

DRIE D

Specialissue





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Twenty-five Years of Spreading **Critical Awareness** 

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Letter From The President of DRIE Toronto

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A game of Leap Frog - Cyber Attacks and Cyber Security an Interview with Kenrick Bagnall

**Photo Gallery** 

TWENTY-FIVE YEARS OF SPREADING CRITICAL **AWARENESS** 

This newscheet is a summary of information on recent disasters and events provided to DRIE me information is obtained mainly from the media and it's accuracy is therefore not confirmed. It does, however, highlight the number and types of disaster that provide the rationale for building Source continuency pours.

We suggest members circulate this material within their companies to promote awarene

Is it your imagination or are there more disasters these days? The answer is that the number of natural and man made disasters is growing.

The US Federal Emergency Management Agency records a disaster as an event that requires a state governor to certify that the damage can't be handled by local governments and charities. Records began with a tornado in Georgia in May 1953. Disaster Nos 941 and 942 were the Chicago Flood and the LA Riots. Over the past 39 years, there have been an average of just over 24 declared disasters per year but in 1989 there were 31 disasters and in 1990, 43. 1992 seems well on the way

This first issue of DRIE DIGEST provides information on the IRA Bomb in London, England, the Chicago Flood, the explosions in Guadalajara, Mexico, and the Riots in Los Angeles, all of which happened in a span of twenty days this April.

IRA BOMB - LONDON, ENGLAND - APRIL 10, 1992

A 100 pound IRA bomb exploded Friday night in St. Mary Axe in the heart of the City of London's financial district. Two buildings, the Baltic Exchange and the Commercial Union 28 storey tower, will probably have to be demolished, while several others including five churches, will need extensive cDN \$3.8 billion). Three people died and 90 were injured.

Massive efforts over the weekend, coupled with the currently high vacancy rate in the area, meant that many of the displaced staff were able to be housed the following Monday. Many were, had a similar effect as the 1987 hurricane. Approximately 5,000 people lost their office space.

In some cases, staff in hard hats were allowed into offices on a limited basis to retrieve files and information - but many relocated staff had to try and work without essential information. Five banks including two Japanese and one German, had dealing rooms destroyed and had to relocate. One of the sew such that the European Bank for Reconstruction and Development. The Credit Suisse said that the continue to cover its book positions.

Luckily for the affected companies London currently has a large surplus of office space available. The main problem was access to data and information in the destroyed buildings. Trucks with backup equipment were finding access difficult to manoeuvre and park through the debris in the 'City's' busy streets.

Disaster Recovery Information Exchange, P.O. Box 1126 Station 'P', Toronto, Ontario, M4Y 2T8 (416) 960-6701 Extension 7782

**Real Events** 

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# Letter From The Editor May 2017

Welcome to the 25th Anniversary edition of the DRIE Digest!

We are celebrating a quarter century of providing valuable insight on disaster recovery, business continuity, best practices and current events for BCM professionals. Over this time the threats have evolved and our collection of

covers throughout this issue speak to what the issue of the day was in various years. As the threats have evolved so has the challenge to business continuity and disaster recovery professionals. Organizations realize now more than ever the strong need to focus on enterprise resilience.

As if on cue, just ahead of BCAW with a theme of "Cyber Resilience", Friday May 12th, saw a massive ransomware infection hit computers in 99 countries impacting telecom giant Telefonica, university computer labs in Italy, France's Renault, Portugal Telecom, FedEx and 40 NHS organizations to name a few of the organizations impacted by the attack.

BCM professionals are planning for and meeting increasing and evolving threats from Cyber risk to Global Climate risk and everything in between. The contributors to this issue have highlighted the importance of our prefession with the case studies and scenarios they have shared.

Thank you to all the Chapter Presidents both past and present, major sponsors and professionals who contributed to this issue to help us celebrate 25 years. We look forward to providing valuable information for the next 25. Enjoy the issue!





# Letter From The President of DRIE Toronto

It's hard to believe this publication has been sharing important and relevant information for BCM professionals for 25 years now! This

is a reflection on the never ending need to understand, evolve, plan and sustain continuity and resilience throughout all walks of business, government and communities. It emphasizes the need to maintain vigilance and diligence in ensuring we are prepared for disruptive events that are growing in complexity and impact.

25 years is mere drop in comparison to many other professions, which in a sense means ours is still maturing. Colleges and universities are incorporating business continuity into formal course curriculums. Organizations have seen the need to create departments focusing on enterprise resilience. And yet we still struggle in some instances to convince senior decision makers that organizational resilience requires dedicated, formally trained BCM resources. Yet, I believe ours is a profession with a bright future with continuing growth and demand for our unique skills and knowledge.

I am honoured to have been elected as your DRIE Toronto Chapter President, and I plan to do all that I can to help advance our profession through continued information sharing, new educational opportunities, mentoring and more active promotion and awareness of what we do and the importance thereof.

Congratulations to the DRIE Digest for 25 years of an outstanding body of work. Special congratulations and huge thanks to Des O'Callaghan, our past long serving editor, contributor and tireless mainstay of this Digest.

Enjoy the 25th anniversary edition!

Joe Ozorio, CBCP, CBCA, MBCI President - DRIE Toronto



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Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.













# DRIF DIGEST

Recovery Information Exchange

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- DRIE Executive
- Auckland N.Z. Power Crisis
- BCI Canada The First International Chapter
- DRI Course Update
- It Can Happen to You!
- Real Event Log

■ 1998 Program Reminders

# C. P. & M. Hall of Fame

Veteran DRIE members will know Dennis as a founder of their organi-zation. Starting in 1986 with 4 mem-bers, DRIE now has 600 members in chapters across Canada and is still growing.

Other signal accomplishments to Dennis' credit include having conceived a number of proven strategies and methodologies, such as full centre recovery strategy, guar-anteed technology replacement strategy, lost transaction recovery methodology and remote transaction vaulting.

A more recent triumph was design of the **Presage** business recovery planning software product, which has achieved success and recognition by being nominated it its own right in the Vendor category of the Hall of Fame; one of only five nominees

The Digest is pleased to acknowledge Dennis' recognition which helps to boost Canada's standing in the world of business continuity planning. largely on the strength of his 20-plus years of pioneering leadership and mentoring.





# DRIE DIGEST

y Information Exchange, 2175 Singuard Ave. E., Suits 115, Willowson, CN M32 1763 Fet (Arts, 481-2400) FAX (Arts, 461-251)

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DRIE's 10" ANNIVERSARY!

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EDITOR'S NOTE

### Volume 5, hour 1 February 1996.

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# Volume 5, home 2 May 1996

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### EDITOR'S NOTE

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Full-Day Workshop

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- Disaster Recovery Information Exchange -

# Disaster Recovery Information Exchange

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# In this Issue...

- Canadian Earthquake
- 2000 DRIE Seminar
- Real Event Log ■ Y2K Shorts

# Y2K - Which Way Did it Go?

n all of the post-Y2K analysis and commentary, opinion seems generally to have divided into two basic camps. On the one side the cynical "I told-you-so-crs" and on the other the "Us Techies saved you all-ers". The patter goes something like this ...

## It was All a Big Hoax

e so-called millennium bug wasn't re-e a bug at all. Yes, there were many inputer programs which could not rec-nize 00 or 2000 correctly. But what add the consequences be in most sys-

would the consequences be in most sys-tems? Would the power grids collapse and planes fall from the sky just over a limit confusion about dates? Was it really nec-essary to spend billions of dol-lars on fixing system code which at worst would have provided some minor irri-

provided some minor irri-nant? The hysteria over the potential dis-nates recursion was whitpped up by oppor-minist who realized they could get rich quickly by milking that age-old motiva-tor. fast. The media and the historia-tors fast. The media and the historia-tors fast. The media and the historia-tors fast. The media and the historia-le documayers who kept devising coverage to the documayers who kept devising over the documayers who kept devising and created a surge of activity focused on li-ability avoidance rather than system remediation. Never has so much been remediation. Never has so much been done by so many at such great conf for so little actual purpose.

# Lucky for You We Finished

In Time

Yes we know you mere mortals think we are propeller heads and we suffer from a variety of personality disorders, but on the other hand we did save the word from a fate worse than death and we preserved civilization as we know it from coming to a sticky end. We are LT, professionals and we were right all along. Thank produces we worked so long and hard to fix all those problems our defect bredtrem than darvely created years ago. You wouldn't (didn't) believe the mess we would have had if we hadn't saved the day. Lights off everywhere, planes falling out of the sky, billion dollar fines at the library, no food or water, anacts, Now that you knew this new respect for our abilities you can hand as all your persiden government, and we will save you again from problems you haven't yet demended. And we promise we won't be abort-sighted this time so that fature generations suffer a Y10K crisis down the line.

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**DRIE Welcomes New Chapter** 

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Report on an Ameriment of Initiatives in Loss Reduction





# Editor's Note

Reprinted from the DRIE Digest Special Edition, November, 2001

Where to begin? How do you digest the impacts and overwhelming emotions resulting from an event which may be the single biggest event of our lifetimes? I find myself hoping that no bigger, i.e. worse, event occurs in my lifetime, or my children's. My mother tells me she has to go back in her memories to the Nazi blitz of London in 1940 to find a comparable horror.

Rising above the horror we must reflect on what this means for us in the future. The past will remain stained with this tragedy forever. Can something like this happen again? We must dedicate ourselves as people and as involved professionals to the efforts required to ensure that this does not happen again. We must recognize that preparedness is a requirement, a foundation, a context for all the contingency planning we do. Vigilance and proactive planning have taken on new meaning and the disciplines we promote must be implemented to handle both the mundane disruptions of everyday business and the exceptional, massive disasters. We must demand of our political leaders a heightened sense of urgency in taking measures to improve our protection, our readiness and our response and recovery capabilities. Clearly in Canada all of these need to be improved. As noted in the article by Rex Pattison and John Newton in this issue, those who contemplate the inevitable earthquake in BC have had yet another wake up call by seeing the grim reality of widespread devastation and human loss.

This special edition of our Digest can only scratch the surface. The stories coming out of September 11 will be told over weeks, months, years, generations. We will continue to delve into the subsequent developments and lessons learned indefinitely. Our challenge going forward is to be better at what we do. In memory and respect for those who suffered, we must take every possible step to prevent, prepare, respond and recover as effectively as possible.

In the August 2000 Digest I was moved to cite the biblical exhortation "You know not the hour." Recently, I have been reflecting on it again.

We must never forget.



Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.

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**DRIE Toronto** 

# Disaster Recovery Information Exchange



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Dreaming?

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Cost of Disasters in 2000

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- Disaster Recovery Information Exchange -

2175 Sheppard Ave. E., Suite 310, Toronto, ON M2J 1W8 Tel.: (416) 491-2420 Fax: (416) 491-1670 Website: www.drie.org

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- DRIE 2003 Executive





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PLATINUM SPONSOR IBM

# August 14, 2003

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# How Did You Do?

Power failed right at deadline for the Digest, but we couldn't delay the mailing or hold more than the front page. The next Digest will include extensive coverage. To make it the best possible compilation of real experiences, we need your input. How did you manage? What worked? What didn't work? What are you now putting into your plans for the next time? We would like to hear your stories, long or short, to include in the next issue. The deadline for submissions will be October 24th.

Contact us through the DRIE office, through the web at <u>drie.org</u>, or send contributions directly to the editor at <u>docallaghan@cds.ca</u>

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# Availability



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Crisis Management





# 25th Anniversary DRIE Digest BUSINESS CONTINUITY AWARENESS WEEK (BCAW

In the 1970's, organizations' risk awareness changed due to evolution of technology and changes in business operating models. In responding to these technical and operational risks that threatened organizations and their ability to recover from business interruptions and hazards, like minded professionals began to focus their attention on ensuring that business systems were available to support continuity of operations; a practice defined as Disaster Recovery.

It was not until the 1980's that organizations realized that recovery was not only about restoring their technology applications but also about restoring business operations; and business continuity as a profession was born.

With growing regulations, legislation and standards and regulatory reporting, organizations have evolved with governance, management practices, policies and standards and may have entire departments of Business Continuity, Service Continuity, and Disaster Recovery experts to ensure that they can resume their business operations and ensure the safety of their employees in the event of a significant interruption or crisis.

Today there are approximately 15,000 - 20,000 business continuity and disaster recovery professionals around the world. They are facing some of the greatest challenges of their careers with increased operational threats like Cyber risk and data security, Regulatory risk, Outsourcing, Geopolitical risk, Conduct risk, IT failure, Physical attack, and Global Climate risk. It is important that organizations continue to evolve their corporate governance to include these professionals.

There has been an evolution of affiliations that develop certification programs and offer like-minded professionals the opportunity to share their knowledge and experience, further enhance and develop the relationship between these groups of professionals and keep abreast of how the industry trends and best practices.

Disaster Recovery Information Exchange (DRIE) was launched in 1985 in greater New York City and Toronto, Canada, respectively, followed by many others, including the Business Continuity Institute (BCI), which was created in 1994 and has since established itself as a certifying organization for Business Continuity (BC) professionals worldwide. The Disaster Recovery Institute Canada (DRIC), a chapter of DRI International (DRII) founded in 1988, also provides internationally recognized education and certification to business continuity, disaster recovery and emergency management professionals in Canada.

Since then many organizations around the world have been dedicated to providing education and accreditations through certifications and degrees in Business Continuity, as well as sharing knowledge and bringing together professionals across the globe and across industries to share their experience. They continue to grow their professional acumen as the world around us changes and the threats to our organizations evolve. These organizations have established communities of business continuity professionals who have a rich set of resources to tap into to support their respective organizations.

Business Continuity Awareness Week (BCAW) was established by the BCI in 2005. It's an international event to raise awareness and help improve the ability of all types of organizations to successfully practice Business Continuity Management (BCM).

DRIE Toronto Chapter is proud to have established a committee of business continuity professionals from across various industries who dedicate their time to Business



Continuity Awareness Week every year, supporting the themes established by the BCI. DRIE Toronto is honoured to partner with other DRIE chapters and Business Continuity Institute Canada Chapter (BCI), Disaster Recovery Institute Canada (DRIC), the World Conference on Disaster Management (WCDM), Canadian Risk and Hazards Network (CRHNet), Centennial College - Emergency Management and Public Safety Institute (EMPSI), York University and HZX Business Continuity Planningin bringing its BCAW program together.

Volunteers are the most important resource Business Continuity organizations such as DRIE have, and the ability of people to work willingly together for the betterment of their community and themselves is invaluable to organizations focused on strengthening resilience and leadership personally or within their organization or community. DRIE Toronto appreciates the efforts of its BCAW Committee; the 2017 Committee is led by Roma Chrobak, Director Special Events, with membership by Kim Norton, Liisa Rivest, Mona Vaughan-Burnett, Jim Loyer, Chris Evanshen, Mark Baker, Joe Ozorio, John Theo, Barbara Hagen, Fred Nanouris, and Tom Smedley.

This year's BCAW theme is: "Cyber Resilience"

In the weeks leading up to and throughout BCAW, this theme will be explored and expanded, providing valuable insight on business continuity and cyber resilience best practices and real world events. DRIE Toronto supports BCAW 2017 with an awareness campaign that will take place between Monday, May 8th and Thursday, May 25th, 2017.

BCAW webinars are completely free! - Sign up at: http://www.drie.org/toronto/bcaw.php. Be sure to check the calendar frequently for the latest schedule of webinars.

Become a DRIE member and continue the discussion year-round.

Everyone is also invited to participate in BCAW group discussions at: http://bcaw.groupsite.com

Active participation is encouraged in all activities by anyone interested in learning more about Cyber Resilience and the important role business continuity professionals play in making their organizations resilient to that and other business threats.

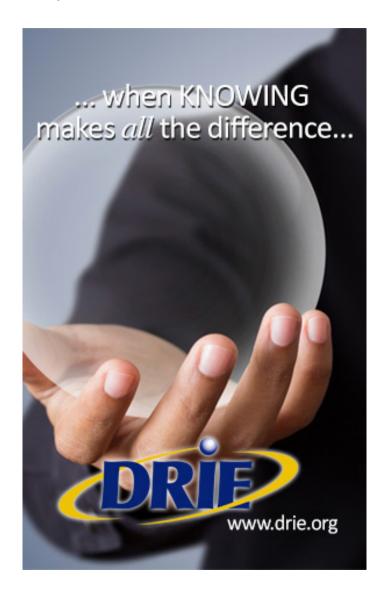
For more information about BCAW, please contact: Roma Chrobak, Director, Special Events Disaster Recovery Information Exchange events@toronto.drie.org

DRIE (Disaster Recovery Information Exchange)

DRIE is a non-profit association of professionals dedicated to the exchange of information on all aspects of business continuity management, from emergency response to the resumption of business as normal. For more information, refer to: www.drie.org/

# Article written by Roma Chrobak and Kim Norton

**Sources**: Business Continuity Institute, Disaster Recovery Information Exchange, World Conference on Disaster Management. ■







# News from RECO-Québec

RECO-Quebec is alive and kicking! We began the year with our annual general meeting which was held in February. Two lectures were held, the first on the service continuity of 911 emergency centers and the second on MESI's (Economy, Science and Innovation Ministry) initiative to promote business continuity in the industrial sector. It was also the opportunity to award the student grant to this year's recipient, Mr Thierry Plamondon Tremblay. His article can be downloaded from our web site (http://www.reco-quebec.org/visiteur/concours-etudiant/historique-concours-etudiant/)

Our next event will be held during the BCAW on the cyber resilience theme. Then there will be a full conference day held on September 14th in Quebec. We are actively searching for speakers for this event.

In the last few months, different events targeting public security and societal resilience were held in Montreal:

- The Canadian Risk and Hazards Network (CRHNet) held it's 13th annual Symposium on November 23 to 25th, 2016, in Montreal.
- The « Forum public Francophone sur la Réduction des risques de catastrophes » was held on March 7th and 8th, 2017.

# Other news:

- As a proud member of "The 100 resilient cities group", Montreal has started a major project aiming at improving the city's resiliency.
- The Quebec City's "Projet K" is well on it's way and gaining maturity.
- On June 8th, our partner, the MIARC (Major Industrial Accidents Reduction Council) is launching its 7th edition of its Guide for major technological accident risk management.
- Finally, the "Colloque sur la sécurité civile" will be held next October. We are partnering with the Public Security Ministry for its organisation.

If you need more information on any of these subjects, please contact us through our website: www.reco-quebec.org.

# Luc Quenneville, President

RECO-Québec



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August 14, 2003



# DRIE Digest 2175 Sheppard Ave. E., Suite 310, Toronto, ON M2J 1W8 Tel: 416-491-2420 Fax: 416-491-1670 Website: www.drie.or

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SHORTS

Information Availability Assessment Real Event Log: May, June and July 2004

# Business Continuity, Availability & Security:

Six Best Practices for Business Success

John Zannos, manager of business development, HP Business Continuity Services

In addition to recently enacted and more stringent regulatory compliance laws, there are a myriad of new worldwide catastrophic threats changing people's perspectives on business continuity including: terrorism from 9/11 to Anthrax, geo-epidemics like SARS, power-blackouts, and Internet and systems security breaches.



Add to this the threat that is close to home for any business, the Add to this the threat that is close to home for any susmess, the negative implications of a larmished corporate image. With today's 24x7 and real-time access to information, the Internet herd can quickly drive stock price up or down or influence public opinion when customer service issues are the result of down time. And those are just some of the threats we know today.

It's easy to say "It won't happen bere," but are you willing to leave the fate of your company to the roll of the dice? A 1999 study by Norwich Union Risk Services found that 80% of companies who saffer a major disaster, and who do not have a continuity capability, go into liquidation within 18 months.

So what's a corporation to do when trying to balance the various business needs of the So what a corporation to do when trying to balance the various susinsies needs of the enterprise with a limited amount of time and money? The key is in identifying the financial impact of down time, achieving integration and operational excellence, instilling confidence with customers, and providing opportunity for employees to learn state of the art skills and experience around business continuity. Employing a balanced score card approach to how business gets done, corporations not only will mitigate risk, but institute a framework for accelerating growth and promoting a competitive advantage.

The key is to communicate management's enterprise continuity aims and direction to ensure organizational awareness and understanding of those aims, and to promote a culture that embraces business continuity. "So how do I get there from here?" you ask. There are six key best practices for how you define, develop and manage a successful business continuity plan and they are as follows:

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The December 26, 2004 South Asia Earthquake & Tsunami Disaster



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Notes on Recovery of Windows 2000 and 2001 Servers





Katrina – Lessons Learned

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# CASE STUDY

Volkswagen Emissions -Risk & Business Continuity Asleep At the Wheel?

## **Emad Aziz**

Provincial Lead – Risk, Business Continuity & Disaster Recovery, Province of Nova Scotia. President – DRIE Atlantic.

# **TIMELINE - 2015**

EPA threatens to not certify 2016 diesels, VW responds by admitting software was programmed to cheat testing

VW admits deception, issues public apology.

VW to spend \$7.3B to cover costs of scandal; stock declines another 17%













Public announcement by EPA of order to recall 2009– 2015 cars First business day after news, VW stock down 20% CEO Winterkorn resigns. VW US CEO Michael Horn testifies before US Congress.

# **BACKGROUND**

Having survived a high profile scandal involving bribery and brothels, this time Volkswagen is pulled over by the US Government for cheating on emissions tests.

On Friday September 18th, 2015, the US Environment Protection Agency alleged that Volkswagen used a sophisticated software algorithm on certain vehicles that detects when the car is undergoing official emissions testing, and turns full emissions controls on only during the test. The effectiveness of these vehicles' pollution emissions control devices is greatly reduced during all normal driving situations. This results in cars that meet emissions standards in the laboratory or testing station, but

during normal operation, emit nitrogen oxides, or NOx, at up to 40 times the standard. The software produced by Volkswagen is a "defeat device," as defined by the Clean Air Act.

On Sunday September 21<sup>st</sup>, 2015, the company's CEO Dr. Martin Winterkorn issued a public statement including an online video, apologizing for the misconduct and indicating the scandal was wider involving 11 million cars globally. He rebuffed calls from critics to step down and promised an internal investigation.

Three days later, Dr. Winterkorn steps down as CEO and the company's Board issues a nine-point statement.



By the end of September 2015 Volkswagen announced plans to refit up to 11 million vehicles and online based services were set up for customers to check if their car is affected. April 2016 Volkswagen announced that it will be offering its US customers "substantial compensation" and car buyback offers for nearly 500,000 2.0-litre vehicles.

In the months leading up to Volkswagens announcement of compensation Volkswagens investigation team found that CO<sub>2</sub> emissions and fuel consumption figures are also affected by "irregularities" but later revised the report saying that only around 36,000 vehicles are affected.

The German Federal Motor Transport Authority (KBA) approved Volkswagens fixes for the 1.2, 1.6 and 2.0 diesel engines in Europe. However, Regulators in California discovered that Audi engines were rigged to produce lower CO<sub>2</sub>

US CEO Michael Horn testified before US Congress and resigned four months later, citing a "mutual agreement" with the company.

In January 2017 Volkswagen agreed to plead guilty to the emissions scandal and pay \$4.3 billion in penalties. Six Volkswagen executives have been charged.

# TIMELINE - 2016 / 2017

VW US CEO Michael Horn resigns, citing a "mutual agreement" with the company. Regulators in California discover that Audi engines were rigged to produce lower CO2









VW announces that it will offer its US customers "substantial compensation" and car buyback offers for nearly 500,000 2.0-litre vehicles VW agrees to plead guilty to the emissions scandal and to pay \$4.3 billion in penalties. Six VW executives are charged

# THE IMPACT

Unlike other product recalls that are generated by quality control or continuous improvement, this scandal is extremely damaging because it was *intentional and international*.

Shares in Volkswagen (VLKAY) plunged 17% about a third of the value of the group was wiped out in two days. Volkswagen has been ordered to recall the vehicles, and the company is halting sales of some cars in the U.S. Volkswagen may also face fines of up to \$18 billion in the U.S. alone, the company is reserving \$7.3 billion dollars in contingency.

There is collateral damage: Germany's reputation for premium luxury vehicles, reliability and efficiency is at stake. The German auto industry accounts for about 20% of exports, and employs 775,000 people directly. The scandal

on emissions data raised fears that damage may not be limited to the automaker. Shares of BMW and Mercedes have slipped; perhaps the biggest losers are the Audi and Porsche premium brands being affiliated with *Volkswagen*.

## **LESSONS LEARNED**

- 1. Protect the brand. For those of us in the public/non-profit sector, it simply means *credibility* and *reputation*. Who will do business with us if we lose both? Remember the 3 Rs; RESPOND quickly, RE-ASSURE the Clients and RECOVER to a (new) normal.
- **2. Risk is everyone's responsibility**. Whistleblowing may get immediate attention, but it also shows an underlying problem of *accountability* and trust, both of which is toxic for any organization. From C-Suite to the assembly line,



all employees are responsible for identifying risk for their organization and should be encouraged to participate (with discretion) without reprimand.

**3.** Risk should be embedded with business strategy and operations. Is cheating the US government and betraying customers trust part of the corporate business plan? Whether by culture or otherwise, organizations typically manage risk in isolated pockets; it's usually after epic fails when Senior Management is pulled into the room to save the day.

An enterprise risk program defines the amount and type of risk Senior Management is willing to make; an expectation that is matured with business strategy and reinforced through quarterly reporting on business activities. This





helps ensure all business units are evaluating risk using the same criteria and red flags appear *before* the situation goes out of control. Risks will vary with controls and changing business conditions, but Senior Management not knowing is never the acceptable answer.

- **4. Have a practical business continuity plan**. Is business continuity solely for hurricanes, earthquakes or building fires? We must think beyond disasters and consider *business disruptions*. Be it a cyber-attack or supply chain failure, a rouge employee or product recalls, a workable business continuity plan will help with a quicker and more favourable outcome for the business and its customers. Not sure where to start? Update the corporate risk register and it will show where the vulnerabilities lie; those can be used to develop effective continuity plans and exercises.
- **5. Trust your teams**. There are two extremes; CEOs like Dr. Winterkorn who seize the mic right away or CEOs like Tony Hayward (BP) who surfaced too late after the Gulf oil spill. Having the top boss too soon on the mic sends the message "we messed up so royally, you really have to hear this from the horse's mouth". Sending the top boss too late gives the impression "we didn't care enough until it was too late."

Canadian based Maple Leaf CEO Michael McCain showed the right approach to crisis communications. When it became clear the company was linked to a listeria outbreak, he said: "...going through the crisis there are two advisers I've paid no attention to. The first are the lawyers, and the second are the accountants. It's not about money or legal liability, this is about our being accountable for providing consumers with safe food."

Senior Management needs to trust their teams; the people who daily contribute to build the brands and convince customers, can also help in damage control if empowered to do so.

**6.** Exercise. There is no better way to build *confidence* in the business continuity plans and trust amongst Senior Management and their teams. Are we scrambling for words at the time of or is there a pre-scripted message ready to go? Does the spokesperson require media training or can they deliver the message with confidence? Were the assumptions true or did we learn something new? Exercises designed to help create awareness and familiarity best prepare an organization should the real event occur.



Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.



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# DRIE Digest

# DRIE Digest































# SYMPOSIUM For Business Continuity Practitioners JUNE 22, 2017 Sheraton Centre Hotel Toronto, ON Program developed by: CANADA

# **FEATURED TOPICS**

Building Resilience in a 21st Century Threat Environment

Ray Boisvert, Provincial Security Advisor, Government of Ontario

Supply Chain Continuity: Before, During and After

Eve-Marie Cormier, Senior Advisor Business Continuity, Banque Nationale du Canada

Critical Infrastructure and Your Dependencies

Jim Montgomery, Deputy Chief, Office of Emergency Management, City of Ottawa

Cloud & Data Centre Technology

Allen Zimmerman, Chief Innovation Officer, Enterprise IT Consulting, Global Technology Services, IBM Canada Ltd

The Future of the BCM Profession: Where is my career headed?

A Panel of your peers will kick off a lively discussion on career trends in the BCM community

The Role of Crisis Management in Response to a Material Cyber Security Breach Steven Hurley, Assistant Vice President Technology Risk Management, Manulife

Mastering The Probable and Managing The Unpredictable – The Evolving Threat of Terrorism

Alan Bell, President, Globe Risk International Inc.

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### In Memoriam

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# Network Security Cameras and Cyber Security, an Interview with Paul Laughton

With the Internet of things (IoT), there is seemingly nothing you can't connect to the internet. As IoT becomes ubiquitous, hackers are seeking new ways to extract valuable data or disrupt much needed services and infrastructure. In a recent high profile distributed denial-of-service attack, web cams, routers and surveillance cameras were all compromised and used to unleash a flood of internet traffic that crashed sites like Twitter, Netflix and Airbnb. While disrupting these sites did not affect our daily lives, we can see how, no matter what industry we are in, the potential for disruption is stronger now than ever.

There are many things that are so much a part of our normal landscape that may be affected by this type of attack. In our busy cities and organizations, I noticed a quiet but ever present device that I've always thought of as a safeguard, the network security camera and wondered how the companies responsible for designing, manufacturing and selling it are dealing with the new landscape of cybersecurity. Axis Communications, a pioneer and leader in the network camera market, described to me what they have done to ensure both innovation and security of their products.

Paul Laughton of Axis shared his insights on some of the most common, current threats and what Axis is doing to work with clients of all sizes.

# Threats specific to the camera

There are different types of threats. Specific to a camera, the vulnerability could be:

- A flaw to proprietary source code
- A bug in open source code
- A bug in standard protocols
- A weak product casing
- The ability to gain access to a device reset button
- Theft of SD card (if camera is not mounted properly)

The current standard is that cameras are on a segregated network even though they are using the same hardware. This is a virtual network (VLAN). The segregation happens on a switch. Almost as if it's two separate networks leveraging the same piece of hardware – this allows for better security.



# When organizations are purchasing cameras what should they look for in terms of features to minimize cyber threats?

Don't just look at the camera, look at the company providing it, and ask:

- Does it have a hardening guide?
- Does it have an educational program on how technicians can implement security features on a device?
- Does it release and publish a best practices guide?
- Does it publish its process on common vulnerabilities and how threats are handled?
- Does it talk about cybersecurity?

# **Risk Analysis and Network Security Policy**

IP camera cybersecurity could include, multi-level authentication, password protection, SSL encryption and IP filtering. Whether enterprises use all of these elements depends on their risk analysis. Enterprises have to determine, based on their risk analysis, what their vulnerabilities are, come up with a policy and implement features that align with their network security policy.

# How can cyber criminals use IP-enabled cameras?

Here are a few scenarios that are both concerning and damaging:

- Denial of service
- Look at video for proprietary information see manufacturing processes
- Publish video to embarrass a company
- Take down a video surveillance system or other core systems so ability to operate is damaged

According to Laughton, combating cyber attacks is a process and not a product. Encryption, monitoring devices and updating firmware are all worthwhile tactics. The hardware security industry is publishing hardening guides, offering certification training programs, providing design standards to ensure the device is secure and promoting stronger passwords. As simple as it sounds, even having a strong, unique password is enough to stop the majority of breaches.

As cyber crimes continue to proliferate, educating ourselves on companies, products and processes that provide strong cybersecurity is one of the best ways to stay ahead of the curve. Developing a cybersecurity policy and having our organization's video surveillance network align with it is, according to Axis, perhaps our strongest defense.

Article written by Vickie Gougoulias, Editor, DRIE Digest

Thank you to Paul Laughton of Axis for his insights and information on the industry and best practices for cybersecurity. Paul Laughton is the A&E Manager, Canada, Axis Communications, Inc. ■





# DRIF

Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.



























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# DIGEST reflections 25 YEARS AND COUNTING

Who knew when the Digest was first conceived that it would become part of the DRIE fabric for 25 years.....and perhaps more? However the Digest might evolve in the future, in these days of social media prevalence, it has had a pretty good run so far.

While the credit for having created and composed the first Digest is being passed around like a parcel, here are a few brief reflections from some of those who had a hand in its origins, as well as a couple of the more prominent contributors across the years.

## **DAVE JOHNSON**

"The birth of the DRIE Digest occurred during my tenure as President of DRIE Toronto from 1991 to 1995. I don't remember it being a momentous occasion. All I clearly remember was that it meant one more thing to include in our quarterly mailing. You see, I wasn't just the President, I was the Mailing Coordinator. Every three months I had to pull together all of the material for physical mailing to our 300+ members and prospective members. This consisted of my President's letter, the program for the upcoming quarterly meeting, free copies of the Disaster Recovery Journal, advertising supplements (to pay for postage costs), and now the DRIE Digest.

Much of this material had to be photocopied. My employer allowed me to use company photocopiers (for which we reimbursed them at six cents per copy). I would stay late at work and get three photocopiers going at the same time, running from one to the next, changing paper, clearing paper jams and flipping over paper to do double-sided printing (which was a manual operation back then). Then I would assemble all the material on a table in our data centre and our data entry staff would stuff and label the envelopes (at no charge). After that, I would get a big cart and take all of the stuffed envelopes down to our mailing room to run through their postage meters (we sent them a cheque afterwards to pay for the postage).

I thought this was a pretty sophisticated operation, and I certainly didn't envisage the day when physical mailing would be largely eliminated by e-mail and the internet. I also didn't envisage that the DRIE Digest would still be going strong 25 years later. We're all in the business of continuity, and it's very gratifying to see that we have maintained the continuity of the Digest throughout all the changes that have occurred in our profession and the world we work in. My congratulations to Des O'Callaghan and all those who have contributed to the Digest over the years. Long may it continue!"



# **GRAEME JANNAWAY**

"Shortly after I joined DRIE in mid-1986, the monthly meetings became quarterly meetings and we started regular mailings to the membership. By 1987, I'd become Membership Director and so had the responsibility of maintaining the membership list and organizing the quarterly mailings. Coincidentally, Rich Arnold started to publish the Disaster Recovery Journal in St. Louis in early 1987. Like many things American, the DRJ was distributed free in the USA, but on a paid subscription basis to Canada. A subscription to the DRJ and membership in DRIE were both \$35. Since DRIE had a policy that 'guests are always welcome', the DRIE Executive was worried that DRIE attendees would pay for the DRJ, rather than continue paying for DRIE. I talked to Rich in mid-1987 and convinced him to bulk ship the magazines to DRIE in Toronto and we would send them out to our growing membership in the mailing. We could then advertise that getting the DRJ was a benefit of joining DRIE – all for the low-low price of only \$35. This worked great until Rich decided that the DRJ should be free in Canada too.

Fortuitously, about this time, the Executive was approached by a member, Duane Atkinson, who offered to create a newsletter for the DRIE membership. Since we are a volunteer organization, anyone who volunteers an idea and offers to make it happen is usually welcomed. Duane created a few issues and then requested some assistance. Des O'Callaghan volunteered, Duane disappeared, and the rest is DRIE Digest history."

# JOHN NEWTON (REGULAR CONTRIBUTOR)

# On a Journey Together

"Amazing how quickly the memory fades, or perhaps it's a function of capacity and/or age! My introduction to business continuity and DRIE were concurrent, with each feeding the other in a positive loop of learning. The field was new, not well known and evolving with a small group of mutually supportive individuals, mainly in the banks, and a few consultants. What stands out from that time is the outstanding comradeship among those trying to move the field forward and the willing sharing of ideas, procedures and methodologies. The mutual support was essential in the mid-90's, as today's frameworks and knowledge base was in its infancy and emerging slowly. We needed each other to test new approaches to BCP and experience the joy of making things work in a business environment that was not always receptive. Then along came the Red River and Saguenay floods and the Ice Storm to give these efforts a boost and raise awareness. It was a special time, of friendship, discovery and a rewarding feeling of a new area emerging from widely disparate efforts. And DRIE was the epicentre. My appreciation to all of you, it was a wonderful time to be part of the BCP movement."

# **REX PATTISON (REGULAR CONTRIBUTOR)**

"It is hard to believe that the first issue of the DRIE Digest was 25 years ago. Reflecting back on those days it is also incredible to think how we patched together recovery plans (yes "recovery" not yet "resumption") with a minimum of technology. Inspiration came from two major bank disasters in 1988, the First Interstate Bank fire in Los Angeles in May and the Northwestern National Bank fire in Minnesota over Thanksgiving. Both of these occurred before the days of a terminal on every desk, let alone laptops. In fact one of the issues First Interstate faced was that their insurers insisted in replacing 600 damaged typewriters just at the time they were introducing word processors.

Our fledging business recovery unit had to fight for its first computer terminal, had cell phones the size of bricks and helped pioneer one of the first Blackberry (then sold as a pager) apps. Life became easier as convergent technology came along, but the underlying issues remained - would our plans adapt to unanticipated circumstances? - would our executives trust them, or try and lead by the



seat of their pants? - would we be able to gather and communicate decision support information effectively? In other words, the issues were largely to do with people - technology was there to assist. All potential errors have been made by someone in the past, so it is worth digging in the archives to find the often trivial issues that torpedoed the best laid plans. If nothing else it makes fascinating reading."

# **VITO MANGIALARDI (REGULAR CONTRIBUTOR OVER MANY YEARS)**

"President Lyndon B. Johnson on November 29, 1963, within his Thanksgiving Day Address to the Nation, was quoted saying: 'Let all who speak, and all who teach, and all who preach, and all who publish, and all who broadcast, and all who read or listen, let them reflect upon their responsibilities to bind our wounds, to heal our sores, to make our society well and whole for the tests ahead of us.' Did the president have a 'resiliency vision' ahead of his time? The DRIE Digest over the past 25 years, thanks to all its contributors, editors and publishers, has been an invaluable source of thoughts, ideas and information from real events, providing knowledge and wisdom for all business continuity and emergency management practitioners to learn from in mitigating business impact to process, people and technology."

# **DES O'CALLAGHAN**

"My association with the Digest began accidentally in 1994 when the above-mentioned Duane Atkinson disappeared. Not wanting to see the newsletter fail, I worked with the admin company (Harold Taylor - HTE) to organize the October 1994 "Commemorative Issue." It featured the first National DRIE meeting, held in Hamilton alongside WCDM 4. I think Dave Johnson wrote many of the words.

For the March 1995 issue, I was on my own; the HTE person was away on mat leave. I had a bit of material to work with, including the formation of DRIE SWO. The devastating M7.2 earthquake in Kobe, Japan gave me a lead article topic. My challenge was the physical newsletter production. I was a complete novice at anything you could possibly call desktop publishing, but thanks to Word Perfect 5.1, running on DOS 3.1, I was able to cobble together 4 pages that had the appearance of earlier Digests. All I had to do was run 300 copies on 11x17 paper (thanks TD Bank), fold by hand and deliver to HTE for the envelope stuffing.

In May, 1996, I introduced the Real Event Log, containing 23 one-liners spread covering 2 months. It was heavy on earthquakes, including an M4.0 felt in Vancouver. It was a bit of an effort, but surfing the web for stories became addictive (thanks TD Bank) and the log continues today.

In 2001 we put a special edition together after 911. We did it quickly, but it worked. In some ways, I am prouder of that issue than any other, because it was DRIE living up to its mission, in timely fashion.

A major breakthrough for the Digest was the 2004 arrival of **Kevin Andries** to provide professional graphic design quality. Elizabeth Beaver, then DRIE Toronto President, felt this would enhance the Digest and raise the overall image of DRIE. She nailed that decision and Kevin has nailed the creative effort. His brilliant work is on display in this anniversary issue. He is an absolute unsung Digest hero.

My thanks to Vickie, for taking over as Editor. Also, my thanks to numerous contributors, some noted above, but perhaps special mentions to Dennis Hamilton, a DRIE founder and author of some superb crisis management articles in the Digest, and to a succession of Presidents who have written many great messages over the years − Elizabeth, Ann, Todd, Frederick and Joe." ■

# How IBM Cloud Resiliency Orchestration Enhances DISASTER RECOVERY

In today's competitive market, businesses are driving new innovations at lightning speed to exceed customer expectations and build brand loyalty. For **disaster recovery** (DR), the rapid pace of change is critical to driving new innovations. This type of innovation relies on an agile IT infrastructure to be successful — managing an on-premise and cloud network of core systems, data and applications that are interconnected, intelligent, interdependent and increasingly complex — across every layer of the business. Enter cloud orchestration.

Customers demand that the business services they rely on for their daily needs are always on and always available. So what happens when a disruption occurs? An interruption can create a ripple effect across your entire business — and the impact can be devastating. In terms of DR, are you confident your organization can meet the expected recovery time and recovery point objectives? Is your company compliant with regulatory requirements based on your current DR testing?

**Cloud orchestration** for DR is becoming increasingly popular, with enterprises of all sizes adopting it for its ability to verify application continuity and make recovery predictable and consistent through a cost-effective approach.

# HOW CLOUD ORCHESTRATION ASSISTS DISASTER RECOVERY

Cloud orchestration creates an intelligent workflow comprised of individual automated actions with an awareness of the entire workflow process. Consider, for example, failing over an entire data center comprised of several applications and subcomponents with full awareness of dependencies and external influencers. This change allows fully automated site failover with limited human intervention, bringing business benefits and operational efficiencies in IT recovery management.

## **CAN YOUR DISASTER RECOVERY PROGRAM DO THIS?**

Manual IT recovery strategies, which are often unpredictable and inconsistent, are no longer effective in today's complex IT environment. To meet business-driven recovery outcomes, IT executives must orchestrate recovery

horizontally across all technologies and vertically across all IT layers. Take note of these five key DR imperatives around cloud orchestration to empower resiliency:

- Be Recovery-Ready: Orchestrate workflow
   automation to detect environment changes by application, server or database, including in a hybrid and heterogeneous IT environment.
- Automate DR Testing: Instead of unpredictable guesswork-based DR rehearsals, orchestration technology and pre-packaged recovery patterns enable a predictable and reliable recovery program to increase confidence from business leaders, boards of directors and regulators.
- Increase Visibility: Ensure business defined resiliency service-level agreements can be monitored and managed via a dashboard. Ensure recovery goals are visible to key CIOs, DR managers and VPs of infrastructure to assure the business that DR systems can be failed over at any time.
- Reduce Costs: Streamline DR testing, speed up recovery workflow rollout, and reduce resource requirements to create efficiencies.
- Meet Regulatory Requirements: Regional and industry-specific regulations require that enterprises conduct regular DR rehearsals, so businesses must ensure tamper-proof DR reporting can be managed on a regular basis, without disruption to business.

Business resiliency is transforming — traditional approaches no longer apply in today's complex heterogeneous and hybrid cloud environment. Orchestration is the key to increasing business resiliency confidence and reducing human error, risks, costs and outage time.

Check out this **video**, where Laurence Guihard-Joly, General Manager of IBM resiliency services, and Chandra Sekhar Pulamarasetti, VP, IBM Cloud Resiliency Orchestration Software, discuss the value of this innovation for resiliency.



Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.





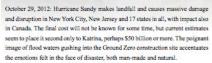
























# Enhance Resiliency in an Always-On, Hybrid World

# **Orchestrate Your IT Recovery**









Talk with IBM to learn how orchestration of IT recovery processes can help simplify DR process through intelligent workflow automation, reduce risks and costs, and improve confidence in your DR program across hybrid cloud and traditional environments.

For more information on IBM's Cloud Resiliency Orchestration, please contact Peter Gladwish, IBM Business Unit Executive, Resiliency Services, **gladwish@ca.ibm.com** 





# Will Falling Meteors or Bedbugs Impact your Business?

Vito Mangialardi, AFBCI, CBCP, PMP
Independent Business Continuity and Emergency Management Advisor

It's a little late to be wishing each other a happy new year. But we'd probably still be doing so if most of us had realized that this year had barely started, when, on January 9th, Earth was almost hit by a small Asteroid known as 2017 AG13 (small being a relative term --- the asteroid was about the size of Drake's new house in Toronto.) Luckily, it streaked by us at 57,600 kilometers per hour and missed Earth by about 160,000 kms.

An asteroid known as 2014 JO25, was discovered three years ago by astronomers at the Catalina Sky Survey near Tucson, Arizona. It flew past Earth on April 19, 2017 at a distance of about 1.1 million miles (1.8 million kilometers), or, to put this distance in perspective, about 4.6 times the distance from Earth to the moon. This was considered very close to Earth for an asteroid of this size.

In addition to asteroids, other things from our atmosphere like comets, spacecraft (excluding airplanes) are called by definition 'Near-Earth objects" (NEO). The Space Shuttle Challenger disaster occurred on January 28, 1986 when its fuel tanks broke apart 73 seconds into its flight, leading to the deaths of its seven crew members. The Space Shuttle Columbia disaster occurred on February 1, 2003 during its re-entry into the Earth's atmosphere, disintegrating over Texas and Louisiana. Skylab was a space station launched in 1973 and operated by NASA and in 1979 it uncontrollably re-entered Earth's atmosphere and disintegrated with debris striking portions of Western Australia. The Russian Mir space station operated in low Earth orbit from 1986 to 2001 and in March, 2001 was removed from space and disintegrated when it reached the earth's atmosphere. What about the International Space Station operating in low Earth orbit with it life expectancy potentially occurring in 2028?

According to Wikipedia, various asteroids worthy of monitoring, with close approaches to Earth in the past 10 years, are estimated at 250, with 62 alone in 2016 and already 5 in 2017. As of August 2012, 850 near-Earth asteroids larger than 1 km have been discovered, but only 154 potentially pose a problem to Earth. NEO's rarely make

the list ok risks or threats a typical business gets concerned over. If they did, we would also need to include others, such as Earth being attacked by aliens and zombies. It was a 16 km. wide asteroid that is believed to have led to the extinction of the dinosaurs on earth

Thank goodness for NASA's Near-Earth Object Program Office, which has in place a tracking system called 'Sentry,' a highly-automated collision monitoring system for continually updating the orbits, future close Earth approaches and Earth impact probabilities for all Near-Earth Asteroids (NEAs). Searching the heavens for Asteroids worth tracking requires very specific criteria, or they are considered non-asteroid threats. NASA has a congressional mandate to catalogue all NEO's that are at least 1 kilometer wide, as the impact of such an object would be catastrophic, if only for the potential to destroy our orbiting networks of communications and weather satellites.



While the probability of such occurrence is low, the potential impact is very high, and mankind does not have reliable controls in place to mitigate or eliminate such a risk, except a plan of sorts issued by the Executive Office of the President of United the States (dated December 2016) entitled The

National Near-Earth Object (NEO)

Preparedness Strategy, which builds on efforts by NASA to provide better 'early detection' and categorize the NEO's and the Department of Homeland Security (DHS) effort needed to prepare for and respond to an NEO impact. This document which make for interesting reading can be found at: http://cdn.defensedaily.com/wp-content/uploads/post\_attachment/152560.pdf



A crisis can be defined as any unplanned event, occurrence or sequence of events that has a specific undesirable consequence. Emergency preparedness planning typically addresses reactively a full range of threats and hazards, including domestic terrorist attacks, natural and man-made disasters, accidental disruptions, and other emergencies. Business continuity on the other hand can take a 'consequence based' approach, which requires attention not just to specific types of hazards, but also to steps that increase preparedness for any type of probable hazard.

Business Continuity practices teach us to identify known risk and threats that have to be planned for (mitigated) to avoid business impacts. This approach is known as 'all-hazard' risk planning and works well with the obvious, repetitive risks and threats. But how do you plan for what is unknown or unlikely to occur?

Experienced Business Continuity practitioners have come to understand most known predictable business risk and threats and associated mitigation strategies. However, they cannot predict the future or the low probability of other risk events from occurring, such as asteroid, spacecraft falling out of the sky.....or are they now more predictable based on recent events?

Now, the probability of bed bugs infesting your business has a higher chance of occurrence in coming years than asteroids hitting your office building. Bed bugs are becoming a growing problem across Canada and North America, in part due to global travel and the increasing restrictions on insecticides. Bed bug infestations are spreading at an increased rate, with high exposure in many public forums.

Bed bugs are transferred from sites by most mediums – fabric, paper, plastics. Due to the ease of transfer, bed bugs have shown up in all areas, from high-end hotels, to movie theatres, to public transit. Bed bug infestation is a newer risk that now needs to be assessed with the other more obvious risk and threats

Use a simple and practical approach to risk management to consider the probability the threat will materialize and the impact the event would have on business. Then consider what, if any, controls are in place fully to understand and determine your risk exposure and priority for mitigation /

planning to become more resilient from service interruption. A control is a proactive countermeasure that can be taken to reduce the frequency and/or impact of a risk before it materializes. The obvious risks/threats to plan for remains:

- Loss of primary work location (office or production is inaccessible; it does not matter why; building destroyed, crime scene, bed bug infestation, and yes even a meteor hit).
- IT hardware, network, or software failure/outages.
- Loss of business data
- Loss of telecommunications
- Power outages
- Loss of work force (for whatever reasons: pandemic, labour disruption, lottery winners)
- Vendors/suppliers and business partners
- Cyber-attack and data breach



Any effort to address risk mitigation with the implementation of the preventative and corrective actions to reduce or eliminate the exposure, probability, and/or severity, will need the support of senior management for the commitment of appropriate resources and funding.

While we cannot predict disaster, we can certainly plan for the obvious ones, so when they do occur, business has a better chance of survival.



Twenty-five years of dedication to spreading awareness that contingency planning is vital to the operation and longevity of any business.



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**EMERGING PRIORITIES** FOR DISASTER RISK REDUCTION -

Metrics to measure the performance of business continuity managers are constantly evolving. The new international agreement on disaster risk reduction identifies four priorities for action that may increasingly affect expectations for continuity managers.

I have been a volunteer with the United Nations for more than 20 years. I have participated on several exciting projects, including working as a lead author for the Intergovernmental Panel on Climate Change. I have been a volunteer with the United

2015 was a big year for the United Nations. Three major international agreements were established. Most attention was on the new climate change agreement signed in Paris at the end of the year. There was also a new 15 year agreement on sustainability signed in New York, and a 15 year agreement on disaster risk reduction signed in Sendai.

The 2015 Sendai Framework for Disaster Risk Reduction is an important

document setting out best practices for disaster management. In particular, business continuity managers should be aware of the four priorities for action agreed to in Sendai:

- · understanding disaster risk
- strengthening disaster risk
- · investing in disaster risk reduction
- · building back better in recovery.

Understanding disaster risk
One responsibility of continuity
managers involves understanding the
risk of disaster for your organization.
Research by the Institute for
Catastrophic Loss Reduction and others
warns that the frequency and severity of
extreme weather hazards is increasing
in most locations across Canada, in part
due to change in the climate. This will
result in more and larger storms that result in more and larger storms that may threaten loss and damage for your organization and others.



## IN THIS ISSUE

Fort McMurray Wildfire Canadian Telecom is Prepared for Disasters

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Cyber Security Threats with

Partnership between BCI and DRIE to help improve resiliency across Canada

DRIE Toronto December 9 Symposium and Annual Holiday Reception

Update on the DRIE Toronto

Thinking Without Blind

Photo Gallery

Real Event Log

# FORT MCMURRAY WILDFIRE CANADIAN TELECOM IS PREPARED FOR DISASTERS



It was late afternoon on Sunday May 1 when my cab driver at the Calgary airport remarked on how very hot it was. That's pretty normal cab driver small talk.

But he then went on to mention the news that the water bombers were in use trying to dampen the extremely dry forests in northern Alberta. The heat wasn't just an inconvenience there -- an out of control wildfire fire was spreading quickly.

I had just arrived in Calgary for the annual meeting of the Canadian Telecom and to collaborate on new innovations in the field.

CTEPA understands the vital importance of communications continuity from past events for response and recovery operations (e.g. northeastern power outage, ice storms in Toronto, the Manitoba and the Alberta flooding, Lac Mégantic in Quebec).

That afternoon news broke that the wildfire had jumped the Athabasca River and was now threatening Fort



ncy Preparedness Association (CTEPA) (http://www.ctepa.ca/) hosted by (CTLPA)(http://www.ctepa.ca/) hosted by Shaw Communications. This conference brought together key emergency, business continuity and risk managers from telecommunications companies across Canada to discuss best practices in

McMurray and a full emergency response assault was underway with response assault was underway with frefighters battling the blaze. The focus of the emergency response effort was to protect lives, evacuate people, and save critical infrastructure, including telecommunications, electricity and gas



157 Adelaide St. West. PO Box 247.

# **IN THIS ISSUE**

Business Planning for Civil Disturbances

Letter From The Editor

Business Continuity Awareness Week (BCAW) 2017 (May 15 - May 19)

Learning to Learn - Advice from a business continuity

typhoons to thunderstorm asthma: A year of wild Event Press Release -International Business

Continuity Management

2016: From terrible

Scholarship Program at The Disaster Recovery Information Exchange

**DRIE Digest Retrospective** 

Real Event Log



Lately there has been a lot of chatter on various Business Continuity Planning forums about businesses being prepared for periods of social and political unrest, wning the idea for this article. A case spawning the idea for this article. A case in point is from LinkedIn; a highlight in point is from Linkedln; a highlight from Peter Monaghan posting from Breakthra Beverage Group in the US who caught my interest by writing: "The new presidential administration has sent shockwaves to all corners of the country in the span of one week. What exactly does this mean? How does this affect our business and operations? What will this do to our communications, supply chain, workforce, utilities, and so on?" All good questions echoed by Business Continuity practitioners everywhere who are monitoring risk and threat events.

North of the border in January thousa of Canadians, many wearing identifiable conduct, or vandalism pink hats, assembled in major cities day protesters took to it caross the country to lend their moral support to the American Women's March and counter-protesters.

on Washington. They appeared in mass to on wasnington. Investment of all women's rights and human rights days after the presidential inauguration. The large US Women's Marches, gathering for the same reasons in many cities, were peaceful. An estimated 4.5 million marchers made their presence known with no arrests reported anywhere, including at the largest ones in Los Angeles and Washington.

Regrettably in recent weeks, post Regettably in recent weeks, post-inauguration, some civil disturbances did occur. By definition (FEMA), a civil disturbance is "a civil unrest activity such as a demonstration, rior, or strike that disrupts a community and requires intervention to maintain public safety." Civil disturbances, or urrest, can cause a variety of consequential issues, such as violence and assault disorderiv as violence and assault, disorderly conduct, or vandalism. On inauguration day protesters took to the streets of D.C., clashing at times with law enforcement



## IN THIS ISSUE

Editor's Note

# **Editor's Note**

With this Digest I draw a line under 20 years of being the Editor. But, thinking about round numbers, how about 30? This month marks DRIE's 30th anniversary, which is significant. See below for an alternative use of the number 30, also significant.

Elsewhere in this issue we reproduce the letter Mark Turnbull graciously wrote for the 25th birthday in which he reflects on DRIE's origins. I wonder if he or anyone could have imagined the organization with its humblest of beginnings thriving for three decades. It really is an accomplishment and a testament to all those who have given their time and energy over the years to make DRIE as successful as it has been.

As I reflect on my long association with DRIE - which will continue after I relinquish As I renect on my long issociation with DMIE – which will continue after I relinquist the Digges Editorship – I think for me the one quality DMIE has, above all others, is its positive attitude towards information sharing and collaboration. I have long since realized that business continuity is not a career for a soloist. The practitioner's role is better compared to conducting an orchestra, rather than playing an instrument. BCM mocessarily cuts a horizontal sworth across the entire organization, bringing into play a wide range of disciplines, including technology, facilities management, communications, house a group of the property of the prope human resources, security, finance, risk management, audit and compliance and more. Only through cross-functional collaboration can it possibly be successful. A BCM practitioner needs to a be a guru of sorts; in parts a teacher, a salseman, a kind of curious subject matter expert, a fortune teller, counsellor and advocate.

I really hope DRIE continues to thrive. It deserves to. We current members need to work hard to help attract new practitioners into the profession, impart our wisdom to them and lead by example. DRIE is an ideal forum to achieve this.

I leave you in good hands with Vickie Gougoulias as your Digest Editor. You can help her grow in the role by making suggestions and even writing articles! Collaboration!

Des Of allagion

Specialissue



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# DRIE DIGEST REPURDS PECTURE

# 5 Years ago in the Digest...Volume 21, Issue 2, June 2012:

- The front page featured a message from Todd Bardes as he signed off from his term as President.
- Contributions were included from other DRIE Chapters: Australia, Southwest Ontario, Réco Ouébec, Atlantic
- A Vito Mangialardi article on Crisis Communications explained when it's OK to talk back
- The Real Event Log included the Feb 22 Buenos Aires commuter train crash that killed 49 and injured 600 and the April 24 laying of charges for the 2010 Deepwater Horizon disaster.

# 10 Years ago in the Digest...Volume 16, Issue 2, June 2007:

- The front page featured a Pat McGee article: "Failure to Walk the Talk." Pat illustrated lessons learned with the BP 2005 explosion in Texas, disconnects between the talk prior to the disaster, the reality of what happened and how media communications were handled (the walk).
- Arun Mehta wrote an update on the progress of BCP in an emerging economy India.
- The Real Event Log included a record 11ft continuous snowfall in upstate NY in February, a
  24-hour closure of the Gardiner expressway on March 5 due to a huge slab of ice clinging to
  the CN Tower and a derailment on March 30 near Engelhart Ont. that spilled 150,000L of
  sulphuric acid.

# 15 Years ago in the Digest...Volume 11, Issue 2, May 2002:

- The front page featured an item on the April 20th M5.5 earthquake centred near Plattsburgh NY and felt widely in Ontario, Quebec and upstate NY.
- An article on Crisis Management and Emergency Response by Jayne Howe FBCI set the stage for the subsequent DRIE EXPO 2002 which was held in June, focused on that topic.
- The Real Event Log included the Feb 20th train fire in Egypt that killed 370, earthquakes in Afghanistan on March 25th that killed 2,000 and the death of a teenage spectator killed by a puck at an NHL game in Columbus on March 19th.

# 20 Years ago in the Digest...Volume 6, Issue 2, May 1997:

- The new www.dri.org and info@drie.org web and e-mail addresses were announced
- The Digest reported on the March 4th session in which 50 members participated in a contingency planning board game exercised presented by Mike Morganti of Arkwright Mutual Insurance.
- An article entitled "It can pay to expect the worst" published in the March 18th Toronto Globe and Mail featured quotes from Graeme Jannaway, Jayne Howe, Rex Pattison and other DRIE notables.
- The Real Event Log included the February 21st flood in the Commercial Union Tower of the TD Centre in Toronto that damaged 20 floors, a postal truck explosion under the TD Tower on May 5th and an M5.5 earthquake in Iran that killed 3,000 on March 3rd.

# 25 Years ago in the First ever Digest...Volume 1, Issue 1, May 1992:

• Articles in the inaugural Digest covered the St. Mary Axe IRA bombing in London, the Chicago River flood, Guadalajara, Mexico explosions and the 'Rodney King' Los Angeles riots. All of these events happened within 20 days in the month of April, 1992.

















# FREE NETWORKING BREAKFAST MAY 23, 2017

Business Continuity Awareness Week (BCAW) is an ideal forum for educating organizations on the importance of business continuity planning. By collaborating, knowledge transfer, sharing experiences, and incorporating industry best practices, we can be better prepared to respond in the event of a business interruption. This year's BCAW theme is:

# "Cyber Resilience"

DRIE Toronto Chapter in conjunction with
Business Continuity Institute (BCI)
are hosting a Free Networking Breakfast Event

Tuesday May 23, 2017 8:00-10:00 a.m. at 483 Bay St, 8th floor, Room P, Toronto (Bell Trinity Centre)

This special event is open to the first 50 DRIE or BCI members that register by Thursday May 18, 2017.

The keynote speaker for the breakfast is Arsen Shirokov, Director, Cyber Security, CIBC.

The keynote will be followed by a panel discussion with Chris Horne AVP IT Governance, Vendor Management, Corporate Security and Business Continuity, CIBC Mellon, Greg Eskins, National Cyber Practice Leader, Marsh Canada and Des O'Callaghan, BCI GTA Forum.

Don't miss out! Check out the full details on the Networking Breakfast and register early for this event by visiting: http://www.drie.org/toronto/bcaw.php

Here is the link to sign up for FREE BCAW Breakfast: https://www.surveymonkey.com/r/KBKLYLK

We encourage active participation in all our activities by anyone interested in learning more about Cyber Resilience and the important role business continuity professionals play in making their organizations resilient to that and other business threats.

# For more information about BCAW, please contact:

Roma Chrobak, Director, Special Events, Disaster Recovery Information Exchange (DRIE) events@toronto.drie.org or Des O'Callaghan BCI GTA Forum docallaghan@bell.net



# A game of Cyber Attacks and Cyber Security an Interview with Kenrick Bagnall



In 2015 the top ten cyber scams earned criminals an estimated \$1.2 billion from Canadian victims. Put another way, around 80,000 people unwittingly fall prey to these scams every day – equivalent to the population of Sarnia or Peterborough. The Toronto Police Services Computer Cyber Crime Unit, (C3) regularly hears and investigates cyber crimes that effect both individuals and corporations. Kenrick Bagnall with 20 years of corporate IT security expertise, currently a Detective Constable of the TPS Intelligence Services – Computer Cyber Crime Unit and a much sought after speaker on Cyber Security, kindly shared his expertise in this area. Below are Kenrick's great insights, account of current trends, and how to protect valuable assets and data both on an individual level and a corporate one.

## TRENDS IN CYBER CRIMES

# 1. Cyber crime no longer just for the tech savvy

Once upon a time hackers needed to have a skill set that allowed them to perform cyber crimes. Now on the dark web with the rise of ransomware as a service, anyone can purchase ransom ware and execute the according scam. Similarly, distributed denial of service attacks are also available for purchase. This ease of access and affordability gives unethical business people new avenues to attack competitors and resourceful albeit misguided students the ability to hijack test servers to avoid writing an exam. On October 24, 2016, the Standardized Test service for Ontario High School Services test server was attacked. The Globe and Mail reported the cancellation of the Ontario Student literacy test caused by cyber attack, which affected 200,000 students.

# 2. Data being stolen is more than financial data

Once upon a time we all worried about bank account and credit card numbers being stolen. It seems that hackers have evolved and are now finding ways to monetize data such as Personal Identifiable Info (PII) and Personal Medical Info (PMI). The databases that are obtained find their way onto the dark web, and are sold using crypto currency.

# HOW INDIVIDUALS AND CORPORATIONS CAN PROTECT THEMSELVES

# A. INDIVIDUALS

# 1. Be protective of your email addresses

Most individuals are victims of random attacks. Using a more sophisticated password and increasing the strength and diversity of the password will protect you from Brute force attacks geared to attack an encrypted password. Intermix cases and use different characters in your passwords. Secondly, use multiple email addresses. Set one up for each use e.g. one for family and friends, one for subscriptions, one for teams. Remember, complex passwords are secure; long passwords are more secure.

# 2. Stay informed

As with any challenge, being informed gives you the power and the knowledge to protect yourself. Sites such as staysafeonline.org, cctx.ca are great sites to keep on top of how to protect yourself from cyber crime. According to the Norton Symantec Report on Cyber Crime, millenials and seniors are the groups most impacted by scams, each for different reasons. With the Millenials, this group doesn't see the issue of cyber security as a shared responsibility between themselves, corporations and government. They also do not have secure passwords and they share their devices. With seniors, lack of awareness of traditional fraud scams seems to be the biggest culprit.

# 3. Report it

Kenrick would like to see one stat increase, and that is the number of cyber attacks being reported to law enforcement by both individuals and organizations. Laws are being broken, crimes are happening, offences have real victims. These matters must be investigated.

# **B. ORGANIZATIONS**

Every organization is vulnerable, and every system can be hacked. Organizations that have large volumes of PII and PMI and low budgets for network infrastructure and cyber security, and are essential services are targets. Numerous



incidents are reported from education and healthcare institutions; there's a larger amount not being reported. Organizations involved in financial data are being targeted on a daily basis.

# 1. BC/DR Plans that include Cyber Incident Report component

Have a layered approach to security, firewalls and antivirus is not enough, a more sophisticated security model is currently required. Your BC/DR plan should include a Cyber Incident Response component that addresses issues like:

- a) How are you going to engage internal IT
- b) What is the direct line to outsourced resources
- c) How will you engage law enforcement

# 2. Train your staff on cyber awareness – use Random Penetration and Social Engineering Testing

Internal staff is often identified as the weakest link in cyber security. Train your people to know what a suspicious email or website looks like. Educate your staff through an awareness program. Studies have shown that up to 80% of staff will fall prey to a cyber attack, pre an awareness program, but only 30% of the same staff are vulnerable post an awareness program. If your people are more aware, your organization is more secure.

Have an outside cyber security organization do random penetration testing. It is a great way to test how secure your data is; how secure your infrastructure is and your people.

A random parking lot USB drop has been shown to be a successful way to infiltrate organizations. Hackers drop USBs in the parking lot of your offices, your staff pick them up and use them.

# 3. Back up your stuff and check restoring it on a regular basis

Your backup is only as good as the last time you checked restoring it. Test your restores. It is critical you have this plan ahead of time. You don't want to make decisions on the fly. During an incident you are going to be focused on getting up and running, not securing critical digital evidence and contacting law enforcement.

# 4. Understand what normal looks like

Cyber security is only going to pay off with reporting. When you understand what normal looks like you will recognize a yellow flag before it becomes a red flag. You will be able to report an online fraud to police and proactively provide investigators with meta data to assist with the investigation and have a much better chance of a positive outcome for the organization.

Understand what normal looks like in your organizations:

- a) Normal traffic on the network
- b) Normal traffic on the firewall
- c) Normal in terms of staff activity and behaviour

# **LEAPFROG EFFECT**

For every 10 foot wall of cyber security, there is a hacker building an 11 ft. ladder. Technology is evolving and is available both to cyber criminals and corporations, private sector and law enforcement. The good guys are using technology for good and the bad guys are using it for bad.

# **OUR JUDICIAL SYSTEM**

Law enforcement can only enforce laws that are on the books. The Judicial system needs to keep up with the increasing threats and levels of attacks. We want to create good case law to promote a safe online environment. It is where people are working, taking part in commerce and communicating.

Definition of the Internet, Ontario Case of Appeals, 2012 R vs. Ward.

Kenrick is a contributor to Canadian Security Magazine where he has written several columns on Cybersecurity including cyber bullying and threats to critical infrastructure. Kenrick has been a keynote speaker and presenter on Cybersecurity at the Converged Security Summit (Atlanta, GA), The Fraud & Breach Prevention Summit (Toronto, ON), The Niagara Counterfeit and Fraud Workshop (Niagara Falls, ON), The Axis Communications USA Partner Summit (Tucson, AZ) and several other public sector and private industry symposiums.

Kenrick's background in Information Technology combined with his Law Enforcement experience has uniquely positioned him as an investigator, instructor and presenter on technology, information security and cyber investigations.

Article written by Vickie Gougoulias, Editor DRIE Digest ■





Philippines earthquake Feb 10



Feb 14 Fire at Yonge & St. Clair in Toronto



New Orleans Feb 25 – drunk driver plows into pedestrians



Bomb explosion in Saskatoon March 29



London - Attack on Parliament March 24; 4 killed



Flood aftermath in Mocoa, Colombia April 1



Bus crash in Tons gorge, India, April 19



United passenger forcibly removed from flight April 9



Highlights may be the wrong term, as so many entries in the 21 years of DRIE Digest Real Event Logs have been tragedies of varying magnitude. Shown below is just a sampling of some of the memorable or significant events that have rated mention in the Digest since the log was first introduced in 1996. Scanning any list like this reinforces the view that planning must be from an all hazards approach, because there is just no limit to the variety of things that can go wrong. Natural disasters, accidents, intentional destructive acts all occur with distressing frequency and in all parts of the globe. Vigilance can never stop.

July 17, 1996	New York	TWA 800 explodes; reason unknown; all 230 aboard killed
April 29, 1997	Manitoba	Tow of Ste. Agathe succumbs to flooding
Jan 9, 1998	Quebec	Ice storm power outages peak at 1.4 million households; restoration slow
Aug 7, 1998	Africa	Twin US embassy bombings in Kenya and Tanzania
Sept 2, 1998	Nova Scotia	Swissair 111 crashes into Atlantic near Peggy's Cove, killing all 229 aboard
July 16, 1999	Toronto	Fire in Bell's Simcoe C.O. causes widespread telecom outages
Jan 1, 2000	The World	Y2K bug debunked as Millennium rollover passes without incident
May 4, 2000	Internet	Millions of computer systems world-wide affected by destructive 'I Love You' virus
May 24, 2000	Ontario	E-coli outbreak in Walkerton from contaminated water kills 4, leaves 600 sick
Aug 24, 2001	India	Osama bin Laden and 5 others charged with conspiring to bomb US embassies
Sept 11, 2001	USA	Civilised world outraged as suicide bombers attack New York and Washington DC, destroying the World Trade Center and part of the Pentagon, killing 3,000
Dec 29, 2001	New York	5 days of snow leaves Buffalo buried under 7 feet, resulting in transportation chaos
Nov 8, 2002	New York	U.N. Security Council unanimously passes resolution 1441 concerning Iraq
Feb 1, 2003	Texas	Space shuttle Columbia disintegrates on re-entry, killing crew of 7
March 16, 2003	Ontario	First news reports of SARS in Canada emerge; 2 dead in Toronto, 4 hospitalized
Aug 14, 2003	N. America	Massive electrical grid failure hits Ontario and several Eastern states for hours/days
Dec 26, 2003	Iran	Devastating earthquake M6.7 destroys most of ancient Bam, over 28,000 killed
March 11, 2004	Spain	10 coordinated terrorist bombs destroy commuter trains, kill 190, injure 1,430
Dec 26, 2004	South Asia	Massive undersea earthquake M9.0 and tsunamis kill over 212,000
July 7, 2005	England	Suicide bombers kills 56, injure 700 in attacks on underground and a bus
Aug 29, 2005	Miss. / La.	Hurricane Katrina devastates Biloxi Miss. And New Orleans La. killing hundreds
Oct 8, 2005	Pakistan	Major earthquake M7.6 causes devastation, with a death toll of over 79,000
July 11, 2006	India	Eight coordinated train bombings in Mumbai kill up to 200 rush hour travellers
Feb 11, 2007	New York	Town of Redfield believed to have set a record for continuous snowfall of 11 ft.
Dec 27, 2007	Pakistan	Benazir Bhutto assassinated, 20 others killed, in a suicide bombing in Rawalpindi



Aug 10, 2008 Toronto Propane explosion and fire near Keele & Wilson kills 1, evacuates 12,000 residents  Aug 20, 2008 Toronto Maple Leaf Foods closes plant, following listeriosis fatality and major product recall  Jan 15, 2009 New York US Airways plane ditches safely in Hudson River after suffering 'double bird strike'  April 27, 2009 Geneva Transmission of H1N1 between humans prompts WHO to declare pandemic level 4  Jan 12, 2010 Haiti Major quake M7.0 destroys many buildings in Port-au-Prince and kills over 200,000  Feb 12, 2010 USA 49 states, all except Hawaii, have at least some snow on the ground on this day  Nov 28, 2010 Internet 250,000 secret documents released on the Internet, threatening a diplomatic disaster  Feb 1, 2011 US Midwest Major storm nicknamed "Snowpocalypse" affects 100 million people  March 11, 2011 Japan Massive earthquake M9.0 n.e. of Tokyo and resulting tsunamis cause devastation  April 12, 2011 Japan Fukushima nuclear disaster elevated to a level 7 event, equalling Chernobyl  Jan 13, 2012 Italy Cruise ship Costa Concordia runs aground near Giglio, 11 drowned, 21 missing	May 12, 2008	China	Massive earthquake M7.9 in Sichuan Province kills over 55,000 and wreaks havoc
Jan 15, 2009 New York US Airways plane ditches safely in Hudson River after suffering 'double bird strike'  April 27, 2009 Geneva Transmission of H1N1 between humans prompts WHO to declare pandemic level 4  Jan 12, 2010 Haiti Major quake M7.0 destroys many buildings in Port-au-Prince and kills over 200,000  Feb 12, 2010 USA 49 states, all except Hawaii, have at least some snow on the ground on this day  Nov 28, 2010 Internet 250,000 secret documents released on the Internet, threatening a diplomatic disaster  Feb 1, 2011 US Midwest Major storm nicknamed "Snowpocalypse" affects 100 million people  March 11, 2011 Japan Massive earthquake M9.0 n.e. of Tokyo and resulting tsunamis cause devastation  April 12, 2011 Japan Fukushima nuclear disaster elevated to a level 7 event, equalling Chernobyl  Jan 13, 2012 Italy Cruise ship Costa Concordia runs aground near Giglio, 11 drowned, 21 missing	Aug 10, 2008	Toronto	Propane explosion and fire near Keele & Wilson kills 1, evacuates 12,000 residents
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Oct 29, 2012 New York Hurricane Sandy turns left and hits New Jersey and New York City hard	Oct 29, 2012	New York	Hurricane Sandy turns left and hits New Jersey and New York City hard
Nov 3, 2012 US East Coast Post-Sandy discontent rises as over 3 million remain without power in 15 states	Nov 3, 2012	US East Coast	Post-Sandy discontent rises as over 3 million remain without power in 15 states
April 15, 2013 Massachusetts Two bomb explosions at the end of the Boston Marathon kill 3, injures dozens	April 15, 2013	Massachusetts	Two bomb explosions at the end of the Boston Marathon kill 3, injures dozens
June 20, 2013 Alberta Major flooding from heavy rain hits Calgary and other towns; worst in decades	June 20, 2013	Alberta	Major flooding from heavy rain hits Calgary and other towns; worst in decades
July 6, 2013 Quebec Runaway freight train derails in Lac-Megantic; 50 dead or missing in resulting fire	July 6, 2013	Quebec	Runaway freight train derails in Lac-Megantic; 50 dead or missing in resulting fire
Aug 22, 2013 Toronto At least 150 people fall ill from eating the infamous "cronut" burger at the CNE	Aug 22, 2013	Toronto	At least 150 people fall ill from eating the infamous "cronut" burger at the CNE
Dec 23, 2013 Ontario Hundreds of thousands in the GTA remain without power 48 hours after ice storm	Dec 23, 2013	Ontario	Hundreds of thousands in the GTA remain without power 48 hours after ice storm
March 8, 2014 Malaysia Malaysia Airlines MH370 disappears, resulting in an extended, baffling mystery	March 8, 2014	Malaysia	Malaysia Airlines MH370 disappears, resulting in an extended, baffling mystery
Oct 22, 2014 Ontario Radicalized gunman shoots and kills a soldier at National War Memorial in Ottawa	Oct 22, 2014	Ontario	Radicalized gunman shoots and kills a soldier at National War Memorial in Ottawa
Nov 1, 2014 Bangladesh Massive power failure affects the entire country of 160 million for at least 12 hours	Nov 1, 2014	Bangladesh	Massive power failure affects the entire country of 160 million for at least 12 hours
Jan 7, 2015 France Jihadist terrorists storm Charlie Hebdo offices in Paris a and kill 12 employees	Jan 7, 2015	France	Jihadist terrorists storm Charlie Hebdo offices in Paris a and kill 12 employees
April 25, 2015 Nepal Large earthquake M7.8 destroys entire villages and kills as many as 10,000	April 25, 2015	Nepal	Large earthquake M7.8 destroys entire villages and kills as many as 10,000
Sept 23, 2015 Germany Volkswagen CEO loses his job in the wake of a scandal over falsified emission tests	Sept 23, 2015	Germany	Volkswagen CEO loses his job in the wake of a scandal over falsified emission tests
Nov 13, 2015 France ISIS-based terrorist attacks on a Paris concert hall and restaurant kill at least 100	Nov 13, 2015	France	ISIS-based terrorist attacks on a Paris concert hall and restaurant kill at least 100
May 3, 2016 Alberta City-wide evacuation ordered as fire destroys entire Fort McMurray neighbourhood	May 3, 2016	Alberta	City-wide evacuation ordered as fire destroys entire Fort McMurray neighbourhood
Sept 2, 2016 S. Korea Samsung recalls Galaxy Note 7 phones after battery explosions, at a cost of \$5.3b	Sept 2, 2016	S. Korea	Samsung recalls Galaxy Note 7 phones after battery explosions, at a cost of \$5.3b
Dec 14, 2016 Internet Yahoo discloses unprecedented 3-year-old breach that exposed 1 billion accounts	Dec 14, 2016	Internet	Yahoo discloses unprecedented 3-year-old breach that exposed 1 billion accounts
Jan 29, 2017 Quebec Gunman kills 6 and wounds 19 at a Quebec City mosque during evening prayers	Jan 29, 2017	Quebec	Gunman kills 6 and wounds 19 at a Quebec City mosque during evening prayers

# Real Event Log February, March and April 2017

Feb 1	California	Student protest at Berkeley against a right-wing speaker turns violent with fire bombs
Feb 3	France	Egyptian terrorist lunging at soldiers guarding the Louvre in Paris is shot and wounded
Feb 4	B.C.	Thousands without power as unusual snow and freezing rain cover south coast
Feb 9	B.C.	24-hour ice storm closes every single highway into and out of the lower mainland
Feb 10	Philippines	Earthquake M 6.7 in the south destroys buildings, kills at least 6, injures over 120
Feb 12	California	200,000 evacuated downstream from a reservoir when a hole is found in Oroville dam
Feb 13	Maritimes	Slow moving blizzard shuts down large areas of Nova Scotia, as well as NB and PEI
Feb 14	Ontario	Major fire at Yonge & St Clair in Toronto destroys one building, damages others
Feb 14	Manitoba	Bus driver fatally stabbed at the end of a run on the Winnipeg campus of U. Manitoba
Feb 16	Pakistan	ISIS suicide attack on a Shia shrine in Sehwan kills at least 75, over 200 wounded
Feb 17	California	Torrential rains cause sinkholes, close highways, rains kill at least 3 in coastal areas
Feb 20	Ontario	6 days after a nearby fire, businesses on Yonge St. in Toronto still closed as unsafe
Feb 24	Ontario	Power failure at CN traffic control in Maple disrupts GO and VIA trains for hours
Feb 25	Louisiana	Drunk driver plows into a parade crowd in mid-city New Orleans, injuring 28
Mar 1	Ontario	City of Toronto, via Royal Bank, double debits 44,000 home owners' property taxes
Mar 8	Saskatchewan	RCAF search and rescue technician dies in a training accident in Yorkton
Mar 9	Ontario	Gardiner expressway closed temporarily due to concrete falling onto a car
Mar 14	Ontario	Massive pileup on Hwy 401 near Kingston includes highly toxic chemical spill
Mar 14	Alberta	Explosion and fire at a Syncrude oil sands site near Fort McMurray injures one
Mar 17	Quebec	Two small planes collide above a St Bruno mall and crash into it; 1 killed
Mar 21	Internet	Google publishes stats showing a 32% increase in number of web site hacked in 2016
Mar 23	England	Islamist-inspired attack on Westminster Bridge and Parliament kills 5, injures dozens
Mar 27	Japan	7 students and an instructor killed in an avalanche during a ski field trip in Nasu
Mar 29	Saskatchewan	Improvised bomb explodes at Saskatoon provincial court house, but no-one is hurt
Apr 1	Colombia	Overnight flash flooding from heavy rains swamps Mocoa and kills at least 250
Apr 3	Russia	Radical Islamist suicide bomber attacks subway in St Petersburg, killing at least 14
Apr 4	Syria	Government chemical attack on citizens in Idlib kills at least 80 and injures over 300
Apr 7	Sweden	Uzbek man rams a stolen truck into a crowd in Stockholm, killin4 and injuring 15
Apr 9	BC	5 hikers discovered dead after they fell 500m when a cornice collapsed on Mt. Harvey
Apr 9	Illinois	United Airlines creates PR disaster as passenger dragged off overbooked flight by police
Apr 13	Canada	RCMP report reveals organized crime has already infiltrated medical marijuana industry
Apr 16	Pennsylvania	Erie man randomly kills another man; posts Facebook video of it; suicides 2 days later
Apr 19	India	Crowded bus plunges 200m from highway into a gorge on the Tons River, killing 44
Apr 20	Manitoba	St Boniface Hospital says doctors have developed the first new antibiotic in 30 years
Apr 20	BC	Logging train derails in Woss on Vancouver Island, killing 2 forestry company workers
Apr 20	France	ISIS follower with 14-year criminal history kills a police officer on the Champs-Elysees
Apr 25	Alberta	1 soldier killed, 3 injured, in training at CFB Wainwright when an LAV III rolls over
Apr 28	N. Korea	UN-banned ballistic missile launch fails on launch, hours after a security council debate