Wavelength

A Public Safety Communications Journal

In-Building Public Safety Radio

Patient Tracking Success Story

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Amber Twitter

Over the past several weeks much of the country has been following in the press the tragic story of yet another abducted and murdered child. There has been a raging debate regarding decision making for activation of an amber alert and more surrounding the criteria itself. "Amber" is an alert system established in the United States to publicize child abductions. It uses electronic highway signs and designated local broadcasters to announce the child's name and description and the description of any vehicle suspected to be involved in the abduction. While there is also debate about the effectiveness of the system there have been many children who have been quickly and safely returned to their caregivers. In many US states, subscribers can sign up to have such alerts sent straight to their mobile devices in as many as five separate zip codes. Alerts are then sent out when the amber system is activated where the subscriber is currently located. There is also a federal law which sees these types of text messages sent free-of-charge to subscribers.

While our Canadian provinces began adopting the amber alert system in 2002 we have yet to follow through with having more complete saturation of the affected area by way of having all jurisdictions include the option of widespread automatic electronic notification. Nor is there a law which supports a no-fee system for such alerts. And given that there are now multiple methods to get such information into the hands of the citizenry one might argue that it would make sense to have the amber system tied to "SMS" and "Twitter" at no cost to subscribers. Especially when one considers this type of public service message would arguably make a lot better use of the available technologies versus just answering the question of one another: "what are you doing now?"

Ted Harris
Editor-in-Chief

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DEPARTMENTS

FEATURES

*Members are invited to submit a **John A. Smith Bursary Award** request for the board's consideration.*

The John A. Smith Bursary shall be awarded annually to a qualifying individual who undertakes research into, or makes a significant contribution to, the activities, planning, operation, or function of public safety communications in Canada.

Submissions should be made in writing no later than August 31, 2009, to the president of APCO Canada at maureen.schmidt@apco.ca or to our Ottawa office mailing address: APCO CANADA, 440 Laurier Avenue West, Suite 200, Ottawa, ON K1R 7X6.

*Des membres sont invités à soumettre une demande de **la bourse John A. Smith** pour la considération du conseil.*

La bourse John A. Smith sera attribuée annuellement à un individu de qualification qui s'engage à la recherche de, ou qui fait une contribution significative à, les activités, la planification, l'opération, ou la fonction des communications de la sécurité publique au Canada.

Des soumissions devraient être faites par écrit pas après le 31 août, 2009, au président de l'APCO Canada à maureen.schmidt@apco.ca ou à notre adresse de bureau à Ottawa: APCO CANADA, 440 Rue Ouest Laurier, Suite 200, Ottawa, ON K1R 7X6.

Twitter AMBER

Au cours des dernières semaines, partout au pays, tout le monde a suivi l'histoire tragique de l'enlèvement et du meurtre d'une enfant. Le débat concernant la décision d'activer l'alerte AMBER et des critères pour le faire a été animé. L'alerte AMBER est un système établi aux États-Unis pour rapporter l'enlèvement d'enfants. Le système utilise des panneaux autoroutiers électroniques et des radiodiffuseurs locaux pour annoncer le nom de l'enfant et sa description, de même que la description du véhicule suspecté. Bien qu'il y ait également un débat au sujet de l'efficacité du système, plusieurs enfants qui avaient été kidnappés sont retournés sains et saufs dans leur famille. Dans plusieurs états aux États-Unis, les abonnés peuvent s'inscrire pour recevoir de telles alertes directement à leur téléphone cellulaire dans un maximum de cinq codes postaux séparés. Les alertes sont alors envoyées lorsque l'alerte AMBER est activée là où ils se trouvent. Il existe aussi une loi fédérale qui permet d'envoyer cette messagerie textuelle aux abonnés.

Bien que les provinces du Canada aient commencé à adopter le système d'alerte AMBER en 2002, nous devons encore maintenir notre visée pour obtenir une saturation complète de la région concernée en faisant en sorte que toutes les juridictions incluent l'option de diffusion électronique automatique. Il n'existe pas de loi qui appuie le système sans frais pour de telles alertes. Étant donné qu'il y a plusieurs méthodes de communiquer l'information aux citoyens, on peut se poser la question à savoir s'il est sensé d'avoir le système AMBER relié sans frais aux « SMS » et à Twitter. Lorsqu'on considère ce type de service public de dépêches, il est permis de croire qu'il est possible de mieux utiliser ces technologies que de répondre simplement à la question « Que fais-tu maintenant? »

Ted Harris
Rédacteur en chef

Emergency Preparedness

Experiences over the last few months have repeatedly reminded me of the need for prepareness. Emergency management consists of four pillars: preparedness, mitigation, response, and recovery.

The majority of my public safety career has centered on the immediate response to emergencies. In most cases the event was short term and did not disrupt the day-to-day activities of the community. Over the past couple years, as acting operations chief for the province of Saskatchewan I have witnessed the devastation of forest fires and floods and the long-term impacts to our residents.

Over 20 years of public safety experience did not prepare me for the events occurring in Australia

Over 20 years of public safety experience did not prepare me for the events occurring in Australia while I attended the APCOA conference in March. These events included the bush fires that cost hundreds of lives and homes; widespread flooding, Cyclone Hamish which eroded many beaches, and a chemical and oil spill just off the coast. It was amazing to witness the local, provincial and federal responses to these emergencies. The media worked closely with all levels of responders to communicate instructions and details to the public. As a tourist I was kept informed and felt I had all the necessary information to make decisions regarding my personal safety. I salute all the emergency responders who bravely risked their lives to fight the deadly fires and the communications staff who at many times, remained on the job knowing that their homes and families were threatened. They are true heroes and public safety professionals.

Are we prepared here in Canada? We have a responsibility to ensure that the proper processes and communication linkages are in place. The reporting of the event will likely commence in 9-1-1 or dispatch centres and notification of proper authorities will be required. Does your agency presently have these processes in place? Have these processes been tested? Do you have a back-up site? These are important questions to answer so that you as a communicator are PREPARED when disastrous events occur. Work with your management, vendors and industry experts now to establish these processes.

Public safety communication professionals also have a responsibility to personally prepare yourself and your family for emergencies. During emergencies, the public relies on us to report for duty. The recent H1N1 event has generated many discussions regarding pandemic and business continuity plans. In order to prepare yourselves please refer to the website **www.GetPrepared.ca**.

Communicate...
and be prepared.

Maureen Schmidt
APCO Canada
President

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La gestion des urgences

Les expériences vécues au cours des derniers mois viennent me rappeler sans cesse du besoin d'être toujours prête. La gestion des urgences comporte quatre pilliers : préparation, atténuation, réponse et rétablissement.

La majorité de ma carrière en sécurité publique a été centrée sur la réponse immédiate aux urgences. Dans la plupart des cas, l'urgence était de courte durée et ne perturbait pas les activités quotidiennes de la communauté. Au cours des dernières années, en tant que chef des opérations intérimaire de la Saskatchewan, j'ai eu l'occasion de constater la dévastation des feux de forêt et les inondations, de même que les conséquences à long terme pour les résidants.

Mes 20 ans d'expérience en sécurité publique ne m'ont pas préparée pour les événements qui ont eu lieu en Australie.

Mes 20 ans d'expérience en sécurité publique ne m'ont pas préparée pour les événements qui ont eu lieu en Australie lorsque j'ai assisté à la conférence APCOA en mars. Pour n'en nommer que quelques-uns : les feux de brousse ont détruit des centaines de vies et de résidences; les inondations et le cyclone Hamish ont érodé plusieurs plages, sans oublier les déversements accidentels de pétrole et de produits chimiques. Il est intéressant de constater la réponse à ces urgences au niveau local, provincial et fédéral. Les médias ont travaillé très étroitement avec tous les niveaux de réponse pour communiquer les instructions et les détails au public. En tant que touriste, je recevais les informations et j'avais conscience d'avoir toutes les informations nécessaires pour prendre une décision au sujet de ma sécurité personnelle. J'ai un grand respect pour tous les intervenants en cas d'urgence qui ont bravement risqué leur vie pour combattre les feux meurtriers et pour tout le personnel de communications qui, très souvent, ont continué de travailler en sachant que même leur résidence et leur famille étaient menacées. Ce sont de vrais héros et de vrais professionnels en sécurité publique.

Sommes-nous prêts au Canada? Nous avons la responsabilité de faire en sorte que les processus et les liens de communication adéquats soient en place. La transmission de l'événement commencera par le 9-1-1 ou les centres de régulation et la communication aux autorités en cause. Est-ce que votre agence a ces procédés en place? Est-ce que ces procédés ont été testés? Avez-vous un site de réserve? Ce sont là d'importantes questions auxquelles il faut répondre pour pouvoir, en tant que communicateur, être PRÉPARÉ en cas de catastrophes. Travaillez avec vos gestionnaires, vos vendeurs et les experts dans l'industrie pour établir ces procédés.

Les professionnels de la communication en sécurité publique ont également la responsabilité de vous préparer vous et votre famille pour les cas d'urgence. Durant les urgences, le public se fie à nous pour se présenter au travail. Tout dernièrement, le virus de la grippe porcine (H1N1) a provoqué plusieurs discussions au sujet des plans de continuité du bon fonctionnement des affaires et des plans en cas de pandémie. Afin de nous préparer, veuillez consulter le site www.GetPrepared.ca.

Communiquer ... et soyez prêt.

Maureen Schmidt
Présidente,
APCO Canada

APCO Alliance for Global Cooperation and Development

By Maureen Schmidt,

APCO Canada President

APCO Canada attended the Global Alliance meetings during the Sydney, Australia (APCOA) and London, England (BAPCO) annual conferences. This group is committed to "Uniting Nations and Communications Technology for Greater Public Safety." It is an honour and privilege to represent the APCO Canada membership at these meetings.

In Australia, each alliance partner circulated a briefing paper outlining the activities and events that have occurred since the Ottawa meeting in November. It is not surprising that each country has many common concerns and issues. This sharing of experiences provides a thorough worldwide perspective.

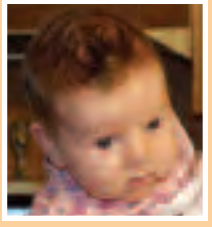
The bush fires that were occurring in Australia verified the importance of public notification and warnings, evacuations and the significance of emergency planning. Des Bahr from APCOA described this unimaginable event. The ferocity of the fires cannot be depicted in words. During the conference, I attended the panel discussion on Australia's Worst Natural Disaster – Victoria's Bushfires 2009. After seeing media footage from the front line, Australia can be very proud of the brave men and women who responded and coordinated this major disaster.

The agenda discussions centred on the development of the draft telematics model legislation, public emergency notification requirements, SIM-less call blocking, and training opportunities between partners. APCO International introduced the proposed Project 42 which would establish standards to achieve system interoperability and common operating pictures for geo-spatial technologies. We also learned that a similar project is occurring in Europe. These two projects will be monitored closely. The group was also very mindful of the economic climate and the impacts to our associations.

Our London meeting expanded on the topics discussed in Sydney. After individual partnership briefings, there was a lengthy discussion centred on training and accreditation opportunities between partners. The group agreed to create a resolution and then build a white paper on this topic. It was also agreed that the Global Alliance will continue to expand by attending and promoting public safety communication expertise to new countries and areas. Action items were taken away from this meeting and we will reconvene in Las Vegas in August.

The Global Alliance continues to be a resource for APCO Canada and its membership as well as our corporate partners. I invite you all to visit the Global Alliance website at : **www.apcoglobalalliance.org**

UPCOMING EVENTS



I may be just two weeks old but I know its important to put these upcoming events in my BlackBerry!

Moira Elizabeth Harris Baker

Pencil It In

APCO International Conference
August 16-20, 2009
Las Vegas Convention Center/Las Vegas Hilton, Las Vegas, Nevada

APCO Canada Conference 2009
October 4-7, 2009
Evraz Place, Regina, Saskatchewan

APCO Australasia
Winter 2010
www.apcoaust.com.au/

BAPCO Conference
April 20-22, 2010
Business Design Centre, Islington, London, UK

Christine Vincent

Communications Training Coordinator

Victoria City Police

Wavelength: How long have you been a member of APCO Canada?

Christine Vincent: I am a new member. Near the end of last year, I became involved in the training program and I went on the hunt for industry-specific information. Although I had heard of APCO Canada, I really didn't understand all it had to offer. I have since discovered the wealth of information available and being a member ensures that I am current with our industry's challenges and needs. I have not been disappointed.

Wavelength: Tell us a bit about your career/background in public safety communications

CV: In truth, I stumbled into this profession. I have a criminology background and was a community worker in Calgary, AB working with the indigenous population and youth in conflict with the law. I moved to Victoria and started as a switchboard operator about 9 years ago.

It did not take long for me to become intrigued with the work of the 9-1-1 operators and dispatchers so when I was approached about moving up, I jumped at the chance! I stumbled, tripped, and fell many times as I developed my skills; and I wondered if I was ever going to get it right. Then one day the switch flipped! I began to understand what I was doing, and how important the policy and procedures were to helping me make my decisions. As proud as I am of the work I do and the impact I can have on a person's life, the illusion of control can be humbling – incidents can go sideways on the drop of a dime

Recently, I was awarded the Communications Training Coordinator position (a brand new in-house position) and again, I am humbled. Developing a program that represents the integrity and values of our agency is exciting and I can not help but feel like I did when I first started my journey with the Victoria City Police Department. Will I get it right? But, I have faith in the processes that guide my decisions and the people I work with!

Wavelength: What are some of the everyday challenges you encounter in your organization?

CV: I can struggle with the pace of change. It is inevitable that change will occur, it is the when that is challenging. I enjoy the push-and-pull involved and the rewards that come with change but it is slow and has many ups and downs. The work environment is fast paced and I want solutions yesterday but "change" seems to be two laps behind. Who was it that said "patience was a virtue" and did he meet this 9-1-1 communications employee?

Wavelength: Are there any communications-related initiatives currently being planned, discussed, or implemented with the Victoria City Police Department?

CV: We have recently implemented an Information Channel 24/7 (CPIC requests, phone calls, etc., on the second channel versus the main) as a result of volume demands and coordinating training efforts for the new dispatcher.

One of my first priorities as the training coordinator is to develop a viable radio training program. We have embraced the "standardized approach to training" philosophies and these will be the guiding force behind the design and development of the program. The design not only has to support the new dispatcher but also has to appeal to the trainer. Radio training is very demanding.

Wavelength: What do you feel are the benefits of being a member of APCO Canada?

CV: So far, the benefits of the membership are the availability of information and realizing that our agency is not alone with our struggles. Our industry is not a mainstream, commonly known employment choice and the men and women who end up in this career are unique, persistent, and committed individuals with a wealth of knowledge and skill. Being able to tap into any or all of that enables me to be open to considering new ideas and allows me to continue learning.

Wavelength: What are some areas you would like to see APCO Canada be involved with in the future?

CV: This is a unique industry therefore our needs are unique, especially here on the island. Shift work and the cost and structure of formalized training can limit what is available and what can be accessed. I would like to see the development of online courses – introductory courses that provide the foundation of knowledge and advanced courses for continuing education for the senior employee.

Mastering this work entails working on-the-job and online courses may be one way to supplement learning before, during and after in-house training.

2009 APCO Canada
Conference & Trade Show
A Professional Showcase of Talent

Every year, APCO Canada joins with a host city and welcomes attendees from across the globe to join us in a partnership of learning and professional development. Each of us helps to create a portrait of our home organization by sharing verbal visuals of where we come from, and what it's like at our own PSAP's. We paint pictures using words and body language – some even go to the length of drawing out a schematic of their work-place – *that's talent!* Through these partnerships and personal paint brushes, we create a public safety mural that ensures APCO's vision of continued recognition and support of public safety communications in Canada remains superior.

This year's APCO Conference will be held in our Queen City - Regina, Saskatchewan.

We are enthusiastically preparing to host what will be an amazing mosaic of learning opportunities and shared celebrations. We will be welcoming 'extended family' this year, by combining forces with *"On Scene 2009"*. *"On Scene"* had its inaugural multi-agency training event last September, emerging as a successful collaboration of protective services personnel from Law Enforcement, Fire, and EMS. The most exciting aspect of their conference was an interactive scenario, where inter-agency relationships were put to the test, working and learning together to ensure prompt response and a successful save. We are hoping to contribute to the 2009 scenario, by attempting to incorporate the actual 'front-line' of public safety, **the Dispatcher**!
It all starts with a call...

The 2009 APCO Canada theme, "Art of Communication: Partnership in Public Safety",

is a colourful expression of our professional expertise in communicative abilities to provide a high standard of public safety – the art of words can comfort, guide, acknowledge, and reassure. Our coded radio language translates into stories, and paints a scene that our field officers and personnel can mentally and physically prepare for. Dark humour, and light-hearted laughter, can draw us together in the best of times, and the worst of times. To our public clients, the colours and sounds surrounding the *'Art of Communication'* can mean everything – the pattern of a familiar logo, the decals on an emergency vehicle, the trust in a uniform, and even the music of a siren, can mean that help is on the way.

We invite everyone to Regina, from October 4-7, 2009

Come join us in a learning experience that will expand your public safety palette! In partnership with our outstanding vendors and sponsors, and introducing our new relationship with *"On Scene 2009"*, this training event will truly highlight the many talents of our industry.

APCO CANADA NEWS

EMERGENCY MEDICAL SERVICES CHIEFS OF CANADA ANNOUNCES NEW BOARD

THE EMERGENCY MEDICAL SERVICES CHIEFS OF CANADA (EMSCC) held their Annual General Meeting June 3, 2009 where a new board was voted in, resulting in national representation. The board now has representatives from each of the provinces and northwest territories; a first since the inception of the organization. The meeting was held in conjunction with the EMSCC annual conference "Navigating through the Waters, a National Approach" being hosted in Niagara region.

EMSCC now has 20 board members representing British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and Yukon.

"It is an exciting time for our EMSCC board and its membership as it allows for information exchange across Canada," stated Bruce Farr, president of EMSCC and chief of Toronto Emergency Medical Services. "This is a significant achievement for the emergency medical services profession and we're excited for the future as this national representation improves the advancement and alignment of EMS leadership in Canada."

The Emergency Medical Services Chiefs of Canada/Directeurs des services medicaux d'urgence du Canada (EMSCC/DSMUC) is a national organization led by Chiefs and Directors of Canada's EMS services across the country. Incorporated by letters patent of the Government of Canada in January, 2002, the goal of the EMSCC is to advance and align emergency medical leadership across Canada. For more information visit **www.emscc.ca**.

Bruce Farr, Chief of Toronto EMS, President EMSCC Executive

Mike Nolan, Chief Paramedic Services Renfrew County, President Elect, EMSCC Executive

Anthony Dimonte, Chief of Ottawa Paramedic Service

Dave Dutchak, President and CEO MD Ambulance Care, Inc

Michael C Sanderson, Executive Director, BCAS Lower Mainland, Secretary EMSCC Executive

Darren Sandbeck, Director, Alberta Health Services North Zone

John Cunnane, Chief, Emergency Medical Services, Niagara Region

Ken Luciak, Director, Regina Qu'Appelle Health Region, Treasurer, EMSCC Executive

Joe Acker, Director Alberta Health Services North

Tom Samspon, Deputy Chief Past President

Jim Brennan, Chief Winnipeg Fire Paramedic Services

Les Fisher, Executive Director BCAS

Preston Holmes, Director Clinical Services, New Brunswick EMS

Paul J. Charbonneau, Chief of Paramedic Services, County of Frontenac

Marc Paquette, Director of Operations, Gatineau

Gerard Dinn, Manager of Clinical Operations, Yukon

Corey Banks, Division Manager and EMS Chief, Eastern Health, Newfoundland

Doug Socha, Director Hasting County EMS

Craig Pierre, Director, Island EMS Prince Edward Island

Robert Brown, Director Emergency Medical Care, Halifax

Nick D'Ulisse, Director Urgences Sante, Montreal

Kelly Nash, Executive Director, EMS Chiefs of Canada (Calgary)

EMSCC: PARAMEDICS WORKING TO KEEP CANADIANS SAFE

EMS CHIEFS ACROSS CANADA are working hand in hand with government and other responders to keep Canadians safe from a potential human swine flu outbreak.

"Since first learning that a number of cases of severe respiratory illness had been reported in south and central Mexico, Canada's EMS Chiefs have acted quickly to ensure safeguards are in place to mitigate any potential impact to Canadians," says Chief Bruce Farr, president of the Emergency Medical Service Chiefs of Canada.

Emergency Medical dispatchers are trained to question 9-1-1 callers to determine the presence of fever or shortness of breath and a history of recent travel. In all cases where patients screen positive for flu-like symptoms, information is documented and shared so all responders take necessary precautions and necessary steps are taken to protect Canadians

Emergency Medical Services from across Canada will continuously monitor this developing situation through the use of our bio- surveillance system.

"Increases or changes in demand for service related to flu-like illness are flagged and reported to public health officials immediately for follow-up," says Chief Farr.

EMS Chiefs will continue to work with public health agencies, members of the National EMS Management Association of America, the National Academy of Emergency Medical Dispatch, and other members of the medical community to share information and best practices in the management of this developing situation.

"Our first priority is the care and well-being of Canadians and we are ready to serve," adds Chief Farr.

Go to the website for the latest committee and AGM Reports

Visitez le site Web pour les derniers rapports sur les finances, les comités et l'AGA

www.apco.ca

SUICIDE BOMBER HITS ISLAMABAD EMERGENCY CALL CENTRE

A SUICIDE BOMBER attacked a police emergency call center in the capital of Islamabad, killing at least one person and wounding two others.

Pakistani police say the bomber approached the building late Saturday and detonated explosives when security officers opened fire.

www.turkishweekly.net/print.asp?type=1&id=79876

INDUSTRY INSIDER

LEADING CANADIAN EMERGENCY MEDICAL SERVICES PROVIDER BRITISH COLUMBIA AMBULANCE SERVICE SELECTS NICE INFORM FOR IMPROVED SERVICE AND RESPONSE

Sole EMS Provider for British Columbia will deploy NICE solutions at its 4 dispatch centers serving more than 4 million citizens

NICE SYSTEMS LTD., the global provider of advanced solutions that enable organizations to extract Insight from Interactions to drive performance, today announced that the British Columbia Ambulance Service (BCAS), the sole ambulance service and provider of pre-hospital emergency care in the Province of British Columbia, Canada, has selected NICE Inform and other NICE solutions to capture and manage emergency communications at all of the BCAS emergency dispatch sites, upgrading from an existing implementation of NICE recording technology. The solutions will be used to capture and retain communications for immediate emergency call playback and post-call investigations and analysis, in order to further improve service and response time.

The British Columbia Ambulance Service is one of the largest Emergency Medical Services (EMS) services providers in North America, serving 4.3 million people in the Province's near one million-square kilometer area. BCAS's fast-paced emergency call centers operate 24/7 and are the first point of contact for citizens in British Columbia who require emergency pre-hospital care. BCAS handles more than a half-million calls for service annually, from four dispatch/communications centers based in Kamloops, Vancouver and Victoria. BCAS is also a major provider of inter-facility patient transfer service.

"When we looked at the existing systems in the market, it was clear that NICE was a leader in the industry. The leading-edge technology and consulting services were most impressive and crucial to us as we operate in a very complex networking environment," said Maurice Girard, director, IT and telecommunications, emergency & health services commission, BC Ambulance Service. "

www.nice.com

SASKATOON FIRE AND PROTECTIVE SERVICES REDUCE RESPONSE TIMES WITH FDM SOFTWARE

EACH TIME THE PHONE RINGS at Saskatoon Fire and Protective Services Central Communications Unit, call takers and dispatchers must be prepared for the worst. Using the Computer-Aided Dispatch System (CAD), dispatchers must provide responding units with specific information about the geographic areas in addition to known site details. If this information is inaccurate, the outcome could be disastrous. Dispatchers must be able to assess the situation, dispatch the appropriate crews and apparatus and determine if other resources will be immediately required.

"Our communications staff are the link between the department and the public we serve," says Chief Brian Bentley. "Time and information is critical from when an emergency call is received to when the responding apparatus roll out of the fire halls." With that in mind, the Saskatoon Fire and Protective Services decided to look into replacing their existing CAD system in the fall of 2006 and by January of 2008, the department was live with FDM Software's integrated Computer-Aided Dispatch (CAD) and Records Management System (RMS).

"The more we know about what we will find at an incident, the more effectively we can respond with everyone's safety as a top priority, including our own," says Assistant Chief Bob Fawcett. This is especially important for incidents that involve obscure chemicals that require specialized knowledge to handle. FDM CAD alerts firefighters with the type, quantity and location of any hazardous materials at a property and includes the appropriate description from the Emergency Response Guidebook (ERG). Additional alerts include vital information such as the presence of a guard dog or structural concerns, response zone alerts such as low water pressure in the hydrants and street alerts such as a roads blocked due to construction.

With so much information at the dispatcher's finger tips, FDM's user-friendly interface makes it easy for dispatchers to verify, enter or update as required. "FDM CAD is much more reliable than the previous CAD we used," says Fawcett. "It is very user-friendly and speeds up our dispatching process significantly."

One of the biggest time savers for the Saskatoon Fire and Protective Services is that the system automatically recommends units for dispatch. During implementation, communications staff entered the data and rules

required to match the system behaviour to the department's dispatch policies. This information ensures that FDM CAD automatically selects the correct units for an incident. Specific call types can have predefined responses making the whole process more efficient. "The system's automatic response recommendation has been hugely beneficial to us in terms of efficiency," claims Fawcett.

www.fdmsoft.com

TELECOMMUNICATIONS SYSTEMS INC. ANNOUNCES SUPPORT FOR CRTC WIRELESS POLICY

TELECOMMUNICATION SYSTEMS, INC. a leading provider of mission-critical wireless communications, today announced it is now offering Canadian wireless service providers its Xypoint Location Platform to meet the Canadian Radio-television and Telecommunications Commissions (CRTC) mandate of implementing new technology that will allow emergency responders to determine the precise location of a wireless 9-1-1 caller. The new regulatory policy requires Canadian wireless companies to deploy "wireless Phase II E9-1-1 service" by February 1, 2010. This will allow emergency responders to determine a caller's location generally within a radius of 10 to 300 meters.

www.telecomsys.com

ALUMA TOWER UNVEILS THE SCOPION 53-70

Aluma Tower Company, Inc. unveils the newest item in their arsenal, The Scorpion 53-70 trailer tower unit. This latest addition to Aluma's product line boasts several key attributes yet to be achieved in the mobile tower arena. These features include unguyed towers from 50 ft. to 110 ft., deployment in only 15 minutes, light enough to be towed by a military Humvee, small enough to fit into a C-130 aircraft, and just a 27 ft. x 36 ft. deployment area. The Scorpion can also be equipped with a generator, fuel tank, and radio cabinet, or many other accessories offered by Aluma Tower. The demand for such a trailer has been prominent for quite some time and Aluma is proud to offer a unit that meets all of the requirements of their customers in one affordable package.

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EADS DEFENCE & SECURITY INTRODUCES A NEW TETRA DATA MODULE TDM880I FOR POWERFUL DATA COMMUNICATION

EADS DEFENCE & SECURITY has introduced a compact, yet highly capable product for data communication over TETRA. The TDM880i is an advanced TETRA data module based on the solid and robust technology of the EADS i-range TETRA radios. The TDM880i is dedicated to positioning, telemetry, remote control, and data transfer applications, especially in embedded solutions. While it can also be used as a stand-alone device, it is designed to be integrated with a master device in applications such as automatic meter reading, intelligent traffic systems and other embedded systems. Its 3 W output power ensures reliable delivery of data. The TDM880i operates on 380-430 MHz frequency band.

The TDM880i is a compact printed circuit board, optimised for easy integration, and encapsulates the full functionality of a TETRA data radio. The TDM880i uses IP data and SDS messages for TETRA communication. Its I/O lines and RS232-interface for AT commands enable connectivity to a wide variety of applications. The I/O lines can be configured as inputs or outputs that can be controlled by short data messages, while the inputs can be used to trigger status message or send location information to predefined destinations. The module can use intelligent message transfer options for managing the traffic load, such as control channel associated with an ongoing group call.

For positioning, TDM880i uses its built-in GPS receiver and is compatible with the ETSI location information protocol (LIP). The position storage and transfer facility make the TDM880i an ideal solution also for positioning applications such as tracking vehicles or containers.

Graduation Day at EMRI

By Uma Nath

February 6, 2009 was graduation day at EMRI. EMRI and Stanford School of Medicine, USA conducted a convocation ceremony to confer the ACE degree to the trainers of the Post-graduation Program in Emergency Care (PGPEC). Advanced clinical educators (ACEs) are the individuals who fulfill the eligibility to exhibit skills, knowledge, and attitude required to train and develop advanced emergency medical technicians (EMT-A).

Research and Publications

A Research paper was recently released titled "Emergency (108) Calls to the Ambulance Service in the State of Gujarat (India) That do not Result in the Patient Being Transported to Hospital: An Epidemiological Study."

The paper, authored by Dr. Ashendu Pandey and Dr. Rajeev Ranjan for Gujarat Operations, has been accepted by the *Journal of Clinical and Diagnostic Research* for publication.

Research indicates that a significant proportion of non-transported cases are from vehicular trauma in spite of assigning high priority. Classification of calls into critical and non-critical has resulted in higher sensitivity and poorer specificity. More research is being done for prioritization.

A research paper titled "A Study of Health Emergencies among Neonates in Andhra Pradesh" by Dr. Biranchi Jena and Ms. Anuradha Dubey of EMRI Research team was presented at the National Conference on Contemporary Issues on Child Survival in Bhopal.

The research indicates that the greater demand for neonatal emergency cases are from rural areas. The research also concluded that birth asphyxia and pre term births were found to be the major cause for mortality.

They also concluded that neonatal mortality would be reduced drastically by ensuring the transportation time is within 60 minutes, as transportation time of more than 90 minutes doubles the risk of death.

EMRI handles 70% of cases within 60 minutes, thus ensuring the risk of death is reduced more than two times.

Representation Outside

Ms. Uma Nath, lead partner, EMRI was invited to the 7th International Science Conference on the Human Dimensions of Global Environmental Change, in April, in Bonn Germany.

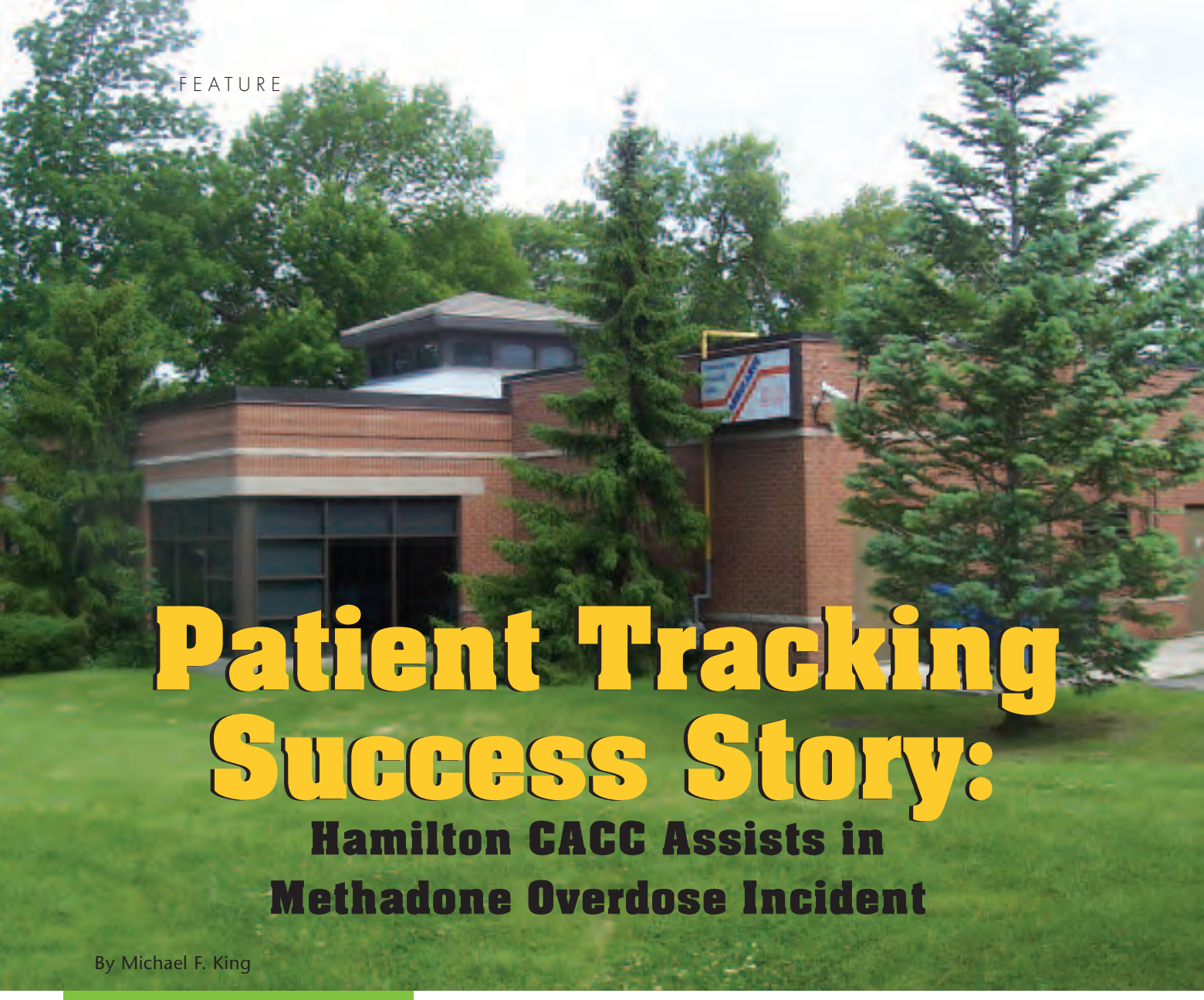
Difference Made to Life By Associates of EMRI

A 30-year-old man suffered a two inch deep cut in his throat due to a sharp kite thread that accidentally hit him during the kite festival of Gujarat. The victim had difficulty in breathing and was unable to talk. The passersby called up 108 for rescue. EMTs arrived and assessed the case and with the help of an ERCP (emergency response centre physician), controlled the bleeding and administered local would care enroute to the hospital for further care. After two months when the EMRI team visited his house, he was in good condition. He and his family were thankful to EMRI for saving the life of the bread winner of the family of six.

EMRI Facts and Figures as of April 2009

- 12,900 EMRI associates
- 368 million population covered in nine states
- 91% of calls taken on first ring
- In RTA and cardiac cases, < 10 minutes 2/3rds of ambulances reached their destination
- Ambulances reached their destination in < 15 minutes (urban), and < 25 minutes (rural)

Uma Nath is Wavelength's *Associate Editor for India and is the Lead Partner – Alliances and Partnerships, EMRI Hyderabad. Uma can be reached at: uma_a@emri.in*

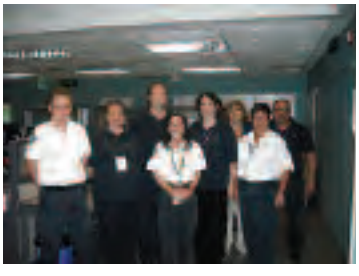


Patient Tracking Success Story:

Hamilton CACC Assists in Methadone Overdose Incident

By Michael F. King

Recently the staff of the ***Hamilton Central Ambulance Communications Centre*** *were faced with an incident that gave their communications staff an opportunity to demonstrate their proficiency and aptitude.*



Late one afternoon in early May, one of the on-duty ambulance communications officers received a phone call from a local police dispatch service requesting ambulances attend at two separate locations for similar problems. Information was reported which indicated that a medicinal dispensing agency in the centre's catchment area had mistakenly supplied the incorrect dosage of methadone to a number of its clients. The Hamilton Central Ambulance Communications Centre responded ambulances to the first locations supplied to them by the police, who eventually made direct contact with the first two patients and transported them to a local hospital. According to practice the communications centre kept the emergency medical services fleet supervisor updated and it was discovered by happenstance (as the supervisor was coincidentally at that receiving hospital) that the facility had also had a patient walk in to their emergency department with similar symptoms.

This information was shared with allied agencies and the medical control group at the base hospital was alerted. During radio patches regarding the patient's conditions the base hospital physician group monitored these similar patient symptoms and determined that the given dosage of methadone would necessitate the provision of immediate medical attention to each of the affected patients. The police service tracked down these people from the information supplied by the dispensing agency and they passed along the addresses of these potential patients to the communications centre. Hamilton CACC responded ambulances to three additional locations in the city in the hopes of contacting and transporting these people to the hospital.

As a result of those contacts another person was taken to hospital which had also found itself in receipt of yet another walk-in with similar symptoms. All of this information was again shared with the police service which, in turn, provided a mobile number for the remaining patient. The centre contacted this person on their cell phone and determined that they were driving in a nearby rural area. The communicator explained the situation to the person and conveyed the urgency of seeking medical attention, suggesting that they proceed to the closest nearby hospital. Shortly afterwards the centre spoke with the police dispatch supervisor and confirmed that all seven patients had been accounted for and all were seeking or receiving medical attention. During this incident, communications centre management was kept informed of the fluid nature of the incident and the potential for escalation of numbers of patients and media attention. Management, in turn, appraised senior ministry management in a timely manner.

Situations like this do not regularly occur in communications centres and it was to the credit of the staff that they worked beyond normal expectation to piece together the puzzle as the incident unfolded by assembling information obtained from the police, emergency medical services, facilities and the base hospital physician group. We recognize the exceptional teamwork and communication skills exhibited by the ambulance communications officers, and the leadership displayed by their supervisor who coordinated and disseminated the information that day, to ensure that all the citizens involved were offered information pertaining to the urgency of the situation and, provided with ambulance service where appropriate.

The exceptional crew that day included communications officers Kevin Ras, Debra Mortimer, Denise Georgian, Elizabeth Abbot, Rosanna Henderson, Cathy Daniels, Joe Cassar, supervisor Dean Bint and operations manager Paul Grady.

The Hamilton Central Ambulance Communications Centre dispatches to the City of Hamilton, Brant County, Norfolk County, Haldimand County, and the Six Nations Reserve handling over 100,000 calls annually.

Michael F. King is an independent consultant on matters EMS and is a regular contributor to the Wavelength magazine. He can be reached at kingmfOZ@kingston.net

Forward Command Vehicle Project

With communication in the field so crucial to optimise emergency management and response, the National Safety Agency (NSA) teamed up with several vendors to create a concept command vehicle for the fire and emergency services sector.

With Mitsubishi as the vehicle sponsor, a Pajero was chosen as the preferred vehicle for this project. Where possible, NSA works with the vehicle manufacturer to leverage off a lot of the technology already within modern vehicles, including the CANBUS and GPRS to maximise the differentiation of each integration solution; however, to maximize battery life and enable non-vehicle related systems to be operational 24/7 for immediate use, this vehicle was integrated with an environmentally friendly solar power solution.

Technology was utilized from a number of vendors, encompassing areas such as communications, intelematics, vehicle tracking, lights and warning systems, mobile data, and the aforementioned power management solution.

The primary purpose of this concept is to create an in-vehicle mobile office for incident commanders, for use in a prolonged emergency where co-ordinating personnel in the field can sometimes be difficult. It will allow the officer the ability to receive data and track an incident in real time, and maintain constant communication with all personnel.

The forward command concept vehicle was launched at the 2008 Bushfire CRC/AFAC Conference in Adelaide (Australia), creating much interest among the delegates in attendance. It is now ready to be viewed and trailed by ESOs in the Asia/Pacific region, with the desired result being that the technology featured be integrated into future emergency vehicles.

The vehicle will be touring Australia from earlier 2009. For more information about the Forward Command Vehicle Project, please contact the National Safety Agency on 0011 +61 3 8680 2240.

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Are Telecommunicators Emergency Workers?

By Henri Pelissier

Would you believe Saskatchewan telecommunicators are finally considered "Emergency Workers?" No, really! Mike Reschny has been an emergency worker since 1981, starting as a volunteer EMS ambulance attendant in Unity, Saskatchewan. He was then given the opportunity to work as an EMT with the Parkland Ambulance in Prince Albert and then as a Paramedic with M.D. Ambulance in Saskatoon. In 1990, Mike accepted a full time EMT instructor position with SIAST – Saskatchewan Institute of Applied Science & Technology, spending the first two years instructing the EMT program for Saskatoon Fire and Protective Services. In 1993, Mike suffered an incomplete spinal cord injury but continued as an EMT instructor until 1996 at which time he accepted a position as an emergency telecommunicator with Saskatoon Fire and Protective Services and is currently the communications training coordinator. Saskatoon Fire and Protective Services – Communication Division has a full time staff of 12, three staff per shift, and are APCO – PST1, APCO Fire, EFD, EMD, and IFSTA certified.

In the spring of 2005 it was suggested that Mike was getting "old," that he had been "dispatched to baby Moses being found in the basket." When it was suggested that he would be soon become eligible for the Saskatchewan Emergency Services Medal, (25 years in emergency services) Mike replied that he didn't think he would eligible since not all the years of service were with a fire or EMS service, that some of years were as an EMT instructor and some in communications. After some discussion it was decided that contact with the Saskatchewan Office of Protocol and Honours would be made. Much to his surprise Mike was informed that his years of years were in fact eligible, that years of service could be accumulated from more than one service. Mike asked if that included time in communications and as an instructor and was informed it did. It was only with this knowledge that the nomination for the Saskatchewan Emergency Services Medal was pursued.

With the support of Saskatoon Fire and Protective Services administration and the fire chief, Mike was nominated using the same criteria as other members who have received the medal. The nomination was first denied, rejecting Mike's time as an instructor for a portion of his service but his time in communications was accepted. This was later reversed and his instructor time was accepted but then telecommunications was not.

Initially, it wasn't an issue if Mike received the medal or not as he didn't originally expect it. However, after being told he would qualify, and then being rejected for being a "Dispatcher." Mike decided to he wanted to pursue this issue and see what, if any hurdles could be overcome.

Over the next two years, with tremendous support from his department, Mike continued with emails, letters, phone calls, and other correspondence, pointing out examples of other instructors and dispatchers that had already received the medal while attempting to prove that emergency telecommunicators are, in fact, front-line "Emergency Workers."

After much time, effort, and frustration, Mike received correspondence that his years of service as telecommunicator would be accepted towards the 25-year medal; however, his years as an EMT instructor

would now no longer be acceptable.

After reflecting on the original goal, it was decided that the point was made – telecommunicators are emergency workers and would now be eligible for the Saskatchewan Emergency Services Medal for 25 years of exemplary service. When asked if all the effort was worth it, "Effort is always worth it," Mike replied with a smile.

"I wanted to prove a point. I didn't do this for myself, as I did not receive the medal in the end anyway. This was for all the dispatchers and communications specialists that come after me, so that they would have the opportunity to receive the honour that they so richly deserve."

"If you can serve, enjoy, continue to learn and survive in communications for 25 years you should look back with satisfaction and pride in the knowledge of what you have accomplished."

Editors Note

At the 2007 "APCO Telecom-munications Week" banquet in Regina, Mike was recognized in by his peers and Sask911 for his work in obtaining the eligibility for the Emergency Services Medal for all telecommunicators. It is believed that Saskatchewan is the first province in Canada to so recognize telecommunicators.

Mike continues to work towards improving communications training wherever and whenever possible, making emergency communications courses and training available for communications centres in Saskatchewan and Alberta as well as to the general public wishing to pursue a career as a telecommunicator.

Mike volunteered as the program chair for a past APCO Canada Conference hosted in Saskatoon and is currently the communications director for Saskatoon Search and Rescue. He also sits on several local communications committees and shares communications training resources and information with agencies throughout Canada and the United States.

Henri Pelissier is a freelance writer based in Winnipeg

The Devil in the Detail

At the heart of ACRO's existence is the importance of data sharing, and ex Deputy Chief Constable Ian Readhead at the very beginning of the visit set the theme by citing the Soham murders as a prime example of a situation where things could have turned out very differently had the correct checks and balances been in place. "People's memories get blurred with time but the fact is Ian Huntley did not work for the Cambridge school that Holly Wells and Jessica Chapman attended, but he worked at a local technical college. Nevertheless, Huntley would not have been employed there had the technical college been made aware of his past.

We are trying to establish an environment where we have more comprehensive recording of criminal data, and to ensure it is available to other police forces and embassies, to make communities safer."

Nobody can deny that data retention and data protection is a current issue. Not a week goes by when the subject isn't making headlines. In the last two weeks it was the *Guardian* reporting on how the police targets thousands of political campaigners in surveillance operations, storing their details on a database for at least seven years.

The Mail on Sunday's headlines however mainly revolved around the fact that ACRO* is selling information from the Police National Computer for up to £70 – even though ACRO pays only 60 pence to access each record.

The Mail was referring to the police certificates that ACRO started issuing in July last year to people applying for visas to live in the US, Australia, New Zealand, and Canada.

In the case of those with criminal convictions wishing to visit the US, certificates are also required. Previously, people could obtain their full criminal history for visa applications by making a "subject access" (SA) request, which had a charge of £10.

However, such a request contains a full criminal history – including reprimands, cautions etc. "For the purposes of employment and holiday visas to the US, all that detail is not necessary and it probably contravenes the Rehabilitation of Offenders Act 1974, which enables some criminal convictions to become 'spent' after a certain period of time," clarified Readhead. "Our approach has been to apply the Police Retention Guidelines Model, which 'step down' old, minor criminal convictions."

After the 'spent' period – with certain exceptions – an ex-offender is not normally obliged to mention their convictions when applying for a job or obtaining insurance, or when involved in criminal or civil proceedings. "So the Information Commissioner was very supportive of not using an SA for visas."

It was this argument that resulted in the ACPO** convincing the Home Office to support a six-month trial last year with ACRO issuing police certificates. This trial is now permanent.

So what does the process of putting together a police certificate entail? Once an application has been received, ACRO interrogates the Police National Computer – a process which does indeed cost 60 pence per record – as well as other database sources (eg microfiche). Once the information is gathered together, it is then edited (stepdown convictions are taken off), written out clearly and in full (minus incomprehensible acronyms), and printed off with an individual's photograph.

Where the SA used to cost the public £10 for a 40-day service, the certificate costs £35 for ten days – or £70 for a premium three-day service. Copies are also available so a frequent visitor to the US can request copies at £5 per copy.

The system is proving to be a success. Last year around 63,000 certificates were issued in 12 months of operations. This year it may even double that number, as applications in January 2009 were 8,500.

Anne Fursey, Deputy Manager of the 35-strong certificates team, was kind enough to show the *Journal* round the work area. Fursey suggested that one of the reasons for the increase could be the opening up of certain countries to immigration, such as Canada. "And we do receive a lot of applications from India and China, from people who lived here for a few months – perhaps as students – and now wish to emigrate to another country."

The pilot system is proving so popular with embassies from the US, New Zealand, Canada, and Australia, that ACPO would like to expand the process to South Africa, China, India, and Pakistan, to the point where eventually there could be only one process for all immigration visas.

Indeed, other countries have expressed an interest in joining the scheme. "The benefits are that they will know who is coming in and what type of convictions they have had. This would be good in particular for countries like Thailand, which have a huge sex industry," said Fursey.

The ACPO Criminal Records Office also operates the UK Central Authority for the exchange of criminal records (UKCA-ECR) with other EU Member States. The excess from the Police Certificates division helps support the work of the UKCA-ECR, explains Readhead. "If interest grows as is expected, staffing levels will have to expand. Currently staff are

*Association's Criminal Records Office

**Association of Chief Police Officers

employed via the UK Central Authority for the Exchange of Criminal Records (UKCA-ECR), with profits from the police certification project being then fed back into that organisation. Members of the public who use the service may be paying more than they did previously, but that revenue generation is ultimately saving on the public purse," explained Readhead.

Exchanging Criminal Records

The UKCA-ECR is an organisation that primarily focuses on the notification to EU Member States of convictions imposed in the UK on a national from that EU Member State, and vice versa on the receipt of notifications of convictions of UK nationals in other States.

In the future the EU-wide collaboration could expand into some kind of super network of different countries' access to national criminal registers, all accessible by mobile data.

"In the fullness of time what we want is – if I'm checking a PDA in Southampton – the PNC will check the network right across Europe and it will pull a record out. That sounds far fetched but give it ten years and that's what will be happening," said Readhead.

No small challenge is the fact in different countries there are different organisations responsible for the relevant data. In some countries it is the courts rather than the police that hold foreign national conviction information. There is also great disparity in how that data is organised.

Detective Superintendent Gary Linton, Head of ACRO and UKCA-ECR, believes that there is a Europe-wide acknowledgment that properly managed, the ability to move information across borders is key for the safety of European communities and their ability to tackle crime.

One of the factors necessary to achieve that, points out Linton, is good governance and transparency of what information is kept, and for how long.

Today, ACRO is engaged in the sharing of criminal convictions information on behalf of England, Scotland, Wales and Northern Ireland, and in Linton's words it is fully engaged with over half of the EU Member States and beyond. "That has lead to the managing of exchange of criminal records outside Europe via agencies like Interpol. This has led us to identification issues and the way to do that is via fingerprinting. Next year we will have our own in-house fingerprinting facilities, primarily to support the international exchange of criminal records. A lot of Europeans have identity cards, but we don't, which means that fingerprints are key." Linton added that without the income from the police certification project it would have been impossible to even contemplate such a purchase.

"We also take into account that we need some money up front too to get more people and desks – we are not a profits-seeking company that can put down investors' money, we have to work within our margins."

Not bad for a process that was initially a six months project.

As well as looking to expand its services to other countries, the police certificates division is going to streamline its business processes by joining together the IT.

"We are looking for one application that will do everything from beginning to end, and perhaps we'll be able to decrease the service time from ten days to five."

The division is also widening its payment processes to accept debit and card payments to help certificate applications from overseas.

S and Marper v the United Kingdom

This high-profile case related to two individuals whose fingerprints and DNA profiles were held by the police, although no convictions had occurred. Both applicants had unsuccessfully requested that their fingerprints and DNA samples be destroyed, and the information had been stored lawfully without time limits.

In December 2008 the European Court of Human Rights held that in the case of S and Marper there had been a violation of Article 8 of the European Convention of Human Rights. "I think that the ruling was correct," said Readhead. "Take the example of a 16-year-old who goes to John Lewis with 10 friends and one of them shoplifts. If all are arrested and have their DNA taken, it is not right to keep their DNA for life if only one has been convicted. It is not appropriate as the S and Maper case concluded."

Both Linton and Readhead explained that a well-thought out framework is required, one that will provide guidance on situations ranging from where someone has been arrested on suspicion of murder to where someone has been arrested for shoplifting and not convicted. "I think it will be necessary for us to articulate the framework with some clarity, including time of retention in relation to seriousness of offence, age of offender etc. In some situations, like a Black Panther enquiry, you may want to keep it indefinitely."

The DNA Special Operations Group of ACRO works with foreign countries to try and solve unsolved crimes, by running DNA details through a database of UK offenders. "That's proved very successful. Last time we did it we discovered an armed robber who was a UK national but had committed offences in Holland. He was successfully arrested in London recently and now faces charges in their country. I think sharing information in this way will become a bigger feature of future major crime investigations."

The Special Operations Group also

ACRO – background

Led by Detective Superintendent Gary Linton, the aim of ACRO is to provide operational support to several Chief Officer Portfolios dealing with matters relating to criminal records and associated biometric data, including DNA and fingerprint information.

ACRO was set up in response to a perceived gap in the Police Service's ability to manage criminal records and in particular improve links to biometric data.

ACRO provides guidance and management on access to these criminal records and seeks to improve their effective operational use. It provides a focal point for policing matters in connection with criminal records.

investigates breaches of security, such as that of PA Consulting and the loss of a data stick that included details of around 10,000 prolific offenders as well as information on all 84,000 prisoners in England and Wales.

John Harvey is National Operations Manager for ACRO, and he is often brought in to work with the Home Office in relation to DNA issues. "We were involved with the Home Office when the memory stick went missing, and we were asked to evaluate the significance of the stick's contents, and the risk to individuals. That was quite an intensive enquiry over a short space of time."

One of the areas Harvey is looking at is the ramification of the S and Marper v the UK case, in terms of the role of the police in the deletion of DNA and fingerprints. "We have been asked for a policing perspective on how to promote the best way forward for a new DNA or fingerprint policy for England, Wales and Northern Ireland."

Harvey explained some of the issues involved in creating such a policy. For one, it involves 4.5 million records – not all of which are related to the ruling. Next are the criteria on which to base the destruction policy, and the retention policy for the future. "Legislation will have to be changed to accommodate that. It is not just about pressing a button, as there are considerable internal costs and resources."

Not getting it right could mean another adverse Ruling in the future. Or even worse, it could mean erroneously deleting records that shouldn't be deleted. "It is a huge joint effort involving legal departments, NPIA, and Foreign and Commonwealth Office. Whatever policy we come up with, other countries will be looking at very carefully. Part of the S and M ruling suggested that the Court felt the UK's policies were inappropriate for a lead country."

The Court had noted that although the retention of DNA/fingerprint data had a clear basis in domestic law under Section 64 of the 1984 Police & Criminal Evidence Act, it was far less precise as to the conditions attached to and arrangements for the storing and use of this personal information.

Subject Access Data and ACRO

On a more tangible and straightforward level, ACRO's next big project involves bringing in-house the SA information which up to now has been held at New Scotland Yard's National Identification Service.

NIS has for years been looking after SA requests for personal data held in the PNC, but in the next few months ACRO will manage this process from their premises.

SA requests are for individual use and not for use with visas or employment vetting application."Section 56 makes it unlawful for employers to require confirmation of lack of convictions, but that part has not been enacted by government. We try to discourage people from applying for these purposes," explains Readhead.

ACRO's work in signposting enquiries to Police Certificates, the CRB and Disclosure Scotland has reduced SA applications from over 200,000 in 2006 to less than 90,000 last year. The service is paid directly by applicants to their local police forces, and ACRO receive funding for providing the service from the NPIA. "We will be going live around the middle of May, and we are going through the IT change now," explained Linton.

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FiReControl and Critical National Infrastructure

On January 29th an unprecedented number of BAPCO members congregated at the newly built Regional Fire Control Centre, Taunton. The theme of the day was – rather fittingly for the location – Protecting our Critical National Infrastructure, and the FiReControl Programme .

In the control centre's main room with its 20 foot-ceiling and commandeering gigantic central screen delegates were able to get a flavour of both what it will be like to work in a Regional Control Centre, as well as experience the truly ambitious nature of the FiReControl program.

Although many of the desks were still empty and the hardware still in its packaging, it wouldn't be long before this relative calm would be but a distant memory, as emergency calls from the South West begin to flood in come 2011.

Regional Chair Peter Prater began proceedings and reminded the audience that the day was all about critical national infrastructure and FiReControl – and that this was not just about terrorism.

The Centre for the Protection of National Infrastructure (CPNI)

Critical national infrastructure – what is it, what are the threats, and what is being done to protect it?

(Note from the editor: at the request of the CPNI, *BAPCO Journal* has altered the original presentation.)

The speaker introduced the Centre for the Protection of National Infrastructure (CPNI), which was established in 2007 and whose activities constitute part of the UK's strategy to counter threats from terrorism. There are a range of covert threats to national security. The threat to the UK and to UK interests overseas from international terrorism is serious and sustained, and has been judged by the Security Service to be "severe" and likely to persist for some considerable time.

The UK's counter-terrorism strategy, known as CONTEST, has four main areas of activity. First is terrorism prevention, which includes tackling radicalisation in the UK and abroad, for example by challenging ideologies that extremists believe justify violence. This also entails taking appropriate action such as strengthening the legal framework and supporting structural reform.

Second is pursuit of terrorism by means of disruption, using intelligence gathering on terrorist activities and their means of operations.

The third area is that of reducing vulnerability to terrorist attack. This covers strengthening border security to prevent terrorists from entering the country, as well as protecting national infrastructure and people in crowded places.

The fourth area is about ensuring the UK is properly prepared for any consequences of terrorist attack. This entails identifying key risks, assessing the impact of such an attack and having the necessary responses, as well as testing and planning through exercises and live events.

The CPNI speaker then used a simple but effective analogy to explain what is meant by national infrastructure. "For me, it is the things you take for granted living in the UK. I travelled here yesterday. I stayed in a hotel, which had energy available for light and heat. I could listen to the TV and I had a laptop. The food was plentiful, and next day I paid the bill with a secure credit card service. I did not experience any problems travelling here, but if an accident had occurred, the emergency services would have come on the scene. This is just a brief example of the services that underpin normal daily life."

There are nine categories that comprise the national infrastructure; communications, energy, finance, government, water, health, emergency services, transport, and food. The government sector includes all central government departments. Not everything is critical and it is impossible to protect everything.

CPNI work with owners, operators and sponsor government departments to identify which elements of the national infrastructure are critical. The assessment is driven by likely impact (regional, national, length of disruption, availability of back up, impact on life), vulnerability-focussed, and is informed by threat. The scale of protective security measures has to be proportional.

CPNI also provides integrated protective security advice, covering physical, information and personnel security. An example of physical security is taking a layered approach to prevent access to critical assets. This could entail intruder detection, closed circuit TV, and access control systems such as swipe cards.

Next is personnel security. Good pre-employment screen is vital, as is an ongoing security regime for employees. It is important to look at protective security measures in place, identify any gaps, and then address how these can best be mitigated.

Finally, there is the third aspect of information security. Maintaining the confidentiality, integrity and availability of data is crucial to business effectiveness. Threats are constantly evolving and organisations need to stay ahead, whether the source is from terrorists, espionage, or criminals.

Q&A

One delegate asked how easy it was to get the private sector to follow CPNI advice on security measures. The advisor replied by reiterating that CPNI didn't have any powers to impose measures on organisations, but that it worked closely with government departments who could liaise with the owners of sites. "They usually action the advice, and realistically they see the value in protecting their assets. And also it is an opportunity to work with the regulators. I've never heard of any organisation that has turned round and said it couldn't afford the measures. For some it may just be about gaining a better understanding of a CBRN threat, and that can often just dovetail into existing plans."

BAPCO President Ian Readhead raised the issue of intra-Europe co-operation, in the light that for example the UK relied on France for much of its electricity. The speaker said that CPNI had a work stream that included European partners, both in sharing intelligence and delivering advice.

Chris Hartrick and Colin Rockey, Devon & Somerset FRS Special Operations: An overview of New Dimension (Special Operations)

Chris Hartrick began his presentation by talking about the background to the local resilience forums, and how due to the two police authorities Devon & Somerset FRS served, they sat on two local resilience forums.

Hartrick outlined the varied responsibilities and activities of the Special Operations team, including preparations for mass fatalities, warning and informing, cliff rescue, and training and exercising with other blue light organisations.

"New roles are emerging. We can see a whole new world of more complex incidents emerging that are happening more often. Climate change is having its effect so we have to be prepared for more dislocated incidents."

Colin Rockey, also of Special Operations, took the mantle from Hartrick to speak about Special Operations and the New Dimension project.

"We still refer to it as the New Dimension but over the next 12 months it will take on its new title, National Resilience. National Resilience is about maintaining this capability for another 16 years."

USAR is part of the New Dimension, and Rockey explained how it came about. "Why do we deliver USAR? Well, in 911 there were two types of responders, firefighters and to put it crudely, guys who looked like Bob the Builder. They too are firefighters, from FEMA – the Federal Emergency Management Agency. The US has FEMA and we did not, so after 911 we delivered that type of asset. USAR became recognised as a sharp end capability."

Today there are 19 national teams of USAR specialists to deal with collapsed structures, heavy rescue transport, and anything else which firefighting colleagues cannot deal with or don't have the equipment for. Rockey also outlined some of the national assets available under National Resilience, including the mass decontamination vehicles and high volume pumps. "This year will see the delivery of canine to DS FRS, one of 23 in the country."

Graeme Pauley, National Business Relationship Manager, FiReControl project team

The FiReControl project and how it supports resilience as part of the critical national infrastructure (CNI)

Pauley's presentation revolved around three questions: what is FiReControl; how it supports resilience as part of the CNI; where we are on the FiReControl journey.

He began his presentation by highlighting the increasing challenges being faced by the Fire Service, including climate change and terrorism. He explained how Communities and Local Government had responded by investing £1bn in enhanced capability through Fire and Rescue Resilience programme:

- Providing specialist equipment and training to deal with major emergencies (New Dimension)
- Secure, resilient, national radio system – enabling emergency services to communicate with each other (Firelink)
- Working in partnership with Local Authorities, FRSs, and suppliers to deliver national network of nine, resilient, Regional Control Centres. These will receive calls, mobilise and co-ordinate resources across the country (FiReControl).

Currently the FRAs in England operate 46 separate control rooms to answer calls and mobilise resources, explained Pauley. Each control room has a back-up facility – typically a room equipped for fallback, eg County Council basement, and a wide variety of technologies and operational procedures reflecting different levels of investment by local authorities. "Staff do an excellent job in delivery core services within limitation of current arrangements," but, added Pauley, there were significant opportunities to improve service delivery and outcome, eg:

- Most control rooms were small, and could be easily overwhelmed with calls. When a member of the public called 999, an operator tried to connect to the primary line in an FRA control room. If a line was busy calls queued and an operator switched to alternative lines, then to an alternative control room. Accepting that the control room had to pass details back to the original control room for mobilisation to take place, if no calls could get through then an alternative method of communication had to be be found, for example fax.
- Large incidents close to FRA boundaries could be difficult to coordinate because more than one control room will be taking calls, eg motorway incidents.
- And risk of multi-agency confusion when information was passed from a number of FRS control rooms to police and ambulance services.
- Currently coordination of CBRN incidents was located in a single FRA.

The new network will address the above weaknesses:

- Local Authority control services will be brought together at regional level. Large networked controls will enable flexing of call handling and mobilisation capacity to cope with local peaks in demand, largely eliminating call queuing.
- Common call handling and mobilisation processes, common technology and common training will enable callers to be transferred between centres. This will enable resources with shortest journey time to be mobilised, regardless of boundaries.
- Better more timely information will enhance firefighter safety, and communications will be based on data rather than voice.
- New risk management tools integrated into control infrastructure, directly supporting formulation of integrated risk management plans by local authorities.
- Network will house national coordination functions including management and deployment of New Dimension assets.

Pauley went on to dispel common myths and misunderstandings about FiReControl, such as the nature of the threat being responded to. "We can see flu pandemic, major industrial accidents, coastal and inland flooding all have higher impact than attacks."

"In our world it is less about enemies of the state and more about natural disasters and human frailty – a majority of the time."

Pauley highlighted the fact that the network would enable local call handling and mobilisation to overflow to locations which are least busy. "In addition the service will be less likely to fail because of the ability to fall back and restore service with no loss of data or service, if the unthinkable happened and an RCC failed."

In addition, enhanced technology infrastructure will improve delivery of risk and safety information for firefighters. Project Firelink is installing mobile data terminals and

FireControl is developing the software to provide timely digital information on the way to a scene eg, information on how to extricate individuals from specific makes of cars.

"Response times will be minimised through real time appliance location monitoring and route planning."

Every FRA will benefit from at least one of these improvements, and the working environment for many control staff will also be enhanced.

Pauley concluded by saying how following a review last summer with supplier (EADS), CLG concluded it was necessary to reschedule elements of the project to reflect a number of technical challenges which had arisen.

"Updated plans are being delivered in close partnership with local authorities, the Fire and Rescue Service, and Suppliers – and they will be subject to regular review to ensure they are on track and deliverable."

The Project now aiming to cut over first three RCCs in North East, East Midlands and South West by the summer of 2010, with final FRSs cutting over early 2012.

"A final thought before questions – are networked controls the future for all emergency services, or just the Fire and Rescue Service?"

Julie Burnett, Chief Executive, South West FiReControl

Delivering FiReControl in the South West

Julie Burnett has been based in the South West Regional Control Centre, Taunton, for 12 months, and has a small team comprising a senior operations manager, a building support manager and an office manager.

"The project is challenging to say the least," admitted Burnett, outlining how each of the nine RCCs will be a carbon copy of each other, with the Taunton RCC itself covering the South West from Gloucestershire to Cornwall and Wiltshire, including the Isles of Scilly. "However, I am confident that if everything that has been promised is delivered, this project will succeed."

The seven control rooms currently serving the South West will close and the services will move to Taunton. "That may mean there will be some job losses but we are working closely with the fire and rescue services on this area and trying to provide as much information as possible to staff to assist them in making a decision."

The SW RCC will be amongst the first three to go live in July 2010, along with the North East and West Midlands. The three were chosen for the fact that they received the least number of emergency calls. Burnett explained how the RCC will be staffed prior to steady state: "At the beginning we will be staffing to a higher-than-needed level of staffing and, by the time the final wave of control rooms cut over, we'll be at our steady state level. During the transition period, we will also have an additional nine control room operators to provide extra support where required."

The company that operates the SW RCC is South West Fire Control Service Ltd, a local authority-controlled company wholly owned by the fire authorities in the South West. "We were incorporated in September '07 and we started from a blank sheet of paper. We have a board of directors representing each of the region's fire authorities and they meet on a monthly basis. Since our inception, we have made progress in many areas and continue to do so."

Some of the key issues facing the SW RCC are people related, triggered by the region's geography. The fact that the South West RCC covers a geographic area of nearly 24,000 km2, with a distance from end to end of over 350 km, means that a daily commute will be impractical for some people.

"Unfortunately, control room operators in the South West, who do an excellent job, do face having to make a decision as to whether they wish to transfer to the RCC. Geographically, the South West covers a large area, and it may not be possible for some people to move to the Taunton area or to commute to the RCC. I am keen to ensure we have as many experienced control room operators as possible joining the team, but also appreciate it may not be possible for everyone."

Another issue facing those who do decide to move is the fact that working for the SW RCC will mean taking a step back from the fire and rescue service. "Once here, they won't be employed by the FRS, although they will be continuing to provide a service to them and we understand people are keen not to lose those links." Burnett clarified, however, that the SW RCC was not a case of "privatising fire", because the organisation was still wholly owned by the local fire authorities.

There are a high number of stakeholders in the enterprise, and during her presentation, Burnett outlined a few of them, including: FRS, control room staff, CLG, other RCCs, politicians, suppliers, agencies, representative bodies, members of the public.

"We welcome the opportunity to take part in events like this, not least because it can help to dismiss rumours. No, we don't have a tunnel to the motorway. There won't be any fire appliances based at the RCC."

Burnett summarised by saying that everyone was working to have all the answers in place by 2010. "We would have been ready delay or no delay in October this year, but the delay means we can ensure we get it absolutely right, with additional time for testing and training."

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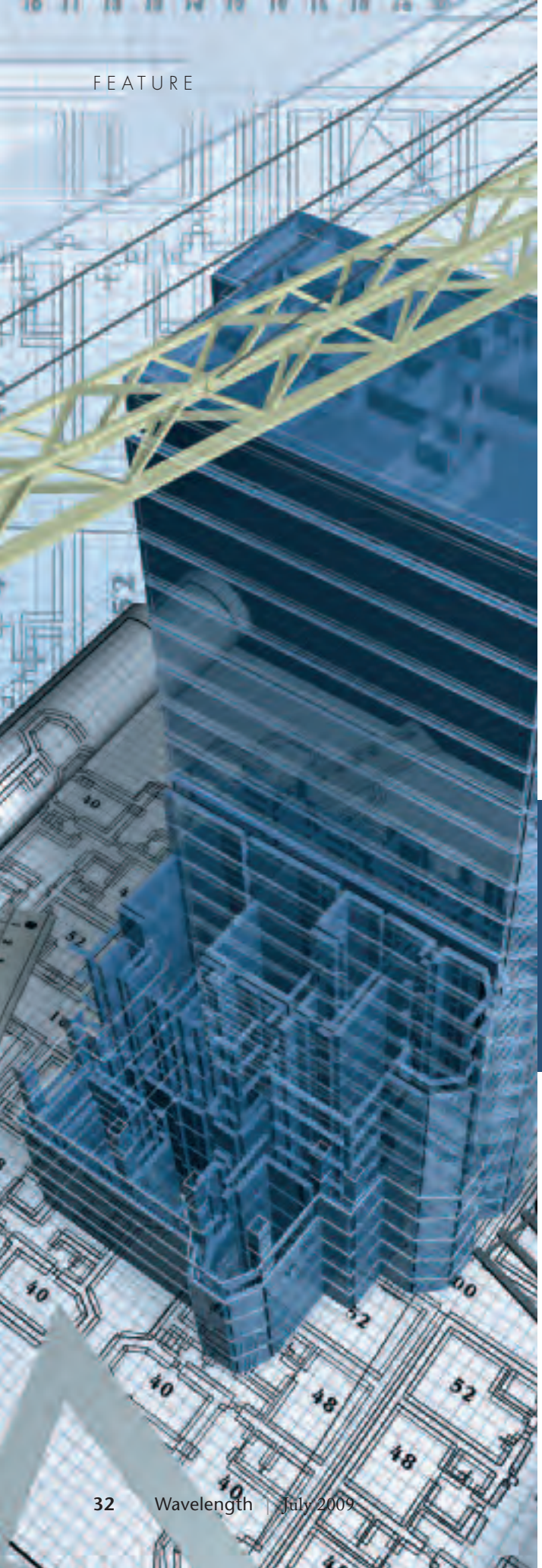

In-Building Public Safety Radio

By Bob Butchko and Bill Gulbronson

According to acknowledged historian of in-building public safety radio, Jack Daniel, the first in-building ordinance was put into effect in the City of Burbank, Calif., in 1991. Since 9/11, there has understandably been a heightened focus on providing first responders with completely reliable radio communications regardless of the location or situation during emergency events.

To date, much of the focus has been on communication among inter-governing jurisdictions – first responder interoperability. Now, attention is being paid to providing the same guaranteed level of clear, reliable communications services to first responders wherever they are within large residential or commercial buildings: in-building public safety radio.

First responders who solely rely on 4-W handheld radios often cannot establish or lose contact with, signals in difficult signal-propagation environments, such as building elevator lobbies, basements, garages, or any areas where reception is weak or absent. The installation of a correctly designed and installed in-building public safety radio system resolves these issues. Commonly these building-wide or "enterprise systems" are referred to as distributed antenna systems (DAS). Other designations include radio enhancement, signal booster or repeater systems.

More and more government entities around the nation are requiring these services be provisioned and certified before new buildings can be occupied. In 2002, 11 jurisdictions in the U.S. had enacted or proposed signal booster ordinances. That number has now grown to 63 and is multiplying each year, according to the DAS Forum (www.thedasforum.org), a nonprofit organization based in Alexandria, VA., dedicated to the development of the DAS component of the nation's wireless network.

These early adopter municipalities have broken ground for others to follow, but now there is nothing to stop your city or county from making sure you have loud-and-clear communications anywhere in a building during an emergency event. As announced late in 2008, the NFPA 1 Fire Code 2009 Edition gives you a technically correct and legally sound in-building radio system regulation template for inclusion in local fire codes. (See Annex O: In-Building Public Safety Radio Enhancement Systems.) This has been expected for some time and should make it much easier to incorporate such regulation into local fire codes accelerating rapid adoption in the U.S.

Why is In-Building Amplification Needed?

Adequate in-building communications can be provide the public safety firefighter, police officer, and/or emergency medical responder and the public they serve critical voice communications into and out of any structure, regardless of size, location, design complexity, or building materials used. In the past, this communications link almost always suffered in some way due to the lack of signal penetration from the outdoor macro emergency communications system. Although most municipal emergency communications systems in the country are robust and fit for their intended purpose, radio signals simply don't penetrate sub-grad spaces, such as parking garages, regardless of adequate or even superior outdoor/clear-air signal strength.

To compound the situation, new construction requirements, such as LEED 1 building design, and the construction industry's laudable desire to be "green" may, in some ways, increase attenuation and further negatively affect the ability of any municipality's emergency communications signal to penetrate and be distributed within a newly constructed building.

How does It Work?

The clear air emergency 800-MHz signal is captured by a rooftop mounted antenna. Cables direct the donor signal down to a bidirectional amplifier (BDA) where the now weakened signal is amplified and distributed to all areas of the structure via the DAS. This is the *downlink*.

Whenever a first responder keys their emergency radio, a strategically located antenna, which is part of the DAS, picks up the transmission and carries it to the BDA to be amplified/reenergized and then broadcast out of the same rooftop antenna to the macro system. This is called the *uplink*. Of course, all of this happens in a fraction of a second.

What Structures Require Amplification?

Most ordinances apply to all newly constructed buildings. Amplification is almost always needed on subgrade floors, parking garages, and floors in buildings greater than 25,000 square feet. Also, this amplified coverage will be required per floor, and to all floors of buildings greater than three vertical stories in heights of Type I and II construction. These requirements generally do not apply to areas within an individual dwelling unit.

How are Buildings Tested?

Tests should be made by using the locally designated control frequencies within the stated band and coordinated with the municipality's public safety comm center. Guidelines for these measurements should include using a service monitor with unity antennas on a small ground plan variance of no more than 3 dB between simultaneous measurements should be allowed. The signal strength, downlink (inbound), and uplink (outbound) should be measured on each and every floor above and below ground, including stairwells, basements, penthouse facilities and the structure's parking areas. The structure to be tested should be divided into 50-foot grids, and the measurements should be taken at the centre of the grid. In police substations and fire command posts, grids should be subdivided into four 25-foot grids in place of each 50-foot grid. Required level of signal coverage should be:

- Signal measurement should be required to be -95 dBm or better at any given point.
- the entire building should be 95% or above covered (including all underground levels, basement, elevator lobbies, stairwells, etc.) 95% of the time.

If the above requirements are satisfied, the in-building signal amplification system will, at minimum, provide coverage at delivered audio quota (DAQ) 3.4 level or above. DAQ is defined as "speech understandable without repetition; some noticeable distortion present."

Important Note: -95 dBm is considered the threshold at which "speech is understandable without repetition; some noise/distortion is present" is 95% guaranteed in all conceivable emergency conditions.

Compliance

Radio coverage and in-building sound amplification systems must be inspected by approved individually and the local authority (i.e., fire investigators, radio shop personnel, etc.) and they must have fully documented results of the tests and inspection should be certified by the code official prior to issuance of an occupancy permit

When coverage and in-building systems are installed, all active components should ideally be tested once during a 12-month period. If communications have degraded or if tests fail to demonstrate adequate system performance, restoration should be made to ensure compliance with the original approval criteria.

First Responders

For first responders, in-building systems to enhance radio signals may make the difference between life and death. Police, fire, and EMS personnel are frequently called upon to respond to emergencies inside building and are often the first to know that a building has poor radio reception.

"We have been pushing for these in-building radio systems for some time," says Mark Barrick, a fire inspector for Montgomery County. "They will definitely save lives."

"Loud-and-clear radio communications during any emergency are indispensable," says Neal Hobbs, a fire inspector for Montgomery County, MD. " The last thing any firefighter wants to hear is that loud 'bonk' when your radio cannot get into the system; it's really frightening and can be life-threatening. These in-building amplification systems will be a first responder's lifeline for sure."

Real Estate Developers

The reality is that in the commercial development and construction world, someone must pay for the design and installation of these systems. That burden falls on the real estate developers in most cases.

Mike Kearny, a senior VP at The JBC Companies, one of Metro D.C.'s largest and most respected developer, put things in perspective: "As a commercial real estate developer, (I always make) safety a top priority. These new in-building public safety radio requirements are like the advent of sprinkler systems several decades ago. Distributed antenna systems are now another part of the life-safety infrastructure of any new commercial building. The JBC Companies are proud to do their part to ensure first responder communications in our projects."

The Vendor Community

As the rapid adoption of in-building public safety radio systems moves toward standard practice, there will be a groundswell of companies that desire to go after these projects. As a word of caution, these systems are not a matter of mounting antennas and pulling cable. These systems need to be carefully designed to provide the correct signal coverage throughout the entire building. They must never degrade or interfere with the emergency communications system as a whole and create an optimal "interference free" in-building RF environment. For example, the careful planning of antenna positions allows for a low-attenuation radio link, thus greatly reducing fading effects. Excellent radio links are achieved with low downlink and uplink transmit powers.

These in-building DASs should be engineered and installed by those competent and experienced in wireless and communications systems, specifically those that have installed public safety systems in a variety of challenging or mission critical environments. A valid FCC license should be made available if testing is done on frequencies different from police, fire, or emergency medical frequencies. Many municipalities also require a professional engineering seal to complete the compliance paperwork.

The challenge for CRE developers and government organizations is to find expert and experienced vendors that can design an in-building enterprise system to ensure the building is not only first responder ready to the letter and spirit of the regulations, but also able to create efficient designs with cost savings in mind.

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Bill Gulbronson is president and chief technology officer of L&CT. Under his leadership since 1995, L&CT has completed such notable life-safety, in-building projects as al the Smithsonian buildings, The Supreme Court building and more than 150 other projects. For more information, visit www.lordcotech.com or call 703/361-6009.

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