

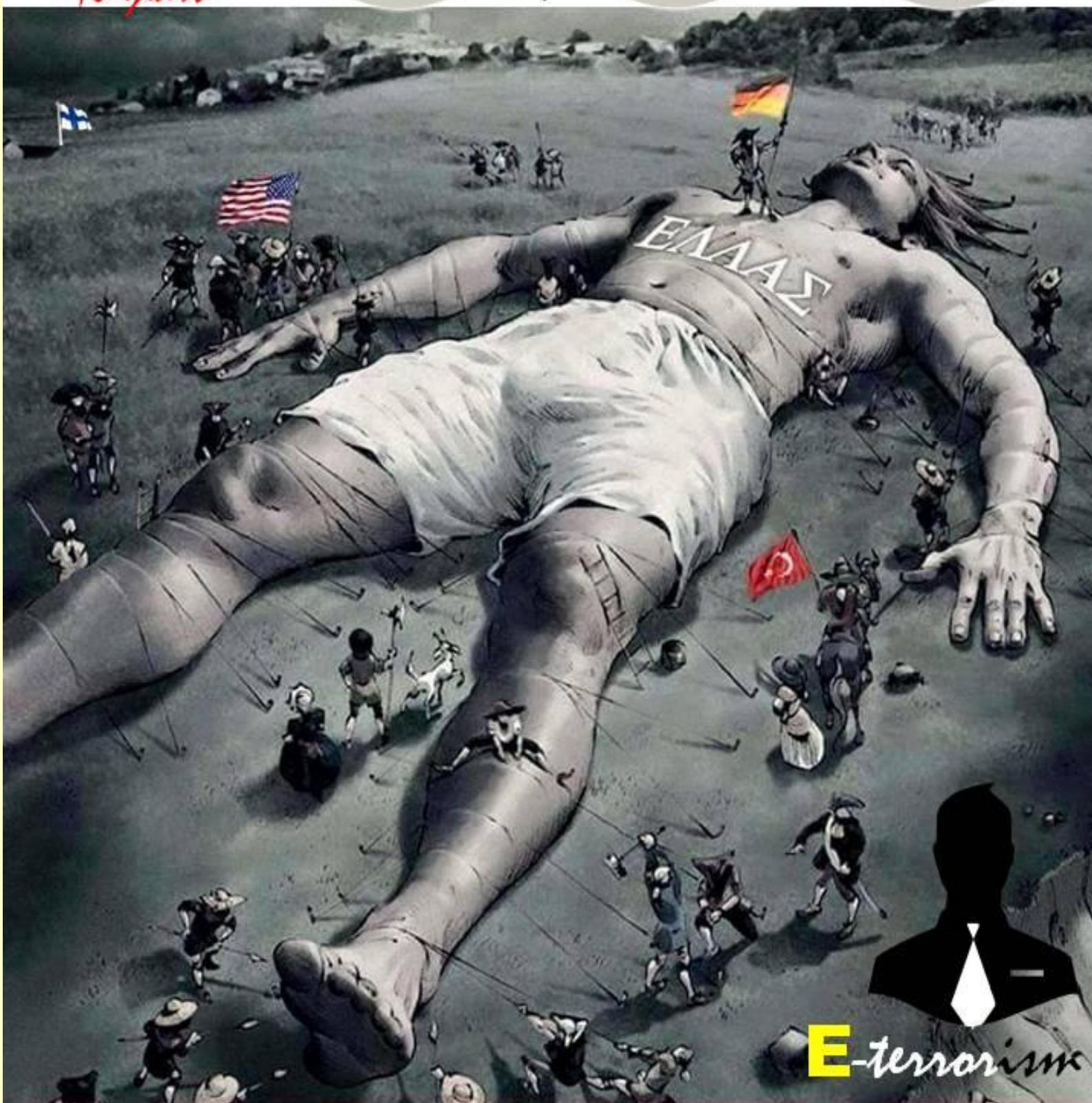
July 2015

# CBRNE NEWSLETTER TERRORISM

*E-Journal for CBRNE & CT First Responders*



*10 years*



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## Editorial

Brig Gen (ret'd) Ioannis Galatas, MD, MA, MC

*Editor-in-Chief*  
CBRNE-Terrorism Newsletter

*Dear Colleagues,*

There is no doubt that in July, Greek Crisis almost monopolized global mass media. Second to this, Islamic State's activities in various parts of the world (Tunisia, France, USA?, Iraq, Syria) along with their endless imagination in terror production made all of us to chill out and perhaps rethinking views and strategies. Iran's nuclear deal was the good thing inbetween the global havoc although not all stakeholders involved or affected are 100% happy or satisfied.

Greece came to a deal with EU and international financial organization. Was this the solution to a big problem? Yes, No, Maybe, We will see! Is life back to normal in Greece? No! Are politicians doing their best to put the nation back to track? No – they are fighting themselves and others (opposition) about



who supported the worst solution. Are Greeks happy with the overall situation? No – most probably we are either stoned or still suffer the consequences of chemtrailing or continue dreaming about the revolutionary idea to change Europe and the Union. In short, we are in Big "S"! The "light" at the end of a 6 years long tunnel either does no exist or continue to be the train coming from the opposite direction.

**Plan stupid! Plan! Not Plant!**  
(by Arkas)

National sovereignty was lost and democracy's Glasgow

Score is between 1 and 3. Whom to blame for this and the overall financial consequences caused in the last 6 months and during the period of bank capital controls? Bad luck I presume! On the other hand there is still a good chance to visit Greece and spend your vacations provided two things: (1) you are willing to watch the news on TV with us – every day of your stay; and (2) you are prepared to share our sorrows with you in exchange of the best hospitality you had in your life! To be honest it would be a good opportunity for Greece to colonize Mars – this world came to an end for us and we are ready to move in another galaxy and let the usual trouble makers rule the continent and destroy it for the third time.

The Islamic State proved that air bombing are not enough to halt their progression and cruelty. Perhaps if the only solution could be the coalition to change type of munitions used or to start taking its existence seriously. Decapitations, crossings, rapes, baby explosion, cage drawings and burnings, a touch of chemical production munition – just to name a few aspects of dark imagination and pathology. It would be nice to think of the



coming surprises before hand and act pre-emptively if we are not too busy to reform phanatics or inspired new terrorists in our back yards. In addition, certain countries living in their own heavens shuld realize that too much democracy is bad for the the mental and physical health of their citizens and following rules blindly might cause complete loss of their natinal eyesight and vision (Norway).



There are some interesting papers on Iran's nuclear deal in this issue. The main conclusion is that who cares about a future nuclear bomb? It is all about doing business and get profits. If Iran advances its chess capabilities will take Westerner's money and make the bomb the same way Pakistan did. Israelis are not happy; Revolutionary Guards are not happy; a future attack is not left aside and despite the big words and people demonstrating in Tehrans main roads the threat is only slightly diminished.

In this overall fragile ecosystem the only solution is to visit Greece, refill your batteries with solar energy and your bellies with fresh land and sea products and return home prepared for a very intersting Autumn and perhaps a dark Winter!

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Have a great summer First Responders! Hard work ahead!

The Editor-in-Chief



## If I was a Greek Prime Minister

July 9, 2015

The Editor-in-Chief

I am sure that most of us in many instances in our lives have made an overt or covert statement like "If I was a ... something" – replace "something" with whatever you desire: soccer coach, company MD, CEO, minister, hospital chief, university dean etc. I think that it is time to address "my" something: "If I was a Greek Prime Minister!" mainly due to Greek Crisis that leads my country to abyss.

PM  
FOR A  
DAY

I was born in 1958 and I have traveled in most parts of the world since 1978. Although most of you might be familiar with my background this is irrelevant for now – I will put my thoughts on paper as a simple citizen who filters things through common logic. Philosophical logic (from the Ancient Greek: λογική, *logike*) is the use and study of valid reasoning. The study of logic features most prominently in the subjects of philosophy, mathematics, and computer science.

You are all aware of the current situation in Greece and its future within the European Union (EU). This article is written on July 9<sup>th</sup>, 2015. On July 12<sup>th</sup> EU will decide if we will continue to be a member-state and sign a long term agreement based on funding and reforms or left in our fate. Banks are closed the last two weeks (capitals control) and people are standing in lines to get their daily 60 euros (\$66) from ATMs. What a shame for hard working people that their life was changed in a fraction of time. On July 7<sup>th</sup> Greek people voted in a referendum asking their opinion about to accept or not the EU funding proposals. Results showed that almost 62% of citizens responded with a "NO". Now we have to wait until next Monday that will define our future and existence.

It would be logic to start from the past and proceed to today. But there is no point for this. Past is a fact that cannot be changed. The importance of past is relevant to the quote stating that "history is a circle". In that respect if we do not identify the mistakes of the past most probably we are doomed to repeat them in the future. The major problem is that we always challenge historic logic and always want to prove it wrong. Unfortunately we are wrong because sooner or later history repeats itself. So let us focus in present and see what can be done for tomorrow. Tomorrow is what makes life interesting; living in the past or repeating mistakes of the past is boring. A Prime Minister should focus only on tomorrow and what is best for the people that put him or her in charge. In that respect below you can read my decisions "if I was a Greek Prime Minister".

First of all I would map Greeks' perception of life established through time (last 30 years). Here is a sample of my remarks:

- Greeks are hard workers bearing huge amounts of "filotimo" (*philotimo* (also spelled *filotimo*; Greek: φιλότιμο) is a Greek noun translating to "love of honor". However, *philotimo* is almost impossible to translate sufficiently as it describes a complex array of virtues. *Philotimo* is considered to be the highest of all Greek virtues which determines and regulates how someone should behave in their family and social groups. It is mostly about respect and doing the right thing. In its simplest form it means "doing good", and it ensures your behavior will make you stand out from others. It will demonstrate what kind of a person you are and the manner in which you were brought up. *Philotimo* to a Greek is essentially a way of life. During the Second World War, strong bonds were formed and still exist in places like the Greek island of Crete where the locals would risk their own lives to hide and shelter Australian and British soldiers from the Nazi occupying forces. The locals felt duty-bound to help, their *philotimo* urged them on - If caught, they risked facing a firing squad. *Philotimo* is the feeling of not being able to



do enough for your family, society and your community; it is expressed through acts of generosity and sacrifice without expecting anything in return. *Philotimo* is to get more satisfaction from giving than from taking. It is an appreciation and admiration for heritage and ancestors — *philotimo* is honor and pride.)

- Greeks want to work less, earn more and retire early to enjoy life.
- Greeks are inspired by their political leaders (for best and worst)
- Greeks like to let others do their work (e.g. illegal immigrants on agricultural field) or use external international funding to pursue their dreams but in a different way than funding dictates (e.g. EU funds)
- Greece has the best legislation system in the world but implementation of law is the worst worldwide.
- Greeks love their ancient heritage and achievements in all fields of modern world (from poetry to space science) but they are not willing to continue this heritage into modern times. Although this is a fact at national level, on international level the situation is amazingly reversed (e.g. in the US, more than 20 top nano-technology laboratories are headed by Greek scientists. In 2015 statistician Prof Ioannis Ioannidis, MD, Stanford University, California, US presented (Pan-Hellenic Medical Conference, Athens) a meta-analysis study concluding that despite the fact that Greeks represent less than 0.2% of global population the percentage of top Greek scientists is 3%). In the last five years more than 300,000 scientists left Greece due to austerity in order to pursue their dreams abroad.
- A small percentage of Greeks (~5%) strongly believes that the only right is the "right of the worker" (or the university student). This percentage has a concrete structure and is the protagonist in almost all protests, strikes and working/studying turmoil in modern Greece.
- The majority of Greeks believe that for all the troubles in life there is someone to blame – usually a foreign person or nation or group of nations or organization. "Self criticism" is rather an unknown word.
- Greeks love democracy if it does not interfere with their own. Democracy originates from the Greek δημοκρατία (*dēmokratía*) "rule of the people", which was found from δήμος (*dēmos*) "people" and κράτος (*krátos*) "power" or "rule", of an elite". While theoretically these definitions are in opposition, in practice the distinction has been blurred historically.
- Traditionally Greeks and Greece belong to the West. West means Europe and in close connection with United States. Greeks bleed with them and for them in two World Wars and their sacrifices were globally recognized by both allies and enemies (e.g. *"Until now we used to say that the Greeks fight like heroes. Now we shall say: The heroes fight like Greeks."* (From a speech PM Winston Churchill delivered from the BBC in the first days of the Greco-Italian war); *"For the sake of historical truth I must verify that only the Greeks, of all the adversaries who confronted us, fought with bold courage and highest disregard of death.. "* (From a speech Adolf Hitler delivered to Reichstag on 4 May 1941); *"If the Russian people managed to raise resistance at the doors of Moscow, to halt and reverse the German torrent, they owe it to the Greek People, who delayed the German divisions during the time they could bring us to our knees."* (Quote from Georgy Constantinovich Zhoucov [1896-1974 Marshal of the Soviet Army] memoirs on WWII); *"The war with Greece proved that nothing is firm in the military and that surprises always await us."* (From a speech Benito Mussolini delivered on 10 May 1941). And here are some worth remembering statistics from that era: Duration of resistance (in days): Greece 219; Norway 61; France 43 (the superpower at the time); Poland 30; Belgium 18; Holland 4; Yugoslavia 3; Denmark 0 (Danes surrendered to Hitler's motorcyclist who was conveying Hitler's request to the Danish king for the crossing of the Nazi armies. The Danish king indicating submission surrendered his crown to the motorcyclist); Czechoslovakia 0; Luxemburg 0. Total Greek casualties: Albanians killed 1,165 Greeks; Italians killed 8,000 Greeks; Bulgarians killed 25,000 Greeks; Germans killed 50,000 Greeks. Total loses in population percentages: Greece 10%; Soviet Union 2.8%; Holland 2.2%; France 2%; Poland 1.8%; Yugoslavia 1.7%; Belgium 1.5%.
- Greeks love to play "tavli" (backgammon). They are not good in chess and its various forms (especially the geopoliticostrategic form of chess). This is strange since Greece



lies in the cross-road of three continents and ancient Greeks, Byzantine Empire and Alexander the Great were top chess masters.

- Greeks have forgotten what a privilege is to live in a blessed country (excellent climate, sun all year around; rich mineral underground [including rare earths]; extensive coast line with thousands of islands; earth products of unique quality).

Based on the above realities my action plan would be as follows:

- Remind Greeks about who they are with special focus on young generations.
- Ask Greek to self criticize their contribution to nation's progress and prosperity in the last 30 years and how this was related to our heritage, values and concept of life along with our desires and goals for the near future
- Inform Greeks that it is humanly impossible to satisfy everybody with decisions to be taken. On the other hand even those who will disagree for their own reasons, they do understand if the measures taken are beneficial or not. Political cost has been overrated and these two words should be eliminated from our vocabulary mainly because they caused most of the misfortunes Greece is currently experiencing. Political cost will be replaced with a "what is best for the people and the homeland" attitude and overall mindset.
- Inform Greeks that existing legislation will be strictly enforced with no exceptions and little windows. All Greeks will be (again) equal in the eyes of law.

The above framework will be followed by specific announcements to be implemented within a specific timetable:

**EU:** Start face to face communication with all the EU member-states' Prime Ministers and EU bodies in order to inform them about our current status and proposed proposals that will help pay our debts taken into serious account that they also represent their own people, their needs and expectations. It is time to learn how they think, their fears and ambitions – in fact to copy and paste their modus operandi and benefit from their experience and ways of solving problems. We live in the same part of the world and should act accordingly. It is equally important for European citizens to learn and realize that their money seldom end-up directly in Greek citizens pockets. It was a "banking circuit" that absorbed all money for their own existence and control of people. Vast majority of Greeks was fooled by a "better life" campaign and it was quite reasonable to follow this dream (provided they were aware their own capabilities to pay their debts without borrowing extra "debts loans" to pay their loans). I must admit it was a genius control game and unfortunately we were blind to forecast the consequences. Finally EU must decide whether it will a Union or a Financial Union – two different entities; two different visions!

**Working policy:** Ask syndicates to sign a 5-year "working peace". No obstacles, no strikes no demonstrations, no interference in the function of public services. Working class (public and private) must realize that only continuous hard work will provide a better future for all not just the few and privileged. Entrepreneurs should realize that sharing profits with people working for them will bring more income and profits for everybody. I will not ask Greeks to work for free for two hours every working day (as Japanese did after WWII) but considering the working environment as a "family" environment will make a giant shift to alleviate frictions and bring money to both sides. An old German teacher of mine once told us a story from his experience living in Germany for years: *"What is the difference between Mercedes-Benz CEO and the chief of MB union?"* he asked the class at Goethe Institute. *"They both live in the same prestigious suburb; their kids are going in the same private school; they both ride MB cars of latest technology etc. The only difference is that when in the morning they arrive early for work, the door man address CEO like "Good morning Sir" while he addresses union chief with a smiling "Good morning comrade!"* Focus will also be given to the middle class and unemployment. On daily basis we hear and read about the poor and the unemployment sky rising. We need to taxonomize the working force that is without work to see how real is the problem based on the abilities and backgrounds of people affected. Even during the good times unemployment was a big issue despite the fact the works was there waiting (according to newspapers ads). Do all of them really cannot find a suitable work or they are happy with the benefits? What "suitable" work really means? And if they





really cannot find a job why don't they equalize benefits with some social work? This is a complex issue that needs to be carefully examined. There is no problem without a solution for those who wish to solve problems and hate easy solutions and thick carpets!

**Public sector:** All public servants will be evaluated and the combination of their performance along with current and near future needs will determine their working status. Political favors will be legalized and will totally be eliminated. There will be specific criteria for each post and bureaucracy will be limited to absolutely necessary levels.

**Parliament:** Deputies (congressmen) will be diminished by half or more (from 300 to 100-120). Their mandate would be for 8 years (maximum). In order to be elected they have to deposit proven records that they have been working in the public or private sector for at least 10 years. Previous elected congressmen/ministers and first/second degree relatives would be excluded candidatedship for a period of 15 years. A parenthesis for a sincere question: What is the reason for including a political party in any parliament around the globe that is NOT willing to rule one day? What is the very reasoning of its existence?

**Taxation policy:** We need to change it yesterday! A taxation cadre will become a law and will last for at least 10years before reevaluation. All citizens will get their salaries net since taxes will be in advance collected centrally by the state (this happens in many countries – e.g. Norway). Simple citizens and entrepreneurs will pay according to their profits without tricky exemptions and legal innovations. Foreign investors will be aware in advance about the existing rules and will be able to decide and plan in a steady environment that will guarantee their profits and policies.

**Investment policy:** Concrete proposals to industrialized countries to invest in Greece (car industry; ship industry; retail/cargo industry). At the same time support existing efforts of local industry (are you aware that a Greek car "PONY" is already ready but nobody cares to massively produce it?) and greatly invest in research and development by connecting industry with academia. This will gradually bring all the Greek brains back to Greece in working environments competitive to those in their countries of work,

**Tourism industry:** This is the only real "heavy" industry of Greece. The goal is to attract tourists all year around – especially those of high income – by providing standardized high level services in competitive pricing. If UAE were where Greece is in the map, I am sure that you could drive to islands connected with bridges instead of creating artificial islands in the sea. Same applies for international flights hosting in our airports by lowering parking costs and related air services.

**Shipping industry:** Greece has one of the biggest ship fleet worldwide. Reactivation of shipping industry, better prices, and international customers would be the immediate targets.

**Agriculture:** Traditional agriculture and stockraising (livestock) activities would be seriously supported based on modern technologies and after careful evaluation of markets' needs and gaps. Same for related products that suffer brand name problems. We have some of the best wines, olive oils, honey in the world but nobody really knows that. It is unacceptable for Europe to import wines from California, Chile or South Africa and been unaware of excellent wines from our islands and mainland. It is equally unacceptable to burry oranges or apricots in order to collect compensation money from EU when they can be sold within the country in very competitive prices.

**Armed Forces:** It is time to have a smaller in size, better organized and distributed professional Armed Forces that will cover national needs. This has been proclaimed so many times but overall political cost made it sound like the young shepherd with the wolf story. Oversized AFs means high cost but this is the price of being in the same neighborhood with Turkey facing on daily basis air and sea intrusions of national airspace and sea. Reorganization will be accomplished with changes in engagement rules. Trespassers would be shot down or sunk – period. Enough is enough! We might be in the same coalition (NATO) and Turkey wishes to enter EU but this peaceful war need money, equipment and human lives to be transfused daily. Good friends make good neighbors. Simple as that! No respect will lead to bloodshed that will settle difference once and for good. After all Greek Air Force is one of the best in the world (ask Red Flag US pilots for that) and our Navy has never be defeated in sea operations. All Aegean islands will be included in an asymmetric defense web much more effective than a giant air carrier.



**Foreign policy – Balkans:** All our Balkan neighbors will be notified that they have to behave properly and act accordingly. Whether it is the dreams for "Greater Albania" (including parts of Northern Greece) or usage of the name "Macedonia" for FYROM, our reply will be solid and fierce no matter who is behind pulling the strings of the puppets. Again: good friends make good neighbors.

**Foreign policy – International:** We will reevaluate our participation to international alliances or unions based on what is best for the homeland and on a give-take motive. No more "YES" without profit! Only "what is it for us!" Russian EU embargo cost millions to Greek agricultural/livestock industry without any EU compensation. Participation in Afghanistan and Somalia returned no profits. We have strong long lasting relations with the Arab world and we indent to keep them and enhance them. Russia is an Orthodox Christian nation and so are we. Same with Serbs or Armenians. If BRICS offer better solutions, go for them! All nations are playing games in a variety of fields but we are not allowed to do that? Well, no more! If you think of that, being attached to the West through time, bring only the ongoing occupation of half of Cyprus by Turkish military. Sorry, but apart from this, I cannot think of anything else – good or bad. Geo-strategy is a field that we must enter and play hard – size of the nation does not matter. Brain size and flexibility does!

**Foreign policy – Illegal immigration:** We all know that strong nations do not really care to solve the problems leading to illegal immigration and population dislocation. No wars equals no immigration equals utopia. On the other hand each nation's capabilities to host immigrants of any category is limited and overpopulation will create huge problems in various levels. EU nations think that by giving money let's say to FRONTEX they have done their duty. But when asked to absorb immigrants they strongly refuse or propose the ridiculous number of 60,000 over millions existing and waiting to cross borders (mainly Italy and Greece). For Greece the problem again has to do with Turkey's policy and unwillingness for true collaboration. Illegal immigrants are a very profitable industry there and they are not willing to lose the money. If immigrants want to enter Greece they should follow the legal way from their countries of origin (a field that need to be greatly modernized and updated). For those who prefer the illegal way Greek response will be solid and in many instances beyond international ethics and humanity rules. But we have no alternative! Greek gov will notify all related countries of origin and the international community (EU, UN and many more) that as of now, the rules of engagement in the Greek borders will be totally different. Police, Coast Guard and Land Forces will be given to green light to shoot at will when vessels of any size enter national waters. The joke with overloaded boats sunk by passengers or human traffickers blackmailing Greek S&R operations should be come to an end. Wise awareness campaign will ensure that all foreign citizens should be notified well in advance before even thinking of entering Greece illegally. And those that will blame accuse or attack us in international fore and courts we say this: If you are willing to change places, you are most welcome! Really!!! At the same time we will deport all Balkan criminals packed in Greek prisons back to their homelands. If countries oppose our decision then we will simple transfer them to their borders and release them there. In parallel we will record all illegal immigrants already in Greece within 3 months. If not reported to authorities and arrested after the given deadline they will be deported within 48hours. We need to be in control of those in Greece and now exactly who are they and what is the reasoning of being in Greece.

**Mass media policy:** Only if you live in Greece you can realize the effect of mass media to Greek mindset development. They are totally out of control and the line between information and politics is blare. Hours of terrorizing news, subjective analysis and next day scenarios, hundreds of ministers, officials, professors, analysts, union leaders are marching on daily basis from TV screens (I wander when they have the time to work for us). This is happening only in Greece! Strict rules will be set and content of TV programs will be structurally modified. Television enters our houses and in that respect should provide information, education, entertainment and promote culture. If they do not like it they would be free to withdraw and stop poisoning minds and attitudes. Lifestyle, sexuality, astrology and gossip can exist but only in private cable lines – you pay; you enjoy BS. Not in free channels that are watched by millions of citizens with values and ambitions for a better tomorrow. There are so many projects that can be facilitated by TV programs that I am sure that we will have a full program replacing today's rubbish that intentionally try to change ethics, heritage and internal structures by promoting ways of life that are not consistent with Greek genes and nature.



**Security policy** – We live in dangerous times and the unexpected always happens – including terrorism and its affiliation with organized crime. Mass illegal immigration poses security issues and Balkans is slowly becoming safe heavens for both terrorists and criminals. In that respect policing in urban and rural areas will be more visible and effective by employing modern technologies (UAVs, GUVs, USVs) while security forces will be equipped to match military weaponry used by both terrorists and criminals. The new approach will be most visible in the southern borders of the country where shoot to kill will be the rule and not the exception. It is time to give villagers in remote villages on Northern Greek mountains the lost feeling of being safe in their own homes. If police and border units are not enough, Special Forces will be additionally created working close with police and the military.

**Mineral wealth:** Current data support the conclusion that there is a lot – I mean a lot – of oil and gas in our seas. So let's drill it out – now. There are many international specialized companies that are willing to proceed but a combination of national stupidity and bureaucracy forbids that. Not anymore. Start drilling tomorrow! Promote research for inland minerals of interest (e.g. gold or rare earths). Facilitate passage of oil/gas pipelines from other countries. Remember? We are in the cross-point of three continents!

**Education:** This section needs a total reform from top to bottom. All books should be re-written and modern teaching technologies should be incorporated in teaching schedules. Special focus will be given to ancient Greeks, history, computers and languages. Children and adolescents should follow a program respecting their age and structural development through day (only) schools. Young generation should be able to play, do sports, enjoy and learn life gradually before entering higher studies. Universities will stop be the perfect place for political confrontations, vandalism and illegal emporium. All candidates will enter universities freely but they will have the warning that only the best will graduate – and that they will graduate on time. Many educational alternatives will be provided for those failing to comply with university demands. Academia is not a factory; it is a holly place of knowledge and we should address it with respect, interest and high ambitions. Overproduction of scientists is not as favorable as it sounds and should be tailored to national present and future needs to avoid specialized unemployment or brains export. All level of teaching faculty will be under constant evaluation. In universities evaluation will be conducted by both the academia and the students on strictly educational level.

**Health policy:** Another sector requiring total reform. Main target will be equality in health services by better management of existing facilities and clever distribution of medical manpower. New physicians will have the right to practice medicine according to existing open slots all over the country. It is unacceptable to have the majority of doctors in the two big cities while other parts of Greece are lacking basic medical specialties (e.g. islands). New hospitals patient IT management is already in progress and will greatly decompensate existing functional abnormalities. A number of medical helicopters will be bought in order to facilitate medical emergencies in the islands and other remote geographical areas. It is not the duty of Air Force to do this (current status). Special emphasis will be devoted to research and post graduate studies in critical fields. Special emphasis will also be given to the local pharmaceutical industry and strict rules will rule drug distribution (prototypes vs. generic). Three emergency medical centers will be created in the two major highways equipped with helicopters for fast and effective intervention in major traffic accidents. Doctors and nurses will be under constant evaluation and CME every three years (papers published, conferences, workshops, research, innovations).

**I do understand that it takes more than a wish to be the Prime Minister of a nation. I do understand that this is not a single person job but a team work effort. I do understand that the above proposals require time and money and brain engineering. But if a simple citizen like me can put the above into a paper, a real Prime Minister and his team can do a lot better. When things go that bad as it happens now in Greece it takes a war to change things and start over again from scratch. Fortunately we are not at war but financial terrorism in not far away from a battle environment. Now it is time to return to our roots and prove to the world that Greece deserves to be considered as equal among equals.■**



## A Pain in the Athens

### Why Greece Isn't to Blame for the Crisis

By Mark Blyth

Source: [https://www.foreignaffairs.com/articles/greece/2015-07-07/pain-athens?cid=nlc-twofa-20150709&sp\\_mid=49066558&sp\\_rid=aWdhbGF0YXNAeWFob28uY29tS0](https://www.foreignaffairs.com/articles/greece/2015-07-07/pain-athens?cid=nlc-twofa-20150709&sp_mid=49066558&sp_rid=aWdhbGF0YXNAeWFob28uY29tS0)



When the anti-austerity party Syriza came to power in Greece in January 2015, Cornel Ban and I wrote in a [Foreign Affairs](#) article that, at some point, Europe was bound to face an Alexis Tsipras, the party's leader and Greek prime minister, "because there's only so long you can ask people to vote for impoverishment today based on promises of a better tomorrow that never arrives." Despite attempts by the eurogroup, the European Central Bank, and the International Monetary Fund since February 2015 to harangue Greece into ever more austerity, the Greeks voted by an even bigger margin than they voted for Syriza to say "no" once more. So the score is now democracy 2, austerity 0. But now what? To answer that question, we need to be clear about what this crisis is and what it is not. Surprisingly, despite endless lazy [moralizing commentary](#) to the contrary, Greece has very little to do with the crisis that bears its name. To see why, it is best to follow the money—and those who bank it.

The roots of the crisis lie far away from Greece; they lie in the architecture of [European banking](#). When the euro came into existence in 1999, not only did the Greeks get to borrow like the Germans, everyone's banks got to borrow

and lend in what was effectively a cheap foreign currency. And with super-low rates, countries clamoring to get into the euro, and a continent-wide credit boom underway, it made sense for national banks to expand private lending as far as the euro could reach.

So European banks' asset footprints (loans and other assets) expanded massively throughout the first decade of the euro, especially into the European periphery. Indeed, according to the [Bank of International Settlements](#), by 2010 when the crisis hit, French banks held the equivalent of nearly 465 billion euros in so-called impaired periphery assets, while German banks had 493 billion on their books. Only a small part of those impaired assets were Greek, and here's the rub: Greece made up two percent of the eurozone in 2010, and Greece's revised budget deficit that year was 15 percent of the country's GDP—that's 0.3 percent of the eurozone's economy. In other words, the Greek deficit was a rounding error, not a reason to panic. Unless, of course, the folks holding Greek debts, those big banks in the eurozone core, had, over the prior decade, grown to twice the size (in terms of assets) of—and with operational

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leverage ratios (assets divided by liabilities) twice as high as—their “too big to fail” American counterparts, [which they had done](#). In such an over-levered world, if Greece defaulted, those banks would need to sell other

bailouts weren’t for Greece at all. They were bailouts-on-the-quiet for Europe’s big banks, and taxpayers in core countries are now being stuck with the bill since the Greeks have refused to pay. It is this hidden game that lies



at the heart of Greece’s decision to say “no” and Europe’s inability to solve the problem.

Greece was given two [bailouts](#). The first lasted from May 2010 through June 2013 and consisted of a 30 billion euro—Stand By Agreement from the IMF and 80 billion euro in bilateral loans from other EU governments. The second lasted from 2012 until the end of 2014 (in practice, it lasted until a few days ago) and comprised

similar sovereign assets to cover the losses. But all those sell contracts hitting the market at once would trigger a bank run throughout the bond markets of the eurozone that could [wipe out core European banks](#).

Clearly something had to be done to stop the rot, and that something was the [troika program for Greece](#), which succeeded in stopping the bond market bank run—keeping the Greeks in and the yields down—at the cost of making a quarter of Greeks unemployed and destroying nearly a third of the country’s GDP. Consequently, Greece is now just 1.7 percent of the eurozone, and the standoff of the past few months has been over tax and spending mixes of a few billion euros. Why, then, was there no deal for Greece, especially when the [IMF’s own research](#) has said that these policies are at best counterproductive, and how has such a small economy managed to generate such a mortal threat to the euro?

Greece was a mere conduit for a bailout. It was not a recipient of funds in any significant way, despite what is constantly repeated in the media. Part of the story, as we wrote in [January](#), was the political risk that Syriza presented, which threatened to embolden other anti-creditor coalitions across Europe, such as Podemos in Spain. But another part lay in what the European elites buried deep within their supposed bailouts for Greece. Namely, the

another 19.8 billion euro from the IMF and another 144.7 billion euro disbursed from an entity set up in late 2010 called the European Financial Stability Facility (EFSF, now the European Stability Mechanism, ESM). Not all of these funds were disbursed. The final figure “loaned” to Greece was around 230 billion euro.

The [EFSF](#) was a company the EU set up in Luxembourg “to preserve financial stability in Europe’s economic and monetary union” by issuing bonds to the tune of 440 billion euro that would generate loans to countries in trouble. So what did they do with that funding? They raised bonds to bail Greece’s creditors—the banks of France and Germany mainly—via loans to Greece. Greece was thus a mere conduit for a bailout. It was not a recipient in any significant way, despite what is constantly repeated in the media. Of the roughly 230 billion euro disbursed to Greece, it is estimated that [only 27 billion](#) went toward keeping the Greek state running. Indeed, by 2013 Greece was running a surplus and did not need such financing. Accordingly, 65 percent of the loans to Greece went straight through Greece to core banks for interest payments, maturing debt, and for domestic bank recapitalization demanded by the lenders. By another accounting, 90 percent of the



“loans to Greece” [bypassed Greece entirely](#). Telling though those numbers are, they still miss the fact that, after Mario Draghi took over from Jean Claude Trichet at the ECB in late 2011, Draghi dumped around 1.2 trillion euro of public money into the European banking system to bring down yields in the Long Term Refinancing Operations ([LTROs](#)). Bond yields went down and bond prices soon went up. This delighted bondholders, who got to sell their now LTRO-boosted bonds back to the governments that had just bailed them out. In March 2012, the Greek government, under the auspices of the troika, launched a [buy-back scheme](#) that bought out creditors, private and national central banks, at a 53.4 percent discount to the face value of the bond. In doing so, 164 billion euro of debt was handed over from the private sector to the EFSF. That debt now sits in the successor facility to the EFSF, the European Stability Mechanism, where it [causes much instability](#). So if we want to understand why the combined powers of the eurozone can't deal with a problem the size of a U.S. defense contract overrun, it's probably wise to start here and not with [corrupt Greeks](#) or [Swabian housewives'](#) financial wisdom. As former Bundesbank Chief Karl Otto Pöhl [admitted](#), the whole shebang “was about protecting German banks, but especially the French banks, from debt write-offs.”

To fix the problem, someone in core Europe is going to have to own up to all of the above and admit that their money wasn't given to lazy Greeks but to already-bailed bankers who, despite a face-value haircut, ended up making a profit on the deal. Think about it this way. If 230 billion euro had been given to Greece, it would have amounted to just under 21,000 euros per person. Given such largess, it would have been impossible to generate a 25 percent unemployment rate among adults, over 50 percent unemployment among youth, a sharp increase in elderly poverty, and a near collapse of the banking system—even with the troika's austerity package in place.

To fix the problem, someone in core Europe is going to have to own up to all of the above and

admit that their money wasn't given to lazy Greeks but to already-bailed bankers who, despite a face-value haircut, ended up making a profit on the deal. Doing so would, however, also entail admitting that by shifting, quite deliberately, responsibility from reckless lenders to irresponsible (national) borrowers, Europe regenerated exactly the type of petty nationalism, in which moral Germans face off against corrupt Greeks, that the EU was designed to eliminate. And owning up to that, especially when [mainstream parties' vote shares](#) are dwindling and parties such as Syriza are ascendant, simply isn't going to happen. So what is?

Despite Germany being a serial defaulter that received debt relief [four times in the twentieth century](#), Chancellor Angela Merkel is not about to cop to bailing out D-Bank and pinning it on the Greeks. Neither is French President Francois Hollande or anyone else. In short, the possibilities for a sensible solution are fading by the day, and the inevitability of Grexit looms large. It is telling that Tsipras and his colleagues repeatedly used the phrase “48 hours”—sometimes “72 hours”—as the deadline for getting a new deal with creditors once the vote was in. This number referred to how long Greek banks could probably stay solvent once the score went to 2-0.

At the time of writing, the ECB is not only [violating its own statutes](#) by limiting emergency liquidity assistance to Greek banks, but is also [raising the haircuts on Greek collateral](#) offered for new cash. In other words, the ECB, far from being an independent central bank, is acting as the eurogroup's enforcer, despite the risk that doing so poses to the European project as a whole. We've never understood Greece because we have refused to see the crisis for what it was—a continuation of a series of bailouts for the financial sector that started in 2008 and that rumbles on today. It's so much easier to blame the Greeks and then be surprised when they refuse to play along with the script.

*Mark Blyth is Eastman Professor of Political Economy at Brown University.*



## Remarks by President Donald Tusk following the first session of the European Council meeting

### Press release

Source: <http://www.consilium.europa.eu/en/press/press-releases/2015/06/25-tusk-remarks-first-press-conference/>

June 26 – As you know there is not yet an agreement between Greece and the Institutions and hence no agreement in the Eurogroup. That is why I asked the President of the Eurogroup to brief leaders on the state of negotiations with Greece. Leaders had a long discussion and are fully aware of the situation and potential consequences. We agree on our support for the Institutions and the current process of negotiations. Leaders have agreed there is no need for another Euro Summit, not tomorrow or over the weekend. Leaders expect the Eurogroup to conclude this process at their meeting on Saturday.

Today, we had a very long discussion on migration. In our search for a new European consensus on migration, today's decisions on return policy are the first step. **Migrants with no legal right to enter the EU must be returned.**

The Spanish experience on return was shared by Prime Minister Rajoy. In the past, Spain was faced with a large wave of illegal migrants to the Canary Islands, and yet it managed to prevent this wave. Europe is learning from such experiences.

Today, leaders agreed to accelerate readmission negotiations with the third countries and to fully implement EU rules on returns. We also agreed to use our trade and development agreements on the basis of the 'more for more' principle. Finally, Frontex will get more powers to help return illegal migrants. The Commission was tasked to deliver.

**We also need solidarity with frontline countries. Leaders agreed that 40,000 persons in need will be relocated from Greece and Italy to other states over the next two years. Interior ministers will finalise the scheme by the end of July. And another 20,000 will be resettled. So that is a total of 60,000 persons in need of protection.**

I am also convinced that there will be no solidarity on relocation so long as migrants are not properly registered. The EU can help with logistical and financial support. Respect for our rules is a must. If the rules are not respected by everyone, Schengen will be at risk.

**The current crisis concerns not only Italy and Greece. Since the beginning of the year, a third of asylum seekers have been registered in Hungary - that is more than in Italy. Our approach needs to be geographically comprehensive.**

Finally, the British Prime Minister set out his plans for an in/out referendum. **So the talks on UK renegotiation will now get underway.** It was the first step in a longer process that will also end at the European Council. As I said earlier today one thing should be clear from the very beginning: the fundamental values of the European Union are not for sale and so are non-negotiable. We should consider British concerns, but only in a way which will be safe for all Europe. **We will come back to this in December.**

**EDITOR'S COMMENT:** Another proof of European solidarity! 60,000 for Italy and Greece (over a few millions)... Hungary faces bigger problem than Italy and Greece! Perhaps because Hungary threaten to step away from Dublin II and changed its mind after a few hours. EU will renegotiate UK's status in the union! What gives UK the right to enjoy better terms than the rest of EU member-states? And after a very fruitful meeting they will continue in December – when few more thousands of illegal immigrants will be gathered in the EU gates affecting economies and social webs. Congrats Mr. Tusk – job well done! Perhaps the same person who addressed Greek PM by saying "The game is over!" meant much more than the financial frictions within EU. The EU game is over in many levels!



# WAR CRIMES



**VITENAM: 8 June 1972**

**US napalm attack**

**Kim Puck – The girl in the picture**



**2015**



## Converting churches into mosques

Source: <http://galliawatch.blogspot.gr/2015/06/converting-churches-into-mosques.html>

In April, the grand mufti of the Paris mosque Dalil Boubakeur (below) insisted that the number of mosques in France was insufficient for the seven million Muslims in the country. His figure is a bit higher than the official figure of four to five million.



The true figure, however, is well above seven million, (though no one can say exactly how many Muslims are in France).

Europe 1 reported:

"There are many prayer rooms, incomplete mosques, and many mosques not yet built. I think we need twice as many. We have 2,200, we need double that number in two years."

**Note: The figure usually given is 2,500.**

The leader of the Paris mosque did not indicate how these buildings could be funded, a sensitive topic at a time when the government is trying to avoid financing from foreign States.

**Now, Dalil Boubakeur has come up with an ingenious solution - convert churches that are abandoned into mosques. In a recent interview on Europe 1 with Jean-Pierre Elkabbach he said: "It's a delicate problem, but why not?"**

And he cited the case of Clermont-Ferrand where "nuns welcomed Muslims." It is true that for more than thirty years the unoccupied chapel has been used as a mosque, at no charge, thanks to a congregation of nuns.



In Clermont-Ferrand, the ex-chapel of the Saint-Joseph sisters is now the Attawhid mosque.



In Graulhet, the Saint-Jean church is now the Ennour Al Mohammadi mosque.



In Nantes, the Saint-Christophe chapel is the Al Forqane mosque.

"It's the same God, the rites are closely related, fraternal, and I think that Muslims and Christians can coexist and live together," concluded Dalil Boubakeur.

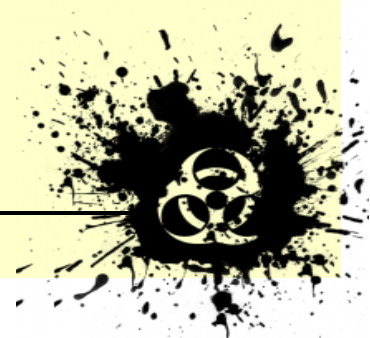
**Note: Does anyone want to count the ways in which the two rites differ?**

How long will it be before Paris does what Berlin is doing - build one building for the three monotheistic religions, fulfilling the prophecy of One World Religion?

At the website *Now the End Begins* read about the Temple of "Chrislam", and how the three religions will benefit from it.

It is rare for a French church to be converted to a mosque. But *François Desouche* provides three examples, including the one mentioned above – photos above.

The mainstream media present this as a good thing. Regarding the mosque in Graulhet, *FranceTV Info* could not be more pleased: In 1981 some priests proposed an abandoned



church to Muslims looking for a prayer room. "At the time we didn't know if we really had the right to transform a church into a mosque," remembers Ali Grouthi, president of the Solidarity Movement of Arabic Culture Association.

The change was made possible with the support of the municipality. Today this openness is praised as exemplary. "There was a sizable Muslim community. It was completely normal and logical to have a place of worship. I think it is an excellent thing that was done in Graulhet," says the current Socialist mayor Claude Fita.

In 1982, another unused church was transformed into a Protestant temple. In Graulhet, these two examples are symbols of a rapprochement between communities.

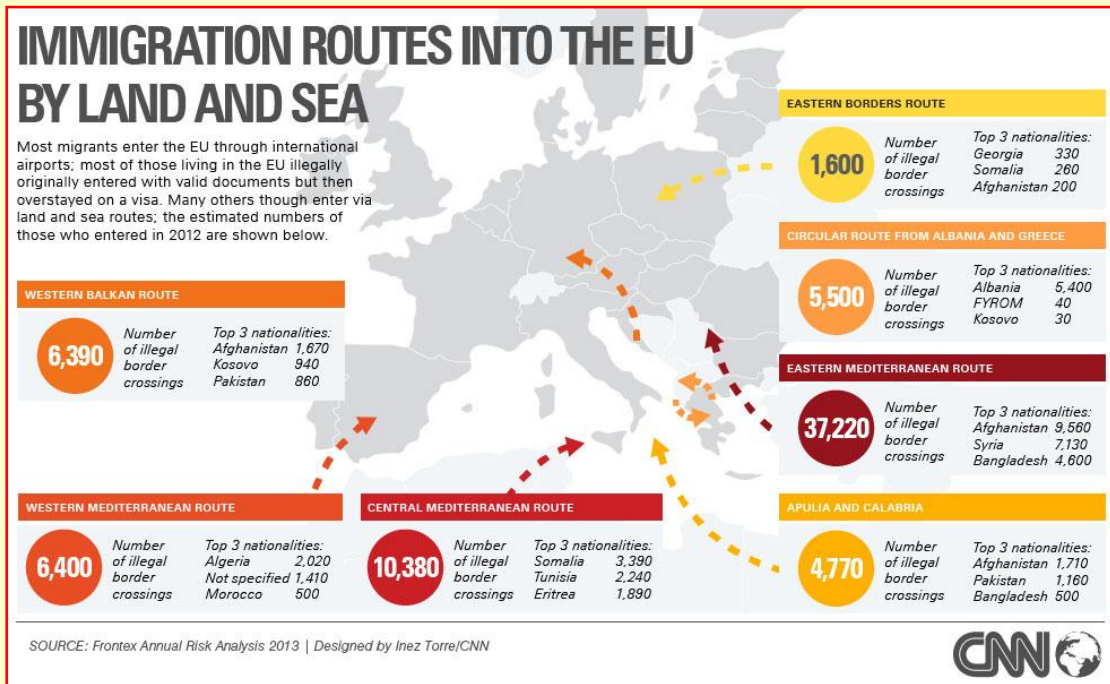
Note: 1981 was thirty-four years ago. Long before 9/11, long before the French were aware of massive migration, population replacement, or inexorable Islamization. 1981 was only seven years after the immigration laws had been changed to allow for family reunification. François Mitterrand would be elected in 1981 for fourteen years. Back then, it must have seemed normal and even enlightened to assist Muslims in need of a prayer room. Today, mayors regularly provide land for mosques, and often rent the land to the Muslims at a token sum. It is no longer exceptional, it is the rule and the entire landscape of the country has been transformed.

**EDITOR'S COMMENT:** What a wonderful idea in a wonderful democracy! Congrats also to these wonderful nuns! But keep in mind that too much love is dangerous for the health of non believers.

## Migrants at Sea: A Growing Humanitarian Crisis

By Dr. Melissa Schnyder

Source: <http://inhomelandsecurity.com/migrants-at-sea-a-growing-humanitarian-crisis/>



In recent years, Europe's refugee crisis has become an increasingly acute issue in need of a coordinated political response. Political instability to Europe's south has prompted a surge in the number of asylum-seekers seeking refuge in the European Union. According to the United Nations High Commissioner for Refugees (UNHCR), more than 398,000 asylum applications were filed across the EU's 28 member states in 2013, representing a 32 percent increase over the previous year. In its publication Asylum Trends, UNHCR estimated that in 2014 the world's industrialized countries would witness the highest number of asylum applications in



approximately 20 years. Seeking basic human security, migrants and refugees are fleeing areas experiencing extreme poverty, armed conflict, or political and social unrest.

### **Migrants at Sea**

Facilitated by networks of human traffickers and smugglers, more and more migrants are embarking on dangerous journeys across the Mediterranean Sea in an effort to reach Europe. In 2013, three times as many migrants arrived in Italy by sea compared to 2012, and in January 2014, that figure was nearly 10 times what it had been the year prior.

Both UNHCR and Frontex, the EU's border management agency, report that the number of attempts to enter southern European countries surged in early 2014. Although many successfully reach Europe's shores, the number of fatalities en route to Europe has risen dramatically. Although it is unknown exactly how many migrants have died attempting to cross the dangerous waters en route to Italy, Spain and other southern European destinations, in late 2013 at least 400 migrants drowned in shipwrecks as they attempted to reach Lampedusa, Italy's southernmost island and its closest point to North Africa. Incidents like these have led the European Union to increase its sea patrols, signifying what many analysts have called a crisis in dire need of a coordinated response.

Europe is not the only region experiencing this crisis. More recently, news wires reported thousands of Rohingya migrants fleeing Myanmar and Bangladesh to be "lost at sea" off Southeast Asia. In May, the International Organization for Migration believed as many as 8,000 Rohingya migrants to be stranded at sea. Since the Thai government began its crackdown on smugglers who are notorious for holding these migrants for ransom in camps in southern Thailand, smugglers are now reported to be abandoning the Rohingya at sea instead. States in the vicinity have generally not been willing to let them land and seek asylum, and the BBC reported that fishermen have also been instructed not to assist them. After weeks spent in rickety boats with very little food or water, in late May Indonesia and Malaysia agreed to take in thousands of migrants until they can either be resettled in another country or sent back home. However, the issue is far from resolved, as questions remain about where the Rohingya will ultimately be settled,

and amid persecution and statelessness at home, more are expected to make the dangerous journey. A United Nations estimate put the number of migrants who fled Myanmar and Bangladesh by sea at about 25,000 during just the first three months of 2015.

### **In Need of a Coordinated Response**

The sharp increase of migrants risking perilous journeys at sea attempting to flee conflict, instability, and persecution has left destination states in Europe and Southeast Asia scrambling to deal with this issue. From a human security perspective, many experts agree that, thus far, the response by states has been woefully inadequate. There is an immediate need to develop a consistent approach, centering on the development of shared guidelines among states in the region for rescue and disembarkation, as well as for determining and meeting protection needs for those seeking refuge. There is also a longer-term need for the international community to take meaningful steps to help stop the flow of refugees; experts have cited prosecuting the ringleaders of smuggling and trafficking operations, in conjunction with providing refugees legal avenues to stay and work on at least a temporary basis, as two recommendations.

In the aftermath of more than 900 migrants having drowned off the coast of Libya in April en route to Europe, the EU is realizing more than ever the need for a coordinated response. Yet, as The New York Times reported, "governments are trying to balance humanitarian responsibilities against budget constraints and widespread public sentiment against immigration." Many experts agree, however, that more effective measures need to be put in place. In a letter to the EU heads of state on preventing deaths at sea, Human Rights Watch argued that "what is required is a multinational operation with a clear mandate to actively seek out and rescue migrants and asylum seekers in distress at sea, and bring them to safe EU ports, where their claims can be processed in an orderly manner with all their rights' respected and



protected. The EU should also work quickly to set up safe and orderly methods for people to seek asylum in the EU without having to put their lives in the hands of unscrupulous smugglers.”

In a post 9/11 world, states are more likely to view migration and asylum as security issues, and as a result may be less likely to consider

the human security issues involved. This approach can prevent the concept of *shared responsibility among states*, which invokes a wider sense of responsibility and burden-sharing among the international community to help address the humanitarian crisis of migrants at sea, from being effectively put into practice.

*Dr. Melissa Schnyder is an associate professor of International Relations at American Public University, where she teaches courses on international organizations, European politics, comparative politics and international relations theory. She researches the role of non-state actors in influencing international political processes and outcomes. Her forthcoming book, Activism, NGOs and the State, examines transnational and domestic networks of organizations in Europe working on behalf of migrants and refugees.*

**EDITOR'S COMMENT:** Research is nice and very important in academia. But solutions are equally important – and this article provides none...

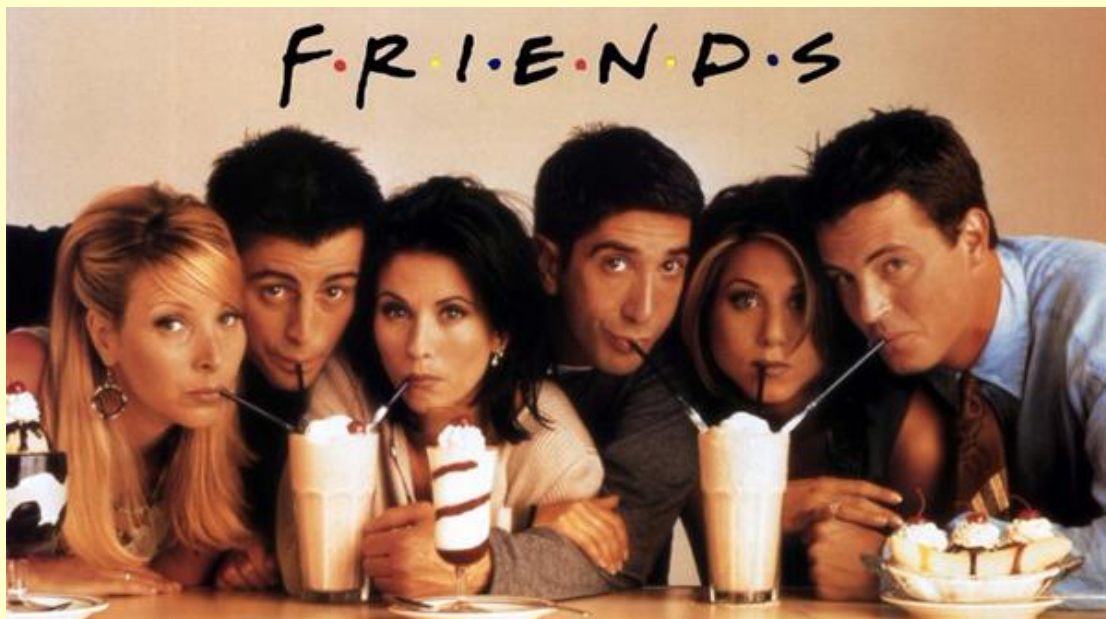
## The migrant crisis, Islamist terrorism, Grexit and Brexit: a perfect storm of crises blows apart European unity

By Toby Helm (Political editor – The Guardian)

Source: <http://www.theguardian.com/world/2015/jun/28/eu-summit-migration-greece-crises-uk-referendum>

the guardian

20



June 28 – The time was shortly after 3am when David Cameron descended from level 80 of the vast Justus Lipsius building in Brussels on Friday. The birds were singing as he was whisked away for a much-curtailed sleep at the British ambassador’s residence, five minutes up the road.

The prime minister is no novice when it comes to long and tedious discussions at European summits. But what he had just witnessed over a seemingly never-ending dinner with the other 27 EU leaders was something different altogether.



The immediate crisis under discussion was migration and what the EU should do to handle the many thousands who have crossed the Mediterranean from Africa and the Middle East and arrived via Italy and the western Balkans over recent months. Increasingly, Europe is a magnet for those seeking a better life. But the EU does not know how to react and the problems are spreading. Last week a strike by French workers at Calais caused huge tailbacks on motorways leading to both the ferry port and Channel tunnel as hundreds of migrants – mainly from east Africa, the Middle East and Afghanistan – tried to take advantage of queuing traffic by breaking into lorries bound for the UK.

Against this background, a supposedly cordial working dinner, held high in the Council of Ministers building, rapidly descended into personal insults and finger-jabbing – which an exhausted-looking

Cameron later summed up as “lengthy and, at times, heated discussions”.

Matteo Renzi, the Italian prime minister, was incensed by the refusal of several countries, including Hungary, which has taken in 60,000 refugees since the beginning of the year, and the Czech Republic, to agree to take part in a compulsory refugee-sharing scheme to help ease Italy’s burden. Cameron kept fairly quiet. The UK has opted out of EU asylum policy and Renzi, who was in an emotional state, did not need to be reminded of its non-participation. But others took up the cudgels as the row intensified across the table. Dalia Grybauskaitė, the Lithuanian president, told Renzi in no uncertain terms that her country would not take part either. Bulgaria, one of the EU’s poorest countries, took a similar line. Disputes flared. European commission president Jean-Claude Juncker, prime mover behind the idea of compulsory burden sharing, and council president Donald Tusk tore strips off each other over what should be done, as inter-institutional solidarity broke down.

Angela Merkel said that the migration challenge was the most serious and difficult she had encountered in the EU during her time as German chancellor (Greece is also

somewhat on her mind) as Renzi railed against fellow leaders for betraying the EU’s values. A voluntary scheme was all that was agreed. “Do as you like,” Renzi protested. “If this is your idea of Europe, keep it for yourself ... you do not deserve to call yourself Europe. Either we have solidarity or we waste our time!”

Solidarity is indeed needed these days in a 28-nation EU that is creaking, not just under the weight of one crisis but several. Greece has been on the brink of defaulting on a payment to the IMF for weeks, placing its future in the euro and the EU in grave doubt, and is now heading for a defining referendum next weekend which could truly lead to Grexit. Meanwhile the UK is heading towards its own in/out referendum, also causing anxiety across European capitals.

Nerves and tempers are fraying, as the migrants pour in. The EU is used to expanding its borders, and deepening ties, not losing members and limiting its role.

Those from outside who regard their mission as to expose the EU as an unnatural political-cum-economic marriage of nations unsuited to union sense their moment.

In a dapper blue suit, Ukip leader Nigel Farage was prowling around the Brussels summit on Friday, declaring that the “triple crisis” was the beginning of the end for the EU, the moment it would be shown to have over-reached itself – when the poorer south would fracture from the wealthier north, when the consequences of open borders would divide members, and all would begin to implode. It was already happening with Greece. “I always said the euro would take 10 years to self-destruct and it is happening,” he said.

Greece’s problems haunted two days of talks. Meetings of heads of government and emergency gatherings of finance ministers and senior officials were called on and off in rapid succession, as a result of lack of progress but in full knowledge that a deal had to be done within days to avoid the first loss of a euro member and possible Grexit from the EU. All wrestled with how to reach a compromise with a leftwing government led by the combative Greek Prime Minister



Alexi Tsipras. Greece has to transfer €1.54bn to the IMF by Tuesday, to unlock more bailout funds from Brussels. Without the money, Athens can't afford to pay up and may be forced out of the single currency that was supposed to be the glue that bound Europe's inner core of true believers together in perpetuity.

Diplomats oscillated between rushes of optimism that Tsipras might give ground and accept more reform at home, including cuts to Greek pensions and a growing realisation that, in his Syriza movement, there are forces that might never bow to austere demands from distant Brussels authorities for fiscal discipline, whatever the price for Greece.

As one EU official put it on Friday: "We simply can't second-guess them any more. We thought they would do a deal when it came to it ... There are some who think it may be best to let them go." Yesterday, ahead of the latest "emergency" meeting of finance ministers, there was more talk about a plan B for Greece (what to do to prevent a Greek default from causing economic contagion across the EU) than the endlessly discussed plan A (how to stitch a compromise together). Among diplomats there was a growing view that, if the wider damage to Europe could be contained, perhaps the EU was better off saying goodbye to Tsipras and Greece, than in spending endless time and money attempting to force a square peg into a round hole.

As for the "British problem", it hardly raised its head during this summit. It was one crisis too many, and not the most pressing. That may not bode well for Cameron's attempts to achieve a renegotiation of British membership before he holds an in/out referendum either next year or in 2017. The last thing EU leaders wanted was to spend precious time nit-picking over UK demands to amend treaties and change rules on founding principles, such as the freedom of movement of workers, which few will entertain anyway. Cameron had billed the meeting as the moment when he would launch his plans for reform and focus minds on the fact that the UK means business.

The original plan was that he would be given time at the start of the dinner meeting to lay out his stall in some style. As it was, they managed to squeeze him in for five minutes at 11pm – between their arguments over migration.

Cameron said people in the UK were unhappy with the EU, but avoided much detail. One official said it was a welcome intermission which allowed people a little time to "redraft the conclusions on migration" – suggesting minds were not entirely on what the prime minister had to say.

Eight pages of summit conclusions on other matters ended with a fourth item of fewer than two lines, entitled just "UK". It read: "The UK prime minister set out his plans for an in/out referendum in the UK. The European Council agreed to revert to the matter in December." It is not that other EU leaders do not want to help Cameron, but more that they have not got much time or energy to do so. Talks will now grind on at official level for months over UK demands to curb welfare payments for EU migrants, demands to opt out of "ever-closer union", demands to give more powers to national parliaments to block EU laws, and demands to ensure that what goes on inside the eurozone does not compromise the interests of those outside.

At this summit Cameron's tone was different, less truculent. No doubt he realised that this was not the moment for UK grandstanding. He also seems to have accepted the need to build alliances, and that winning treaty changes in the EU for Britain requires a subtler, friendlier approach than when he came to Brussels to block things. This time he is the "demandeur" in the relationship, not the blocker. At his press conference after the summit, Cameron did something he has refused to do recently at home. He said clearly that he would prefer the UK to stay in the EU. "I believe it is beneficial for Britain," he said, abandoning recent neutrality on the matter. A diplomatic memo leaked to the *Guardian* showed he had made a similar point to EU leaders.

Cameron opened his concluding press conference with a long, strong statement on the appalling terrorist attacks in Tunisia, France and Kuwait, stressing the need for global solidarity and cooperation to hunt terrorists and enhance security. Again, preaching about the national interest at such a moment would have seemed out of tune. With the EU so preoccupied, there were signs that Cameron may also now be soft-peddling on his more controversial demands for treaty



change, particularly the idea of banning EU migrant workers from claiming social benefits, such as tax credits or child benefit, for four years.

There was no mention of this specifically in his short talk at dinner, something that did not escape the notice of those who listened. It was whisked over in very general comments about reform as if it were just too incendiary to touch. The “British problem” as a whole was not of the moment. But, at some point soon, it will come to a head. If Cameron fails to achieve much more than the status quo – which may be the case – it will not escape the notice of Eurosceptics at home who will say it proves that the EU can never change and shows, therefore, that Britain should leave. EU leaders

say they will do their best for Cameron, but not if he overplays his hand and refuses to speak up about the benefits of Europe.

As the EU’s crises multiply, and migration and terrorism threaten, there may be ill temper, tension and division at Europe’s core but there is an underlying determination to hold together. They talk differently now about losing the non-believers.

“We know the British debate,” said one EU diplomat discussing the referendum. “We really have to help where we can because the UK is important – but, in a way, it is like Greece: we cannot do so if the price is too high, and not if it means Europe cannot function as we want in the world.”

**EDITOR’S COMMENT:** Italian PM Matteo Renzi: *“If this is your idea of Europe, keep it for yourself ... you do not deserve to call yourself Europe. Either we have solidarity or we waste our time!”*

## Paul Craig Roberts Warns Greek Government May Be Assassinated In This Crisis If They Pivot East To Stop World War III

Source: <http://kingworldnews.com/paul-craig-roberts-warns-greek-government-may-be-assassinated-in-this-crisis-if-they-pivot-east-to-stop-world-war-iii/>

June 26 – With people around the world worried about the escalating crisis in Greece and conflicts in the Middle East and Ukraine, today former U.S. Treasury official, Dr. Paul Craig Roberts, warned King World News that the Greek government may be assassinated if they pivot East to stop World War III.



Former US Treasury official Paul Craig Roberts (below) says Greece may maneuver to stop World War III

Dr. Paul Craig Roberts: “The Greek

people and the Greek government have before them the unique opportunity to prevent World War III. All the Greek government needs to do, if the Greek people will get behind the government, is to default on the loans, resign from the EU and from NATO, and accept the deal that the Russians have offered them....

“This would begin the unraveling of NATO. Very quickly Spain and Italy would follow. So southern Europe would desert NATO and so would Austria, Hungary and the Czech Republic. NATO is the mechanism that Washington uses to cause conflict with Russia. So as the EU and NATO unravel, the ability of Washington to produce this conflict disappears.

The Greek government understands that what is being imposed on Greece is not workable. Since the (implementation of) austerity the Greek economy has declined by 27 percent. That’s a depression. And they keep hoping that the Germans wake up one day and realize that austerity is not the way you cure debt, and that the Greek government cannot agree to conditions that drive the Greek population into the ground. They (the troika) are talking about (a) genocide (of the Greek population).



The Russians understand that Greece is being plundered by the West and met with the leader of Greece and offered him a deal. They said, 'We'll finance you. But not to pay off the German and Dutch banks, the New York hedge

June and there's still no deal. So that was a correct prediction on your part. But you also went on to say:

"We'll see whether the Greek government does that. Now of course they may not be allowed



funds or the IMF.”

Dr. Roberts' Amazing Predictions From February 4, 2015

Eric King: "Dr. Roberts, this touches on a point that you made during a [February 4 \(KWN\) interview](#). You said:

"There is much more involved here with Greece than just the interests of the creditor banks, who still want to be paid 100 cents on the dollar. There is another strong interest and this is the interest of the centralizing European Union government and the interest of the European Central Bank as the policy-maker for all of the countries. So they are using the Greek crisis to establish that ruling power structure. That makes it difficult to make an agreement with the new Greek government to ameliorate the conditions imposed on Greece. So it makes the EU inflexible. That inflexibility gives Greece the cards to say, 'We're not playing your game. We're going to play a different game and accept Russia's offer.'"

**Was The Greek Government Threatened With Assassination?**

Eric King continues: "You said that back on February 4. Here we are coming to the end of

to. They may be assassinated. It's entirely possible. I've never thought that the United States would allow a new government in any of its vassal states to rise up and become independent of Washington's control. So the new Greek government officials may have an 'accident.' All kinds of terrible things can happen to people, and have, that get out of sync with Washington. We've had several cases in Latin and South America of leaders who wouldn't follow Washington's line having mysterious deaths. There have been a number of them who have been overthrown in CIA organized coups.

Eric King continues: "This Greek drama has been incredible and you have been in front of this story the entire way. You were the first to predict that Russia would get involved and you predicted this deal wouldn't (immediately) get done. But these threats that have been on the table are a bit terrifying if you are the Greek government because you are having to worry about being assassinated (if you don't comply). Is that last part of the puzzle the reason why they haven't been able to work with the Russians or the BRICS Bank? To (simply) default and





say, 'We're not going to be debt slaves to the West (and the IMF). We're going to set up our own currency. We're going to reboot here and we are going to look to the East.'

Dr. Roberts: "Eric, you summed it up very well. That's exactly the case. It could well be that the Greeks know they can't default and leave or they will simply be assassinated. This may have been made clear to them.

**If You Leave The EU, You Are Dead**

The troika has no interest in the facts of the matter. They have another agenda that we already discussed. And the Greek government has to see that there is no interest on the part of the troika to resolve the issue. That does suggest



they understand that the real solution is not open to them. That they will not be permitted to leave the EU and NATO and make this deal with the Russians. I wouldn't be surprised if they have simply been told, 'You can make a

good show of it, but if you leave (the EU,) you are dead.'

Will The Greeks Stand Strong And Save The Planet From World War III?

Otherwise there is this chance that the Greeks, by defaulting and leaving Europe, begin a process of unraveling NATO. Therefore, the Greeks have in their hands the ability to save the planet from World War III."

*Dr. Paul Craig Roberts was Assistant Secretary of the Treasury for Economic Policy and associate editor of the Wall Street Journal. He was columnist for Business Week, Scripps Howard News Service, and Creators Syndicate. He has had many university appointments. His internet columns have attracted a worldwide following. Roberts' latest books are The Failure of Laissez Faire Capitalism and Economic Dissolution of the West and How America Was Lost.*

**EDITOR'S COMMENT:** Conspiracy games? Reality games? Extraterrestrial games? Geochess games? Brain schizoid games? Combination games? Depends on which side of the ocean you live in. What is proven true is the fact that what is happening in the world TODAY has been planned and executed long time ago (decades). And none of these plans was for the best of the people inhabiting Planet Earth...

**2nd Largest Nationality Living In Each European Country**

Source: <http://brilliantmaps.com/2nd-largest-nationality/>

The map below shows the flag of the 2nd largest nationality, by country of birth, living in each European country. Thus, it may include citizens and those who have moved temporarily for work. Nevertheless, there are many surprises, such as:

- Ireland is no longer the largest source of foreign born residents to the UK. Since 2011, they've dropped to 4th, behind India, Poland and Pakistan.
- Neither the Czech Republic nor Slovakia are each other's second largest nationality, despite both being successor states to Czechoslovakia.
- Despite both being comprised primarily of ethnic Albanians, neither Kosovo nor Albania are each other's second largest national group.
- Poles make up the 2nd largest group in Ireland, Iceland, Norway and Lithuania.
- Turks make up the 2nd largest group in not only Germany, but also the Netherlands, Denmark, Austria and Bulgaria.
- Although you can barely see it on the map Portugal born residents are the 2nd largest group in Luxembourg, while Brazilians make up the 2nd largest group in Portugal.



- The impact of the former USSR can still be fairly clearly seen, given that Russians make up the 2nd largest group in Estonia, Latvia, Belarus and Ukraine. However, in Russia itself Ukrainians are the 2nd largest group.
- Similarly Serbs make the 2nd largest group in 4 of the 7 successor states to Yugoslavia (Slovenia, Croatia, Bosnia and Herzegovina and Montenegro) yet Hungarians are the 2nd largest group in Serbia.
- Finally, the 2nd largest group in Spain, Italy and Hungary are Romanians not Chadians.



Controversially, the map author decided to include Kurdistan as a separate nation. And states that: "I did have a dilemma with Turkey because although Kurdistan isn't a country, Kurds (who don't consider themselves to be Turkish) are by far the 2nd most popular, and it would be misleading to suggest otherwise."

Finally, because I know somebody is going to mention it, the United Kingdom is treated as single country in the map above in keeping with the Countries in the International Organization for Standardization. None of the the 4 constituent countries of the UK is a Sovereign state and thus is not be listed separately.

► For more you should also have a look at the [Most Popular Migrant Destinations By Country](#) map.



2015



**RESISTANCE**



## How the euro became a weapon of mass destruction

Source: [http://www.washingtonpost.com/opinions/europes-weapon-of-mass-destruction/2015/06/29/2791ecbc-1e9d-11e5-aeb9-a411a84c9d55\\_story.html](http://www.washingtonpost.com/opinions/europes-weapon-of-mass-destruction/2015/06/29/2791ecbc-1e9d-11e5-aeb9-a411a84c9d55_story.html)

Once upon a time, Europe had a dream. It would yoke neighbor to neighbor under a common economic system and thereby end a centuries-long tradition of the states destroying



one another with bombs and bayonets, cannons and crossbows, machine guns and mustard gas.

But instead the countries just gave themselves a new weapon to use against each other: debt. That noble European economic experiment seemed to have promise. The “capitalist peace” theory — which can be traced back at least to Kant and Montesquieu — asserts that trade is a prophylactic for war. Commerce can both humanize the barbarians beyond the border and, more important, make taking a share of their booty substantially easier and less risky.

What better way, then, to broker a perpetual peace than to grease the wheels of commerce among Germany, France, Greece and more than a dozen other once-enmity-filled economies?

Enter the euro. Establishing a common currency was meant to facilitate the cross-border flow of goods, services, people and capital, and thus bond disparate countries through the mutual benefits of trade. But, unfortunately, such numismatic gymnastics made little sense given Europe’s fractured cultural and regulatory landscape. Milton Friedman, among other Cassandras, explained why nearly two decades ago in an essay detailing the best (the United States) and worst (Europe) conditions under which to create a currency union. In Europe, where countries are divided by language, customs, regulatory regimes and fiscal policies, a common currency

would inevitably prove disastrous, he wrote. Shocks hitting one country would heave themselves across the continent if individual countries could not easily adjust prices through their exchange rates.

Rather than promoting political unity, Friedman argued, “the adoption of the Euro would have the opposite effect. It would exacerbate political tensions by converting divergent shocks that could have been readily accommodated by exchange rate changes into divisive political issues.”

Friedman’s predictions look prescient now, though they didn’t at first. When Greece adopted the euro in 2001, it benefited enormously by suddenly being able to borrow far more than it should have ever been allowed to. But this wild, boom-time overborrowing left it destitute when credit and demand dried up during the financial crisis. Thanks to the currency union, Greece no longer had the means — currency devaluation — to inflate away its debts and export its way out of a deepening recession. Instead, its euro-zone family members — particularly Germany, the effective patriarch — insisted on keeping inflation in the shared currency ultra-low, which was precisely the opposite of what Greece needed.

Furthermore, the other euro-zone members insisted that Greece institute severe austerity measures in exchange for the emergency lending it needed to avoid tumbling headlong into default and depression. This demand was made in the spirit of tough love between family members, but it had the effect of pushing Greece into default and depression anyway, just by a different route.

As Friedman predicted, Europe’s attempts to achieve lovey-dovey political harmony through economic unity led to neither. In recent years, according to the European Commission’s “Eurobarometer” polls, Europeans, and in particular those in the troubled countries on the European Union’s periphery, have become substantially less likely to say they feel “attached” to Europe (67 percent in 2007 vs. 56 percent last fall).



And who can blame them? The continent may have seen little in the way of violent conflict since the advent of a common currency, but European countries' history of mutual resentments seems to have been sublimated into punitive economic policies that have caused a different form of suffering. Thanks to the austerity plans imposed by creditors, a quarter of Greece's workers cannot find jobs; the economy has shrunk by 25 percent since 2010; and the country is not a whit closer to being able to pay back its debts. Things finally came to a head in the past few days, with the introduction of capital controls, a self-sabotaging "referendum" vote and a

declaration that the country will miss a 1.6 billion euro payment to the International Monetary Fund due on Tuesday. More defaults, of far larger sums owed in just a few weeks, are inevitable.

Syriza, the far-left party now leading (a strong word) the country, was swept into office last winter by complaining that the country's creditors were brandishing Greek debts as a cudgel to rob the Hellenic state of its sovereignty. Now, Greek leadership may merely want to prove that it, too, can skillfully wield weapons of mass economic destruction — this time, by blowing up the euro zone.

## Our new anti-earthquake technology could protect cities from destruction

By Pierfrancesco Cacciola

Source: <http://www.homelandsecuritynewswire.com/dr20150703-our-new-antearthquake-technology-could-protect-cities-from-destruction>

July 03 – Protecting cities from earthquakes is still a grand challenge that needs addressing, as recent disasters in Nepal, Japan, Haiti, and Chile confirm. Although significant progress has been made in understanding seismic activity and developing building technology, we still don't have a satisfactory way of protecting buildings on a large scale.

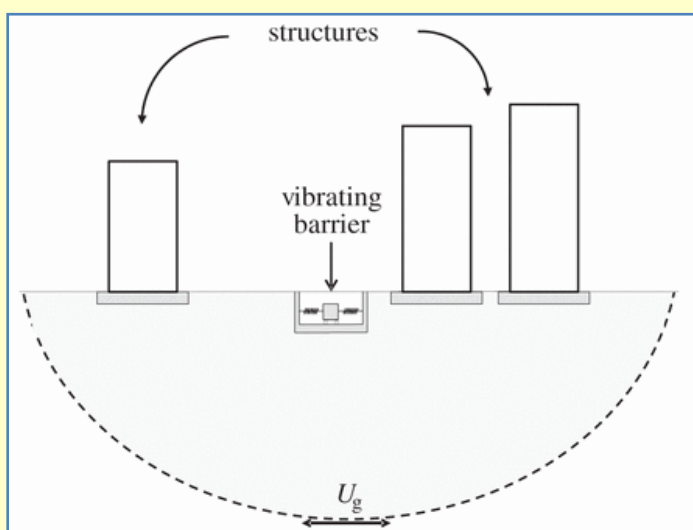
For new buildings, anti-seismic technology is today considered quite advanced and it is possible to build individual structures that can

systems and dampers, which are designed to reduce the vibrations (and as a consequence the damage) of structures induced by earthquakes, are successfully employed in the design of new buildings.

But large numbers of buildings exist in earthquake zones that don't have built-in protection, particularly in developing countries where replacing them or introducing stricter — and more expensive — building codes aren't seen as an option. More than 130,000 houses were destroyed by the earthquake in Nepal in April 2015.

What's more, these technologies are rarely used for protecting existing buildings, as they generally require substantial alteration of the original structure. In the case of heritage buildings, critical facilities or urban housing especially in developing countries, traditional localized solutions might be impractical.

This means there is a need for alternative solutions that protect multiple existing buildings without altering them using a single device. **At the University of Brighton, we have designed a novel vibrating barrier (ViBa) to reduce the vibrations of nearby structures caused by an earthquake's ground waves. The device would be buried in the soil and detached from**



withstand the vast majority of recorded earthquakes. Devices such as isolation



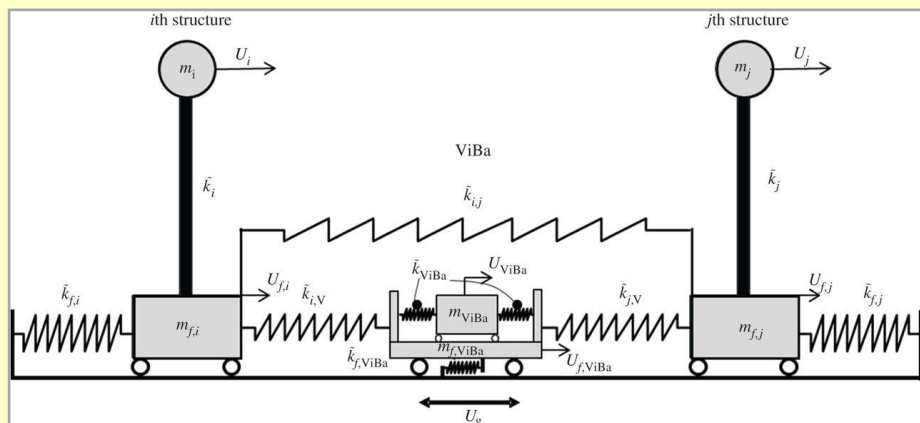
surrounding buildings, and should be able to absorb a significant portion of the dynamic energy arising from the ground motion with a consequent reduction of seismic response (between 40-80 percent).

The idea behind this is to look at buildings as an integral part of a city model, which also includes the soil underneath and the interaction between each element, rather than as independent structures. Each ViBa can be

activities such as road traffic, high-speed trains, large machinery, rock drilling and blasting. In this way, the technology would be able to absorb a larger quantity of energy than traditional measures used to insulate railways such as trenches or buried sheet-pile walls.

**Starting construction**

The problem with the ViBa is its size — it would need to be at least 50 percent of the mass of the average building it was protecting — and how much money it would cost to build and install as a result. So compared to current technologies to protect single buildings it would likely come with a much higher price tag. But as the ViBa can be designed to reduce the vibrations of more than one building or for buildings of historical importance for which current technologies are impractical, it can still be



designed to protect one or more buildings from an earthquake but also it forms part of a network of devices placed at strategic locations in order to protect entire cities.

The ViBa itself is essentially a box containing a solid central mass held in place by springs. These allow the mass to move back and forth and absorb the vibrations created by seismic waves. The entire structure is connected to the foundations of buildings through the soil to absorb vibrations from them. The box's position underground would depend on how deep the surrounding foundations went and could even be placed on the surface.

As the ViBa is designed to reduce all vibrations in the soil, it could also be used to insulate buildings against ground waves from human

considered as a viable solution. So far we have only modelled how the ViBa would work, using computers and prototypes in the lab. To be deployed in the real world we would need to do a lot more experimenting to understand exactly how it would work and to make sure it didn't produce any damaging side-effects on the surrounding buildings. We would also need to work with industry to work out how to build and install it in the most cost-effective way.

But our latest research suggests the ViBa is a viable alternative strategy for protecting buildings from earthquakes. In the long term, it could lead to safer cities that are better equipped to deal with disasters and ultimately save lives.

*Pierfrancesco Cacciola is Assistant Head, School of Environment and Technology at University of Brighton.*

**Meet Grillo, an early warning system for earthquakes that only costs \$50**

Source: <http://www.geekwire.com/2015/meet-grillo-an-early-warning-system-for-earthquakes-that-only-costs-50/>

In Seattle, it's not a question of if, it's the question of when the next big earthquake will hit. Perhaps this little system will be in place before then. **Grillo**, developed in Mexico City to better detect earthquakes, is an advance warning system that its creators are hoping will



save lives and reduce damages around the world — and at a much lower cost than more complicated advance-warning systems like the one in Japan.

Grillo, which means “cricket,” is an in-home alarm system that gives people up to two minutes of warning before an earthquake hits and costs about \$50. The technology combines linking data from existing sensors and distributing it through the cloud.



Grillo’s small in-home sensor includes a precision accelerometer, controller, Wi-Fi and GPS. The team works with seismologists, programming the sensors with detection algorithms. Using cloud servers, they can then send alerts when the system detects a quake to third-party carriers, like phone carriers and app developers.

The system also collects data, which Grillo can use and send to other scientists to study earthquakes in more

detail. Right now, the team is developing the system to cover Mexico, but wants to go global. Who knows? In the future, a simple, low-cost sensor like Grillo could give people enough advance warning to save more lives, especially in places like Nepal.

### An act of kindness amid the Greek tragedy

Source: <http://www.dailymail.co.uk/news/article-3150954/An-act-kindness-amid-Greek-tragedy-Businessman-tracks-weeping-elderly-man-realising-old-family-friend-vows-pay-pension-long-takes-feet.html>

A businessman will fly half way around the world next week to pay the pension of an old family friend who has become the face of Greece’s economic crisis.

James Koufos, a finance CEO based in Sydney, told Daily Mail Australia he will fly to Athens in the coming days after he tracked down Giorgos Chatzifotiadis - the 77-year-old man who was photographed last week weeping uncontrollably outside a bank in Thessaloniki, thanks to social media.

Since the photo was published around the world, Mr Koufos learned Mr Chatzifotiadis was a friend of his late father, George Koufidis, and that the two went to school together in the same Greek village.



Mr Chatzifotiadis had waited in line at four banks across his city in the hope of withdrawing his 120 euro weekly pension but collapsed in despair when he was turned away multiple times.

Images of the elderly man weeping on the pavement and being helped to his feet by a policeman and another man dressed in a suit went summed up the

pain being felt by ordinary Greeks as their country crumbles.

'Seeing those photos, it really hit me... I got very emotional,' Mr Koufos told Daily Mail Australia, adding that at first he was unaware Mr Chatzifotiadis was an old family friend.







'There are links there... We would import things like olive oil and olives and Australians go there on holidays,' Dr Shane Oliver told Daily Mail Australia.

'We have a lot of Greek Australians - Melbourne is the world's second biggest Greek city.

'But in terms of direct economic impact we have a trivial exposure. The main impact on Australian business and exports is really if the turmoil in Greece triggers wider turmoil in Europe.'

**EDITOR'S COMMENT:** This is why Greece with survive despite all odds and efforts!

## Using microwave technology to detect concealed weapons

Source: <http://www.homelandsecuritynewswire.com/dr20150707-using-microwave-technology-to-detect-concealed-weapons>

July 07 – Natalia Nikolova, an McMaster University electrical and computer engineering professor, is part of a team of researchers in Canada and the Ukraine funded by NATO which will be exploring ways to equip soldiers and law enforcement with gear that could detect concealed threats, such as guns and explosive devices, used by terrorists and security threats.

McMaster University reports that the three-year project, which launched 1 July, will study how microwave radar signals sent from either rigged vests or tripods could detect trouble as far as fifteen meters away and send early warning signals of pending danger. These devices could be used anywhere from borders to airports to crowded public events to bars and hotels.

"I believe from an engineering and science point of view that this is doable," says Nikolova, who will be working with research engineer Justin McCombe and Ph.D. student Denys Shumakov on the project along with colleagues from the National Technical University of Ukraine (Kyiv Polytechnic Institute).

"You can have a radar tool that can sense the presence of weapons concealed under clothing at the range of anywhere between half a meter

and fifteen meters. Sometimes this is all it takes to have enough time to prevent a major catastrophe."

**Just like a radar that detects an airplane at a distance, an antenna radiates a pulse that hits a target and the echo of the radio waves carries information about the target back to the device.** These "smart" radars use algorithms based on neural networks to train the device to differentiate between the normal reflections from a human body and abnormal ones, i.e. those carrying traces of the signals due to weapons concealed under clothing.

Nikolova has worked on similar projects in the past, including a screening device that could be mounted at the entrance of public buildings to detect concealed weapons at a range of two to three meters. Patents have been filed on the technology in both North America and Europe.

That work was done between 2010 and 2013 with the support of an NSERC Strategic Project Grant and the Defense Research and Development Canada.

NATO granted \$766,300 to the Canada-Ukraine project. Testing of the new devices will be done at several sites, including the Kiev International Airport.

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## Terahertz sensor detects hidden objects faster

Source: <http://www.homelandsecuritynewswire.com/dr20150707-terahertz-sensor-detects-hidden-objects-faster>

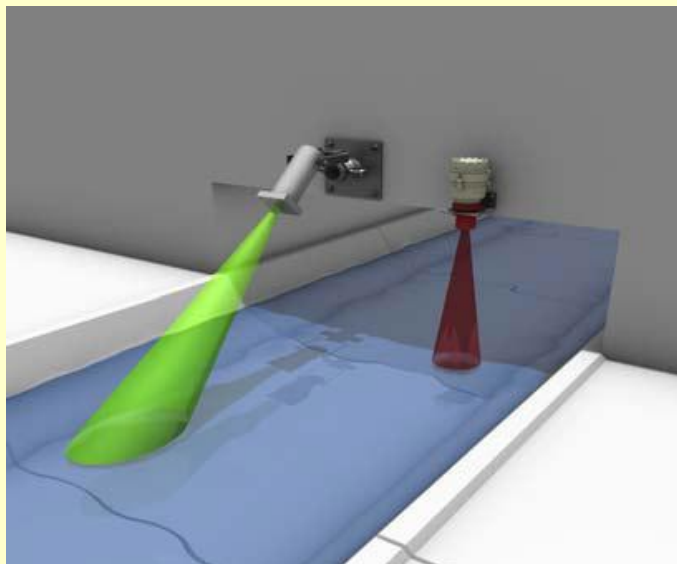
July 07 – A new type of sensor, which is much faster than competing technologies used to detect and identify hidden objects, has been developed by scientists at the University of Warwick.

Called **"Q-Eye,"** the invention **senses radiation across the spectrum between**

**microwaves and infra-red, known as the Terahertz (THz) region of the spectrum** — a goal that has challenged scientists for over thirty years. It works by detecting the rise in temperature produced when electromagnetic radiation emitted



by an object is absorbed by the Q-Eye sensor, even down to the level of very small packets of quantum energy (a single photon). The University of Warwick reports that the device could help address the weaknesses



reported earlier this month in America's airport security, where mock weapons and explosives were smuggled through airports, undetected in



95 percent of cases. It may also prove useful in discovering concealed goods in the retail industry or for non-destructive monitoring, for example quality control in drugs or food. Other applications include astronomical and climate science observations and medical diagnosis. Professors in Warwick's Nano-Silicon Group, Physics Department, Evan Parker and Terry Whall, led the team which developed the device. Professor Parker commented, "We were very surprised when our first very crude prototype showed such impressive speed and detection performance and our initial

calculations indicated world-beating detector capability — all this and using silicon."

**Made using standard silicon processes, large numbers of detector chips containing designs matched to a particular application can easily be fabricated on large (300mm) wafers with great uniformity, setting it apart from existing technologies.**

The patented device involves a thin film of aluminum deposited on top of a silicon layer placed under strain, used to create an electronic cooling (e-cooling) process. The electrons in the silicon layer are so isolated from the silicon lattice they become highly sensitive to incoming radiation. This revolutionary e-cooling process is the secret to Q-Eye sensor's exceptional performance, enabling fast imaging and material identification.

Professors Parker and Whall are currently working on a demonstrator

of the device, having been awarded a £100,000 Smart award from Innovate UK. The work is moving out of academic research into the commercial world, offering opportunities for partnership and investment. Companies involved in the personnel screening market have already expressed interest in the Q-Eye device.

Warwick Ventures, Warwick's technology transfer business, has helped the professors to create a spin-out company, Q-Eye Ltd., to develop and market the technology. Melody Stokes, Warwick Ventures Business Development Manager, and Phil O'Donovan, Warwick alumnus and a Cambridge based business angel, are working with the academics to build the commercial team, secure commercial partners and raise funding to develop the first commercial prototypes.

Melody Stokes adds: "We're delighted to have distinguished Warwick alumnus Phil O'Donovan advise the team. He brings invaluable experience of developing early-stage technology into scalable businesses. The global market for devices that operate in the THz region is growing at around 26 percent year on year, so Q-Eye is well placed to support the UK's strategic lead in the sector. A longer term opportunity lies in



quantum computing, set to revolutionize the

way we handle and encrypt data.”

## UK Female Sharia Judge: Muslims Have Right to Polygamy

Source: <http://www.clarionproject.org/news/uk-female-sharia-judge-muslims-have-right-polygamy>

July 05 – Britain’s first female sharia judge said the UK government has no right to prohibit Islamic polygamy.



Amra Bone said **“the government cannot ask Muslims not to have more than one wife. People have a right to decide for themselves.”**

According to *The Times* some 100,000 Muslims in the UK are currently married under sharia marriages not recognized by UK law. Many of these marriages are polygamous. The growth in sharia marriages is being driven



by people under 30, part of a new generation which is more religious than their parents. Under sharia marriages, not recognized by the British state, women have none of the protections afforded to women under British law. Critically, this means they have no rights to any division of assets in the case of a divorce.

Earlier this year a report found that Muslim women across Britain were systematically

oppressed, abused and discriminated against by *sharia* law courts that treated women as second-class citizens. The 40-page report by Baroness Cox, a leading human rights campaigner, found women were pressured by their communities to use sharia courts rather than civil courts and were threatened and intimidated if they did not comply.

The report, entitled **A Parallel**

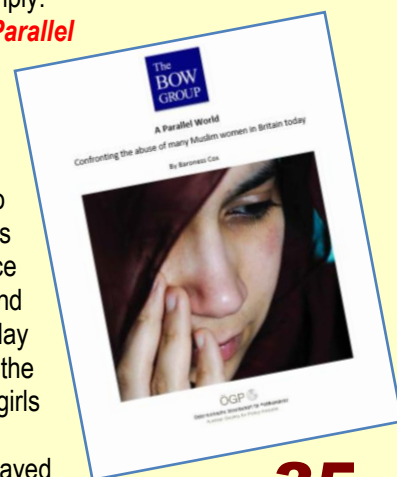
**World: Confronting the Abuse of Many Muslim Women in Britain Today,**

took testimony from more than a dozen women who suffered abuse at the hands of UK sharia courts. Police officers who do not understand the cultural factors at play frequently cooperate with the *sharia* courts and betray the girls to their abusive families.

One woman said “I feel betrayed by Britain. I came here to get away from this and the situation is worse here than in the country I escaped from.”

Meanwhile in the UK, non-violent Islamists are attempting to use mistrust between police and communities to eradicate any sense of British identity among the Muslim population. The undercover video below, filmed for the BBC, shows an Islamist lawyer and Hizb ut-Tahrir member, Ibtihal Bsis, telling a group of Muslim women the Islamic State is merely a pretext for demonization of Muslims by the UK government. She told her audience the UK government wants to prevent Muslims from expressing their Islamic identities, thus fueling the “us vs them” narrative on which extremism is predicated.

These claims deny the reality of Islamic State recruitment among British Muslims. A family of 12 just confirmed they left the UK and are now living in the Islamic State.



► Read the full study at: <http://www.bowgroup.org/policy/bow-group-report-parallel-world-confronting-abuse-muslim-women-britain>



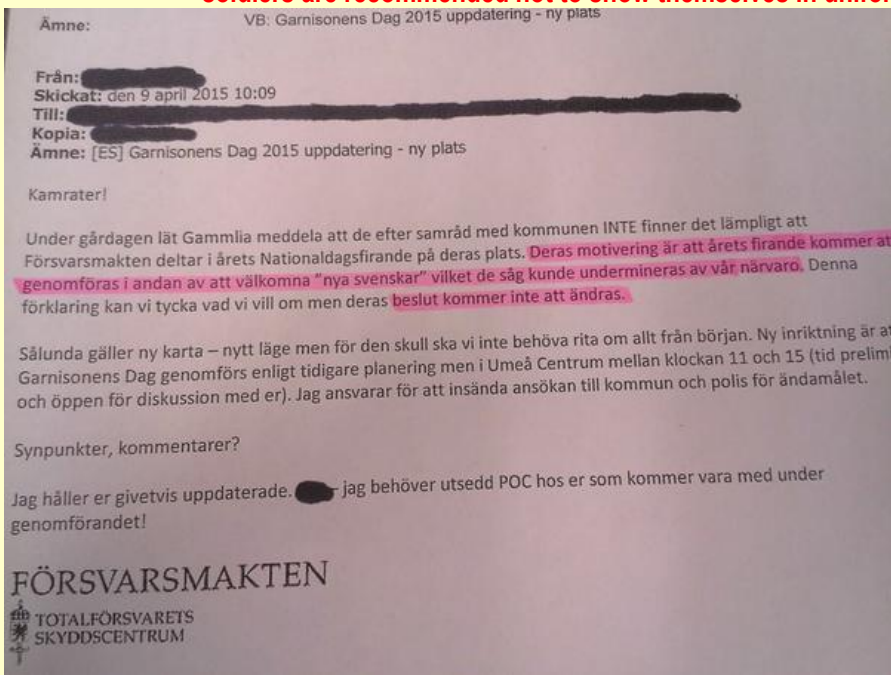
## Swedish Armed Forces not welcome at National Day celebration

Source: <https://www.swedishweekly.com/swedish-armed-forces-not-welcome-at-national-day-celebration/>



The Swedish National Day should be for the “new Swedes”, according to Swedish politicians. Therefore the Swedish Armed Forces are no longer welcome at the celebration. At the same time the **Swedish soldiers are recommended not to show themselves in uniform publicly, as it might be dangerous for them.**

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The 6th of June is the Swedish National Day, celebrating the uniting of the Swedish kingdom by Gustav Vasa in 1523. Since 2005 it's a public holiday, and around the country it's celebrated in various forms.

Well, “celebrated” is maybe the wrong word here. Many municipalities for example arrange “celebrations” where they welcome “new Swedes” (read: non-Swedish immigrants from all over the world) and in other parts of the country, left-wing organizations are burning the Swedish flag. Between 2005 and 2008, Swedish nationalists arranged a big parade in the capital, Stockholm, but after that most

celebrations among nationalists take part in smaller groups and in a less political manner. At some celebrations the Swedish Armed Forces (*Försvarmakten*) participate, but in one municipality (so far), Umeå, they are not welcome anymore. According to a letter from the Swedish Armed Forces, the municipality thought “that the presence of the armed forces” could “undermine the celebration of the new Swedes”.



These news comes just a month after a warning issued by the security department of the armed forces, which warned soldiers to wear uniform in public. General Karl Engelbrektsson motivated the warning with: "it is unnecessary to put on the away teams scarf when standing among the supporters of the home team".

So, if the Swedish Armed Forces are the "away team" in Sweden, who is the home team?

**EDITOR'S COMMENT: O tempora o mores! (Cicero)**

## The Missing German Reparations for Greece

Dr Gary K. Busch

Source: [https://www.academia.edu/9189062/The\\_Missing\\_German\\_Reparations\\_for\\_Greece](https://www.academia.edu/9189062/The_Missing_German_Reparations_for_Greece)

Discussions are underway again by the Troika and the finance ministers of the European Union about additional sums to be allocated to cover Greek debt. In addition to the previous "bail-outs" by the EU the continuation of the stringent austerity plans by the administering Troika have left Greece unable to continue to service its debts without further offsets of their indebtedness by the European Union. An important critic of Greece and its economic and budgetary policies has been the Government of Germany.

An important reason for Greece's penury, beyond Greek corruption and mismanagement over its economy in the post war years, is the failure of Germany to pay to Greece the money its owes Greece for its actions during the Second World War. German activity in Greece resulted in two kinds of debt – a massive program of crimes against humanity and mind-boggling barbarism by the German occupying forces against Greek civilians and villages and by taking money from Greece's Treasury as a forced loan to cover the costs of the German Occupation. Neither of these sums has been repaid to Greece. The Greeks have ended up paying for the German occupation during the war. It might be useful to examine a few of the German attacks on the Greek people to understand the depth of German depravity in the 1940s. There are many more.

### The Massacres of Kondomari, Alikianos and Kardanos in Crete

The first of these massacres occurred early in the war. On the second of June 1941 General Oberst Kurtl Student ordered his paratroopers to execute all the male inhabitants of the town of Kondomari in Crete as punishment for opposing the German attack on the island two days earlier, where the local inhabitants fought alongside the 21st and 22nd New Zealand Infantry Battalion in defence of Crete.



While the New Zealanders were treated as prisoners of war, the Germans decided to set an example to the Greeks. They gathered all the citizens of the town (men, women and children) and machine-gunned all the men; about 60 in all. They then razed the town and burned the fields.

#### Greek Victims at Kondomari

The next day the Germans killed another 180 residents of nearby Kardanos and slaughtered all the livestock; all houses were torched and razed

Nearby villages such as Floria and Kakpattro a similar fate Two months after the first execution, the Germans gathered 118 more civilians at a bridge over the Keritis River near Alikianos and shot them after forcing them to dig their own graves. The commander of the paratroopers, Horst Trebes was awarded the Knight's Cross for his actions that day and General Student went before a British military tribunal after the war and was sentenced to five years in prison but was given a medical discharge so he had to serve no time. No reparations were ever paid for any of this despite a series of Greek appeals.



**The Viannos and Amari Massacres**

At the Cretan Resistance continued the Germans pursued their policy of atrocities against the civilian population of Crete. On September 14-16 1943 Lt.-General Friedrich-Wilhelm Mueller (“The Butcher of Crete”) ordered the mass extermination of the civilians in twenty villages in the Viannos region of Crete. Over 500 civilians were killed in a two-day period and the villages were looted, burned and the crops destroyed. The German soldiers killed everyone over the age of sixteen. General Mueller was captured at the end of the war and tried and executed by the Greeks in 1947. No one else was tried for these killings and the German Government refused to pay any reparations. General Mueller also was held to be the man who commanded the Holocaust of Amari in Crete ion August 22, 1944 when German troops massacred 164 of the males in nine villages in the Amari region and razed and burned all the buildings, killed the livestock and destroyed the crops. No reparations have ever been paid.



**The Massacres of Mousiotitsas, Kommemo and Lingiades**

On the 16th of August 1943 General Hubert Lanz whose troops were based in Phillipada in Epirus in Western Greece ordered his men to destroy the village of Kommemo, claiming the civilians had threatened two German officers. The Germans started off by massacring one hundred and fifty-three men, women and children between the ages of one to seventy-five in Mousiotitsas on July 25th because of the discovery of a cache of weapons near the village. They then moved to Kommemo.



Under the command of Lt. Koviak the German soldiers arrived very early in the morning at the town of Kommemo and surrounded it. They blocked the roads, and erected machine guns at the entrances and exits of the village. The mountain troops then murdered anyone who could not flee: 317 people, 172 women and 145 men were killed. Ninety-seven were under fifteen years of age and fourteen were over sixty-five. Thirteen were only one year old. Thirty-eight people were burnt in their houses. One hundred and eighty-one houses were destroyed... At the end of the slaughter, the German soldiers assembled in the town square where they ate their lunch and had their beers surrounded by the corpses of the civilians They left their the empty beer cans and rubbish next to the bodies.

*Some of the Kommemo Victims*

They then moved to neighboring villages. Over 200 people were massacred. Among them were all those inhabitants of Lingiades who had not fled to the mountains. In this single village 87 civilians were killed, including year-old babies and old people over the age of ninety.



Eventually General Lanz was tried at the Nuremberg Court and given a short sentence. When he left jail he became a prominent figure in post war Germany. No reparations were ever paid.

### The Massacre at Kalavryta

In December 1943, the German Army's 117th Jaeger Division led by General Karl von Le Suire ordered harsh and massive reprisal operations across the region for Resistance activity. He personally ordered



killing of the entire male population of Kalavryta on 10 December 1943. Wehrmacht 'Kampfgruppe Ebersberger' troops burnt villages and monasteries and shot civilians on their way to Kalavryta. When they reached the town they locked all women and children in the school and marched all males 12 and older to a hill just overlooking the town. There, the German troops machine-gunned them all down. There were only 13 male survivors. Over 500 died at Kalavryta. The survivors told their story of survival, saying that after the Germans machine-gunned the crowd, some falling bodies were covered by the dead. This way, when the Germans went through again to finish off those still alive, the few lucky ones escaped the coup-de-grace. The women and children managed to free

themselves from the school and the town was set ablaze. The following day the Nazi troops burnt down the Monastery of Agia Lavra, a landmark of the Greek War of Independence. In total, nearly 700 civilians were killed during the reprisals during Operation Kalavryta. Twenty eight communities - towns, villages, monasteries and settlements were destroyed. In Kalavryta itself about 1,000 houses were looted and burned and more than 2,000 livestock were seized by the Germans.

There is a contemporary video (in Greek) which illustrates the massacre: [http://www.youtube.com/watch?feature=player\\_embedded&v=K8tgjMYHTKM](http://www.youtube.com/watch?feature=player_embedded&v=K8tgjMYHTKM)

Despite the fact that the Federal Republic of Germany has publicly acknowledged the Nazi atrocity at Kalavryta, war reparations have not been paid. On 18 April 2000, the then-president of the Federal Republic of Germany, Johannes Rau, visited the town of Kalavryta to express his feelings of shame and deep sorrow for the tragedy; however, he didn't accept responsibility on behalf of the German state and did not refer to the issue of reparations. As reparations, the federal Government of Germany has only offered free school books and scholarships for orphans of this particular massacre and they have also built a senior citizens home. To this day, Germany has yet to compensate the few survivors. Also, no German commanders, (e.g. Major Ebersberger who supervised the massacre and the destruction of Kalavryta and others like Hauptmann Dohnert who led the firing party), were ever brought to justice.

### The Distomo Massacre

On June 10, 1944, the Waffen-SS troops of the 4th SS Polizei Panzergrenadier Division under the command of SS-Hauptsturmführer Fritz Lautenbach went to Distomo, a small Greek town near Delphi to punish the Greek civilians for supporting the Resistance. For over two hours they went door to door and massacred Greek civilians. A total of 214 men,



women and children were killed in Distomo. According to the testimony of survivors the SS forces "bayoneted babies in their cribs, stabbed pregnant women, and beheaded the village priest." In the case of Distomo, four relatives took the German Government to court in Livadeia, Greece. The court found in their favor on October 30, 1997 and awarded damages of 28 million Euros. In May 2000



The Greek High Court confirmed this decision which was being appealed by the Germans, but the plaintiffs could not enforce the judgment in Greece. They went to the German courts for enforcement. The plaintiffs brought the case to court in Germany, demanding the aforementioned damages be paid to them. The claim was rejected at all levels of the German judicial system, citing the 1961 bilateral agreement concerning enforcement and recognition of judgments between Germany and Greece, and



Section 328 of the German Code of Civil Procedure. Both required that Greece have jurisdiction, which it does not as the actions in question were sovereign acts by a state. According to the fundamental principles of international law, each country is immune from another state's jurisdiction. In November 2008, an Italian court ruled that the plaintiffs could take German property in Italy as compensation that was awarded by the Greek courts.<sup>ii</sup> The plaintiffs were

awarded a villa in Menaggio, near Lake Como, which was owned by a German state non-profit organization, as part of the restitution. In December 2008, the German government has filed a claim at the International Court of Justice in The Hague against this action. The German claim was that the Italian courts should have dismissed the case under the international law of sovereign immunity. In January 2011, the Prime Minister of Greece, George Papandreou, announced that the Greek Government will be represented at the International Court of Justice in relation to the claim for reparations by relatives of victims. In its 2012 final judgment, the court ruled that Italy had violated Germany's state immunity, and directed that the judgment by the Italian courts be retracted.<sup>iii</sup> In the end no reparation was ever paid. Despite these

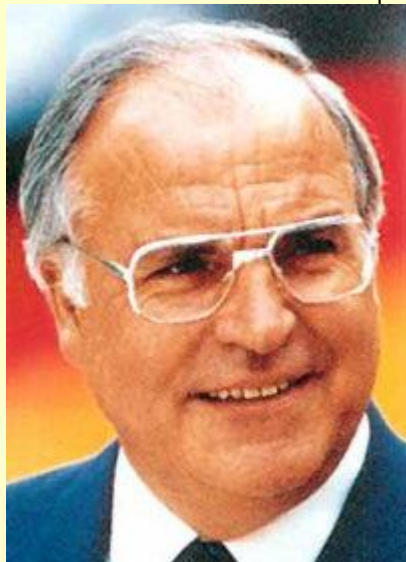




massacres the Germans have not only not paid the reparations due but have fought in all the courts in Europe to absolve itself of any liability for its vicious and barbarous behavior. During the German occupation of Greece more than 460 villages were completely destroyed and approximately 60,000 civilian men, women and children were massacred. Germany has refused to pay them the reparations it was adjudged to have owed these people.

**The Ultimate Hypocrisy**

In addition to the Germans' refusal to pay any reparations for its actions in Greece the Germans have placed the cost of their occupation of Greece on the Greek people. During the war the Nazi Government forced the Greeks to make a loan to the Reichsbank to pay for the costs of occupation; about 500 million Reichsmarks . After the Allied invasion and the collapse of the Nazi regime, the first thing the occupation authorities did was to block all kinds of claims by and against the German government, under the legal fiction that that the German government and the German state didn't exist anymore. Moreover any country wishing to receive Marshall Aid from the Americans under the Marshall Plan had to sign a waiver waiving all kinds of financial claims against Germany from World War II against Marshall Aid. This means that it would not be entirely blocked, but it would have to [be] put on hold until post-war Germany had paid off its Marshall Aid from the United States. In technical terms what that did was to make reparation and credit claims against Germany from World War II junior,



second rank, lower in rank to Marshall Assistance to Germany. And since everybody wanted to get Marshall Aid from America, everybody grudgingly signed these waivers. So the situation during the Marshall Plan period was that all these debts still existed on paper, but they were worthless in the sense that the debt was blocked.<sup>iv</sup> Since then the Germans have refused any claim for reparations. It was put most clearly by **Helmut Kohl** (photo) when pushed for an answer about Germany's debts. He said" *"look, we claim that we cannot pay reparations, because if we open this Pandora's box, then given the viciousness and brutality of Nazi warfare, the genocides - there were several genocides that the Nazis carried out - given these absolutely horrific facts and the unbelievable scale of these horrific crimes, any attempt to quantify this and translate it into claims against Germany will either come up with ridiculously low compensation or it is basically going to eat up all of*

*Germany's national wealth."* Germany has never budged from that position. So, the Greeks are owed massive sums for reparations. They are owed massive sums for the forced debt the Nazis imposed on Greece to offset the costs of the Occupation. Now they are being hounded by the Germans to press on with an austerity program which will permanently enfeeble Greece and lead to tremendous social friction in the country.

Surely it is time for the Greeks to say that they will not pay a drachma to the new German economic gauleiters which have been impoverishing their country; that they will pay out of the massive sums accruing to it from Germany. If the Europeans ask there is only one sensible reply, **st'arxidia mou**.



Notes

- i German Supreme Court: Distomo Massacre Case, BGH - III ZR 245/98 (June 26, 2003)." International Law In Brief, American Society of International Law. 25 July 2003.
- ii "Greece to join Distomo trial". Kathimerini. 2011-01-12..
- iii International Court of Justice Ruling." International Court of Justice 3 February, 2012.
- iv Ibid

## Building "Security Walls" To Keep Migrants Out of the EU: Hungary, Immigration and Asylum

By Binoy Kampmark

Source: <http://www.globalresearch.ca/building-security-walls-to-keep-migrants-out-of-the-eu-hungary-immigration-and-asylum/5461518>



*"If you come to Hungary, could you please bring a sane Prime Minister?" Gergő Kovács, July poster campaign, 2015*

*The walling fetish is catching. While the European Union struggles to defend its ideas with the influence of sundering forces at various ends of its membership, Hungary is busy sealing its borders off*

*from so-called irregular migrants.*

This seems rather odd for the grandest of transit countries, girded by migratory



notes Judit Juhász, "are rooted in this history of fluid borders, as well as the strong migratory tendencies of Hungarian ancestry" (Migration Policy Institute, Nov 1, 2003).[1]

For centuries, as a key administrative unit within the Hapsburg Empire, the very idea of borders was deemed absurd. The multi-ethnic state was typified by internal movements to various parts of the empire. Migration, in short, was the ultimate tool of population distribution of the Austro-Hungarian monarchy. Two world wars put pay to the tradition: borders were established along nationalist lines; evictions were engineered, ethnicities exchanged.

The current fascination with territorial integrity in Hungary is a fundamentally economic one. It all lies in the business of numbers – and the perception that sovereignty is taking a battering from a human current stemming from the Middle East and Africa. **Some 72,000 migrants have entered the country – at least according to government assessments. This compares with 43,000 last year.** With a degree of timed alarmism, Interior Minister Sándor Pintér claimed that, "Hungary is confronted with the biggest surge of migrants in its history, its capacities are overloaded by 130 percent."

Earlier this month, Hungary's parliament got busy passing laws allowing for the creation of more

tendencies. "Hungary's special characteristics,"



camp facilities to deal with migrants, accelerating asylum processing and placing limits on judicial review. On Monday, the governing Fidesz party, with the support from the right-wing Jobbik party, got 151 votes to the 41 naysayers. A senior government source has told the BBC that a mere "several dozen, or at most a few hundred" migrants will be accepted in future.

Such moves come unnervingly close to breaching the UN Refugee Convention of 1951, though government spokesman Zoltán Kovács is convinced that Hungary is, in fact, operating within the letter of the law. With a true manager's eye for evasion, he argues that the procedure of processing asylum seekers and migrants will continue, albeit it more speedily. In that, he can refer to precedents across Europe and from further afar.

This becomes even more problematic given the populist designation of all refugees as rapacious economic migrants. The categorization tends to prove handy to those who wish to lift the drawbridge – these "migrants," so goes the urgent rhetoric, come from conflict zones to earn a living rather than flee oppression. (Read: pinch local jobs and consume local services.)

Conflict areas such as the Democratic Republic of Congo, Iraq, Syria, Afghanistan, are deemed to be procurers of a particular type of migrant. As the UNHCR's Babar Beloch explains, "This is a refugee crisis, but it's being wrongly described as a migrant crisis by politicians here" (BBC, Jul 7).

Hungary has shown form since the end of the Cold War with legislation specifically dealing with illegal border crossings. These have tended to ebb and flow. The Act on Borders and the Border Guards (1997), as suggested by its name, granted guards greater sources and powers.

Then came the Act of Asylum of 1998, specifically removing the geographical limitation to Europe, while also establishing a system of dealing with asylees through processing, shelter and settlement. This invariably led to an increase in non-European applications, notably from Afghanistan, Iraq and Bangladesh. Regulation with the EU came into play in 2002, whereby domestic regulations were brought into line with the union.

Since then, Hungarian governments have overseen an expansion of the immigration detention system, introduced in 2010. Amendments were made to the Asylum Act in July 2013 narrowing the basis for detention, but the Hungarian Helsinki Committee found in April last year that some 40 percent or more of adult males seeking asylum for the first time were detained.

A report released this month by Amnesty International suggests that detention can take place "in overcrowded and sometimes degrading conditions".[2] Police also do their bit in affording poor treatment. The report admits that the majority of asylum-seekers are released to "open reception centers" but absconding is deemed a risk the authorities take seriously.

An overall strategy of designation has been adopted towards Hungary's neighbors. The Balkans and Greece are being frowned upon as "safe" countries, where poorer authorities are struggling to maintain and process migrants. Better Serbia, Macedonia, and Bulgaria than the authorities in Budapest. Europe, argues Hungarian Foreign Minister Péter Sijjártó, fiddles on the subject of migration, while Hungary's borders fray.

Serbia has expressed very public consternation at the move to seal the 175km border between the two countries, promising that it will not follow suit with cutting off Macedonia and Bulgaria. "Serbia is not going to close itself in," suggested the country's irate Prime Minister Aleksandar Vučić. "Serbia is not going to live in Auschwitz." [3]

Prime Minister Viktor Orbán has given meek reassurances that the fence is not directed at the south. A country that was one of the first to rent the Iron Curtain by snipping the barbed wire in 1988 has become one of the foremost critics of open European borders.

Orbán's words after a meeting with Serbian colleagues bear a striking resemblance to those developed countries keen to avoid the matter of processing the impoverished and the oppressed. "It's an illusion for anyone to think that people from the African crisis areas will keep arriving in Europe only until the crises there are pacified." [4]

He did not stop there. Fantasies of a deluge, a positive drowning of Hungary, were envisaged. "If



we allow it, a modern mass migration could take place of millions, even tens of millions and even hundreds of millions.”

There is also a tinge of irony in the move, given that young Hungarians are actually leaving their country to find sources of employment elsewhere. The Magyar, as ever, migrates. Current figures suggest that there are 350,000 working abroad. **The Hungarian Central**

**Statistics Office has rather striking figures: 31,500 left the country in 2014, constituting an increase of 46 percent from 2013.**

There is more than faint speculation that this has been encouraged by the reactionary stance taken by Orbán. That said, he has little desire to find any non-European replacements in a hurry.

**Notes**

- [1] <http://www.migrationpolicy.org/article/hungary-transit-country-between-east-and-west>
- [2] <file://ntapprdfs01n02.rmit.internal/eh6/E79986/EUR7015792015ENGLISH.PDF>
- [3] <http://budapestbeacon.com/public-policy/critics-denounce-plans-to-build-175-km-fence-along-serbian-border/24502>
- [4] <http://abcnews.go.com/International/wireStory/hungary-serbia-meet-debate-hungarian-border-fence-plan-32146599>

*Dr. Binoy Kampmark was a Commonwealth Scholar at Selwyn College, Cambridge. He lectures at RMIT University, Melbourne.*

**Migrants at Sea: A Growing Humanitarian Crisis**

By Dr. Melissa Schnyder

Source: <http://inhomelandsecurity.com/migrants-at-sea-a-growing-humanitarian-crisis/>

In recent years, Europe’s refugee crisis has become an increasingly acute issue in need of a coordinated political response. Political instability to Europe’s south has prompted a surge in the number of asylum-seekers seeking refuge in the European Union. According to the United Nations High Commissioner for Refugees (UNHCR), more than 398,000 asylum applications were filed across the EU’s 28 member states in 2013, representing a 32 percent increase over the previous year. In its publication **Asylum Trends, UNHCR estimated that in 2014 the world’s industrialized countries would witness the highest number of asylum applications in approximately 20 years.** Seeking basic human security, migrants and refugees are fleeing areas experiencing extreme poverty, armed conflict, or political and social unrest.

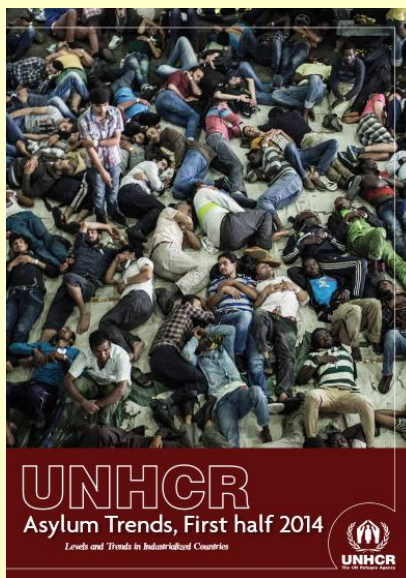
**Migrants at Sea**

Facilitated by networks of human traffickers and smugglers, more and more migrants are

embarking on dangerous journeys across the Mediterranean Sea in an effort to reach Europe. In 2013, three times as many migrants arrived in Italy by sea compared to 2012, and in January 2014, that figure was nearly 10 times what it had been the year prior.

Both UNHCR and Frontex, the EU’s border management agency, report that the number of attempts to enter southern European countries surged in early 2014. Although many successfully reach Europe’s shores, the number of fatalities en route to Europe has risen dramatically. Although it is unknown exactly how many migrants have died attempting to cross the dangerous waters en route to Italy, Spain and other southern European destinations, in late 2013 at least 400 migrants drowned in shipwrecks as they

attempted to reach Lampedusa, Italy’s southernmost island and its closest point to North Africa. Incidents like these have led the European Union to increase its



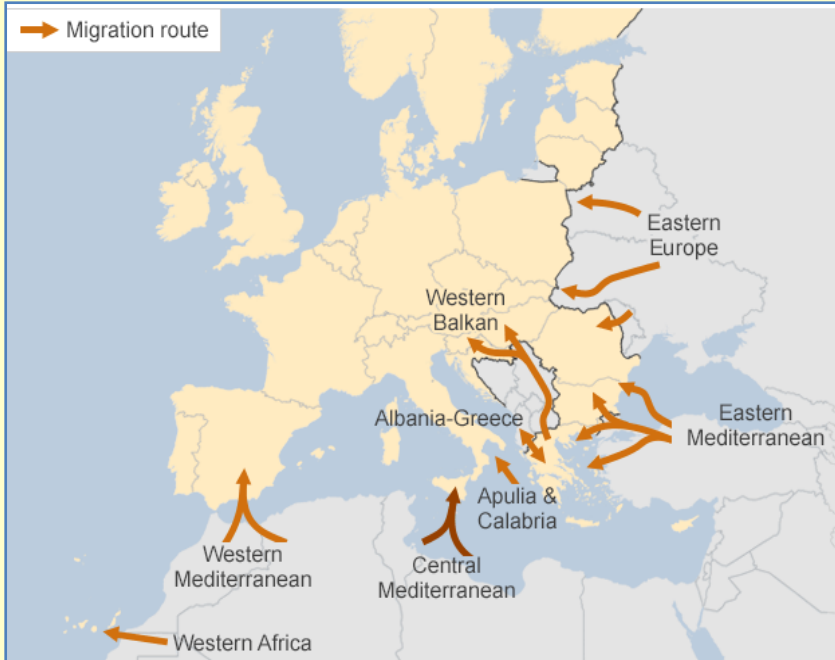
sea patrols, signifying what many analysts have called a crisis in dire need of a coordinated response.

Europe is not the only region experiencing this crisis. More recently, news wires reported thousands of Rohingya migrants fleeing

and statelessness at home, more are expected to make the dangerous journey. A United Nations estimate put the number of migrants who fled Myanmar and Bangladesh by sea at about 25,000 during just the first three months of 2015.

**In Need of a Coordinated Response**

The sharp increase of migrants risking perilous journeys at sea attempting to flee conflict, instability, and persecution has left destination states in Europe and Southeast Asia scrambling to deal with this issue. From a human security perspective, many experts agree that, thus far, the response by states has been woefully inadequate. There is an immediate need to develop a consistent approach, centering on the development of shared guidelines among states in the region for rescue and disembarkation, as well as for determining and meeting protection needs for those seeking refuge. There is also a longer-term need for the international community to take meaningful steps to help stop the flow



Myanmar and Bangladesh to be “lost at sea” off Southeast Asia. In May, the International Organization for Migration believed as many as 8,000 Rohingya migrants to be stranded at sea. Since the Thai government began its crackdown on smugglers who are notorious for holding these migrants for ransom in camps in southern Thailand, smugglers are now reported to be abandoning the Rohingya at sea instead. States in the vicinity have generally not been willing to let them land and seek asylum, and the BBC reported that fisherman have also been instructed not to assist them. After weeks spent in rickety boats with very little food or water, in late May Indonesia and Malaysia agreed to take in thousands of migrants until they can either be resettled in another country or sent back home. However, the issue is far from resolved, as questions remain about where the Rohingya will ultimately be settled, and amid persecution

of refugees; experts have cited prosecuting the ringleaders of smuggling and trafficking operations, in conjunction with providing refugees legal avenues to stay and work on at least a temporary basis, as two



recommendations. In the aftermath of more than 900 migrants having drowned off the coast of Libya in April en route to Europe, the EU is realizing more than ever the need for a coordinated response. Yet, as The New York Times reported, “governments are trying to



balance humanitarian responsibilities against budget constraints and widespread public sentiment against immigration.” Many experts agree, however, that more effective measures need to be put in place. In a letter to the EU heads of state on preventing deaths at sea, **Human Rights Watch** argued that “what is required is a multinational operation with a clear mandate to actively seek out and rescue migrants and asylum seekers in distress at sea, and bring them to safe EU ports, where their claims can be processed in an orderly manner with all their rights respected and protected. The EU should also work quickly to set up safe and orderly methods for people to

seek asylum in the EU without having to put their lives in the hands of unscrupulous smugglers.”

In a post 9/11 world, states are more likely to view migration and asylum as security issues, and as a result may be less likely to consider the human security issues involved. This approach can prevent the concept of *shared responsibility among states*, which invokes a wider sense of responsibility and burden-sharing among the international community to help address the humanitarian crisis of migrants at sea, from being effectively put into practice.

*Dr. Melissa Schnyder is an associate professor of International Relations at American Public University, where she teaches courses on international organizations, European politics, comparative politics and international relations theory. She researches the role of non-state actors in influencing international political processes and outcomes. Her forthcoming book, Activism, NGOs and the State, examines transnational and domestic networks of organizations in Europe working on behalf of migrants and refugees.*

**EDITOR'S COMMENT:** There is one section missing from this academic approach: "Action Plan"! Wishes are nice but plans are much better.

## Greek Crisis: Pros, con and neutral

Source: Die Welt



## Disabled Persons in Positions of Governance: an analysis

Source: [http://www.disabilityworld.org/12-02\\_05/gov/pwdingov.shtml](http://www.disabilityworld.org/12-02_05/gov/pwdingov.shtml)

### It is good to read history from time to time...

Source: <https://twitter.com/maurobiani>



#### Editor's Comment

Ancient Spartan society (800 B.C.) involved rule of the state in deciding whether weak children were to be reared or left to die. In Sparta, children were the property of the state and not the property of the parents. The abandonment of babies who appeared disabled was a legal requirement. Each child was inspected by the community elders straight after birth. The child was brought before a council of the elders and, through Apgar-style tests, the council determined whether the child would live or die. If the child looked robust and healthy, it was allowed to live. If the child was "ill-born" or "ill-formed," the father was ordered to expose it. The law was aimed at developing a master race: only the strongest and brightest were to have children.

47

**Of course this is a mythology view:** The Greek myth that ancient Spartans threw their stunted and sickly newborns off a cliff was not corroborated by archaeological digs in the area, researchers said on Dec 10<sup>th</sup>, 2007. After more than five years of analysis of human remains culled from the pit, also called an apothetes, researchers found only the remains of adolescents and adults between the ages of 18 and 35, Athens Faculty of Medicine Anthropologist Theodoros Pitsios said. "There were still bones in the area, but none from newborns, according to the samples we took from the bottom of the pit" of the foothills of Mount Taygete near present-day Sparta. "It is probably a myth, the ancient sources of this so-called practice were rare, late and imprecise," he added. Meant to attest to the militaristic character of the ancient Spartan people, moralistic historian Plutarch in particular spread the legend during first century AD. According to Pitsios, the bones studied to date came from the fifth and sixth centuries BC and come from 46 men, confirming the assertion from ancient sources that the Spartans threw prisoners, traitors or criminals into the pit. The discoveries shine light on an episode during the second war between Sparta and Messene, a fortified city state independent of Sparta, when Spartans defeated the Messenian hero Aristomenes and his 50 warriors, who were all thrown into the pit, he added.



## Economic terrorism

Source: [http://www.gcsp.ch/e/meetings/Security\\_Challenges/CIP/Economic\\_Terrorism\\_roundtable/programme.pdf](http://www.gcsp.ch/e/meetings/Security_Challenges/CIP/Economic_Terrorism_roundtable/programme.pdf)

In 2005 the Geneva Centre for Security Policy defined **economic terrorism** in the following terms:



Contrary to "economic warfare" which is undertaken by states against other states, "economic terrorism" would be undertaken by transnational or non-state actors. This could entail varied, coordinated and sophisticated or massive destabilizing actions in order to disrupt the economic and financial stability of a state, a group of states or a society (such as market oriented western societies) for ideological or religious motives. These actions, if undertaken, may be violent or not. They could have either immediate effects or carry psychological effects which in turn have economic consequences.



## Heathrow airport disrupted as climate activists protest on northern runway

Source: <http://www.theguardian.com/uk-news/2015/jul/13/heathrow-disruption-climate-change-activists-claim-chained-runway>



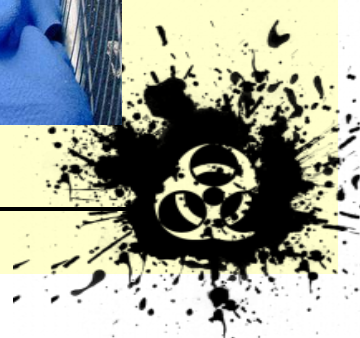
July 13 – Climate change activists have chained themselves together on the northern runway at Heathrow, with the airport warning of some delays and cancellations for passengers.

Thirteen demonstrators from direct action group Plane Stupid cut through a perimeter fence and entered the northern runway at 3.30am on Monday. Activists wore armlocks and lay on the runway, where police brought heavy machinery to cut them free.

Plane Stupid said the protesters – one of whom was dressed as a polar bear – were campaigning against runway expansion and further protests would follow.

Heathrow has cancelled 13 flights so far on Monday, which a spokesman said was mostly due to protest action.

At least seven cancellations were British Airways domestic and short-haul flights, and a spokesman for the airline said it was “doing everything we can to minimise disruption to our





flights”.

Other flights were experiencing delays but a Heathrow spokesman said the demonstration was “having a very minimal effect on the operation” of the airport, which averages 1,300 flights a day.

**EDITOR'S COMMENT:** Replace the word "activists" with any other word you prefer and come to your own conclusions! Heathrow security: What a joke! This incident verifies a comment written many issues ago about the possibility that a terrorist team can penetrate airports perimeter and take over a commercial flight – anywhere in the world. Never been done but can be done! So be vigilant for the expected unexpected!

## Pentagon may lift ban on transgender people

Source: <http://edition.cnn.com/2015/07/13/politics/pentagon-may-lift-ban-on-transgender-people/index.html>

The Pentagon could in the coming months lift the ban on transgender people openly serving in the U.S. military, after Defense Secretary Ash Carter announced Monday a plan to study "readiness implications of welcoming transgender persons to serve openly."

Carter made the announcement in a memo outlining a pair of directives to both study the effect of transgender service men and women over the next six months, as well as adding the new protocol that any personnel diagnosed with **gender dysphoria or who identify as transgender** will have their paperwork for dismissal from the military reviewed at the highest personnel levels in DOD.

People who identify as transgender or transsexual are usually people who are born with typical male or female anatomies but feel as though they've been born into the "wrong body." For example, a person who identifies as transgender or transsexual may have typical female anatomy but feel like a male and seek to become male by taking hormones or electing to have sex reassignment surgeries.

People who have intersex conditions have anatomy that is not considered typically male or female. Most people with intersex conditions come to medical attention because *doctors or parents notice something unusual about their bodies*. In contrast, people who are transgendered *have an internal experience of gender identity* that is different from most people.

"At a time when our troops have learned from experience that the most important qualification for service members should be whether they're able and willing to do their job, our officers and enlisted personnel are faced with certain rules

that tell them the opposite," Carter wrote in his statement. "Moreover, we have transgender soldiers, sailors, airmen, and Marines - real, patriotic Americans - who I know are being hurt by an outdated, confusing, inconsistent approach that's contrary to our value of service and individual merit."

The White House has been pressing the Pentagon to move ahead to lift the ban, following the high court ruling but several top department officials have made the case time is needed to determine how several medical and legal issues will be dealt with, a U.S. Defense official told CNN.

The development was first reported by the Associated Press.

Members of Congress have been notified DOD will establish a working group to study policy and military readiness issues over the next six months.

The notification specifically tells Congressional members that the working group will start with the presumption that transgender persons can serve openly without an adverse impact on military effectiveness and readiness.

Currently those in the military who are diagnosed with gender dysphoria or who identify as transgender, are not permitted to take hormones or act upon their transgender status by dressing in military uniforms or living in barracks different from their established government status.

Some of the issues Pentagon officials say they need to establish clear guidance on include: can massive hormone doses be taken in a warzone, when is a transition complete, what happens if a person decides not to go through full surgical transition, when does a person change uniforms,



change barracks, what type of medical care is paid for.

The Human Rights Campaign, the nation's largest lesbian, gay, bisexual, and transgender civil rights organization, hailed the Pentagon decision.

"Transgender Americans have every right to serve their country openly and honestly, and for far too long, this discriminatory ban has robbed them of the dignity of doing so," said HRC President Chad Griffin.

**EDITOR'S COMMENT:** Whatever each one of us is doing behind closed doors is a privacy matter. The problem is when groups with certain sex orientations are trying to impose their peculiarities to others that happen to represent the vast majority. Then privacy turns to provocation and problems arise – especially in the military. Nation leaders have the obligation not to interfere with wise Nature and surely not to favor behaviors that might disrupt the social web.

## Immigrants and crime: Crunching the numbers

Source: <http://edition.cnn.com/2015/07/08/politics/immigrants-crime/>

With a presidential election looming, politicians on both sides of the aisle are sparring over immigration in a battle that shows no sign of stopping.

Some are pointing to a recent case -- a woman in San Francisco who was killed, allegedly by an undocumented immigrant who'd already been deported five times -- as another sign that the U.S. system is in serious need of an overhaul.

But what are the numbers behind the rhetoric?

Here's a look at some of the statistics, where they come from and what people on different sides of the debate say about them.

### 11.2 million

That's the latest estimate of the number of unauthorized immigrants in the United States, according to the Pew Research Center. And it's less than 4% of the total U.S. population.

The number peaked in 2007, according to Pew, when there were an estimated 12.2 million unauthorized immigrants in the country. But since 2009, it's "remained essentially unchanged," Pew reports, as the numbers of undocumented immigrants entering and leaving the United States "have come into rough balance."

### 177,960

The number of undocumented immigrants deported last year who were convicted criminals, according to Immigration and Customs Enforcement.

That's 56% of last year's total number of deportations, according to ICE, and it's a group that the agency says it's putting first when it comes to deciding which cases to prioritize.

Ask someone like Republican presidential contender Donald Trump about this number and you'll get an earful about how this statistic and others show rampant crime among undocumented immigrants.

Immigrant advocates say that's far from the truth, adding that it's important to look at how the term ICE uses when it talks about convicted criminals -- "criminal alien" -- is defined.

"Government statistics on who is being removed from the country can be somewhat deceptive," says Walter Ewing, a senior researcher for the American Immigration Council who helped author a report released this week that argues immigrants are less likely to be criminals than native-born U.S. citizens.

"Immigrants who experience even the slightest brush with the criminal justice system, such as being convicted of a misdemeanor, can find themselves subject to detention for an undetermined period, after which they are expelled from the country and barred from returning," the report says. "In other words, for years the government has been redefining what it means to be a 'criminal alien,' using increasingly stringent definitions and standards of 'criminality' that do not apply to U.S. citizens."



**121**

The number of people released from immigration custody who were later charged with murder between 2010 and 2014, according to figures from the Department of Homeland Security cited in a recent letter from two U.S. senators. That's about a thousandth of a percent of the total estimated number of unauthorized immigrants in the United States.

Sen. Jeff Sessions and Sen. Chuck Grassley, both Republicans, have been pointing to this number as they push federal authorities for answers, arguing that "countless innocent Americans every year are the victims of crime perpetrated by deportable criminals."

And the recent San Francisco shooting has added fresh fuel to the debate over whether authorities are doing enough to keep harmful offenders off the streets -- and kick them out of the United States.

But other officials have stressed that it's important to look at the big picture and not to make knee-jerk decisions based on individual cases.

"On the issue of immigration," California Attorney General Kamala Harris said this week, "our policy should not be informed by our collective outrage about one man's conduct."

**73,665**

The number of inmates in state and federal prisons who are not U.S. citizens, according to the latest prison population report from the Bureau of Judicial Statistics. That's about 5% of the total prison population.

In his recent push for building a massive wall on the southern U.S. border, Trump has said that there are "hundreds of thousands" of undocumented immigrants in the nation's state and federal prisons. It was a claim that the PolitiFact fact-checking website gave a "mostly false" rating.

"The basic claim is at best unsustainable or more likely pure fiction. A fact created out of thin air," Ramiro Martinez, a criminal justice professor at Northeastern University, told PolitiFact.

The bottom line, PolitiFact says, is that it's unclear just how many undocumented immigrants are currently in prison, because the available statistics don't provide details about inmates' immigration status.

Analysts on both sides of the immigration debate do agree on one thing: There's a lack of good data about this. But as to how likely it is for immigrants to commit crimes, that depends on who you ask.

In a 2009 report arguing that immigrants have "high rates of criminality," the Center for Immigration Studies pointed to statistics that non-U.S. citizens represent a quarter of the U.S. prison population.

This week's report from the American Immigration Council counters that immigrants are less likely to commit crimes and are overrepresented in the federal prison system. Citing the American Community Survey, the report also notes that the percentage of foreign-born men in the United States who are incarcerated (1.6%) is less than the percentage of U.S.-born men who are imprisoned (3.3%). And the reason they're behind bars is often tied to immigration offenses.

"While some may be there for committing a serious criminal offense, a great many more may be there because of an immigration violation," the report says.

**1 million**

The number of so-called detainer requests issued by Immigration and Customs and Enforcement and sent to local authorities from 2008 to 2012, according to the Transactional Records Access Clearinghouse at Syracuse University.

More than three-quarters of those were for immigrants who had no criminal convictions on their records. For the ones who'd been convicted, only 8.6% were charged with serious offenses, based on federal standards.

Federal immigration authorities use detainers to ask local agencies to hold unauthorized immigrants and eventually hand them over to the Department of Homeland Security.

It's a controversial approach that's long drawn fire from immigrant rights advocates, who argue that the feds have used the tool inappropriately to detain and deport people who don't deserve it.

**51**

As a result, some places -- like San Francisco -- call themselves sanctuary cities and say they won't honor those requests, demanding that federal authorities go through the courts.

It's a situation that's been in the spotlight with this month's shooting in San Francisco. Critics of the city argue that officials there erred when they didn't let Homeland Security know they were releasing suspect Juan Francisco Lopez-Sanchez.

In an interview with CNN on Tuesday, Democratic presidential hopeful Hillary Clinton said San Francisco should have listened to the Department of Homeland Security and made a mistake when it didn't send Lopez-Sanchez packing.

"I have absolutely no support for a city that ignores the strong evidence that should be acted on. ... If it were a first-time traffic citation, if it were something minor, a misdemeanor, that's entirely different," she said. "This man had already been deported five times. And he should have been deported at the request of the federal government."

San Francisco Sheriff Ross Mirkarimi said his city has a good reason for their approach.

"Because of what has not been reconciled on the federal level," he says, "local governments and state governments are devising new laws."

## 10,182

The number of ICE detainees state and local enforcement authorities declined to honor last year.

"This required ICE to expend additional resources attempting to locate, apprehend and remove criminal aliens who were released into the community, rather than transferred directly into custody," ICE said in its report on last year's deportation statistics.

But when it comes to immigration detainees, there's a long history of distrust between local and federal agencies, says Ruben Rumbaut, a professor of sociology at the University of California at Irvine.

"The majority of people that were put in ICE detainees were in the end deported out of the country for reasons that have nothing to do with crime," Rumbaut said. "It's become very controversial."

**52**

### **Satellite images show clearly that Russia faked its MH17 report**

Source: <http://mashable.com/2015/05/31/russia-fake-mh17-report/>

#### **Forensic Analysis of Satellite Images Released by the Russian Ministry of Defense**

A *bellngcat* Investigation

► Read the full report at:

[https://www.bellingcat.com/wp-content/uploads/2015/05/Forensic\\_analysis\\_of\\_satellite\\_images\\_EN.pdf](https://www.bellingcat.com/wp-content/uploads/2015/05/Forensic_analysis_of_satellite_images_EN.pdf)

### **Get Greece To The Rio 2016 Olympic Games**

Source: <https://www.pledgesports.org/projects/greek-olympic-team-olympics/>

The Greek Debt Crisis seriously affected Greece's Olympic effort in London 2012 and is threatening to do so again as another Greek Bailout calls for further austerity measures. An Olympic Games without founders Greece has never, ever happened – and we want to keep it that way.



To do this we at PledgeSports.org call upon not just Greek people, but all fans of and believers in the Olympic Games movement to step up.

Uncertainty surrounds Greece's economy as its banks nears collapse under the burden of its international debts, and the debts caused by the troika bailout loans issued to help save the nation's



economy.

The issuing of another bailout loan calls for huge reforms and there is a very real threat that there could be little or even no funding available from the government for Greece to train athletes for the Rio 2016 Olympics and send them to Brazil.

In 2012, two years into Greece's debt crisis, Greece's Olympic athletes struggled to prepare and qualify for London 2012. They barely had enough funds to train or compete, coaching and support staff weren't getting paid and in the end they only fielded 103 competitors – more than 50 less than the team they sent to Beijing in 2008 and less than a quarter of the team that took part in Athens 2004.

The Greek Athletics Federation cancelled domestic competitions, Athens' showcase Olympic venue fell into disrepair and, when the Hellenic Olympic Committee received half of the €30million it was promised for the London 2012 Olympic Cycle, the International Olympic Committee had to step in to get to teams to qualifying events.

**Do you want this to happen again to the nation that is the mother of the Olympic Games?**

**The Cost Of Greece's Olympic Team**

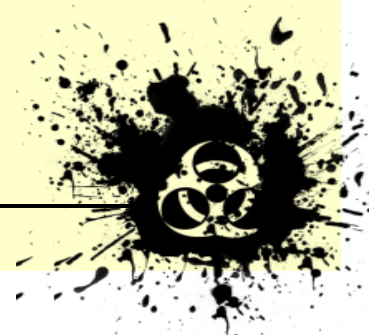
At London 2012, Greece's Olympic team was 103 persons strong, athletes competing in 19 different sports – including archery, diving, cycling, sailing, volleyball and table tennis – winning bronze medals in judo and rowing.

Imagine the costs of subsidizing the governing bodies of those 19 sports? Greece will be able to budget for each athlete's flights from Greece to Rio de Janeiro. They will be able to find funding for accommodation for each Olympic athlete for up to a month, food, medical

assistance, physiotherapists, and everything else they need.

But the crucial problem is that federations and governing bodies do not have money to train and prepare these athletes for the Olympics in the first place. The costs of the extra competitions and training camps needed in the next 12 months to qualify and prime the Olympic team for the event is what we need to raise.

It is estimated that to get Greece's Olympic team to the Rio



2016 Olympics in top shape could cost upwards of €750,000.

Your contribution to this effort to cut into that cost, however small, could be the difference between a Greek team being there to carry their flag into Rio de Janeiro's Olympic stadium next August, or being at home in Athens, the place where the modern Olympic Games were first held in 1896.

Only five nations have taken a team to EVERY Olympics since that year, Greece, the founders of the Olympic movement, are one – **but it's**

In that year the games were revived in Athens after a Roman-imposed ban of 15 centuries. They were now an international competition, evolving from the original events in Olympia to become the modern Olympic Games.

Rio 2016 will be the 28th edition of the modern summer games and the first to be held in South America.

**What The Olympics Mean To Greece**

The Olympic games forged the national, racial and spiritual unity of Greeks.

They combined the deep religious spirit with the heroic past of Greeks, the highest degree of cultivation of the body, mind and soul, with the universal philosophical values and the promotion of individuals and cities with the utmost ideal of freedom.

The Olympic Games motto. 'Citius, Altius, Fortius', written in that ancient language of Latin, embodies that; Faster, Higher, Stronger it reads.

Excellence, friendship and respect remain the Olympic values and the Olympic torch that is passed between host nations during the Olympiad –

the four-year cycle between Olympic Games, serves as a constant link between the ancient Olympic Games and the modern Olympic movement.

In addition, the Olympic rings represent the unity between the world's five key areas – North and South America, Europe, Asia, Africa and Australia -, meaning that this event which once brought only Olympia and Greece together now unites the entire world and bestows upon it everything you read above.

**Yeah, Greece is pretty damn amazing. Show your thanks – Get Greece To The Olympic Games in Rio.**

**How Your Donation Gets Greece To The Olympics**

Every Euro you pledge to PledgeSports.org's Get Greece To Rio Campaign will be forwarded to the Hellenic Olympic Committee to be put towards the



**up to you to help them maintain that.**

**How Greece Created The Olympics**

It began in Olympia. According to Mycenaean mythology, after his victory over Oenomaos, Pelops founded games to honour his vanquished and in order to be purified and thank the Gods for his victory.

Hippodamia then founded women's games in honour of Hera, then, in other myths, demigod Hercules introduced the race and the chariot race. So Greek Gods were the first Olympic competitors.

Zeus beat Cronus in wrestling; Apollo beat Hermes in a race and Ares in boxing. And they were crowned with a wreath of a wild olive tree. Olympia became a pan-hellenic centre and ancient written sources report 776BC as the year the games began. From that year starts the list of Olympic Champions, but it is from 1896 that the games were run as we know them today.



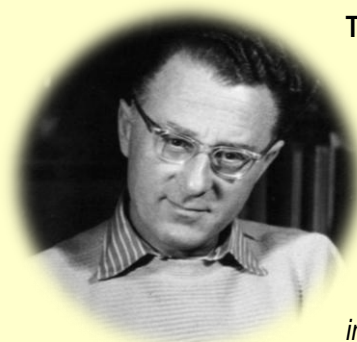
costs of qualifying Greece's Olympic competitors for the Rio 2016 Olympic Games. What you're doing when you pledge to PledgeSports.org's Get Greece To Rio

Campaign is supporting a nation that we think has done more for sport than any other. I mean, they founded the Olympic Games guys. It doesn't get bigger than that.

#GetGreeceToRio

**Erhart Kästner : Only in Greece Such an Answer Could Have Been Given**

Source: <http://www.ipernity.com/blog/evangrek63/424561>



The famous German writer Erhart Kästner did the following confession:

*"In 1952 I visited Athens for the first time after the war. In the German Embassy, when they heard that I intended to go to Crete, since they knew that the wounds from the German Occupation were still open, they proposed to me to pretend that I was a Swiss. But I knew the Cretans. From the very first moment I said I was a German, and not only did I have a bad time, but from every place I have been I experienced the well-known Cretan hospitality".*

*"One afternoon, as the sun was going down, I visited the German Cemetery in Maleme; it was peaceful with only the sun rays falling on it. But I was wrong. There was a living soul there, it was a Cretan woman dressed in black,*

*To my greatest surprise I saw her lighting candles to the graves of the German soldiers, who died during the battle of Crete and she was going methodically from one grave to the other, I approached her... and I asked her "Are you from here... ???". "Yes... she replied. And why are you doing this? Those men killed so many Cretans during the war...!"*

And Kästner writes: **"This answer only in Greece could have been given."** The woman replied: *"my child, from your accent you seem to be a foreigner and you probably do not know what happened here since 1941 to 1944. My husband was killed in the battle of Crete and I was left alone with my only son. Germans took him as a hostage in 1943 and he died in a concentration camp (KZ) in Sachsenhausen. I do not know where my kid is buried. But I know that all those children here were the children of a mother like me. And I light*



*candles to their memory, because their mothers can not come down here. I am sure that some other mother will light a candle to the memory of my son."*



## An Empire Strikes Back: Germany and the Greek Crisis

By George Friedman

Source: <https://www.stratfor.com/weekly/empire-strikes-back-germany-and-greek-crisis>



July 14 – A desperate battle was fought last week. It pitted Germany and Greece against each other. Each country had everything at stake. Based on the deal that was agreed to, Germany forced a Greek capitulation. But it is far from clear that Greece can allow the agreement reached to be implemented, or that it has the national political will to do so. It is also not clear what its options are, especially given that

the Greek people had backed Germany into a corner, where its only choice was to risk everything. It was not a good place for Greece to put the Germans. They struck back with vengeance.

The key event was the Greek referendum on the European Union's demand for further austerity in exchange for infusions of cash to save the Greek banking system. The Syriza party had called the vote to strengthen its hand in dealing with the European demands. The Greek government's view was that the European terms would save Greece from immediate disaster but at the cost of impoverishing the country in the long term. The austerity measures demanded would, in their view, make any sort of

recovery impossible. Facing a choice between a short-term catastrophe in the banking system and long-term misery, the Greeks saw themselves in an impossible position.

In chess, when your position is hopeless, one solution is to knock over the chessboard. That is what the Greeks tried to do with the referendum. If the vote was lost, then the government could capitulate to German demands and claim it was the will of the people. But if the vote went the way it did, the Greek leaders could go to the European Union and argue that broad relaxation of austerity was not merely the position of the government, but also the sovereign will of the Greek people.

The European Union is founded on the dual principles of an irrevocable community of nations that have joined together but have retained their national sovereignty. The Greeks were demonstrating the national will, which the government thought would create a new chess game. Instead, the Germans chose to directly demand a cession of a significant portion of Greece's sovereignty by creating a cadre of European bureaucrats who would oversee the implementation of the agreement and take control of Greek national assets for sale to raise money. The specifics are less important than the fact that Greece invoked its sovereign right, and Germany responded by enforcing an agreement that compelled the Greeks to cede those rights.

### Germany's Motivations

I've discussed the German fear extensively. Germany is a massive exporting power that depends on the European free trade zone to purchase a substantial part of its output. The Germans had a record positive balance of trade last month, of which its trade both in the eurozone as well as in the rest of the European Union was an indispensable part. For Germany, the unraveling of the European Union would directly threaten its national interest. The Greek position — particularly in the face of the Greek vote — could, in the not too distant future, result in that unraveling.

There were two sides of the Greek position that frightened the Germans. The first was that Athens was trying to use its national sovereignty to compel the European Union to allow Greece to avoid the pain of austerity. This would, in effect, shift the burden of the Greek debt from the Greeks to the European Union, which meant Germany. For the Germans, the bloc was an instrument of economic growth. If Germany accepted the principle that it had to assume responsibility for national financial problems, the European Union — which has





more than a few countries with national financial problems — could drain German resources and undermine a core reason for the bloc, at least from the German point of view. If Greece demonstrated it could compel Germany to assume responsibility for the debt in the long term, it is not clear where it would have ended — and that is precisely what the Greek vote intended.

On the other hand, if the Greeks left the European Union, it would have created a precedent that would in the end shatter the bloc. If the European Union was an elective affinity, in Goethe's words, something you could enter and then leave, then the long-term viability of the bloc was in serious doubt. And there was no reason those doubts couldn't be extended to the free trade zone. If nations could withdraw from the European Union and create trade barriers, then Germany would be living in a world of tariffs, European and other. And that was the nightmare scenario for Germany.

The vote backed the Germans into a corner, as I said last week. Germany could not accept the Greek demand. It could not risk a Greek exit from the European Union. It could not appear to be frightened by an exit, and it could not be flexible. During the week, the Germans floated the idea of a temporary Greek exit from the euro. Greece owes a huge debt and needs to build its economy. What all this has to do with being in the euro or using the drachma is not clear. It is certainly not clear how it would have helped Europe or solved the immediate banking problem. The Greeks are broke, and don't have the euros to pay back loans or liquefy the banking system. The same would have been true if they left the European Union. Suggesting a temporary Grexit was a fairly meaningless act — a bravura performance by the Germans. When you desperately fear something in a negotiation, there is no better strategy than to demand that it happen.

**The Resurrection of German Primacy**

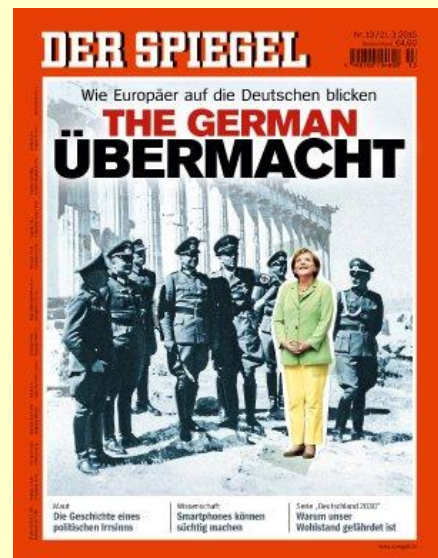
I have deliberately used Germany rather than the European Union as the negotiating partner with the Greeks. The Germans have long been visible as the controlling entity of the European Union. This time, they made no bones about it. Nor did they make any bones about their ferocity. In effect they raised the banner of

German primacy, German national interest, and German willingness to crush the opposition. The French and the Italians, among others, questioned the German position publicly. In the end, it didn't matter. The Germans consulted with these other governments, but Berlin decided the negotiating position, because in the end it was Germany that would be most exposed by French or Italian moderation. This negotiation was in the context of the European Union, but it was a German negotiation.

And with this, the Germans did something they never wanted to do: resurrect fairly unambiguously the idea that Germany is the sovereign and dominant nation-state in Europe, and that it has the power and the will to unilaterally impose its will on another nation. Certainly the niceties of votes by finance ministers and prime ministers were adhered to, but it was the Germans who conducted the real negotiations and who imposed their will on Greece.

Germany's historical position was that it was one nation among many in the European Union. One of the prime purposes of European integration was to embed Germany in a multinational European entity so that it could develop economically but not play the role in Europe that it did between 1871 and 1945. The key to this was making certain that Germany and France were completely aligned. The fear was that German economic growth would create a unilateral German political power, and the assumption was that a multilateral organization in which France and Germany were intimately bound together would enable German growth without risking German unilateral power.

No one wanted this solution to work more than the Germans, and many of Germany's maneuvers were to save the multilateral entity. But in making these moves, Germany crossed two lines. The lesser line



was that France and Germany were not linked on dealing with Greece, though they were not so far apart as to be even close to a breach. The second, and more serious, line was that the final negotiation was an exercise of unilateral German power. Several nations supported the German position from the beginning — particularly the Eastern European nations that, in addition to opposing Greece soaking up European money, do not trust Greece's relationship with Russia. Germany had allies. But it also had major powers as opponents, and these were brushed aside.

These powerful opponents were brushed aside particularly on two issues. One was any temporary infusion of cash into Greek banks. The other was the German demand, in a more extreme way than ever before, that the Greeks cede fundamental sovereignty over their national economy and, in effect, over Greece itself. Germany demanded that Greece place itself under the supervision of a foreign EU monitoring force that, as Germany demonstrated in these negotiations, ultimately would be under German control.

The Germans did not want to do this, but what a nation wants to do and what it will do are two different things. What Germany wanted was Greek submission to greater austerity in return for support for its banking system. It was not the government's position that troubled Germany the most, but the Greek referendum. If Germany forced the Greek government to capitulate, it was a conventional international negotiation. If it forced the government to capitulate in the face of the electoral mandate of the Greek public, it was in many ways an attack on national sovereignty, forcing a settlement not in opposition to the government but a direct confrontation with the electorate. The Germans could not accommodate the vote. They had to respond by demanding concessions on Greek sovereignty.

This is not over, of course. It is now up to the Greek government to implement its agreements, and it does so in the face of the Greek referendum. The situation in Greece is desperate because of the condition of the banking system. It was the pressure point that the Germans used to force Greek capitulation. But Greece is now facing not only austerity, but also foreign governance. The Germans'

position is they do not trust the Greeks. They do not mean the government now, but the Greek electorate. Therefore, they want monitoring and controls. This is reasonable from the German point of view, but it will be explosive to the Greeks.

### **The Potential for Continental Unease**

In World War II, the Germans occupied Greece. As in much of the rest of Europe, the memory of that occupation is now in the country's DNA. This will be seen as the return of German occupation, and opponents of the deal will certainly use that argument. The manner in which the deal was made and extended by the Germans to provide outside control will resurrect historical memories of German occupation. It has already started. The aggressive inflexibility of the Germans can be understood as an attitude motivated by German fears, but then Germany has always been a frightened country responding with bravado and self-confidence.

The point of the matter is not going away, and not only because the Greek response is unpredictable; poverty versus sovereignty is a heady issue, especially when the Greeks will both remain poor and lose some sovereignty. The Germans made an example of Cyprus and now Greece. The leading power of Europe will not underwrite defaulting debtors. It will demand political submission for what help is given. This is not a message that will be lost in Europe, whatever the anti-Greek feeling is now.

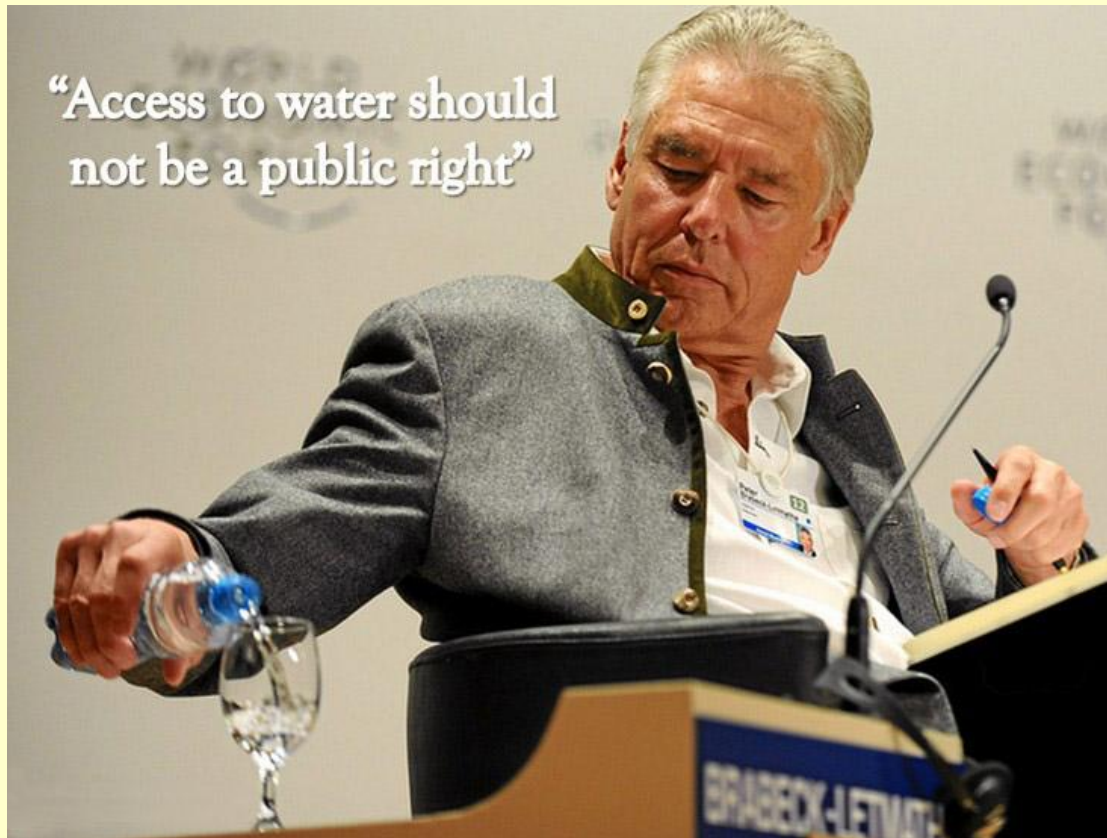
This is as far from what Germany wanted as can be imagined. But Greece could not live with German demands, and Germany could not live with Greek demands. In the end, the banking crisis gave Germany an irresistible tool. Now the circumstances demand that the Greeks accept austerity and transfer key elements of sovereignty to institutions under the control or heavy influence of the Germans.

**What else could Germany do? What else could Greece do? The tragedy of geopolitical reality is that what will happen has little to do with what statesmen wanted when they started out.**



*George Friedman founded Stratfor in 1996 with a pioneer's vision for bringing open-source intelligence analysis to the private market. Today Stratfor is a leading global intelligence and consulting firm that provides geopolitical analysis and forecasting to individuals and organizations around the world.*

**EDITOR'S COMMENT:** "If Greece is destroyed completely, an olive tree, a vine and a boat will remain. That is enough to rebuild her from the beginning." **Odysseus Elytis**



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President of Nestlé, Peter Brabeck (2015 – "We feed the world documentary")  
<https://www.youtube.com/watch?v=SEFL8EIXHaU>



## Chemical Warfare during the Vietnam War: Riot Control Agents in Combat

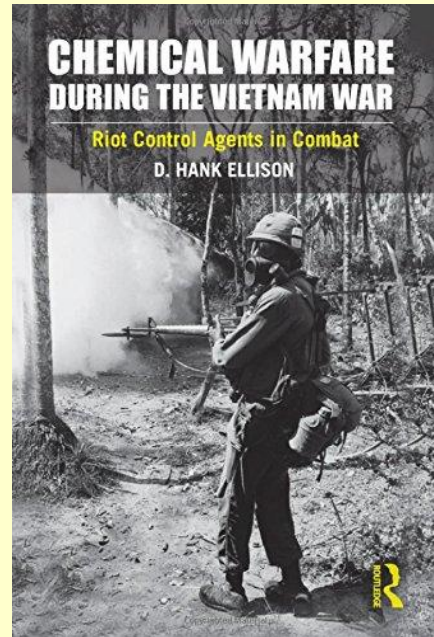
By D. Hank Ellison (Author)

Paperback – February 4, 2011

Source: <http://www.amazon.com/exec/obidos/ASIN/0415876451>

*Chemical Warfare during the Vietnam War* documents the use of antipersonnel chemical weapons throughout the Vietnam War, and explores their effectiveness under the wide variety of circumstances in which they were employed. The short, readable account follows the US program as it progressed from a focus on the humanitarian aspects of non-lethal weapons to their use as a means of augmenting and enhancing the lethality of traditional munitions. It also presents the efforts of the North Vietnamese to both counter US chemical operations and to develop a chemical capability of their own.

*Chemical Warfare during the Vietnam War* is a comprehensive and thoroughly fascinating examination of riot-control agents during the Vietnam War.



*D. Hank Ellison has served in the US Army as an enlisted infantry soldier and a commissioned officer in the Chemical Corps, responsible for nuclear, biological, and chemical defense for infantry and artillery battalions. He is a hazardous materials instructor for Michigan State University's School of Criminal Justice.*

## Chemical and Biological Defense: Designated Entity Needed to Identify, Align, and Manage DOD's Infrastructure

GAO-15-257: Published: Jun 25, 2015. Publicly Released: Jun 25, 2015

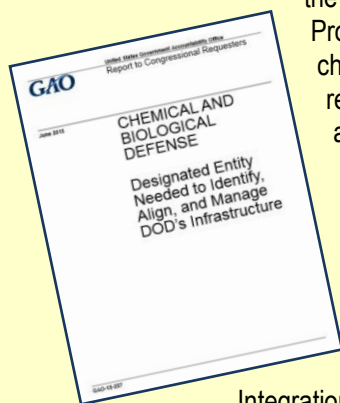
Source: <http://www.gao.gov/products/GAO-15-257>

### What GAO Found

A key component of the 26 Department of Defense (DOD) organizations that constitute the Chemical and Biological Defense Program (CBDP) Enterprise is the chemical and biological defense research and development and test and evaluation infrastructure. After nearly 7 years, the CBDP Enterprise has not fully achieved its goal to identify required infrastructure capabilities. The Joint Chemical, Biological, Radiological, and Nuclear Defense Program Analysis and

Integration Office (PAIO), CBDP's analytical arm, recommended in 2008 that the CBDP Enterprise identify required infrastructure capabilities, such as laboratories to research chemical and biological agents, to ensure alignment of the infrastructure to its mission.

CBDP Enterprise officials recognize the importance, validity, and necessity of addressing the 2008 recommendation. The CBDP Enterprise has made limited progress in achieving this infrastructure goal because CBDP Enterprise officials told GAO that they were focused on higher priorities and had no CBDP Enterprise-wide impetus to address the infrastructure recommendations. The Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs previously identified the need for an entity that has the responsibility and authority needed to ensure achievement of this goal, but DOD has not designated such an entity. By identifying and designating an entity with the responsibility and authority to lead infrastructure transformation, the CBDP Enterprise would be better positioned to achieve this goal.

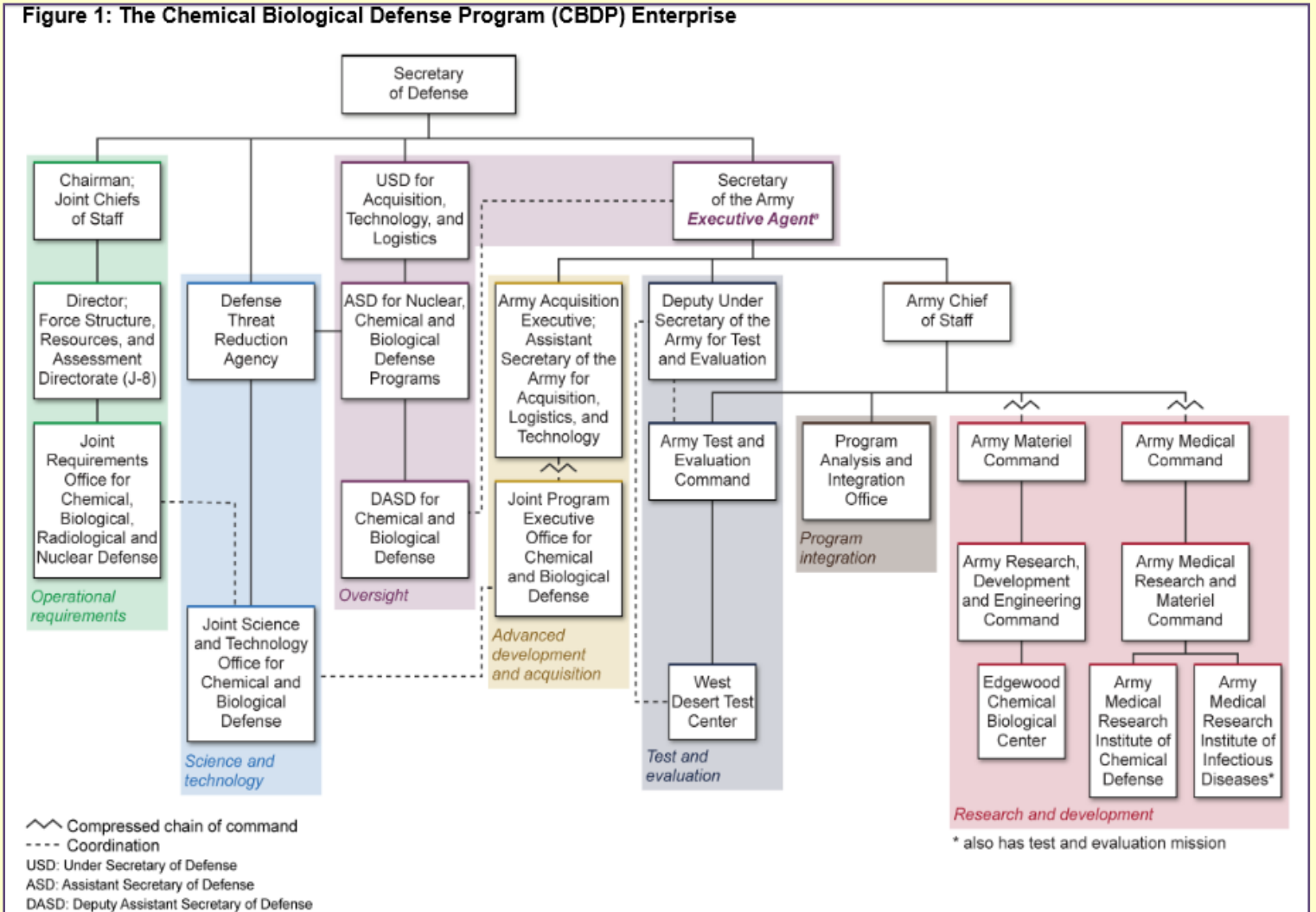


The CBDP Enterprise has taken some actions at its laboratories to identify duplication in its chemical and biological defense infrastructure. DOD directives outline goals, such as to avoid duplication by using existing DOD and other federal agencies' facilities. As part of an ongoing study to identify required infrastructure, in July 2015 PAIO plans to inventory and analyze CBDP Enterprise

government, such as its capability and potential availability for use.

The CBDP Enterprise used threat data and plans to use threat data and the results from risk assessments piloted in 2014 to support its future portfolio planning process to prioritize research and development investment. However, the CBDP Enterprise has not updated its guidance and planning process to

Figure 1: The Chemical Biological Defense Program (CBDP) Enterprise



infrastructure for potential duplication. However, study officials stated that they do not plan to identify, request, or consider information about infrastructure capabilities from existing studies of other federal agencies, such as the Department of Homeland Security, because their office does not have the authority or resources to require such information. By considering existing information, which would not necessarily require new authority, PAIO will have more information about existing infrastructure inventory across the federal

fully institutionalize the use of risk assessments. Federal standards for internal control state that agencies should have written procedures to better ensure leadership directives are implemented. According to CBDP Enterprise officials, while updating the guidance would be beneficial, they had not committed to updating such guidance or established a time frame for doing so. By updating its guidance to fully institutionalize the use of risk assessments, the



CBDP Enterprise would be better positioned to prioritize future research and development investments.

to use threat data and the results of risk assessments to support its investment planning for chemical and biological defense. GAO

**Figure 10: Core Capabilities Needed to Defend against Chemical and Biological Threats**

Sense	Shape	Shield	Sustain
<ul style="list-style-type: none"> <li>• Chemical detection</li> <li>• Biological detection</li> <li>• Radiological detection</li> <li>• Expeditionary analytics</li> <li>• Medical diagnostics</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical, biological, radiological and nuclear warning and reporting</li> <li>• Decision analysis and management</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory and ocular protection</li> <li>• Percutaneous protection</li> <li>• Chemical prophylaxis</li> <li>• Biological prophylaxis</li> <li>• Radiological prophylaxis</li> <li>• Expeditionary collective protection</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel contamination mitigation</li> <li>• Materiel contamination mitigation</li> <li>• Chemical therapeutics</li> <li>• Biological therapeutics</li> <li>• Radiological therapeutics</li> </ul>

**Why GAO Did This Study**

The United States faces current and emerging chemical and biological threats, and defenses against these threats enable DOD to protect the force, preclude strategic gains by adversaries, and reduce risk to U.S. interests. GAO was asked to review DOD efforts to manage its chemical and biological defense infrastructure capabilities. This report examines the extent to which the CBDP Enterprise has: (1) achieved its goal to identify required infrastructure capabilities to address current and emerging chemical and biological threats; (2) identified, addressed, and managed potential fragmentation, overlap, and duplication in its chemical and biological defense infrastructure; and (3) used and plans

analyzed CBDP infrastructure policies, plans, and studies from organizations across the CBDP Enterprise from fiscal years 2008 through 2014.

**What GAO Recommends**

GAO recommends, among other things, that DOD (1) designate an entity to lead the effort to identify required infrastructure; (2) identify, request, and consider any information from chemical and biological infrastructure studies of other federal agencies to avoid potential duplication; and (3) update the CBDP Enterprise's guidance and planning process to fully institutionalize the use of risk assessments. DOD concurred with all five of GAO's recommendations and discussed actions it plans to take.

► Read the full GAO report at: <http://www.gao.gov/assets/680/671004.pdf>

**Avon Protection acquires SecureBio to form 'Avon Training and Consultancy'**

Source: <http://www.hstoday.us/single-article/avon-protection-acquires-securebio-to-form-avon-training-and-consultancy/794c142a81003f522b6747a366d26b39.html>

June 08 – **Avon Protection, part of Avon Rubber plc, has acquired SecureBio Ltd., the specialist CBRN consultancy it partnered with in 2014.**



The acquisition of SecureBio strengthens Avon's position as a market leader in CBRN protection, and provides a pioneering in-house consultancy service offering specialist risk management, security and training packages to the commercial, media, insurance and counter-terrorism markets.

This acquisition is a significant step for both companies and will deliver end-to-end, customised services through the newly formed "Avon Training and Consultancy" provision.

Oliver Morton of SecureBio said, "This is a fantastic opportunity, combining the world leader in respiratory protection with an innovative consultancy to ensure the military, law



enforcement, commercial and media customer is able to benefit from a truly end-to-end procurement solution. We are really looking forward to joining Avon, expanding our training and consultancy offering, whilst drawing on their expertise to deliver a multitude of turnkey solutions to a global market.” Avon CEO Peter Slabbert said, “We are delighted to have SecureBio on-board and welcome the team. Avon Protection has expanded its services to offer protection solutions and this development into training and consultancy is very exciting for us all.”



## Requirements for Skin Decontaminants in CBRN Operations

By LTC Dr. Martin Weber

Source: <http://www.cbrneportal.com/requirements-for-skin-decontaminants-in-cbrn-operations/>

June 30 – Many toxic chemicals and chemical warfare agents can penetrate the skin or can produce toxic effects in the skin. Obviously, these substances must be rapidly removed after contact, which is why the decision on a suitable skin decontaminant for CBRN Special Forces is of outstanding importance both for the performance and health of the soldier.



Skin detoxification can be achieved by different solutions and approaches, but our in vitro testing showed that not all of them react the same way and dissolve all chemical and biological agents within the same amount of time. Before getting straight to the results, I will start with a short overview of dermal toxicity of chemical warfare agents and respective requirements for skin decontaminants before evaluating advantages and disadvantages of solutions that are available on the market.

### Dermal toxicity of chemical warfare agents and requirement for skin contaminants

Table 1 shows NATO-defined skin damage thresholds at which the listed agents cause adverse effects on the skin or through the skin. The thresholds for sulfur mustard and lewisite, which are vesicant chemical agents, are based on the quantity of the agent per surface area. By contrast, the thresholds for VX, sarin and cyclosarin, which are systemically acting nerve agents, depend on the total quantity of the absorbed chemical agent. Whereas VX readily passes through the skin, sarin and cyclosarin are poorly absorbed through the skin.

Agent	Source in AEP-52	Symptom	Damage threshold
Sulfur mustard	C-21	10% of contaminated persons have erythema	28 µg/cm²
Lewisite	3-6	Blisters	14 µg/cm²
VX	3-4	50% inhibition of serum AChE	1,75 mg/man (body)
Sarin	3-2		300 mg/man
Cyclosarin	3-2		15 mg/man

Tab.1.Dermal toxicity of chemical agents (STANAG 4650, AEP-52)

The functional requirements for skin decontaminants defined by the Bundeswehr are as follows: “Decontaminants are part of CBRN individual decontamination kits and

*remove, absorb, detoxify or disinfect biological and chemical agents that persist on affected areas of the non-injured or injured body surface and on parts of the personal equipment as well as minor items of equipment. Decontaminants that are part of CBRN decontamination kits are applied during self and buddy aid.”*

► Read the rest of this very comprehensive article at source's URL.



*LTC Martin Weber joined the Federal Armed Forces as a medical officer-candidate in 1977 and he received his approval as a pharmacist in 1982. He became a state-certified food chemist in 1985 and was promoted to Staff Pharmacist in 1985. In 2000 he received his PhD in Science and five years later he was promoted to Lieutenant Colonel Pharmacist. Since 2007 he is the Head of the Division of Warfare Agent Analysis of the Central Institute of Medical Service of the Federal Armed Forces.*

## CBRN Defence capabilities in US and Europe

By David Oliver

Source: <http://www.cbrneportal.com/cbrn-defence-capabilities-in-us-and-europe/>



June 30 – The United States still considers that weapons of mass destruction (WMD) pose one of the gravest threats to the nation. The risk of possible use of chemical, biological, radiological and nuclear (CBRN) agents by Islamic State (ISIL) terrorists, or incidents resulting from natural or man-made disasters, continues to pose serious threats to civilian populations internationally.

US authorities said that sympathizers of the Islamic State could be the brains behind the series of recent chemical weapons threats aboard international flights using US airports or flying over American airspace earlier this year. US law enforcement officers received 11 threats in a seven-day period. The US response was outlined in a White House briefing in which reaffirmed that attacks using improvised nuclear devices or biological weapons, as well as outbreaks of a pandemic disease, pose a serious and increasing national security risk, and that the United States will focus on reducing the risk of these high-consequence, nontraditional threats: This includes ensuring that decision-makers have the tools they need to manage disease outbreaks by linking health care providers, hospitals, and public health agencies. By building on America's unparalleled talent and through international partnerships, we can create new drugs, vaccines, and diagnostic tests, and manufacture them more quickly and efficiently.

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► Read the rest of this very comprehensive article at source's URL.

*David Oliver is a defense photo-journalist for more than 30 years, and member of the Independent Defense Media Association (IDMA) and the European Security and Defense Press Association (ESDPA). David is the author of 18 defense-related books, and is currently an IHS Jane's consultant editor and a regular correspondent for defense publications in the UK, USA, France, Poland, Brazil and Thailand.*

## Tank car fire out, but 5,000 remain evacuated in Blount County, Tennessee

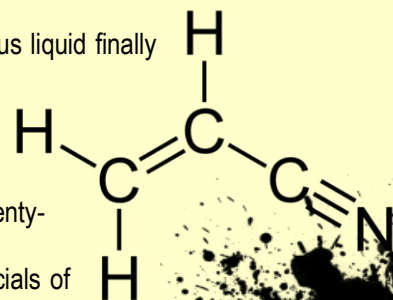
Source: <http://www.wbir.com/story/news/2015/07/02/mandatory-evacuation-underway-following-blount-county--train-fire/29605729/>

July 02 – After burning for hours, the fire in a rail car containing a hazardous liquid finally has been extinguished on a Blount County rail track, according to CSX.

The rail operator said the fire was out by 7 p.m. Thursday. The car carried about 24,000 gallons of **Acrylonitrile**, a flammable liquid used in various industrial processes including plastic manufacturing.

Thirty-five of the train's 57 cars had been removed as of Thursday night. Twenty-one will be removed once track repairs are made, according to CSX.

"The cause of the derailment is under investigation by the company and officials of the Federal Railroad Administration," according to CSX.







Twenty-seven of the train cars carried hazardous materials, including nine that had Acrylonitrile and were transported in pressurized tank cars.



As of 9 p.m., Blount Memorial Hospital had treated 75 people through the day and admitted 28 patients. None were critical, according to spokesman Josh West.

Kits that can help responders avoid exposure to the spilled liquid were being shipped up from the Chattanooga Fire Department, Chattanooga hospital and EMS departments.

The "CYANOKITS" ward off the threat of cyanide poisoning, the potential of which exists in exposure from the fire's smoke.

**Acrylonitrile Fact Sheet (CAS No. 107-13-1)**  
 Source: <http://www.epa.gov/chemfact/acry-fs.txt>

Chemicals can be released to the environment as a result of their manufacture, processing, and use. EPA has developed information summaries on selected chemicals to describe how you might be exposed to these chemicals, how exposure to them might affect you and the environment, what happens to them in the environment, who regulates them, and whom to contact for additional information. EPA is committed to reducing environmental releases of chemicals through source reduction and other practices that reduce creation of pollutants.

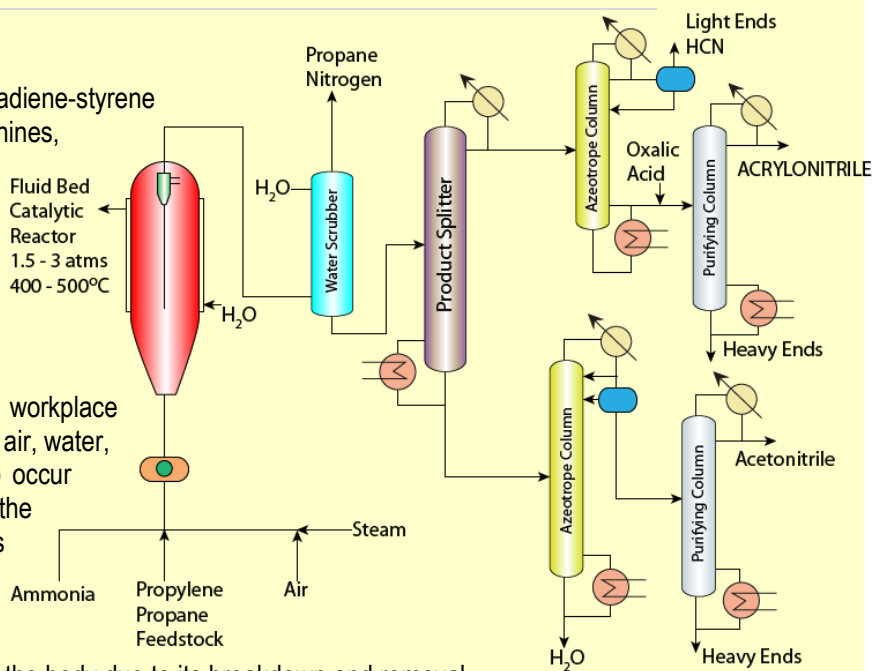
**WHAT IS ACRYLONITRILE, HOW IS IT USED, AND HOW MIGHT I BE EXPOSED?**

Acrylonitrile (also called AN and vinyl cyanide) is a colorless, flammable liquid. Its vapors may explode when exposed to an open flame. AN does not occur naturally. It is produced in very large amounts (2.5 billion pounds in 1993) by five companies in the United States. U.S. demand is likely to increase 2 to 3 percent per year for the next several years. The largest users of acrylonitrile are companies that make acrylic and modacrylic fibers. Companies also use AN to make:



- high impact acrylonitrile-butadiene-styrene (ABS) plastics used in business machines, luggage, and construction material;
- styrene-acrylonitrile (SAN) plastics used in automotive and household goods and in packaging material;
- adiponitrile, a chemical used to make nylon; and
- dyes, drugs, and pesticides.

Exposure to acrylonitrile can occur in the workplace or in the environment following releases to air, water, land, or groundwater. Exposure can also occur when people smoke cigarettes or breathe automobile exhaust. Acrylonitrile enters the body when people breathe air or consume water or food contaminated with AN. It can also be absorbed through skin contact. It does not remain in the body due to its breakdown and removal.



**WHAT HAPPENS TO ACRYLONITRILE IN THE ENVIRONMENT?**

Acrylonitrile evaporates when exposed to air. It dissolves when mixed with water. Most releases of acrylonitrile to the environment are to underground sites or to air. Acrylonitrile evaporates from water and soil exposed to air. Once in air, AN breaks down to other chemicals. Microorganisms living in water and in soil can also break down AN. Because it is a liquid that does not bind well to soil, acrylonitrile that makes its way into the ground can move through the ground and enter groundwater. Plants and animals are not likely to store acrylonitrile.

**HOW DOES ACRYLONITRILE AFFECT HUMAN HEALTH AND THE ENVIRONMENT?**

Effects of acrylonitrile on human health and the environment depend on how much acrylonitrile is present and the length and frequency of exposure. Effects also depend on the health of a person or the condition of the environment when exposure occurs.

Breathing acrylonitrile for short periods of time adversely affects the nervous system, the blood, the kidneys, and the liver. These effects subside when exposure stops. Nervous system effects of AN range from headaches and dizziness to irritability, rapid heartbeat, and death. Symptoms of acrylonitrile poisoning may occur quickly after exposure or after levels of breakdown products like cyanide build up in the body. Direct contact with acrylonitrile liquid severely damages the skin. Acrylonitrile liquid or vapor irritates the eyes, the nose, and the throat. These effects are not likely to occur at levels of acrylonitrile that are normally found in the environment.

There are several health effects case studies of acrylonitrile workers. The methods used in these studies limit conclusions that can be made from the results. These studies show that workers repeatedly breathing small amounts of acrylonitrile over long periods of time may develop cancer. Cancer occurs primarily in the respiratory tract.

Laboratory studies show that repeated exposure to acrylonitrile in air or in drinking water over a lifetime also causes cancer in animals.

Studies also show that repeated exposure to acrylonitrile adversely affects the respiratory and central nervous systems and causes developmental toxicity in laboratory animals.

Acrylonitrile has moderate toxicity to aquatic life. By itself it is not likely to cause environmental harm at levels normally found in the environment. Acrylonitrile can contribute to the formation of photochemical smog when it reacts with other volatile substances in air.



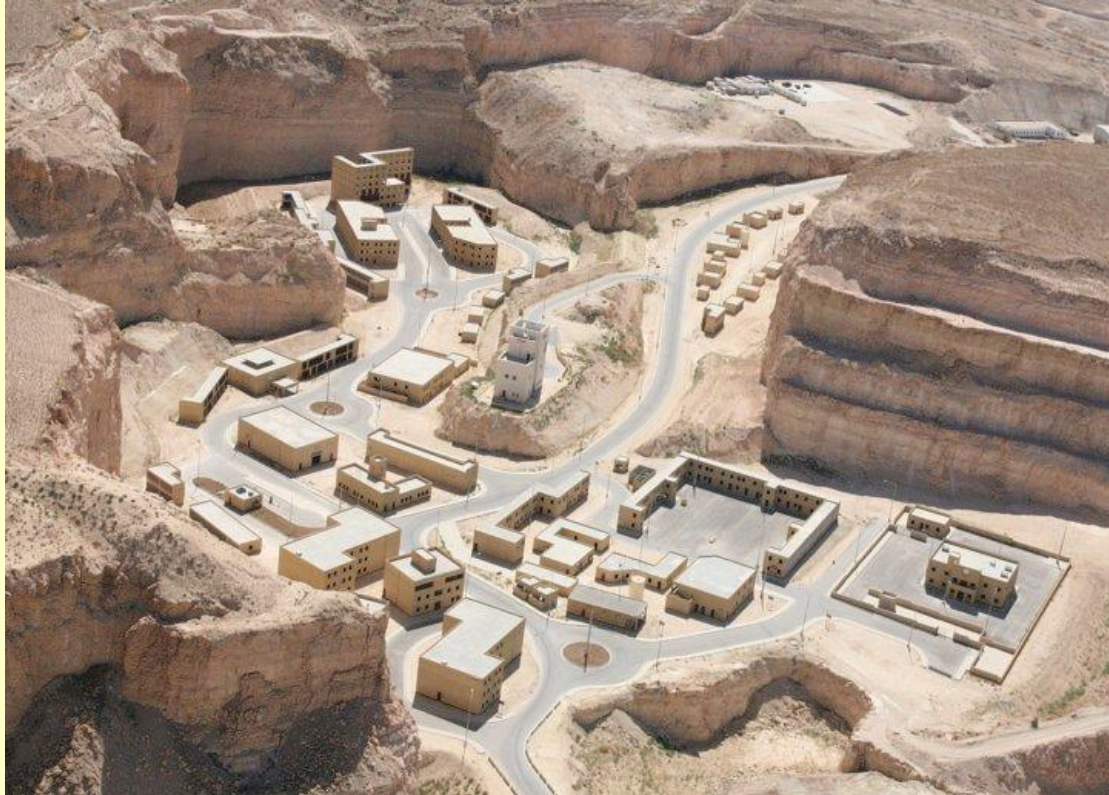
## NCT CBRNe Middle East 2015 organized in Partnership with KASOTC

Source: <https://www.cbrnemiddleeast.com/nct-cbrne-middle-east-2015-organized-in-partnership-with-kasotc/>

IB Consultancy and the **King Abdullah Special Operations Training Center (KASOTC)** are proud to announce an official partnership for the leading Non-Conventional Threat (NCT) CBRNe conference, exhibition and exercise. NCT CBRNe Middle East 2015 will take place on 5-7 October at Le Méridien Amman in Jordan. The three-day event will focus on CBRN Defense Organization in the Middle East, Regional Disaster and Emergency Management Approaches, CBRN Response from Detection and Sampling to Response and Recovery, CBRN Preparedness Integration, and Medical Preparedness and Response.



KASOTC is an enhanced training center of the Jordan Armed Forces that provides for cutting-edge training facilities, knowledgeable instructors as well as state-of-the-art technology. The facility (photo below) covers a 2.5 square kilometer training site, suitable for tailored courses or training support for special operations units having their own programs. The Managing Director of IB Consultancy, Mr. Ilja Bonsen, has expressed his gratitude for being able to host a conference in cooperation with such an advanced training center.



"Hosting NCT CBRNe Middle East in partnership with KASOTC enables us to offer our audience a more interactive program of both presentations as well as a vibrant interactive tour", he said.

### NCT CBRNe Middle East 2015

Building on the highly successful NCT CBRNe conferences, exhibitions and exercises in Asia, Europe, USA and the Middle East, NCT CBRNe Middle East 2015 will concentrate on the most urgent CBRNe related threats in the Middle East and will bring together experts, end-users, policymakers, industry and procurement staff from all over the region.

The conference will include high-level speakers and governmental delegations from countries such as Jordan, U.A.E., Bahrain, Oman, Saudi-Arabia and many more, providing



a regional forum for Armed Forces, Government Agencies and Civil First Responders discussing topical challenges of CBRNe.

## Failed terror attack raises alarms about chemical plant security

Source: <http://www.rsc.org/chemistryworld/2015/07/failed-terrorist-attack-chemical-plant-security>

July 02 – **The attempted bombing of a chemical plant in France as part of an apparent terrorist attack on 26 June, which culminated in an explosion there and involved a beheading, has exposed the vulnerability of chemical plants, according to several security experts.**



The facility in question is owned by US-based company Air Products & Chemicals. French authorities have reportedly detained 35-year-old Yassin Salhi for his alleged involvement in the plot to blow up the facility. He apparently drove a van into a warehouse containing canisters of gas, acetone and liquid air, creating an explosion. Salhi is also being accused of decapitating the man in charge of the transportation company that employed him. The president and CEO of Air Products, Seifi Ghasemi, issued a statement expressing sympathy for the victim and his family. He said the incident 'reinforces that we all need to take safety and security very seriously, every day, and remain vigilant in everything we do'. All of the other employees are safe and accounted for, according to Ghasemi. Security has been increased at Air Products' locations around the world as a 'precautionary measure,' he said. 'It's time for the industry to take seriously the need to reduce both the attractiveness of facilities as terrorist targets and the potential consequences of successful attacks,' says Paul Orum, a consultant based in Washington, DC who advises public safety advocacy

organisations on chemical security. Orum and his colleagues have identified safer alternatives for many industries. For example, polyurethane foam manufacturers can eliminate bulk ethylene oxide by substituting vegetable-based polyols, and titanium dioxide producers can eliminate bulk chlorine gas by generating chlorine on-site as needed without storage, or by using the sulfate process.

David Halperin, an attorney who formerly worked on the US National Security Council staff and Senate Intelligence Committee, agrees that more can be done to ensure the material inside such facilities won't easily ignite. 'Better security is a good thing, but the really important thing is inherently safer chemicals,' he states. '[the attack in France] shows that someone can easily gain access to a plant, and if the materials in a plant are susceptible to causing damage if ignited, that is a risk.'

**The American Chemistry Council (ACC) called the incident 'an important reminder that the work of defending against terrorist attacks is never done'.** It says it is actively discussing with its members and the US Department of Homeland Security whether additional actions are needed to bolster chemical plant security in the US and abroad, noting that member companies have invested more than \$14 billion to further enhance security at their facilities under ACC's Responsible Care Security Code programme. The attack in France happened the same day as foreign tourists were murdered at a beach resort in Tunisia, and a suicide bomber attacked a Shia mosque in Kuwait. It was unclear whether these events were related, although Islamic extremist groups are believed to be linked to all three.

'It appears to be a coordinated effort, and that certainly should raise concerns about chemical plants, as well as refineries,' warns Richard Sem, the president



of the security and workplace violence consulting firm Sem Security Management in Wisconsin, US. He notes that many facilities

are in populated metropolitan areas, where an explosion or a dangerous release could conceivably cause significant harm.

## 2nd place for Technion researcher in robotics competition

Source: <http://i-hls.com/2015/07/2nd-place-for-technion-post-doctoral-researcher-in-robotics-competition/>

Robots can function in place of man in various tasks and using unmanned platforms can save human lives in many different fields, from scanning disaster-stricken areas to missions of

full military nature such as disabling bombs meant to injure soldiers. The increasing use of robots makes for a healthy competition among different minds labouring on inventing and developing the robots of tomorrow.

Boris Haimov, a post-doctoral researcher of nano-technology at the Israel Institute of Technology (Technion), has won second place in RealSense development robotics competition held by the international Intel company. Haimov's development, which has earned him a \$10,000 prize, is the Remonoid, a remote-controlled humanoid robot, which might replace humans in carrying out dangerous tasks like disabling explosive devices, exposing tunnels, experimenting with dangerous substances, flights to space and rescuing injured people in disaster areas.

### The "Remonoid"

The competition required participants from all over the world to develop a camera application based on Intel's RealSense technology. "This is a technology that allows the user to control computers and robots through their natural body movements", explained Haimov. "In other words, when I turn my head, the robot turns its head, and when I lift an arm the robot does the same. I can talk through him via speaker, hear through him via microphone and see through its eyes via camera built in the platform. This technology is revolutionary in the way that man controls a computer, and is in continuance of former revolutions, the keyboard, the mouse and touch screens, in that it cancels the need of an artificial interface

and allows man to control the computer or robot with natural movements."



## North Korean defects with data on 'chemical warfare tests on humans'

Source: <http://www.telegraph.co.uk/news/worldnews/asia/northkorea/11715990/North-Korean-defects-with-data-on-chemical-warfare-tests-on-humans.html>

July 03 – A North Korean scientist who was involved in the regime's biological and chemical weapons programmes has defected to Finland, apparently with evidence of tests carried out on human subjects.

The researcher, who has only been identified by his surname, Lee, was based at a microbiology research centre in Kanggye, close to the Chinese border, but defected on June 6,



South Korea's Yonhap news agency reported. Mr Lee, 47, fled to Finland via the Philippines, according to a group that campaigns for human rights in North Korea, on the grounds that he "felt sceptical about his research".



Mr Lee was carrying an electronic data storage device allegedly containing 15 gigabytes of information on North Korea's use of humans being used to test biological and chemical weapons.

He is planning to give testimony to the European parliament in late July in order to highlight the North's abuses of its own people, the rights group said.

Over the years, there have been a number of reports of North Korean scientists utilising humans for weapons tests.

Im Cheon-yong, for example, was an officer in North Korea's special forces until he defected in the mid-1990s. During debriefing, he told South Korean intelligence officials that the final straw was seeing mentally and physically children with disabilities, being used in chemical weapons tests as part of his training.

"If you want to graduate from this academy, you need to learn how to confuse the enemy without revealing your own forces, how to carry out assassinations, how to use chemical

weapons and so on," he said in an interview in 2014. "And then we have what they call 'field learning'.

"For the biological and chemical warfare tests, we needed 'objects'," he said. "At first, they

used the chemical agents on mice and showed us how they died. Then we watched the instructors carrying out the tests on humans to show us how a person dies. I saw it with my own eyes."

Mr Im said tests were conducted at least three facilities operated by the military, including one alongside a political prison camp close to the city of Hyanghari.

Anthrax bacterium is frequently tested, along with as many as 40 different types of chemical weapons that the North Korean regime has concocted itself.

In February, South Korean intelligence warned that Pyongyang has stepped up its biological and chemical warfare drills, carrying out at least a dozen large-scale exercises in the previous year.

"These are clearly offensive drills planning a biochemical attack," a South Korean officer told the Chosun Ilbo newspaper. "We believe it could cause a real threat."

A report issued in 2014 by 38 North, the respected web site operated by the US-

Korea Institute at Johns Hopkins School of Advanced International Studies, suggested that North Korea devotes a substantial amount of its resources to developing chemical weapons.

**Based on testimony from North Korean soldiers who have defected, the study claims that North Korea is able to manufacture 4,500 tons of chemical agents a year, but has the capacity to ramp that up to 12,000 tons a year.**

The chemicals that the regime is producing include hydrogen cyanide, phosgene, sarin, tabun, chlorine and a number of agents from the mustard gas family.

The study also cited former prison inmates and guards as saying that chemical and biological weapons are tested on North Korean political prisoners at special camps.

The report added that North Korea has reportedly provided chemical weapons or technology to Egypt, Iran, Libya and Syria since the 1990s.



Coming after United Nations investigations into North Korea's human rights abuses, Mr Lee's testimony before the European parliament will be closely watched.

"The international community will have to collect the data and, if it can be verified that such experiments have taken place, then that would seem to violate international humanitarian law," Daniel Pinkston, an analyst with The International Crisis Group in Seoul, told the Telegraph.

"After that, it is up to the international community to do everything in its power to prevent this happening again, to terminate these programmes and to hold those responsible for carrying them out accountable for their actions," he said.

North Korea is already the subject of UN sanctions and it is not clear what further steps might be taken to halt the reported use of its citizens in North Korea's biological and chemical weapons tests.

## **"Strong possibility" Assad may use chemical weapons on a large scale to protect regime: U.S. intelligence**

Source: <http://www.homelandsecuritynewswire.com/dr20150706-strong-possibility-assad-may-use-chemical-weapons-on-a-large-scale-to-protect-regime-u-s-intelligence>

July 06 – U.S. intelligence agencies say there is a strong possibility the Assad regime will use chemical weapons on a large scale as part of a last-ditch effort to protect important Syrian government strongholds if rebel fighters and Islamists were about to overrun them.

U.S. officials told the *Wall Street Journal* that analysts and policy makers have been carefully examining all available intelligence in order to determine what types of chemical weapons the Assad regime might be able to deploy and what developments would trigger their use.

Following a 21 August 2013 sarin gas attack by the Syrian military on Sunni suburbs of Damascus, in which more than 1,400 civilians were killed, President Bashar al-Assad, under a threat of a U.S. military strike, allowed international inspectors to remove the Syrian regime's most toxic chemical weapons.

U.S., European, and Israeli intelligence services say that after the most toxic chemicals were removed and more than a dozen chemical weapons production site dismantled, the Assad regime has developed and deployed a new type of chemical bomb filled with chlorine. U.S. intelligence officials say Assad may now decide to use these weapons on a larger scale in key strategic areas. U.S. officials told the *Journal* that they also suspect that the regime may have kept at least a small quantity of the chemical precursors needed to make nerve agents sarin or VX. Analysts note that the Assad regime has used chlorine-based chemical weapons on about two dozen

occasions in 2014 and early 2015, but that if the regime were to employ sarin or VX weapons, the international reaction may be severe because these agents are more deadly than chlorine and were supposed to have been removed from Syria.

Hamish de Bretton-Gordon, a former commanding officer of the British army's chemical-weapons unit, said: "Even if the regime had only one ton of VX left, that would be enough to kill thousands of people."

The intelligence is "being taken very seriously because he's getting desperate" and because of doubts within the U.S. intelligence community that Assad gave up all of his deadliest chemical weapons, a senior U.S. official told the *Journal*.

**A new analysis by the U.S. intelligence community suggests Assad could use these chemical weapons as a weapon of last resort to protect key military and regime installations, or if the regime felt it had no other way to defend the core territory of its most reliable supporters, the Alawites.**

The analysis underlines what U.S. officials describe as growing signs of the Assad regime's desperation on the battlefield.

Since January, moderate rebels — some backed by the CIA — and Islamic State militants have been pushing the Syrian military out of areas controlled by the regime, leaving critical military bases, strategic



roads, and supply lines vulnerable, particularly in the country's northwest, south, and in the Kalamoun mountain range which straddles the Syria-Lebanon border.

A worst-case scenario, the U.S. officials said, would be an open war between Islamists and Alawite-dominated communities near the Mediterranean coast, the home territory of the Alawites, the religious minority to which Assad belongs.

An additional worry, analysts say, is that the disintegration of the Syrian military has led not

only to hasty retreats by Syrian units from important military bases in the country's north, east, and south – but often to disorderly and panicky retreats, in which advanced weapon systems were abandoned, only to be seized by the anti-regime rebels. If the regime chemical weapons are not better guarded, there is a risk that they, too, will fall into rebels' hands as the rebels continue to whittle away at territory held by the regime.

## After chemical weapons destroyed, rocks remain

Source:<http://www.starnewsonline.com/article/20150710/ARTICLES/150719999?tc=ar>

Walt Busbee keeps a rock collection in the office of his Porters Neck home, but these aren't your standard rocks.

They are the remnants of chemical weapons. A



translucent green, quartz-like rock a couple of inches across was once the nerve agent VX. Another rock used to be GV.

Busbee, 76, and a retired Army brigadier general, was in charge of destroying these weapons of mass destruction.

The Germans developed GV. After World War II, the British created VX in response.

The Russians dismantled a German nerve gas plant after the war and rebuilt it in Russia, Busbee said.

Later, the Iraqis gassed the Kurds, Iranians and their own people before the first Gulf War, he said.

And of course the United States had developed its own chemical weapons program.

Many nations stockpiled them to use in retaliation for a first strike.

His rocks come from Johnston Atoll, a set of islands in the Pacific Ocean southwest of Hawaii. A former nuclear test site, it was used as storage site after World War II for Japanese chemical weapons.

Busbee joined the Army after serving in ROTC at Georgia Tech. After the Army paid for his grad school he joined the Chemical Corps, which defends against nuclear, biological and chemical weapons.

He served in Vietnam in 1967-'68 as a chemical staff officer.

He worked on Army ammunition plants, moving from conventional ammo to binary chemical weapons.

He worked on both sides of the chemical weapons issue.

"I did such a good job of building the plants, five or six years later I was in charge of destroying the U.S. stockpile," he said.

At Johnston Atoll, barrels of nerve agents had sat for decades. Busbee oversaw the task of subjecting some of them to 1,800 degree heat, turning them to inert molten rock.

That proved the technology would not produce harmful emissions, and chemical weapons destruction began at various sites in the United States. All the sites overcame lawsuits and local opposition by repeatedly proving the process was safe, he said.

There are still a couple of stockpiles remain to be destroyed in the States, he said, but the process is well underway.





He worries that not all of Assad's Syrian President Bashar al-Assad's chemical weapons have been destroyed, and that ISIS could come across little caches in Syria or Iraq.

"I'm proud that we helped get it stopped. At least Russia and the U.S. aren't slinging them at each other," he said. "But the genie is not back in the bottle."



## Kosovo suspends capital's water supply over ISIL poison plot fears

Source: <http://en.abna24.com/service/europe/archive/2015/07/12/700431/story.html>



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July 12 – Pristina's water supply was suspended after the arrest of five people close to Kosovo's Lake Badovac, who are suspected of involvement with the Islamic State terrorist group.

Authorities in Kosovo cut off the water supply to the capital, Pristina, on Saturday due to fears that a terrorist cell with links to the so-called Islamic State may have contaminated the lake which supplies over half the city with water. "The regional water company of Pristina works in close cooperation with the Kosovan police, and immediately after receiving information about the arrest of terror suspects close to Lake Badovac, a decision was taken in collaboration with the National Institute of Public Health to turn off the water supply for an indefinite time," a spokesperson for Pristina's Regional Water Company said on Saturday. On Saturday morning it was reported that three people had been arrested at 1:40 a.m. on Saturday on the main road linking Pristina with the town of Gjilan, close to Lake Badovac.

According to local media, the suspects were driving two Volkswagen cars, which were found to contain weapons, ammunition and some materials pertaining to the Islamic State terrorist group.

Later on Saturday, Kosovan prosecutors announced the arrest of two more people on charges of terrorism, in connection with the three earlier arrests.

The head of Kosovo's National Institute of Public Health, Naser Ramadani, announced on Saturday evening that an analysis of water samples taken from Lake Badovac had found the water to be safe, and advised the water company to turn the supply back on.

The National Institute of Public Health also recommended that Kosovo's Regional Water Company "increase its vigilance and protection of water resources" and put in place a strict protective area around the lake.

According to a report published by the Kosovar Center for



Security Studies think tank in April, Kosovo contributes the most militants per capita to militant organizations in Syria and Iraq, compared to 21 states in the West from which the Islamic State draws most of its foreign fighters.

Figures up to mid-January 2015 state that 232 Kosovans are confirmed to have joined militant organizations in Syria and Iraq. Per capita, Kosovo has 125 fighters for every million Kosovans.

**EDITOR'S COMMENT:** Although the concept of the idea was kind of stupid (in water systems, the commonly held belief that "dilution is the solution," along with the multiple barrier approach used to detect and eliminate or deter naturally occurring pathogens, would likely prevent the successful introduction of a toxic chemical or microbiological agent at the source or in the treatment plant), it is the intention that counts! Next time my attempt the same but not in a lake: a main distribution water tank can cause real problems and lots of victims.

## Water and terrorism

Source: [http://www2.pacinst.org/reports/water\\_terrorism.pdf](http://www2.pacinst.org/reports/water_terrorism.pdf)

Water Policy 8 (2006) 481–503

### Water and terrorism

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#### Abstract

The importance of freshwater and water infrastructure to human and ecosystem health and to the smooth functioning of a commercial and industrial economy makes water and water systems targets for terrorism. The chance that terrorists will strike at water systems is real; indeed, there is a long history of such attacks. Water infrastructure can be targeted directly or water can be contaminated through the introduction of poison or disease-causing agents. The damage is done by hurting people, rendering water unusable, or destroying purification and supply infrastructure. More uncertain, however, is how significant such threats are today, compared with other targets that may be subject to terrorist attack, or how effective such attacks would actually be. Analysis and historical evidence suggest that massive casualties from attacking water systems are difficult to produce, although there may be some significant exceptions. At the same time, the risk of societal disruptions, disarray, and even overreaction on the part of governments and the public from any attack, may be high. This paper reviews the history of past attacks on water systems and the most pressing vulnerabilities and risks facing modern water systems. Suggestions of ways to reduce those risks are also presented.

## 2 blasts rock oil refinery in southern France 10km from Marseille Airport

Source: <http://rt.com/news/273484-blasts-france-oil-refinery/>

July 14 – Two blasts have rocked a petrochemical plant in Bouches-du-Rhône department in southern France, authorities say. The explosion occurred close to Marseille Provence Airport, the fifth-busiest in the country.

"Two tanks, 500 meters apart from each other and filled with chemicals, are affected," a source close to the investigation told France's press.



The first tank contained gasoline and the second had naphtha, a flammable liquid hydrocarbon mixture.



Some 120 firefighters were immediately dispatched at the scene. Authorities say they have implemented special measures to prevent possible hydrocarbon pollution of the town and nearby communities. A "preventive dam" was installed in the city near the plant to prevent hydrocarbon pollution related to fire-fighting water.

Impressive plumes of smoke are visible at the site and air pollution is expected in the areas

within a radius of 1.5km from the affected plant, France Bleu Provence radio reported. A northwestern wind spreads the plumes of smoke to the surrounding towns of Marignane, Les Pennes-Mirabeau and St Victoret.

The incident happened on Tuesday morning at the LyonDellBasell oil refinery in the town of Berre l'Étang. According to press reports, the explosions were heard near Marseille Provence Airport, the fifth-busiest airport by passenger traffic in France. The airport is only 11.5 km from the town of Berre l'Étang.



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The explosions were heard at 3am local time (01:00 GMT), according to the statement from Bouches-du-Rhône prefecture. According to the prefecture, no injuries have been reported so far.

Criminal intent is suspected in the incident, a source close to the French government told Reuters. "The simultaneous explosion of the tanks, which are spaced about 500 meters from each other, is not the result of a technical accident," the source said. "The theory of criminal intent is clearly being considered."

**EDITOR'S COMMENT:** "The theory of criminal intent..." Judging the French government by their actions rather than words over this attack, it seems likely they don't truly believe an angry neighbour tired of living next to a refinery getting too keen with a box of matches is a more likely hypothesis than Jihadism.

## Assad is still using chemical weapons. What will it take to stop him?

By Christopher Jenkins

Source: <http://www.homelandsecuritynewswire.com/dr20150714-assad-is-still-using-chemical-weapons-what-will-it-take-to-stop-him>

July 14 – While the Syrian conflict has been perpetually overshadowed in the headlines by recent events such as the possibility of a Grexit

and the Chinese stock market crash, two recent developments regarding Syria's use of chemical



weapons have nearly managed to refocus international attention on Syria. First, on June 17th the House Committee on Foreign Affairs convened a hearing on the Assad regime's use of chlorine barrel bombs. The Assad regime frequently launches attacks in opposition-controlled areas using barrel bombs filled with conventional explosives. International human rights monitors deplore this tactic because it is intended to kill and terrorize civilians rather than precisely target opposition forces.

Civilians regularly seek shelter from these attacks in basements or bomb shelters; however, chlorine gas, being heavier than air, sinks down into the lowest point of any structure and kills those who have sought shelter underground. The recent Congressional hearing featured direct testimony from doctors affiliated with the Syrian American Medical Society and the White Helmets who had personally treated victims of chlorine gas attacks in Idlib and Hama provinces. Various other organizations, such as the Syrian Observatory for Human Rights, Human Rights Watch, Amnesty International, and the Local Coordination Committee have also reported chlorine attacks by the regime (and not by opposition forces as the regime claims) in multiple villages in Idlib and Nareb provinces.

Second, U.S. intelligence agencies publicly reported this week that they expect another attack by the regime using chemical weapons beyond chlorine bombs. In particular, the Syrian government is suspected of maintaining stocks of sarin and VX gas. Added to this concern is the worry that the Islamic State is creeping ever closer to these stocks, and might take control of them if the regime collapses.

The initial chemical attack that sparked an international outcry occurred nearly two years ago, in August of 2013, when the Syrian government killed more than 1,400 civilians in the suburbs outside Damascus with sarin gas. After the U.S. threatened to launch airstrikes and international pressure intensified, Assad's government agreed to accede to the Chemical Weapons Convention and relinquish its chemical weapons stocks, which were destroyed at sea on the U.S. vessel Cape Ray and at foreign waste disposal facilities. In contrast with U.S. intelligence, officials from the Organisation for the Prohibition of Chemical Weapons, the CWC's verification mechanism,

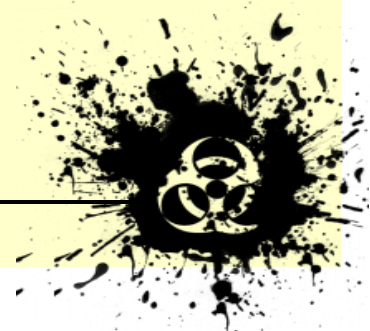
declared in January that Syria had begun to destroy its remaining chemical weapons sites, with the expectation that all remaining stocks would be destroyed by June 2015. "This is yet another milestone in the path to eliminating chemical weapons stocks in Syria," OPCW director Ahmet Uzumcu declared.

However, the agreement Syria made when it acceded to the CWC did not regulate chlorine. Although the weaponization of chlorine is banned by law, chlorine itself is not explicitly banned because it is a dual-use chemical essential in the production of medicines and water purification. Ironically, the Assad regime is now accused of denying access to chlorine in areas held by the opposition, which has vastly increased the incidence of diseases like hepatitis A by reducing clean water supplies.

Why would the regime return to the tactics that won it international condemnation and spurred the threat of action by the U.S.? Many analysts believe that Syria has reached a point of total desperation. It is fighting a bewildering assortment of adversaries, including the Al Nusra Front, ISIS, the Southern Front, and opposition fighters being trained by the U.S. in Jordan and Turkey. Recently, ISIS launched attacks on new gas fields in addition to the ones it controls near Palmyra. Al Nusra has driven the regime almost entirely out of Idlib. The Southern Front scored a major victory in the province of Deraa, taking one of the regime's military bases.

The Assad regime may also calculate that any Western military response against the regime would be restrained by a fear of an ISIS takeover in the security vacuum that would follow regime collapse. And of course, Syria can generally rely on Russia to oppose direct action in the Security Council against it. Although Russia voted for a Security Council resolution in March condemning the use of chlorine as a weapon in Syria, the Russian Ambassador to the U.N. suggested that the detonation of chlorine bombs at a time when Syrian helicopters flew overhead must have been a coincidence, or a ploy by the opposition.

Any international treaty is only as effective as its verification mechanisms and the ability to enforce sanctions for noncompliance. What might the



international community do to change Syria's behavior? A negotiated agreement with Russia, in which it agreed to stop supplying Syria with helicopter and aircraft parts, would be the most obvious step. Because the opposition lacks an air force and the regime enjoys total air superiority, the simplest way to reduce Syria's chemical weapons capability would be to cripple their air force. A no-fly zone established by the Pentagon with assistance from regional partners, such as Turkey, Jordan, Saudi Arabia, and Qatar, could also accomplish the same goal, but enforcement would be tricky. The U.S. might also consider assistance through training and/or supply of weapons to the Syrian opposition so that they might target Syrian government airfields with rockets or mortars. However, the difficulty of actually

tracking these weapons, and ensuring that they are not ultimately used by ISIS or Al Qaeda, is considerable; one of the worst fears nurtured by U.S. counterterrorism officials is that such groups will target civilian aircraft with portable missile systems.

Perhaps the most feasible defense against chemical weapons in Syria would involve the installation of **radar systems, air raid sirens, or sensors to detect chemical weapons** in opposition-held areas. These could be installed by local NGOs in partnership with the U.N. and/or with outside funding. The best solution may not be obvious, but it is clear at least that "moral shaming" is not sufficient to end the regime's chemical attacks against civilians.

*Christopher Jenkins is Assistant Dean for Academic Support at Oberlin College & Conservatory in Ohio.*

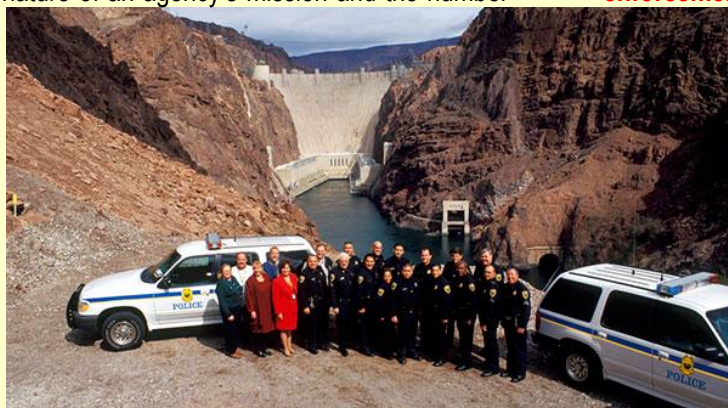
**EDITOR'S COMMENT:** One more of my favorite academic analysis on Syria's CWAs! Especially the last paragraph with proposals to counter the problem!

## Questions arise over ammunition purchases at Hoover Dam

Source: <http://www.homelandsecuritynewswire.com/dr20150714-questions-arise-over-ammunition-purchases-at-hoover-dam>

July 14 – Periodically, questions arise regarding the amount of ammunition purchased by the federal government's non-military agencies. One must take into account the nature of an agency's mission and the number

One such instance surfaced late last week, when it was disclosed that the federal Bureau of Reclamation has requested **a purchase of 52,000 rounds of ammunition for law enforcement personnel at Hoover Dam and Lake Mead.**



of armed personnel included in its ranks. Factor in the number of rounds expended in training and practice, and it becomes clear that the large ammunition purchases make sense. Every so often, though, a purchase is discovered that causes one to pause.

for the *Las Vegas Sun* reports that Nevada Representative Mark Amodei said he was going to look into it's the agency's operations, the number of its armed personnel, and ammunition usage.

Agency officials declined to provide such details, with Bureau spokeswoman Rose Davis saying, "We want to limit the amount of information any bad guys might have about our protection capabilities." The bureau solicited bids in June for 41,600 rounds of hollow-point ammunition, along with 10,400 rounds of shotgun ammunition.



Since there is no official public disclosure of the number of the agency's armed personnel, it becomes nearly impossible to determine whether the requested amount is excessive or not. In 2008, the number of law enforcement for the facility was said to be about twenty-one officers on patrol.

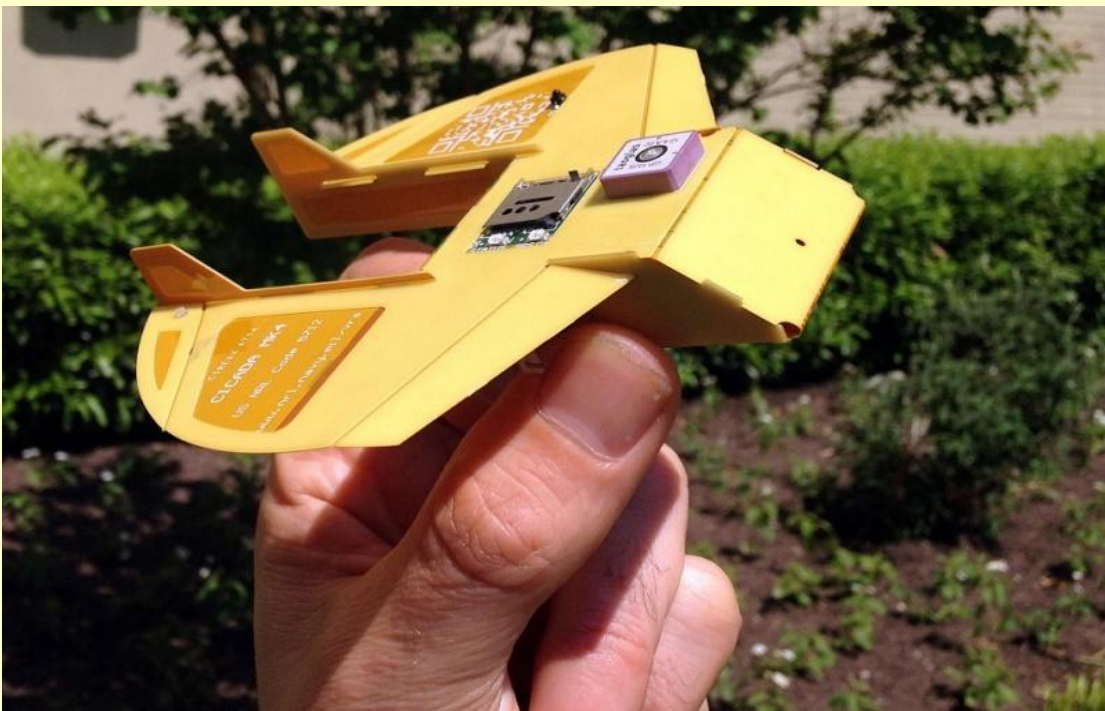
**If that number is used, the per officer annual ammunition allotment is 2,476 rounds. That number is well within**

**accepted norms for an officer to maintain firearm qualification readiness.**

Another purchase that raised eyebrows was the Social Security Administration's 2013 purchase of 174,000 hollow-point bullets for its 295 armed officers, as reported by CNN. When the same calculations are performed, each SSA officer received on average only 590 rounds.

## New Mini Drone with Big Capabilities

Source: <http://i-hls.com/2015/07/new-mini-drone-with-big-capabilities/>



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July 14 – The [Black Hornet](#) mini drone is not alone. The UAV market is getting smaller as time passes – and this does not mean the volume of the market, but the size of the unmanned aerial vehicles. Recently the United States' Navy has revealed the CICADA (Close-in-Covert Autonomous Disposable Aircraft) – an aerial platform no bigger than a compact disc, that can gather data in place that are inaccessible to regular vehicles. The CICADA is still in its first development stages and is awaiting more funding in order to become operational, the U.S. navy reported. The CICADA's operating concept is of using a large number of units in each mission, while each unit can only be operated once.

**The vehicle cannot take-off or fly by itself but is launched to the air at a height of up to 9 km, where it in fact soars downwards to pre-destinated mark in a percision of 4.5 meters from the destination. The CICADA is not equipped with cameras or other electro-optic intelligence gathering tools, but it can carry various sensors, such as water or bio-chemical sensors, and deploy them over a large area.**

The mini UAV, as mentioned, descends from a high altitude, in large numbers, and can carry different sesors – this will allow the Americans to collect data about a specific territory without the enemy having any real ability to counteract it, as it is almost an impossible mission to try and collect all the CICADA units scattered in the field.



This new navy development has positive civilian aspects, such as to be used in disaster stricken areas, or be mounted with sensors to measure temperature, humidity and other factors to study weather. The low cost of the vehicle, only a few hundred dollars for each unit, makes it an easily disposable tool which can be used in various areas. That makes it a vehicle that is to be a central way to gather valuable information for a very low cost.



## Dangerous Suicides

By Stuart K. Cameron

Source: [http://www.domesticpreparedness.com/First\\_Responder/Law\\_Enforcement/Dangerous\\_Suicides/](http://www.domesticpreparedness.com/First_Responder/Law_Enforcement/Dangerous_Suicides/)

July 15 – **Although most suicides injure only the suicide victims themselves, others may cause injury to anyone within close proximity. With law enforcement officers typically being the first on the scene of such incidents, they should be aware of the hazards and be able to recognize the signs of potential residual threats.**

The death of actor Robin Williams in August 2014 focused more attention on deaths caused by suicide. Law enforcement personnel frequently respond to investigate unattended deaths. The cause of death in these cases can span a wide range, from accidental overdoses to homicides. **In 2013, more than 41,000 deaths were caused by suicide in the United States making it the tenth leading cause of death for Americans that year.** During 2013, that translated statistically into one suicide death occurring every 12.8 minutes. Suicide deaths among middle-aged Americans have been trending upward. **According to the Centers for Disease Control and Prevention, more people now die from suicide than from automobile incidents in the United States.**

### Multiple Ways to Die

Various means are used to commit suicide. **The most commonly used method among males in the United States is firearms, whereas American females most frequently opt for the use of poison.** Generally, responding to a suicide, such as those where people orally ingest poison, does not pose any extraordinary threat to law enforcement officers. However, those who opt instead to cause their death through some type of inhalation exposure may very well pose an ongoing threat to those who respond.

One method people have opted to use is to commit suicide through the inhalation of carbon monoxide generated by running internal combustion engines in confined spaces. This is frequently accomplished by idling a vehicle in a closed garage. In these cases, responding police personnel need to ventilate the involved area to ensure that they are not affected by this toxic gas. This method often is readily identified for what it is because of the telltale indicators. Therefore, the potential danger is mitigated despite the fact the carbon monoxide is odorless and colorless.

Some more exotic, less frequent, and newly emerging methods to commit suicide via

respiratory exposure may be less easily recognized. As a result, these methods may pose a significant threat of harm to responding personnel. Awareness of the threat posed by these methods may be lacking but, once officers are forewarned, they often can be alert for and recognize telltale indicators, which empower them to take actions to avoid injury. All members of law enforcement should be familiar with these trends to ensure their safety should they respond to one of these events.

### Oxygen Displacement Hazards

Among the less common methods are asphyxiation through oxygen displacement, the inhalation of hazardous gases and chemical suicides (also known as detergent suicide). Asphyxiation through oxygen displacement often involves someone placing a bag over his or her head and then pumping in an inert gas, such as helium or nitrogen. Since helium is lighter than air, it fills the bag from the top down forcing all of the air out of the bottom of the bag. Accordingly, the bags used during these acts are sometimes referred to as **suicide or exit bags.**



Helium may be purchased in a variety of tanks

**The EXIT bag and helium technique**  
 From "Final Exit," 3rd Edition, by Derek Humphry



Place the elasticized opening of the bag on forehead, also covering hair and ears like a shower cap. Squeeze out any residual air.



Lean back and turn the gas valve partway open to a gentle flow. Bag gradually fully inflates with pure helium above the head.



Completely exhale air in lungs, hold breath, and then quickly pull the bag down to neck.



Fasten strap snugly around the neck and inhale deeply. Keep gas flowing steadily until tank is empty. Patient dies in 5-15 minutes.

– including disposable ones – from a number of



locations, such as party supply stores. This method of asphyxiation reduces the unpleasant sense of suffocation commonly associated with oxygen deprivation in the presence of carbon dioxide, and it is even advocated on various

suicide websites. Other gases that have been documented for bag suicides include propane, butane, or methane. Often, tanks of the gas are connected to a hose leading up into the bag, which may have a drawstring, be taped, or otherwise be secured around the neck to prevent the bag from becoming displaced.

Responders who encounter this method of suicide should be aware that, if it is completed in a confined space with poor ventilation, the gas may continue to displace oxygen in that area, creating an oxygen-deficient environment. Additionally, if a flammable gas such as propane is used, releasing the gas may create an additional risk of explosion or fire.

If a toxic gas, such as Freon or a concentrated pesticide like methyl bromide, is pumped into the bag instead of an inert gas, the victim may die directly from exposure to the concentrated poisonous gas. Once the gas release has been initiated, the toxic gas may continue to flow freely, thereby creating a risk of exposure to those who enter the immediate area. Whenever an apparent suicide involves a tank containing an unknown gas, extreme caution should be exercised and a hazardous materials

response team should be requested to assess the situation. Telltale signs include the use of tanked compressed gases, hoses, or bags covering the head. If the method can effectively kill the victim, it may pose an ongoing hazard to those who respond. Clearly, one of the greatest threats faced by personnel responding to suicides is one of an inhalation hazard – whether carbon monoxide, an oxygen deficient atmosphere, or an intentionally released toxic gas.

**Chemical or Detergent Suicide Hazards**

A newly emerging threat that has its roots in Japan is being used with increasing frequency in the

United States. This trend has been dubbed “chemical or detergent suicide.” This method of death involves the intentional mixing of common household





chemicals to generate an off-gassing of extremely toxic gases, generally either hydrogen sulfide or, less frequently, hydrogen cyanide. Off-gassing, also called outgassing, is the release of chemicals from various substances under normal temperature and pressure. Chemical suicide deaths usually occur in confined spaces, such as motor vehicles or closets, and generally do not involve the use of bags to further concentrate the gas.

Chemical suicide is most commonly performed when a person mixes readily available household chemicals containing sulfur together with a product containing hydrochloric or muriatic acid in the proper manner to create an off-gassing of deadly hydrogen sulfide, also called "swamp gas." Products that contain sulfur include various fungicides and dandruff shampoos. Many toilet bowl cleaners and tile or stone cleaning products contain hydrochloric acid. Lists of potential ingredients as well as mixing instructions are readily available on the Internet.

**In Japan, where this method began, over 2,000 incidents have occurred.** Although this method of suicide is still relatively uncommon in the United States, it is trending upward in frequency. In order to attain the concentration of gas necessary to cause death, those using this method of suicide often do so in a confined space, common spaces used include inside a vehicle, small room, bathroom, or closet.

Generally, the two chemicals are mixed together in an improvised container, such as a pail or bucket. Some victims have mixed the chemicals in glove compartments or vehicle consoles. At high concentrations, one breath of hydrogen sulfide may be sufficient to cause death.

Hydrogen sulfide is a naturally occurring chemical formed by the decomposition of organic matter. It is colorless and has an odor similar to rotten eggs. Continued exposure may rapidly fatigue the sense of smell. The gas is heavier than air and, if it is released in a multistory building, it may sink to lower levels of the structure. Although hydrogen sulfide is flammable at certain concentrations and may create a fire or explosion hazard, flammability occurs at much higher concentrations than is necessary to cause death. Those committing suicide using this method often post signs to

warn anyone who may find them of the danger involved from the gas.

In addition, victims frequently use tape to seal doorways and vents to keep the gas from escaping. If the gas is dispersed within a vehicle, it often results in the windows fogging up with a yellowish green tint or cause yellowish green residue deposits on the interior of the car. If there is loose change in the car, the gas causes pennies to become heavily tarnished to a blue-green color. Victims occasionally remove the interior door handles to prevent themselves from a last-second change of mind and prevent exiting the car. Since the mixture tends to cause chemical burns to skin and eyes, some victims wear gloves and goggles to spare themselves pain. Frequently, the ingredients containers are visible, as well as the improvised container used to mix them.

#### **Additional Concerns for Hydrogen Cyanide**

Some opt to commit chemical suicide by mixing products containing cyanide with strong acids to create hydrogen cyanide, which historically has been used to cause death in gas chambers and deployed as a chemical warfare agent. When compared to the use of hydrogen sulfide, this method is far less common due to the increased difficulty in obtaining the precursors. Unlike hydrogen sulfide, hydrogen cyanide is lighter than air, so it rises. It also is readily absorbed through the skin, so skin contact with liquid or vapors must be avoided. Like hydrogen sulfide, hydrogen cyanide has a distinctive odor, which in this case is similar to bitter almonds, and is flammable under certain concentrations.

Many law enforcement agencies have equipped their members with air purifying respirators. Although these units are effective for many hazards, they generally are insufficient for use at chemical suicide scenes. Self-contained breathing apparatus is recommended for these inhalation hazards and, in the case of hydrogen cyanide, fully encapsulating suits are recommended to prevent skin exposure. The safest course of action when these indicators are observed is to request support from a hazardous materials team or the fire service – assets that may not be routinely dispatched



to potential suicides. When chemical suicides occur in vehicles, they also are initially dispatched as suspicious vehicle calls, which often result solely in a law enforcement response.

Attempts to resuscitate victims can expose responders to injury, as the victims are often contaminated with the product. Even the victims' bodies should be considered hazardous, as they may release harmful gases after being removed from the site. Therefore, body bags are not recommended because they trap and concentrate toxic gases, thus creating

a secondary hazard when they ultimately are opened. Law enforcement personnel have been injured responding to chemical suicides, so extreme caution should be exercised.

Respiratory suicides pose a unique hazard for law enforcement personnel and other responders. Whether compressed gases are released or household chemicals are mixed, awareness is the key to safe response. There usually are several telltale indicators present when these methods are used, but possessing the knowledge to recognize them is crucial for maintaining officer safety.

*Stuart K. Cameron is a 30-year veteran of the Suffolk County (New York) Police Department and currently serves as the chief of support services. He spent more than a decade overseeing the operations of the department's Special Operations Commands. He also supervised numerous tactical assignments, barricaded subjects, bomb squad call outs, large crime scene searches, and hazardous material incidents. He has been involved in the development of national level procedures and homeland security training and has been an active instructor on topics related to homeland security and public safety. He is a subject matter expert on the role of law enforcement in the defense against radiological and nuclear terrorism and chaired a committee that developed the concept of operations for the Securing the Cities Program.*



## EU Research for a Secure Society

Source: [http://ec.europa.eu/dgs/home-affairs/financing/fundings/pdf/research-for-security/security\\_research\\_catalogue\\_2014\\_en.pdf](http://ec.europa.eu/dgs/home-affairs/financing/fundings/pdf/research-for-security/security_research_catalogue_2014_en.pdf)

Europe has never been so peacefully consolidated or prosperous, yet it is also vulnerable to threats such as terrorism, organised crime and natural disasters. Making Europe more secure and resilient for its citizens and critical infrastructures, while strengthening its SMEs and industrial competitiveness, is the goal of Security Research. To date, a significant proportion of the committed budget (> 22 %) is going to SMEs. By stimulating research and innovation – and promoting direct cooperation between providers and end-users of security equipment, systems and knowledge –the EU can better understand and prepare itself to face risks and disruptive events in a constantly changing world.



The evolving nature of security implies many new challenges. To strengthen the respect for fundamental human rights, including privacy, research into the preparedness and response of society in the face of potential or actual threats and crises is essential. Thus, it is promising to see that European Security Research efforts in this area have increased substantially in the last few years, as readily seen in the below catalogue of FP7 projects.

These projects cover the entire range of FP7's Security theme, including advanced research into the societal dimension of security, protection of citizens against chemical, biological, radiological, nuclear and explosive (CBRNE) materials or man-made and natural events, critical infrastructure protection, crisis management capabilities, intelligent maritime and land border surveillance, pre-standardization and the interoperability of systems.





## FRESP security security security Advanced First Response Respiratory Protection

Source: <http://www.rma.ac.be/fp7-fresp/>

Protection against terrorism is one of the major issues of this preparatory action. If an incident occurs, despite precautions taken to prevent incidents at all, it is important to reduce the consequences, i.e. to minimise the effects of chemical, biological, radiological and nuclear (CBRN) incidents.



Minimising the effect of CBRN threats means in the first place being able to provide an adequate respiratory protection for the first responders. Activated carbons and other nanoporous adsorbents are already well-established for developing protective barriers against toxic chemicals. Recent research of Royal Military Academy has demonstrated that activated carbons present a good capacity against radioactive gases, whereas adsorbents impregnated with certain metals (such as silver) show a good destruction capacity against bacteria. However, there are still a number of unresolved issues such as the limited protection against certain chemicals. The major roadblocks being the fact that impregnating the adsorbent against certain threats diminishes its capacity against others, the high breathing resistance of filtering devices, the ageing of carbons due to the presence of water vapour, the large weight of the canister etc.

Overcoming these bottlenecks is not possible by simply optimising the existing production methods for activated (impregnated) carbons: since they are already optimised to the extent that significant breakthroughs in this area have become virtually impossible. New concepts are required in order to satisfy all the necessary

requirements, which are almost always mutually exclusive (i.e. improving one feature will have a negative influence on others). The availability of broad spectrum protection - low burden nanoporous adsorbents will certainly increase the level of protection that can be offered to the European first responders and to the European population as a whole.

Another problem in the case of a CBRN incident is the time to don the gas mask. This is particularly important for first responders as they will focus on other activities such as aiding and/or evacuating victims, setting up a perimeter, fighting fires etc. Therefore there is an urgent need for a quickly retrievable and operational respiratory protection for those people. This can be provided in the form of a hood, with the same broad-spectrum low-burden nanoporous adsorbent as used in more conventional gas mask filters. When the production cost can be lowered sufficiently this type of protection can also be offered to the public. This can reduce significantly the number of casualties in case of a CBRN incident, be it the result of a terrorist attack or an industrial calamity.

### The FRESP Project Description

In the current state of technology, individual respiratory protection for first responders consists primarily in a gas mask and an activated carbon filter. Filters protect either against chemical warfare agents, either against (a part of the) toxic industrial chemicals. Combined filters exist, but with limited efficiency and a high burden for the wearer (breathing resistance, canister weight, ). These filters are also sensitive to the deleterious influence of the water vapour present in the ambient air. Biological protection is solely provided by the aerosol pre-filter.

The purpose of this activity is to develop new nanoporous adsorbents that offer a sufficient protection for a wide range of toxic chemicals (industrial and military) and biological threats, under severe



and wide-range environmental conditions. For quick response in case of a chemical or biological incident the same adsorbent will be

incorporated in a hood. Thus offering a short-time, but quickly operational, respiratory protection to first responders and the public

## Improved First Responder Ensembles Against CBRN Terrorism (IFREACT)

Source: <http://www.ifreact.eu/about>

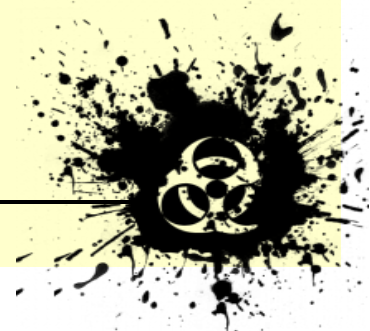
IFREACT is a consortium of CBRN manufacturers, subject-matter experts and end-users tasked collaboratively with the research on, and production of, an advanced protective ensemble that will enhance the chemical, biological and radiological protection of both European first responders and the public at large.

research has proven to be the most effective way of ensuring consensus, best practice, and delivery of the most advanced personal protective equipment (PPE) possible. IFREACT takes both the danger of terrorist attacks using CBRN-means and releases other



Recent history has shown that there is no shortage of malice and intent regarding terrorist attacks within Europe. The terrorist attacks on Madrid (2004) and London (2005) demonstrate that European major cities are an effective target for terrorist groups. These cities continue to face the threat of terrorism and, in the near future, may be subject to a serious chemical, biological or radiological terrorist attack. To adequately prepare for such an attack, IFREACT considers the development of state-of-the-art, protective clothing for European first-responders to be vital; moreover, that collective

than attack, such as pandemic outbreaks, accidents and other incidents involving dangerous substances, into account in order to achieve its goal of developing innovative protective clothing for first responders. The current technical means of first responders to handle an incident are far from ideal, as it is stated in the European Security Research Innovation Forum (ESRIF) final report of December 2009. Personal Protective Equipment (PPE) is heavy and bulky, and is a physiological burden that



interferes with the operational duties of first responders. It is also a concern that current PPE is not standardised or universal.

The response capability of our first responders to CBRE-type situations, be they terrorist attacks or some other type of HAZMAT incident, is not well suited to the enormous impact these kind of incidents often have. CBRN protective garments for first responders need to provide protection against a myriad of threats, whilst still allowing the first responder to fulfil his or her duties. Existing forms of protective clothing either do not provide the required level of protection or have other shortcomings, such as being unaffordable or very difficult to use. Having our first responders protected adequately, whilst maintaining a high standard of operability in case of a CBRE event, is of the utmost importance, as first responders are our 'first' line of defence.

Following the qualitative and quantitative evaluation of existing PPE, IFREACT has focused its research on the most emergent threats in order to best fulfil the needs of those end-users who are in the greatest need of protection from both terrorist and non-terrorist related crises.

#### The objectives

1. To develop a platform that allows end-users and procurement staff to best select the PPE system needed for the mission of the first responder and the expected threat.
2. To develop a PPE system that:
  - a. Will address the real protection needs of conventional users, with regards to both

the level of protection and its total capacity.

- b. Will provide adequate protection, while keeping the burden of the system as low as possible.
- c. Will include solutions for hand and foot protection, whilst taking safety, ergonomic and logistical aspects of the conventional user group into consideration.

The proposed protective ensemble will incorporate next-generation skin protection, a head-up display, a bio-dosimeter, audio/voice technology, a GPS self-localisation device, and an integrated smartphone; it will also incorporate three types of respiratory protection, heightened situational awareness and agility, as well as comfortable, yet safe, protection against chemical, biological and radiological threats and hazards.

Currently the IFREACT consortium is organising a number of workshops throughout Europe. The aim of the workshops is to get end user input for the development of innovative Personal Protective Equipment (PPE) system. This deliberate focus on end users was the reason behind the decision to invite French end user SAMU, to organise and coordinate the IFREACT proposal. It is, after all, the end users that have the urgent and vital need for a Personal Protective System that allows first responders to render assistance to victims of CBRN, bio and hazardous materials incidents, and to counter the effects of these incidents.



## India: UGC tells universities to avoid content which advance agenda of terrorism

Source: <http://www.dnaindia.com/india/report-ugc-tells-universities-to-avoid-content-which-advance-agenda-of-terrorism-2105601>

July 17 – The UGC on Friday recommended that all departments of communication and journalism under universities should promote a media policy that avoids generating content which may advance the agenda of terrorism.

Amid a raging debate over the freedom of media showing content that may incite terror acts, UGC recommended that "media policy should include principles of self-restraint".

"The institutions imparting education in mass communication and journalism need to be sensitized to avoid such elements which may advance the agenda of terrorism," it said in a communication to all vice chancellors.

The UGC's recommendation is in line with the Administrative Reforms Commission's 8th report on combating terrorism.



In a separate communication, the UGC also asked institutes across the country to include in their curriculum issues relating to weapons of mass destruction, disarmament and peaceful use of chemistry as students are largely ignorant about the important international conventions.

"India is a prominent signatory to the Chemical Weapons" Convention (CWC). The National Authority of Chemical Weapons" Convention (NACWC) has decided that education and awareness should be the thrust area to create mass awareness for chemical disarmament," UGC said in the communication.

The aim is to help young students gain scientific knowledge and principles about international conventions like the CWC which have a bearing on welfare of entire humankind, it said.



## ISIS Has Fired Chemical Mortar Shells, Evidence Indicates

By C.J. Chivers

Source:[http://topics.nytimes.com/top/reference/timestopics/people/c/c\\_j\\_chivers/index.html](http://topics.nytimes.com/top/reference/timestopics/people/c/c_j_chivers/index.html)



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A 120-millimeter mortar shell struck fortifications at a Kurdish military position near the Mosul Dam in June, arms experts said, sickening several Kurdish fighters who were nearby. Credit Conflict Armament Research and Sahar Research

The Islamic State appears to have manufactured rudimentary chemical warfare shells and attacked Kurdish positions in Iraq and Syria with them as many as three times in recent weeks, according to field investigators, Kurdish officials and a Western ordnance disposal technician who examined the incidents and recovered one of the shells.

The development, which the investigators said involved toxic industrial or agricultural chemicals repurposed as weapons, signaled a potential escalation of the group's capabilities, though it was not entirely without precedent.

Beginning more than a decade ago, Sunni militants in Iraq have occasionally used chlorine or old chemical warfare shells in makeshift bombs against American and Iraqi government forces. And Kurdish forces have claimed that militants affiliated with the Islamic State, also known as ISIS or ISIL, used a chlorine-based chemical in at least one suicide truck bomb in Iraq this year.



Firing chemical mortar shells across distances, however, as opposed to dispersing toxic chemicals via truck bombs or stationary devices, would be a new tactic for the group, and would require its munitions makers to overcome a significantly more difficult technical challenge.

Chemical weapons, internationally condemned and banned in most of the world, are often less lethal than conventional munitions, including when used in improvised fashion. But they are indiscriminate by nature and difficult to defend against without specialized equipment — traits that lend them potent psychological and political effects.

**In the clearest recent incident, a 120-millimeter chemical mortar shell struck sandbag fortifications at a Kurdish military position near Mosul Dam on June 21 or 22, the investigators said, and caused several Kurdish fighters near where it landed to become ill.**

**The shell did not explode and was recovered nearly intact on June 29 by Gregory Robin, a former French military ordnance disposal technician** who now works for Sahan Research, a think tank partnered with Conflict Armament Research, a private organization that has been documenting and tracing weapons used in the conflict. Both research groups are registered in Britain.



The tail of the shell had been broken, Mr. Robin said by telephone on Friday, and was leaking a liquid that emanated a powerful odor of chlorine and caused irritation to the airways and eyes.

It was the first time, according to Mr. Robin and James Bevan, the director of Conflict Armament Research, that such a shell had been found in the conflict.

In an internal report to the Kurdish government in Iraq, the research groups noted that the mortar shell appeared to have been manufactured in an “ISIS workshop by casting iron into mold method. **The mortar contains a warhead filled with a chemical agent, most probably chlorine.**”

Conflict Armament Research and Sahan Research often work with the Kurdistan Region Security Council. Mr. Robin and Mr. Bevan said the council had contracted a laboratory to analyze residue samples removed from the weapon.

“Soon we should have an exact composition of the chemical in this

projectile, but I am certain it is chlorine,” Mr. Robin said.

He added, “What I don’t know is what kind of burster charge it had,” referring to the small explosive charge intended to break open the shell and distribute its liquid contents. The shell had not exploded, he said, because, inexplicably, it did not contain a fuse.

Whether any finding from tests underwritten by Kurdish authorities would be internationally recognized is uncertain, as the Kurdish forces are party to the conflict.

The week after Mr. Robin collected the shell, on July 6, another investigator found evidence that the research groups said indicated two separate attacks with chemical projectiles in Kurdish territory in the northeastern corner of Syria.

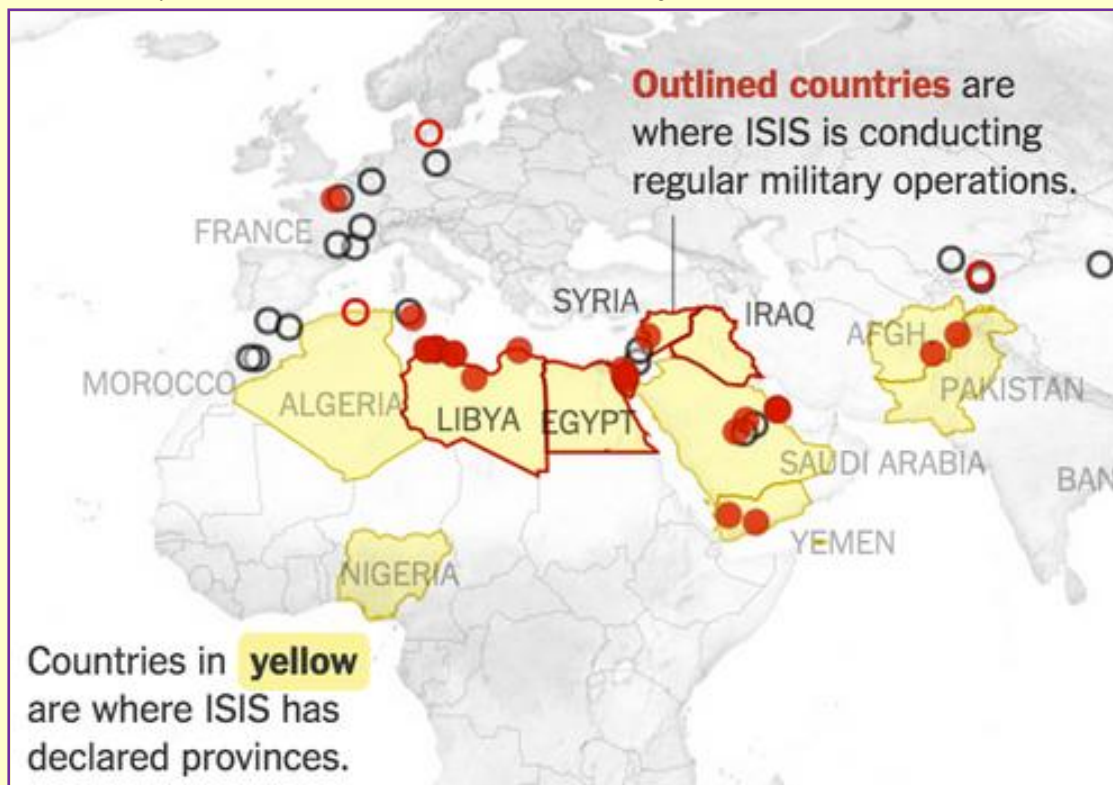
Those attacks, at Tel Brak and Hasakah, occurred in late June and appeared to involve shells or small rockets containing an industrial chemical sometimes used as a pesticide, the investigators said.

In the incidents in Syria, Mr. Bevan said, multiple shells struck in agricultural fields near three buildings used by Kurdish militia forces known as the Y.P.G., or Peoples Protection



Units, in Tel Brak. More shells, he said, landed in civilian areas in Hasakah; at least one struck a civilian home.

Late on Friday, the Y.P.G. released a statement denouncing what it called “criminal actions” and said



that in the last four weeks its forces had captured gas masks from Islamic State fighters. The attacks at Tel Brak sickened 12 Y.P.G. fighters, who suffered many symptoms, including headaches, breathing difficulties, nausea, vomiting, eye irritation, disorientation, temporary paralysis and, in some cases, loss of consciousness, said a Western investigator for Conflict Armament Research who asked that his name be withheld for security reasons.

The investigator said he examined two impact craters at Tel Brak and also a hole in a reinforced concrete wall at Hasakah where the munitions had landed. The odor, he said, was strong, unfamiliar and soon became a painful irritant.

“It smelled like a spicy onion smell,” he said. “It was strange; it wasn’t something I could put my finger on immediately.”

He added, “We were there for perhaps 30 seconds when it started burning the nose; more than 90 seconds and the throat started to burn.”

Based on laboratory results provided by Kurdish medical officials in Qamishli, where the afflicted fighters were treated and tested, the research groups said they tentatively concluded that the shells contained phosphine, a chemical sometimes used to fumigate stored grains.

A document from the medical authorities, translated by The New York Times, referred to the laboratory tests but did not describe their methodology or show specific results.

Mr. Bevan also noted that tests so far were not conclusive.

No direct samples of the substance in the shells had been independently gathered, he said, in part because the field investigator, who did not have chemical protective equipment, experienced the onset of symptoms while working near the impact craters and had to leave the area.

Some of the shells’ characteristics from the incidents in Syria, based on photographs of the fragments, did not appear consistent with chemical weapons, including that the shell walls appeared to be thick; chemical weapons often have thinner metal skins than weapons designed to fragment.





But both Mr. Robin and the field investigator said it was possible that the attacks were tests of new weapons from the Islamic State's makeshift munitions production lines.

The field investigator noted that at Tel Brak, the Kurdish fighters pulled back from the front-line positions after the attack, and that their former squad-sized outpost was now an observation post with fewer fighters.

"My guess is that this is going to happen again," he said, "because it was effective."

In an internal report provided to Kurdish officials in Syria, the two research groups recommended that Kurdish forces improve their readiness for chemical warfare incidents.

Kurdish forces "require immediate training and equipment to identify and counter chemical IED threats," the report noted, using the acronym for improvised explosive device. It continued: "This capacity will be fundamental in maintaining civilian confidence, given the enhanced psychological impact of chemical weapon use."

*C. J. Chivers contributes to the Foreign and Investigative desks of The Times, and frequently posts for the At War blog, writing on conflict, politics, crime and human rights from Afghanistan, Iraq, Russia, Georgia, Chechnya and elsewhere on a wide range of assignments. In addition to writing, he shoots video and, occasionally, photographs. He served as Moscow correspondent from June 2004 through mid-2008. He has also covered war zones or conflict in the Palestinian territories, Israel and Central Asia. From 1999 until 2001 he was a Metro reporter covering crime and law enforcement in New York City, working in a three-reporter bureau inside the police headquarters in Lower Manhattan. While in this bureau, he covered the attacks on the World Trade Center on Sept. 11, 2001. Mr. Chivers graduated with a B.A. cum laude in English from Cornell University in January 1988. He was the 1995 valedictorian of Columbia University Graduate School of Journalism. He also graduated from several military schools, including the United States Army's Ranger Course.*

## Local Public Health's Role in Large-Scale Chemical Incidents

By Rachel Schulman

Source:[http://www.domesticpreparedness.com/Medical\\_Response/Public\\_Health/Local\\_Public\\_Health%60s\\_Role\\_in\\_Large-Scale\\_Chemical\\_Incidents/](http://www.domesticpreparedness.com/Medical_Response/Public_Health/Local_Public_Health%60s_Role_in_Large-Scale_Chemical_Incidents/)

July 22 – **Public health departments play, or have the ability to play, a key role in large-scale incidents caused by hazardous materials. By clearly defining their roles and collaborating with local partners, health departments have the ability to help emergency planners and responders prevent, mitigate, plan for, and respond to chemical hazards and incidents.**

Large-scale chemical incidents – such as the West, Texas, fertilizer plant explosion in 2013, the Graniteville, South Carolina, train crash chlorine release in 2005, and the Tokyo, Japan, sarin gas release in 1995 – pose unique threats to human health that warrant specialized planning by first responders. Chemical incidents often unfold quickly, and serious exposure symptoms develop equally fast. Although these circumstances necessitate quick action by first responders, the information that responders need to make decisions may not be readily available. Chemical agents may take time to identify and, in the case of a surreptitious release, it may not be immediately evident that a chemical event has occurred. **Responders may find themselves in the position of making high-consequence decisions that are not fully informed.**

### Defining the Roles of Local Health Departments

In collaboration with the Department of Homeland Security Office of Health Affairs, the National Association of County and City Health Officials (NACCHO) sought to determine how local health departments (LHDs) could best contribute to a large-scale chemical event

response. After a research review, NACCHO conducted a multidisciplinary focus group of 33 local, state, federal, and nonprofit agency representatives in the National Capital Region. Key research objectives were to understand the roles that LHDs currently play in response to a large-scale



chemical incident, to pinpoint challenges that limit the LHD role in these responses, and to identify additional roles for LHDs that capitalize on their unique capabilities and resources.

The overwhelming message of the National Capital Region focus group was that the role of LHDs in a chemical response is not well defined. Though LHDs have responsibility for protecting human health in all hazards, the role of LHDs is often perceived to be limited to disease prevention and control. The perception of chemical incidents as hazardous material (hazmat) events, and not public health events, may result in LHDs being left out of the loop, even after the incident transitions to a mass casualty or mass fatality event.

As long as hazmat responders are unaware of LHDs' chemical event response capabilities, LHDs likely will find that they continue to be left out of chemical event planning and response, to the detriment of communities and their response partners. To facilitate conversations on this important topic, NACCHO's research highlighted the many roles that LHDs can play in a chemical incident. Even though all localities operate differently, the roles described below should be considered when planning with public health partners.

### **Prevention & Mitigation of Chemical Incidents**

LHDs offer unique perspectives on chemical threats to the community through their intimate knowledge of community vulnerabilities. LHDs regularly conduct surveillance activities – for example, community health assessments and geographic information system mapping of at-risk populations – that inform them of the locations and needs of different community groups. This knowledge can be used to inform decisions about local-level chemical storage, use, and disposal practices, and to assess risks to nearby populations.

By participating in the inspection and regulation of chemical facilities, LHDs gain a better understanding of the nature of the greatest chemical threat facing jurisdictions. This understanding allows LHDs to better prepare the community for potential health and environmental impacts. Precedents exist for the involvement of LHDs in the inspection and regulation of chemical facilities. For example, the Town of Acton, Massachusetts, enacted

local bylaws that provide the health department with the authority to permit and inspect commercial facilities' manufacturing, use, and storage of chemicals in quantities of 25 gallons/pounds or greater. **The health department routinely inspects permitted chemical facilities within the community and coordinates monitoring and response with other government agencies.**

Thorough knowledge of the chemical threats facing the community also allows LHDs to educate community members. LHDs tailor outreach activities for groups living near chemical facilities, teaching community members critical preparedness information including how to recognize the effects of chemical exposure, how to avoid exposure, and where to obtain information during an emergency.

### **Planning & Response**

In the case of a surreptitious chemical release, public health surveillance activities are crucial to determining that an event has happened, as well as the nature of the event. Routine passive surveillance results can be monitored for unusual symptoms associated with chemical exposures. LHDs also collaborate with poison centers, healthcare systems, and clinical laboratories on protocols for chemical exposure symptom recognition and reporting protocols.

**Once it is known that an event has occurred, LHDs' preexisting community relationships position them to be a trusted source of risk communications.** While other responders handle the hazardous materials, LHDs have the ability to calm and inform the populace. By synthesizing knowledge of the chemical's properties and the parts of the community affected, LHDs identify at-risk populations and share information on health concerns and protective measures, such as evacuation routes, shelter-in-place guidance, and instructions for decontamination and obtaining medical care. Health messages and templates for the most likely chemical threats can be drafted in advance, along with messaging for events when the chemical released is not immediately known.

Response partners also turn to LHDs for expertise on potential human health and environmental



impacts of chemical agents. LHDs provide subject matter expertise to healthcare partners on matters such as the toxicity of chemical agents and sampling and screening approaches. If the agent is unknown, LHDs could use epidemiologic investigation methods to help identify it. LHDs engage in active surveillance of cases through coordination with hospitals, emergency medical services, urgent care, and poison control centers, as well as coordination with sheltering partners to support the assessment, referral, and decontamination of exposed persons presenting at shelters. Other potential roles based on LHD expertise include: (a) coordinating the provision of mental and behavioral health services to affected communities; and (b) providing guidance to ensure the safety and health of on-the-ground responders. Public health expertise on the impacts of chemical agents also provides extensive opportunities to support and collaborate with healthcare and environmental health partners.

health is handled in the jurisdictions, LHDs may play a role assessing and monitoring the environment impact of the agent and the pathways by which it travels. With their knowledge of environmental health impacts, LHDs define exclusionary zones and evacuation areas to ensure public safety, as well as to issue advisories related to drinking water and food safety.

LHDs also may be responsible for distribution and dispensing of medical countermeasures. Many LHDs are the lead agencies for **CHEMPACK** distribution. The rapid onset of chemical exposure symptoms means that medical countermeasures must be deployed quickly, but uncertain diagnoses can make the determination to dispense difficult. Public health understanding of chemical exposure symptoms and experience with medical countermeasure dispensing well positions LHDs to develop CHEMPACK deployment triggers and effective distribution protocols.

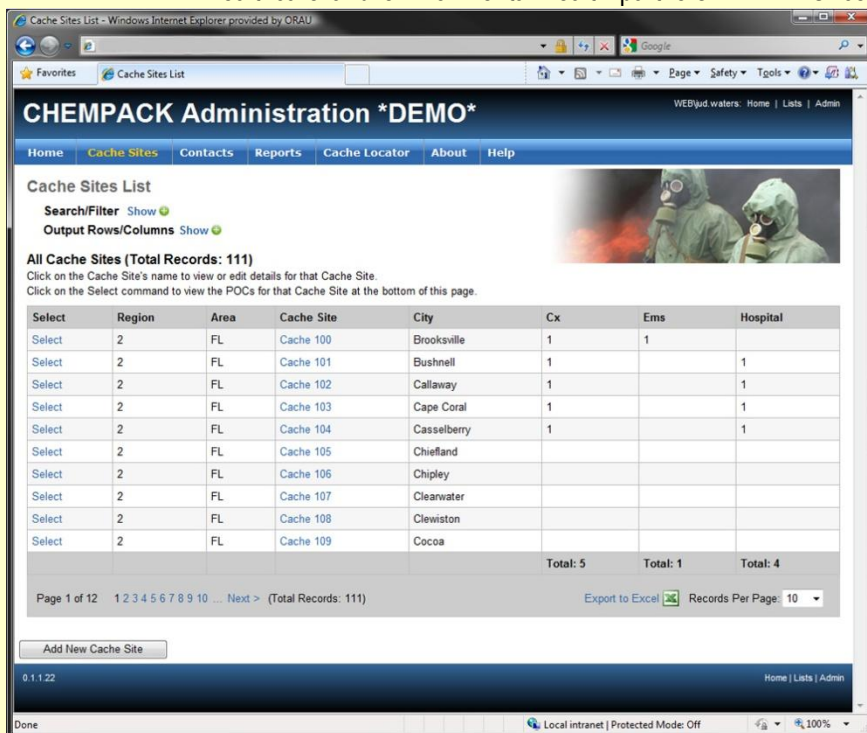
Once a response reaches the recovery phase, LHDs may be responsible for long-term monitoring of exposed individuals and environmental health impacts, as well as continued risk communication should environmental contamination linger. Their training and expertise again position them well to take on this role, although many LHDs lack the capacity to carry out these activities long-term without external support.

<http://chemm.nlm.nih.gov/chempack.htm>

**Challenges to Implementation**

The roles described above provide numerous entry points for public health participation in a large-scale chemical event response, but identifying roles is only the first step. NACCHO’s research revealed challenges to LHD involvement that also must be addressed. The first few are more easily addressed locally, but some require more systematic efforts at the state and federal levels to eliminate barriers.

- **Written plans.** The process of developing written plans or annexes for chemical incident response helps LHDs more clearly define their response



With large numbers of people (both injured and worried well) potentially reporting to hospitals, LHDs could assist with surge management by supporting triage and patient tracking efforts, or by monitoring bed status and other issues across multiple affected facilities and serve as a liaison between hospitals and response partners. Depending on how environmental



roles. By working with partners to develop written plans, LHDs set up protocols to ensure that the resources and capabilities they offer are available and utilized during a chemical response. Local best practices, such as chemical response annexes and decision trees, must be more widely shared

public messaging roles and may require the collection of certain data to support long-term monitoring of health outcomes of those exposed.

- **Baseline data.** Many communities do not know the top chemical vulnerabilities and threats to their jurisdictions. Some of these

The screenshot shows a web browser window displaying the CHEMM (Chemical Hazards Emergency Medical Management) website. The page title is 'Nerve Agents - Emergency Department/Hospital Management'. The main content area is titled 'Agent Identification' and contains the following text:

Nerve agents (NAs) are the most toxic of the known chemical warfare agents. They are chemically similar to organophosphate pesticides (OPs) and exert their biological effects by inhibiting acetylcholinesterase enzymes.

- Nerve agents can cause loss of consciousness and convulsions within seconds and death from respiratory failure within minutes of exposure.

**Volatile Nerve Agents (vapor)**

- Nerve agent vapor is readily absorbed by inhalation and ocular contact and produces rapid local and systemic effects.
- G-type agents are clear colorless and tasteless liquids that are soluble in water and most organic solvents.
- GB is odorless and is the most volatile nerve agent; however, it evaporates at about the same rate as water. GA has a slightly fruity odor and GD has a slight camphor-like odor (these are not reliable).

**Low Volatility Nerve Agents (liquid)**

- Liquid nerve agent is readily absorbed through the skin; however, effects may be delayed for several minutes to up to 18 hours.
- VX is a clear, amber-colored, odorless, oily liquid. It is soluble in water as well as in all other solvents. It is the least volatile nerve agent.
- Responders should obtain assistance in identifying the chemical(s) from container shapes, placards, labels, shipping papers, and analytical tests. General information on these identification techniques is located in [Emergency Response Guidebook](#).
- **Identification Tools - CHEMM-IST, WISER, Nerve Agents Chemical Properties**

to aid in written plan development.

- **Notification.** The perception that chemical events only require a hazmat response interferes with the rapid involvement of LHD responders. It can be difficult to identify when an average hazmat incident crosses the line into an event with larger community consequences requiring public health involvement. Clear delineation of public health response roles and notification triggers are needed to ensure that LHDs are at the table when they need to be.
- **Information sharing.** Once roles are defined, LHDs need to determine and share their data and communication needs. It may not be clear to partners which information LHDs need in order to make decisions and carry out their assigned responsibilities. For example, LHDs need a certain level of situational awareness to accomplish any

can be determined through direct planning with local facilities (per the Chemical Facilities Anti-Terrorism Act) and participation on Local Emergency Planning Committees. Others are more difficult or potentially impossible to determine – for example, it is hard to assess chemicals passing through a jurisdiction by road or railway. Baseline data on current levels of contamination also is lacking, making it difficult to assess environmental health and safety in the long term for areas affected by chemical events.

- **Training and educational resources.** As other responders look to public health for expertise on chemical health threats, LHDs need regular training and education in this area, but budget limitations and conflicting priorities pose



obstacles. Although LHDs may be well versed in the most likely chemical threats to their jurisdictions, it is impossible for them to maintain expertise in the thousands of chemical threats that exist. As such, LHDs must maintain an understanding of which questions to ask and who to contact to source information – for example, poison centers are a critical partner that LHDs help integrate into chemical response planning. LHDs have access to many resources of the Centers for Disease Control and Prevention as well as other federal resources used to support chemical incident response. However, different guidance from different federal agencies may be confusing, and certain resources,

like plume modeling, may be unknown or unavailable to LHDs, especially ones that are smaller or underfunded.

LHDs have much to offer their response partners and communities with regard to preventing, responding to, and recovering from large-scale chemical incidents. However, more planning and partnership-building must take place before public health’s unique knowledge, skills, and resources can be effectively utilized in these scenarios. Further research may illuminate strategies for better integration of public health into chemical response activities. In the meantime, collaboration and communication to plan for the unique challenges posed by chemical incidents are the best way for communities to prepare.

*Rachel Schulman, MSPH, CPH, is a senior program analyst with the National Association of County and City Health Officials (NACCHO). Her work supports strengthening relationships between public health and emergency management, improving public health’s chemical, biological, radiological, nuclear, and explosive (CBRNE) preparedness and response activities, and enhancing local public health all-hazards preparedness planning efforts through Project Public Health Ready. Previously, she served as an associate emergency planner at the Baltimore City Mayor’s Office of Emergency Management. She received her MSPH in health policy and Certificate in Public Health Preparedness from Johns Hopkins Bloomberg School of Public Health and her BA from Wesleyan University.*



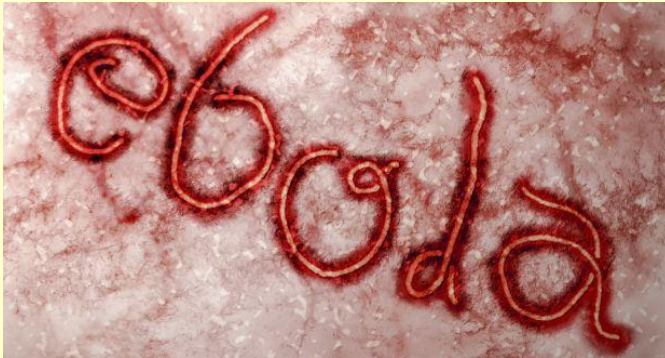
PHOTO: MILOS BICANSKI/GETTY IMAGES



## Sequencing Ebola's secrets

Source: <http://www.medicalnewstoday.com/releases/295642.php?tw>

June 29 – Last June, in the early days of the Ebola outbreak in Western Africa, a team of researchers sequenced the genome of the deadly virus at unprecedented scale and speed. Their findings revealed a number of critical facts as the outbreak was unfolding, including that the virus was being transmitted only by person-to-person contact and that it was picking up new mutations through its many transmissions.



While public health officials now believe the worst of the epidemic is behind us, it is not yet over, and questions raised by the previous work still await answers.

To provide them, a global team from Harvard University, the Broad Institute, the U.S. Centers for Disease Control and Prevention (CDC), and the National Institute of Allergy and Infectious Diseases (NIAID, part of the National Institutes of Health), along with many other institutions\*, sequenced more than 200 additional genomes from Ebola virus samples, to capture the fullest picture yet of how the virus is transmitted and how it has changed over the long-term outbreak.

In an effort to enhance the global response, this team made their data publicly available as it was produced throughout last year. "One of the most rewarding aspects of working in this outbreak response is the connections we have made with so many extraordinary individuals through open data sharing", said senior author Pardis Sabeti. The global team that assembled as a result has now described their analysis in a June 18 paper published in *Cell*.

"Our early work tracked the virus's movements over just three weeks as the outbreak emerged

in Sierra Leone," said Sabeti. "Now with a view of the virus over seven months, we can understand how it has been moving and changing over the long term."

"One insight we gained from this high resolution sequence data is that later in the outbreak, there was very little cross-border exchange of the virus," said lead author Danny Park. "That's important, because the three main affected countries--Sierra Leone, Liberia, and Guinea--are often described as having 'porous borders' which allowed people to travel back and forth."

While cross-border contact may have helped fuel the early days of the outbreak, Park said it's now clear that, once underway, **the virus didn't migrate in the ways many had predicted.** "This is very reassuring to know that measures to contain the outbreak at borders can work," he

said, "and allows attention to be focused on within-country movement."

The new sequencing also provides insight into viral evolution over the sustained outbreak. **Early in the outbreak, as the virus spread rapidly, it accumulated many mutations, a disproportionate share of which could affect protein function.** Last August, the researchers noted that most of these were likely to be damaging to the virus, but that the outbreak hadn't gone on long enough for natural selection to weed them out yet.

Over the longer term, the team observed that **many of these mutations did not persist very long, and that the rate of change in the viral genome has become more in line what is expected over the longer term.** "Ebola has never been exposed to humans for so long, and through so many transmissions, it has begun to weed out mutations that do not benefit it," Park said.

The team also identified other changes of the virus that are expected over the longer-term. For example, in some patients, they saw evidence of human enzymes editing the viral genome. This has never before



been seen for Ebola, and is only seen previously with viruses that have long-standing interactions with humans.

"The many mutations we saw early in the outbreak and the evolution we saw over the long-term have been observed for other viruses

before, and the genomic data only helps illuminate known evolutionary phenomena." Sabeti says. "The data just remind us what we have always known, that we must get this viral lineage to zero."

## How anthrax spores grow in cultured human tissues

Source: <http://www.homelandsecuritynewswire.com/dr20150624-how-anthrax-spores-grow-in-cultured-human-tissues>

June 24 – Cultured human lung cells infected with a benign version of anthrax spores have yielded insights into how anthrax grows and spreads in exposed people. The study, published in the *Journal of Applied Microbiology*, will help provide credible data for



human health related to anthrax exposure and help officials better understand risks related to a potential anthrax attack.

The study also defined for the first time where the spores germinate and shows that the type of cell lines and methods of culturing affect the growth rates.

"What we're learning will help inform the National Biological Threat Risk Assessment — a computer tool being developed by the Department of Homeland Security," said Tim Straub, a chemical and biological scientist at the Department of Energy's Pacific Northwest National Laboratory. "There is little data to estimate or predict the average number of spores needed to infect someone. By better understanding exposure thresholds, the ultimate goal is to be able to predict outcomes from terrorist incidents involving *Bacillus anthracis*."

A PNNL release reports that there are decades of data characterizing anthrax exposure in rabbits, but there is limited understanding of how this data extrapolates to humans. When researchers delved into this, working from cultured normal lung cells from each species, they found that, at low doses, the proliferation of anthrax spores is lower in human lung cells.

It is too early to say what that means for human health, but the study's methods and results may resolve a long-standing debate on the pathogen's propagation. Researchers showed that anthrax spores germinate in the lungs before making their way to the bloodstream. That has been a point of debate in the research community, with some speculating that spores, which are

invisible to the naked eye, must first enter the blood stream and then grow into bacteria that can cause damage and death.

Knowing the precise location and pathway of spore germination and understanding that the bacteria begin producing toxins that damage tissue directly in the lungs may eventually impact treatment options. The finding also likely indicates added susceptibility in individuals who already have lung issues, such as smokers or those with asthma.

### Making conditions real

Most of what researchers know about anthrax comes from studying cancerous lung cells of both humans and rabbits because they are easy to grow in a lab. But cancer cells are very different from normal cells, which are referred to as primary cells.



For this study, PNNL researchers wanted to see if normal cells reacted differently. So, they carefully cultured primary rabbit lung cells on special inserts in petri dishes, coaxing them to form small pieces of 3-D lung tissue about the size of a quarter.

“The cells are fed with nutrients from below and we trick the top layer of cells into thinking they are at the air/liquid interface as they would be in a living lung,” said Josh Powell, a microbiologist at PNNL.

Researchers observed the top layer of cells producing sticky mucus, which traps the anthrax spores. This did not occur with cells



completely submerged in the growth medium where the spores just float on top. This suggests that this mucus facilitates germination of the spores into bacteria.

“Byproducts secreted in the mucus by lung cells, in reaction to the anthrax, cause the spore to proliferate very quickly,” said Powell.

“We don’t know what those byproducts are yet, but this is the first time it’s been shown that growth rate is impacted by these byproducts secreted by the lungs.”

Additional biochemical tests revealed that nutrients in the standard culture media provide an extra, unnatural fuel that makes spores germinate faster than would likely happen in the natural lung.

“These finding have implications for how we study pathogens within in vitro cell systems,” said Powell. “Understanding the impacts of the

methodology ensures we get the best data we can from both species on specific rates of spore intake or dose, clearance, germination and proliferation in a lab setting.”

Researchers hope to reproduce this study using the more virulent strain at DHS’s National Biodefense Analysis and Countermeasures Center in Frederick, Maryland, rather than the similar but milder Sterne strain used in this study, which is virtually unable to cause illness in people or animals.

**Predicting to protect**

The release notes that in the next phase of the project, researchers will put this experimental data into a computational model to more accurately predict outcomes of anthrax exposure. For instance, a model based on primary cell data may calculate how much time doctors have to initiate treatment, how many spores are likely needed to cause disease or mortality in humans, or be able to determine if there is a “safe” level for exposure or a required level of cleanup of a contaminated area.

Once the models are refined with data from the latest experiments, those numbers will be checked against animal data to see if they are indeed predicting outcomes accurately. The models could also potentially speed future drug design. Researchers hope these fundamental findings and models can be applied to other diseases related to inhaled pathogens, such as the flu or SARS coronavirus. “This is an investment that may eventually help officials triage, treat and influence drug discovery for these lung illnesses,” said Powell.

The Department of Homeland Security Science and Technology Directorate funded this research. All images were acquired with a specialized confocal microscope at EMSL, the Environmental Molecular Sciences Laboratory, a DOE Office of Science user facility at PNNL.





— Read more in Joshua D. Powell et al., “*Bacillus anthracis* spores germinate extracellularly at air-liquid-interface in an in vitro lung model under serum-free conditions,” *Journal of Applied Microbiology* (accepted manuscript, 15 June 2015).

**Eurosurveillance, Volume 20, Issue 25, 25 June 2015**

**Rapid communications**

**EPIDEMIOLOGICAL INVESTIGATION OF MERS-COV SPREAD IN A SINGLE HOSPITAL IN SOUTH KOREA, MAY TO JUNE 2015**

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In this report, we describe 37 MERS-CoV infection cases (1 primary, 25 secondary, 11 tertiary cases) in a single hospital in South Korea. The median incubation period was six days (95% CI: 4–7 days) and the duration between suspected symptom onset and laboratory confirmation was 6.5 days (95% CI: 4–9). While incubation period was two days longer, the duration from suspected symptom onset to confirmation was shorter in tertiary compared with secondary infections.

Source: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=21169>



## Forensic mycology

*Forensic Science International* (2011); 206:1-11

Source: <http://www.researchgate.net/publication/45199583> Forensic mycology the use of fungi in criminal investigations

Review article

## Forensic mycology: the use of fungi in criminal investigations

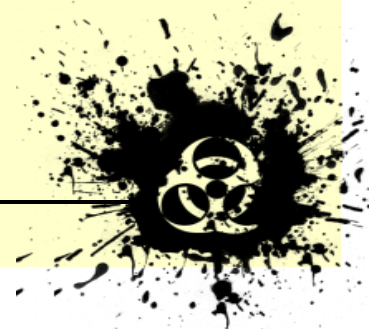
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This is the first overview to be published of the whole field of forensic mycology. It is based on all available information located in the literature, together with 13 examples from recent casework. Background information on fungi is given, and this is followed by an outline of the value, and potentially wide application, of mycology in criminal investigation. Applications include roles in: providing trace evidence; estimating time since death (*post-mortem* interval); ascertaining time of deposition; investigating cause of death, hallucinations, or poisonings; locating buried corpses; and biological warfare. Previous work has been critically evaluated, with particular attention to its evidential value, and suitability for presentation in a court of law. The situations where mycology might assist an investigation are summarised, and issues relating to the further



development of the subject are presented. A comprehensive bibliography with 120 citations is provided.

► **NOTE:** Section 8: Biological warfare (p.8)

## Molecular Terrorism By Mycoplasm

Source: <http://www.rense.com/general62/molecularterrorism.htm>



You wake up dead tired. You feel like you've been hit by a truck.

Sleep becomes sporadic, if at all.

When sound sleep occurs, the restoration of energy is minimal causing you to meticulously save your energy like a miser hoards gold. If you force yourself into activities beyond the scope of your normal daily chores, you pay a heavy price. A possible consequence is being bedridden for days.

You have trouble concentrating. Short-term memory losses make you feel like you're trapped in a brain fog. You have unexplained muscle aches and joint pains like a never-ending flu. Your spouse and family don't understand this new metamorphic change in you, going from active and bubbly to sick and decrepit in the prime of your life almost overnight. Your social life has disintegrated and once close friends are slowly drifting away because the monotonous explanation that you're too tired to see a movie or go out to dinner has waned thin. Your taking an abundance of sick time and your boss is starting to question your sanity. Nobody understands. Nobody believes. Nobody offers help. Well, almost nobody.

Thanks to the research of Professor Don Scott and Dr. Garth Nicholson, there is a growing awareness of a mysterious and debilitating illness that is affecting over 800,000 Americans, and being carried dormant by everyone in North America just waiting to be triggered into molecular terrorism. This man made, hidden stealth pathogen is named Mycoplasma, and is the common culprit in almost every disease process today including AIDS and Lymes disease.

Chances are if you feel sick and tired and your doctor is unable to make a definite diagnosis because lab tests, blood chemistry profiles and

tissue cultures fail to reveal any disease pathogen, you might very well be infected with Mycoplasma. According to Professor Don Scott, this newly formed virulent pathogen is a weaponized crystalline form of the nonpathogenic Brucella bacterium which resides naturally in the oral cavity, gut flora and superficial body sites that has been genetically engineered with the retro virus visna from sheep (scrapies) by our own military. This mutated sub-viral particle acts by attaching to a gene in either the cell nuclei or mitochondria and given a suppressed immune system, acidic pH, low oxygen cell environment coupled with a triggered physical or emotional trauma, the Mycoplasma/amyloid will initiate a replication process of useless protein fibrils called nucleation. This process triggers programmed cell death disabling the ATP producing factories (mitochondria). These sub-viral bacterium particles have been termed prions by Dr. Prusiner, stealth viruses by John Martin, amyloid by Dr. Gajdusek and Mycoplasma/Brucellosis by Don Scott and Garth Nicholson.

Despite government manipulated statistics, there has been an undeniable rapid increase of all neurodegenerative and autoimmune diseases coming out of nowhere since the mid 1990's with absolutely no origin to their genealogy. My question to medical science is why are there such an unprecedented number of Americans caught up in a medical merry-go-round of being bounced from one doctor to the next without ever receiving a proper diagnosis? The simple answer is mainstream medical doctors are not trained in detection of non-detectable pathogens. Since Mycoplasma hides intracellularly and invades multiple organs and systems, it manifests a vast array of symptoms throughout the whole body, making a correct diagnosis virtually impossible for a mainstream doctor's linear, magic bullet mentality.



Due to the misdirection of medical science compartmentalizing the human body into 10 separate specialty fields (dermatology, endocrinology, urology, neurology, psychology, oncology, gastric specialty, general practice etc.), like an auto mechanic would segregate engine parts, none of the mainstream physicians understand how all 10 body systems work synergistically as a whole like a flowing river. This has led medical science to perpetuate trash can labels to terms for symptoms of Mycoplasma to hide their ignorance.

Syndrome X, Graves disease, Systemic Lupus, Sjogren-Larsson syndrome, Huntington's chorea, Guillain-Barré syndrome, myasthenia gravis, Creutzfeldt-Jakob disease, Rift Valley fever, Hashimoto, Parkinson's disease, Alzheimer's disease, post traumatic stress syndrome, ADHD, even the recent West Nile virus, are all virulent Mycoplasma invasions in disguise. The names of the mysterious diseases are simply the location of the Mycoplasma invasion/destruction, not a new disease. Almost every neurodegenerative and autoimmune disease has a pathogenic Mycoplasma species responsible for the initiation of the disease process.

## 7 Mycoplasma Variants Linked To Numerous Diseases

The seven weaponized Mycoplasma variants that enter fluid and blood circulation that were created covertly by the U.S. government and are now wreaking havoc on the population are the following:

1) **M. Fermentans (incognitas strain). The term fermentans reveals fermentation process (i.e.: yeast, molds, fungus, spores, cancer).** 2) **M. Penetrans penetrate the cell membrane and invade host cells.** 3) **M. Pneumoniae attacks upper respiratory epithelial cells, inflaming them and causing upper respiratory infections and chronic pneumonia.** 4) **M. Genitalium (Genitalia) invades urethral tissue and cells in the genital area causing pelvic inflammation and urethritis.** 5) **M. Hominus is found in joint tissues in rheumatoid arthritis.** 6) **M. Pirum is found in AIDS as a co-factor accelerating AIDS progression.** 7) **M.**

## Salivarium is found in salivary glands and joint tissues in rheumatoid arthritis.

High-level exposure of Mycoplasma to blood, semen, mother's milk or vaccines will lead to AIDS. Low-level exposure to bodily fluids where concentrations are less will contribute to chronic fatigue syndrome, fibromyalgia, multiple sclerosis and other autoimmune diseases. Specific diseases can be targeted by controlling the Mycoplasma concentrations to bodily fluids.

## Mycoplasma Thrives On Cholesterol

What makes these designer diseases so elusive is that they're genetically engineered only for DNA replication, transcription and translation with no organelle or cell wall. They have lost their genes for amino acid and fatty acid synthesis, forcing them to invade and steal proteins, sugars and sterols (cholesterol) from healthy neighboring cells to survive.

These cholesterol dependent molecular terrorists immediately take up residency in the individual's genetically pre-disposed weaknesses, (the weak link in the chain of organs or systems), or the path of least resistance. Since Mycoplasma has absolute dependence upon the uptake of preformed sterols (cholesterol structures), they have an affinity toward cell membranes, nerve cells, sex hormone cell factories, glands and the gray matter in brain tissue, where cholesterol sterols are found. Since cholesterol is a co-factor in glandular hormone production, the endocrine balance is drastically altered with cholesterol being pulled out of the cell cycle. That is why pathogenic changes are seen most often during pregnancy, hormone replacement therapy, steroid therapy, menstrual cycles and xenoestrogens from pesticides, herbicides, meat and dairy.

With the disruption of the hormones, comes an open invitation for the RNA directed HIV to replicate. The newly formed HIV RNA makes its way to the host cell surface where it connects and breaks away carrying with it a GP 120 protein envelope that was hijacked from the previous cell's surface. It repeats by countering another cell, adheres to the cell surface and accesses the interior genetic material of its new host where the cascade process is repeated.



Unless Mycoplasma penetrates into tissues and cells they cannot exert their terrorist effects. They will lay dormant, sometimes for a decade, until physical or emotional trauma, severe stress or vaccine contaminants wake up the sleeping giant to invade and feed on the cell's genetic material like an intracellular parasite, taking the cell hostage until it ruptures and dies.

#### **Mycoplasma Triggering Mechanisms**

Mycoplasma is activated and stimulated by initiators (ignition) and potentiators (promoters). The potentiators are the toxic substances in our food, beverages, environment, pharmaceuticals, heavy metals (mercury amalgams) and chemicals that we bath in, etc. that store in fat cells and weaken our cellular terrain and immune system to allow the initiators (i.e. stress, viruses, bacteria, fungus, parasites, emotional and physical trauma, fear, increased estrogen, anger, etc.) to ignite or light up the gasoline that's poured on the barn - Mycoplasma.

If the gray matter of the brain tissue is the target of Mycoplasma invasion, you'll portray symptoms of dementia, Alzheimer's, Parkinson's, Creutzfeldt-Jakob disease or memory and cognitive thinking disturbances depending on the area of the brain terrorized.

If the spinal cord is the victim, you will exhibit symptoms of neurodegenerative diseases like myasthenia gravis, Guillain-Barré and ALS (Lou Gehrig's disease). If your weakness happens to be the synovial fluid cells in your joints, rheumatoid arthritis with severe joint pain will be your disease. In fact, many of the 21st century diseases that were thought to be autoimmune turned out to be Mycoplasma invasions. I do not believe that God made our immune systems that stupid to attack our own tissues.

If Mycoplasma invades the beta cells in the pancreas that manufactures insulin, you can't regulate blood sugar and Diabetes Mellitus will be your demise. If your cardiac tissues are your weak link, cardiomyopathy will manifest. If M. Pneumoniae or M. Fermentans attacks the bronchial lining of the bronchial tubes, the inflammation will trigger asthma and upper respiratory infections. If the myelin sheaths of the nerves are targeted, you will exhibit neurological symptoms of multiple sclerosis. If the intestinal lining is penetrated, the damage

to the mucosal lining will perpetrate Crohn's disease or leaky gut. In the case of Lou Gehrig's disease, 80% of the patients have detected at least two Mycoplasma strains - M. Penetrans and M. Fermentans.

In ALS, the oligodendritic nerve cells which require cholesterol to synthesize neurosteroids are eaten. If Mycoplasma population is large enough, they gobble up so much cholesterol they diminish neurosteroid synthesis which leads to severe central nervous system malfunctions. Even Lyme disease, which is the fastest growing infectious disease in the U.S. and possibly Europe, with the exception of AIDS, was found to be linked to both Borrelia and Mycoplasma infections as a co-infection. The Mycoplasma species of M. Pneumoniae and Chlamydia invading the pericardium lining of the heart, seem to be common dominators of myocarditis and pericarditis infections.

Mycoplasma steroid stealing properties also make the energy producing mitochondria leaky by robbing cholesterol lipids that are necessary in mitochondrial membrane integrity. When mitochondria bleed, they cannot generate ATP energy necessary for cell energy and function and nerve cells are the most sensitive to energy deprivation. This explains why chronic fatigue and neurological disorders are the main symptoms of the trinity diseases chronic fatigue syndrome (CFS), fibromyalgia (FMS) and Gulf War illness (GWI). In my opinion, they are the same disease ideology with all three characterizing common symptom traits of chronic fatigue, short term memory loss, low grade fevers, tissue and lymph swelling, joint and muscle pain, stomach and digestive disorders, immuno-suppression and severe systemic chronic infections that invade various organs, tissues and cells including the brain, nervous system and heart.

#### **Mycoplasma Infection Leads To A Medical Merry-Go-Round**

Since the disease pattern of CFS, FMS and GWI affect all major body systems (cardiovascular invasion involving the left ventricle, neurological damage ranging from mild cognitive problems to bi-polar depression or schizophrenia, genitourinary damage presenting incontinence or urethritis, pulmonary symptoms of asthma



and the development of fibro masses or nodules in the lungs etc.), this multi-faceted symptomatology is causing a medical merry-go-round in the medical profession starting with a general practitioner who will usually prescribe an anti-inflammatory and a short-term antibiotic regimen for the chronic infection. Since you also exhibit symptoms of neurological disorders and your general practitioner is not versed in neurology, you will be referred to a neurologist. After the examination with a neurologist and a couple scripts later for your anxiety and insomnia, you will be pawned off on an endocrinologist for your hormonal imbalance because the neurologist has limited knowledge in endocrinology. Due to the combined adverse side effects of the antibiotics, anti-inflammatories, analgesics and tranquilizers, you may exhibit signs of gastric disturbances and skin reactions where you will be further drugged by a dermatologist or a gastrologist. Next in line on the "gist" medical treadmill is the cardiologist who will push a beta-blocker or a diuretic on you for your cardiomyopathies. After seeing ten different disease specialists and spending thousands of dollars on MRI's, CT Scans, X-Rays, surgery, pharmaceuticals, etc., without finding a solution to your dilemma, you will be labeled psychosomatic, hypochondriac or suffering from severe depression where you will end up with a psychologist. You're now a walking drug store with more complications than what you started with thanks to the combined adverse reactions of the drugs and the limitations of medical doctors who specialize in only 1/10th of the body. What a racket!!!

The government perpetrates non-detectable, virulent, stealth pathogens on the population by way of mosquito vectors (West Nile), primary aerosol, chemtrails, vaccines and possibly the food chain, and then you're put through a medical merry-go-round of disease specialists that know little or nothing about Mycoplasma ideology and do not have access to the necessary diagnostics for detection. The pharmaceutical companies and the warlocks in Washington and Wall Street are laughing all the way to the bank as they profit hundreds of billions of dollars on humanity's suffering while fulfilling their agenda of population control.

### Protocols To Treat Mycoplasma

Since Mycoplasma cannot be successfully treated with the usual short course duration of antibiotics due to their intracellular location, slow proliferation rate and inherent resistance to most antibiotics, the few Mycoplasma experts that specialize in this field are recommending six-months to one year of non-stop treatments using strong antibiotics such as Cipro and Doxycycline. However, if a patient does not want to destroy their body and immune system with Cipro and Doxycycline, a total overhaul of every cell from head to toe using a multi-faceted, non-toxic, holistic treatment approach is absolutely necessary to overcome Mycoplasma infections naturally. This is why vitamins and nutritional supplementation are so important in the therapy. Chronic illness patients must also be weaned off antidepressants and other potential immune suppressing drugs before they can fully recover from their illnesses.

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**EDITOR'S COMMENT:** Usually there is no smoke without fire...

## Fungi and fungal toxins as weapons

Source: [http://www.researchgate.net/profile/Russell\\_Paterson/publication/6879624\\_Fungi\\_and\\_fungal\\_toxins\\_as\\_weapons/links/00b7d5225ef368ace0000000.pdf](http://www.researchgate.net/profile/Russell_Paterson/publication/6879624_Fungi_and_fungal_toxins_as_weapons/links/00b7d5225ef368ace0000000.pdf)



**Review****Fungi and fungal toxins as weapons****R. Russell M. PATERSON\****Micoteca da Universidade do Minho, Centro de Engenharia Biológica, Campus de Gualtar, 4710-057 Braga, Portugal*

Recent aggressive attacks on innocent citizens have resulted in governments increasing security. However, there is a good case for prevention rather than reaction. Bioweapons, mycotoxins, fungal biocontrol agents (FBCA), and even pharmaceuticals contain, or are, toxins and need to be considered in the context of the new paradigm. Is it desirable to discuss such issues? None of the fungi are (a) as toxic as botulinum toxin from *Clostridium botulinum*, and (b) as dangerous as nuclear weapons. One toxin may be defined as a pharmaceutical and vice versa simply by a small change in concentration or a moiety. Mycotoxins are defined as naturally occurring toxic compounds obtained from fungi. They are the biggest chronic health risk when incorporated into the diet. The current list of fungal toxins as biochemical weapons is small, although awareness is growing of the threats they may pose. T-2 toxin is perhaps the biggest concern. A clear distinction is required between the biological (fungus) and chemical (toxin) aspects of the issue. There is an obvious requirement to be able to trace these fungi and compounds in the environment and to know when concentrations are abnormal. Many FBCA, produce toxins. This paper indicates how to treat mycotoxicosis and decontaminate mycotoxins. There is considerable confusion and inconsistency surrounding this topic which requires assessment in an impartial and scientific manner.

**Agro-Terrorism: A Scenario Based Case Study for Brazil**Source: <ftp://ftp.repec.org/opt/ReDIF/RePEc/dtm/wpaper/agroterrorism31.pdf>**102**

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**Agro-Terrorism:  
A Scenario Based Case Study for Brazil**

by **Dr. Guilherme G. Santana, National Petroleum Agency, Rio de Janeiro, Brazil**  
and  
**Dr. Alexandre Rands, Federal University of Pernambuco, Brazil**

This paper is extracted from a broad study that has the objective of demonstrating that agro-terrorism is an effective way to cause havoc in the long term, with the potential to jeopardize several sectors of the economy and inflict severe social consequences. There are some clear differences between terrorism acts that target people and those that target crops or livestock. For example, a single terrorist act in a city center making use of explosive has its impact felt immediately, triggering an immediate response (Madrid train attack in 2004 and London 7/7 — 2005, for instance). While an attack with pathogens in a crop is by no means lethal, it does not mean that there is no social impact. The effects are detrimental to related industries down the chain, which over time generate a series of adverse conditions that ranges from pure economic damage to potentially causing severe social disorder. This is particular true for developing nations that have their economy based on agriculture for both receipt generation and to sustain its domestic needs.



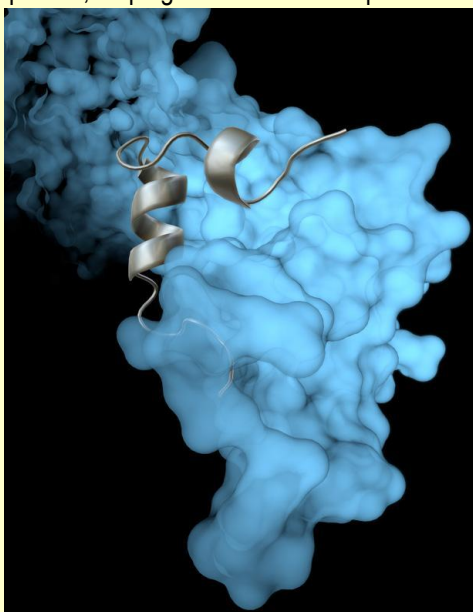
## TSRI team gets new close-up view of key part of Ebola virus life cycle

Source: [http://www.eurekalert.org/pub\\_releases/2015-06/sri-ttg062315.php](http://www.eurekalert.org/pub_releases/2015-06/sri-ttg062315.php)

June 25 – A new study led by scientists at The Scripps Research Institute (TSRI) reveals a key part of the Ebola virus life cycle at a higher resolution than ever before. The research sheds light on how Ebola virus assembles--and how researchers might stop the often-fatal infection.

"This higher resolution is critical for design of much-needed antiviral therapeutics," said Erica Ollmann Saphire, senior author of the new study, professor at TSRI and director of the Viral Hemorrhagic Fever Immunotherapeutic Consortium. "These structures provide the blueprints that we need to see key vulnerabilities to attack."

The new study, published online ahead of print today in the journal *Cell Reports*, builds on previous work in Saphire's lab showing that a **viral protein called VP35** has a role in protecting both Ebola virus and its "cousin," the deadly Marburg virus, from the immune system. VP35 helps ("chaperones") a viral protein, helping it coil and form a protein shell (nucleocapsid) around the virus's genetic material. With a virus's genetic material blocked from view, the human immune system cannot mount an effective defense.



Until now, scientists had not been able to see the coiling process in great detail. But using an imaging technique called x-ray crystallography, Saphire and her colleagues were able to show exactly how VP35 helps the viral protein that creates the capsid.

The Scripps Research Institute team's high-resolution image revealed how a viral protein called VP35 helps protect the Ebola virus from the body's immune system. (Photo courtesy of The Scripps Research Institute).

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The new structure also reveals how the VP35 protein prevents the nucleocapsid from assembling incorrectly. The researchers could even see key atoms and structures called side chains--crucial pieces for moving forward with structure-based drug design.

The researchers believe these findings could be significant for more than just Ebola virus. "The structure we revealed is likely conserved across all the filoviruses: Marburg, Sudan, Bundibugyo, Reston and Ebola," said Saphire.

TSRI Research Associate Robert Kirchdoerfer, first author of the new study, added that the new understanding of viral assembly could be applied to *Mononegavirales*, an order of viruses that includes measles and rabies.

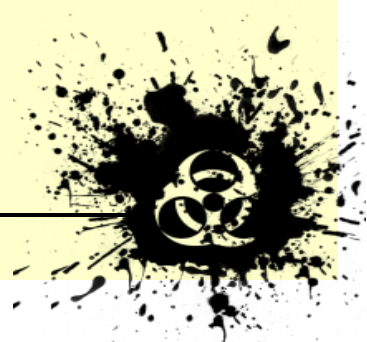
In addition to Saphire and Kirchdoerfer, authors of "Assembly of the Ebola virus nucleoprotein from a chaperoned VP35 complex" were Dafna M. Abelson and Malcolm R. Wood of TSRI and Sheng Li of the University of California, San Diego.

## Diagnosing Ebola in minutes

Source: <http://news.harvard.edu/gazette/story/2015/06/diagnosing-ebola-in-minutes/>

A new test can accurately diagnose the Ebola virus disease within minutes at the point of care, providing clinicians with crucial, on-the-

spot information for treating patients and containing outbreaks.



Researchers from Harvard Medical School (HMS), Partners In Health, and Boston Children’s Hospital have shown that a new, commercially developed rapid-diagnostic test performed at bedside was as sensitive as the conventional laboratory-based method used for clinical testing during the recent outbreak in Sierra Leone. The results are published in The Lancet.

While the West African Ebola epidemic has slowed since its peak last fall, the crisis simmers on; there were still 24 confirmed cases of Ebola reported in Guinea and Sierra Leone in the week ending June 14.

To fight Ebola, the first step is to determine which patients are sick with the disease and which with other illnesses that have similar presentation. To use the currently recommended molecular approach, laboratories must be built and samples of highly infectious blood must be drawn, often with unsafe needles and syringes, and then shipped over potentially great distances at substantial risk to the health care workers involved. Then clinicians and patients must wait for results — sometimes for several days. These obstacles and delays prevent timely diagnosis and treatment, and sometimes result in individuals without Ebola being admitted to holding units where they may become infected with the virus, the researchers said.

“Simplifying the process and speeding up diagnosis could have a major impact,” said Nira Pollock, the senior author of the paper, an HMS assistant professor of medicine, and associate medical director of the Infectious Diseases Diagnostic Laboratory at Boston Children’s Hospital.

As the Ebola outbreak in West Africa began to surge in 2014, Pollock and Partners In Health researcher Jana Broadhurst worked with the research core of the HMS Department of Global Health and Social Medicine to reach out to teams around the world that were developing diagnostic tools to enable clinicians to diagnose Ebola patients quickly.

One candidate, the **ReEBOV Antigen Rapid Test**, developed by **Corgenix**, seemed like a promising tool. Working with colleagues at Partners In Health and the Ministry

of Health and Sanitation in Sierra Leone, HMS team members were able to plug into an environment that allowed them to train local technicians to perform the test and help collect data for the study. The team at the Public Health England lab at Port Loko, where clinical samples routinely were sent for standard molecular diagnostic testing, were also key collaborators. Corgenix donated test kits to the HMS team.

The field trial took place at two treatment centers operated by the Ministry of Health and Sanitation of Sierra Leone and supported by PIH. One hundred and six patients suspected of having Ebola were tested during February 2015 using the rapid diagnostic test performed on a fingerstick blood sample at the point of care. The patients were also tested using the standard RT-PCR performed on plasma in the laboratory. Both the rapid diagnostic tests, on whole blood, and RT-PCR, on plasma, were also performed on 284 samples in the laboratory.

The rapid diagnostic test detected all confirmed cases of Ebola that were positive by the benchmark test in both point-of-care and laboratory testing with sensitivity of 100 percent (identifying all patients with Ebola found by the benchmark method), and specificity of 92 percent (few false positives).

Surprisingly, the study also showed that under the conditions deployed in the field, the standard RT-PCR test was itself an imperfect reference standard.

Both tests failed to detect a small number of Ebola cases that had been detected by an alternative lab test that was more sensitive than the benchmark test but was not available for wide usage. All of the missed cases showed very low levels of the virus. The authors caution that given the limitations of the





performance of the benchmark RT-PCR reference test in patients with low levels of the virus, more research is needed to assess how the new rapid diagnostic test will perform in patients still in the early stages of Ebola.

The ReEBOV test uses a drop of blood from a fingerstick performed with a safety lancet, which has a spring-loaded mechanism that prevents health care workers from accidental needlesticks after the blood is sampled. The ReEBOV test works much like a home pregnancy test: the sample is applied to a treated strip, and if the sample is positive for Ebola, a colored line appears on the strip at a specific location.

The researchers noted that it was essential to study the test in the field to see whether it worked in the challenging conditions clinicians face in rural clinics and in Ebola treatment units in such places as Sierra Leone. For example, wearing the required personal protective equipment can make it difficult to read the test strip, so instead of having one clinician check results, the research team developed a method in which two clinicians checked each test, with a third stepping up in cases where the first two disagreed.

"We're talking about a truly extreme environment here," said study co-author Megan Murray, HMS professor of global health and social medicine and director of research at Partners In Health.

Not only were there no electronic health records, but due to strict infection control measures, researchers were not permitted to

take handwritten notes out of the treatment unit.

Because the researchers had existing relationships with Partners In Health clinicians who had already built collaborative relationships with local caregivers, they were able to build on those relationships to create an integrated clinical and research team.

"This is a powerful combination," Murray said. "To get research that provides meaningful results, researchers need connections to the communities and health systems that they're trying to understand."

Once the researchers saw that the test was effective, they shared their findings with the Partners In Health clinical network, with other partners in Sierra Leone and West Africa, and with the other governmental and non-governmental organizations working to end the Ebola epidemic.

"That's another advantage of working closely with clinical care delivery teams: they can help us get the word out when we find something that works," Murray said.

Ultimately, public health and regulatory officials in each of the affected countries will decide how the test is used in clinical and surveillance efforts, taking into account guidance from the World Health Organization and the U.S. Food and Drug Administration.

Funding for the study was provided by a gift from the Abundance Foundation (Stephen Kahn). Corgenix provided test kits for the study but did not provide any financial support; Corgenix personnel were not involved in data acquisition or analysis.

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## **Ebola Crisis: 3 Different Strains Identified In Guinea**

Source: <http://www.ibtimes.com/ebola-crisis-3-different-strains-identified-guinea-1983057>

June 25 – A team of scientists has sequenced the genome of Ebola virus strains circulating in Guinea to trace the spread of the disease and monitor its progress. Their findings, published Wednesday in the journal *Nature*, have revealed three distinct variants of the virus that are co-circulating in the West African country, especially in its urban regions and neighboring towns.

The Ebola epidemic spread rapidly through West Africa and has been ongoing for over a year, with over 27,000 reported cases and

11,000 deaths. The source of the outbreak has been traced to a wooded area of southeast Guinea, from where it rapidly spread to the capital, Conakry, and then to neighboring countries like Sierra Leone and Liberia.

A team of scientists from the Institute Pasteur in Senegal and in Paris, the University of Sydney and the French National Center for Scientific Research analyzed the Ebola virus variants that circulated in



Guinea between July and November 2014. Analyzing the samples led to the discovery that the three distinct variants of the disease were co-circulating in Guinea. The first is closely related to variants of the viruses found near the start of the epidemic in March 2014, and is found only in Guinea. The second variant is more closely related to the types of virus circulating in Sierra Leone, but it could also represent a parallel evolution in the two strains, the researchers said in the study. The genetic sequences represent the missing link that led to two separate strains of Ebola being introduced to Mali, in October and November 2014, the study found.

The final variant was identified in Conakry and its surrounding towns. It bore marked similarities to variants found in Sierra Leone,

which, combined with epidemiological information, give evidence of Ebola being reintroduced from Sierra Leone to the Conakry region multiple times.

While the study highlighted the disease's variations and the speed of its spread from Guinea, it also found that its rate of mutation was well within expected levels, easing fears that the disease could adapt faster than doctors and scientists could find a cure for it or even mutate to become airborne.

Ebola infections have spiked in Guinea and Sierra Leone for two weeks in a row, with health officials reporting 16 new cases in Guinea and 15 new ones in Sierra Leone last week. But officials say they're optimistic about defeating the epidemic. The bordering country of Liberia was declared Ebola-free in May.



## Generic heart disease medications offer promise for Ebola treatment

Source: <http://www.medicalnewstoday.com/releases/295835.php?tw>

June 24 – Generic medications used frequently in the management of heart disease patients also have the potential to bolster the immune systems of patients with Ebola virus and some other life-threatening illnesses, researchers report this week in *mBio*®, the online open-access journal of the American Society for Microbiology.

Unlike other medications in development for Ebola, which attack the virus, **statins** and **angiotensin receptor blockers** typically used for heart disease work on the host response, or a person's biological reaction to the virus, said lead study author David S. Fedson, MD, a retired professor of medicine at the University of Virginia and expert on influenza and pneumococcal vaccination, and pandemic preparedness. **Specifically, the drugs stabilize or restore the integrity of endothelial cells lining the blood vessels. Endothelial cell dysfunction has been a central feature of human Ebola virus disease, he said, leading to severe fluid and mineral losses.**

"This approach to Ebola treatment has two advantages," Dr. Fedson said. "First, it uses inexpensive generic drugs that are widely available in any country with a basic healthcare system, and most physicians who treat patients

with cardiovascular diseases are familiar with these medications. Second, because this strategy targets the host response to infection, these drugs might be used to treat patients with any form of acute infectious disease in which a failure to overcome endothelial dysfunction could lead to multi-organ failure and death."

**The statin/angiotensin receptor blocker combination was found to help improve survival in 100 Ebola patients treated in Sierra Leone,** Dr. Fedson said. In a pilot study last fall, patients were given the drugs **atorvastatin (40 mg/day) and irbesartan (150 mg/day)** at several hospitals in West Africa. While study reports were not published, Dr. Fedson said, reports indicate that rapid clinical improvement was seen in almost all patients. Only two are known to have died: one was critically ill when first seen and died soon after; the other initially responded to three days of combination treatment but relapsed and died when combination treatment was stopped and he was instead given an antiviral agent. The study results need to be replicated, Dr. Fedson said.

When pandemics hit, "you have to have something that ordinary doctors in ordinary countries can use to treat ordinary patients," he

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said. "We have extraordinary medicines that cardiovascular scientists have developed which modify not just endothelial function but all kinds of things that are part of the host response to infectious disease. In combination they work even better than they do alone."

Treating the host response would not prevent or cure Ebola virus infection itself, Dr. Fedson said, "but it could allow individual patients to survive long enough to develop an immune response that eliminates the virus. These agents could be used in combination with antivirals if they are available."

To move forward, researchers should consider four courses of action, Dr. Fedson said:

## Guinea: up to 62% of malaria cases 'overlooked during Ebola epidemic'

Source: <http://www.medicalnewstoday.com/articles/295840.php?tw>

June 24 – Rising numbers of malaria deaths in Guinea have "greatly exceeded" the total number of deaths caused by Ebola, a new report finds, which suggests that the Ebola epidemic may have led to 74,000 extra untreated cases of malaria in the country.

[Around 74,000 fewer malaria cases than were expected were treated at Guinea's health facilities in 2014 - a fall of 62%, in comparison with the years before the Ebola epidemic.](#)

The report, published in *The Lancet Infectious Diseases*, is the first systematic analysis of the use of outpatient health care in a country affected by the Ebola epidemic.

The researchers conducted a cross-sectional survey of 60 public health facilities in the areas of Guinea most affected by Ebola. They found that around 74,000 fewer malaria cases than were expected were treated at Guinea's health facilities in 2014 - a fall of 62%, in comparison with the years before the Ebola epidemic.

**The consequence of this fall in treatment, write the authors, is that the number of deaths caused by malaria will exceed the total number of Ebola deaths. The number of deaths from malaria this year in Guinea was reported to be 2,444 as of June 14th, 2015.**

The authors of the report say the main problem is that the early symptoms of malaria and Ebola are so similar - they both manifest in fever, headaches and body aches.

undertake research on the host response to Ebola virus infection, including involving scientists who understand endothelial cell biology; perform clinical studies in West Africa to test statin and angiotensin receptor blocker combination treatment in Ebola patients; incorporate any successful treatment of the host response in other clinical trials of interventions against Ebola; and recognize the implications of treating the host response for other diseases.

"Malaria is one of the main causes of fever and health facilities visits in Guinea," explains lead author Dr. Mateusz Plucinski from the Centers for Disease Control and Prevention (CDC), "but our data suggest that since the start of the Ebola epidemic people with fevers have avoided clinics for fear of contracting Ebola or being sent to an Ebola treatment center."

The report also reveals that outpatient visits among the surveyed health facilities fell by 11%, while outpatient attendance fell by 42% in the most Ebola-affected areas.

### Decreases in malaria treatment correlated most strongly with third wave of Ebola epidemic

Before and after the Ebola crisis, the number of patients receiving oral drugs for malaria fell by 24%, with an accompanying drop of 30% for prescription of injectable malaria treatments.

Among the districts of Guinea most badly affected by the third wave of the epidemic in August 2014, decreases in malaria treatment were even greater. However, even districts that were unaffected by Ebola saw significant reductions in the number of patients who received treatments for malaria.

In terms of active health workers, before the Ebola epidemic hit Guinea, 98% of health workers in the country were actively working. However, this figure fell to just 74% after Ebola, with the percentage of



health workers actively treating malaria cases falling to 48% after Ebola. By contrast, during the same period, there was an increase from 63% to 96% in health care workers treating malaria cases in Ebola-free districts of Guinea. These regions unaffected by Ebola also saw an increase from 78% to 95% in the proportion of operational community health workers.

Dr. Plucinski comments:

"Untreated malaria cases lead to rising malaria death rates and more cases of fever in the community. This puts extra pressure on an already overburdened health system owing to a

greater number of suspected Ebola cases requiring triage and isolation at treatment centers. Malaria control efforts and care delivery must be kept on track during an Ebola epidemic so that progress made in malaria control is not jeopardized and Ebola outbreak response is not impeded."

In December 2014, *Medical News Today* reported on a warning from the World Health Organization (WHO) that the "fragile" gains in controlling malaria were in danger of being jeopardized in the response to the Ebola crisis.

## Animal Diseases Can Be Used As Biological Weapons

Source: <http://www.hngn.com/articles/105565/20150701/health-experts-animal-diseases-used-biological-weapons.htm>

July 01 – During a conference in Paris, experts around the world have decided to raise awareness on the possibility of using animal diseases to create biological weapons, calling out to people to help stop the spread of such diseases

Experts warn that animal diseases can be used as biological weapons and the world should cooperate in preventing the spread of these diseases.



World Health Organization (WHO), animal health and national defense officers lead the call for action against the possible use of these diseases as weapons. **WHO posted a list of animal diseases that have been associated with biological weapons, including anthrax, plague, botulism, smallpox and tularaemia.**

"History has shown that animal diseases have often been used as weapons before. Advances in genetics can now make them even more harmful. So we are calling for further investment to be made at national level on bio-security," Bernard Vallat, director general of WHO-OIE, told reporters at a conference on biological threat reduction, Reuters reported.

While these diseases can be acquired due to natural causes, with the genetic engineering technology of today, intentional release of the diseases are very possible.

**The OIE and WHO warned that animal disease agents could escape naturally, accidentally, but also intentionally from laboratories, to be used as bio-weapons.** Earlier during the conference, Kenneth Myers, Director of the U.S. Defense Threat Reduction Agency (DTRA), part of the Department of Defense, stressed the need for international collaboration to avoid the loss of biological material.

"Terrorists have clearly shown they will use any weapons at their disposal. These weapons are easy to transport and hard to detect," said Myers, according to Asia One News.

The biothreat reduction conference in Paris is the first of its kind to gather representatives and experts from health, security and defense sectors of over 120 countries.

## Specific diseases associated with biological weapons

Source: <http://www.who.int/csr/deliberatedemics/disease/en/>

Any infectious agents or toxic chemical could in theory be engineered for deliberate use as a weapon. Experts in this field believe that anthrax, botulism, plague, smallpox and tularaemia are the pathogens most likely to be used.



**Anthrax:** A disease caused by a bacterium, *Bacillus anthracis*, it has existed for hundreds of years and still occurs naturally in both animals and humans in many parts of the world, including Asia, southern Europe, sub-Saharan Africa and parts of Australia. There are three forms of anthrax in humans: cutaneous, ingestion and inhalational. For further information, [see Anthrax](#).

**Botulism:** A rare but serious paralytic illness caused by a nerve toxin that is produced by the bacterium *Clostridium botulinum*. Botulism toxin can be inhaled or ingested via contaminated food or water. There are five clinical categories: 1) foodborne botulism; 2) wound botulism; 3) infant botulism; 4) adult infectious botulism; 5) inadvertent, following botulinum toxin injection. For further information, [see Botulism](#).

**Plague:** An infectious disease of animals and humans caused by a bacterium, *Yersinia pestis*, which is transmitted between rodents by rodent fleas or to people through infected rodent flea bites. It can also be transmitted to humans through direct contact with infected animal tissue. There are three main forms of plague in humans: bubonic, septicemic and pneumonic. For further information, [see Plague](#).

**Smallpox:** An acute contagious disease caused by *Variola virus*, a member of the orthopoxvirus family. The global eradication of smallpox was certified in 1979, based on intense verification activities in countries. For further information, [see Smallpox](#).

**Tularaemia:** A disease caused by the highly infectious bacterium *Francisella tularensis*. Within the species, there are two predominant subspecies: *F. tularensis tularensis* (type A), which is found in North America, is more virulent than *F. tularensis palaeartica* (type B), which occurs in Asia, Europe, and North America. Clinical manifestations depend on the route of entry and the virulence of the agent. There are six forms of tularaemia in humans: ulceroglandular, glandular, oropharyngeal, oculoglandular, respiratory and typhoidal. For further information, [see Tularaemia](#).

## Hospital Threats - More to Address Than Just Donning & Doffing

By Craig DeAtley

Source: [http://www.domesticpreparedness.com/Medical\\_Response/Health\\_Systems/Hospital\\_Threats\\_-\\_More\\_to\\_Address\\_Than\\_Just\\_Donning\\_%26\\_Doffing/](http://www.domesticpreparedness.com/Medical_Response/Health_Systems/Hospital_Threats_-_More_to_Address_Than_Just_Donning_%26_Doffing/)

An Ebola-infected American flown from Sierra Leone lies in critical condition at the National Institutes of Health. A nurse who contracted Ebola in 2014 when caring for a patient is suing Texas Health Resources for not properly training its employees. As these examples demonstrate, biological threats to hospital workers still exist, and the training must go beyond simply donning and doffing.



The experiences over the past year with Ebola have once again highlighted the lengths to which healthcare facilities must go to protect their staff, including the use of personal protective equipment (PPE). However, Ebola is not the only clinical situation requiring PPE. Hospital personnel, otherwise designated as “first receivers” – by the Occupational Safety and Health Administration (OSHA) – who perform decontamination on patients affected by chemical or radiologic exposure also require protection. Regardless of the threat, each hospital is required to have a comprehensive program that

addresses a variety of issues related to PPE. The OSHA [Best Practices for Hospital Based](#)

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[First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances](#) is a widely used document to help healthcare facilities, especially hospitals address a variety of response issues including donning (putting on) and doffing (removing) PPE.

### **Many Choices, but Availability May Be Limited**

Hospitals facing the threat of patients contaminated with biological or hazardous materials find themselves having to make a variety of decisions when it comes to staff protection. Although hazardous materials teams operated by fire departments and/or private sector companies may have four operating levels of PPE (Levels A, B, C, and D), hospitals generally maintain Level C as their highest level of protection, which is the minimum best practice recommendation set forth by OSHA. The ensemble composition and protective material used is based on what is required for the perceived threat.

PPE items typically include garb to protect the skin (impervious gown or suit/coverall), hands (gloves), and feet (boots/shoe covers) protection, along with respiratory protection (surgical mask, N95 respirator, or powered air purifying respirator – PAPR). Additional items such as portable radios, personal dosimeters, and identification vests also may be worn depending on a hospital's operational procedures.

Outfitting a single responder in proper PPE can cost hundreds (or even thousands) of dollars, not including the PAPR, which depending on the brand and type purchased can run \$600-\$1,200. Increasingly, vendors are marketing PAPR systems that have disposable hoods that can be thrown away after use rather than put through a rigorous cleaning/reconditioning process that must be done in accordance with vendor instructions to ensure staff safety. Cartridge use and replacement also must be done in compliance with manufacturer recommendations. Depending on the type and duration of the incident, several change-outs per team member may be required. Some vendors now are selling battery packs that use D cell batteries for easier replacement, rather than continued reliance on rechargeable lithium or nickel cadmium batteries.

The amount of PPE to be kept on hand is another major decision and is determined by a variety of factors including but not limited to the amount of staff that will dress out, as well as

available funding. Storage space must be found and may require considerable square footage depending on the amount of items purchased. Ideally, the space assigned is in proximity to where it will be used. OSHA and the vendors have outlined maintenance expectations for PAPRs and other items. These include documentation of regular equipment checks and replacing items before their expiration dates. The rechargeable battery packs for many of the PAPRs must be replaced every 3-5 years; users should consult with their vendors to ensure they are getting the optimum use of their systems. Even gloves, surgical masks, and N95 respirators have expiration dates, so sustainment funding is another commitment that must be made by the hospital.

### **Training Procedures to Perform & to Protect**

The OSHA First Receiver document also outlines the initial training that is to be provided to hospital personnel responsible for decontaminating patients exposed to hazardous materials. Subjects include response basics along with PPE and decontamination principles. The initial training may take eight hours to complete and includes actual practice of donning and doffing, as well as decontamination practice. Refresher training also should be presented annually with records kept of the training given to each team member.

Response guidance has been published and periodically updated by the Centers for Disease Control and Prevention and OSHA on PPE use when caring for a suspected or actual Ebola patient. Among the expectations is that everyone caring for these patients must be trained in proper donning and doffing techniques for the PPE they will be using (the PPE being worn varies somewhat between Ebola treatment centers, particularly in regards to the type of respiratory protection).

Also being stressed is the importance of a safety observer or "protector" always watching those working at the patient bedside for potential contamination contact and, if noted, then providing directions



on personal decontamination. The doffing process is another phase where someone is observing and requires the PPE removal steps be done in a slow and deliberate manner to reduce the risk of contamination occurring since, unlike for chemical decontamination scenarios, the PPE for personnel caring for Ebola patients is not thoroughly decontaminated before removal.

The protection of hospital personnel working with patients contaminated with hazardous materials, or ill from a highly infectious disease, is of paramount importance. To meet that responsibility, the hospital must make administrative, logistical, and financial commitments that have short- and long-term implications to ensure that their staff has what is needed, and are properly trained to safely perform their tasks.

*Craig DeAtley, PA-C, is director of the Institute for Public Health Emergency Readiness at the Washington Hospital Center, the National Capital Region's largest hospital; he also is the emergency manager for the National Rehabilitation Hospital, administrator for the District of Columbia Emergency Health Care Coalition, and co-executive director of the Center for HICS (Hospital Incident Command System) Education and Training. He previously served, for 28 years, as an associate professor of emergency medicine at The George Washington University, and now works as an emergency department physician assistant for Best Practices, a large physician group that staffs emergency departments in Northern Virginia. In addition, he has been both a volunteer paramedic with the Fairfax County (Va.) Fire and Rescue Department and a member of the department's Urban Search and Rescue Team. He also has served, since 1991, as the assistant medical director for the Fairfax County Police Department.*

## GAO Discovers More Problems at Military Labs Beyond Anthrax Fiasco

Source: <http://www.military.com/daily-news/2015/06/29/gao-discovers-more-problems-military-labs-beyond-anthrax-fiasco.html>

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This is Referee Module No. 2 of the Whole System Live Agent Test at Dugway Proving Ground in Dugway, Utah. (AP photo)



The Defense Department failed in the oversight of its high-containment laboratories leading up to the anthrax scandal and also mismanaged the program to fix crumbling infrastructure at its vast array of facilities for chemical and biological defense, the Government Accountability Office reported.

In addition, Pentagon officials last week said that Defense Department has yet to determine how much money was spent on the botched 10-year program that shipped live anthrax samples around the nation and the world to laboratories and contractors for experimentation.

After nearly seven years of trying, DoD's Chemical Biological Defense Program (CBDP) has failed to reach its goal of identifying or correcting shortcomings at facilities in its inventory, the June 25 report by the non-partisan GAO said.

"While the CBDP Enterprise should continue to address its priorities, it remains important that it also ensures that its infrastructure is aligned to meet its mission given ever-changing threats," the GAO said in its report to Congress, the DoD and the Joint Chiefs of Staff.

"The CBDP Enterprise has made limited progress in achieving this infrastructure goal because CBDP Enterprise officials told GAO that they were focused on higher priorities and had no CBDP Enterprise-wide impetus to address the infrastructure recommendations," the report said.

The GAO recommended that DoD "designate an entity to lead the effort to identify required infrastructure," and also coordinate with other federal agencies "to avoid potential duplication."

In response, Assistant Defense Secretary Arthur Hopkins concurred with the GAO's recommendations and said "the Department is actively reviewing and assessing the core capabilities and infrastructure that are crucial to supporting the research, development, testing and evaluation of effective counter-measures against chemical and biological threats."

In an appendix to the report, the GAO noted that the infrastructure problems were part of a systematic failure of oversight and coordination across DoD programs and other federal agencies on chemical-biological defense and testing.

In 1999 and 2000, "we found ineffective coordination among the DoD and other federal agencies with chemical and biological programs that could result in potential gaps or overlap in research and development programs," the GAO said.

Fourteen years later, in July 2014, "we testified before the House Committee on Energy and Commerce Subcommittee on Oversight and Investigations on recent incidents at government high-containment laboratories and the need for strategic planning and oversight of high-containment laboratories," the GAO said.

### **Transporting Live Samples by Ziploc Bags**

The "recent incidents" referred to were at the Centers for Disease Control laboratories. The CDC found that its bioterrorism labs were storing anthrax in unlocked refrigerators and transporting live samples in Ziploc bags.

CDC officials later told a congressional panel that the lax security was "completely unacceptable" and "should never have happened."

In addition to the DoD review on the anthrax scandal, the CDC is now also conducting a separate investigation of how live anthrax samples were mistakenly shipped by DoD facilities.

In its June report, the GAO also noted a previous September 2009 report which concluded that "without an entity responsible for oversight and visibility across the high-containment laboratories and a strategy for requirements for the laboratories, there was little assurance of having facilities with the right capacity to meet the nation's needs."

The 2009 report cited DoD's Chemical and Biological Defense Program (CBDP), DoD's Defense Advanced Research Projects Agency's Biological Warfare Program, the Department of Energy's Chemical and Biological Nonproliferation Program, and the Counterterrorism Technical Support Program.

All of those programs "lacked information on prioritized user needs, lacked validated chemical and biological defense equipment requirements, and lacked information on how these programs relate their research and development projects to needs," the report said.





### Live Spores Sent to Five Countries

In the anthrax scandal, the DoD was about three weeks into a 30-day review ordered by Deputy Defense Secretary Bob Work and led by Frank Kendall, the under secretary for acquisition, over what went wrong in the shipment of live anthrax spores by Federal Express and other commercial shippers to labs and contractors in the U.S., Japan, Canada, Australia, South Korea and Britain.

The Pentagon has stressed that there is no threat to the general public but at least 31 military and civilian personnel at facilities which received the samples were put on antibiotics as a precaution.

Last week, Army Col. Steve Warren, a Pentagon spokesman, said that an unidentified lab in North Carolina was added to the list of facilities that received live anthrax samples, bringing the currently known total to 70.

The states which received live anthrax samples totaled 19: California, Utah, Texas, Tennessee, Virginia, Massachusetts, Wisconsin, Maryland, New Jersey, New York, Delaware, Washington, Illinois, Florida, Arizona, Ohio, North Carolina, Rhode Island and Pennsylvania.

The DoD's purpose in the shipments was to encourage research on better testing methods and an improved vaccine, and also to develop a field testing device that potentially could be used by troops.

Warren said that the DoD has now tested a total of 91 lots of anthrax samples in its inventory and 11 of those have turned up

positive for live spores. All of the live samples have been traced to the Army's Dugway Proving Ground in Utah as the origin, Warren said.

An appendix to the GAO report said that officials at Dugway, known as the West Desert facility, "have identified gaps in subject-matter expertise in molecular biology, virology, chemical engineering, analytical chemistry, aerosol-dissemination technology, information technology, catalysis, and automation technology."

"According to West Desert officials, government compensation restrictions will likely preclude the hiring of full-time personnel in the areas of information technology and chemical engineering," the report said.

In response to queries from Military.com, Pentagon officials last week provided an initial estimate of how much was spent on the anthrax shipments but later said the figures were inaccurate and may have applied to all programs at four facilities -- Dugway, the Edgewood Chemical and Biological Defense Center (ECBC) in Maryland, the Naval Medical Research Center (NMRC) in Maryland, and the United States Army Institute of Infectious Diseases (USAMRIID) in Maryland.

At the June 4 announcement of the 30-day review, Kendall said that it will be difficult to determine how much money was spent and how much live anthrax was sent around the states and the world until the review is complete. "The numbers are in flux," he said.

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## Lone Wolf Bioterrorism: Single Wolf Against the Pack

By Sandra Maksimovic-Sara

Source: <http://outbreaknewstoday.com/lone-wolf-bioterrorism-single-wolf-against-the-pack-87451/>



July 01 – The lone wolf may have been a myth when British author John Fowles was writing his postmodern novel about the mental darkness of young teacher Nicholas Urfe, but in the modern times – the lone wolf is rising and shining as a new serious threat to both national and international security concepts.

The term "lone wolf" itself was discussed starting in 1990, after the fiery speeches made by white supremacist Alex Metzger, who

advocated the lone wolf modus operandi for many racist organizations. He invited followers of the white nationalist ideology to act covertly, without including or being connected to the organization in public.

Many years since, in the age of a permanent terrorism threat, the lone wolf against pack attack becomes our reality. The ideology of these loners has changed, but the circumstances and consequences are almost the same. Lone wolf terrorism requires the individual to make a plot and undertake their



violent actions alone. There is no any link which could lead back to the group or even someone who could be providing support.

**This loner is an extremist who has a goal, to destroy everything that is considered the opposite to what his beliefs are.** The lone terrorist can share some highlights of the group ideology, but despite being close, that doesn't mean much when his project is based on individual consideration of which means he will use and which targets he will pick.

There is no group activism, so he can't be stopped before the attack is committed. He can be an observer of other lone wolves actions for years, and still remain hidden from law enforcement officers, as well as anti-terrorism efforts. Jeffrey Simon, famous senior terror expert, addressed this problem in his book "Lone Wolf Terrorism: Understanding the Growing Threat" and he emphasized the importance for a state and society to recognize the potential of a lone wolf and to find whatever tiny connections between his influencers in some ideological aspects and his practical capacity to cause violence.

The author writes that a loner think "outside the box" so he is able to achieve more innovative attacks than old fashioned terrorist cells are generally capable of. He is creative and not concerned about being caught. His own scenario of the violent act is solitary; he is a free rider without responsibility to cover others or achieve higher goals. He is a wolf beside his pack, but he is also a wolf against the pack. Before the cyber-world, lone wolf terrorists were not as active or inspired to conspire against the rest of the civilization, but with the growing impact of the Internet, they were given many opportunities to develop their radical fantasies and to learn how to realize their violence. They are anti-social, but they are very informed. Some of them are educated and successfully integrated in society, such as the recent case of one of the most famous lone wolf terrorist –Nidal Hasan and his shooting at Fort Hood in Texas. The designed profile of a lone wolf terrorist is changeable because the global society is going through constant changes also. New aspects of human security also open new threats to that security.

The increasing risk of biological terrorism made us think of modified lone wolf terrorist in a future. He would become a lone wolf terrorist,

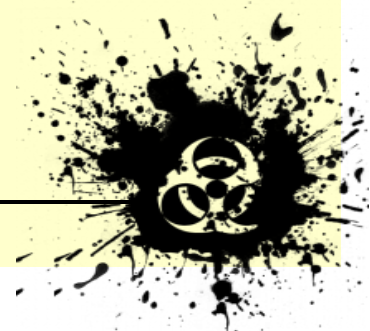
his ammunition based on biological agents capable of devastating the entire world. He could be skilled to disperse anthrax spores from a low-flying airplane over an agricultural field or populated area. If he attacks food, it will be kind of lone wolf agro terrorism. Attacking a population, it will be considered an individual act of bioterrorism. In both cases, the act will cause many casualties, and the outcome would be devastating.

**The new lone wolf bioterrorist could also release a microbe from the ground, using a device for aerosol dissemination, or set off the biological agent through a ventilation system, which could include the heating and air-conditioning network of a private, commercial, or government building or buildings. What earlier seemed like a good thriller story now seems a reality which has not happened yet.**

All of those alarmists, who have always believed in the biological terrorism possibility, begin to be a kind of rocket scientist who have found their rational based in the background of the rise of Islamic terrorism and the emergence of infectious diseases worldwide. The picture of some isolated terrorist who is able to reach a microbe which is the eleventh on the official list of 10 potential dangerous biological agents to be weaponized, is no longer the stuff of science fiction. This is a serious security question for policy makers and security officers alike.

Amanda Teckman, the emerging infectious disease expert, even published a detailed report: "The Bioterrorist Threat of Ebola in East Africa and Implications for Global Health" in 2013, inviting politicians all over the world to think seriously regarding the Ebola virus potential to become a biological terrorism favorite germ. This virus is very demanding and requires a lot of professional "know-how" before it could be used as a weapon, which is not something easily achieved by Islamic terrorists.

**But another scenario would ask for less engagement and a lower level of intelligence by a holder. The Suicide bomber – lone wolf bioterrorist would infect himself with Ebola virus so he would be able to transmit the virus to others.** In one day, he would visit as many



places as he is capable of, infecting as many people as he can, causing a rapid dissemination due to today's global rapid transit.

But the real lone wolf bioterrorists are still in the domain of futuristic security anticipation. In the post 9/11 landscape, everything seems like a threat and everyone could be considered as a terrorist. Becoming a lone wolf bioterrorist is not an easy journey for isolated fanatics. It requires a lot of technical knowledge, patience and logistic support, in which there are typically cells and groups under the umbrella of one agreed ideology.

Ebola virus and similar deadly microbes could be misused but not as easily nor as quickly. They are still quite a big hurdle not only for lone wolf terrorists but also for terrorist groups. Global policy makers should concentrate on solving health issues, preventing possible outbreaks and creating detection systems more than just considering lone wolf bioterrorism through science fiction like ideas. They could be surprised that reality sometimes can produce stories which can't be written by even the most creative novelist. For now though, lone wolf bioterrorism is just a draft, but it is a scary one.

*Sandra Maksimovic-Sara, has an MA in Biological Counter Terrorism Studies, with special interests of researching and writing about Biological Weapons, Biosecurity and Biodefense. Sandra hails from Serbia.*

**EDITOR'S COMMENT:** The scenarios described herein are too complicated for the average lone wolf terrorist. But the **scenario** of a bioterrorist who survived Ebola disease and he is now healthy bearing the virus into his sperm for 90 days is a simple and viable scenario. This loner visits the "red districts" of Western world and comes into paid intercourse with a big number of working girls (or boys). You can easily imagine how the big problem will start!



## Tularemia suspected in illness of North Pole man

Source: [http://www.newsminer.com/news/local\\_news/tularemia-suspected-in-illness-of-north-pole-man/](http://www.newsminer.com/news/local_news/tularemia-suspected-in-illness-of-north-pole-man/)

July 01 – A rare disease spread by ticks is the suspected cause of an illness that sickened a North Pole man this spring, according to a news release from the Alaska Department of Fish and Game.

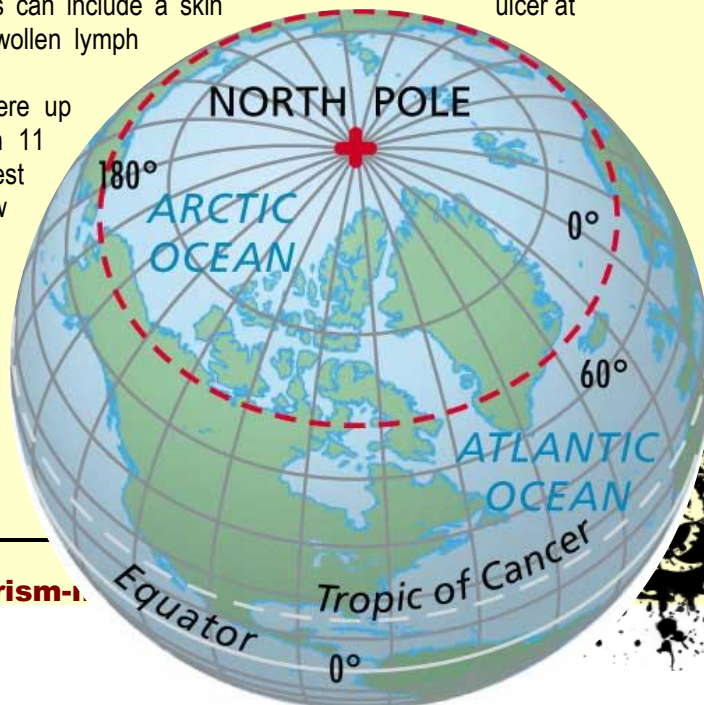
Tularemia is a bacteria spread by ticks that primarily live on hares. It can spread to humans who handle hares or through dogs or cats that come into contact with infected ticks.

**The North Pole man became sick after skinning a hare**

According to the federal Centers for Disease Control and Prevention, human tularemia cases in the United States were reported twice as often in the 1950s as in recent years. Between 1990 and 2013, the most recent year with data available, there were fewer than 200 reported human cases per year. In humans, tularemia usually causes a fever, which can be as high as 104 degrees. Other symptoms can include a skin ulcer at the site of the infection and swollen lymph glands.

Human cases of tularemia were up this summer in Colorado with 11 instances this year, the largest number in state history. New Mexico also reported human tularemia cases this year.

Alaska residents can protect themselves by trying to keep their animals away from hares. If an animal does catch a hare, Fish and Game recommends wearing gloves to remove the hare, and washing hands thoroughly afterward. The disease can spread from tick bites or



contact with an infected animal. People can get the disease from a pet's saliva, even before a pet appears sick. Dogs and cats can be treated with a veterinary product that kills ticks within 24 hours.

**In hares, signs of tularemia include slow movement, which makes the hares easier for pets to catch. An infected hare sometimes has an enlarged spleen and liver.**

## Sierra Leone's Rich and Powerful Are Breaking the Ebola Burial Rules and it's putting everyone at risk

By Tommy Trenchard

Source: <http://www.newrepublic.com/article/122209/sierra-leones-rich-and-powerful-are-breaking-ebola-burial>



June 30 – On a barren hillside outside Sierra Leone's capital, Freetown, Alieu Mansaray put on a brave face as strangers in full plastic bodysuits lowered his father's body into the grave. His 71-year-old father had died of a stroke. Everyone knew that. But in a country where the highly contagious Ebola virus continues to take lives, this is a sacrifice that Sierra Leoneans have come to accept.

In another time, Mansaray explained, the body would have been washed, dressed and perfumed, before being taken to the local mosque for prayers. Then the family would have taken him to a graveyard near their home in the city's eastern suburbs and laid him to rest in a white cotton shroud.

"It's really hard. When someone dies you want to bury them in a special way. But this is the law, so we do it," he said. "I am a patriotic man, and if we want to reach zero new [Ebola] cases it's important they keep doing this."

Ebola is at its most virulent in the hours and days after death—a single unsafe burial can infect dozens—making the safe burial policy key to stamping out the stubborn embers of the outbreak. Sierra Leone, where the virus has killed over 3,500 people, is still seeing a handful of new cases each week. The country

has seen 16 cases in the last two weeks, including in Freetown, which was thought to have eradicated the disease.

The rules are simple. All bodies—not just those suspected of carrying Ebola—should be buried within 24 hours by a trained Ebola burial team wearing full protective equipment in an authorized burial ground. Rigid safety precautions are outlined for every step of the procedure.

"Universal safe, dignified medical burials will be conducted on all bodies, nationwide; there are no exceptions," according to the burial guidelines put out by the National Ebola Response Centre, the body in charge of directing the fight against the disease in Sierra Leone. The country remains under a state of emergency, and President Ernest Bai Koroma has been clear that anyone who doesn't comply with the rules will be arrested and charged.

But these rules do not seem to apply to everybody. Since the numbers of new Ebola cases started dropping earlier this year, more and more of Freetown's elite have been burying loved ones as they please.



"It happens every day," said a worker at the main government mortuary in Freetown who preferred to remain anonymous. "If you're just a normal person they tell you no, but if it happens to a minister or a military officer there is always a way to settle it... In Sierra Leone it is usually the people who make the rules who end up breaking them."

He said that in the past two months high profile figures including a member of Parliament, a leading religious figure, the deputy health minister and the mayor of Freetown had all participated in illegal burials.

The mayor, Franklyn Bode Gibson, did not respond to requests for comment, while a spokesman for Madina Rahman, the deputy health minister, said that if Rahman had participated in an unorthodox burial, it was because a body had been flown in from overseas. He insisted any burial the deputy minister had attended had been authorized. According to the director of the NERC's situation room, O.B. Sesay, a high profile Imam was arrested after participating in an illegal burial in eastern Freetown, while the member of parliament, Alie Badara Munu was arrested in June.

On a recent visit to the mortuary, the scene was chaotic. Several bodies lay on the floor under white sheets; one blocked a corridor, forcing visitors to pass in single file. Posters adorning the walls advised visitors, "Don't touch the walls!" as military officers shouted instructions about swab numbers, and told grieving relatives how to skirt the rules for Ebola-safe burials.

As staff in little or no protective equipment lifted a coffin into a waiting hearse, bystanders whispered that "this one was a city councilor" and that there would be plenty of dignitaries at her burial. They said it was the fourth illegal burial of the day.

Using wealth or influence, the bereaved ensure that the body is not taken straight away for burial, but that it is left in the mortuary until the swab results come back to confirm whether or not it is infected with Ebola. If negative, they arrange for a private team to transport the body to the burial ground of their choice.

"Sometimes we wait three days for the results," said the worker at the main government mortuary. "It's dangerous when you don't know which bodies are positive and which are



negative. But we try to keep them apart. Several times we kept the body and it turned out positive."

When I visited the Kingtom Cemetery, a large expanse of grave-studded scrubland on the edge of a smoldering rubbish heap in central Freetown, an illegal burial was underway in broad daylight. Flashy 4x4s crowded the entrance while a small ceremony took place within the cemetery.

The burial team wore a mishmash of protective equipment. Some wore gloves, others aprons, a few rubber boots. One worked in red snakeskin brogues. As soon as the body was deposited in the grave they rushed off, casting the used protective clothing onto the ground as they left.

Officers examine burial permits shortly before arresting a cemetery manager. (Names have been blurred.)

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When questioned about the burials, an elderly cemetery manager in a Chelsea FC soccer shirt produced documents he said validated the



proceedings. It transpired the city council has been issuing burial



permits sanctioned by the Registry of Births and Deaths.

When I visited them on the top floor of a dilapidated tower block in the city center, officials said simply that nobody had told them to stop issuing the permits. As long as a doctor had performed an autopsy, it was "business as usual."

"We don't just do it for anybody, though," added one.

The Red Cross, which leads the Ebola burial operations in Sierra Leone, said the permits were completely illegal. "We bring these complaints to the NERC. It's always coming up in meetings. It's worrying that no action has been taken," said Daniel James, the organization's national supervisor for safe and dignified burials. "All it takes is one or two bad burials and this thing can restart."

O.B. Sisay, the director of the situation room at the NERC, said, "It's been happening for a while now, and it's growing. It's a serious

problem." Swabs are not 100 percent accurate, he says. False negatives happen, so burying a body without full protective measures is still extremely risky.

The illegal burials also threaten the hard-won compliance of the rest of the population.

"Everything that happens outside the system undermines the system. It's fucking up public support. And if we lose the public, we lose the war," Sesay said. "If we can't get on top of this spate of illegal burials by the rich and powerful, we lose the support of the people."

After saying prayers over the newly dug grave of his father at the burial ground outside Freetown, Alieu Mansaray expressed a similar sentiment.

"It makes me sad when these lawmakers and powerful people can just break their own rules," he said. "Even though I'm a hundred percent certain my father did not have Ebola, we came here anyway, because we love our country."

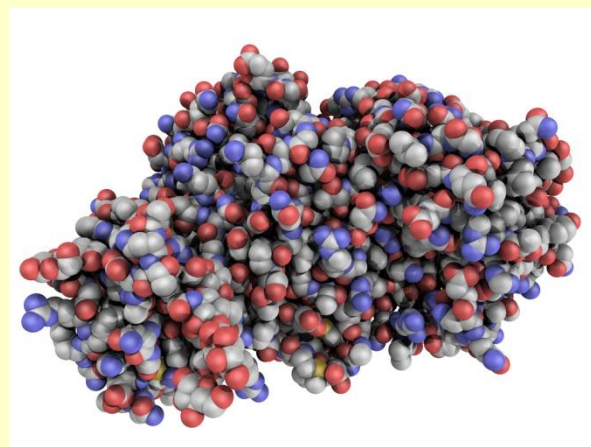
*Tommy Trenchard is a journalist and photographer based in Sierra Leone who writes for the Sunday Times, The Economist and Al Jazeera.*

## WI student sentenced to 40 months in prison for ricin possession

Source: <http://biopreparewatch.com/stories/510624910-wi-student-sentenced-to-40-months-in-prison-for-ricin-possession>

July 01 – Kyle Smith of Oshkosh, Wisconsin, was sentenced to a prison sentence of three years and four months for the possession of ricin on June 26, the Department of Justice announced.

In proceedings, Smith admitted to homicidal thoughts, which were the most likely reason he went to chemistry professors asking about the production process. He states that he had no intention of using



the compound on a person due to many people knowing about his activity.

University of Wisconsin (UW) – Oshkosh police were first notified by professors that Smith had contacted regarding the development of ricin. In the plea agreement, Smith stated that he had grown castor beans and had taken part in the extraction process. Samples were sent to the National Bioforensics Analysis Center of the Department of Homeland Security where it was confirmed to be ricin.

The Oshkosh Police Department, Federal Bureau of

Investigation and the UW Police Department assisted with this case; it was prosecuted by Assistant U.S. Attorney Paul Kanter, within the Eastern District Court of Wisconsin and the National Security Division of the Justice Department.



Ricin toxin is considered to be highly lethal, as it prevents cells in the body from synthesizing important proteins. Symptoms include difficulty breathing, nausea, vomiting and potential death within 36 to 72 hours.

**Ricin is a poison found naturally in castor beans.** If castor beans are chewed and swallowed, the released ricin can cause injury. Ricin can be made from the waste material left over from processing



castor beans. It is a potent protein derived from the beans of the castor plant (*Ricinus communis*). Castor beans are used in the production of castor oil, a brake and hydraulic fluid constituent. The aqueous phase of the process, termed the "waste mash," is 5-10 percent ricin.

Ricin works by getting inside the cells of a person's body and preventing the cells from making the proteins they need, hence, it is often called a toxalbumin. Without the proteins, cells die. Eventually this is harmful to the whole body, and death may

occur. Castor oil does not contain ricin.

Ricin can be in the form of a powder, a mist, or a pellet, or it can be dissolved in water or weak acid. It is a stable substance under normal conditions, but can be inactivated by heat above 80 deg C [176 deg F].

Ricin has been used experimentally in medicine to kill cancer cells.

Effects of ricin poisoning depend on whether ricin was inhaled, ingested, or injected. The major symptoms of ricin poisoning depend on the route of exposure and the dose received, though many organs may be affected in severe cases. Initial symptoms of ricin poisoning by inhalation may occur within 8 hours of exposure.



Following ingestion of ricin, initial symptoms typically occur in less than 6 hours.

**Inhalation:** within a few hours of inhaling significant amounts of ricin, the likely symptoms would be respiratory distress (difficulty breathing), fever, cough, nausea, and tightness in the chest. Heavy sweating may follow as well as fluid is building up in the lungs (pulmonary edema). This would make breathing even more difficult, and the skin might turn blue. Excess fluid in the lungs would be diagnosed by x-ray or by listening to the chest with a stethoscope. Finally, low blood pressure and respiratory failure may occur, leading to death. In cases of known exposure to ricin, people having respiratory symptoms that started within 12 hours of inhaling ricin should seek medical care.

**Ingestion:** if someone swallows a significant amount of ricin, he or she would develop vomiting and diarrhea that may become bloody. Severe dehydration may be the result, followed by low blood pressure. Other signs or symptoms may include hallucinations, seizures, and blood in the urine. Within several days, the person's liver, spleen, and kidneys might stop working, and the person could die. A chronic low level could explain the woman's condition and made it difficult to get an accurate diagnosis.

**Skin and eye exposure:** ricin is unlikely to be absorbed through normal skin. Contact with ricin powders or products may cause redness and pain of the skin and the eyes.

Death from ricin poisoning could take place within 36 to 72 hours of exposure, depending on the route of exposure (inhalation, ingestion, or injection) and the dose received.

If in suspected situations where ricin may have been disseminated, preliminary environmental testing by public health or law enforcement authorities may detect ricin in powders or materials released into the immediate environment. Persons occupying such areas may initially be observed for signs of ricin poisoning.



No widely available, reliable medical test exists to confirm that a person has been exposed to ricin. Because no antidote exists for ricin, the most important factor is avoiding ricin exposure in the 1st place. If exposure cannot be avoided, the most important factor is then getting the ricin off or out of the body as quickly as possible.

Symptomatic ricin poisoning is treated by giving victims supportive medical care to minimize the effects of the poisoning. The types of supportive medical care would depend on several factors, such as the route by which victims were poisoned (that is, whether poisoning was by inhalation, ingestion, or skin or eye exposure). Care could include such measures as helping victims breathe, giving them intravenous fluids (fluids given through a needle inserted into a vein), giving them medications to treat conditions such as seizures and low blood pressure, flushing their stomachs with activated charcoal (if the ricin has been very recently ingested), or washing out their eyes with water if their eyes are irritated.



## A New Paradigm of Injuries From Terrorist Explosions as a Function of Explosion Setting Type

By Rozenfeld, Michael MA; Givon, Adi BSc; Shenhar, Gili MBA; Renert, Liran MPH; Peleg, Kobi PhD, MPH

*Annals of Surgery: Post Author Corrections: July 01, 2015*

Source: [http://journals.lww.com/annalsofsurgery/Abstract/publishahead/A\\_New\\_Paradigm\\_of\\_Injuries\\_From\\_Terrorist.97326.aspx](http://journals.lww.com/annalsofsurgery/Abstract/publishahead/A_New_Paradigm_of_Injuries_From_Terrorist.97326.aspx)

**Objective:** Examine the impact of setting on the magnitude and pattern of civilian injuries from terrorist explosions. This may help surgical staffs anticipate the resources required to treat victims of terrorist attacks.

From the \*Israel National Centre for Trauma and Emergency Research, Gertner Institute, Tel-Hashomer, Israel; and †Tel-Aviv University, Faculty of Medicine, School of Public Health, Tel-Aviv, Israel.

**Disclosure:** This study was partially funded by Unconventional Concepts, Inc. (UCI). The grant was utilized solely for the study effort, without any personal benefits for the authors. The focus, the goals, and the findings of the effort were completely independent and the funding was in no way contingent on the findings. The authors declare no conflicts of interest.

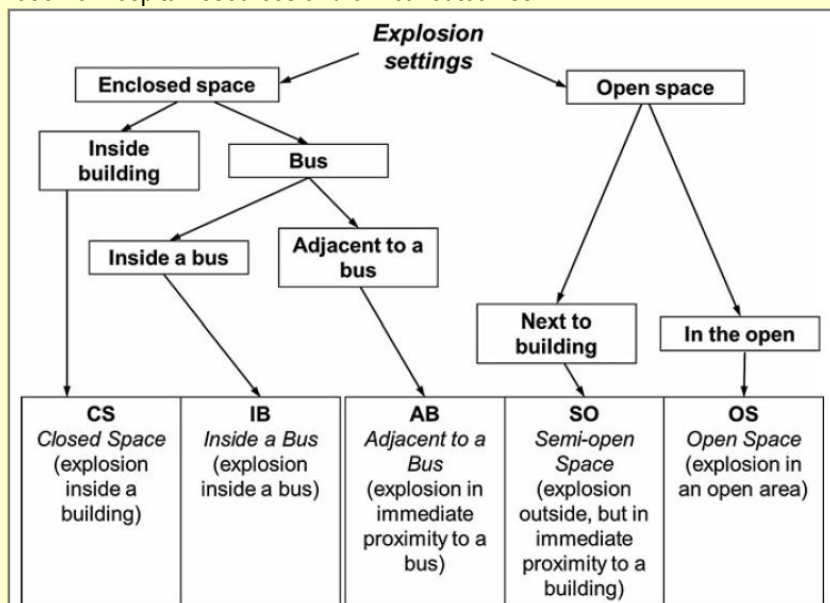
**Methods:** A retrospective study of 823 patients from 65 explosive events of the Second Intifada (2000-2005) in the National Trauma Registry. After verification all the events were divided into 5 categories:

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explosions inside buildings (CS), explosions near buildings (SO), explosions inside buses (IB), explosions near buses (AB), and explosions in an open space (OS). The categories were then compared in terms of sustained injuries, utilization of hospital resources and clinical outcomes.

**Results:** CS and IB scenarios were found to cause the most severe injuries, demanded the most hospital resources and had the worst outcomes, but had several important differences in injury profiles. AB setting proved to be a stand-alone scenario with the lowest severity, possibly due to protection provided to the passengers by the bus. The high volume of blast injuries in SO scenario supports the idea that the explosion wave could be reflected onto the people standing outside a building next to its wall. OS patients had the lowest proportion of blast trauma and burns.

**Conclusions:** The existing taxonomy of terrorist bombings, which distinguishes explosions in open spaces from those occurring in closed environments, does



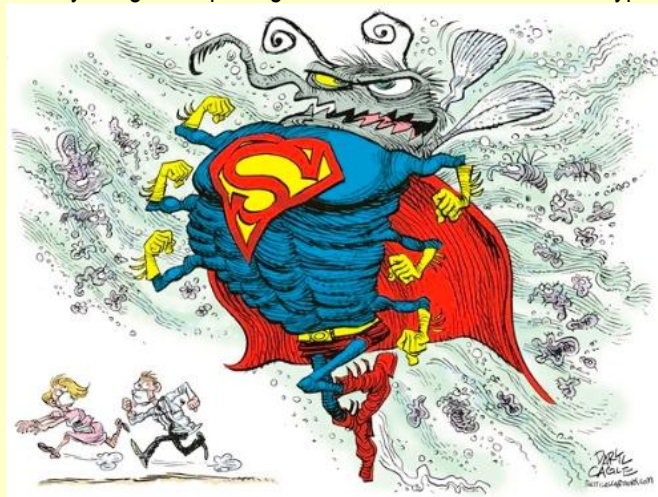


not fully differentiate patterns of injury that follow blasts in intermediate environments. Expanding the framework from 2 categories to 5 appears to provide greater precision and may be clinically useful to health care providers.

## Highly sensitive test to detect and diagnose infectious disease, superbugs

Source: <http://www.homelandsecuritynewswire.com/dr20150707-highly-sensitive-test-to-detect-and-diagnose-infectious-disease-superbugs>

July 07 – **Infectious diseases such as hepatitis C and some of the world's deadliest superbugs — *C. difficile* and MRSA among them — could soon be detected much earlier by a unique diagnostic test**, designed to easily and quickly identify dangerous pathogens.



McMaster University reports that researchers at McMaster University have developed a new way to detect the smallest traces of metabolites, proteins or fragments of DNA. In essence, the new method can pick up any compound that might signal the presence of infectious disease, be it respiratory or gastrointestinal.

“The method we have developed allows us to detect targets at levels that are unprecedented,” says John Brennan, director of McMaster’s Biointerfaces Institute, where the work was done. This new method is described online in the journal *Angewandte Chemie International Edition*.

**“The test has the best sensitivity ever reported for a detection system of this kind — it is as much as 10,000 times more**

**sensitive than other detection systems,”** he says.

Using sophisticated techniques, researchers developed **a molecular device made of DNA that can be switched “on” by a specific molecule of their choice** — such as a certain type of disease indicator or DNA molecule

representing a genome of a virus — an action that leads to a massive, amplified signal which can be easily spotted.

Another important advantage of the new test, say researchers, is that the method does not require complicated equipment so tests can be run at room temperature under ordinary conditions.

“This will be the foundation for us to create future diagnostic tests,” explains Yingfu Li, a professor in the Departments of Biochemistry and Biomedical Sciences, Chemistry and Chemical Biology.

“This invention will allow us to detect anything we might be interested in, bacterial contamination or perhaps a protein molecule that is a cancer marker. Our method can sensitively detect all of them, and it can do so in a relatively short period of time.”

Researchers are currently working to move the test onto a paper surface to create a portable point-of-care test, which would completely eliminate the need for lab instruments, allowing users — family physicians, for example — to run the test.

The Biointerfaces Institute has developed a series of paper-based screening technologies which enable users to generate clear, simple answers that appear on test paper indicating the presence of infection or contamination in people, food or the environment.

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— Read more in Meng Liu et al., “Biosensing by Tandem Reactions of Structure Switching, Nucleolytic Digestion, and DNA Amplification of a DNA Assembly,” *Angewandte Chemie International Edition*, 54, no. 1 (16 June 2015)

## WHO incapable of effective response to Ebola outbreak-like health crises

Source: <http://www.homelandsecuritynewswire.com/dr20150708-who-incapable-of-effective-response-to-ebola-outbreaklike-health-crises>

July 08 – The World Health Organization (WHO) does not have the capacity and internal culture to launch and manage an effective response to an epidemic such as the Ebola outbreak in West Africa, according to a scathing report, which also blames governments for not offering more support for the organization.

The panel of experts writing the WHO-commissioned report was led by Dame Barbara Stocking, a former head of Oxfam.

**The report says the organization was too slow in its response to the Ebola epidemic and that it was under-funded.** More than 11,000 people have died in the latest outbreak of Ebola, which began spreading in late 2013.

The panel stresses that it believes examining the lessons which should be drawn from the response to the Ebola outbreak is a defining moment for the health of the global community. “WHO must reestablish its preeminence as the guardian of global public health; this will require significant changes throughout WHO with the understanding that this includes both the secretariat and the member states.”

The panel says that at each of its three levels, the secretariat must undergo significant transformation in order to better perform its core function of protecting global health. For their part, member states must provide, at their highest political levels, the required political and financial support to WHO. While WHO has already accepted the need for transformation of its organizational culture and delivery, it will need to be held accountable to ensure that this transformation is achieved, the panel notes.

The report says that the Ebola crisis not only exposed organizational failings in the functioning of WHO, but it also demonstrated shortcomings in the International Health Regulations (2005). “If the world is to successfully manage the health threats, especially infectious diseases that can affect us all, then the Regulations need to be

strengthened,” the panel says. “We ask that the full Review Committee under the International Health Regulations (2005) to examine the role of the Regulations in the Ebola outbreak (the IHR Review Committee for Ebola), which follows our Panel, consider and take forward the implementation of our recommendations.”

The panel states that had the recommendations for revision made in 2011 by the Review Committee in relation to Pandemic (H1N1) 2009 been implemented, the global community would have been in a far better position to face the Ebola crisis. “The world simply cannot afford another period of inaction until the next health crisis,” the report says.

### Among the panel’s comments and recommendations:

- “The panel considers that WHO does not currently possess the capacity or organizational culture to deliver a full emergency public health response,” the report says.
- Member states share at least part of the blame for the inadequate response because they have not fulfilled their responsibilities under the WHO’s international health regulations. They are required to collect data and carry out surveillance to pick up infectious disease outbreaks at an early stage but they failed, the report says.
- Other member states violated the regulations by imposing bans on travel to the affected West African nations — Sierra Leone, Liberia, and Guinea. These and other measures “significantly interfered with international travel, causing negative political, economic and social consequences for the affected countries,” the report says.
- The WHO itself is criticized for “significant and unjustifiable delays” in declaring a public health emergency, which



- belatedly fired the starting gun for the international response to Ebola.
- The report says that the general flouting of the rules put in place to keep the world safe from infectious disease cannot continue. "The panel considers this situation, in which the global community does not take seriously its obligations under the international health regulations (2005) – a legally binding document – to be untenable."
  - Organizational and financial issues must be addressed immediately. Less than 25 percent of the WHO's budget comes from core funds contributed by member states and there are no core funds for emergency response. "The longstanding policy of zero nominal growth policy for assessed contributions has dangerously eroded the purchasing power of WHO's resources, further diminishing the organization's emergency capacity," the report says. It recommends a 5 percent increase.
  - There should be incentives for countries to declare an emergency — at the moment many would be unwilling because of the damaging impact on trade and the economy — and disincentives to countries

- imposing travel bans and other measures that interfere with trade.
- There be a WHO center for emergency preparedness and response which can take the lead in avoiding and dealing with outbreaks, overseen by an independent board, and that the independence of WHO's country officers be reinforced.
  - "At country level, the WHO representative must have an independent voice and be assured of the full support of the regional director and the director-general, if challenged by governments," the report says.

"The recommendations outlined by the independent panel should give WHO the mandate it needs to lead the global response to future health crises. The proposal to establish a WHO center for emergency preparedness and response is encouraging," Jeremy Farrar, director of the Wellcome Trust, told the *Guardian*.

"It's essential that this new body is accountable and can show leadership in the face of emerging health threats, with the authority and independence to act quickly when needed. The support of the global community is also crucial if we are to avert another catastrophe on the scale of Ebola."

— [Read more in Report of the Ebola Interim Assessment Panel - July 2015](#)



## How Anthrax Spores Grow in Cultured Human Tissues

Source: [http://www.domesticpreparedness.com/Government/Government\\_Updates/How\\_Anthrax\\_Spores\\_Grow\\_in\\_Cultured\\_Human\\_Tissues/](http://www.domesticpreparedness.com/Government/Government_Updates/How_Anthrax_Spores_Grow_in_Cultured_Human_Tissues/)

Cultured human lung cells infected with a benign version of anthrax spores have yielded insights into how anthrax grows and spreads in exposed people. [The study](#), published in the *Journal of Applied Microbiology*, will help provide credible data for human health related to anthrax exposure and help officials better understand risks related to a potential anthrax attack.

The study also defined for the first time where the spores germinate and shows that the type of cell lines and methods of culturing affect the growth rates.

"What we're learning will help inform the National Biological Threat Risk Assessment — a computer tool being developed by the Department of Homeland Security," said Tim

Straub, a chemical and biological scientist at the Department of Energy's Pacific Northwest National Laboratory. "There is little data to estimate or predict the average number of spores needed to infect someone. By better understanding exposure thresholds, the ultimate goal is to be able to predict outcomes from terrorist incidents involving *Bacillus anthracis*."

**There are decades of data characterizing anthrax exposure in rabbits, but there is limited understanding of how this data extrapolates to humans. When researchers delved into this, working from cultured normal lung cells from each species, they found that, at low doses,**



**the proliferation of anthrax spores is lower in human lung cells.**

It's too early to say what that means for human health, but the study's methods and results may resolve a long-standing debate on the pathogen's propagation. Researchers showed that anthrax spores germinate in the lungs before making their way to the bloodstream.

are at the air/liquid interface as they would be in a living lung," said Josh Powell, a microbiologist at PNNL.

Researchers observed the top layer of cells producing sticky mucus, which traps the anthrax spores. This did not occur with cells completely submerged in the growth medium where the spores just float on top. This suggests that this mucus facilitates germination of the spores into bacteria.

"Byproducts secreted in the mucus by lung cells, in reaction to the anthrax, cause the spore to proliferate very quickly," said Powell. "We don't know what those byproducts are yet, but this is the first time it's been shown that growth rate is impacted by these byproducts secreted by the lungs."

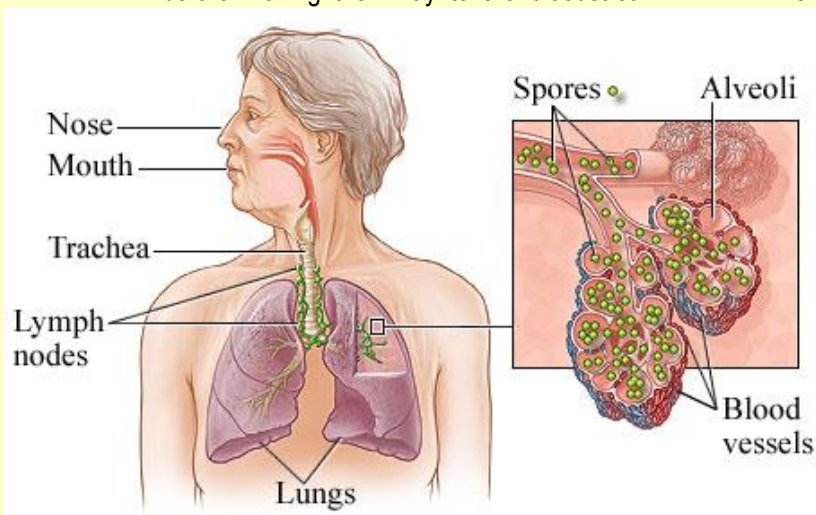
Additional biochemical tests revealed that **nutrients in the standard culture media provide an extra, unnatural fuel that makes spores germinate faster than would likely happen in the natural lung.**

"These findings have implications for how we study pathogens within in vitro cell systems," said Powell. "Understanding the impacts of the methodology ensures we get the best data we can from both species on specific rates of spore intake or dose, clearance, germination and proliferation in a lab setting."

Researchers hope to reproduce this study using the more virulent strain at DHS's National Biodefense Analysis and Countermeasures Center in Frederick, Md., rather than the similar but milder Sterne strain used in this study, which is virtually unable to cause illness in people or animals.

#### Predicting to protect

In the next phase of the project, researchers will put this experimental data into a computational model to more accurately predict outcomes of anthrax exposure. For instance, a model based on primary cell data may calculate how much time doctors have to initiate treatment, how many spores are likely needed to cause disease or mortality in humans, or be able to determine if there is a "safe" level for exposure or a required level of cleanup of a contaminated area.



That has been a point of debate in the research community, with some speculating that spores, which are invisible to the naked eye, must first enter the blood stream and then grow into bacteria that can cause damage and death.

Knowing the precise location and pathway of spore germination and understanding that the bacteria begin producing toxins that damage tissue directly in the lungs may eventually impact treatment options. **The finding also likely indicates added susceptibility in individuals who already have lung issues, such as smokers or those with asthma.**

#### Making conditions real

Most of what researchers know about anthrax comes from studying cancerous lung cells of both humans and rabbits because they are easy to grow in a lab. But cancer cells are very different from normal cells, which are referred to as primary cells.

For this study, PNNL researchers wanted to see if normal cells reacted differently. So, they carefully cultured primary rabbit lung cells on special inserts in petri dishes, coaxing them to form small pieces of 3-D lung tissue about the size of a quarter.

"The cells are fed with nutrients from below and we trick the top layer of cells into thinking they



Once the models are refined with data from the latest experiments, those numbers will be checked against animal data to see if they are indeed predicting outcomes accurately. The models could also potentially speed future drug design.

Researchers hope these fundamental findings and models can be applied to other diseases related to inhaled pathogens, such as the flu or SARS coronavirus. "This is an investment that may eventually help officials triage, treat and influence drug discovery for these lung illnesses," said Powell.

## Biosurveillance: Additional Planning, Oversight, and Coordination Needed to Enhance National Capability

GAO-15-664T: Published: Jul 8, 2015. Publicly Released: Jul 8, 2015.

Source: <http://www.gao.gov/products/GAO-15-664T>

In June 2010, GAO reported that there was neither a comprehensive national strategy nor a designated focal point with the authority and resources to guide development of a national biosurveillance capability. Further, in October 2011, GAO reported that states and local

consider nonfederal capabilities. The White House issued the *National Strategy for Biosurveillance* in July 2012, which describes the U.S. government's approach to strengthening biosurveillance. However, the strategy did not fully respond to the challenges

Department	Component	Surveillance-related responsibilities
Department of Health and Human Services	Centers for Disease Control and Prevention (CDC)	CDC is the lead federal agency for human health surveillance and develops strategies for conducting surveillance of diseases in humans, including coordinating with other agencies to monitor zoonotic diseases, which can be transferred between animals and humans.
Department of Agriculture	Animal and Plant Health Inspection Service (APHIS)	APHIS is responsible for implementing and conducting national measures to detect, control, or eradicate certain livestock and poultry diseases (such as diagnostic testing), including in animals at slaughterhouses, stockyards, or other points of concentration. APHIS is also responsible for emergency response to an economically devastating or highly contagious animal disease—for example, by determining the veterinary and other expertise needed to respond. <sup>a</sup>
Department of Homeland Security	Office of Health Affairs (OHA)	As the lead agency for national biosurveillance coordination, OHA provides medical, public health, and scientific expertise in support of the Department of Homeland Security's mission to prepare for, respond to, and recover from all threats.
Department of the Interior	National Wildlife Health Center (NWHC)	The NWHC, a science center of the United States Geological Survey, was founded in 1975 to provide the technical assistance necessary to identify, control, and prevent wildlife losses from diseases as well as conduct research to understand the impact of diseases on wildlife populations, and devise methods to more effectively manage these disease threats.

Source: GAO analysis and NWHC Strategic Plan | GAO-15-864T

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agencies faced challenges in developing and maintaining their biosurveillance capabilities, such as obtaining resources for an adequate workforce, and that the federal government had not conducted an assessment of state and local jurisdictions' ability to contribute to a national biosurveillance capability. To help ensure the successful implementation of a complex, intergovernmental undertaking, GAO recommended in 2010 that the White House's Homeland Security Council direct the National Security Council Staff to develop a national biosurveillance strategy, and further recommended in 2011 that the strategy

GAO identified. For example, it did not establish a framework to prioritize resource investments or address the need to leverage nonfederal resources. The White House was to issue an implementation plan within 120 days of publishing the strategy. GAO has reported that it is possible that the implementation plan could address issues previously identified, such as resource investment prioritization; however, the plan has not been released as of June 2015.

In August 2011, GAO reported that there was no centralized coordination to oversee federal



agencies' efforts to implement Homeland Security Presidential Directive 9 (HSPD-9) on the nation's food and agriculture defense policy, which includes food and agriculture disease surveillance. GAO also found that the Department of Agriculture (USDA) had no department-wide strategy for implementing its HSPD-9 responsibilities. Therefore, GAO recommended that the National Security Council Staff and the Department of Homeland Security resume their efforts to coordinate and oversee implementation, and that USDA develop a department-wide strategy. In response, the National Security Council Staff began hosting interagency working group meetings, and DHS has worked to develop a report on agencies' HSPD-9 implementation efforts, which officials stated will be finalized by late summer 2015. As of February 2015, USDA had conducted a gap analysis of its HSPD-9 implementation efforts but had not yet developed a department-wide strategy. Further, GAO reported in May 2013 that USDA's Animal and Plant Inspection Service (APHIS) had broadened its previous disease-by-disease surveillance approach to an approach in which the agency monitors the overall health of livestock and poultry, but had not yet integrated this approach into an overall strategy aligned with the nation's larger biosurveillance efforts, such as efforts called for in HSPD-9. GAO recommended that APHIS integrate its new approach into an overall strategy aligned with national homeland security efforts, and develop goals and measures for the new approach. In June 2015, officials stated that APHIS has begun to develop some measures, but noted that resource constraints limit their ability to assess their new approach to disease surveillance.

Fully integrating its new approach into an overall strategy aligned with broader homeland security efforts, as GAO recommended, will better position APHIS to support national efforts to address threats to animal and human health.

#### Why GAO Did This Study

Naturally-occurring infectious disease or the intentional use of a biological agent to inflict harm could have catastrophic consequences. For example, the recent outbreak of naturally-occurring highly pathogenic avian influenza affecting wild birds and poultry in the Midwest and on the Pacific coast presents a serious threat to the economy and trade, and underscores the importance of maintaining effective food and agriculture disease surveillance systems. Biosurveillance aims to detect such events as early as possible and to enhance situational awareness related to human, animal, and plant health.

Since 2010, GAO has issued a number of reports that discuss the importance of effectively conducting biosurveillance across the human, animal, and plant domains. This statement discusses prior GAO reports and the status of recommendations related to (1) federal, state, and local biosurveillance efforts, and (2) efforts related to food and agriculture disease surveillance.

This testimony is based on previous GAO products issued from 2010 through 2013 related to biosurveillance, along with selected updates conducted from November 2014 through June 2015. For these updates, GAO reviewed agency responses and documents provided in response to its recommendation follow-up efforts, such as the July 2012 *National Strategy for Biosurveillance*.

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► Read the study at: <http://www.gao.gov/assets/680/671245.pdf>

## Colorado reports another human tularemia case, this one in Morgan County

Source: <http://outbreaknewstoday.com/colorado-reports-another-human-tularemia-case-this-one-in-morgan-county-37143/>

July 07 – Colorado health officials have reported a human tularemia case that occurred in a Morgan County resident late last week.

This is the 16th human case of “rabbit fever” reported in Colorado since May.

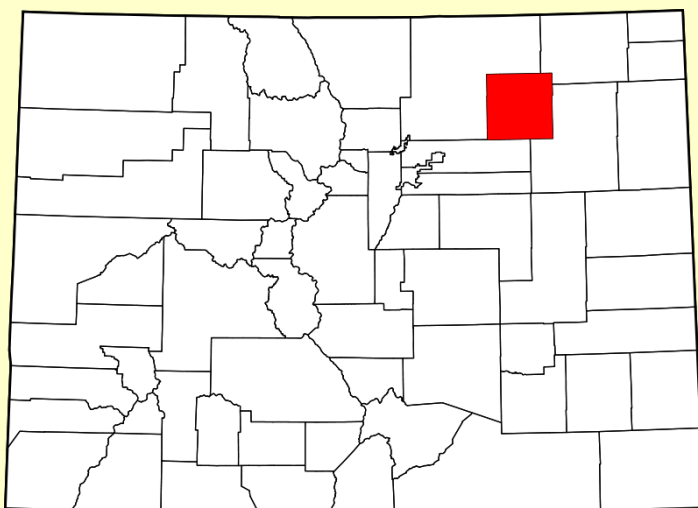


“Although having a human case is not completely surprising, as some of our neighboring counties have already seen human cases this year and a dead beaver has tested positive for tularemia in Morgan County, this disease is a novelty in our area,” said Dr. Tony Cappello, NCHD’s public health director. “Fortunately there are precautions our residents can take to prevent tularemia, and many of those precautions will also help

as rabbits, rodents or hares, bites from ticks or deer flies, or by touching contaminated soil, drinking contaminated water, or inhaling the bacteria. According to the Colorado Department of Public Health and Environment almost all of the cases in Colorado so far this year have resulted from an exposure to soil or vegetation, such as mowing, landscaping, gardening and soil excavation.

Symptoms of tularemia usually appear three to five days after exposure and include sudden fever, chills, headaches, diarrhea, muscle aches, joint pain, dry cough, progressive weakness, pneumonia, chest pain and difficulty breathing. Other symptoms depend on how a person was exposed to the bacteria and can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat. People who have been exposed to the bacteria should be treated as soon as possible because the disease can be fatal if it's not treated with the right antibiotics. Antibiotics

are most effective when the illness is diagnosed early. If you experience flu-like symptoms combined with a swollen lymph node, and have been exposed to a sick or dead animal or have been bitten by ticks or deerflies, see your healthcare provider immediately.



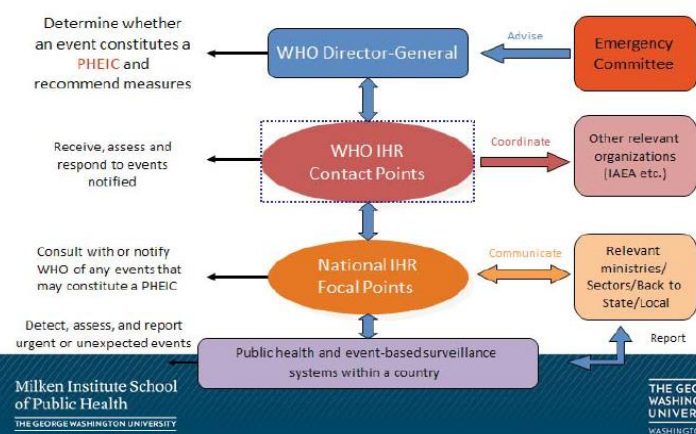
prevent transmission of other animal-borne diseases such as West Nile virus, Hantavirus and plague.”

Tularemia, which is not known to spread from person to person, is a potentially serious illness that occurs naturally in the U.S. Transmission can come from handling infected animals such

## International Infectious Disease Emergencies and Domestic Implications for the Public Health and Health Care Sectors—Workshop in Brief

Source: <http://iom.nationalacademies.org/Reports/2015/International-Infectious-Disease-Emergencies-and-Domestic-Implications-for-the-Public-Health-and-Health-Care-Sectors.aspx>

IHR (2005): Notification and communications flows

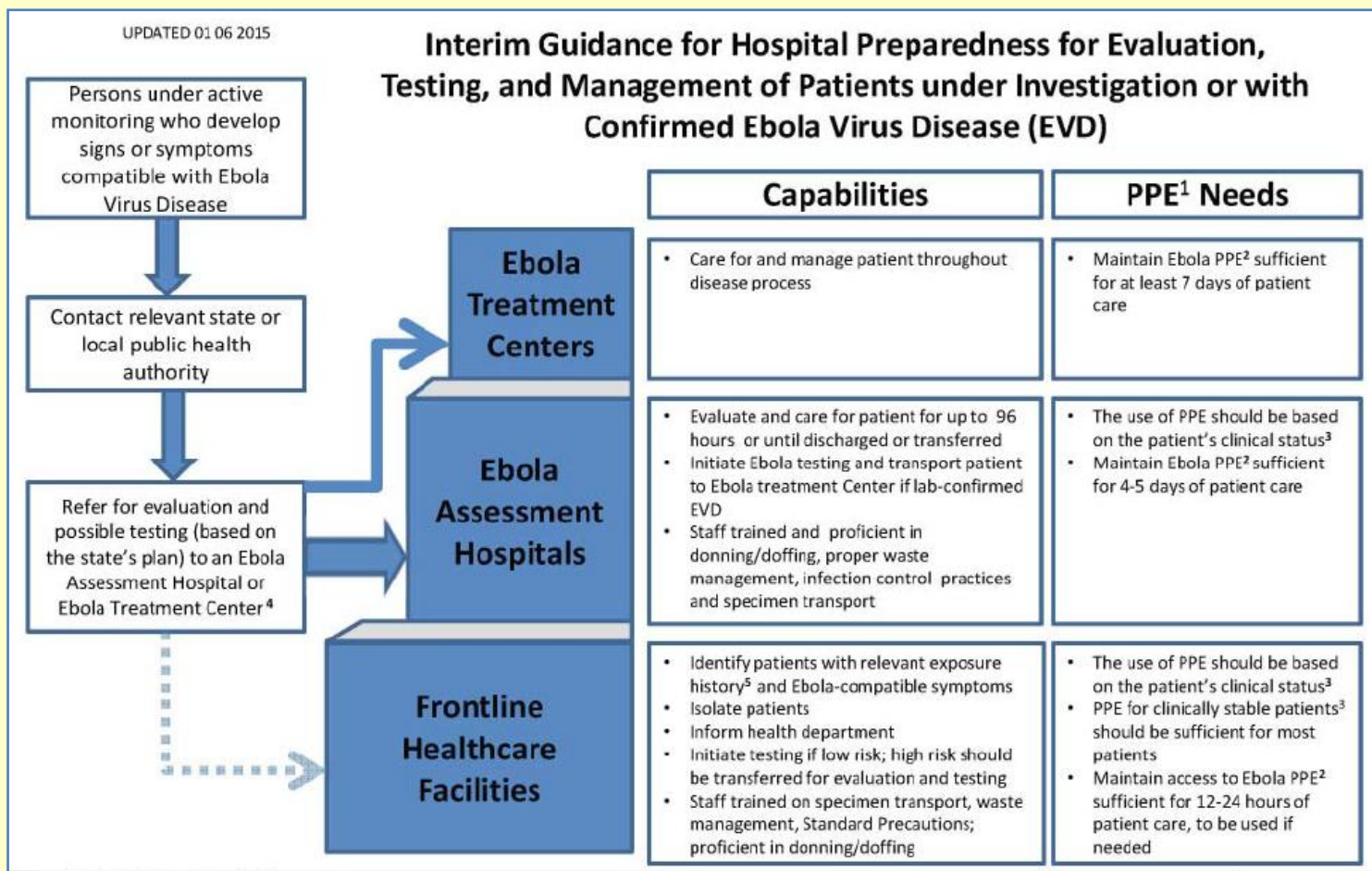


July 07 – Emerging infectious disease events present a threat to U.S. national security, and we need improved efforts to coordinate a response both domestically and with global partners. The most recent outbreak of the Ebola virus disease in West Africa is the largest to date, affecting multiple countries simultaneously and once again bringing the challenges of global health security to the forefront of international preparedness discussions. The Institute of

FIGURE 1 Information flow up to the WHO once a public health event has been deemed reportable through the IHR.



Medicine's (IOM's) Forum on Medical and Public Health Preparedness for Catastrophic Events



organized a session at the 2015 Preparedness Summit to discuss international public health emergencies, such as Ebola, and their corresponding impact on state and local public health and health care systems. After briefing the audience on the World Health Organization's 2005 International Health Regulations (IHR) and the Global Health Security Agenda (GHS) launched in 2014, speakers discussed their experiences during the Ebola outbreak in the United States and as it was unfolding in West Africa. They also discussed remaining challenges and explored ways to effectively respond the next time a public health emergency of international concern (PHEIC) arises.

### Animal diseases can be used as biological weapons

Source: <http://www.health24.com/Lifestyle/Environmental-health/Animals/Animal-diseases-can-be-used-as-biological-weapons-20150710>

The World Health Organisation, animal health and national defence officers recently called for wider international cooperation to avoid the spread of animal diseases that could be used as biological weapons.

#### Animal diseases used as weapons

**Sixty percent of human diseases come from animal agents and 80 percent of the agents that could be used for bio terrorism are of animal origin,** said Bernard Vallat, director general of the World Organisation for Animal Health (OIE).

"History has shown that animal diseases have often been used as weapons before. Advances in genetics can now make them even more harmful. So we are calling for further





investment to be made at national level on bio security," Vallat told reporters at a conference on biological threat reduction.

Diseases have spread from animals to humans for millennia, with latest examples including the bird flu virus that has killed hundreds of people around the globe.

The OIE and the WHO warned that animal disease agents could escape naturally, accidentally but also intentionally from laboratories, to be used as bio weapons.

Earlier during the conference Kenneth Myers, Director of the U.S. Defence Threat Reduction Agency (DTRA), part of the Department of Defence, stressed the need for international collaboration to avoid the loss of biological material.

**Live samples of anthrax**

"Terrorists have clearly shown they will use any weapons at their disposal," Myers said, noting that disease agents are easy to transport and difficult to detect.

Security breaches involving animal diseases are not rare.

The Pentagon said in May and earlier this month the U.S. military had sent live samples of anthrax, which can be used as biological weapon, to five countries and to dozens of U.S. labs.

The conference on biothreat reduction in Paris is the first to gather experts from the OIE, WHO, international police agency Interpol, the United Nations' Food and Agriculture Organization FAO and representatives from the health, security or defence sectors from over 120 countries.

"The aim is to have the same voice on this subject," Vallat said. "International solidarity is key because any country that does not implement standards can be a threat to the entire planet."

**New Mexico reports tularemia in Los Alamos County man**

Source: <http://outbreaknewstoday.com/new-mexico-reports-tularemia-in-los-alamos-county-man-26296/>

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July 13 – New Mexico health officials have reported a case of human tularemia in a 51-year-old man from Los Alamos County. The man was hospitalized but has recovered and gone home. There have also been 33 cases of tularemia this year in pet dogs and cats from Bernalillo, Los Alamos, Santa Fe, Taos, and Torrance Counties.

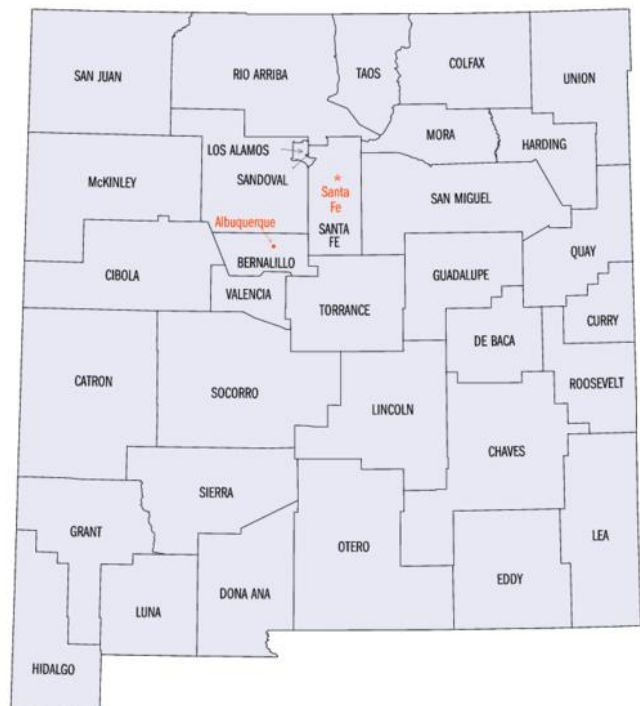
This is the first human tularemia case seen in New Mexico in 2015. In 2014 there were 5 human cases of tularemia recorded in the state.

Physicians who suspect tularemia should promptly collect appropriate specimens (see below) and alert the laboratory to the need for special diagnostic and safety procedures. Rapid diagnostic testing for tularemia is not widely available.

**Growth of *Francisella tularensis* in culture**

is the definitive means of confirming the diagnosis of tularemia. Appropriate specimens include swabs or scrapping of skin lesions, lymph node aspirates or biopsies, pharyngeal washings, sputum specimens, or gastric aspirates, depending on the form of illness. Paradoxically, blood cultures are often negative.

A presumptive **diagnosis** of tularemia may be made through testing of specimens using direct fluorescent antibody, immunohistochemical staining, or PCR. The diagnosis of tularemia can also be established serologically by demonstrating a 4-fold change in specific antibody titers between acute and convalescent sera. Convalescent sera are best



drawn at least 4 weeks after illness onset; hence this method is not useful for clinical management.



## Researchers develop aerosolized vaccine that protects primates against Ebola

Source: <http://www.medicalnewstoday.com/releases/296712.php?tw>

July 14 – A collaborative team from The University of Texas Medical Branch at Galveston and the National Institutes of Health have **developed an inhalable vaccine that protects primates against Ebola.** The findings were recently published in the *Journal of Clinical Investigation*.

Previous studies with primates suggest that aerosols of most biothreat agents, which are particles dispersed in the air, are infectious. Recent studies show that contact with the Ebola virus through the mucus membranes that line the respiratory tract results in infection, suggesting that airway linings may be important portals of entry for the virus. Aerosolized delivery has never before been tested for an Ebola vaccine or any other viral hemorrhagic fever vaccine.

"A needle-free, inhalable vaccine against Ebola presents certain advantages," said lead author Michelle Meyer, UTMB postdoctoral fellow in the department of pathology. "Immunization will not require trained medical personnel."

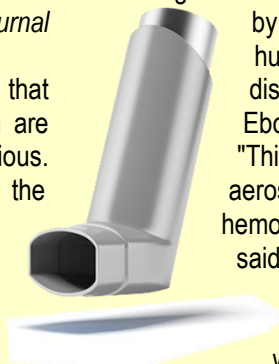
The study characterized the immune responses generated by vaccination against Ebola delivered to the respiratory tract as either an aerosol or liquid. Direct comparisons were

made with an unrelated protective injectable Ebola vaccine. This included detailed comparisons between immune T cell responses in the lungs, spleen and blood. A single vaccination with the aerosol developed by the researchers protected non-human primates against the severe disease and death caused by lethal Ebola infection.

"This study demonstrates successful aerosol vaccination against a viral hemorrhagic fever for the first time," said virologist Alex Bukreyev, UTMB professor and a senior author.

"A single-dose aerosol vaccine would enable both prevention and containment of Ebola infections, in a natural outbreak setting where healthcare infrastructure is lacking or during bioterrorism and biological warfare scenarios."

**The findings of this study provide the basis for advancing this experimental vaccine to an NIH phase I clinical study.** Pending approval through an Investigative New Drug Application, the aerosolized form of the vaccine will be evaluated for replication, safety and immunity development in a study in adults.



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## Kim Jong Un Testing Anthrax On His Own People?

By Gordon G. Chang

Source: <http://www.thedailybeast.com/articles/2015/07/15/kim-jong-un-testing-anthrax-on-his-own-people.html>

July 15 – North Korea on Monday invited every member of the U.S. Congress to inspect the Pyongyang Bio-Technical Institute.

"Come here right now, with all the 535 members of the House of Representatives and the Senate as well as the imbecile secretaries and deputy secretaries of the government who have made their voices hoarse screaming for new sanctions," said a spokesman of the North's National Defense Commission, according to the official Korean Central News Agency.

North Korean leader Kim Jong Un had recently toured the Institute himself; state-run media released photographs of the visit last month. Officially, the facility makes pesticides for farming. But the pictures—as the Center for Nonproliferation Studies' Melissa Hanman noted in a damning and [recently-released report](#)—suggest something far more sinister: a government-run bioweapons factory. In releasing the images, it is possible the



regime intentionally disclosed its ability to make anthrax.

Hanman, writing on the website of John Hopkins University's U.S.-Korea Institute, stated that the photographs from the tour indicate the North had illicitly procured equipment and ingredients. For instance, an image showed fermenters, which are listed by the 42-nation Australia Group as controlled



items that may not be sold to North Korea.

There was also a PH-Series incubator made in China. Beijing, although not a member of the Australia Group, maintains similar controls, including a "catch all" provision banning the sale of items that exporters think might be used to produce weapons of mass destruction.

Moreover, a photograph showed bottles that look like they came from American companies Merck and Sigma-Aldrich. It appears these items were exported to North Korea in violation of U.S. prohibitions on the sale of pharmaceuticals to the Kim regime.

If the photos do indeed reveal these off-limits equipment and ingredients, then the North has been successful in evading sanctions.

Hanman perceptively asked why North Korea would have gone to the trouble of acquiring contraband equipment when it could have bought all the fertilizer it required on the open market for far less. The answer is chilling: Pyongyang wanted the ability to produce "military-sized batches of biological weapons, specifically anthrax."

Ostensibly, the equipment was all acquired to grow *Bacillus thuringiensis* for natural pesticides. But that gear can be sterilized and

then used to make *Bacillus anthracis*. "The bottom line," she writes, "is that regardless of whether the equipment is being used to produce anthrax today, it could in the near future."

In fact, most analysts believe the North had weaponized anthrax long ago. In 2009, for instance, the International Crisis Group issued a widely cited report that included information on Pyongyang's anthrax weapons.

It is not a good sign that, although North Korea is a signatory to the Biological and Toxin Weapons Convention and so has agreed not to develop, produce, or use biological weapons, the Institute that supposedly makes fertilizer is run by Korean People's Army Unit 810.

North Korea released the photographs on the heels of the revelations that the U.S. had accidentally shipped live-anthrax to Osan Air Base in South Korea. Pyongyang has interpreted the development not as a horrible mistake but as an ominous threat. On two days before the release of the pictures, the regime accused the U.S. of "biological warfare schemes."

Of course the North Koreans could have inadvertently revealed their anthrax-making capabilities—they are as capable of incompetence as we are—but it is more likely they wanted analysts like Hanman to study the pictures as a way of reminding Seoul and Washington that they too had stores of deadly germs.

North Korea not only has anthrax and other biological agents on tap, it has almost certainly tested them on its own citizens, especially the deformed and disabled. Im Cheon Yong, a former special operations officer who defected in the 1990s, said he first witnessed a test involving anthrax and chemical weapons in 1984. "For the biological and chemical warfare tests, we needed 'objects.'" he said. "We watched the instructors carrying out the test on humans to show us how a person dies. I saw it with my own eyes."



There have been eyewitness accounts more detailed and gruesome than this. But are they true? "We have had credible witness testimony that human experimentation has occurred, especially on the disabled, but we do not have substantiation yet," Greg Scarlatoiu, executive director of the Committee for Human Rights in North Korea, told The Daily Beast Tuesday. Military analyst Joe Bermudez notes there probably has been "low-level lethal testing of chemical agents on unwilling human subjects" for some time.

Many hope we will see a smoking gun soon. On the same day the regime showed off the Pyongyang Bio-Technical Institute, a 47-year-old scientist known only as Mr. Lee fled his North Korean research center near the Chinese border. He successfully left the country and ended up defecting to Finland. He claims to have carried with him a 15GB storage device with evidence that the Kim regime tested biological weapons on humans. Activist groups are arranging for Lee to present his

evidence to the European Parliament soon, but not everyone is convinced that this defector is the one to finally offer proof. As Scarlatoiu said of Lee, "I'm skeptical."

At the same time, the Security Council is considering referring North Korea to the International Criminal Court for crimes against humanity. That phrase is vague, but testing weapons of mass destruction on humans should qualify. If the Security Council does not vote to send Pyongyang to The Hague—China is blocking the referral—the phrase will have lost all meaning. If Lee, the defector, or someone else can substantiate the human-experimentation claims, North Korea must pay some price for conducting Mengele-like experiments over the course of decades.

The European Parliament—and the rest of the world—await the testimony of Mr. Lee. In the meantime, North Korea has just demonstrated that in a military-run facility it has developed the capability to mass produce anthrax.

*Gordon G. Chang is the author of Nuclear Showdown: North Korea Takes On the World..*

## Multisense Chip

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Source: [http://www.multisense-chip.com/Multisense\\_Chip/Overview.html](http://www.multisense-chip.com/Multisense_Chip/Overview.html)

The aim of the proposed project is the development of a portable analytical instrument to carry out the detection and identification of biological pathogens on the molecular and immunological levels.

This system will be based on a portable instrument plus a lab-on-a-chip as the only consumable. It will not only be able to carry out the detection reactions, namely the PCR and immunoassays, but also the sample enrichment and the extraction of the target molecules from the sample via the implementation of the complete sample preparation on the lab-on-a-chip device.

Detection will be achieved via optical, electro-optical or electrochemical means. All functions following the sample uptake and transfer are integrated on chip. This is to avoid all manual handling steps as well as the need for specially equipped laboratories and trained personnel. This



means a “sample in, result out” system will be at hand for the confident & required detection of multiple pathogens a system that, directly highlighting the analytical results on molecular and immunological levels.

**Targets**

After the first successful stage of concept, the identification of the completing B-agent spectrum will be transferred to the platform:

- Yersinia pestis
- Francisella tularensis
- Burkholderia mallei
- Burkholderia pseudomallei
- Brucella melitensis
- Brucella abortus
- Coxiella burnetii
- Bacillus anthracis

**Blue Ribbon Study Panel: America Needs Improved Leadership and Funding for Biodefense**

Source: <http://www.hstoday.us/single-article/blue-ribbon-study-panel-america-needs-improved-leadership-and-funding-for-biodefense/07980132ae5af910d06506dfa4ada747.html>

July 14 – As the Islamic State (ISIS) continues to expand its influence in Syria—which is known to have a stockpile of chemical weapons—there are real concerns that America could face a chemical or biological attack. In the face of such a danger, the US needs to reorganize its biodefense protocols

**completely unprepared for such an attack.**

The panel held several recent meetings exploring a number of topics, including threat awareness, prevention and protection, surveillance and detection and response and recovery.

Although panel recommendations will not be released until the fall, Asha George, the panel's co-director and one of the authors of the report, told *Homeland Security Today* the panel has arrived at three main conclusions.

**First**, the **government's guidelines on biodefense are scattered and confusing.** According to the panel, there are too many different procedures among too many departments, making a unified response difficult. Although a biological or chemical attack could have devastating consequences, the US lacks coherent policies to deal with such an attack.

“We really need to knit together the bits and pieces of biological defense that we have in the United States, and throughout the world, into a cohesive biodefense strategy,” George said.

**Second**, the panel reached a consensus that the **US needs to devote more funding to biodefense.** Julie Gerberding, former director of the Centers for



and increase funding in order to effectively prepare.

**The post-9/11 Commission's Blue Ribbon Study Panel on Biodefense, which convened from December 2014 to April 2015, determined the nation would be**



Disease Control and Prevention (CDC), told the panel during a meeting on surveillance and detection in March that other priorities have diverted funds from this area. The panel would also like biodefense funds to be used in a more efficient manner: money should be diverted from programs that don't work or are superfluous.

**Lastly**, the panel concluded **there is a lack of leadership in biodefense**. For example, George pointed to the appointment of an Ebola czar by the White House during the Ebola epidemic, when there were already people who could have taken charge during the crisis.

The panel also said the government should lay out clearly-defined roles and responsibilities in case of a future epidemic or terrorist attack, since a leadership vacuum could significantly hinder response efforts.

"If we try to go forward without a leader, without somebody who has a vision for what needs to happen, without somebody who has a good understanding of all the different pieces and parts that should be coming together to establish good biodefense for this country, then we're going to continue to have just what we have, which is a sort of mish-mash of stuff, which seems like it might be doing something, but we're not sure if it is," George said.

The recommendations of the panel are important due to the very real possibility America could face a chemical or biological attack in the near future. Many experts, including the Weapons of Mass Destruction Commission and members of the Intelligence Community, have expressed concern that a terrorist group such as ISIS could get its hands on biological or chemical weapons through Syria. If that happens, the panel believes there's little doubt they would use these weapons against the US.

**Another area of the world the panel is concerned about is Central Asia. Biological weapons from the Cold War that Soviets in the area were working on during that time have since disappeared, raising concerns they still exist and will resurface in the hands of terrorists.**

The panel also examined US preparedness for the spread of an infectious disease in the wake of last year's Ebola outbreak—the deadliest in history. The panel found that the outbreak exposed serious deficiencies in US public

health preparedness, and could have been handled better by having proper protocols in place for the spread of infectious diseases, which require special treatment of patients and handling of specimens. Hospitals must be prepared for what could happen if a deadly or antibiotic resistant disease spread to the United States.

Indeed, *Homeland Security Today* [previously reported](#) that a report on outbreaks of infectious diseases by the Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation found America is radically unprepared for a pandemic such as Ebola, a problem *Homeland Security Today* has repeatedly noted since 2004.

**The report revealed the Ebola outbreak highlighted serious underlying gaps in the country's ability to handle severe infectious disease threats and control their spread.**

Although the country has made significant strides in preparing for public health emergencies since 9/11, competing priorities and initiatives, as well as fewer dollars, significantly challenge national public health preparedness.

"Over the last decade, we have seen dramatic improvements in state and local capacity to respond to outbreaks and emergencies," said TFAH Executive Director Jeffrey Levi. "But we also saw during the recent Ebola outbreak that some of the most basic infectious disease controls failed when tested."

"The Ebola outbreak is a reminder that we cannot afford to let our guard down," Levi added.

*Homeland Security Today* also reported that the Department of Homeland Security (DHS) **has not effectively managed and overseen its inventory of pandemic preparedness supplies, including protective equipment and antiviral drugs**, calling into question the ability of DHS personnel to effectively protect themselves during their respond to a pandemic.

Although the Department of Health and Human Services (HSS) has a grant program to devise an improved response for how to deal with infectious diseases, the panel stated grants are not the solution. Grant programs are slow and it's not enough to just throw money at the problem. "We cannot afford to



establish specific grant programs for every single disease on the planet that we are concerned about," George said.

Former Sen. Joseph Lieberman and the first Secretary of DHS, former Pennsylvania Gov. Tom Ridge, serve as the panel's co-directors. George stated the panel was started by other former government officials who were also involved in biodefense roles. George has worked as a contractor for DHS and HHS. "It was almost an intellectual pursuit," George said. "We thought that nobody had evaluated

the biodefense protections of the United States for a while, and that it was time to do it again."

Although most of the panel's proposals will take a while to implement, George is hopeful that some short-term proposals could be in place within the year.

"Understand that we're talking about an enormous enterprise," George said.

However, she added, "There will be recommendations that should be able to be executed within the following year."

## Multiplex Real-Time PCR to Combat Staph Food Poisoning, Bioterrorism

Source: <https://www.genomeweb.com/pcr/ny-doh-develops-multiplex-real-time-pcr-combat-staph-food-poisoning-bioterrorism>

July 15 – Researchers at the New York State Department of Health's Wadsworth Center have developed a multiplex real-time PCR assay to detect the enterotoxin genes of various *Staphylococcus aureus* strains and enable rapid outbreak detection and control.

The assay, along with a singleplex positive extraction control to detect inhibition, was published online in [Molecular and Cellular Probes](#).

The protocol also includes a modification of the MagNA Pure Compact automated extraction method from Roche that allows improved *S. aureus* detection from stool samples.

**Staphylococcal contamination caused 570 outbreaks of food poisoning between 1998 and 2010, and *Staphylococcus aureus* type B is considered a potential bioterrorism agent.**

Wadsworth Laboratory is New York State's reference lab tasked with responding to these types of public health threats.

"It's important for us to be able to quickly determine the cause of an outbreak of illness so that it doesn't spread throughout the public," Christina Egan, corresponding author on the study and director of the Wadsworth Center Biodefense Laboratory, told GenomeWeb in an interview.

"Our previous methods were based on culturing the agent from different food sources — which could take days — and we really wanted to be able to more rapidly identify a causative agent," she said.

In the literature there are a few assays for *S. aureus* in food, but Egan believes this is the first that combines multiplex real-time PCR with the automated extraction process needed to process larger numbers of samples.

As described, the assay focuses on clinical patient stool samples, but Egan said her group has also validated it in several different types of food matrices.

**The assay detects staphylococcal enterotoxins A through E as well as toxic shock syndrome toxin production genes.**

It also uses a novel enzyme-based pre-lysis extraction paired with Roche MagNA Pure Compact.

"That's really key because we are testing directly from patient specimens and foods and we don't have an incubation step, so we really want to be able to have as efficient a reaction as possible to detect any nucleic acid that's present and has a toxin sequence," Egan said.

**The researchers tested the assay on 47 strains of microorganism, and found 100 percent specificity and a sensitivity of 8 to 20 colony forming units per real time PCR in clinical stool matrix.**

The researchers are not planning to pursue patent protection for this particular assay, Egan said.

"We've published it and made it available so that other public health labs and clinical laboratories can utilize it to



improve their diagnostic capability," she said. However, she noted that the lab is glad to work with companies that are developing diagnostics in this area. "We've done that in the past and that's something that we're always willing to do."

**S. aureus is not represented in the multiplex GI panels that have recently become commercially available, possibly because it is so self-limited**, but Egan noted that "it would be great to develop a panel that includes staph enterotoxin."

Wadsworth houses several regulatory programs, including one that grants permits to both environmental and clinical laboratories, including CLIA certification. It is also involved in development of molecular diagnostics, particularly ones aimed at "testing more agents with less specimen," Egan said.

For example, Wadsworth has collaborated with Columbia University and Northrup Grumman to develop a bioterror agent diagnostic using mass spectrometry. With Akonni Biosystems, Wadsworth has worked on diagnostic viral arrays, including ones for meningitis/encephalitis and influenza, as well as a tuberculosis assay, as previously reported.

**Mass food poisoning and bioterror**

The *Molecular and Cellular Probes* study also notes that the *S. aureus* assay was used to detect an outbreak in New York State.

In that case, attendees of a large event at Chuang Yen Buddhist Monastery in Putnam County consumed tainted food.

After eating at the event, one large contingent from the New York City area then boarded

several buses for a visit to the Monroe-Woodbury outlet mall.

"By the time they got to the mall, many of them were really ill," Egan said. The presence of such a large number of sick people, some of whom could hardly walk according to news coverage from the time, triggered an alert and the county health department was then able to retrieve food from the event. All told, about 150 people became ill, according to another report.

"What was unfortunate was that many of the [food vendors] had traveled from the tri-state area and we think that the food was stored under conditions that allowed Staph enterotoxins to be produced," Egan said.

Deliberate mass food poisoning is also a bioterror that Wadsworth vigilantly monitors, and Staph enterotoxin type B is on the US Centers for Disease Control and Prevention's Bioterrorism agents list.

**S. aureus enterotoxin illness is self-limiting and usually non-fatal, but it could potentially be used to disrupt the food supply, a situation which one study estimates could cost \$30 billion to remedy.**

Although there are a number of known non-terrorist biocrime cases, there have only been two confirmed incidences of terrorist use of biological weapons since 1945.

Egan mentioned that one was the 1984 case of mass food poisoning in Oregon perpetrated by a cult, referred to as the Rajneeshee bioterror attack.

In that incident, salmonella was cultured and then used to contaminate food and condiments at 10 restaurant salad bars. The attack ultimately sickened 751 people, but failed to exert the desired political effect of disrupting a local election.

**Anthrax outbreak in Bulgaria leaves one dead**

Source: <http://news.videonews.us/anthrax-outbreak-in-bulgaria-leaves-one-dead-1828487.html>



July 18 – Health officials in Bulgaria on Saturday launched a large-scale disinfection operation after a man died from anthrax after handling infected beef, local media reported.

The man, identified by the Focus Information Agency as a 53-year-old from the Black Sea's Varna region, is said to have passed meat from the cow to an illegal meat processing factory before dumping the remains at a landfill site.





The infected meat was reportedly sold around Provadia, Karnobat and Varna and the carcass was dumped in Mlada Gvardia, where disinfection was underway, Bulgarian National Radio reported. Health authorities in Varna have put 20 people in quarantine. Sheep and cattle in Mlada Gvardia are also under quarantine.

Anthrax is an infectious disease that can enter the body through skin contact, respiration or ingestion.

**Expert panel slams WHO's poor showing against Ebola**

Source: <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2815%2961253-3/fulltext>

July 13 – Criticism of WHO's response to the west African Ebola crisis spawned an expert review that this week proposed several solutions to restore the agency's performance.



John Maurice reports. WHO suffers from an incapacity “to deliver a full emergency public health response” against a severe epidemic. So concluded a panel of six international health experts in a damning report released on July 7. They prescribed 21 actions aimed at restoring WHO's “pre-eminence as the

guardian of global public health”. The panel was commissioned by WHO Director-General Margaret Chan in response to widespread criticism that WHO had mishandled its response to the west African Ebola epidemic. The panel corroborated many of the criticisms. Chief among them was the “unjustifiable” time it took WHO to declare the outbreak a “public health emergency of international concern”. Chan made this declaration 5 months after the escalating spread of Ebola had become evident. WHO officials claim that the delay in making the official declaration did not affect its operations involving some 100 staff in the field in the early months of the epidemic. WHO's Member States also drew sharp criticism from the panel. Many applied travel bans during the epidemic without WHO authorisation, thereby contravening the International Health Regulations (IHR) and “causing negative political, economic and social consequences for the affected countries”. Perhaps the most damning criticism of WHO came from Médecins sans Frontières (MSF), whose teams were among the first to

arrive at the scene of the outbreak in March, 2014. An [MSF report](#) published in March, 2015, describes how MSF was unable to convince WHO that the epidemic was out of control. “WHO officials”, the report notes, “called us alarmists”.

Four of the panel's recommendations stand out: countries should be given incentives to comply with the IHR and disincentives, such as sanctions, when they flout them; a brand-new WHO Centre for Emergency Preparedness and Response should be created; a contingency fund of US\$100 million to be used solely to finance outbreak responses should be established; and an intermediate trigger should be set up to alert the health community to a health crisis before it becomes an emergency. Asked whether the panel's report meets her concerns, MSF president Joanne Liu tells *The Lancet*: “It has many strong points for us. But how they will translate into real action on the ground” is unclear. Liu is particularly pleased with the panel's call for greater community engagement in epidemic response efforts. “As regards an intermediate alert”, she says, “it should be based on the needs of the affected communities, not just on a perceived security risk for other countries. MSF didn't wait for an official declaration before going into the field.” David Heymann, head and senior fellow at the Centre on Global Health Security in Chatham House, London, wonders whether the panel's recommendations for fundamental changes in the decision-making processes can be implemented. “WHO has a flawed structure and I'm not sure its Member States have the will to change that.” He commends the panel's call for strengthening existing emergency response mechanisms, such as the Global Outbreak Alert and Response Network (GOARN). “This is an agile, sustainable network of epidemiologists, logisticians, and other field-support experts from



WHO Member States. It goes immediately into action to prevent outbreaks from becoming emergencies of international concern and has worked extremely well in previous Ebola outbreaks and in the 2003 SARS epidemic.” He believes that the existence of GOARN, with an added external advisory group, obviates the need for the new WHO emergency response centre proposed by the panel.

Will WHO implement the recommendations? “If it doesn't implement them now”, says Jeremy Farrar, director of the Wellcome Trust, “it will never do so, because the Ebola epidemic has really shocked people and has exposed the structural weaknesses in WHO. Reforming its emergency response capabilities means reducing the bureaucracy and speeding up its capacity to respond. And that means appointing the very best people.” Farrar is enthusiastic about the proposed creation of a new WHO emergency response body. “It should be overseen by an independent board

and needs to be outside the influence of politics and truly independent. It also needs to be given the right authority, the right budget, and the right mandate in order to attract the right leadership.”

Rick Brennan, director of WHO's emergency operations, found the panel's report constructive. “Work has already begun on several of the recommendations, such as increasing staff and funds for emergency operations and integrating our health security and humanitarian work. I'm convinced that we will implement the rest of the recommendations, including the creation of a new WHO health emergency centre.”

**Experts were unanimous on one point made in the report. With 20-30 cases occurring every week, Ebola in West Africa is not over and many eyes are now on WHO's role in ending it.**

## Biodefense Market – Global Industry Analysis, Size, Share, Growth, Trends And Forecast 2015 – 2023

Source: <http://www.medgadget.com/2015/07/biodefense-market-global-industry-analysis-size-share-growth-trends-and-forecast-2015-2023.html>

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July 20 – Biodefense is a measure to combat the potential effects of bioterrorism that utilizes biological agents, or deploys biological weaponry. Bioterrorism is a deliberate release of biological agents such as bacteria, virus, germs or toxins which may be in natural or human modified form, in order to make them more virulent, or to enhance their potential to cause infection, or to make them drug resistant. These biological agents can be transmitted through water, air, food or from person to person. Biodefense is usually utilized in two ways, either as a defense against an attack on a military target or civil population. Defense against an attack on a civilian is largely based on the detection and methods by which casualties and

loss of water or food can be minimized. Biodefense against an attack on military targets is concerned with preparing military personnel ready to respond to bioterrorism

Browse Full Report with TOC @

<http://www.transparencymarketresearch.com/biodefense-market.html>



**Biological agents are classified into three categories on the basis of virulence as given below:**

**Category A (high death rate, contagious and high impact on people)**

- Anthrax, botulism, smallpox, tularemia, bubonic plague, ebola

**Category B (moderately easy to spread and low mortality rate)**

- Brucellosis, glanders, typhus, melioidosis

**Category C (easily produced, easily available, easily disseminated and high mortality rate)**

- Hantavirus, SARS, Nipah Virus, HIV/AIDS and H1N1 virus

**Techniques used for commercial detection and identification of biological threat agents include:**

**Manual Biochemical Tests**

**Automated Biochemical Tests**

**Immunological Detection Devices**

**Solid-support platforms**

- BV technology
- Bio-Detector
- DELFIA

**Lateral flow platforms**

**Nucleic Acid Detection via Quantitative PCR**

- Q-PCR thermocycler platforms
- PCR reagent kits for biothreat agents

**Bioluminescence Detection**

**Biochemical Detection**

Developing technologies for detection of biothreat agent include:

**Immunological Detection**

- Antibodies and fragments
- Aptamers and peptide ligands
- Flow cytometry
- Biochip arrays
- Surface plasmon resonance-based biosensors
- Evanescent-wave biosensors
- Cantilever and acoustic wave
- Quantum dots and upconverting phosphors

**Nucleic Acid Detection**

**Tissue and Cell-Based Detection**

**Chemical and Physical Detection**

The global biodefense market is witnessing an admirable growth due to the disease surveillance mission which has become increasingly important with the fear of bioterrorism. After the attack of September 11, 2001 came the subsequent outbreak of anthrax, spores of which were mailed through the U.S. postal system. These events brought into notice that all levels of government need to focus on improving public health preparedness and to improve the response time for the next disaster. Bioterrorism preparedness funding has enabled the Public Health Services to significantly enhance the reach of its surveillance activities, thus more effectively monitor the community's health. After the incidence, the focus was shifted to the development of tests and procedures to detect and identify bio threat agents. Recent outbreak in the form of Ebola and nuclear crisis in Japan are expected to significantly drive the growth of the biodefense market.

In terms of geography, North America followed by Europe accounted for the largest share of biodefense market due to enhanced lab capabilities, and improved activity for implementing rapid health alert system. Asia Pacific is expected to be a prospective biodefense market due to the rising adoption rate of precise analytical instruments and highly developing biotechnology industry. Moreover, other regions such as the Middle East and Latin America are expected to be the potential market in the near future due to expansion of major biotechnology players in these regions.

Some of the major players in biodefense market are Alnylam Pharmaceuticals, Acambis plc, Dynavax Technologies, Inc, Evogen, Inc., Emergent BioSolutions, Human Genome Sciences, SIGA Technologies, and PharmAthene, Inc.

This research report analyzes this market on the basis of its market segments, major geographies, and current market trends. This report provides comprehensive analysis of



- Market growth drivers
- Factors limiting market growth
- Current market trends
- Market structure
- Market projections for upcoming years

This report is a complete study of current trends in the market, industry growth drivers, and restraints. It provides market projections

for the coming years. It includes analysis of recent developments in technology, Porter's five force model analysis and detailed profiles of top industry players. The report also includes a review of micro and macro factors essential for the existing market players and new entrants along with detailed value chain analysis.

► **Read More Reports on Biotechnology Market:**

<http://www.transparencymarketresearch.com/biotechnology-market-reports-18.html>

## Humans are at risk because of lack of knowledge on animal disease

Source: <http://www.homelandsecuritynewswire.com/dr20150721-humans-are-at-risk-because-of-lack-of-knowledge-on-animal-disease>

July 21 – Researchers from the University of Sydney have painted the most detailed picture to date of major infectious diseases shared between wildlife and livestock, and found a huge gap in knowledge about diseases which could spread to humans.

Published in the *Proceedings of the National Academy of Sciences* (PNAS), **the world-first study has found that just ten diseases account for around 50 percent of all published knowledge on diseases at the wildlife-livestock interface.** It is based on an analysis of almost 16,000 publications spanning the last century.

The University of Sydney reports that in the wake of recent virus outbreaks of wildlife origin, such as Hendra virus in Australia, Ebola virus in West Africa, and Middle East Respiratory Syndrome (MERS) coronavirus in the Arabian Peninsula, more research must focus on this wildlife-livestock interface to evaluate risks and improve responses to disease epidemics in animals and humans, the researchers argue.

"Oftentimes we don't prioritize animal health until it impacts on human health, which means we miss the opportunity to manage diseases at the source," said co-author Dr. Siobhan Mor from the Faculty of Veterinary Science.

"In the case of emerging diseases, we tend to react to large outbreaks of disease in humans, rather than preventing or managing the infection in animals, likely because we still don't know a lot about the role of these microbes in the ecology of wildlife and livestock disease."

Researchers applied new methods only recently used in the animal health realm to identify which diseases and types of animals were most prevalent in available published literature. They measured how research has changed over time and how the diseases and animals involved differ by geographic region.

The results show the bulk of published research over the past century has focused on known zoonoses — diseases that are shared between animals and humans - to the detriment of studies on diseases affecting only animals.

"We know far less about the range of diseases that impact on animal health and welfare. This is particularly true for wildlife, which remains very poorly funded," said co-author Dr. Anke Wiethoelter.

"Paradoxically, this also means we know less about the diseases that could be a precursor to infectious diseases in humans.

"In the case of Hendra virus in Australia, for instance, there are still big question marks around how the virus is transmitted between bats and horses, and factors influencing its transmission. And we now know that bats can harbor many germs, but the research investment into wildlife disease ecology simply isn't there."

The study also revealed strong links between publication rates, media coverage and funding levels for certain diseases. Two diseases in particular - avian influenza and bovine tuberculosis — were found



to have a strong association between frequency of publication, media attention and funding levels, highlighting social and political influences on available research.

— *Read more in Anke K. Wiethoelter et al., "Global trends in infectious diseases at the wildlife–livestock interface," [Proceedings of the National Academy of Sciences](#) (17 June 2015).*

### Key protein pathways critical to Ebola virus can be blocked, according to new study

Source: <http://www.medicalnewstoday.com/articles/296939.php?tw>

Scientists have successfully blocked the Ebola infection in cell-culture experiments, in a critical early step to develop a vaccine for the life-threatening virus.

The Ebola virus epidemic in West Africa, the



largest in history, still remains in the news today. First reported in December 2013, the CDC estimates 27,678 cases of infections with the total death count at 11,276.

Although the World Health Organization recently declared Liberia to be 'free of Ebola', the deadly disease is still rife in parts of Africa. Recent analysis has stated that global aid in response to the threat has "fallen short." There are many vaccines currently being tested, although none at this time are available for clinical use. However, scientists may have now discovered a critical early step in the development of a vaccine.

The findings, published in the journal *Drug Discovery Research*, saw researchers at the University of Texas Medical Branch (UTMB) at Galveston, TX, take a new approach to tackling the life-threatening virus.

By using powerful computational and analytical techniques, researchers chose to focus more on the host cell than the virus. Lead author Prof. Robert Davey explains:

"The premise for this work is that the virus is essentially nothing without a cell. It needs to

"Public interest comes and goes, but without sustained investments, research on this important interface suffers," said Dr. Mor.

rely on many cell proteins and factors for it to replicate. The idea is that if we can suppress the expression of those cell proteins for just a short time, we can then stop the disease in its tracks."

To identify the critical proteins, researchers conducted large-scale screening experiments using sets of cells treated with a small interfering Ribonucleic acid (siRNA), a tool commonly used to induce the silencing of a specific protein gene.

Researchers identified 735 different genes that might produce proteins critical for the Ebola infection. They then added a "pseudo-type" Ebola virus - artificially created virus particles made by wrapping Ebola envelope proteins around a core of genetic material from another virus.

This creates a virus that behaves like Ebola but is not strong enough to be harmful, and is, therefore, safe to test.

Prof. Davey explains the challenges the researchers encountered: "We got a number of hits, quite a lot of places where the virus wasn't infecting the cells. The problem was then to understand what those hits meant."

### Two critical biochemical reactions identified

To understand the influx of this new data, researchers used a newly developed statistical algorithm designed especially to prioritize the results of siRNA screens.

Further computational analysis was utilized and scientists discovered two networks of biochemical reactions that seemed particularly critical for the virus to enter the cells - the PI3 kinase pathway and the CAMK2 pathway.

There are drugs currently available to block both pathways and researchers decided to press



on to see if they would interfere with the Ebola infection of cells. They tested both the virus pseudo-types and the Ebola Zaire virus. The latter is associated with particularly high mortality rates and was only tested in strict laboratory conditions to ensure maximum containment.

**Researchers found that virus titers for the real Ebola virus dropped by 65% when the PI3 kinase inhibitor was stopped. Even more promising was that when the CAMK2 function was blocked, the Ebola virus "stopped dead".**



Prof. Davey believes the developments show "a lot of potential for future pharmaceutical exploitation."

## **The e-bola lesson: The first educational movie for healthcare professionals**

Source: <http://www.medicalnewstoday.com/releases/296893.php?tw>

In the face of the threat posed by Ebola and similar pandemics, the world seems to have learnt the lesson. The institutional round table organised by the Ministry of Health and similar events around the world underscore the need for coordinated global standards in the field of distance training for health professionals. Faced with an emergency, the system failed, revealing all its critical aspects and potential flaws and demonstrating the need for homogenous information and training of citizens and health professionals alike. Innovative training tools are needed. This why we are introducing the "training film"- what we call "Distance Education" 3.0.

**"e-bola" is the first film ever to mix cinema and training, with the aim of using the "virality" of a story -common, real, global - to explain the threat posed by the "virality" of diseases such as Ebola.** Consulcesi Club is proud to present a unique audio-visual tool: a captivating and dramatic feature-length film shot in English with the scientific advice of world-class doctors and institutions - such as the "Lazzaro Spallanzani" National Institute for Infectious Diseases and the "Sapienza" University in Rome - that have dealt with the virus first-hand. "e-bola" is the first example of a series of "training films" that will all be viewable online for free, as an innovative and crucial form of "fresher training" for health professionals worldwide. The project, which will be presented during the round table sponsored

by the Ministry of Health, aims to create a global coordination system for distance education, to better face present and future health emergencies, in cooperation with Italian and international institutions.

Ebola - says Consulcesi Group CEO Massimo Tortorella - is the first subject of a completely new form of "fresher training". With this film we aim to form health professionals while informing the public at the same time. How? By looking not just at the scientific side of the problem, but also at the tragically true human stories behind it. We have chosen to begin with Ebola because it's the worst epidemic of the 21st century. It's been around for 40 years and we still haven't found a way of eradicating it. The two cases registered in Italy show the dangers to which the health personnel fighting the virus on the frontline is exposed. Information and training are the best weapons they can count on. The aim of "e-bola" is to offer doctors working on the frontline the best tools to deal with the virus and prevent contagion. The fact that the entire Consulcesi Club project is free makes it all the more important.

In the film, a group of young research - members of an elite task force hailing from different European, American and Asian countries - are united by a single objective: to defeat the common enemy, Ebola, a lethal virus first discovered in Sudan

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and Congo in 1976 which is responsible for more than 27,000 contagions and 11,000 deaths. It is a viral infection that is easily transmitted through blood or body fluids. Through the work of this young team, "e-bola" tells the story of a disease that is by its very nature borderless and supranational, and which affects all human being with no distinction.

It wasn't easy - says the director Christian Marazziti - to write a story based on scientific facts. You always risk becoming too didactic and losing the narrative tension. Cinema and science have always gone hand in hand - the trick is striking the right balance. Which in this case meant telling a gripping story while conveying objective scientific and technical data.

The cinematographic language thus becomes a training and formation tool capable of raising the awareness of citizens and health professionals alike, all across the world. Thanks to the advice of world-class infectologists, the film is scientifically rigorous to point of being also of educational value. The film is supplemented by the "training pills" that contain the actual course approved by AGENAS (National Agency for Regional Health Services), the public institution in charge of supporting the Italian Ministry of Health in the area of Continuing Medical Education (CME), which health professional are obliged to under go by law. An innovative methodology that thanks to Consulcesi Club will soon be available worldwide for free, and is already available in France and the United States.

► The Ebola training film can be viewed at: [www.ebola-movie.com](http://www.ebola-movie.com).

## Phase 2 study of the Ebola prime-boost vaccine regimen combining MVA-BN Filo and Advac technology initiated

Source: <http://www.medicalnewstoday.com/releases/296822.php?tw>

Bavarian Nordic A/S has announced that the Oxford Vaccines Group has initiated a Phase 2 clinical study of the Ebola prime-boost vaccine regimen that combines Bavarian Nordic's MVA-BN® Filo vaccine with the Ad26.ZEBOV vaccine from the Janssen Pharmaceutical Companies of Johnson & Johnson (Janssen). The first volunteers have received their initial vaccine dose.

Preliminary data from the first-in-human Phase 1 study, presented by Janssen in May to a U.S. Food & Drug Administration Advisory Committee, indicated that the prime-boost vaccine regimen is immunogenic, regardless of the order of vaccine administration, and only provoked temporary reactions normally expected from vaccination.

The Phase 2 study, to take place in the UK and France, is a randomized, placebo-controlled, multicenter trial evaluating the safety, tolerability and immunogenicity of the heterologous prime-boost regimen (Ad26.ZEBOV and MVA-BN-Filo) sponsored by Crucell Holland B.V., one of the Janssen Pharmaceutical Companies.

The study is part of the EBOVAC2 project, a collaborative program involving The University

of Oxford, French Institute of Health and Medical Research (Inserm), London School of Hygiene & Tropical Medicine (LSHTM), La Centre Muraz (CM), Inserm Transfert (IT) and Janssen. The Innovative Medicines Initiative 2 Joint Undertaking is under grant agreement EBOVAC2 (grant no. 115861), part of the Ebola+ program launched in response to the Ebola virus disease outbreak.

The UK study site is led by the Oxford Vaccines Group, part of the University of Oxford, Department of Paediatrics. Additional sites in France will be coordinated by Inserm once all necessary approvals are received. In total, the studies will enroll 612 healthy adult volunteers in United Kingdom and France, who will be randomized into three cohorts, all receiving the Ad26.ZEBOV prime or placebo on day 1 and then the MVA-BN-Filo boost or placebo on days 29, 57 or 85. More information on the trial can be found at <http://www.clinicaltrials.gov/ct2/show/NCT02416453>.

A second Phase 2 study in 1,200 volunteers is planned to be initiated in Africa during third quarter of 2015.

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Paul Chaplin, President & Chief Executive Officer of Bavarian Nordic, said: "We are pleased to report further progress in the clinical development of the prime-boost Ebola vaccine regimen which is being led by our partner Janssen. Vaccines play an essential role in outbreak situations, and both the clinical and the manufacturing experience we gain through this accelerated development represent an important piece of work in the combined efforts to ensure preparedness against Ebola, now and in the future."

This Innovative Medicines Initiative 2 Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA.

#### **About MVA-BN Filo**

MVA-BN Filo is a multivalent vaccine candidate designed to protect against Ebola Zaire, Ebola Sudan and Marburg viruses. The vaccine candidate was originally developed in collaboration with the U.S. National Institute of

Allergy and Infectious Diseases, part of the U.S. National Institutes of Health (NIH).

In October 2014, Bavarian Nordic entered into a global license and a supply agreement for its MVA-BN Filo candidate vaccine with Crucell Holland B.V., one of the Janssen Pharmaceutical Companies of Johnson & Johnson. This was part of an overall commitment made by Johnson & Johnson to accelerate and significantly expand the production of the preventative Ebola vaccine program in development at its Janssen Pharmaceutical Companies.

Preclinical studies conducted by the NIH of a prime-boost vaccination regimen consisting of MVA-BN Filo and Janssen's Ad26.ZEBOV vaccine resulted in complete protection from death due to Ebola was achieved against the Kikwit Zaire strain, which is similar to the virus that is the cause of the current epidemic in West Africa. Each of the vaccine components is a proven technology that has previously been evaluated for immunogenicity and safety when used in humans for other applications.

## **HHS launches first compendium of resources for health emergencies**

Source: <http://www.homelandsecuritynewswire.com/dr20150722-hhs-launches-first-compendium-of-resources-for-health-emergencies>

July 22 – The U.S. Department of Health and Human Services last week launched the first online collection of the federal resources and capabilities available to mitigate the health impacts of emergencies.

The HHS Office of the Assistant Secretary for Preparedness and Response (ASPR) sponsored the [HHS Response and Recovery Resources Compendium](#) to aid state, tribal, territorial, and local officials in health and emergency management as they guide communities in responding to and recovering from disasters.

"HHS and our federal partners offer an array of products and services to support communities in emergency situations, but sometimes finding what's available and how to access those resources can be challenging," explained Dr. Nicole Lurie, HHS assistant secretary for preparedness and response. "With the compendium our partners know what resources they can count on when they need it most and, importantly, how to request them."

The compendium offers an easy-to-navigate, comprehensive, Web-based repository of HHS products, services, and capabilities available to state, state, tribal, territorial, and local agencies before, during, and after public health and medical incidents. The information spans twenty-four categories, and each category showcases the relevant disaster resources available from HHS and partner agencies, a brief description of each resource and information on accessing each one.





The screenshot shows the 'Public Health Emergency' website. The header includes the logo and the text 'Public Health and Medical Emergency Support for a Nation Prepared'. Below the header is a navigation bar with 'PHE Home > Public Health Emergency Preparedness and Recovery Home > HHS Capabilities' and a search box. The main content area is titled 'HHS Response and Recovery Resources Compendium'. A paragraph describes the project as a comprehensive web-based repository of HHS resources and capabilities. To the right, there are two sidebars: 'Related Resources' with links to ASPR TRACIE, Ready.gov, FEMA Response and Recovery, CDC Emergency, and DisasterAssistance.gov; and 'Contact Us' with the email address Disastercompendium@hhs.gov. The main content is organized into six categories, each with an icon, a brief description, and a 'View All >>' link: 1. Situational Awareness: Information for public health and medical topics. 2. Public Health Surveillance: Monitoring health of general and special medical needs. 3. Medical Care Personnel: Clinical public health and medical care specialists. 4. Medical Equipment & Supplies: Equipment, supplies, diagnostic supplies, radiation detecting devices, and countermeasures. 5. Patient Movement: Capabilities to transport seriously ill patients and special medical needs populations. 6. Hospital Care: Pre-hospital triage and treatment and inpatient hospital care.

Categories range from patient movement to hospital care and from situational awareness to decontamination. Resources include platforms such as [GeoHEALTH](#) and the [HHS emPOWER Map](#) that use Geographic Information System capabilities to support health response as well as consultation services, such as emergency planning, disease surveillance and tracking, and food, drug, and device safety.

Resources also include personnel, such as medical staff from the U.S. Public Health Service and National Disaster Medical System who can deploy to communities to augment local hospital, shelter or public health staff.

HHS says that the compendium will be updated regularly and expanded as federal agencies add products, capabilities, and services to help communities prepare for, respond to, and recover from the health impacts of disasters.

ASPR says its mission is to lead HHS in preparing the nation to respond to and recover from adverse health effects of emergencies, supporting communities' ability to withstand adversity, strengthening health and response systems, and enhancing national health security.





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