radio user group to discuss communications system upgrade.

TEMA communications continued to work with Loudon County with communication system planning and FCC licensing for school notification system.

Electrical vendor completed wiring changes at TEMA East office.

TEMA communications continues to work with the Department of Safety to locate a VHF repeater at their site on Walnut Mountain in Campbell County. Due to personnel shortage at the Department of Safety, the building is still not in place.

TEMA is awaiting word from the City of Oak Ridge on its request to place a repeater at their site on Louisiana Avenue.

TEMA communications began installation of microwave radio antennas at Winrock Mountain, Greentop Mountain, and TEMA East. TVA has yet to grant TEMA permission to mount microwave dish on the Greentop site. This site may have to be relocated to the Department of Safety site on Greentop Mountain. A test will be conducted to see if an adequate microwave path exists.

TEMA communications technicians attended microwave communication training conducted by Microwave Data System.

Began receiving radio equipment ordered last quarter. This equipment will replace or enhance the existing system.

DELIVERABLE 8

TEMA will monitor and coordinate, test and operation of the Prompt Notification System (PNS) sirens in accordance with DOE-approved procedures. Testing will include any activity necessary to conduct evaluation or other needed tests.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The PNS coordination and monitoring activities are ongoing. The contractor will be providing quarterly reports of PNS activities. A failure of more than ten percent of the sirens during a test will require the contractor to notify TEMA's Operations Officer of the unusual occurrence. A written notification will follow, along with a written notification once the failures are identified and corrected.

The Emergency Alert System messages, which work in conjunction with the PNS, have been developed and will be evaluated during the full participation exercise.

3rd Quarter (January 1, 1997 - March 30, 1997)

The Prompt Notification System (PNS) was utilized during the Y-12 FPE. The sirens performed as required once the Plant Shift Superintendent declared a *General Emergency*. Preparatory test EAS messages were played by the EAS stations and served to notify the public of the Y-12 test and exercise. Prior to siren activation, the public was also made aware of the exercise through media presentation, both verbally and in print. The Oak Ridge City School Superintendent was notified personally of the test and the requirements of the schools according to the MJERP.

The annual test of the ORO sirens is being delayed at the request of the State. Upon review of the PNS, it was noted the ORO siren activation would come in May, directly after siren activation around the Y-12 site during the FPE in March. The need to extend the 1997 test until September is based on the following:

- There will be a six-month interval between the FPE siren activation in the spring and PNS siren test in the fall.
- Information regarding PNS can be presented to teachers during inservice programs in August, prior to the test in September.

- In September, new students and school staff will be a part of the test; whereas in May, students and staff are made aware of the sirens when the school year is almost over.
- The State wants to develop an *Emergency Response Week*, which would be observed in September. This would give DOE a week to promote local emergency preparedness.

(The PNS will still be tested annually, but the scheduled fourth quarter test will be postponed until the first quarter of 1997-98.)

4th Quarter (April 1, 1997 – June 30, 1997)

The following description identifies the PNS established by DOE and LMES. A quarterly report is being developed by LMES for TEMA, which will identify the results of the siren test during that quarter.

The PNS contains 52 sirens located within two miles of the Oak Ridge Reservation (11 at X-10; 22 at Y-12; and 19 at ETPP). Upon activation by one of the sites, City of Oak Ridge dispatch, or Roane County 911, each siren provides between 115 and 120 db of audible sound for three to five minutes. Furthermore, the system is tested on a regular basis as described below and utilizing procedurally-driven initial and annual refresher training.

Testing of the system occurs on a regular basis by LMES employees. The testing capabilities were computer enhanced onsite in October, 1996, and are broken down into the five functional areas listed below.

1. *Daily Test* – the computer performs a daily poll test. This poll test verifies the communication link between siren and the computer.
2. *Weekly Test* – a silent test is performed weekly. This test works all siren amplifiers and runs an operational test of drivers at full power in the silent mode.
3. *Monthly Test* – usually referred to as the "chime test. This provides an audible sound of the public address system within the close proximity of each siren. The test is performed on the first Wednesday of each month between 11:45 a.m. and 12:15 a.m. and has been utilized primarily as a public relations tool for years.
4. *Biannual Test* – Two tests or inspections occur every six months. The first is performed by LMES personnel. It involves an inspection of each siren to look for items such as physical damage, loose wires or other things that could interfere with the functional capability. The second activity is performed by communications personnel on contract to LMES. These individuals perform in depth preventative

maintenance activities and correct any deficiency noted during the LMES inspection.

5. *Annual Test* – The annual test is a full-scale audible sounding of all 52 sirens. This test is scheduled in advance in conjunction with state and local authorities. LMES, TEMA, and local authorities ensure prior public awareness activities occur to notify the public of the test. LMES conducts decibel field evaluations to verify coverage. TEMA and local personnel monitor public reactions via in-coming telephone calls and are available within the dispatch center to answer questions.

DELIVERABLE 9

TEMA will coordinate with State and/or local agencies and localities to provide for the use of facilities for the offsite support of K-25, X-10, and Y-12, e.g., National Guard Armories, local hospitals, shelters, etc.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

Area Coordinators have worked with local government to develop and identify shelters, roadblocks, hospitals, evacuation routes, and additional data, as needed, for the EMNET database. The State of Tennessee's National Guard Army in Lenoir City presently serves as the site for the Joint Information Center.

3rd Quarter (January 1, 1997 – March 30, 1997)

Area coordinators assisted TEMA's technical planners in identifying local agencies, localities, and facilities to support off-site response. The Y-12 and K-25 MJERP's reflect the data that has previously been gathered. Evacuation routes, shelters and roadblocks were the primary focus for the Y-12 FPE in March. The same basic data will be gathered next quarter to support ORNL's MJERP.

4th Quarter (April 1, 1997 – June 30, 1997)

During the development of the MJER Plan for ORNL, the area coordinators have begun to assist TEMA technical planners in coordination/identification of any additional facilities needed to support the ORNL Site Plan.

Shelters, roadblocks, hospitals, evacuation routes, and any additional data, as needed for the Site Plan or EMNET, will be provided as the Site Plan is developed.

DELIVERABLE 10

TEMA will maintain primary and backup hospital arrangements in support of the DOE ERP plan and conduct emergency medical training and drills as necessary.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The primary medical facilities, which support the DOE Emergency Response Plan, are REACT/S and the Methodist Medical Center of Oak Ridge. The Harriman City Hospital serves as the backup medical facility and was trained and evaluated in June, 1996.

All primary and backup hospitals have received training for radiological contaminated patients. Hazardous materials courses for hospital personnel have been developed and the EMA Directors have contacted the hospitals within their county that the course is available at their convenience. The Area Coordinators will be following up on identifying dates for the training during the next quarter.

3rd Quarter (January 1, 1997 - March 30, 1997)

All DOE counties have been contacted concerning the availability of HAZMAT training for the staff of their local hospitals. Harriman City Hospital, the backup medical facility which supports the DOE Emergency Response Plan, has been trained and evaluated and is scheduled for refresher training on August 6, 1997. Emergency department personnel will participate in a FEMA-graded MS-1 drill the following day.

4th Quarter (April 1, 1997 - June 30, 1997)

The primary decontamination facility and medical facility for the DOE are the REACT/S and the Methodist Medical Center of Oak Ridge. The backup medical facility trained and evaluated during June 1996 is the Roane Medical Center, formerly Harriman City Hospital. This facility is scheduled for recurring training on August 6, 1997. This medical center and servicing EMS ambulance personnel will participate in a FEMA graded MS-1 drill on August 7, 1997 at 1100 hours. The formal written report of this drill will be on file in the RPO's office.

Hospitals in Knox, Loudon, and Roane Counties have been trained in dealing with radiation contaminated patients. This course of instruction includes nine hours o

instruction and practical exercises for physicians, nurses, and other providers of emergency medical services in hospitals. The course is followed by a six hour exercise the following day to ensure hospital staff personnel are familiar with materials covered in the course.

These same hospitals have been offered a *HAZMAT Course for Emergency Room Personnel*, but only hospital located in Knox County have taken the course.

DELIVERABLE 11

TEMA will annually review the DOE Emergency Action Levels for K-25, X-10 and Y-12, providing DOE with a written report following the review.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The K-25 EALs have been reviewed, but at the present time, Y-12 does not have a complete set of EALs. Once the Y-12 EALs are complete, they will be reviewed and commented on.

3rd Quarter (January 1, 1997 - March 30, 1997)

The EALs for the East Tennessee Technology Park (formerly K-25) are available and have been reviewed. EALs for Y-12 are not available and EALs for ORNL are presently being developed.

4th Quarter (April 1, 1997 - June 30, 1997)

The EPLs for Y-12 are not available and the EALs for ORNL have not been completed.

DELIVERABLE 12

DOE will provide funds as part of the Total Maximum Expenditure Amount under this agreement for use by TEMA (as well as purchases by TEMA for use by other State agencies/organizations for ERP support) and the risk counties in order to assist in the repair/replacement of equipment previously purchased with DOE funds (or provided directly by DOE) for the support of DOE's ERP program, and/or for the purchase of new equipment necessary to support of DOE's ERP program, and/or for the purchase of new equipment necessary to support DOE's ERP plans. DOE will provide the funds

directly to TEMA, which agrees to disburse the funds (or equipment of equal value) to the designated counties. In providing such disbursements to the designated counties, TEMA shall implement a plan to ensure that these disbursements are utilized to their maximum potential for the primary and continuing support of the MJERP.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

TEMA solicited from the DOE counties a list of objectives that would be met with grant money. Each county has submitted their objectives based on a \$5000 grant that each county will receive and a one-time grant of \$20,0000 to go to one of the counties for use in a community-related project in support of DOE. The grant moneys will be distributed during the next quarter. The Area Coordinators will work within the counties to review the utilization of the funds as identified.

3rd Quarter (January 1, 1997 - March 30, 1997)

Grants in the amount of \$5000 were awarded to each DOE County to meet emergency response needs in support of DOE.

Roane County is the recipient of the 1996-97 \$20,000 grant. The County Executive and EMA staff are using the money to establish a self-supporting EOC on the third floor of the County Court House. The addition of this facility, within the confines of the Court House, will allow the EMA to have support from local officials and utilize additional equipment such as fax and copy machines. The facility meets the ADA requirements and has a kitchen in an adjacent area. TEMA facility engineer is assisting the county in its development of the EOC.

4th Quarter (April 1, 1997 - June 30, 1997)

The finance and administration officer is putting closure on this past year's grant monies. TEMA is presently initiating the second year funding for the respective counties and will initiate transfer of the new funds as soon as possible.

The recipients are presently developing a report detailing how the funds were used.

DELIVERABLE 13

TEMA will maintain and annually provide to DOE (upon submittal of the final FY report) a complete inventory of equipment purchased by TEMA and the affected counties with DOE funds in support of DOE's ERP plans.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

The annual report will be developed and submitted at the end of the year.

3rd Quarter (January 1, 1997 - March 30, 1997)

The annual report will be developed and submitted at the end of the year. The 1997-98 budget for the AIP has been developed and submitted to DOE for approval.

4th Quarter (April 1, 1997 - June 30, 1997)

The inventory report for FY '96-97 is attached (See Attachment B).

DELIVERABLE 14

TEMA will conduct coordination meetings with DOE and local government monthly.

1st Quarter (Covered under previous annual report due to extended contract)

2nd Quarter (October 1, 1996 - December 31, 1996)

15 meetings with DOE/LMES personnel
3 meetings with TDEC staff
35 meetings with local government

3rd Quarter (January 1, 1997 - March 30, 1997)

56 meetings with DOE/LMES personnel
4 meetings with TDEC staff
20 meetings with local government

4th Quarter (April 1, 1997 - June 30, 1997)

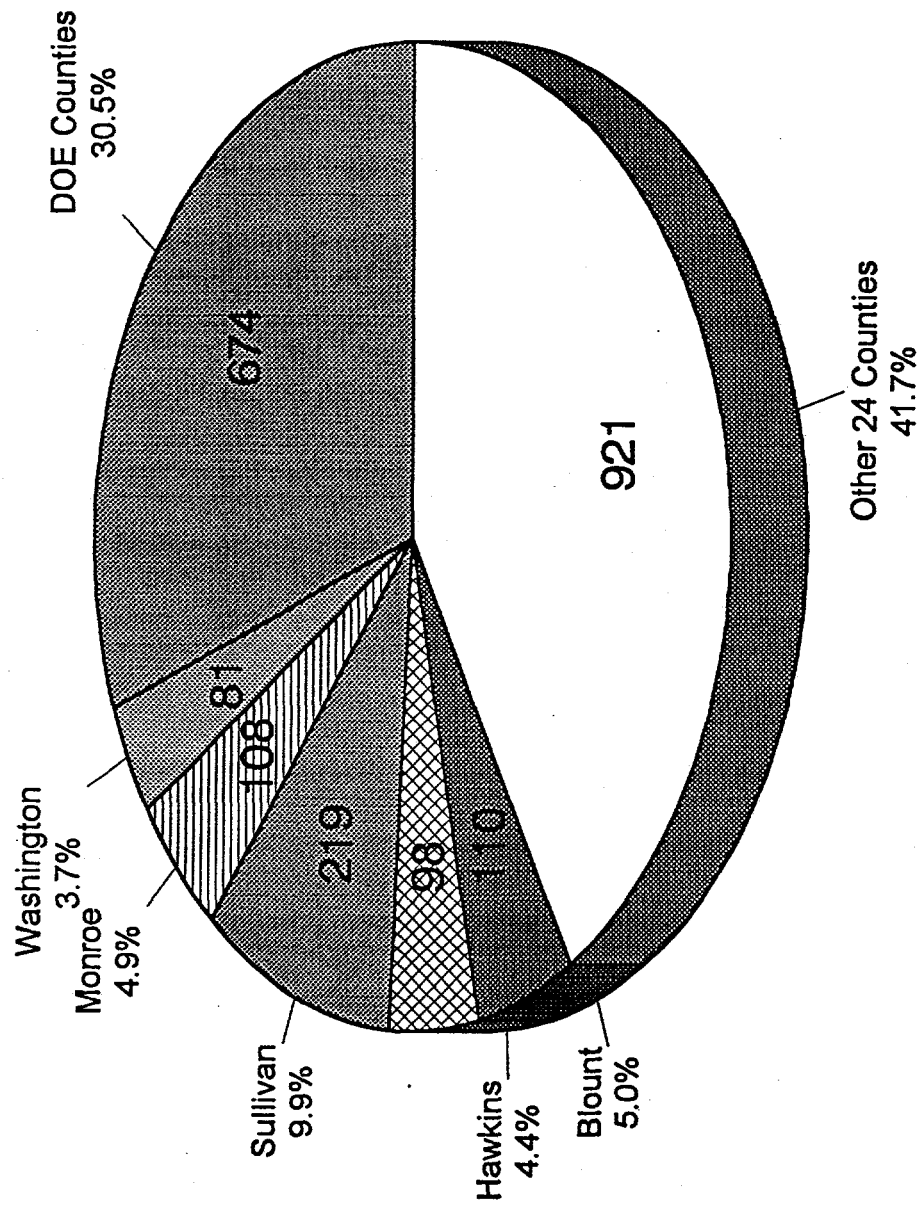
11 meetings with DOE/LMES personnel
2 meetings with TDEC staff
15 meetings with local government

ATTACHMENT A
HAZMAT Training East Tennessee
July 1, 1996 – June 30, 1997

County	ICS (NFA)	FCRM	IRHMI:BC	IRHMI:CI	Mass Fatalities	ICS/EOC	Rec/ID HM	ICS (TEMA)	HMT0	FCRRT	Hand-off	TOTAL
1 st Quarter Training for non-DOE Counties												353
Anderson	19	19	55	68	1	6	0	12	64	7		251
Bledsoe												0
Blount		24	50		25	8		1		2		110
Bradley		3	21	20		7						51
Campbell		28										28
Carter	7	15	23	19						3		67
Claiborne	30	3										33
Cocke		5	22									27
Cumberland		3										3
Fentress		3										3
Grainger		6	37	24								67
Greene	36	3	2	1	1		3					46
Hamblen	4		27	2			3					36
Hamilton		4	32	13		23	27					99
Hancock		3										3
Hawkins	38	4	45				9			2		98
Jefferson	1	2	5	4								12
Johnson			3									3
Knox	30	12	74	52	23	5		58	36	2	17	309
Loudon		15	18	27	5	1				2		68
Marion		2										2
McMinn			1				20			1		22
Meigs		1										1
Monroe			55	43	7		1			2		108
Morgan			3			1						4
Pickett												0
Polk		4										4
Rhea		3										3
Roane			23	19	2	1		1				46
Scott		4								1		5
Sequatchie		7										7
Sevier			16	9	9					1		35
Sullivan	12	3	92	95	2		3			12		219
Unicoi	1											1
Union	1	5										6
Washington	16	4	41	19	1							81
TOTAL	195	185	645	415	76	52	66	72	100	35	17	2211

HAZMAT Training

July 1, 1996 - June 30, 1997



HAZMAT Training - DOE Counties July 1, 1996 - June 30, 1997

