

High-tech Training: Simulating Disasters in a Virtual World



OEM's simulator in action at the Bushwick warehouse

Joe Gough, a veteran OEM responder, is standing in the dark expanse of OEM's Bushwick warehouse, using a joystick to move through a virtual city spread before him on three giant flat screens, when a two-story electronics store on the left-most screen suddenly explodes.

Bass from the subwoofers shakes the floor and digital smoke obscures the screens. Red-orange tongues of fire flash through the haze. CIMS Program Manager Anita Sher's voice crackles through the radio in Joe's left hand, "Let's get these pedestrians out of here and put some hoses on that fire." "10-4, Fire Department has been notified," responds Natan Mandelbaum, the exercise controller.

In reality, the Fire Department had not been notified. None of this was really happening. The Fire Department Natan contacted was part of a virtual world created by OEM's new training simulator.

The Advanced Disaster Management Simulator (ADMS) is a state-of-the-art virtual reality system that simulates emergencies and their surrounding environments. It has five stations – an incident commander and up to four response operations chiefs – but, because trainings are primarily exercises in communication, it allows a room full of players to practice using the Citywide Incident Management System (CIMS) and coordinate the response to a preprogrammed incident.

"This simulator allows us to conduct realistic CIMS exercises without taxing City resources," explained Anita. "The beauty of the simulator is that we can run exercises in a standardized, repeatable format. In fact, we could run CIMS trainings here 24 hours a day at minimal costs."

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Editor's Note

OEM has had a busy spring, contending with everything from a collapsed crane to a visit by Pope Benedict XVI. In the midst of all that excitement, babies arrived, old friends departed, and new faces joined the birthday baby feasts.

In this issue of The Sit Rep, readers get a sneak at OEM's peak new simulator and the future of **CIMS** training. Calder Yates reflects on the disaster faith conferences Jill and Samonte reviews the CERT graduation in the EOC.

The Sit Rep congratulates Nandy Roopchand for winning the winter photo hunt and challenges staffers to name all the future OEMers featured on page five.

If you would like to share an idea, an experience, or a photo in the next issue of The Sit Rep, e-mail <u>Chris</u> <u>Varley</u> or stop by his desk on your way to visit Zero the Wonder Turtle. Thanks to Rita, his cube is stocked with candy for all.

Keeping the Faith -by Calder Yates, Interfaith Outreach Coordinator



The Prepare Your Community planning group: Calder Yates, Adam Runkle, Amanda Lehrer, Jeanine Pekkarinen

Beginning February 20, Herman Schaffer and I, with the support of the New York City Citizen Corps Council (CCC), conducted five emergency preparedness forums for faith leaders in each NYC borough. On April 29 we conducted our fifth and final forum in Staten Island. The intent is to help hard-to-reach

populations (immigrants, lowincome residents, seniors) get informed and prepared for emergencies by working with some of NYC's most trusted outlets for information.

The *Prepare Your Community* series was a bigger success than I anticipated. Organizing communities purely around disaster preparedness is a difficult and, at times, unproductive approach. The planning group, which included Jeanine Pekkarinen and Adam Runkle from American Red Cross in Greater New York, Amanda Lehrer from Department of Health and Mental Hygiene, Herman, and me, recognized this difficulty early.

We created an interactive agenda that focused on community disaster networking. The idea that an engaged and civically informed community will be more resilient in the recovery phases of a disaster took precedence during each forum.

The forums have garnered a lot of attention. We fielded inquiries from Bowie, MD, to Fresno, CA, about the content of the presentations. Members of Indianapolis OEM attended the Queens forum to inform their own faith outreach campaign. NY1 covered the opening forum, the borough presidents gave keynote addresses, and Deputy Mayor Ed Skyler gave the opening address at the Brooklyn forum.

The conferences have attracted over 260 faith leaders, many of whom have registered to participate in future events.

One attendee, Diana Foster from Washington Temple Church of God and Christ, stood up at the end of the Brooklyn conference and said she's from an African American church, and African American churches don't talk to synagogues. In response, Rabbi Menachem Shagalov, from Reb Zalman Shagalov's Shul, stood and said "Ma'am, my name is Rabbi Shagalov, and I would like to work with you."

I thought this was a great moment from the forum series, if not strangely cinematic.

A New Class Gets CERTified in the EOC -by Jill Samonte, NYC CERT Team Development Specialist



More than 80 graduates of OEM's CERT program gathered in the Emergency Operations Center to celebrate.

n March 26, 2008, OEM hosted a graduation for more than 80 newly trained NYC CERT members, their families, and honored guests in the EOC. The high number of

graduates reflects both newly trained CERT members and active members who opted to retrain under the new curriculum, which was updated to more accurately address the urban environment in New York City.

Deputy Mayor Skyler, Commissioner Bruno, Brooklyn Borough President Marty Markowitz, Police Commissioner Ray Kelly, and Fire Chief of Department Sal Cassano were all on-hand to congratulate the graduates and thank them for becoming a resource to help keep New York City safe. Commissioner Bruno also thanked the Manhattan teams that participated in the response to the recent crane collapse. The ceremony featured an ABC news clip from the event showing CERT in action.

After the ceremony, the graduates and their Police and Fire Department instructors gathered downstairs to celebrate with a potluck dinner organized by the CERTs; a massive cake featuring the CERT logo was the centerpiece. Thank you to all the OEM employees who assisted with security and support during the event. The CERT unit would also like to offer special congratulations to OEM's own Janet Rivera, who graduated with the Manhattan 4 Hell's Kitchen/Chelsea NYC CERT.



In February, OEM announced the 10 winners of the <u>What If New York City...</u> design competition. After a round of comments from the NYC Department of Design and Construction, the winners will submit revised proposals in June. The City will then consider funding the development of a prototype of one or more of the winning designs.

In March, OEM participated in a regional U.S. Army Corps of Engineers (USACE) emergency power survey at more than 220 critical facilities in the metropolitan region, including 117 sites in New York City. At the end of the first week, OEM staffers (from left to right) Chris Rivera, Ron D'Ambrosi, Jonathan Jenkins, Elvis Rosario, Alex Markowski, Seth Cummins and Vincent Montouro, enjoyed breathtaking views of New York harbor aboard the USACE vessel Hocking.

On April 4, OEM held its second **blood drive** of



OEM staff aboard the Army Corps boat Hocking

2008. Staffers donated 27 pints of blood and received tickets to a Mets game for their generosity.

OEM held its annual Take Our Children to Work Day on April 24, hosting more than 43 kids for a day of activities including a smoke house demonstration by the Fire Department, and visits by a police horse and a search-and-rescue dog.

(See photos on page 5)

Milestones

On April 19, 2008, GIS's own **Carlin Andrus** was married to Sheila Lantz in Mystic, CT. Sheila is a teacher at a public intermediate school in downtown Brooklyn. Several OEM colleagues attended to wish them well.

In September, **Brian Silva** was elected president of the Student Council of the International Association of Emergency Managers (IAEM). It is the largest Council in the IAEM, consisting



Carlin Andrus & Sheila Lantz

of roughly 1,000 of the organization's 4,000 members. It includes more than 20 chapters at colleges and universities spread across six continents.

In February, **Paula Carlson** graduated from the master exercise practitioner program at the National Fire Academy and Emergency Management Institute in Emittsburg, MD.

Felix Torres' son Frank was featured in the Daily

News for guiding the number three Poly Prep Blue Devils to victory against the Clippers from Xaverian in one of the opening baseball games of the season. Frank

dedicated his victory to the memory of his grandmother.



Baby Boom



Zaniah-Rene Washington 7lbs. 10ozs. Born 2/6/2008 to Tanya Jenkins and Churon Washington



Kendall Riley & Paige Ansley Drayton 6lbs. 30zs. & 5lbs. 150zs. Born 3/6/2008 to Carlos and Keisha Drayton Son and daughter-in-law of proud grandfather Calvin Drayton



Yehuda Jeremy Evan Tannenbaum 8lbs. 202s. Born 3/29/2008 to Ira and Leah Tannenbaum

High-tech Training (continued from page one)

Though it employs dazzling, cutting edge technology, the simulator is primarily a teaching tool. It adds a practical component to CIMS classroom material, like a lab assignment that accompanies a science lecture.

"Imagine the benefit to students of being able to practice what they are learning," said Anita. "The simulator grants this opportunity."

ADMS comes with five pre-programmed emergency incidents (weapons of mass destruction, hazardous material spills, fires, multivehicle road accidents, and airfield accidents) and can be custom programmed for cityspecific incidents like a subway accident, or geospecific incidents like a hurricane.

Back in Bushwick, Joe and Anita work their way through the weapons of mass destruction drill. As they wait for the first responders to arrive, Joe circles the building to see where the raging fires might spread and uses the joystick to rise into the air to discover which way the smoke is blowing. Flying is an unrealistic, but convenient addition to the scenario. It offers the perspective normally available only through air support.

On the ground, two brightly colored, virtual fire trucks scream onto the screen followed by a few ambulances. As the virtual responders go about their tasks, Anita and Joe set up an incident command post and continue to manage the incident. Five minutes pass, and they have conjured an army of virtual responders through simple radio requests to Natan, who responds quickly, but offers no assistance.

During the simulations, all of the response actions

are driven by the trainees' decisions, but the laws of the virtual world are modeled on those of the real world. Fires and injuries progress if left unattended. Hazardous materials leak into basements and sewers. Winds spread smoke and fire into adjacent structures, which can cause further explosions.

The results of action (or inaction) and the cascading consequences help recreate the high stress levels responders will feel during a real emergency.

OEM plans to make the simulator even more realistic by modeling and uploading architectural and geographic data from New York City. These details will give trainees an opportunity to practice operating within the confines of the city. They will learn how to position resources in close quarters and set perimeters that effectively manage NYC levels of pedestrian and vehicular traffic. Additionally, OEM will improve the accuracy of the simulator by uploading NYCspecific resource data. When trainees summon more fire engines or ambulances than are stationed in the area, they will have to cope with realistic response times.

The simulator represents a big step forward in OEM's effort to teach City responders to operate under CIMS. Though nothing can replace the knowledge and experience gained during a full-scale exercise, it is impractical to hold more than a few full-scale exercises a year. The simulator will drastically increase the amount of time agencies can practice working together and communicating.

"The whole concept of CIMS is interagency coordination," explained Anita. "It doesn't do the agencies any good to practice by themselves."



A scene from the simulator's multi-vehicle road accident scenario

Take Our Kids to Work Day 2008: Can you name all the future OEMers?



The Sit Rep