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REGION 6 LEPC Update

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This month we make sure everyone is aware of the CAMEO software program, which is designed to make life easier for LEPCs and others in the hazardous materials program. Fred Cowie, our adopted Poet Laureate, gives some thoughts on teaching techniques. If you are interested in having a CAMEO class in your area, please contact Hilary at the email address above.

As always, if you received this Update from someone else, and would like to be added to the email list, just email us at one of the emails above.

Steve & Hilary

Residential Mercury Spills

The Agency for Toxic Substances and Disease Registry last year developed a very informative fact sheet on what to do if there is a residential mercury spill.

The information is very straight-forward and common sense. We are attaching a copy of the fact sheet for LEPC members to use and distribute to all interested parties.

National Response Team Ethanol Quick Reference Guide

The NRT Ethanol Quick Reference Guide (QRG) has been recently approved and is now publically available. The QRG provides an overview of the properties, detection methods, and environmental and health effects of ethanol, ethanol fuel blends, and gasoline, and may be used by first responders as a quick reference tool. The QRG is now available on the NRT homepage, and may be accessed via the following links:

http://www.nrt.org/production/NRT/NRTWeb.nsf/PagesByLevelCat/Level3ChemicalHazards?Opendocument

We have attached a copy of the guide for your use also to this Update.

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CAMEO SUITE OF SOFTWARE

What is CAMEO?

CAMEO is a system of software applications used widely to plan for and respond to chemical emergencies.

It is one of the tools developed by EPA's Office of Emergency Management (OEM) and the National Oceanic and Atmospheric Administration Office of Response and Restoration (NOAA), to assist front-line chemical emergency planners and responders. They can use CAMEO to access, store, and evaluate information critical for developing emergency plans.

In addition, CAMEO supports regulatory compliance by helping users meet the chemical inventory reporting requirements of EPCRA.

The CAMEO system integrates a chemical database and a method to manage the data, an air dispersion model, and a mapping capability. All modules work interactively to share and display critical information in a timely fashion. The CAMEO system is available in Macintosh and Windows formats.

Origin

CAMEO initially was developed because NOAA recognized the need to assist first responders with easily accessible and accurate response information.

Since 1988, EPA and NOAA have collaborated to augment CAMEO to assist both emergency responders and planners. CAMEO has been enhanced to provide emergency planners with a tool to enter local information and develop incident scenarios to better prepare for chemical emergencies.

The Bureau of Census and the U.S. Coast Guard have worked with EPA and NOAA to continue to enhance the system.

Why was CAMEO Created?

Rapid action by firefighter, police, and other emergency response personnel often is severely hampered by lack of accurate information on the substance spilled and safe response actions.

Emergency planners lack a tool to store and easily use information that is essential for emergency planning.

Who Uses CAMEO?

- Local Emergency Planning Committees (LEPCs)
- Industry
- Schools
- Firefighters
- State Emergency Response Commissions (SERCs) and Tribal Emergency Response Commissions (TERCs)
- Environmental Organizations
- Police Departments

What is in CAMEO?

CAMEO is actually a suite of four separate, integrated software applications:

- CAMEO
- CAMEO Chemicals
- MARPLOT
- ALOHA

CAMEO - The Database and Information Management

CAMEO is a database application that includes eight modules (such as Facilities and Contacts) to assist with data management requirements under EPCRA.

Each year, facilities covered by EPCRA must submit an emergency and hazardous chemical inventory form to their LEPC, SERC, and local fire department.

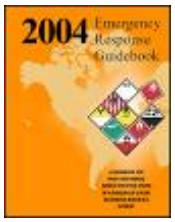
Most facilities submit a Tier II form, which contains basic facility identification information, employee contact information, and information such as storage amounts, storage conditions, and locations for chemicals stored or used at the facility.

You can use CAMEO to store this information, by entering it manually or by importing a Tier2 Submit file (if the facilities and/or planners in your state use that program). CAMEO can also be used to navigate between ALOHA, MARPLOT, and the downloadable version of CAMEO Chemicals.

CAMEO Chemicals - Chemical Response Datasheets and Reactivity Prediction Tool

CAMEO Chemicals has an extensive chemical database with critical response information for thousands of chemicals. There are two primary types of datasheets in the database: chemical and UN/NA datasheets.

Chemical datasheets provide physical properties, health hazards, information about air and water hazards, and recommendations for firefighting, first aid, and spill response.



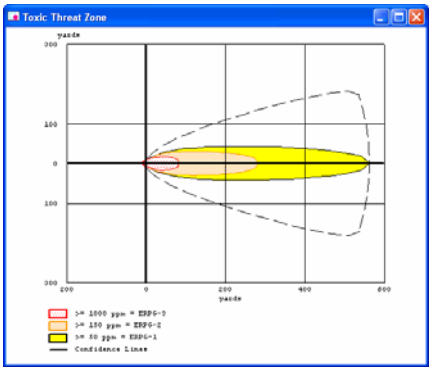
UN/NA datasheets provide response information from the Emergency Response Guidebook and shipping information from the Hazardous Materials Table (49 CFR 172.101). In addition to the information on the datasheets, you can also add chemicals to the MyChemicals collection to see what hazards might occur if the chemicals in the collection were mixed together.

CAMEO Chemicals is available online (http://cameochemicals.noaa.gov) and as a downloadable version.

MARPLOT - Mapping Applications for Response, Planning, and Local Operational Tasks

MARPLOT is the mapping application. It allows users to "see" their data (e.g., roads, facilities, schools, response assets), display this information on computer maps, and print the information on area maps.

The areas contaminated by potential or actual chemical release scenarios also can be overlaid on the maps to determine potential impacts. The maps are created from the U.S. Bureau of Census TIGER/Line files and can be manipulated quickly to show possible hazard areas.



ALOHA - Areal Locations of Hazardous Atmospheres

ALOHA is an atmospheric dispersion model used for evaluating releases of hazardous chemical vapors. ALOHA allows the user to estimate the downwind dispersion of a chemical cloud based on the toxicological/physical characteristics of the released chemical, atmospheric conditions, and specific circumstances of the release.

ALOHA can estimate threat zones associated with several types of hazardous chemical releases, including toxic gas clouds, fires, and explosions.

Threat zones can be plotted on maps with MARPLOT to display the location of other facilities storing hazardous materials and vulnerable locations, such as hospitals and schools. Specific information about these locations can be extracted from CAMEO information modules to help make decisions about the degree of hazard posed.

Download CAMEO

You can download and install the CAMEO software suite by following the steps below.

Go to the CAMEO Download Page to download CAMEO and a user's manual, and to find out how to install and get started with CAMEO.

http://www.epa.gov/oem/content/cameo/cameo.htm

Go to the ALOHA Download Page to download ALOHA and a user's manual, and to find out how to install and get started with ALOHA.

http://www.epa.gov/oem/content/cameo/aloha.htm

Go to the MARPLOT Download Page to download MARPLOT, and to find out how to install and get started with MARPLOT.

http://www.epa.gov/oem/content/cameo/marplot.htm

CAMEO Chemicals Online

You can use CAMEO's chemical library and reactivity worksheet online. The website includes both the library and worksheet.

http://cameochemicals.noaa.gov/

CAMEO Companion

The CAMEO Companion is designed as a written resource for all CAMEO Suite users, particularly those who utilize the software on an occasional basis.

The Companion developers recognize that while many persons attend CAMEO training courses, the skills gained in those training sessions fade when persons operate the programs infrequently. The CAMEO Companion provides explanations and step-by-step instructions to help CAMEO users perform emergency response and planning activities.

You can download a copy of the Companion at:

http://www.epa.gov/oem/docs/cameo/CAMEO_Companion_Sept_2009.pdf

Using the CAMEO Software for All-Hazards

Tom Bergman, ODEQ

Many of us are familiar with using CAMEO for HazMat response and planning.

However, the acronym CAMEO stands for "Computer-Aided Management of Emergency Operations", and is used in many communities for all types of emergency planning and response efforts. Here are a very few examples of CAMEO usage by local jurisdictions in Region 6:

- plotting storm spotter locations in real-time; manually tracking tornado paths in real-time; obtaining Census Bureau estimates for affected residences and population literally within seconds of plotting the tornado path (Washington County OK et al)

- documenting wildfire burn areas on top of aerial photos; directing fire response assets in the field during a wildfire event (McIntosh County OK et al)
- attaching EXCEL spreadsheets of fire department rosters to map displays of fire districts, providing emergency managers with rapid access to available personnel and associated phone numbers in GIS/mapping format (Comanche County OK)

- attaching EXCEL spreadsheets or WORD documents of resource lists to map objects representing locations within the community, providing quick access to availability and location of various equipment and other resources in GIS/mapping format (Creek County OK)
- directing Search and Rescue efforts by plotting search areas in real-time on aerial photographs/topographic maps (Beaver County OK)

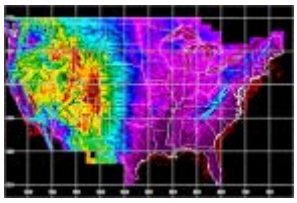
- plotting all known personal storm shelters in the county to improve Search and Rescue efforts (McClain County OK et al)
- importing FEMA DFIRM floodplain maps, displaying over aerial photos, and augmenting the maps with local user-entered map information (Cleveland County OK et al)
- enhancing Tier 2 reports with chemical storage photos and videos taken inside the facilities; attaching pre-plans as .pdf, .cad, or .doc files to the CAMEO facility records (Tulsa County OK et al)

- attaching complete Emergency Operation Plans for specific special location/critical infrastructure locations in WORD, .pdf, or EXCEL format; such as Nursing Homes, Hospitals, EOCs, Schools, Government Buildings, etc. (Calcasieu Parish LA)
- importing/creating multiple map layers of local infrastructure; including, water mains, sewer lines, power grids, gas pipelines, manholes, storm drains, cell towers, storm siren locations and coverage, fire districts, EOC location and backups, shelter locations, etc. (Woodward County Ok)

The new CAMEO allows users to view aerial photos and topographic maps without either Internet or Server access, thus increasing its usefulness in field operations and forward command.

In addition, CAMEO now allows users to directly connect WORD documents, EXCEL spreadsheets, .pdf files, .jpg images, cad files, and video clips to maps objects which can be retrieved in the field during emergency events.

And, of course, CAMEO is free; provided at no cost by EPA and NOAA.

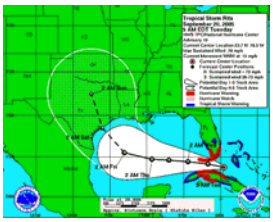


When connected to the Internet, the new CAMEO does address searches, links directly to NWS weather pages, provides instant point Elevations from the USGS Seamless Elevation Maps, does reverse address searches by linking directly to the Google Reverse Addressing application, calculates population for any map area using U.S. Census Bureau data, and allows downloads of Street/Road maps for any U.S. county.

Here are a couple of CAMEO stories from Norman Bourdeau of Calcasieu Parish, LA.

Following Hurricane Rita, the Parish Public Works supervisors were issued key map books for their area of responsibility. During the next week they recorded on the maps areas of debris, debris lines from storm surge and visibly damaged structures.

This information was transferred to MARPLOT and shared with public safety agencies, elected officials, debris removal contractors and others. Shortly after the data was collected, the USACoE dispatched a rapid structural assessment team to Calcasieu to assist parish officials and FEMA representatives in determining the scope of structures that were significantly damaged by the hurricane.



The team arrived ready to work, but were unfamiliar with the area, which was going to hamper their mission. Each team had a leader who had a laptop for records management, so MARPLOT was installed on all team leader computers and the public works data was imported to their computer. This met two needs:

1. It depicted the damaged structures and their distribution within the parish and,
2. provided the mapping application for the team to find their way around the parish.

This allowed the teams to better manage their resources and decreased the time needed to complete the mission. In addition, the parish didn't have to assign a local person to guide the team. This was a win-win situation for all involved.

Following any disaster that requires businesses to close or a curfew is issued, law enforcement officials are required to provide 24-hour security at all locations were fire arms are sold and where pharmaceuticals are distributed.

The Calcasieu Parish Office of Homeland Security & Emergency Preparedness, in conjunction with all law enforcement agencies in the parish, collected data on all above mentioned places of business.

The CAMEO Special Locations Module was utilized to capture information such as: Address, Owner information, 24-Hour Contact telephone numbers, pictures of the exterior of the business, etc.

The pictures were added to the Site Plans for each location to assist officers who might not be familiar with the area or business.

MARPLOT objects were created and linked to the data in the Special Locations Module to facilitate the ease of retrieving the information.

This data was exported and shared with key representatives for each law enforcement agency in the parish.

Editors note: Tom Bergman is the primary author of the CAMEO Companion and is recognized nationally as one of the foremost CAMEO experts.

People Using CAMEO

Over the past two decades, CAMEO has become the most widely used chemical emergency response and planning tool in the United States. CAMEO users include:

- First responders (such as fire and police services);
- State, local, and industry planners; and
- Environmental organizations and academics.

Most people use the CAMEO programs to respond to or plan for accidental chemical releases. However, some users have gone beyond the basic uses, for example:

- Aerial ambulance companies have used MARPLOT to provide the direction and distance to local hospitals to help expedite patient transport.
- CAMEO, ALOHA, and MARPLOT are all used by first responders at the Weapons of Mass Destruction training developed by the Department of Homeland Security.
- After entering chemical inventories and special locations into CAMEO, some planners are assessing likely terrorist targets within their area using CAMEO and LandView.

After Hurricanes Katrina and Rita, emergency responders used CAMEO to complete challenging response tasks such as:

- Estimating the number of affected residences in New Orleans,
- Mapping evacuation routes and collection sites for hazmat containers displaced by the storm,
- Defining exclusion zones around dangerous hazmat containers, and
- Selecting safety gear for workers handling hazardous debris.

United Nations Environment Programme (UNEP) selected CAMEO as a tool to help developing nations prepare for and respond to chemical accidents.

Under UNEP's Awareness and Preparedness for Emergencies at the Local Level (APELL) program,

CAMEO has been demonstrated or taught in 50 countries.

Placing accurate, timely information in the hands of decision makers is vital to a safe, effective response to a chemical incident.

Designed to assist first responders and emergency planners get key information quickly, CAMEO can be used by response and planning officials in many different arenas to determine courses of actions, plan strategies, and gain valuable information quickly and efficiently.

Heads On ! Hands Off ??

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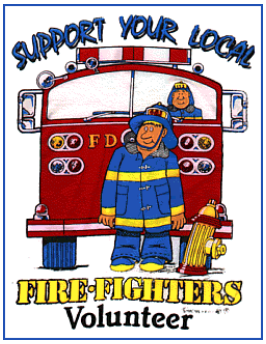
Many of our responders are not professional students. By that is meant they have not developed the special skill of actually enjoying sitting in class for hours, days on end.

Though great learners, they are not professional students.

Responders are field people, action people, hands on people, taking mostly mandatory training so they can get back to work, so they can do what they want to do, what they like to do.

Add to that the reality that you get outside of city limits and it's volunteer country. Volunteers are people who are working hard, but not getting paid.



To come to class they give up time at work, time with their family, time doing things they might want and enjoy to do. They too, as a class, are not professional students.

Yet, for all of that, it is a necessary fact that many of our classes are strictly "heads on, hands off." What to do?

It's quite simple, be the best trainer you can be by meeting students needs. Or, if you are a program manager, be the best manager you can be by meeting client needs.

How is that to be done? What are the simple steps that you can take to achieve the goals set for us by the US Army's slogan writer, by being all you can be as a trainer or manager, a training and managing army of one? Simple.

Show class participants that it is in their own best interest to, as their kindergarten teacher said, "put their learning hats on."

Prove to them that they will be happier, safer, and much better responders if they come to understand that in class and in response it's not either/or, heads on versus hands on, or heads on and hands off, but it has to be: Heads on, then hands on!

What we need to do is make sure that at the beginning of any response (or project, or grant process, or day), our responders take their deep breathes, gather data, do an analysis or size up, and develop a reasonable, defensible work plan, i.e., heads on. Then what,? Well, that would be: hands on.

How do we invigorate, turn them on to learning? Easy.

Make it real.

Make it emotional.

Make it personal.

Don't walk into class or into a meeting and either expect that the attendees care about what you have to sell or that you are there to make them care about what you have to sell. That's self defeating. No!

Find out what they care about, what gets their blood boiling, what "pumps them up." Kids, spouses, environment, sports, etc., and then tie your training to that. Put your ornament on their Christmas tree and quit trying to sell them your tree.

Hazardous materials awareness, personal safety, environmental protection, disaster preparedness and all of our other OHSA, EPA, FEMA, DOT, DHS mandates are good things, good products.

We just have to be better sales people, better marketers, better teachers, trainers and managers.

Our classes are boring, because we are boring.

We have to change ourselves if we want to change the world!

HAS YOUR LEPC:

- Established a permanent address for facilities, the SERC, and EPA to mail required forms and information;
- Notified the SERC of any changes to the LEPC structure, especially a change in the chair or address;
- Provided EPCRA training to emergency responders, specifically local fire departments who often can provide information to facilities during fire inspections and police departments who respond to haz-mat incidents?
- Established a 24-hour manned emergency phone number (i.e., sheriff's office, 911, fire department) for facilities to make release notifications -- an answering machine is not sufficient

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- **Mention of trade names, products, or services does not convey, and should not be interpreted as conveying official EPA approval, endorsement, or recommendation.**

Region 6 Emergency Notification Numbers

Arkansas Dept. of Emergency Management	**800-322-4012**
Louisiana State Police	**877-925-6595**
New Mexico State Police	**505-827-9126**
Oklahoma Dept. of Environmental Quality	**800-522-0206**
Texas Environmental Hotline	**800-832-8224**
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National Response Center	**800-424-8802**
EPA Region 6	**866-372-7745**
CHEMTREC	**800-424-9300**

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