

From Our President Matthew S. Collier

SAFER Sales Department

European User Meeting By David Lorkin

The events of September 11th, 2001 have forever changed the landscape of safety and security for those who use and/or transport toxic chemicals around the world.



We at SAFER are proud to help protect and defend the freedoms that we often take for granted. Knowing that our software plays a key role in saving lives has always been a part of our culture. The increased importance of our new role in plant and transportation security has emboldened SAFER to become even more vigilant as we refine and enhance our software tools.

In fact, not only are we significantly enhancing our current suite of software products – SAFER TRACE, SAFER Real-Time, SAFER Central, and SAFER STAR; but we have a number of new software tools on the drawing board. SAFER Scentry is being tested as I write this. SAFER Pathfinder, SAFER Smoke and SAFER Horizon are all new ideas in the preliminary stages of development.

All of our products are based on the SAFER model and are designed with the idea of making it easier for our customers to save lives, save money, and improve the quality of life for employees and communities alike.

Another recent focus for SAFER is our SAFER Enterprise Solution. The SAFER Enterprise Solution consists of all of our products as modules for companies as a whole. SAFER Enterprise seeks to provide a uniform, protective shield of SAFER products across a wide spectrum of coverage for entire corporations. From delivery into the plant, to use/storage inside the plant, and transport to a new location, SAFER is there – anywhere in the world. SAFER Enterprise provides corporations a global reduction in risk at a fraction of the cost – and a strategic hedge against catastrophic loss of life and resources.

SAFER as a company, and SAFER's suite of products continue to evolve based on your input, as well as the influence of new technology and the ever-changing world around us. The events of September 11th have helped SAFER forge a new and stronger dedication to serving you, and to more effectively aid in securing the freedoms we now share.

We are proud to serve you, and proud to serve freedom – all around the world.

Matt Collier can be reached at mcollier@safersystem.com or extension 115.

Don't just learn something from every experience; learn something positive.

—Allen H. Neuharth

Never put off until tomorrow what you can do today, because if you enjoy it today, you can do it again tomorrow.

—Unknown

The European User meeting that was cancelled as a result of September 11th is on schedule to take place on March 19th-20th. SAFER Systems will be playing host to software users from all over Europe and the Middle East in the canal city of Amsterdam in the Netherlands. It promises to be a truly international affair, and at the moment we have delegates from 11 different countries registered.

We have a busy agenda lined up for the User Meeting, which will include details of the exciting developments that are occurring, together with presentations from a number of users and also from some specialist companies involved in emergency response operations, warning systems, and meteorological equipment. We are confident that this will be a very informative gathering, and that it will also provide a great opportunity for our customers to meet other software users and some of the SAFER personnel face-to-face. We also have several social events organized for the User Meeting.

The User Meeting will be backed up by a day of TRACE training on March 21st for those who wish to learn more about SAFER's hazard and consequence analysis modeling capabilities.

By the time you read this, we will have hopefully succeeded in pulling off a very informative and enlightening User Meeting in Amsterdam.

Thanks for your support!

David Lorkin in our London office can be reached at dlorkin@safersystem.com or 44-20-8695-0678 Dale Sawada in our Camarillo office can be reached at dsawada@safersystem.com or extension 137.

inside...

SAFER Real-Time and SAFER STAR Version 9	Page 2
SAFER Software and GIS	Page 4
SAFER Systems Training	Page 5

NEW**RELEASES****SAFER Real-Time & SAFER STAR Version 9**

This is the first article of a series contributed by Ernie Gilbert. Each quarter, Ernie will introduce a new feature or enhancement that our SAFER Real-Time and SAFER STAR customers can look forward to receiving with Version 9.

SAFER Real-Time and SAFER STAR Version 9 are scheduled to be released this summer. One of the most significant improvements to our program is the new mapping architecture. This new mapping uses an embedded technology called Geographic Information System, or GIS for short.

What is GIS? GIS is a buzzword for any discipline that manages or displays data with a geographic component. Simply put, GIS combines layers of information about a site and a surrounding area to give the user a better understanding of the plant and community. GIS "understands" spatial concepts such as "near", "inside", "adjacent", "connected", etc. As a result, GIS may perform very powerful analyses that cannot otherwise be accomplished with traditional databases or static maps. SAFER Real-Time can drill down through the layers of data and extract specific information depending on what is needed.

Geographical components such as addresses, city, latitude and longitude coordinates are hidden within most GIS data. GIS allows the user to explore and analyze data by location. This can aid in revealing possible trends that might not otherwise have been apparent with traditional mapping systems. Users can utilize global positioning data in the GIS system. Global positioning provides the ability to precisely locate a point in the mapping system. It also enables the use of detailed and embedded aerial photography and AutoCAD® DWG files which add a dimension of realism to the program.

SAFER Real-Time and SAFER STAR Version 8 used static maps called bitmaps. Technically, these are raster-based images. A bitmap might be related to a photograph. GIS utilizes vector-based data (and can also include raster-based images). Vector data is

similar to CAD drawings. The data is defined as objects and may include points, lines or geographic shapes, as well as information about the shape such as an address. The visualization can be controlled to show limited data (main roads, city names, etc.) for a wide geographic area; and very specific and detailed data for a small area (all roads, road names, building numbers, etc). SAFER will not use GIS to make static bitmaps. It is a dynamic mapping system that allows the creation of different maps depending on the data selected or removed. Ultimately, we hope to solve complicated problems such as total population or specific blocks of addresses impacted by a dispersing chemical.

GIS data will initially require a small investment, but the enhanced results related to accuracy and visual information, will be a significant improvement over the version 8 solution. SAFER Systems is working with GIS vendors to provide a cost effective upgrade to GIS mapping.

For those of you that are looking for an economical form of upgrading, you will have the option to continue using your current version 8 maps. Although we recommend that you use GIS, version 9 will allow the use of the original version 8 maps.

We look forward to sharing this with you in the coming months. If you have any questions, please contact Ernie Gilbert at SAFER's Camarillo office. Mr. Gilbert can be reached at egilbert@safersystem.com or extension 129.

As a reminder, SAFER Software Upgrades are automatically provided to all customers with an active support contract. Please contact Dale Sawada for more information on our Software Support Program.

Did you know . . .

- ◆ A 1999 survey of 25,500 standard English-language dictionary words found that 93 percent of them have been registered as dot-coms.
- ◆ A 2001 study conducted by PC Data and Information Resources Inc. showed that greeting cards, soup, breakfast cereal, and Imodium were among the most popular package goods bought online.
- ◆ A chip of silicone a quarter-inch square has the capacity of the original 1949 ENIAC computer, which occupied a full city block.
- ◆ Apple co-founder Steve Wozniak earned money in college by selling "blue boxes" to other students. A blue box attached to a pay telephone and created proper signals to allow a user to make free phone calls.

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**Everybody thinks of changing humanity
and nobody thinks of changing himself.**

—Leo Tolstoy

**If something has been done a particular
way for fifteen or twenty years, it's a pretty
good sign, in these changing times, that it
is being done the wrong way.**

—Elliot M. Estes

**The secret of success is to know
something that nobody else knows**

—Aristotle Onassis

SAFER in the News

The following article was published in the Flint Journal on November 23, 2001.

Ex-Flint mayor playing role in outthinking terrorists

By Ron Fonger
JOURNAL STAFF WRITER

It took only a short time - just moments after the Sept. 11 terrorist attacks sunk in - for businesses and governments to wonder what might happen next.

That's where former Flint mayor Matthew S. Collier's California-based software company fits in.

Safer Systems is among the companies nationwide that have gained business in the wake of Sept. 11 as authorities and others wonder: If terrorists could use a hijacked jet as a weapon, why not anthrax, a nuclear power plant or hazardous chemicals?

Safer Systems through its software builds models of what happens to chemicals if they are released - accidentally or on purpose - and predicts where people need to be evacuated, using wind conditions and other factors as guides.

It's a specialized and highly technical niche that until now seemed of limited interest to anyone outside the chemical industry.

But soon after the attacks, calls started coming in at Safer Systems. Collier is president of the Camarillo, Calif., company.

"After Sept. 11, everyone has heightened awareness and more of a sense of urgency," Collier said.

"Their worst-case scenario was previously thought to be unimaginable," he said of the mostly chemical companies that Safer Systems deals with. "The formerly unimaginable can now be imagined and is possible."

Collier, whose company is about 45 minutes north of Los Angeles, was in Flint Township for Thanksgiving with his parents. The Sept. 11 attacks have a personal connection for him. His brother, Craig, a major in the U.S. Army, was working about 200 feet from the spot where a plane crashed into the Pentagon.

Craig Collier is a congressional liaison officer at the Pentagon and was among government employees treated with antibiotics as a precaution against anthrax exposure.

Now, 14 years after becoming one of the youngest-ever mayors at

29 and a decade after he lost the mayor's office to Woodrow Stanley, Matthew Collier is leading his high-tech firm into new territory on the other side of the country.

His company is working with Los Angeles-area officials on developing software in case toxic materials get off the track of a rail line that runs through a highly populated corridor there. That work may be expanded into the city of Los Angeles, he said.

The company also has contracts with foreign governments, such as Luxembourg, and is working on software programs for others including Germany, Singapore and Taiwan.

In Michigan, officials are using Safer Systems software to help figure out what happened in the July rail car explosion that killed three workers at a Riverview chemical plant.

Companies need to have a plan for disasters, Collier said. After the terrorist attacks, he said, the need to be secure "multiplied times 10 for anybody who transports, uses and manufactures toxic materials."

Safer Systems' promotional materials describe it as a global leader in chemical risk management. Its customers include DuPont, GE Plastics, and Occidental Chemical, and Collier said the software could be used by the military.

Collier is clearly doing well in the business world, frequently traveling overseas. It's a far different world from politics for Collier, a West Point graduate who earned a master's degree at Harvard.

Collier said he hears bits and pieces about Flint through friends and family. And though he doesn't rule out a return to politics, Collier said he's not driven by the ambition.

"Being mayor of Flint seems like another life ago," Collier said. "We were really on the move. It's sad to come back and see what's happening."

Ron Fonger covers Genesee County government and transportation. He can be reached at (810) 766-6317 or rfonger@flintjournal.com.

**News
Brief**

Please join us at the 4th International Dangerous Goods Conference

April 4-5, 2002

Hilton Antwerp, Antwerp Belgium

SAFER Software and GIS

By Jian Zheng

SAFER Systems' Development Team is currently working on the integration of Geographic Information Systems (GIS) with SAFER's chemical release models for the upcoming Version 9.0 of SAFER Real-Time and SAFER Star. The modeling algorithms of SAFER software predict the spatial distributions of parameters such as toxic gas concentration, thermal radiation, overpressure, etc. With the integration of GIS, additional information will be available. Some examples of what GIS can help predict are the number of people that may be affected, who will be affected, which facilities or natural resources that may be impacted, and much more.

What is GIS? GIS is a digital map system that has the powerful capability to analyze data. GIS is composed of three parts: hardware, software and data.

1. **Hardware (computer and peripherals):**
The peripherals depend on an individual system. It may be a digitizer, a GPS receiver or something else. The peripherals that you use are determined by the purpose of your system.
2. **Software:**
With GIS software, the user can store, display, and analyze the information pertinent to a particular geographic area. The GIS software can be further broken into following components:

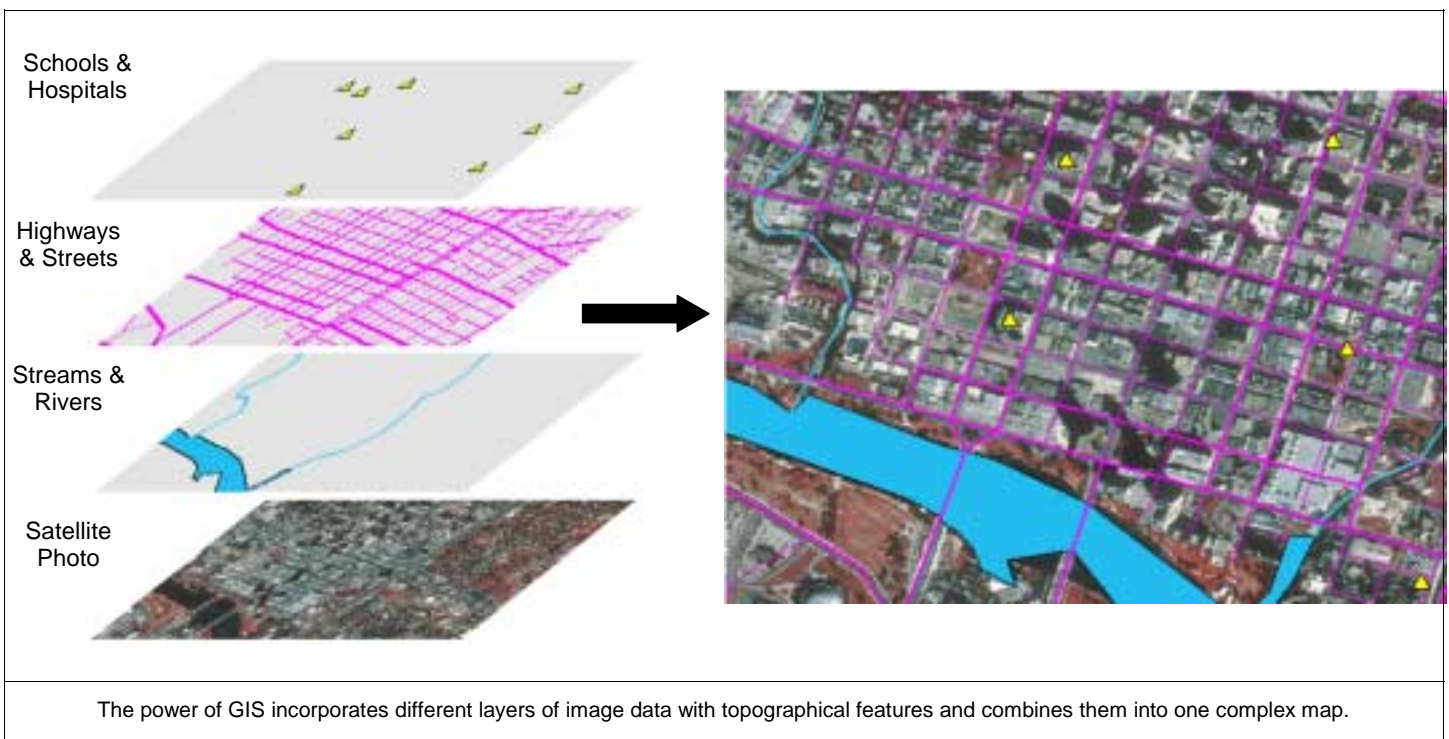
- An easy-to-use graphic user interface
- Tools for data input and manipulation
- Tools that create intelligent digital maps that you can analyze and query for information such as addresses, municipal boundaries, specific facilities, locations with dense population (schools, hospitals, shopping centers, etc.).
- Tools for database management

3. **Data:**
GIS data may come from a wide range of sources, including proprietary or standard maps, graphic files, satellite photos, CAD files, government census data, spreadsheets, relational database, and many more.

In GIS, the information about a place is categorized into different themes, or layers. For example, the data of all the streets of a city is put into one layer and the data of all the restaurants of the same city is put into another layer. Each layer can be used as a simple map by itself, or you can combine multiple layers to get a complex map.

The advantage of using GIS in our chemical emergency response system is obvious. Once the path of the toxic vapor plume is predicted by SAFER's dispersion models, you can immediately get the information about who and what will be

(Continued on page 5)



(Continued from page 4)
affected.

In the image to the right, the shape of the plume is superposed on the GIS map. The area under the coverage of the plume is easy to identify. In a split second, the GIS will tell you who and what is within the affected area. Furthermore, by sending the plume coverage data through the Internet to an emergency notification service such as FirstCall Emergency Response, Inc., thousands of homes and institutes within the potentially hazardous area can be notified by phone within just a period of ten minutes after the accident.

GIS is one of the many new features that you can expect to see in our next Real-Time and SAFER STAR releases.

You can reach Jian Zheng at or jzheng@safersystem.com or extension 133.



The toxic plume generated by SAFER Systems software is superimposed onto the GIS map

SAFER Systems Free Training

By Dale Sawada

For those of you that could not attend our 2001 SAFER Systems Free Training, you will have the opportunity again this year. In fact, as a result of the success of last year's training, we are offering an additional session this year. We are planning on conducting a session in April and again in October. The SAFER Real-Time and SAFER TRACE trainings will be held in computer training centers in Houston, Texas; New Orleans, Louisiana; Chicago, Illinois and Wilmington, Delaware. Each



Mr. John Tobo conducts SAFER Real-Time Training in New Orleans, Louisiana

attendee will be provided with a computer to experience the training hands-on.

Mr. John Tobo will conduct the Real-Time training and some of the topics that he plans to cover in this training include:

- Real-Time System and Module Overview
- Applying Real-Time During an Emergency
- Quick Response Hands-on Training
- Back Calculation Hands-on Training
- Plant Emergency Response Hands-on Training
- Real-Time Emergency Response Drills



Dr. Shah Khajehnajafi conducts SAFER TRACE Training in New Orleans, Louisiana

- SAFER Software Future Developments
- Questions and Answers

The TRACE Training course will be conducted by SAFER's Chief Modeling Engineer, Dr. Shah Khajehnajafi. His topics will include:

- TRACE General Overview
- Dispersion Modeling
- Scenario Development
- Fire & Explosion Modeling
- Fire & Explosion Scenario Development

We will be sending out information regarding this training in the next few weeks. Due to computer limitations, seating will be limited. Please register early to ensure your reservation.

Free training is one of the many benefits available to our customers that are enrolled in SAFER's annual software support program. If you would like more information on our Software Support Program, please contact Dale Sawada at dsawada@safersystem.com or extension 137.

Participate and Win a Prize

Congratulations to **Richard Houtby of Nova Chemicals, Sarnia, Ontario, Canada**. Mr. Houtby was the winner of our previous Newsletter puzzle. You can be our next winner if you send us your solution by email to editor@safersystem.com or fax to +805-383-6344 (attn: SAFER Newsletter Editor) by May 31, 2002. We will have a random drawing and one lucky winner will receive an AMAZON.COM gift certificate for \$50USD.

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GIS

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GLOBAL

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HIGHWAYS

TOOLS

IMPROVE

USERS

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E	I	Y	L	B	V	G	H	R	Q	X	A
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News Brief

Please join us at the 2002 Responsible Care Conference & Expo

April 21-24, 2002

Hotel Inter-Continental Miami in Miami, Florida

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