

**North Korea is playing dangerous games !**

# **CBRNE Newsletter Terrorism**

Volume 47, 2013

**Editor's Corner**

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**CBRNE-Terrorism Newsletter – February 2013****CBRNE-Terrorism Newsletter – 2013©**

Volume 47 – February 2013

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# Editor's Corner



## Editorial

BG (ret'd) Ioannis Galatas, MD, MA, MC

Editor-in-Chief  
CBRNE-Terrorism Newsletter

*Dear Colleagues,*

*2013 is going to be a very interesting and possibly a troublesome year. North Korea is playing power games, Iran is playing hide and seek, China focuses on cyber operations and many smaller players are expressing trends to upset the global community. There is no reasonable explanation for all these actions and intentions but what is for sure is that logic is gradually becoming an endangered quality of mankind!*

*In Greece the situation is gradually deteriorating and the light at the end of the tunnel is so far away that is becoming steadily invisible. Most prominent events at the first two months of 2013 were the explosion of an IED in one of the biggest shopping malls of Athens and the arrest of many members of "Nucleus of Fire" terrorist group. It is of notice that the theoretical connection of terrorism with organized crime is becoming more evident and soon will represent the new reality. Given the explosive social environment and the continuous experimentation against Greek people one can only imagine the consequences if the situation is gone out of control.*

*In our line of work (CBRNE) things appear to be in a continuous nirvana both in local and European level. I will not write about my country – besides there is nothing to write about. We had our chance during the 2004 Olympic Games to maintain all the infrastructure created then but we preferred to return to normal attitude of "it will not happen to us"! Let us hope that our contract with God will remain valid for the years to come. I was asked to write a paper for Jane's on European CBRN Preparedness. I was not able to deliver because there was nothing to write about as well. Do not get me wrong. Many countries do plan and prepare for this possibility but not at European level. I strongly doubt that if something happens in one of the member-states, all these mechanisms will be able to cooperate and provide assistance to each other. Huge amount of money is spend but not for the fulfilment of a European plan – a plan that does not really exist. For scientific purposes, yes! For a plan, no! It is so evident that European Union is not an entity like United States of Europe but a financial consortium with strong and weak members that follow the usual patterns of business interactions. When the implementation of EU directives is not mandatory but up to national governments, one can easily realize why such a plan does not exist.*

*Personally I continue to look into the abyss and try to apply my crisis management skills to avoid been swallowed. It seems that my complex background is a barrier for a new career abroad. Medical people are not very comfortable with my CBRN background and defense/security people are not comfortable with my medical background. It seems that I have to start hiding parts of my life in order to find a solution. But both parts do represent my life and I cannot betray one over the other. Still believe in miracles and still confident that there are many areas that I could be useful if somebody could read behind the lines and use his imagination to reveal how closely these two entities are connected to each other.*





## **CBRNE-Terrorism Newsletter – February 2013**

*Newsletter is currently read by CBRNE-CT First Responders in more than 60 countries around the globe! The Editorial Team would like to thank you all for your enthusiastic comments and beneficial suggestions that will surely be taken under consideration for further improvement. We continue to collaborate as media partners with other organizations and this proved to be a good strategy that gain new readers and generate new proposals and challenges.*

*Enjoy the “CBRNE-Terrorism Newsletter” and if you really like it, please feel free to pass it over to colleagues in your networks! Your support is our strength! And in order to pay you back please read our special offer for a fantastic weekend in the Island of Corfu that we are sure you are going to love it!*

*The Editor*



# HONOR

The difference between the good guys and the bad guys is whether they use human shields or make themselves human shields.





**SPECIAL OFFER**



*First Responders  
Welcome*



*To Corfu Town  
Hellas*





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## CBRNE-Terrorism Newsletter – February 2013

### SPECIAL OFFER

#### Thank you First Responders for supporting the Newsletter!



The Editorial Group of the “CBRNE-Terrorism Newsletter” would to thank all our readers around the globe and offer them the possibility to enjoy a very refreshing weekend in the beautiful Island of Corfu in Northern Greece with competitive prices kindly offered by the management of the Corfu Palace Hotel (5 stars)!

If interested please contact the hotel by using the e-mail provided and include the following code of identification:

**CBRN-T-NSL-CP1213**

We are certain that those visiting Corfu will come again and again in the years to come and Corfu will become you favorite all-year destination!

### The Future Report

Source: [http://www.thegff.com/Articles/338576/Global\\_Futures\\_and/Reports/The\\_Future\\_Report.aspx](http://www.thegff.com/Articles/338576/Global_Futures_and/Reports/The_Future_Report.aspx)

Increasingly we are becoming aware that there is more change happening in the world, society, across industry sectors and in many disciplines of science than ever before and that the change is happening at an increasing pace. In this report we've assembled a wide selection of the most influential drivers of change that will shape our markets and businesses in the coming years. We've raised issues that, in the main, demand a response from us now, not in five or ten years time. In order to guide you, the report is divided into themes and is fully referenced. There are over 180 links to the sources that have informed our thinking and they are listed in the endnotes. The timeline that we've drawn up serves to illustrate the volume of change but also that change happens in parallel across all fields and

geographies at the same time. Those changes have a tendency to conspire together to create compelling change scenarios. It is often at these inflection points that new business models form, new sub-sectors are created or when new solutions displace existing products and services and frequently their providers.



### Populations

We are confronted by the evidence of our rapidly changing world every day and are contributing to its change each in our own way. In the past 50 years, we've doubled the number of people alive on our planet, reaching 7 billion people at the end of last year. In the next 40 years we are expecting over 2 billion





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more people to be alive than today.

### **Economies**

At the same time, and as a direct consequence of this population growth, we are forecasting that our global economy will triple in size by 2050 and is set to have doubled to over \$130 trillion in just twenty years time, in 2030. Much of this growth is amongst the emerging economies of the world, including China, Brazil, India, Mexico and Russia. As a consequence, by 2019 the E7 emerging seven major economies of Peoples Republic of China, India, Russia, Brazil, Mexico, Indonesia, Turkey, will be a larger economic bloc than the G7 countries who have, for the past 60 years, led the world economically and to a great extent, politically. By 2050 China will have the largest economy with a GDP of over \$24 trillion whilst the United States' economy is expected to reach £22 trillion and India the third largest economy at \$8 trillion.

### **Political authority**

Apart from the economic influence, that will shift from the US and Europe to Asia, the political authority will shift to these fast growing emergent nations. Turkey and Indonesia are included in the E7 and have populations that are predominantly Muslim. Equally, China and India are predominantly atheist and Hindu respectively. As political and economic power shift away from the predominantly Judeo-Christian populated countries of North America and Europe towards Asia, new governance, based on different values and beliefs, will begin to impact how business and the world are run.

### **Middle Class**

Of course, these two drivers of change, populations and economies, are having significant impact on us all. There's more economic activity in more countries than ever before, using increasingly scarce resources, creating wealth for the first time for billions of people. Over 70 million people are entering the middle class every

year and most of them are from emerging economies.

### **Cities**

As a consequence 20 of the world largest 50 cities will be in Asia by 2025, up from only 8 in 2007. In 2010 the urbanisation of the world reached 50 percent and it is expected that by 2030, 6 out of 10 people will be city dwellers, which is double the number back in 1950. By 2050 it's forecast that 70 percent, of the then 9 billion people, will live in cities.

### **Infrastructure**

All this concentration into our cities comes at a high price in terms of the infrastructure and resources that are required to sustain their populations. Over \$40 trillion is required to be spent in the next 40 years to provide the infrastructure to support our choices to live in cities. We will need to develop new, innovative measures to provide food, water, waste management and all the other materials and services required by an increasingly wealthy and demanding city dwelling population.

### **Resources**

China is expected to consume a third of all global energy used by 2035, much of which will need to be provided by renewable energy sources if we are to avoid the worst affects of global climate change. Already we've locked in a 1.4 degree temperature increase and can do nothing but mitigate its impact as the causes of that increase are already present. What we can do, and must do, is become dramatically more effective in managing how we use energy, recycle our waste and materials and how we consume. Many cities will experience a boom in cleantech services as part of the rapidly expanding response to this problem.

### **Food**

The population of 9 billion by 2050 will eat increasingly well and consume at the base





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calorific rate equal to 13 billion people today. We will therefore need to consider our consumption of meat very carefully. 70 percent of the increase in our populations will be born in Muslim countries. Consequently we will have to increasingly consider how food, meat in particular and other goods and services meet emerging Halal standards. Ensuring that they will be acceptable to, what will be a third of the population by 2050.

### **Technology**

Technology has powered much of the convergence in the world's economies and provided the know-how and access to global markets for those that are dramatically moving from feudal and agricultural economies to the more valuable industrial, service and intellectual property economies. The internet has expanded to reach 2.1 billion people today and is expected to reach 5 billion people across the planet by 2020. The raw materials of today's technology are not inexhaustible and indium, used in liquid-crystal displays, and hafnium, a critical element for next-generation semiconductors, could be exhausted by 2017.

Technology is birthing new business models and is set to continue its disruptive and enabling role in the coming decades. When once employees had access to the best technology at work, today it's more likely that their technology at home or in their hand is superior to their employers. Increasingly, companies should look to 'outsource' personal technologies to their employees enabling them to use their own mobile technologies at work.

### **Control**

In the same way, firms will need to start to let go of control across their networks and allow their staff access to their preferred communication tools. Most of these are hosted in the 'Cloud', over the internet. Letting go of control of what passes across a company's intranet from the outside world can lead to more satisfied, engaged

and happier staff, as they stay in touch with friends and work colleagues alike, across their favourite social networks. Some studies are showing that these same staff are then proving to be more productive than those prevented from accessing them. A recent Australian study showed employees to be 9percent more productive when allowed to access Facebook. Of course, securing the company's data is the objective not preventing modern day communications.

### **Social Media**

Social media has lit-up every individual, who can now communicate across the globe in the same way as the richest corporation. Companies are increasingly becoming networks of collaborating firms and individuals operating across national boundaries. Where once vertical integration, enabled by technology, allowed us to gain economies of scale to make us competitive, today we retain, at the core, only what it necessary and outsource and partner with others to gain their capacity and capabilities for our organisations. Agility, creativity, innovation and collaboration are the watchwords for the successful company in the coming decades - which is no surprise given the amount of change we are being confronted by.

### **Outsourcing**

As we gain in confidence in being able to effectively collaborate with outside firms and individuals, we are letting-go of functions and processes that are important to our company's success and increasingly outsourcing them to others to manage for us. Innovation and creativity are two areas where we will increasingly invite others to help us, through means such as Engineering R&D outsourcing or through crowd sourcing, where we invite many people to help us discover our next product or service offering.

### **Online**

The expansion of our online





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world means that the much of the focus of the next decade will be on making sense of the mass of information and the social networks that it relates to. The internet is estimated to have grown by 1.2 zettabytes last year, that's 1.2 million petabytes, and if that still doesn't make sense, that's more content than existed in every book in the world just ten years ago.

Peerindex and Klout are the latest online tools that are profiling individuals and organisations and scoring their authority, reach and following. Are we seeing the emergence of online tools that seek to illuminate those that have real insight and knowledge that could be of use to us, maybe as contractors, employees, advisers or distributors? If this is a trend then our messaging, its content, frequency and audience will become increasingly important to us, individually and as companies.

### Workforce

The millennial generation believes that international assignments are important to their career development - employers agree. It's predicted that there will be an increase of 50 percent in international assignments by 2020. But, as we seek to align our company's behaviours with our Corporate Social Responsibility initiatives and government climate change abatement legislation, travel may be a frequent casualty. Increasingly we will use video, avatars and immersive technology to supplement our need to travel. As the working population across the European Union is set to fall by 68 million in the next 40 years we will have to be clear about what's automated, what functions require human interaction and how we facilitate those interactions.

### Work

Work itself is changing, with new jobs coming on-stream that didn't exist ten years ago, as a direct consequence of urbanisation, increasing life expectancy, new technologies, globalisation and climate

change. To maintain our workforce we will increasingly hire women, the aged and disabled people and probably have three or even four generations of employees in our firms for the first time in any numbers. The diversity of our workforce and the roles we will ask them to perform, in massively changing circumstances, will put even greater stress on them than they experience today. The direct costs related to stress at work are now estimated to be as high as 4 percent of EU GDP.

### Government

Due to massive public debt governments are recognising that they can no longer afford generous pensions and the European Union Commission has said that the average retirement age across the 27 member countries needs to rise from 60 today to 70 by 2060. Governments are rapidly turning to the 'Cloud' to service the needs of their citizens and today EU citizens can access 82 percent of basic public services online.

The working population will start to shrink from 2012 and unless a dramatic change in migration policy is forthcoming, companies will have to deal with the consequences of older workers and fewer workers in the labour pool in the EU. The EU is setting policy towards car free cities in Europe by 2050. This could be a boom or bust strategy. On the one-hand it will lead to innovation and the rise of cleantech and on the other it may put off investment and inward migration of companies. We will see.

### Response

There is a great deal of change around. The game at-hand is to understand what's happening and determine if it offers you an opportunity you could embrace or if it is presenting you with a threat that you need to mitigate. At all great points of change, whether it is economic, technological, global, environmental or population change; new markets, industry





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sectors and players emerge. This is not a time for the faint-hearted. There is very little opportunity or value in standing-still and doing nothing. It is a time to engage with

the change we will be encountering and ask for yourself, your family and friends and for your organisation - how can I best embrace it.

**David A. Smith**

*Chief Executive Officer*

*Global Futures and Foresight*

*31 December 2012*

### 13 Predictions for 2013

Source: [http://www.thegff.com/Groups/72628/Global\\_Futures\\_and/Blog/Blog.aspx](http://www.thegff.com/Groups/72628/Global_Futures_and/Blog/Blog.aspx)

*For 2013 we take a look at the potential for conflict, changing work and business patterns and a nod to a few of the technologies that could transform our daily lives.*

#### Back channels in the spotlight

##### 1. Science becomes truly international

With austerity beginning to impact core advanced economies, the twin trends of growing international scientific democratisation and the move towards open data take on renewed possibilities. Researchers from geographically distant labs are already forming non-traditional alliances that collaborate on the gathering, structure and analysis of data sets. To the surprise of many several Arab nations, together with Turkey, Pakistan, Cyprus, Iran and Israel are planning for a multi-million-pound synchrotron particle accelerator, known as Sesame. We expect to see more crowd-sourcing, innovative new partnerships between the public and private sectors. Alone this may not be enough to boost STEM interest and graduates but in 2013 the cultural, institutional and psychological barriers surrounding science may begin to dissolve and allow interest to form in non-traditional places and populations.

##### 2. War craft

Significant cyber war, espionage and terrorism events are growing increasingly likely as a result of growing competition and even hostility between individuals, companies, non state actors and ultimately governments themselves. The contours of

a cyber war are already visible with Stuxnet and Flame type programs representing the tip on a n iceberg that will become more visible in 2013. We would expect any major attack on the US or advance3d economy to be met with calls for global cyber rules.

##### 3. The Arab Spring revisited

Countries in the Middle East need to create 50 million jobs over the next 10 years or five million jobs per year, compared to an average of around three million jobs per year over the last 10 years. Accounting for some 14 million who are already unemployed, the annual target for job creation would rise to around 6.5 million jobs per year . With youth unemployment accounting from 33% of total unemployment in the UAE to 70% in Qatar, the need to create jobs will be key in trying to placate discontent populations. Political turmoil could exacerbate the jobs situation and lead to positive feedback loops if countries do not set out a bold pro-growth agenda and strengthening of educational and investment climates. Either way increasing politicisation looks likely with potentially defining moments in many countries deciding whether to pursue democracy or theocracy.

#### The world of work





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### 4. Social delivers value adding business models

Behavioural business models that seek to utilise use a holistic cross platform understanding of consumer and enterprise actions are close to fruition. With online analytics and emerging neuroscience forming the basis, the potential for radical models to make sense of the available data could unlock enormous value to organisations. Behaviourally analysed social media/networks could form an emerging bedrock of real time business intelligence in an increasingly volatile commercial and economic world.

### 5. To BYOD or not to BYOD?

Bring Your Own Device will increasingly gain acceptance through 2013 at SME's and start-ups – adding to a degree of further agility that we predict will be lacking at many larger organisations. Legacy technology, the significant risk of privacy and security issues and the desire to retain control will limit the ability of larger players to utilise BYOD and the increasing efficiency it can bring. BYOD acceptability amongst smaller organisations will help strengthen non-traditional work patterns such as teleworking, cloud based tech strategies and collaborative networks that increasingly help shape the future of work. Further smart phone and tablet proliferation will increasingly strain larger organisations' ability to 'manage' the BYOD trend.

### 6. Building and measuring resiliency

Hurricane Sandy and perhaps more pertinently, the Thai floods that disrupted the disk drive trade) helped highlight the need for global hubs and components to be reliably resilient and as predictable as possible for the businesses focussing their operations in such locations. We expect measures of 'resiliency' to be developed in 2013 that help augment traditional rankings of cities and countries, whilst the need to develop a range of scenario plans will be seen as the bare minimum. Innovative

public-private partnerships will be explored in advanced economies whose governments are unable to upgrade their infrastructure and crisis response abilities due to debt concerns. We expect, over the long term, for resiliency to become a major metric that companies use in their decision making.

### 7. With governments drowning in red ink, business goes green

With governments grappling with the immediacies of growth and debt, it may be businesses, rather than government that become the driving wave of sustainability. Unilever for example has announced its launch of #consumer lifestyle challenge in an attempt to correct the myth that environmentally-friendly living costs more. As companies increasingly realise going green can save them money, we expect this logic to increasingly infiltrate consumer products and ultimately consumers themselves.

### 8. Model mania

We anticipate an expanding range of new business forms and models in the coming year. Evolving internet leveraged technologies and the need for a competitive advantage in many sclerotic economies will necessitate radical rethinking. We expect SME's and start-ups to have the best chances of developing such models and many larger organisations will develop labs, or think tanks designed to replicate or provide genesis for such ideas. We also expect technology to blur existing boundaries and even create brand new hybrid models where the designer and manufacturer are one and the same for example.

### 9. All work and all play

Many components of life will increasingly resemble a series of, or interconnected, game type situations. The application of games to real-world problems will be used to coerce people's behaviour -





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from economic decision making to diet and green living. The marketing opportunities resulting from such Gaming-as-a-Service apps could even be used to help personalise products and services and even enable greater degrees of problem solving and productivity within organisations in both the public and private sectors.

### 10. Finance serves the people

In September 2012 Air Liquide became the first private company to issue bonds meeting socially responsible investors' criteria. The €500 million worth of nine-year notes was placed by Crédit Agricole, Citigroup, HSBC and Société Générale. Impact investing looks set to become a major new front for finance in which the specific mission of the 'project' is heavily stressed. Together with growing shariah finance around the world, we expect the growth of socially responsible finance and the occasional misuse of it to give impetus in clearly defining ethical investment. An ecosystem of players could grow around such a pronouncement.

## Technologies

### 11. 3D Printing

In Denmark we have already seen the world's first 3D printed house. Staples, the office superstore, has announced plans to

offer in-store 3D printing services starting in Belgium and the Netherlands. From a \$1,2bn industry in 2012 it is expected to reach \$4.2bn in 2020 and subsequent growth could be far more impressive. We expect to see 3D printing not only enter the lexicon of many businesses and also consumers in 2013 but begging to grow up and show industrial strength.

### 12. Driverless cars

A bill to bring driverless cars to roads in California has been signed and could lead to a raft of new transportation service models. The Institute of Electrical and Electronics Engineers claims that autonomous vehicles will likely make up 75% of cars on the road by 2040. More legislation and groundwork will be prepared in 2013 and the following years to make such possibilities a reality.

### 13. Printed electronics

The science behind printable electronics has been developing rapidly, but thus far the number of commercial applications has been limited. Several recent tie-ups between industry players and packaging companies suggest that printed electronic will soon be a common occurrence in stores – potentially indicating freshness of the product, of the dosage requirements of medicines for example.

*David Smith*

*Chief Executive*

*Global Futures and Foresight*

*[www.thegff.com](http://www.thegff.com)*

## From UFOs to 'tsunami bomb': N.Z. archive secrets revealed

Source: <http://www.hindustantimes.com/Books/Chunk-HT-UI-BooksSectionPage-LiteraryBuzz/From-UFOs-to-tsunami-bomb-N-Z-archive-secrets-revealed/Article1-983877.aspx>

A new book has revealed rare historical gems buried in New Zealand's national archives, including a bizarre WWII plan to create a "tsunami bomb" and military files detailing supposed UFO sightings.

Author Ray Waru said he wrote "Secrets and Treasures" to highlight the material publicly available at Archives New Zealand in Wellington -- where almost 100 kilometres (62 miles) of shelf space is





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crammed with historical artefacts.

"It was totally overwhelming at the beginning," he told AFP.

"I knew I wanted to get in the important things, the Treaty of Waitangi (New Zealand's founding document), the Declaration of Independence, the women's suffrage petition,

and a few other things.

"But once you start digging, one story leads onto another and I'd just follow my nose."

The suffrage petition Waru refers to contains 36,000 signatures and was dramatically unfurled on the floor of the New Zealand parliament in 1893 by supporters of women's right to vote.

Stretching for almost 300 metres (980 feet),

the petition, currently undergoing restoration, proved successful and led New Zealand, then a British colony, to become the first country in the world to grant women the vote later that year.

Alongside notable historical documents, such as a letter written by explorer captain James Cook before his final voyage, are curiosities like "Project Seal", a top-secret US-New Zealand attempt to create a doomsday device to rival the nuclear bomb.

The project was launched in June 1944 after a US naval officer noticed that blasting operations to clear coral reefs around Pacific islands sometimes produced a large wave, raising the possibility of creating a "tsunami bomb".

**Explosive tests carried out in waters north of Auckland led scientists to conclude that the weapon was feasible and a series of 10 massive blasts offshore could create a 10-metre (33-foot) tsunami capable of inundating a small coastal city.**

*Ray Waru has been involved in the television and radio industries for more than 30 years. He joined Television New Zealand in 1977 and directed and produced such local favorites and 'Fair Go' and 'Country Calendar'. In 1980 he established the first dedicated Maori television production unit in TVNZ which created a stream of primetime Maori and Pacifica series and documentaries. In 1989 he was appointed chief executive of the Aotearoa*



"It was absolutely astonishing," Waru said.

"First that anyone would come up with the idea of developing a weapon of mass destruction based on a tsunami... and also that New Zealand seems to have successfully developed it to the degree that it might have worked.

"I only came across it because they were still vetting the report, so there it was sitting on somebody's desk (in the archives)."

Waru said the project was shelved in early 1945, despite the success of initial, small-scale tests.

"If you put it in a James Bond movie it would be viewed as fantasy but it was a real thing," he said.

Among the other oddities in the archives are Defence Department records of hundreds of UFO sightings by members of the public, military personnel and commercial pilots, mostly involving moving lights in the sky.

Some of the accounts include drawings of flying saucers, descriptions of aliens wearing "pharaoh masks" and alleged examples of extra-terrestrial writing.

New Zealand's most famous close encounter was when a television crew recorded strange lights off the South Island town of Kaikoura in 1978.

However, in a disappointment for ET spotters, the military concluded the lights could be explained by natural phenomena such as lights from boats being reflected off clouds or an unusual view of the planet Venus.

Waru said it was seemingly humdrum documents, like school magazines from the early 1900s extolling the virtues of the British Empire that provided a window into the attitudes of the past.

"There's masses of records and kilometres of important files but you realize pretty quickly that every piece of paper is related to an individual at some point in time," he said.

"So it gives the modern researcher a peek into the private lives of individuals, which I found interesting -- divorce files from Dunedin, letters a young soldier wrote home to their parents."





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*Maori Radio Trust and established a network of Maori radio stations throughout the country. In recent years he has produced documentary projects on many subjects and worked with a diverse range of people including Alan Duff and Kiri Te Kanawa. In 2000, Waru co-produced the six-part history documentary series Our People, Our Century, which won Best Factual Series at the New Zealand Television Awards and in 2005 made the 13-part history of New Zealand, Frontier of Dreams, which won awards at the Houston International Film Festival and the US International Film and Video Festival. Waru has been involved with a range of organizations including the Peace Foundation, has judged the Maori Record of the Year and considers himself an omnivorous and eclectic reader. This is his first book.*

### **New Radio System Improves Emergency Response Communication**

Source: <http://www.northlandsnewscenter.com/news/iron-range/New-Radio-System-Improves-Emergency-Response-Communication-186101682.html>

A new radio system in St. Louis County is making it a lot easier for emergency responders to do their job.

A statewide radio system called ARMER (Allied Radio Matrix for Emergency

Makowski, "We have standardization and uniformity."

The Eveleth Fire Department found out how useful the system was just minutes after installing the radios, when they were



Response) was implemented in all county fire and police departments in December.

The system allows emergency personnel from almost every county in the state to communicate with one another.

It also allows for responders at a given emergency to operate on a single radio channel, making communication a lot smoother.

"It enables us to talk to a number of fire departments," said Eveleth Fire Chief Pete

called to a fire at a local bar.

"We had just finished putting these [the radios] into our rigs here at the Eveleth Fire Department when the call came in," said Makowski.

While firefighters battled the flames at Sleeve's Bar in Eveleth, the ARMER radio system allowed the responders to communicate on a single radio channel, without





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interference from scanner talk at other emergencies.

"It truly believe that through good radio communications we were able to keep this fire from spreading and kept it under control," said Makowski.

Dewey Johnson, Communications Center Supervisor for St. Louis County, says that the system allows the county to use about 400 different communication channels. The system before only allowed for about 25.

"It's taken us to the next level as far as communication," he said, "Benefits,

flexibility as far as moving traffic to a different channel so they're not competing for airtime as much as they used to be."

Part of the reason for upgrading to the ARMER system was a Federal Communication Commission (FCC) mandate that all counties transfer to a narrowband communication system, which creates more radio frequencies, by 2013.

Johnson says 71 of the state's 87 counties are in the process of getting the ARMER system.

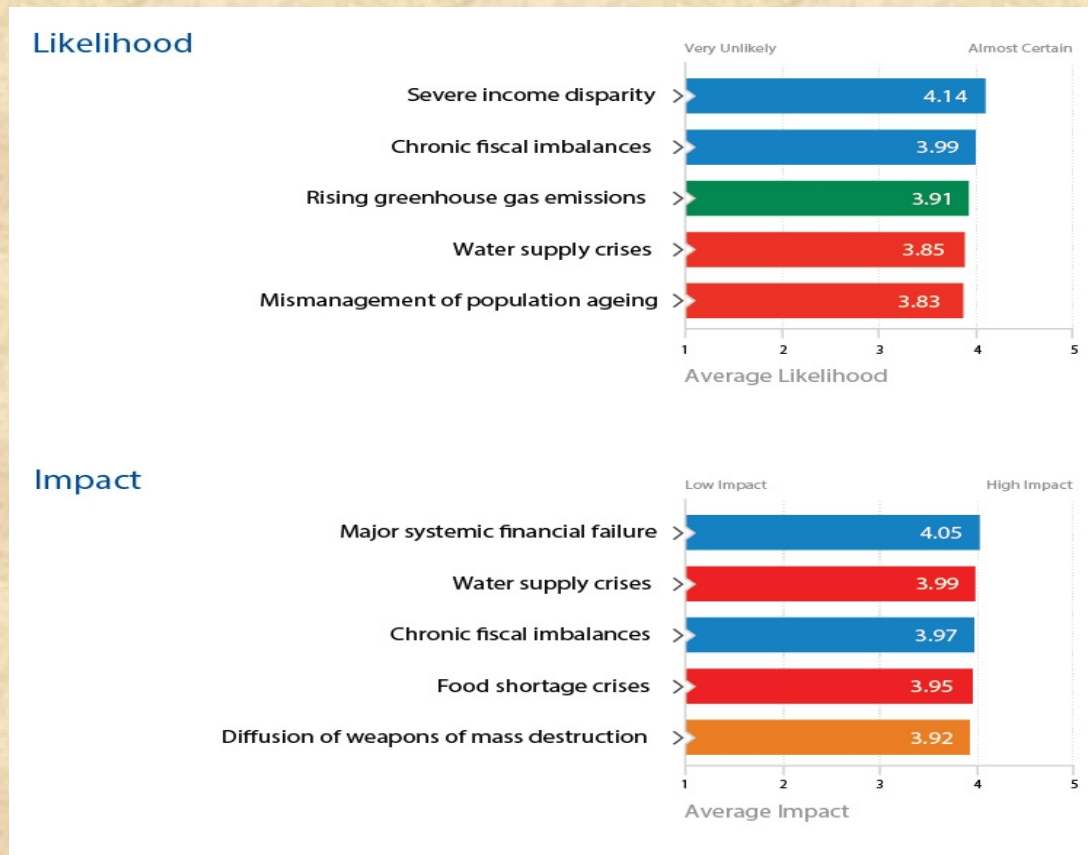
## Global Risks 2013

Source: <http://reports.weforum.org/global-risks-2013/>

### Executive Summary

The World Economic Forum's Global Risks 2013 report is developed from an annual survey of more than 1,000 experts from industry, government, academia and civil society who were asked to review a landscape of 50 global risks.

The global risk that respondents rated most likely to manifest over the next 10 years is *severe income disparity*, while the risk rated as having the highest impact if it were to manifest is *major systemic financial failure*. There are also two risks appearing in the top five of both impact and likelihood – *chronic fiscal imbalances* and *water supply crisis*.





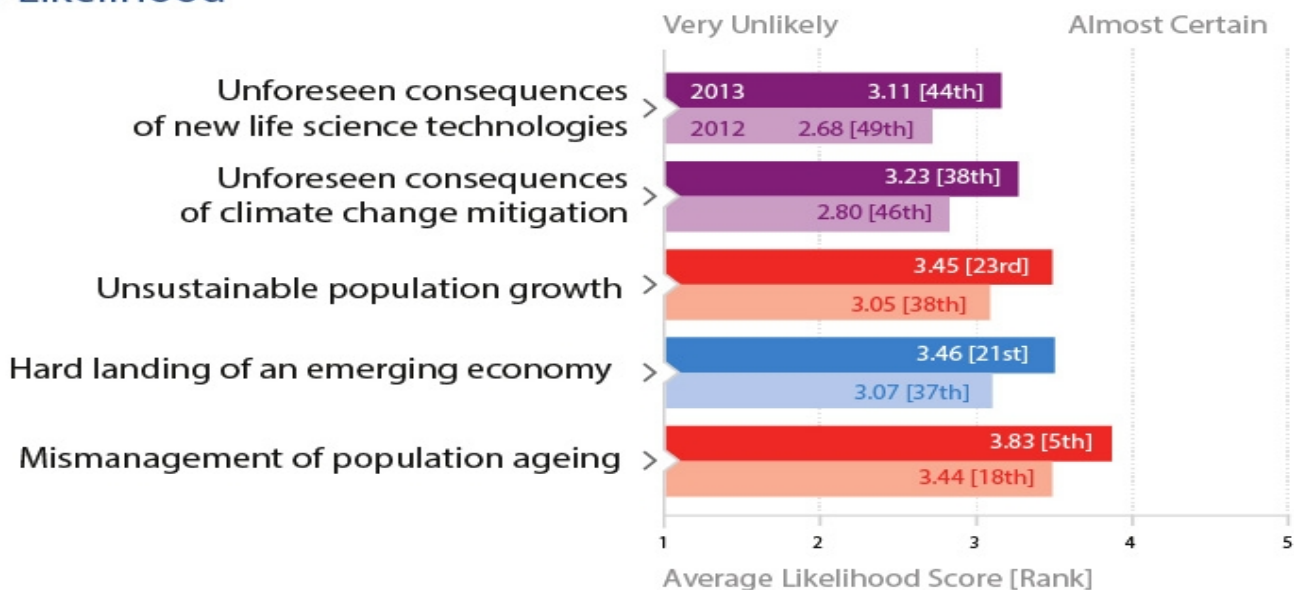
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*Unforeseen consequences of life science technologies* was the biggest mover among global risks when assessing likelihood, while *unforeseen negative consequences of regulation* moved the most on the impact scale when comparing the result with last year's .

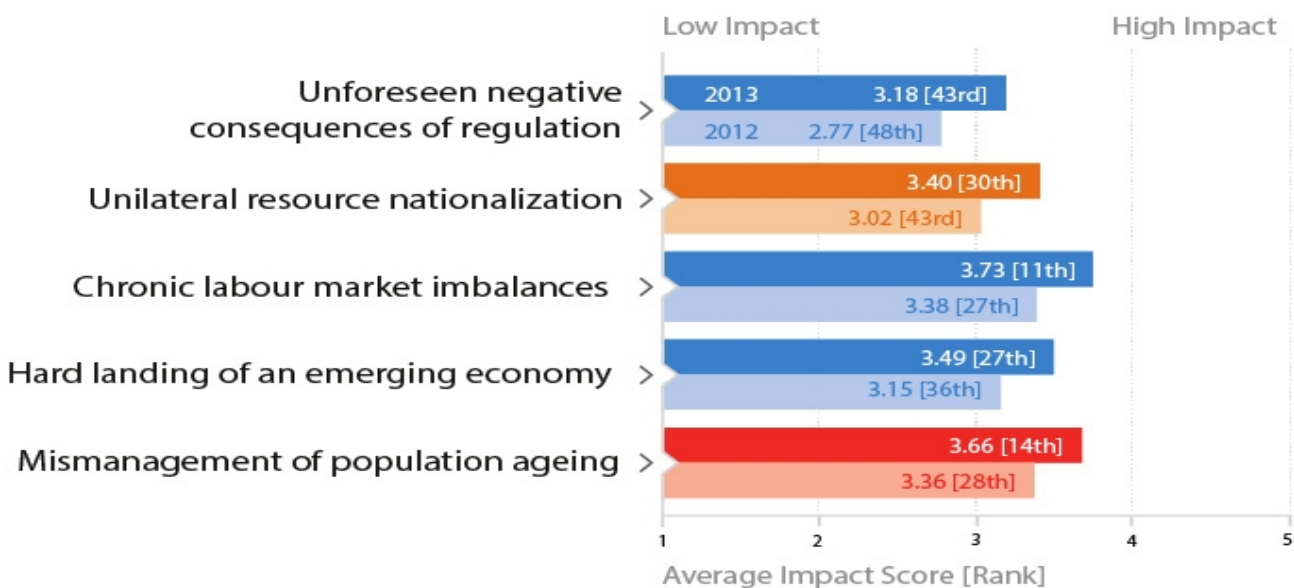
**Three Risk Cases**

The report introduces three risk cases, based on an analysis of survey results, consultation with experts and further research. Each case represents an interesting constellation of global risks and explores their impact at the global and national levels. The three risk cases are:

**By Likelihood**



**By Impact**





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Continued stress on the global economic system is positioned to absorb the attention of leaders for the foreseeable future. Meanwhile, the Earth's environmental system is simultaneously coming under increasing stress. Future simultaneous shocks to both systems could trigger the "perfect global storm", with potentially insurmountable consequences. On the economic front, global resilience is being tested by bold monetary and austere fiscal policies. On the environmental front, the Earth's resilience is being tested by rising global temperatures and extreme weather events that are likely to become more frequent and severe. A sudden and massive collapse on one front is certain to doom the other's chance of developing an effective, long-term solution. Given the likelihood of future financial crises and natural catastrophes, are there ways to build resilience in our economic and environmental systems at the same time?

### Digital Wildfires in a Hyperconnected World

In 1938, thousands of Americans confused a radio adaptation of the H.G. Wells novel *The War of the Worlds* with an official news broadcast and panicked, in the belief that the United States had been invaded by Martians. Is it possible that the Internet could be the source of a comparable wave of panic, but with severe geopolitical consequences? Social media allows information to spread around the world at breakneck speed in an open system where norms and rules are starting to emerge but have not yet been defined. While the benefits of our hyperconnected communication systems are undisputed, they could potentially enable the viral spread of information that is either intentionally or unintentionally misleading or provocative. Imagine a real-world example of shouting "fire!" in a crowded theatre. In a virtual equivalent, damage can be done by rapid spread of misinformation even when correct information follows quickly. Are there ways for generators and consumers of social media to develop an ethos of responsibility and healthy scepticism to mitigate the risk of digital wildfires?

### The Dangers of Hubris on Human Health

Health is a critical system that is constantly being challenged, be it by emerging pandemics or chronic illnesses. Scientific discoveries and emerging technologies allow us to face such challenges, but the medical successes of the past century may also be creating a false sense of security. Arguably, one of the most effective and common means to protect human life – the use of antibacterial and antimicrobial compounds (antibiotics) – may no longer be readily available in the near future. Every dose of antibiotics creates selective evolutionary pressures, as some bacteria survive to pass on the genetic mutations that enabled them to do so. Until now, new antibiotics have been developed to replace older, increasingly ineffective ones. However, human innovation may no longer be outpacing bacterial mutation. None of the new drugs currently in the development pipeline may be effective against certain new mutations of killer bacteria that could turn into a pandemic. Are there ways to stimulate the development of new antibiotics as well as align incentives to prevent their overuse, or are we in danger of returning to a pre-antibiotic era in which a scratch could be potentially fatal?

### Special Report: National Resilience to Global Risks

This year's Special Report examines the difficult issue of how a country should prepare for a global risk that is seemingly beyond its control or influence. One possible approach rests with "systems thinking" and applying the concept of resilience to countries. The report introduces five components of resilience – robustness, redundancy, resourcefulness, response and recovery – that can be applied to five country subsystems: the economic, environmental, governance, infrastructure and social. The result is a diagnostic tool for decision-makers to assess and monitor national resilience to global risks.

### X Factors from Nature

Developed in partnership with the editors of *Nature*, a leading science journal, the chapter on "X Factors" looks beyond the landscape of 50 global risks to alert decision-makers to five emerging game-changers:

- **Runaway climate change:** Is it possible that we have already passed a point of no return and that Earth's atmosphere is tipping rapidly into an inhospitable state?
- **Significant cognitive enhancement:** Ethical dilemmas akin to doping in sports could start to extend into daily working life; an arms race in the neural "enhancement" of combat troops could also ensue.





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- **Rogue deployment of geengineering:** Technology is now being developed to manipulate the climate; a state or private individual could use it unilaterally.
- **Costs of living longer:** Medical advances are prolonging life, but long-term palliative care is expensive. Covering the costs associated with old age could be a struggle.
- **Discovery of alien life:** Proof of life elsewhere in the universe could have profound psychological implications for human belief systems.

The *Global Risks* report is the flagship research publication of the World Economic Forum's Risk Response Network, which provides an independent platform for stakeholders to explore ways to collaborate on building resilience to global risks.

### The Evolving Risk Landscape

How do the top risks as identified by the annual Global Risks Perception Survey change over time? Figure below shows how this list changed over the past seven years. The average ratings of the risks have changed slightly, as described in detail in Section 4 of the report, but the relative ranking of the risks according to their impact or their likelihood is less affected. Interestingly, the *diffusion of weapons of mass destruction* has moved into the top five risks in terms of impact.

#### Top 5 Global Risks in Terms of Likelihood

	2007	2008	2009	2010	2011	2012*	2013*
1st	Breakdown of critical information infrastructure	Asset price collapse	Asset price collapse	Asset price collapse	Meteorological catastrophes	Severe income disparity	Severe income disparity
2nd	Chronic disease in developed countries	Middle East instability	Slowing Chinese economy (<6%)	Slowing Chinese economy (<6%)	Hydrological catastrophes	Chronic fiscal imbalances	Chronic fiscal imbalances
3rd	Oil price shock	Failed and failing states	Chronic disease	Chronic disease	Corruption	Rising greenhouse gas emissions	Rising greenhouse gas emissions
4th	China economic hard landing	Oil and gas price spike	Global governance gaps	Fiscal crises	Biodiversity loss	Cyber attacks	Water supply crises
5th	Asset price collapse	Chronic disease, developed world	Retrenchment from globalization (emerging)	Global governance gaps	Climatological catastrophes	Water supply crises	Mismanagement of population ageing

#### Top 5 Global Risks in Terms of Impact

	2007	2008	2009	2010	2011	2012*	2013*
1st	Asset price collapse	Asset price collapse	Asset price collapse	Asset price collapse	Fiscal crises	Major systemic financial failure	Major systemic financial failure
2nd	Retrenchment from globalization	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Retrenchment from globalization (developed)	Climatological catastrophes	Water supply crises	Water supply crises
3rd	Interstate and civil wars	Slowing Chinese economy (<6%)	Oil and gas price spike	Oil price spikes	Geopolitical conflict	Food shortage crises	Chronic fiscal imbalances
4th	Pandemics	Oil and gas price spike	Chronic disease	Chronic disease	Asset price collapse	Chronic fiscal imbalances	Food shortage crises
5th	Oil price shock	Pandemics	Fiscal crises	Fiscal crises	Extreme energy price volatility	Extreme volatility in energy and agriculture prices	Diffusion of weapons of mass destruction

■ Economic ■ Environmental ■ Geopolitical ■ Societal ■ Technological

► Read full report at: [http://www3.weforum.org/docs/WEF\\_GlobalRisks\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_GlobalRisks_Report_2013.pdf)







# SPECIAL EVENTS



## Planned Special Events Report

By Lieutenant General H. Steven Blum, DP40

## Air, Sea, Land: No Detail Left Unplanned

By Scott L. Brillman, Special Events

## Building a Bigger Better Buffer Zone Protection Plan

By Richard Morman, Building Protection

## Preparing a Region for the Nation's Inauguration

By Craig DeAtley, Health Systems

## National Special Security Events: Transportation Checklists

By Laurel J. Radow, Transportation

## An Overlooked Factor in Mass Killings

By Joseph Trindal, Law Enforcement

## Hands-On Training in an Internet World

By Joseph Cahill, EMS

## Special Events Challenges – A Sesquicentennial Example

By Stephen Grainer, Fire/HazMat

## Understanding Public Health Emergency Declarations

By Raphael M. Barishansky, Public Health

## The Local Imperative for Building and Sustaining National Resilience

By Marko Bourne, CIP-R



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### Emergency management technology is customized for use in school security

Source: <http://www.homelandsecuritynewswire.com/dr20130108-emergency-management-technology-is-customized-for-use-in-school-security>

School shootings are a very real fear for parents and school administrators, and a Ohio company has customized its emergency response solution for use in schools nationwide.

**NaviGate** is a Web-based system which gives first responders eyes-on access to critical situational information, such as maps, floor plans, emergency protocols, call lists, and real-time video feeds where there are cameras. The company notes that the information is



stored on secure, redundant off-site servers — in the digital cloud — and is not affected by physical barriers or on-the-ground crisis situations. The technology is already installed in more than 1,100 locations across the United States and abroad. In addition to schools, the system is deployed in commercial building (for example, the Wills Tower in Chicago, formerly known as the Sears Tower), as well as healthcare systems and university campuses. The system is now being adapted in to be a cost-effective means for schools under the name NaviGate Prepared.

Critical information can be accessed via any Internet-enabled device, including on-board computers in police cruisers and hand-held devices. The company notes that that having key resources in hand before arriving at the

site of an emergency significantly reduces assessment time and expedites informed action. “Our covenant as parents is to do anything and everything we can to keep our kids safe,” said Bennett Fierman, Ph.D., president of Lauren Innovations. “We at Lauren Innovations believe that NaviGate Prepared is an invaluable safety tool, one that helps schools mitigate threats of

all kinds.”

NaviGate Prepared is designed to assist school and community leaders be better prepared for emergencies. “Safety and security are our highest priority in the district,” said Curtis Clough, superintendent of the Strasburg-Franklin Local Schools in Strasburg, Ohio. “We implemented NaviGate Prepared three months ago, and this month we look forward to welcoming first responders into our school buildings to learn our emergency procedures.” NaviGate has been designated as an anti-terrorism-level technology by DHS, and has passed tests in all critical areas as evaluated by the National Center for Spectator Sports Safety and Security (NCS4). It was recently added as an authorized vendor to the GSA Federal Supplier List.



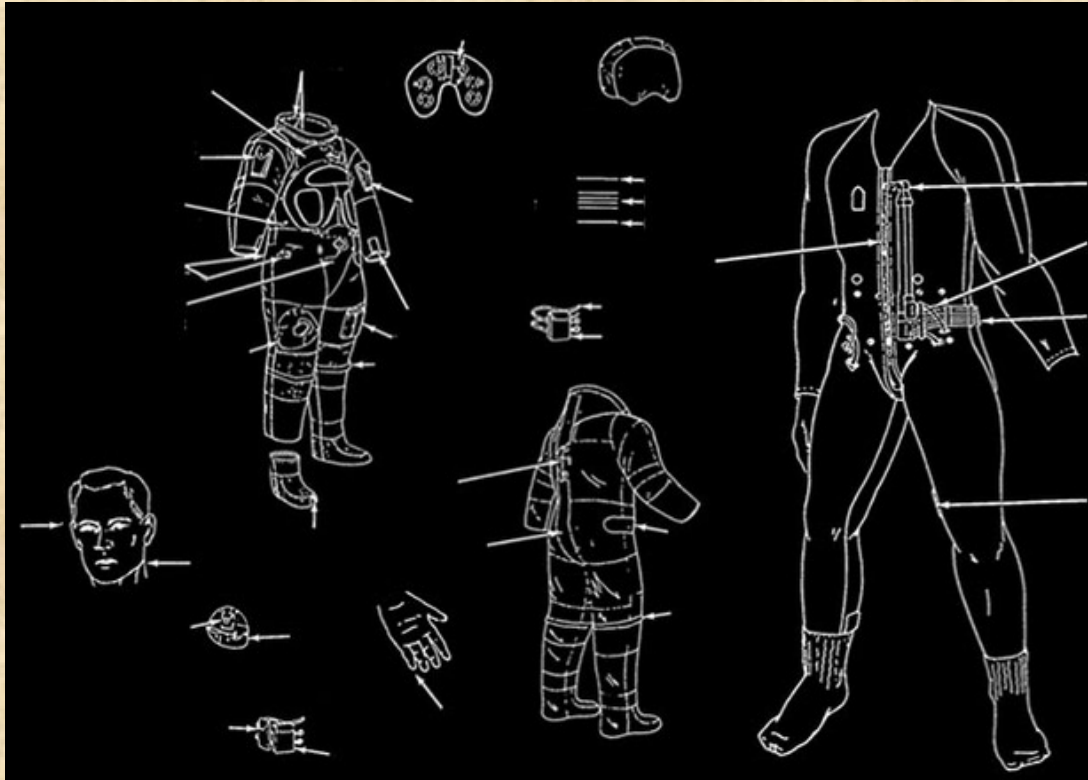


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### Could Human Enhancement Turn Soldiers Into Weapons That Violate International Law? Yes

By Patrick Lin

Source: <http://www.theatlantic.com/technology/archive/2013/01/could-human-enhancement-turn-soldiers-into-weapons-that-violate-international-law-yes/266732/>



Science fiction, or actual U.S. military project? Half a world away from the battlefield, a soldier controls his avatar-robot that does the actual fighting on the ground. Another one wears a sticky fabric that enables her to climb a wall like a gecko or spider would. Returning from a traumatic mission, a pilot takes a memory-erasing drug to help ward off post-traumatic stress disorder. Mimicking the physiology of dolphins and sled-dogs, a sailor is able to work his post all week without sleep and only a few meals.

All of these scenarios are real military projects currently in various stages of research. This is the frontlines of the Human Enhancement Revolution -- we now know enough about biology, neuroscience, computing, robotics, and materials to hack the human body, reshaping it in our own image. And defense-related applications are a major driver of science and technology research.

But, as I reported earlier, we also face serious ethical, legal, social, and operational issues in enhancing warfighters. Here, I want to drill

down on what the laws of war say about military human enhancements, as we find that other technologies such as robotics and cyberweapons run into serious problems in this area as well.

Should enhancement technologies -- which typically do not directly interact with anyone other than the human subject -- be nevertheless subject to a weapons legal-review? That is, is there a sense in which enhancements could be considered as "weapons" and therefore under the authority of certain laws?

In international humanitarian law (IHL), also known as the laws of war, the primary instruments relevant to human enhancements include: Hague Conventions (1899 and 1907), Geneva Conventions (1949 and Additional Protocols I, II, and III), Biological and Toxin Weapons Convention (1972), Chemical Weapons Convention (1993), and other law. Below, I discuss these agreements and what their





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implications may be for human enhancement.

### 1. Would human enhancements count as weapons under the Geneva Conventions?

Let's start with the basic requirement that new weapons must conform to IHL. Article 36 of the Geneva Conventions, Additional Protocol I of 1977, specifies:

In the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.

But does Article 36 apply to human enhancement technologies? That is, should they be considered as a "weapon" or "means or method of warfare" in the first place? Unlike other weapons contemplated by IHL, enhancements usually do not directly harm others, so it is not obvious that Article 36 of Additional Protocol I would apply here. If anyone's safety is immediately at risk, it would seem to be that of the individual warfighter -- thereby turning the debate into one about bioethics. To that extent, warfighters, whether enhanced or not, are not weapons as typically understood.

Yet in a broader sense, the warfighter is not only a weapon but perhaps a military's best and oldest weapon. Warfighters carry out missions, they sometimes kill enemies, and they represent one of the largest expenditures or investments of a military. They have cognitive and physical capabilities that no other technology currently has, and this can make them ethical, lethal, and versatile. The human fighter, engaged in hand-to-hand combat, would be the last remaining weapon when all others have been exhausted. So in this basic sense, the warfighter is undeniably a weapon or instrument of war.

*If a military were to field a weaponized rhino in an urban battlefield that contains innocent civilians, we would be reasonably worried that the war-rhino does not comply with Article 36. Are weaponized humans any different, legally speaking?*

Still, should Article 36 be interpreted to include warfighters themselves as weapons subject to regulation? There could be several reasons to think so. First, other organisms are plausibly weapons subject to an Article 36 review.

Throughout history, humans have employed animals in the service of war, such as dogs, elephants, pigeons, sea lions, dolphins, and possibly rhinoceroses. Dogs, as the most commonly used animal, undergo rigorous training, validation, and inspections. If a military were to field a weaponized rhino in an urban battlefield that contains innocent civilians, we would be reasonably worried that the war-rhino does not comply with Article 36. If rhinos cannot reliably discriminate friends from foe, e.g., a rhino may target and charge a noncombatant child in violation of the principle of distinction. A similar charge would apply to autonomous robots in such a general environment in which distinction is important, as opposed to a "kill box" or area of such fierce fighting that all noncombatants can be presumed to have fled.

If autonomous robots are clearly regulatable weapons, then consider the spectrum of cyborgs -- part-human, part-machine -- that exists between robots and unenhanced humans. Replacing one body part, say a human knee, with a robotic part starts us on the cybernetic path. And as other body parts are replaced, the organism becomes less human and more robotic. Finally, after (hypothetically) replacing every body part, including the brain, the organism is entirely robotic with no trace of the original human. If we want to say that robots are weapons but humans are not, then we would be challenged to identify the point on that spectrum at which the human becomes a robot or a weapon.

The inability to draw such a line may not be a fatal blow to the claim that humans should be treated as weapons; after all, we cannot draw a precise line at which a man who is losing his hair becomes "bald", yet there's clearly a difference between a bald man and one who has a head full of hair. But a simpler solution may be to say that humans are weapons, especially given the reasons offered previously.

As it applies to military enhancements, integrated robotics may be one form of enhancement, but we can also consider scenarios involving biomedical enhancements such as pharmaceuticals and genetic engineering. Again, on one end of the spectrum would stand a normal, unenhanced human. One step toward the path of being fully enhanced may be a warfighter who drinks coffee or pops





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amphetamines ("go pills" in military-speak) as a cognitive stimulant or enhancer. Another step may be taking drugs that increase strength, erase fear, or eliminate the need for sleep. At the far, more radical end may be a warfighter so enhanced that s/he no longer resembles a human being, such as a creature with four muscular arms, fangs, fur, and other animal-like features. If a war-rhino should be subject to Article 36, then so should this radically enhanced human animal, so it would seem. And to avoid the difficult question of drawing the line at which the enhanced human becomes a weapon, a more intuitive position would be that the human animal is a weapon all along, at every point in the spectrum, especially given the previous reasons that are independent of this demarcation problem.

If we agree that enhanced human warfighters could be properly weapons subject to Article 36, what are the implications? Historically, new weapons and tactics needed to conform to at least the following: (1) principle of distinction, (2) principle of proportionality, and (3) prohibition on superfluous injury or unnecessary suffering, often abbreviated as SIrUS.

To explain, first, the principle of distinction demands that a weapon must be discriminating enough to target only combatants and never noncombatants. Biological weapons and most anti-personnel landmines, then, are indiscriminate and therefore illegal in that they cannot distinguish whether they are about to infect or blow up a small child versus an enemy combatant. Unintended killings of noncombatants -- or "collateral damage" -- may be permissible, but not their deliberate targeting; but to the extent that biological weapons today target anyone, they also target everyone. (If they don't target anyone in particular but still kill people, then immediately they would seem to be indiscriminate.) However, future biological weapons, e.g., a virus that attacks only blue-eyed people or a certain DNA signature, may be discriminate and therefore would not violate this principle (but could violate others).

Second, the principle of proportionality demands that the use of a weapon be proportional to the military objective, so to keep civilian casualties to a minimum. For instance, dropping a nuclear bomb to kill a hidden sniper would be a disproportionate use of force, since

other less drastic methods could have been used.

Third, the SIrUS principle is related to proportionality in that it requires methods of attack to be minimally harmful in rendering a warfighter *hors de combat*, or unable to fight. This prohibition has led to the ban of such weapons as poison, exploding bullets, and blinding lasers, which cause more injury or suffering than needed to neutralize a combatant.

However implausible, we can imagine a human enhancement that violates these and other provisions -- for instance, a hypothetical "berserker" drug would likely be illegal if it causes the warfighter to be inhumanely vicious, aggressive, and indiscriminate in his attacks, potentially killing children. (For the moment, we will put aside enhancements that are directed at adversaries, such as a mood-enhancing gas to pacify a riotous crowd and a truth-enhancing serum used in interrogations; the former would be prohibited outright by the Chemical Weapons Convention in warfare, partly because it is indiscriminate, and the latter may be prohibited by laws against torturing and mistreating prisoners of war.) The point here is that it's theoretically possible, even if unlikely, for a human enhancement to be in clear violation of IHL.

But let us assume that the human enhancement technologies generally conform to these basic principles. (If they do not, then there's already strong *prima facie* reason to reject those technologies as unlawful under IHL; those are the easy cases that do not need to be examined here.) Given this assumption, are there other, less-obvious international laws that could prohibit military enhancements? Let's examine a few more possible areas of concern:

### 2. Would human enhancement count as a biological weapon under the Biological and Toxin Weapons Convention?

First, the above discussion on whether enhancements are weapons is relevant not only to Article 36 of Additional Protocol I but also arguably to the Biological and Toxin Weapons Convention (BTWC). The first article of the BTWC states that:

Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise





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acquire or retain: (1) microbial or **other biological agents**, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; (2) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Whether or not they are properly weapons, are military human enhancements "biological agents" in any reasonable sense? The BTWC is silent on this question, though it does anticipate unforeseen developments in genetic engineering, biotechnology, synthetic biology, and other scientific fields. The usual assumption is that these "agents" are both limited to roughly being microbial in size and to biological substances that are directed at adversaries, not directed to the enhancement of one's own military personnel. This assumption, unfortunately, is not explicit enough in the BTWC; that is, it does not define what a biological agent is. As a result, it is still an open question of whether the BTWC applies to human enhancement technologies.

To answer this open question, let's try to better understand what a "biological agent" is. This seems to mean an agent that is biological in nature (e.g., anthrax virus), as opposed to purely chemical (e.g., chlorine gas) or physical (e.g., a falling object); and an agent is a substance or actor employed for some effect or purpose (e.g., LSD is a psychotropic agent). In a broader but consistent sense, agents can be persons too (e.g., a government spy is a "secret agent"). If so, then enhanced warfighters can be agents. Even if we reject this understanding and stipulate that biological agents must be nonperson substances -- an interpretation that is not explicit in the BTWC -- we can still consider the enhancement technology itself as an agent, apart from the warfighter it enhances.

Again, insofar as the BTWC does not specify that biological agents must be of the kind that directly harms adversaries, then some human enhancements -- such as anabolic steroids for increased strength -- would seem to count as biological agents: they are substances employed for some effect and are biological in nature. They would serve "hostile purposes" in that they create a warfighter more capable of defeating adversaries and fulfilling military missions; so these enhancements would at least indirectly harm others.

*If we understand the biological weapons convention to be interested in only microbial-sized agents -- and returning to the position that humans can be agents -- then consider a hypothetical process that can shrink a human soldier to the size of bacteria.*

With respect to scale, it is difficult to see why size would matter for the BTWC, which again is not explicit on the issue. If we understand the BTWC to be interested in only microbial-sized agents -- and returning to the position that humans can be agents -- then consider a hypothetical process that can shrink a human soldier to the size of bacteria, such as in the theatrical film *Fantastic Voyage*: If size matters, then the BTWC would seek to regulate the microscopic soldier, but not the full-sized soldier who has the exact same capabilities. Why the difference in concern here? It may be that the microscopic soldier can be stealthier, infiltrate more places, and so on, but none of these concerns is cited in the BTWC as a motivating reason for regulation.

Related to enhancements, the BTWC arguably would have something to say about bioengineered insects and animals, for instance, that are used as weapons. Like pathogens, insects and most animals do not obey human orders and would therefore be unpredictable and indiscriminate as a weapon -- and tiny attack-insects do not seem significantly different in kind than microscopic organisms also designed for attack. One possible difference is that microorganisms typically harm us from the inside-out, and somehow this could be less humane and more frightening than biting our bodies from outside-in. Yet we can also envision bioengineered animals that operate from the inside-out too, as tapeworms and mosquitoes do (or at least the disease they transmit into our bloodstreams). So if it's not unreasonable to think that bioengineered insects would be subject to the BTWC, then size does not matter for the BTWC, or at least the interest is not limited to *microscopic* organisms.

As for other qualifiers in the BTWC, some enhancements could be noncompliant in that they have no "prophylactic, protective or other peaceful purposes." A hypothetical berserker drug could be an example: its only obvious function is to make a person a fiercer, rampaging combatant. This is to say that, under some plausible





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understanding of the BTWC, at least some possible warfighter enhancements could count as "biological agents" and therefore subject to the BTWC. If the BTWC intends or ought to rule out enhancements under its purview, then its language needs to be made more explicit.

### 3. Could human enhancement violate international humanitarian law because they are "repugnant to the conscience of mankind"?

Contributing to the above problem with the BTWC -- i.e., what counts as a "biological agent" -- is also a lack of specificity on the motivating reasons for the BTWC in the first place. That is, the convention is unclear on *why* we should want to prohibit biological and toxin weapons. But there are some clues. In the preamble to the BTWC, state parties to the convention declare they are:

Convinced of the importance and urgency of eliminating from the arsenals of States, through effective measures, such dangerous **weapons of mass destruction** as those using chemical or bacteriological (biological) agents, ...

Convinced that such use would be **repugnant to the conscience of mankind** and that no effort should be spared to minimize this risk,

That is, biological agents, such as highly infectious bacteria or viruses, are difficult to control in their propagation and therefore are indiscriminate to use as a weapon. Anthrax spores, for instance, may be carried by the wind and can infect a child or entire populations just as easily and likely as a soldier. This would be a clear violation of the principle of distinction in IHL.

If this were the only motivating reason for the BTWC, then perhaps we can conclude that human enhancements are not the biological agents that the convention intends to address; enhancements generally are not infectious or "weapons of mass destruction." But this cannot be the only reason. In its categorical prohibition of biological and toxic weapons, the BTWC does not distinguish between infectious and noninfectious ones. For instance, a poison dart that can be used only once in a precisely targeted attack would still be banned, even though it is not a weapon of mass destruction, given that it is a toxin and especially if there were no "prophylactic, protective or other peaceful purposes" for the poison.

To explain why the prohibition is categorical, we can examine the next clue, that the BTWC

is motivated by "the conscience" of humanity. That is, some methods of killing are more insidious and repugnant than others. Biological and toxin weapons, then, are of special concern, because they are usually silent, invisible, and indiscriminate ways of killing people -- often with horrific, painful medical symptoms over the course of several days or weeks.

But is any of this relevant to human enhancements? Again, enhancements usually do not directly harm others, much less kill people in "repugnant" ways. Even if we say that enhancements indirectly harm others, they do not typically do so in ways more repugnant than conventional means, since an enhanced warfighter is still bound by IHL to never use certain weapons and tactics against adversaries.

Like the "weapons of mass destruction" clue, that a biological agent is "repugnant to the conscience of mankind" also does not seem to be a necessary requirement, just a sufficient one. Consider that some poisons or pathogens may kill quickly and painlessly, such as those administered in death-penalty executions: They seem to be much more humane than conventional means, such as shooting bullets and dropping bombs that render an adversary *hors de combat* through massive, bloody injury to human bodies and brains. Nevertheless, these "clean" poisons are prohibited by the BTWC and elsewhere, such as the Hague Conventions. So, even if human enhancements are not repugnant in the same ways that anthrax or arsenic may be, and even if they are not weapons of mass destructions, they could still fall under the authority of the BTWC, again since the convention is not explicit on its motivating reasons.

In any event, enhancements could be repugnant in different ways. We previously mentioned the possibility of creating a "berserker" drug, as well as a warfighter so enhanced that s/he no longer resembles a human being, such as a creature with four muscular arms, fangs, fur, and other animal-like features. If this sounds far-fetched, we need only look at the history of warfare to see that intimidating adversaries is a usual part of warfare. From fierce Viking helmets, to samurai armor designed to resemble demons, to tigers and sharks painted onto warplanes, to ominous names for





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drones (e.g., "Predator" and "Reaper"), scaring adversaries can demoralize and make them easier to defeat. This suggests that it may not be so irrational nor inconsistent with customary practices to design enhancements to be inhuman and therefore perhaps inhumane.

Further, biomedical research is presently ongoing with "chimeras", or animals composed of genes or cells from other organisms not involved with the reproduction of those animals. These may include animals created with human genes, for instance, in order to grow transplantable organs *in vivo* and for research to find medical cures. Manipulation of human embryos, too, can lead to human-animal chimeras, though this possibility has caused much ethical concern and debate, so much so that U.S. legislation -- Human Chimera Prohibition Act of 2005 -- had been proposed to prohibit this line of research, calling it an affront to human dignity as well as an existential threat.

Not all enhancements, of course, are as fanciful as a human-chimeric warrior or a berserker mode, nor am I suggesting that any military has plans to do anything that extreme. Most, if not all, enhancements will likely not be as obviously inhuman. Nonetheless, the "consciousness of mankind" is sometimes deeply fragmented, especially on ethical issues. So what is unobjectionable to one person or culture may be obviously objectionable to another.

Something as ordinary as, say, a bionic limb or exoskeleton could be viewed as unethical by cultures that reject technology or such manipulation of the human body. This is not to say that ethics is subjective and we can never resolve this debate, but only that the ethics of military enhancements -- at least with respect to the prohibition against inhumane weapons -- requires specific details about the enhancement and its use, as well as the sensibilities of the adversary and international community. That is, we cannot generalize that all military enhancements either comply or do not comply with this prohibition.

Beyond the BTWC, inhumanity as a prohibitory reason is a common theme that underlies IHL. In the preamble to the first Hague Convention in 1899:

Until a more complete code of the laws of war is issued, the High Contracting Parties think it right to declare that in cases not included in the Regulations adopted by them, populations and

belligerents remain under the protection and empire of the principles of international law, as they result from the usages established between civilized nations, from the **laws of humanity** and the **requirements of public conscience**.

Known as "the Martens Clause", this basic principle is found throughout the laws of armed conflict, such as the Geneva Conventions and its Additional Protocols and opinions issued by the International Court of Justice. As one would expect, much debate has occurred on what the "laws of humanity" and "requirements of public conscience" are, especially related to the actual or even threatened use of nuclear weapons. And the same debate could be applied to emerging technologies, most notably in a recent report by Human Rights Watch on attack drones.

I won't engage that lengthy and unresolved debate here, except to note that a prohibition against inhumane weapons and methods is a fundamental principle, sometimes explicit and sometimes implied, that underwrites the laws of war and therefore relevant to an ethics assessment of military enhancements. This is also to say that an ethics assessment of new weapons, such as military enhancements seems to be legally required by IHL, at least in the context of the Martens Clause if not also Article 36 of the Geneva Conventions, Additional Protocol I.

#### 4. How will human enhancement redefine the ethical limits on how combatants may be treated?

The concept of inhumanity is important to clarify, not just for the legal evaluation of weapons but also for the ethical limits on how combatants may be treated. The prohibition on torture, for instance, presumes certain facts about the human condition, such as the kinds of treatment that cause pain, how much pain a person can withstand, how much sleep a person needs, and so on. For instance, if our tolerance for pain could be dramatically elevated, then what counts as torture today may no longer be so -- and therefore such behavior may become morally permissible.

*If our tolerance for pain could be dramatically elevated, then what counts as torture today may no longer be so -- and therefore such behavior may become morally permissible.*





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More generally, ethics itself also presumes a similar set of facts about the human condition, such as that we are fairly susceptible to being killed. These facts inform our ethics, for instance, when self-sacrifice is permitted or prohibited and, again, what kinds of action toward others are unethical. If we change these presumed facts about human bodies and minds, then ethical prohibitions and permissions may also be affected. This gives us reason to believe that an ethical code of behavior for robots could very well be different from how humans ought to behave; for instance, robots -- to the extent that they have no instinct for self-preservation, cannot feel pain, etc. -- may be permitted to sacrifice themselves in more trivial scenarios than human ethics might allow.

At the beginning of this report's section, I suggested that there is a continuum from a fully human animal to a cybernetic organism to a fully robotic machine. This spectrum is perhaps defined by how many human body parts we replace with mechanical ones, ranging from zero to all. Enhanced warfighters, then, could fall somewhere in the middle of this continuum. If "robot ethics" is different from human ethics, at least where relevant facts about humans and robots differ, then it seems that "cyborg ethics" too would diverge from human ethics where there's a relevant difference in the construction and abilities between cyborgs and humans. Though not all enhanced persons are cyborgs, e.g., if the enhancements are genetic, pharmacological, or otherwise not robotic, we can also reasonably conclude that ethics for enhanced persons generally may be different from the standard human ethics.

So it becomes an interesting question of whether it would still be illegal or inhumane to whip a prisoner of war, or deprive him of food or sleep, if the individual can better withstand a whipping or does not have the same food or sleep requirements that normal people typically do. These actions possibly would not cause pain or suffering, or at least as much of it, to the enhanced subject; therefore, it would be difficult to count those actions as torture.

Beyond prisoners of war, questions about inhumane treatment could be directed at how we treat our own enhanced warfighters. For

instance, drill sergeants may be tempted to push an enhanced soldier harder than other ones without augmented strength and endurance, and perhaps reasonably so. But where there are prohibitions on what military trainers are permitted to do, we may need to reevaluate those rules where an enhancement might change the presuppositions about human limits that motivated those rules in the first place.

### Conclusion

The above discussion certainly does not exhaust all the legal issues that will arise from military human enhancements. In our new report, funded by The Greenwall Foundation and co-written with Maxwell Mehlman (Case Western Reserve University) and Keith Abney (California Polytechnic State University), we launch an investigation into these and other issues in order to identify problems that policymakers and society may need to confront.

Beyond IHL, we also examine in the report US domestic law, military policy, bioethics, and risk assessments; and then we offer a new framework for evaluating human enhancement technologies in a military context. As an initial model, we also discuss further considerations - related to virtues, emotions, as well as broader social impacts -- that can be integrated into this evaluative framework. (This essay is adapted from that report.)

Given a significant lag time between ethics and technology, it is imperative to start considering their impacts before technologies fully arrive on the scene and in the theater of war. Consider, for instance, the explosion in number of robots in war: in its invasion of Iraq, the US had zero ground robots in 2003 and suddenly about 12,000 in 2008; and its inventory of aerial robots multiplied by 40-fold between 2002 and 2010. This report, therefore, is intended to anticipate ethical, legal, and policy surprises from new technologies, which -- in the case of military drones -- has already led to international outcry, as well as harm to reputation and real lives. With emerging human enhancements, we can think first before we act.

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*the areas of military technologies, robotics, human enhancement, and nanotechnology, and including a new edited volume Robot Ethics, released by MIT Press this month. Currently, he is an assistant professor in Cal Poly's philosophy department, an affiliate scholar at Stanford Law School's Center for Internet and Society, and an adjunct senior research fellow at Australia's Centre for Applied Philosophy and Public Ethics (CAPPE). Dr. Lin also serves on the executive board of the Consortium for Emerging Technologies, Military Operations, and National Security (CETMONS) and is the interim executive director of the International Association for Computing and Philosophy (IACAP). Previously, he was an ethics fellow at the US Naval Academy and a post-doctoral associate at Dartmouth College. His research has been supported by the National Science Foundation, the Office of Naval Research, the Greenwall Foundation, and others.*

### Europe in 2013: A Year of Decision

By George Friedman

Source:[http://www.stratfor.com/weekly/europe-2013-year-decision?utm\\_source=freelist-f&utm\\_medium=email&utm\\_campaign=20130103&utm\\_term=gweekly&utm\\_content=readmore&elq=398095a33452484790aecc5a5670b8ac](http://www.stratfor.com/weekly/europe-2013-year-decision?utm_source=freelist-f&utm_medium=email&utm_campaign=20130103&utm_term=gweekly&utm_content=readmore&elq=398095a33452484790aecc5a5670b8ac)

The end of the year always prompts questions about what the most important issue of the next year may be.

It's a simplistic question, since every year sees many things happen and for each of us a different one might be important. But it is still worth considering what single issue could cause the world to change course. In my view, the most important place to watch in 2013 is Europe.

Taken as a single geographic entity, Europe has the largest economy in the world. Should it choose to do so, it could become a military rival to the United States. Europe is one of the pillars of the global system, and what happens

to Europe is going to define how the world works. I would argue that in 2013 we will begin to get clarity on the future of Europe.

The question is whether the European Union will stabilize itself, stop its fragmentation and begin preparing for more integration and expansion. Alternatively, the tensions could intensify within the European Union, the institutions could further lose legitimacy and its component states could increase the pace with which they pursue their own policies, both domestic and foreign.

#### The Embattled European Project

It has been more than four years since the crisis of 2008 and about two years since the problems spawned by 2008 generated a sovereign debt crisis and a banking crisis in



Europe. Since that time, the crisis has turned from a financial to an economic crisis, with Europe moving into recession and unemployment across the Continent rising above 10 percent. More important, it has been a period in which the decision-making apparatus created at the founding of the European Union has been unable to create policy solutions that were both widely acceptable and able to be implemented. EU countries have faced each other less as members of a single political entity than as individual nation-states pursuing their own national interests in what has become something of a zero-sum game, where the success of one has to come at the expense of another.





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This can be seen in two ways. The first dimension has centered on which countries should bear the financial burden of stabilizing the eurozone. The financially healthier countries wanted the weaker countries to bear the burden through austerity. The weaker countries wanted the stronger countries to bear the burden through continued lending despite the rising risk that the loans will not be fully repaid. The result has been constant attempts to compromise that have never quite worked out. The second dimension has been class. Should the burden be borne by the middle and lower classes by reducing government expenditures that benefit them? Or by the elites through increased taxation and regulation?

When you speak with Europeans who support the idea that Europe is in the process of solving its problems, the question becomes: What problem are they solving? Is it the problem of the banks? The problem of unemployment? Or the problem of countries' inability to find common solutions? More to the point, European officials have been working on this problem for years now, and they are among the best and brightest in the world. Their inability to craft a solution is not rooted in a lack of good ideas or the need to think about the problem more. It is rooted in the fact that there is no political agreement on who will pay the price geographically and socially. The national tensions and the class tensions have prevented the crafting of a solution that can be both agreed upon and honored.

If the Europeans do not generate that sort of solution in 2013, it is time to seriously doubt whether a solution is possible and therefore to think about the future of Europe without the European Union or with a very weakened one. If, however, Europe does emerge with a plan that has general support and momentum behind it, then we might say that Europe is beginning to emerge from its crisis, and that, in turn, would be the single most important thing that happens in 2013.

At this point, a reasonable person will argue that I am ignoring the United States, which has different but equally significant economic problems and is also unable to generate consensus on how to solve them, as we have seen during the recent "fiscal cliff" affair, which will have many more iterations. But as valid as the comparison is on the financial level, it is not valid on the political level. The United States does not face the dissolution of the republic if it

follows contradictory policies. The United States is more than two centuries old and has weathered far worse problems, including the Civil War and the Great Depression. The European Union is only about 20 years old in its current form, and this is its first significant crisis. The consequences of mismanaging the U.S. financial system are significant to say the least. But unlike Europe, the consequences are not an immediate existential threat.

### The Other Costs of the Crisis

It is the political dimension that has become the most important, not the financial. It may well be that the European Union is in the process of dealing with its banking problems and might avoid other sovereign debt issues, but the price it has paid is both a recession and, much more serious, unemployment at a higher rate than in the United States overall, and enormously higher in some countries.

We can divide the European Union into three categories by measuring it against the U.S. unemployment rate, which stands at about 7.7 percent. There are five EU countries significantly below that rate (Austria, Luxembourg, Germany, Netherlands and Malta). There are seven countries with unemployment around the U.S. rate (Romania, Czech Republic, Belgium, Denmark, Finland, the United Kingdom and Sweden). The remaining 15 countries are above U.S. unemployment levels; 11 have unemployment rates between 10 and 17 percent, including France at 10.7 percent, Italy at 11.1 percent, Ireland at 14.7 percent and Portugal at 16.3 percent. Two others are staggeringly higher -- Greece at 25.4 percent and Spain at 26.2 percent. These levels are close to the unemployment rate in the United States at the height of the Great Depression.

For advanced industrialized countries -- some of the most powerful in Europe, for that matter -- these are stunning numbers. It is important to consider what these numbers mean socially. Bear in mind that the unemployment rate goes up for younger workers. In Italy, Portugal, Spain and Greece, more than a third of the workforce under 25 is reportedly unemployed. It will take a generation to bring the rate down to an acceptable level in Spain and Greece. Even for countries that remain at about 10 percent for an extended period of time, the length of time will be





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substantial, and Europe is still in a recession. Consider someone unemployed in his 20s, perhaps with a university degree. The numbers mean that there is an excellent chance that he will never have the opportunity to pursue his chosen career and quite possibly will never get a job at the social level he anticipated. In Spain and Greece, the young -- and the old as well -- are facing personal catastrophe. In the others, the percentage facing personal catastrophe is lower, but still very real. Also remember that unemployment does not affect just one person. It affects the immediate family, parents and possibly other relatives. The effect is not only financial but also psychological. It creates a pall, a sense of failure and dread.

It also creates unrooted young people full of energy and anger. Unemployment is a root of anti-state movements on the left and the right. The extended and hopelessly unemployed have little to lose and think they have something to gain by destabilizing the state. It is hard to quantify what level of unemployment breeds that sort of unrest, but there is no doubt that Spain and Greece are in that zone and that others might be.

It is interesting that while Greece has already developed a radical right movement of some size, Spain's political system, while experiencing stress between the center and its autonomous regions, remains relatively stable. I would argue that that stability is based on a belief that there will be some solution to the unemployment situation. Its full enormity has not yet sunk in, nor the fact that this kind of unemployment problem is not fixed quickly. It is deeply structural. The U.S. unemployment rate during the Great Depression was mitigated to a limited degree by the New Deal but required the restructuring of World War II to really address.

This is why 2013 is a critical year for Europe. It has gone far to solve the banking crisis and put off a sovereign debt crisis. In order to do so, it has caused a serious weakening of the economy and created massive unemployment in some countries. The unequal distribution of the cost, both nationally and socially, is the threat facing the European Union. It isn't merely a question of nations pulling in different

directions, but of political movements emerging, particularly from the most economically affected sectors of society, that will be both nationalist and distrustful of its own elites. What else can happen in those countries that are undergoing social catastrophes? Even if the disaster is mitigated to some degree by the shadow economy and emigration reducing unemployment, the numbers range from the painful to the miserable in 14 of Europe's economies.

### Europe's Crossroads

The European Union has been so focused on the financial crisis that it is not clear to me that the unemployment reality has reached Europe's officials and bureaucrats, partly because of a growing split in the worldview of the European elites and those whose experience of Europe has turned bitter. Partly, it has been caused by the fact of geography. The countries with low unemployment tend to be in Northern Europe, which is the heart of the European Union, while those with catastrophically high unemployment are on the periphery. It is easy to ignore things far away. But 2013 is the year in which the definition of the European problem must move beyond the financial crisis to the social consequences of that crisis. Progress, if not a solution, must become visible. It is difficult to see how continued stagnation and unemployment at these levels can last another year without starting to generate significant political opposition that will create governments, or force existing governments, to tear at the fabric of Europe.

That fabric is not old enough, worn enough or tough enough to face the challenges. People are not being asked to die on a battlefield for the European Union but to live lives of misery and disappointment. In many ways that is harder than being brave. And since the core promise of the European Union was prosperity, the failure to deliver that prosperity -- and the delivery of poverty instead, unevenly distributed -- is not sustainable. If Europe is in crisis, the world's largest economy is in crisis, political as well as financial. And that matters to the world perhaps more than anything else.

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*Times best-seller The Next Decade, which forecasts the major events and challenges that will test America and its presidents over the course of the next decade. Dr. Friedman's previous book, The Next 100 Years, was also a New York Times best-seller and was published in over 20 languages. His other books on warfare and intelligence include America's Secret War, The Future of War and The Intelligence Edge. A very popular keynote speaker, Dr. Friedman is in high demand at numerous conferences and industry-specific events for major financial firms such as J.P. Morgan, Citibank, Ernst & Young and many Fortune 500 companies. In addition, he has briefed the Australian Command and Staff College, Eglin Air Force Research Laboratory, U.S. Marine Corps Command and Staff College and many other military and government organizations. Dr. Friedman is frequently invited to speak internationally, including in Turkey, Germany, Poland, Azerbaijan, Australia and New Zealand. The world's top media organizations regularly ask Dr. Friedman to appear as an international affairs expert. He has been featured in TIME, The New York Times Magazine, The Wall Street Journal, The New York Times, Fortune, Newsweek, The Financial Times and many other domestic and international publications, as well as broadcast media ranging from NPR to CNN to CNBC. He and Stratfor were also featured in cover stories in Barron's and the New Statesman. He received his Bachelor's degree from the City College of the City University of New York and holds a Ph.D. in Government from Cornell University.*

### **“Wiping Countries Off the Map”: Who’s Failing the “Failed States”**

**By Prof Michel Chossudovsky**

Source:<http://www.globalresearch.ca/destroying-countries-transforming-syria-into-a-failed-state/53171>  
60

*“Across the world, a dangerous rumor has spread that could have catastrophic implications. According to legend, Iran’s President has threatened to destroy Israel, or, to quote the misquote, **“Israel must be wiped off the map”**. Contrary to popular belief, this statement was never made, ...” (Arash Norouzi, Wiped off The Map: The Rumor of the Century January 2007)*

*“The United States has attacked, directly or indirectly, some 44 countries throughout the world since August 1945, a number of them many times. The avowed objective of these military interventions has been to effect “regime change”. The cloaks of “human rights” and of “democracy” were invariably evoked to justify what were unilateral and illegal acts. (Professor Eric Waddell, The United States’ Global Military Crusade (1945-), Global Research, February 2007)*

*“This is a [Pentagon] memo that describes how we’re going to take out seven countries in five years, starting with Iraq, and then Syria, Lebanon, Libya, Somalia, Sudan and, finishing off, Iran.” I said, “Is it classified?” He said, “Yes, sir.” I said, “Well, don’t show it to me.” (General Wesley Clark, Democracy Now, March 2, 2007)*

Washington is in the “business of destroying” a very long list of countries.

Who is “Wiping Countries off the Map”? Iran or the United States?

During a period which is euphemistically called the “post-war era” –extending from 1945 to the present–, the US has directly or indirectly attacked more than 40 countries.

While the tenets of US foreign policy are predicated on the “spread of democracy”, US

interventionism –through military means and covert operations– has resulted in the outright destabilization and partition of sovereign nations.

Destroying countries is part of a US Imperial project, a process of global domination. Moreover, according to official sources, the US has a total of 737 military bases in foreign countries. (2005 data)







Map 2:

### US Military and CIA Interventions since World War II

■ targeted countries    
  US bombings    
  US government assassination plots

Source: William Blum, *Killing Hope: U.S. Military and CIA Intervention Since World War II*, 2004 and *Rogue State*, 2005. (<http://www.killinghope.org/>)

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#### The Notion of “Failed States”

The Washington based National Intelligence Council (NIC) in its Global Trends report (December 2012) “predicts” that 15 countries in Africa, Asia and the Middle East will become “failed states” by 2030, due to their “potential for conflict and environmental ills”.

The list of countries in the 2012 NIC report includes Afghanistan, Pakistan, Bangladesh, Chad, Niger, Nigeria, Mali, Kenya, Burundi, Ethiopia, Rwanda, Somalia, DR Congo, Malawi, Haiti, Yemen. (see p 39)

In its previous 2005 report, published at the outset of Bush’s second term, the National Intelligence Council had predicted that Pakistan would become a “failed’ state” by 2015 “as it will be affected by civil war, complete Talibanisation and struggle for control of its nuclear weapons”.

Pakistan was compared to Yugoslavia which was carved up into seven proxy states after a decade of US-NATO sponsored “civil wars”.

The NIC forecast for Pakistan was a “Yugoslav-like fate” in a “country riven by civil war, bloodshed and inter-provincial rivalries” (Energy Compass, 2 March 2005).

While the failed states are said to “serve as safehavens for political and religious extremists” (p. 143), the report does not acknowledge the fact that the US and its allies have, since the 1970s, provided covert support to religious extremist organizations as a means to destabilize sovereign secular nation states. Both Pakistan and Afghanistan were secular states in the 1970s.

A Yugoslav or Somalia-style “failed state status” is not the result of internal social divisions, it is a strategic objective implemented through covert operations and military action.



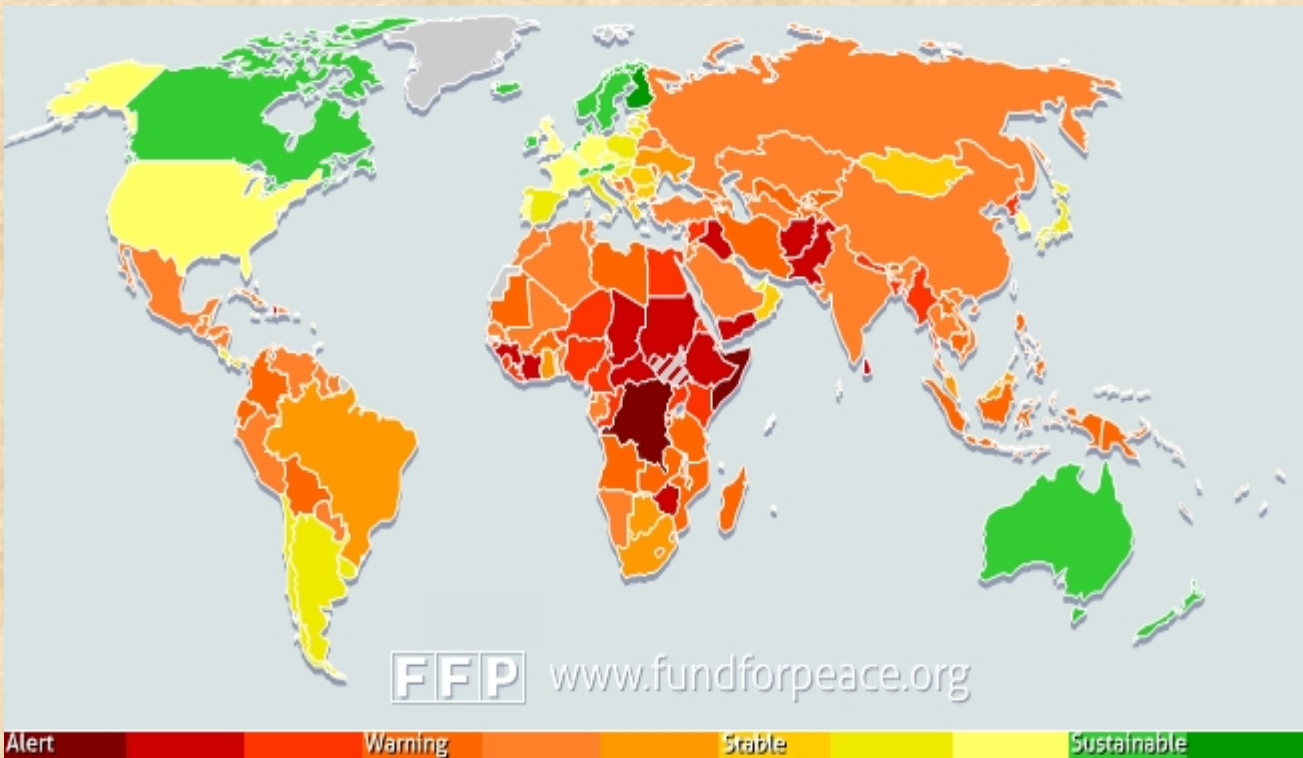


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The Washington based Fund for Peace, whose mandate is to promote “sustainable security through research”, publishes (annually) a “Failed States Index” based on a risk assessment (see map below). Thirty three countries (included in the Alert and Warm

“The annual ranking of nations by the Fund for Peace/Foreign Policy for failing/fragile-state trouble-signs comes as international alarm grows about al-Qaeda-linked extremists setting up a state-based sanctuary in northern Mali for jihadi expansion.”



categories) are identified as “failed states”. According to the Fund for Peace, the “failed states” are also “targets for Al Qaeda linked terrorists”

Needless to say, the history of Al Qaeda as a US intelligence asset, its role in creating factional divisions and instability in the





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Middle East, Central Asia and sub-Saharan Africa are not mentioned. The activities of the jihadist Al Qaeda units in most of these countries are part of a diabolical covert intelligence agenda.

### “Weaker” and “Failed States”: A Threat to America

In a twist logic, “weaker failed states”, according to the US Congress, are said to constitute a threat to the security of the US. The latter includes “several threats emanating from states that are variously described as **weak, fragile, vulnerable, failing, precarious, failed, in crisis, or collapsed**”.

As the Cold War concluded in the early 1990s, analysts became aware of an emerging international security environment, **in which**



**weak and failing states became vehicles for transnational organized crime, nuclear proliferation pathways, and hot spots for civil conflict and humanitarian emergencies.** The potential U.S. national security threats weak and failing states pose became further apparent with Al Qaeda’s September 11, 2001, attack on the United States, **which Osama bin Laden masterminded from the safe haven that Afghanistan provided.** The events of 9/11 prompted President George W. Bush to claim in the 2002 U.S. National Security Strategy that “weak states, like Afghanistan, can pose as great a danger to our national interests as strong states.” (Weak and Failing States: Evolving Security, Threats and U.S. Policy, CRS Report for the US Congress, Washington, 2008)

What is not mentioned in this Congressional CRS report is that the “hot spots of organized crime and civilian conflict” are the result of US covert intelligence operations.

Amply documented, the Afghan drug economy which generates over 90 percent of the World’s supply of heroin is tied into a multibillion dollar money laundering operation involving major financial institutions. The drug trade out of Afghanistan is protected by the CIA and US-NATO occupation forces.

### Syria: Categorized as a “Failed State”

The atrocities committed against the Syrian population by the US-NATO sponsored Free Syrian Army (FSA) create conditions which favor sectarian warfare.

Sectarian extremism favors the breakup of Syria as a Nation State as well as the demise of the central government in Damascus.

Washington’s foreign policy objective is to transform Syria into what the National Intelligence Council (NIC) calls a “failed state”.

Regime change implies maintaining a central government. As the Syrian crisis unfolds, the endgame is no longer “regime change” but the partition and destruction of Syria as a Nation State.

The US-NATO-Israel strategy is to divide the country up into three weak states. Recent media reports intimate that if Bashar Al Assad “refuses to step down”, “the alternative is a failed state like Somalia.”

One possible “break-up scenario” reported by the Israeli press would be the formation of separate and “independent” Sunni, Alawite-Shiite, Kurdish and Druze states.

According to Major-General Yair Golan of Israel’s IDF “Syria is in civil war, which will lead to a failed state, and terrorism will blossom in it.” The Israel Defence Forces are currently analyzing “how Syria would break up”, according to Major General Golan (Reuters, May31, 2012)

In November, United Nations peace envoy Lakhdar Brahimi intimated that Syria could become “A New Somalia”, ... “warning of a scenario in which warlords and





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militia fill a void left by a collapsed state.”  
(Reuters, November 22, 2012)

“What I am afraid of is worse ... the collapse of the state and that Syria turns into a new Somalia.”

“I believe that if this issue is not dealt with correctly, the danger is ‘Somalisation’ and not partition: the collapse of the state and the emergence of warlords, militias and fighting groups.” (Ibid)

What the UN envoy failed to mention is that the breakup of Somalia, was deliberate. It was part of a covert US military and intelligence

agenda, which is now being applied to several targeted countries in the Middle East, Africa and Asia, which are categorized as “failed states”.

The central question is: who is failing the failed states? Who is “Taking them Out”?

The planned break-up of Syria as a sovereign state is part of an integrated regional military and intelligence agenda which includes Lebanon, Iran and Pakistan. According to the “predictions” of the National Intelligence Council, the breakup of Pakistan is slated to occur in the course of the next three years.


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### Hyper-Realistic™ Training Environments

Source: <http://www.strategic-operations.com/>

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### Leader in Innovation

STOPS introduced "The Magic of Hollywood" to live military training by employing all the techniques of film and TV production integrated with military tactics, techniques, and procedures.

### Russian experts compile map of Europe for year 2035!

Source: <http://eg.ru/daily/politics/32691/> (in Russian)

After analyzing CIA, GRU and number of different intelligence institution available sources and also the



works of Zbignew Brzezinski, Samuel Huntington -- a group of experts have compiled a possible political map of Europe for year 2035.

The territorial changes will start in British isles, where Scotland will declare independence after referendum in year 2013. That will give the impetus for unification of Ireland.

Basque and Catalanian states will declare Independence from Spain taking also a part of French territory.

The collapse of multiculturalism will start in France. Unable to assimilate various former colonial ethnicities

of different colors, it will have to resort to their deportation. High concentration is Islamic groups will pave a way for a rise of Islamic Arabic state in southern France. Lorraine on federal basis will join Germany.

Belgium will finally divide and the Flemish will enter in union with the Netherlands.

Business savvy northern Italians will become fed up feeding their southern brethren, which will lead to division of Italy. Poor southern Italy will be unable to retain integrity and Sicily and Sardinia will declare independence from it.

Bosnia will be divided between Croatia and Serbia. Albania unites with Kosovo and part of Macedonia creating Great Albania.

Sad fate awaits Poland. It will have to give up Silesia, Pomerania and Prussia after rounds of new agreements between Berlin and Moscow. Moscow also will not able to retain Kaliningrad region and will transfer it back to Germany.





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Belarus will disappear as a state and become province of Russia. Russia will also snatch eastern parts of Latvia, Estonia and Ukraine (also including southern Ukraine and Crimea). Large changes will



undergo in Caucasus, because Russia unlikely will be able to keep Chechnia and Dagestan. A new borders will be drawn with Stalinist methods possibly along Terek river cutting densely populated mountain regions away from Russia.







**The face of gratitude!**

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### James Holmes had Links to DARPA, the Salk Institute and the DoD

Source: <http://www.unknowncountry.com/insight/james-holmes-had-links-darpa-salk-institute-and-dod#ixzz2HlruKVR6>

Cut to the Aurora massacre, the premier showing of *The Dark Knight Rises*, and the sudden appearance of a man dressed in black with a gas mask. He enters the theater exit, throws several gas grenades at the theater floor, and opens fire with a forty millimeter Glock, a twelve-gauge shotgun, an AR-15 assault rifle with a 100-round drum magazine, and 6,000 rounds of ammunition to back that up. The second Glock is sitting on the seat of his car, parked near the exit.

Hold that image and you have the 24-year old neuroscience doctoral candidate, James Holmes, a young man with several links to the U.S. government research Salk Institute involved in neurologically enhancing soldiers' abilities on the battlefield, and with connections to DARPA (Defense Advanced Research Projects Agency), the central research and development organization for the United States Department of Defense).

After you gulp, realize James Holmes, the same Holmes, suspect in the mass shooting of *The Dark Knight Rises'* movie goes in Aurora Colorado that left 12 people dead, 58 injured, has had a number of links to U.S. government-funded research centers. Holmes's past association with government research projects has triggered police and federal law enforcement officials to order laboratories and schools with which Holmes had any past association not to talk to the press about Holmes.

It turns out, though, that the seemingly daft Holmes is one of six recipients of a National Institutes of Health Neuroscience Training Grant at the University of Colorado Anschutz Medical Campus in Denver. Holmes is also a graduate of the University of California at Riverside with a Bachelor of Science degree in neuroscience. Although Holmes dropped out of the PhD neuroscience program at Anschutz in June, police evacuated two buildings at the

Anschutz center after the massacre at the Aurora movie theater. Holmes reportedly gave



a presentation at the Anschutz campus in May on Micro DNA Biomarkers in a class titled "Biological Basis of Psychiatric and Neurological Disorders." How interesting.

Initial reports of Holmes having an accomplice in the theater shooting have been discounted by the Aurora police. However, there is no explanation that has been given by police of why the Anschutz campus buildings were evacuated after Holmes was already in custody in the Arapahoe County jail. Could it be a search for any linking evidence from Anschutz to Holmes?

The Anschutz Medical Campus is on the recently decommissioned site of the U.S. Army's Fitzsimons Army Medical Center and is named after Philip Anschutz, the billionaire Christian fundamentalist oil and railroad tycoon who also owns The Examiner newspaper chain and website and the neoconservative Weekly Standard. The Anschutz Medical





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Campus was built by a \$91 million grant from the Anschutz Foundation. This is turning into an even more interesting plot than the convoluted *Dark Knight Rises* with its plethora of explosions and transformer car beings.

In fact in 2006, at the age of 18, Holmes served as a research intern at the Salk Institute at the University of California at San Diego in La Jolla. Add to that the fact that for the previous two years before Holmes worked at the Salk Institute, the research center was partnered with the Defense Advance Research Projects Agency (DARPA), including Columbia University, University of California at San Francisco, University of Wisconsin at Madison, Wake Forest University, and the Mars Company (manufacturers of Milky Way and Snickers bars) to deter fatigue in combat troops through the enhanced use of epicatechins, a blood flow-increasing and blood vessel-dilating anti-oxidant flavanol found in cocoa and, particularly, in dark chocolate. Nothing like some dark chocolate for a little lift.

The research was part of a larger DARPA program known as the “Peak Soldier Performance Program,” which involved *creating brain-machine interfaces* for battlefield use, including *human-robotic bionics for legs, arms, and eyes*. DARPA works closely with the Defense Science Office on projects that include the medical research community. Fitzsimons was at the forefront of DARPA research on the use of brain-connected “neuroprosthetic” limbs for soldiers whose limbs were amputated or paralyzed in combat. Welcome to the future.

According to his LinkedIn profile, James Holmes’s father, Dr. Robert Holmes, who received a PhD in Statistics in 1981 from the University of California at Berkeley, worked for San Diego-based HNC Software, Inc., from 2000 to 2002. HNC, known as a “neural network” company, and DARPA, beginning in 1998, have worked on developing “cortronic neural networks,” which would *allow machines to interpret aural and visual stimuli to think like humans*, something you might find in the Batman epic. The cortronic concept was developed by HNC Software’s chief scientist and co-founder, Robert Hecht-Nielsen. HNC merged with the Minneapolis-based Fair Isaac Corporation (FICO), a computer analysis and decision-making company. Robert Holmes continues to work at FICO.

It has also been discovered that Holmes, when he was 20, worked as a camp counselor at

Camp Max Straus of the Jewish Big Brothers and Sister of Los Angeles. According to the Jewish Journal, among other tasks, Holmes helped to teach boys between the ages of 7 to 10 archery. In another unusual detail, the car Holmes used to drive to the Aurora movie theater had Tennessee plates. Holmes is originally from San Diego.

### But there’s more . . .

James Holmes is the grandson of Lt. Col. Robert Holmes, one of the first Turkish language graduates of the Army Language School, later called the Defense Language Institute, in Monterey, California. Graduating from the Turkish language class in 1948, Lt. Col. Holmes spent a career in the Army, which likely included more than a few intelligence-related assignments. Typically, U.S. military officers conversant in Turkish served with either the Defense Intelligence Agency or the Central Intelligence Agency at either the U.S. embassy in Ankara or the Consulate General in Istanbul, or both.

Terrence Sejnowski, the Francis Crick Professor at the Salk Institute for Biological Studies and the director of the Computational Neurobiology Laboratory, in an interview with Cognitive Science Online in 2008, had the following comment about recent studies of the human brain: “Alan Newell [cognitive psychology researcher at the intelligence community-linked RAND Corporation] once said that when AI [artificial intelligence] was founded not enough was known about the brain to be of any help and in the early 1980s, symbol processing was the only game in town. That has changed and we now know a lot about the brain, perhaps more than we need to know.”

### More links to Holmes, cyborgs and robots

The links between the younger and elder Holmes and U.S. government research on creating super-soldiers, human brain-machine interfaces, and human-like robots brings forth the question: Was James Holmes engaged in a real-life Jason Bourne TREADSTONE project that broke down and resulted in deadly consequences in Aurora, Colorado? In any event, if the Batman movies are now serving as a newer version of J.D. Salinger’s “Catcher in the Rye,” i.e., subliminal messaging triggering mechanism, Salinger’s





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novel was of interest to a number of American political assassins. Keep in mind that August 10 is the opening date of the fourth film of The Bourne Legacy. It may be smart to skip the premier in your local theater for a bit.

What's more, Brasscheck TV tells me, "Jerry, the latest news is that the shooter from the theater in Colorado was under the care of a former Pentagon psychiatrist. Dr. Lyne Fenton won various grants and contracts to study schizophrenia." So Dr. Fenton, what was

James on, and who, pray tell, is studying your gang?

Lastly, this negative publicity, according to Reuters, caused "Batman sequel *Dark Knight Rises* [to top] movie box office charts this weekend with \$64.1 million in US and Canadian sales, a 60 percent drop from its debut last week in the wake of the fatal shooting in a Colorado movie theater." So it goes in life and the movies.

*Jerry Mazza is a freelance writer, life-long resident of New York City. An EBook version of his book of poems "State Of Shock," on 9/11 and its after effects is now available at Amazon.com and Barnesandnoble.com. He has also written hundreds of articles on politics and government as Associate Editor of Intrepid Report (formerly Online Journal).*

### Building a Bigger Better Buffer Zone Protection Plan

Source:[http://www.domesticpreparedness.com/Infrastructure/Building\\_Protection/Building\\_a\\_Bigger\\_Better\\_Buffer\\_Zone\\_Protection\\_Plan/](http://www.domesticpreparedness.com/Infrastructure/Building_Protection/Building_a_Bigger_Better_Buffer_Zone_Protection_Plan/)

Planning and managing special event security at The Ohio State University goes far beyond the management of traffic, parking, and crowd management. One of the many major events is the university's home football games, which have an average attendance around 105,000 spectators inside the stadium and thousands more outside the stadium.

The Ohio State football game-day security

from the U.S. Department of Homeland Security (DHS) to produce a 2009 video titled "Game On: A Large-Venue Security Case Profile."

#### Buffering Vulnerabilities & Implementing Changes

A key element in the development of current U.S. homeland security contingency programs is the Buffer Zone Protection Plan (BZPP), an infrastructure protection grant program administered by DHS to help identify and mitigate the vulnerabilities of major public- and private-sector buildings and facilities. Following the 9/11 terrorist attacks, the special event security plan at Ohio State – including the procedures followed for football games – was re-evaluated and certain changes were



This photo depicts equipment being used at one of the checkpoints. The video undercarriage reader was purchased using UASI funds; the portable vehicle barriers and the rapid wall were purchased with a Buffer Protection Plan grant.

operation has been reviewed by numerous outside agencies (local, state, and federal). There are requests to "shadow" the operation at almost every home game. These agencies have deemed it to be a model program.

Following so many requests to learn more about the operation, the university received UASI (Urban Area Security Initiative) funding

implemented.

Over the course of the next two years (2002-2003), the security plan continued to be tweaked. Staying within the guidelines spelled out in then-President George W.

Bush's 2003 National Strategy for the Physical Protection of Critical Infrastructure and Key Assets





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(CI/KA), The Ohio State University's Department of Public Safety worked closely with Ohio Homeland Security and DHS – more specifically, with the department's Protective Security Advisor – to develop an effective BZPP for Ohio Stadium.

A major component of the initial assessment included the use of the "CARVER" (criticality, accessibility, recuperability, vulnerability, effect, and recognizability) target-analysis process to develop a threat matrix that could help identify and evaluate the university's CI/KA, which included Ohio Stadium and the surrounding area. The CARVER tool was originally developed by U.S. Special Forces to help them target the installations of U.S. adversaries, but it continues to serve as an analytical tool to evaluate and analyze physical assets and help establish a weighted value for each of the elements identified by the CARVER tool.

### Understanding the CARVER Tool

To understand why and how the CARVER tool was useful in helping develop a workable BZPP, it is instructive to consider an overview of each of the six major elements of CARVER and how the matrix was used by Ohio State.

*Criticality* reflects the target's intrinsic value. A target is considered critical when its destruction or damage would have a significant impact on operations. In the case of Ohio State, the loss of the use of Ohio Stadium would have a huge impact on not only the university itself but also on the city of Columbus and the surrounding communities. Most of the university's football games are nationally televised, so an attack on the stadium during a game would have an instant impact on other games at other venues throughout the country. (Patrons and game-day employees are included in the Criticality aspect of the analysis.)

*Accessibility* is the path or route by which an extremist or terrorist element could safely reach the target with the personnel and equipment needed to accomplish its intended mission. All routes of accessibility – including roadways, pathways, waterways, railways, and even air space – were considered in evaluating the Accessibility factor. Ohio Stadium and the surrounding CI/KA possess all of these accessibility routes. This aspect of the assessment helped identify and analyze critical access-control issues, including identifying the boundaries of the buffer zone and the locations where physical barriers, both permanent and

temporary, and other security assets should be placed.

*Recuperability* is measured in units of time, meaning how long it would take to replace, repair, and/or bypass the destruction of or damage to the target. This aspect of the analysis helped determine how long it might take to recover from different types of attacks.

*Vulnerability* identifies the relative "ease" of carrying out various types of attack. In determining the vulnerability of a target, the scale of what is considered to be a "critical component" must be compared with the capability of the attacking individual or force to destroy or damage that component. This aspect of the analysis was key in helping to identify the "amount" of damage required, and the assets it would take to damage or destroy the stadium and/or surrounding CI/KA. A comprehensive vulnerability analysis also includes determining the materials that may be on-site that could be procured and used against a specific target. All people present – football fans; patrons and sponsors; players, coaches, and officials; and workers (including public-safety personnel) – must be considered as CI/KA assets when evaluating this aspect of the process.

*Effect* is the measurable amount of probable direct loss from an attack and the impacts at the target and beyond. In this part of the process, it was important to think like the terrorist. The big question was, "What in this context addresses all significant effects, whether desired or not, that might result after the selected target component actually is attacked?"

*Recognizability* measures the relative "ease" of identifying a target. In this case, Ohio Stadium is very easily recognized – and is also on the National Historical Registry. The university's home games are televised nationally and mentioned in the media on a regular basis. Moreover, most large venues of any type tend to be attractive targets for terrorist activity.

### Assess, Develop, Process & Reevaluate

As with most risk-assessment tools, CARVER does involve a certain degree of subjective probability, which is defined by DHS as the "interpretation or estimate of probability as a personal judgment or degree of belief about how likely a particular event is to occur, based on the state of





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knowledge and available evidence.” An inherent flaw in subjective probability, of course, is that it is susceptible to personal bias. For that reason, it is important that the team conducting the assessment reach a consensus when establishing values for the grading scale. Use of the CARVER process in 2003 helped, among other things, to: (a) identify, analyze, and evaluate Ohio Stadium and the surrounding CI/KA; (b) define the boundaries of an appropriately sized buffer zone extending outward from the stadium; (c) identify not only assets that might be targeted but also specific threats and associated vulnerabilities within the buffer zone; and (d) assist in the development of preventive and protective measures that would make it more difficult for terrorists to successfully target and attack the stadium and/or the surrounding CI/KA.

Security planning is not the development and use of a static one-time operational tool but a continuous process. As threats and technology continue to evolve, so must the art and science

of security planning. In 2009, with the assistance of Ohio Homeland Security and DHS, the initial BZPP was reviewed and updated. An Infrastructure Survey Tool (IST) – similar to the Risk Self-Assessment Tool (RSAT) – was used for part of the update. The IST, which was particularly useful in the review process, is a web-based vulnerability assessment tool that applies weighted scores to identify vulnerabilities and trends. In addition to using the IST, the original CARVER assessment was revisited.

Overall, the BZPP became a major part of the framework for the all-hazards Public Safety Game Day Operations Plan. Among the other positive aspects of new security plans that evolved and improved during the BZPP process were even closer partnerships with and between agencies and grant resources that further enhanced the planning, equipment, and training needed to mitigate both site and buffer-zone vulnerabilities.

*Richard Morman has been with The Ohio State University Police Division for 27 years and is currently the deputy chief of police. He is a certified protection professional through ASIS International and a certified personal protection specialist (PPS) through the Executive Protection Institute. He is the section chief for the Homeland Security Contingency for Ohio State University football games. He holds a security clearance and is the terrorism liaison officer for Ohio State University police. He has presented at national conferences and is considered a subject matter expert on the topics of fan behavior and celebratory rioting, large venue security, special event security planning and management, and executive protection. He attended The Ohio State University, graduated from the Police Executive Leadership College, graduated from the 225th Session of the FBI National Academy, and holds a certificate in Law Enforcement Education from the University of Virginia.*

### New Disaster Response App Launches

Source: <http://www.microsoft.com/en-us/news/features/2013/jan13/01-16HelpBridge.aspx>



**“I need help.” “I want to know whether my friends and family are OK.” “I want to help.”**

Those tend to be the three main reactions after natural disasters strike, said Tony Surma, chief technology officer for Microsoft’s Disaster Response team.

HelpBridge, a free new mobile app from Microsoft, aims to support those primary needs. Available today in the U.S. for Windows Phone, Android, and iOS, HelpBridge is designed to make it easy to

connect with friends and family during a large-scale disaster such as an earthquake or a hurricane. It also enables users to give time, money and resources to support relief and rebuilding efforts.

When disasters occur, the first thing people who were impacted want to do is to reach friends and family, said James Rooney, program manager for Microsoft Citizenship’s Technology for Good program, which developed the app. HelpBridge lets users build a



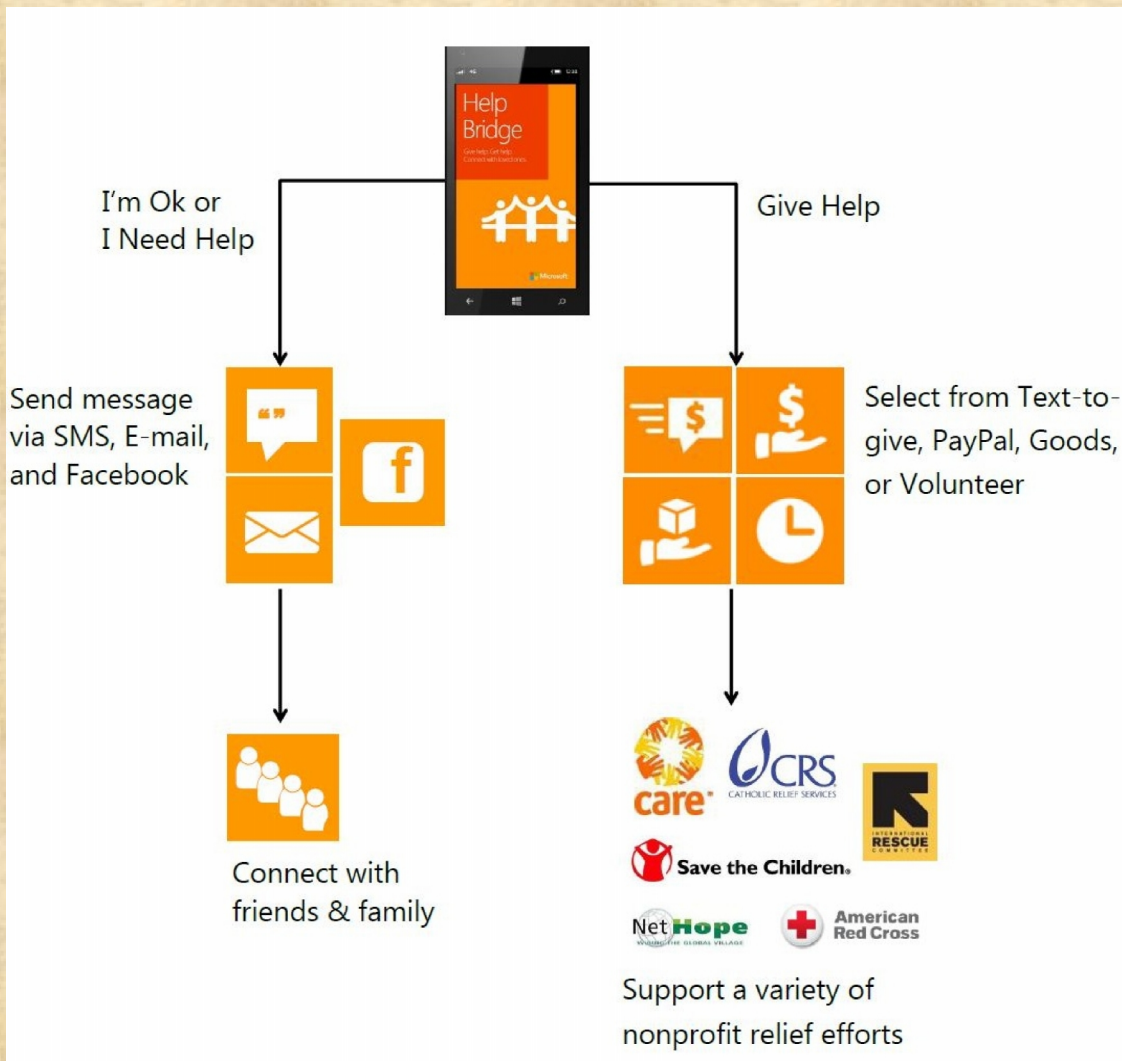


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list of friends and family they would want to contact in an emergency. With a few swipes, they can let all those contacts know via SMS, email or Facebook if they're OK or if they need help. The alert can also give a user's exact location via their phone's GPS capabilities. HelpBridge also provides three easy ways to support relief and recovery efforts in the wake of a disaster, Rooney said. People can use the app to donate funds quickly to a broad range of

company's technology to help relief agencies, nonprofits, and governments respond when a natural disaster occurs. Microsoft has gained valuable knowledge and insight into these crises through its work, he said.

During recent natural disasters such as the ones that struck Haiti and Japan, Microsoft's global response team saw technology spin up to help people connect with friends, family and relief efforts, Rooney said. But those



relief agencies including the American Red Cross, CARE and Global Giving. They can also find out what goods and resources relief agencies on the ground need — making sure they send items such as tents, gloves, and pet food to the right places. Finally, HelpBridge lists real-time volunteering opportunities posted by relief agencies, enabling users to directly or indirectly support relief efforts with their time. HelpBridge grew out of Microsoft's longstanding commitment to disaster response, Surma said. His global team leverages the

technologies tended to be built quickly, were specific to the disaster region, and became obsolete in the weeks and months after a disaster.

Rather than recreate technology after each disaster, why not build something "disaster-agnostic" and have it in place no matter where or when disaster strikes? That was the initial spark behind HelpBridge.

The team focused first on helping people connect with loved ones





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through their smartphones, which have become key communication tools when disaster strikes, said Gisli Olafsson, Emergency Response Director for NetHope. “The simpler we can make it for people to let others know if they are fine or if they need assistance, the more likely they are of being able to get that information out,” he said. “Microsoft’s HelpBridge mobile app is a great addition to the tools people have for reporting their needs and their status following any natural disaster.”

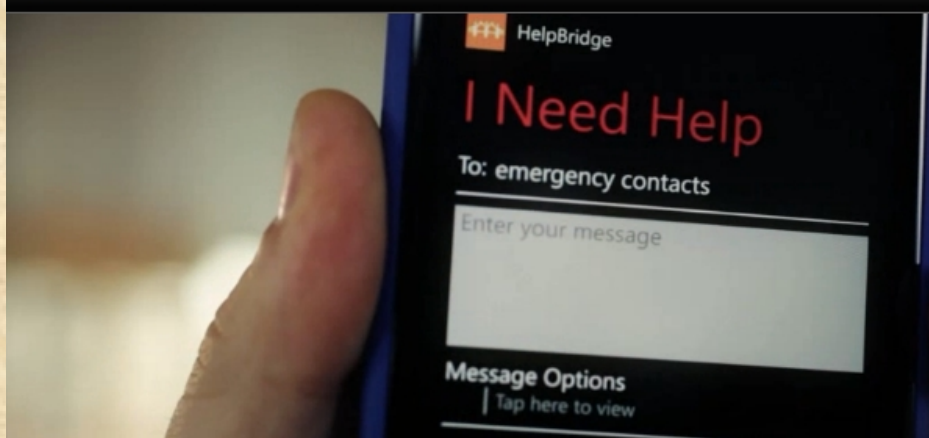
Microsoft also worked with a range of relief agencies and nonprofits as it developed HelpBridge. Rather than reinvent the wheel, it talked to partners such as the Mobile Giving Foundation, VolunteerMatch, Aidmatrix and Network for Good to help users make an impact, Surma said. “We really wanted to provide a breadth of opportunities to match the breadth of generosity people provide after a disaster.”

Tying everything together on the back end is Microsoft Windows Azure, an open and flexible cloud platform that makes all the different services easy to use and incredibly reliable, he said.

Surma encouraged consumers to download HelpBridge and take a few minutes to set it up.

“When disaster strikes, you don’t want to be fumbling with your phone and trying to find your mom’s number,” he said. “Spending a little time now can pay off in spades.”

EMBED EMAIL SHARE



Likewise, Rooney hopes the app can help facilitate giving when disasters strikes. He pointed to the millions of people who have responded in the wake of Hurricane Sandy, which will likely be the most expensive disaster in U.S. history. HelpBridge could have helped donors find new ways to give.

“People have been extremely generous donating their time and money after Sandy,” he said. “HelpBridge could be a simple way to bump up donations or help people find new volunteer opportunities. If we can direct consumers to give easily, that’s really what it’s all about.”

## Admiral Sir George Zambellas KCB DSC

Source: <http://www.royalnavy.mod.uk/About-the-Royal-Navy/Organisation/Senior-Naval-Staff/Admiral-Sir-George-Zambellas>

As the First Sea Lord and Chief of Naval Staff,

a position he takes up in April 2013, George





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Zambellas is the Royal Navy's professional head and Chairman of the Navy Board. He is responsible to Secretary of State for the fighting effectiveness, efficiency and morale of the Naval Service, and supports the Secretary of State in the management and direction of the Armed Forces.

As a member of the Chiefs of Staff Committee, he advises CDS on maritime strategy and policy, and has a collective responsibility for providing strategic direction to the department, managing performance and ensuring that Defence delivers the required outputs.

George Zambellas was educated in Zimbabwe, and at Stowe and Southampton University, graduating in Aeronautical and Astronautical Engineering. He joined the Royal Navy in 1980 from the aerospace industry and qualified as a pilot in 1982. He flew three tours in different helicopter types, serving in carriers and frigates. After staff training in 1990, and a brief spell as a corporate planner, he commanded the mine hunter HMS Cattistock. In 1993, he was posted to Northwood as a Fleet aviation operations officer before promotion in 1995 and command of the frigate HMS Argyll.

During the 1997/98 Strategic Defence Review, he served in the MoD Centre Staff, helping to shape the maritime case within Defence's tri-Service balance of investment. In 1999, as a Captain, he commanded HMS Chatham, which included Operation PALLISER in Sierra Leone. In 2001 George Zambellas attended the Higher Command and Staff Course, and

then became Deputy Flag Officer Sea Training, responsible for training Royal Navy and foreign warships and auxiliaries.

Between 2002 and 2004, as a Commodore, he was Principal Staff Officer to two Chiefs of the Defence Staff. In 2005 he commanded the Royal Navy's Amphibious Task Group, overseeing the introduction of two new amphibious classes of ships, and the Bowman radio and data system into amphibious operational use. He and his staff supported Operation HIGHBROW, the evacuation of civilians from the Lebanon, in July 2006.

In 2006, as a Rear Admiral, he was appointed as Chief of Staff (Transformation), leading the change programme to design and deliver the Fleet's new approach to the generation of maritime capability and support to operations. In 2007, he was Commander United Kingdom Maritime Force and, in October 2008, Chief of Staff (Operations) at the UK's Permanent Joint Headquarters at Northwood. On promotion to Vice Admiral in January 2011, he was appointed Deputy Commander-in-Chief Fleet, Chief of Staff to the Navy Command Headquarters, and the Chief Naval Warfare Officer.

On promotion to Admiral in January 2012, George Zambellas became Commander, Allied Maritime Command Northwood, in which role he also discharged Full Command responsibilities as the Royal Navy's Fleet Commander until November 2012. He was appointed KCB in 2012.

**Editor's Comment:** We sincerely wish the Greek genetic substrate of the new First Sea Lord, to guide him into peaceful seas for the benefit of our societies and world!

### Catlin introduces new terrorism insurance product

Source: <http://www.royalgazette.com/article/20130124/BUSINESS04/701249937>

Catlin Group's London-based underwriting subsidiaries have launched a new terrorism insurance product.

The specialty property and casualty insurer and reinsurer, which began underwriting insurance covering chemical, biological, radiological and nuclear losses (CBRN) in 2006, says the new offering will also cover unique crisis response services.

The '**UK Asymmetric**' product, underwritten by the Catlin Syndicate at Lloyd's and Catlin UK, includes comprehensive coverage of property damage, business interruption, general and

employers' liability, clean-up costs and consultancy expenses arising from an act of CBRN terrorism or a terrorist threat.

UK Asymmetric includes pre-incident support and post-incident response services provided by SecureBio, a UK-based firm manned by highly trained ex-UK Military and Police specialists. The company specialises in providing high-security solutions delivered by experienced CBRN experts.

The unique services that can be provided by SecureBio include reviews of CBRN resilience plans,





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crisis response training, quarterly threat intelligence updates, rapid post-incident response, clean-up and decontamination management and liaison with government authorities.

“The UK Asymmetric product is a unique solution for assureds that goes far beyond current terrorism insurance offerings, either from state-backed terrorism pools or private insurers,” said Will Farmer, a Catlin underwriter specialising in terrorism insurance.

“Catlin’s partnership with SecureBio is key to this product. SecureBio is a pioneer in this field with a highly experienced team of operators and has a proven track record in dealing with CBRN incidents.”

While the broadest coverage is currently only available for UK-based risks, the company says variations of the product are available to assureds worldwide.



### Behavior Profiling Redefines Security at the Mall of America

By Elaine Pittman

Source: <http://www.emergencymgmt.com/safety/Behavior-Profiling-Security-Mall-of-America.html#next>

After 9/11, the owners of the Mall of America handed the facility’s security director a blank check. They wanted the mall to be outfitted

the right solution. While the tech tools would aid security efforts, Reynolds didn’t think they were the best fit for the unique facility that he is



with cameras and metal detectors, but Security Director Doug Reynolds didn’t think that was

charged to protect.





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The term “mall” doesn’t provide a complete picture of the Mall of America. Located near

said. “The Israelis — when they were looking for best practices — found the FBI doing it, and



Minneapolis in Bloomington, Minn., the facility is visited by 40 million people annually and spans 4.2 million square feet. Not only does it house the stores one would expect to find in a shopping mall, but it also features the United States’ largest indoor theme park complete with roller coasters, an aquarium and a movie theater. In addition, a hotel is scheduled to open early this year. All of these attractions combine to create an extraordinary environment for a security department.

Reynolds surveyed different security methods and industry standards, but none of the conventional approaches in the United States seemed to be the best fit for the Mall of America. “We thought cameras were good but they were missing an element, which ended up being the human element,” he said.

Looking to Israeli security methods, Reynolds learned about how behavioral profiling is used in the country, especially at Tel Aviv’s Ben Gurion International Airport. He attended training in Israel to better understand how the technique is used and how security officials there have improved it.

“Most people think that behavioral profiling started in Israel but it did not; it actually started in the U.S. through the FBI to do different types of profiling for crimes, such as serial killers, sexual predators, that kind of thing,” Reynolds

they took it on and honed the skills and perfected the science behind it.”

A former Israeli Airports Authority security agent, Michael Rozin, was brought onto the Mall of America’s security team to help adopt the country’s behavioral profiling principles to the public environment at the U.S. facility. Rozin and Reynolds worked to create the mall’s Risk Assessment and Mitigation (RAM) program, which instead of relying on technology to help identify a potential security risk, uses trained officers who look for behavior that isn’t considered normal in the mall’s setting.

The Mall of America’s security department consists of about 150 people with the lion’s share constituting what most people consider typical security. RAM personnel make up a small percentage of the department’s staff, Reynolds said, but all security personnel are exposed to the program and its concepts. “A handful are given the additional 10 to 12 weeks of training in it,” he said.

The RAM officers work in what Reynolds described as “visually undercover” — they wear plain clothes and ear pieces, but visitors can spot the officers if they’re looking for them.

“We want people to see them. We want them to know they’re out





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there,” Reynolds said. “If it’s a person with harmful intentions then they think that this thing, I don’t know what it is or how big it is, but it’s there, it’s a factor and this is not the place to commit the crime.”

Although the behavior profiling program was adapted to fit the Mall of America’s environment, it uses the same three components as Ben Gurion airport: detecting suspicious indicators, security interviewing (which Rozin said is the most important) and

using metal detectors? Rozin believes so, highlighting what he said are the two main factors that create acts of violence: intent and means or weapons.

“If you look through the years both in the United States and overseas, you see that the weapon itself as a factor has constantly been evolving and changing,” he said. “Bad guys have the ability to outsmart technology like metal detectors, X-ray machines, whatever is out there and come up with a weapon they can



operational deployment.

RAM officers look for behaviors or objects that are not considered normal in the mall. And once something suspicious is observed, RAM officers look into the situation further and if it involves a person, they conduct a security interview to get more information. “Here it’s very different because in an airport setting you are somewhat expected to answer some questions, especially in Israel where everyone has to go through an interview session before they board a flight,” Rozin said. The interview techniques had to be adapted to fit the public environment of the mall including how RAM officers approach people and obtain cooperation as well as the way they ask questions. The principles of interviewing are maintained and what officers are looking for are the same, but the method differs.

Is observing behavior and talking to people more effective than a security measure like

get into the secure environment and use to attack.”

Ultimately the Mall of America’s RAM program seeks to deter people with harmful intentions from coming to the facility. Rozin said technology, like metal detectors, doesn’t necessarily deter someone; instead they just pose a challenge. “What creates true deterrence is an unpredictable system — a security system that is there and looking for intent constantly,” he said.

And this highlights the importance of the security interviews. Asking the right questions at the right time is a problem for anyone with harmful intentions, according to Rozin. In one example of how the right questions can unravel a person’s lies, during a security interview, RAM officers identified a man who had been going onto military bases, although he wasn’t in the military.





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Reynolds said that a couple of years ago, two RAM officers were nearing the end of their shift and walking down a parking ramp when they passed a man wearing a Marine Corps uniform who was waiting for the elevator. The RAM officers continued walking down the parking ramp until one said he got a weird feeling about the man in uniform and the other agreed. They

created a “solid” relationship with the Bloomington Police Department, said Reynolds acknowledging that as a private entity, the mall has limitations and must rely on other law enforcement. Local agencies become involved when the security interview reaches a point at which additional information is needed or if someone provides a fraudulent identification



found the man still waiting for the elevator, identified themselves and asked if they could talk to him. Reynolds said they asked him if he was in the military and he said he was a sniper. A RAM officer asked what his longest shot was and he didn't know. They went on to inquire about the rifle he used and he didn't know answers that they thought he should have. The officers identified the man's car and saw an Air Force uniform in the backseat as well as a U.S. Department of Defense sticker on the vehicle. The police were called and the Defense Department sticker was identified as legitimate, but as the interview continued, the man's story fell apart. "It turned out he was a runaway and his guardians were retired members of the military," Reynolds said. "As a dependent of a retiree, you're given an ID card that lets you on military bases and [gives] access to a place called clothing and sales where you can buy uniforms." The man had created a false identity by going onto bases and listening to the conversations of military members. Securing the Mall of America isn't strictly an internal function. The security department has

card. In addition, the mall has provided awareness training to law enforcement officers on the RAM program and its security procedures, which Reynolds said makes things run more smoothly when they are called to the mall. "Certainly a big piece on that is to be able to articulate to the responding police officer why we called the police over."

Reynolds also attributes the program's success to the use of red teaming, where a scenario is created that should get the attention of a RAM officer. Indicators are set up in an area and the officer is watched to see how he or she responds and how the interview process goes. Reynolds said red teaming is critical because the program is relatively new (it's been in use in the Mall of America for about five years) and the testing process not only helps him know if something isn't being taught properly, but it also ensures that the officers are always aware of their surroundings.

Another aspect that's been key to the program's success has been enlisting the help of everyone who works for the mall — from sales





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clerks to janitors. Reynolds said they are the subject-matter experts of their areas and notice when something doesn't match typical behavior in that setting.

"We would not be as successful as we are without utilizing all of the different entities, whether it be other departments or, even to a degree, guests," he said. "We have guests that

come to us and tell us when something doesn't look right."

Reynolds has presented the program to a diverse range of groups, and Rozin is now working as a consultant to educate others about behavior profiling and how it could fit into their security processes. "We want people to know about this program," Reynolds said. "We want this to be the new industry standard."

*Elaine Pittman is the associate editor of Emergency Management magazine. She covers topics including public safety, homeland security and lessons learned. Pittman is also the associate editor for Government Technology magazine.*

### How realistic is your planning?

By Lucien G. Canton: Melding theory and practice

Source: <http://www.emergencymgmt.com/emergency-blogs/managing-crisis/How-realistic-is-your-020613.html>

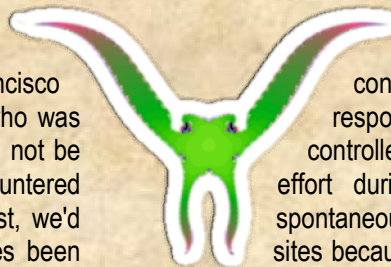


### "I saw a frog in the air once, so therefore frogs can fly!"

This was a favorite saying of one of my former colleagues in San Francisco whenever we encountered someone who was so sure of their opinion that they could not be swayed by the facts. We've all encountered people like this. Indeed, if we're honest, we'd have to admit that we have sometimes been that person. The psychological term is "misleading vividness", a condition where we draw conclusions on the basis of limited anecdotal evidence.

Couple this with another phenomena, that of perceived risk. The immediacy of media images has changed how we perceive risk in the United States. In the days when news took days to reach communities, the perception was that whatever had happened did not necessarily affect our community. Now with constant breaking news, the most minor risks have an immediacy that makes them seem like direct threats to everyone.

Unfortunately, these two phenomena have had an impact on how we do emergency planning in the United States. We often talk about "disaster mythology" but a lot of false assumptions have been woven into our plans. For example, despite research demonstrating that people are resilient and able to participate



in response, our plans continue to assume that response must be centrally controlled. We spend considerable effort during response dismantling spontaneous feeding and sheltering sites because they are not part of the "official system". We assume that people will act contrary to their best interests, although we have seen time and time again that people are more likely to act altruistically in a crisis than to act negatively.

Further, we have squandered limited planning resources because we feel the need to plan for risks that are more perceived than actual because they are in the public eye. We have forgotten that part of our job is to prioritize risk for our communities. All-hazards planning should mean that we *consider* all hazards in our planning, not that we plan for every possible hazard. Scenario-based planning has its uses but should not be the norm.

If we are to be effective planners, we must move away from these outdated assumptions and begin using evidence-based planning. We need to plan realistically for what is most likely to occur, not what we think will occur.

**No matter what you believe, sooner or later that frog is going to hit the ground.**





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### Next Stop for Controversial Airport Scanners: Office Buildings?

Source: <http://www.theatlantic.com/technology/archive/2013/02/next-stop-for-controversial-airport-scanners-office-buildings/273038/>



Last month, the Transportation Security Administration ended its contract with the airport scanner maker Rapiscan, pledging to remove the company's controversial backscatter x-ray machines from the country's airports.

This may have been good news for plane passengers concerned with the scanners' health effects, and good news as well for passengers who didn't relish the idea of cartoonish-but-nonetheless-naked images of themselves being generated in the name of safety. It was significantly less good news, however, for the TSA, which now finds itself in the awkward position of having hundreds of machines, but no airport to put them in. (The agency has removed 76 machines from airports so far, and has plans to remove the remaining 174 by June 1 of this year.)

Here's the other problem: Those machines, as you might suspect, aren't cheap. Each one is worth about \$160,000, meaning that the displaced devices have come at a total price of \$40 million. It would be great, from the TSA's perspective, to find a way to make the machines useful again -- to find them a

permanent, and ideally non-controversial, home.

One potential solution: office buildings. Specifically, governmental office buildings. "We are working with other government agencies to find homes for them," TSA spokesman David Castelveter told *Federal Times*. "There is an interest clearly by DoD and the State Department to use them -- and other agencies as well."

On the one hand, this makes a lot of sense: The machines, for all their controversy in the airport setting, certainly work to detect concealed weapons -- and federal buildings, we know all too well, are all too often the targets of gunmen. This is why many office buildings, of course, already use metal detectors; backscatters would simply be an escalation of that trend. On the other hand, though, it's hard to see the machines being any less controversial for office workers as they've been for airline passengers. If people were concerned about the radiation exposure posed by machine walk-throughs during the rare times they flew, imagine how the





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concern could escalate considering the daily -- and sometimes multiple-times-a-day -- walkthroughs that would be demanded of office workers.

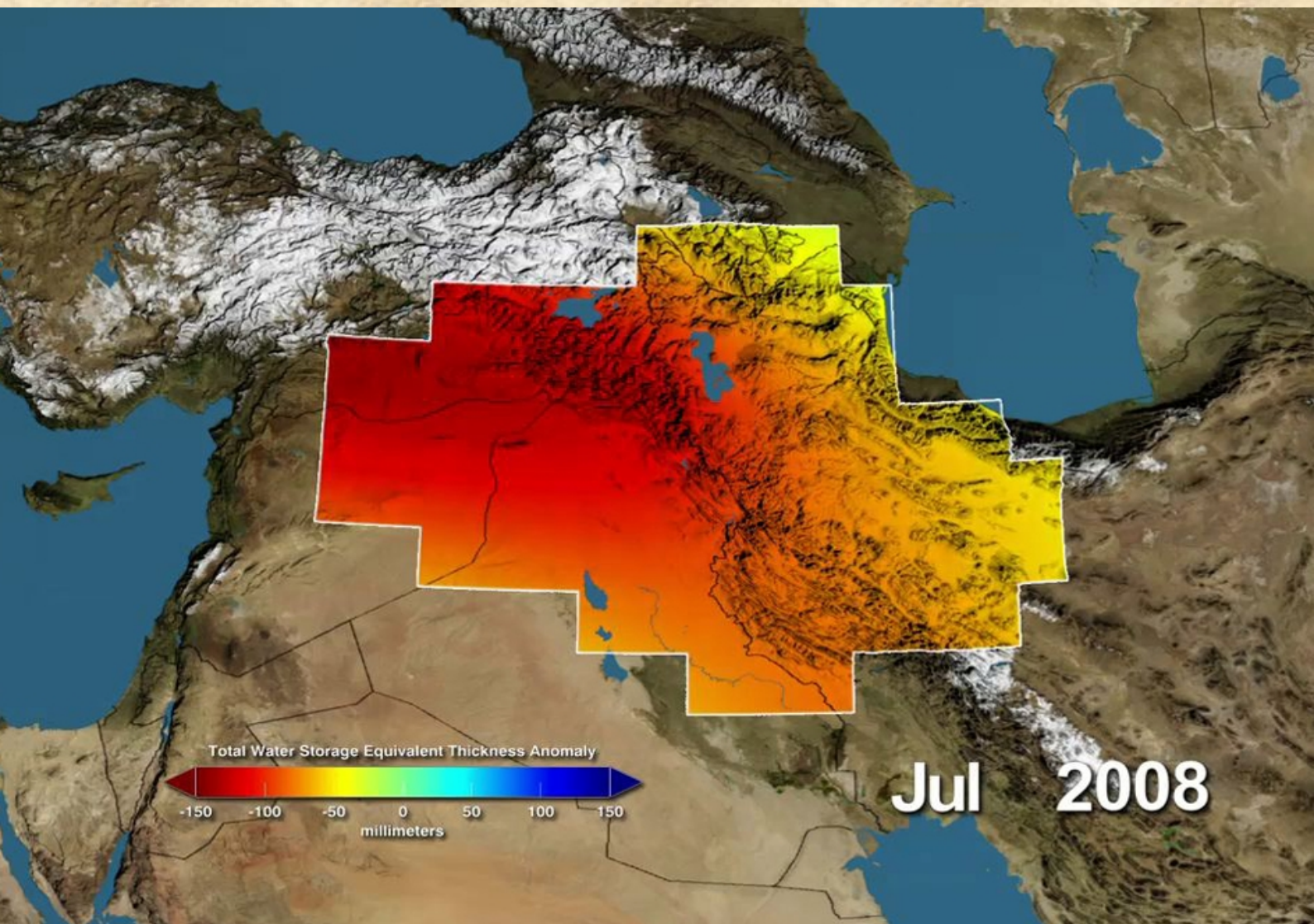
And along those lines: the naked pictures! While it's one thing to have those images out there in airports -- a cartoony little secret between you and the TSA -- it's quite another to have them present in the office setting. In *your* office setting. Even if the images are kept private, as they are supposed to be, if people have been made uncomfortable by the notion of the images seen by strangers at an airport,

they will likely be approximately 1,000 times more weirded out by the notion of the images seen by coworkers.

So TSA, still, has its work cut out for it. Not only does it still need to find a home for the old backscatter machines; it also has to make way for new ones. The agency is in the process of replacing the old devices with "millimeter-wave" scanners that use a different kind of scanning technology and produce a less-detailed image than the backscatters. Those are deployed at about 200 airports -- for the time being, at least.

## NASA Satellites Find Freshwater Losses in Middle East

Source:[http://www.nasa.gov/mission\\_pages/Grace/news/grace20130212.html](http://www.nasa.gov/mission_pages/Grace/news/grace20130212.html)



Variations in total water storage from normal, in millimeters, in the Tigris and Euphrates river basins, as measured by NASA's Gravity Recovery and Climate Experiment (GRACE) satellites, from January 2003 through December 2009. Image credit: NASA/UC Irvine/NCAR





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A new study using data from a pair of gravity-measuring NASA satellites finds that large parts of the arid Middle East region lost freshwater reserves rapidly during the past decade.

Scientists at the University of California, Irvine; NASA's Goddard Space Flight Center in Greenbelt, Md.; and the National Center for Atmospheric Research in Boulder, Colo., found during a seven-year period beginning in 2003 that parts of Turkey, Syria, Iraq and Iran along the Tigris and Euphrates river basins lost 117 million acre feet (144 cubic kilometers) of total stored freshwater. That is almost the amount of water in the Dead Sea. The researchers attribute about 60 percent of the loss to pumping of groundwater from underground reservoirs.

The findings, to be published Friday, Feb. 15, in the journal *Water Resources Research*, are the result of one of the first comprehensive hydrological assessments of the entire Tigris-Euphrates-Western Iran region. Because obtaining ground-based data in the area is difficult, satellite data, such as those from NASA's twin Gravity Recovery and Climate Experiment (GRACE) satellites, are essential. GRACE is providing a global picture of water storage trends and is invaluable when hydrologic observations are not routinely collected or shared beyond political boundaries.

"GRACE data show an alarming rate of decrease in total water storage in the Tigris and Euphrates river basins, which currently have the second fastest rate of groundwater storage loss on Earth, after India," said Jay Famiglietti, principal investigator of the study and a hydrologist and professor at UC Irvine. "The rate was especially striking after the 2007 drought. Meanwhile, demand for freshwater continues to rise, and the region does not coordinate its water management because of different interpretations of international laws."

Famiglietti said GRACE is like having a giant scale in the sky. Within a given region, rising or falling water reserves alter Earth's mass, influencing how strong the local gravitational attraction is. By periodically measuring gravity

regionally, GRACE tells us how much each region's water storage changes over time.

"GRACE really is the only way we can estimate groundwater storage changes from space right now," Famiglietti said.

The team calculated about one-fifth of the observed water losses resulted from soil drying up and snowpack shrinking, partly in response to the 2007 drought. Loss of surface water from lakes and reservoirs accounted for about another fifth of the losses. The majority of the water lost -- approximately 73 million acre feet (90 cubic kilometers) -- was due to reductions in groundwater.

"That's enough water to meet the needs of tens of millions to more than a hundred million people in the region each year, depending on regional water use standards and availability," said Famiglietti.

Famiglietti said when a drought reduces an available surface water supply, irrigators and other water users turn to groundwater supplies. For example, the Iraqi government drilled about 1,000 wells in response to the 2007 drought, a number that does not include the numerous private wells landowners also very likely drilled.

"Water management is a complex issue in the Middle East -- an area that already is dealing with limited water resources and competing stakeholders," said Kate Voss, lead author of the study and a water policy fellow with the University of California's Center for Hydrological Modeling in Irvine, which Famiglietti directs.

"The Middle East just does not have that much water to begin with, and it's a part of the world that will be experiencing less rainfall with climate change," said Famiglietti. "Those dry areas are getting dryer. The Middle East and the world's other arid regions need to manage available water resources as best they can."

Study co-author Matt Rodell of Goddard added it is important to remember groundwater is being extracted unsustainably in parts of the United States, as well.

"Groundwater is like your savings account," Rodell said. "It's okay to draw it down when you need it, but if it's not replenished, eventually it will be gone."





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### Religions deal differently with disasters

Source: <http://www.dailyutahchronicle.com/?p=2584543>

Natural disasters are often attributed to divine intervention and retribution by conservative Christians in the media. Professor Beverley McGuire said the responses are often mistakenly categorized and unrepresentative of most religious groups.

McGuire, an associate professor in religion and philosophy at the University of North Carolina Wilmington, spoke at the Marriott Library on Wednesday about the differing responses of Christians and Buddhists to natural disasters and how responses to

disasters are portrayed in the media.

The responses to Hurricane Sandy represented in the media displayed conservative Christian leaders blaming the storm on divine retribution for sins, such as the legalization of same-sex marriage.

"This is not the first time that individuals have claimed that a hurricane was divine retribution," she said.

Hurricane Katrina was the scapegoat for different causes, such as the sins of New Orleans and the upholding of the legality of abortion.

McGuire said 56 percent of Americans believe God is in charge of everything, but only 38 percent believe natural disasters are a sign from God.

"There are alternative [responses] that focus on the human and the humanistic," she said.

She called the response of religious groups to disasters "remarkable." The relief efforts of religious groups are covered by the media, but the theology behind them is often left uncovered. She said this could be because often their theologies do not provide a simplified and basic answer.

She gave several examples of how Christian scholars view disasters and appropriate responses. One example was "encountering suffering without trying to explain it away."

People should stand in solidarity and help those affected by the disaster without assigning blame.

Another was to recognize the other elements that had a part in the disaster, such as the inadequate levy system in New Orleans or the alleged racism in the slow reconstruction of the city, and turn those passions into actions for change, she said.

After the 2011 tsunami in Japan, the governor of Tokyo said, "The Japanese people must take advantage of this tsunami to wash away their selfish greed."

McGuire said in the Buddhist tradition, craving and desire need to be eliminated because they take away from achieving happiness.

"It does have the connotation of righteous punishment of the wicked," she said.

The governor later apologized for his statement.

After the tsunami in Japan, Buddhist temples were used as shelters and distribution centers, and monks performed memorial rituals, last rites for the dead and provided humanitarian aid, she said.

"The Buddhist monastic involvement was striking," she said.

A study in Sri Lanka, a predominantly Buddhist country, after the tsunami in 2004 found a different response.

"[The study] found the religious interpretations did not dominate. In fact, the primary concern was how to deal with the practical concerns," she said.

Another possible explanation is collective karma. She said karma is not divine retribution but is a cycle in which people reap the fruit of their actions, whether good or bad. Some said their survival was based in part on their religious traditions.

"They also gave accounts of miracles," she said.

According to McGuire, a monk said children in his temple were saved because they were doing religious rites outside. She also





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said there were reports of the miraculous survival of Buddhist objects. After a time, the people on the island decided the reason for the tsunami was not collective karma but the earthquake. Buddhist tradition allows for disasters caused by nature and the changing seasons.

Another monk advised the best thing to do is move forward in a positive way, love each other and treasure human relationships.

"This is the best we can do for those we have died," he said.

### Ed Freeman – A true Hero!

Source: Facebook

You're an 19 year old kid. You're critically wounded , and dying in the jungle in the la Drang Valley , 11-14-1965, LZ X-ray, Vietnam . Your infantry unit is outnumbered 8 - 1, and the enemy fire is so intense, from 100 or 200 yards away, that your own Infantry Commander has ordered the MediVac helicopters to stop coming in.



You're lying there, listening to the enemy machine guns, and you know you're not getting out. Your family is 1/2 way around the world, 12,000 miles away, and you'll never see them again. As the world starts to fade in and out , you know this is the day.

Then, over the machine gun noise, you faintly hear that sound of a helicopter, and you look up to see an un-armed Huey, but it doesn't seem real, because no Medi-Vac markings are on it.

Ed Freeman is coming for you. He's not Medi-Vac, so it's not his job, but he's flying his Huey down into the machine gun fire, after the Medi-Vacs were ordered not to come.

He's coming anyway.

And he drops it in, and sits there in the machine gun fire, as they load 2 or 3 of you on board.

Then he flies you up and out through the gunfire, to the Doctors and Nurses.

**And, he kept coming back.... 13 more times.....**

And took about 30 of you and your buddies out, who would never have gotten out.



Medal of Honor Recipient , Ed Freeman , died at the age of 80, in Boise , ID .....May God rest his soul..... I bet you didn't hear about this hero's passing.





**A Reference Architecture for Geospatial Situation Awareness in All Hazards Operations**

By Matthew Kern Ms CEA CISSP-ISSAP

Source:[http://unauthorizedprogress.com/images/ENM607ab\\_LWG\\_thesis\\_margins\\_corrected\\_20121223\\_1\\_.pdf](http://unauthorizedprogress.com/images/ENM607ab_LWG_thesis_margins_corrected_20121223_1_.pdf)

**Abstract**

During the terrorist attacks of September 11, 2011, a lack of situational awareness delayed and prevented control of airspace, allowing a second aircraft to strike the second tower. In Hurricanes Katrina and Rita, a lack of situation awareness caused helicopter pilots to transport patients to hospitals that could not accept them. Numerous reviews, reports, and policies drive the creation of a new mechanism to share situation awareness between federal, state, county, municipal, and tribal governments. Lives, property, and the effectiveness of our homeland security efforts are affected by the capability to share information to create situation awareness. We examined three solutions to share information between the great number of existing operations centers and their legacy information systems using the various existing data standards. We compared them to a common solution architecture, set of concepts of operations, and set of strategic goals using the methods of enterprise architecture to determine what is most effective in these solution architectures. We then attempted to create a new hybrid architecture taking advantage of the best elements of each. We hypothesized that we can construct superior solution architecture from examination of the initial efforts. We found that it was possible to produce an improved architecture incorporating elements of the architectures studied.

**EDITOR'S COMMENT:** A very interesting thesis comparing three DHS architectures for individual systems:

1. DHS FEMA IPAWS-OPEN;
2. DHS S&T UICDS;
3. DHS DNDO MCM

and a combination proposal that might fill the gaps and make the difference!







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