# JOURNAL OF CIVIL DEFENSE

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**Inside This Issue:**



## How Amateurs Accomplish the Impossible During Disasters

***by Ron Hashiro, AH6RH***

The media is full of summary reports of how amateur radio operators responding to disasters seem to overcome insurmountable obstacles and accomplish their mission of getting the message through to the destination. Ever wondered why an amateur radio operator has a better chance of getting through when "high technology" radio systems fail?

The answer is very simple. TEAMWORK! As a resource within the community, amateur radio operators are bonded by a brotherhood (sisterhood?) that is as simple as the beginning of time...we look out for one another and extend a helping hand in times of dire need.

During a disaster, dozens of amateurs will scan the bands looking for signs of a signal from the handful of hams trapped at the affected scene. When such a signal is found, every resource from outside the affected area will be brought to bear on the signal to establish reliable contact. High-powered amplifiers, directional antennas, sensitive receivers and cross-band radios are just a few of the techniques that hams use to establish and build that reliable contact, conserving precious emergency power for the hams stuck at the disaster scene.

All of this outside teamwork can be thwarted if you and your station are less than par. Good communications are as strong as the weakest link, and as the one operating under less than ideal conditions, it is possible that you may wind up as the vital station holding the weakest link. Taking time to stock a few provisions and building up some operator skills will go a long way in performing your end of an "impossible miracle".

***1.*** Make sure you have spare antennas, coax and connector adapters to build or rebuild your station. Even something as inexpensive and unexciting as a J-pole made from 300 ohm TV feeder ladder line will blow away the lame duck performance from any rubber ducky antenna. A ribbon J-pole rolls up nicely into a sandwich bag to put in your backpack, yet can be taped up against a glass window for maximum VHF or UHF performance.

***2.*** Take the time to arrange for emergency power. Marine, wheelchair or RV batteries are favorites for powering 12-volt transceivers but are common enough to be low in cost, compared to other emergency power systems.

***(cont'd)***
***3.*** Stock up on alkaline batteries. As hurricane season approaches, be stocked up on alkalines, especially AA and D cells. They are surprisingly cheap at the large discounters such as Sam's Club or Costco. Try to standardize the battery appliances in your home to use either of these two types to get the most for your money.

***4.*** Get an SWR meter or an antenna analyzer. It's hard to transmit full power into an antenna if it isn't a good match. It's best to find out and correct it before you go on the air than to risk damaging your RF finals.

***5.*** Practice your message passing and NCS skills. It's been shown time and time again that a new operator will often need about five net sessions to feel comfortable as a radio operator handling messages. There's a certain rhythm to handling messages or being an NCS. Like learning to ride a bike or play a musical instrument, it's one of these skills that can only be mastered by participation and interaction.

Take advantage of the EARC nightly net to practice running a net as an NCS. It's better to be proficient before an emergency than to pressure out and grow weary as the emergency unfolds. Don't worry about sounding less than 100% when you get started. We've all got started at sometime and each one of us didn't sound polished on day one. So don't sweat this detail. Give the Net manager a call and sign up.

***6.*** If you've been hemming and hawing about buying a fifty watt VHF or dual-band mobile, here's a good reason to "go for it". Much of the local communications work during an emergency will be done via simplex work. To be effective from the disaster scene, a mobile with fifty watts will perform much better on simplex overcoming the terrain than a walkie that puts out one to five watts. Here's the perfect excuse (er...reason) to convince your spouse that you really need to bring out the credit card. After all, you are being proactive about the safety and well-being of your family and your neighborhood, of course...

As you can see, it doesn't take much to tip the odds in your favor. Take an assessment of your situation, make a checklist and promise yourself that by the end of the month you'll have these simple things underway. With five NCS sessions under your belt and a few items tucked away you'll feel much better the next time you hear the civil defense sirens sound that you can accomplish "the impossible" rather than be struck with fear and frustration.

***Don't delay. Start today!***

# [CIVIL DEFENSE NEWS & OPINIONS]

## Flights Cancelled Over Al Qaeda Attack Fears

LONDON (Reuters) - Airlines grounded a domestic U.S. flight and several transatlantic flights on Sunday amid reports U.S. officials had intelligence suggesting AL Qaeda may be planning a chemical or biological attack on an aircraft.

Three intelligence officials told the Washington Post the possible threats included releasing a biological agent like smallpox or anthrax on a plane so those aboard would spread the infection without knowing it.

British Airways, Air France and Continental Airlines said on Saturday they had cancelled several transatlantic flights scheduled for Sunday and Monday citing security concerns.

Continental Airlines also scrapped a flight on Sunday from Washington to Houston, site of the Super Bowl football championship, which draws one of the biggest TV audiences of the year in the United States.

A Homeland Security spokeswoman said the airline cancelled Flight 1519 after the department recommended security measures in light of an unspecified threat. She said there was no intelligence suggesting a threat to the Super Bowl.

"The threat to this flight was similar to the type of information we had about the British Airways and Air France flights," the spokeswoman said, without elaborating.

A grounded BA London-Washington flight was the same service cancelled several times in January because of security worries. "There are a handful of flights we are concerned about, and British Airways has cancelled about half of them," a U.S. official said, on condition of anonymity.

"We have received threat reporting that indicates AL Qaeda's desire to target these particular flights."

Al Qaeda is held responsible for the September 11, 2001, attacks on the United States involving four hijacked commercial planes. About 3,000 people were killed in those attacks.

U.S. Homeland Security Secretary Tom Ridge has said the U.S. government consistently receives intelligence that AL Qaeda is still interested in using aircraft for attacks.

INTELLIGENCE VAGUE

The Washington Post cited intelligence officials as saying attackers could try to hijack a plane by releasing a chemical agent to incapacitate the crew and passengers or smuggle a radiological device in luggage.

The newspaper said the intelligence on a possible attack with a weapon of mass destruction was vague.
U.S. officials demanded enhanced security precautions that some airlines were unable to take, so "it became easier to just cancel the flights," an administration official told the Post.

Senator Jay Rockefeller, a senior Democrat on the Senate intelligence panel, said it was difficult to counter the threat of chemical or biological weapons smuggled onto planes.
"That's partly the problem of not checking cargo, and it's partly the problem of biological weapons, which nobody has figured out really what to do about yet," he told Fox News.

"Nobody has any idea about what to do about them on an airplane or on the ground."

Among the flights cancelled was Continental's Sunday flight from Glasgow to Newark and an Air France flight from Paris to Washington Sunday and Monday. Sunday's BA207 flight from London to Miami was also cancelled.

In December, Washington raised its terror alert to the second-highest level and asked British Airways and Air France to cancel several U.S. bound flights.

U.S. authorities also asked foreign airlines to put armed marshals on some flights. Some EU countries oppose the sky marshals but France and Britain said they were ready to accept them in some cases.

***Source: http://news.findlaw.com/***

## Cell Phone Guns - The Latest Threat to Airport Security?

The latest threat that airport security officials have to deal with is guns that look like cell phones, Time reports in its Feb. 2 issue.

In recent months, cell-phone guns have been named in several federal security alerts. While they look like actual mobile phones, the hollowed-out devices can fire four .22-caliber bullets in rapid succession simply by punching buttons on the keypad.

A number of the cell-phone guns, which are made in Croatia, have been seized recently in drug raids in the Netherlands, England and Germany.
U.S. airport security officials said cell phone guns haven't turned up in the country as of yet. If they do, current screening equipment is capable of detecting them, as well as other explosives that resemble fake gadgets, such as calculators, cameras, laptops, and PDAs.

## New Building Science Guidelines to Enhance Terrorism Resistance

The Department of Homeland Security has announced the release of four new publications in the Multi-Hazard Risk Management Series developed by the Federal Emergency Management Agency (FEMA). The publications contain guidance on designing, constructing, and engineering high occupancy buildings that are more resistant to damage resulting from terrorist attack.

The purpose of the publications is to make communities aware of science and technology that can be applied to protect people and critical infrastructure from the affects of terrorist attacks on high occupancy buildings.

An outreach campaign is underway that will promote use of these materials by members of the current and future emergency management and building science professional communities. In addition, each document will be promoted to additional key audiences with unique interest in the subject matter. The primary users for these publications are public policy officials at all levels, emergency managers, facility owners and managers, architects, and building construction professionals.

In addition to current practitioners in these fields, FEMA is strongly encouraging use of these publications at colleges, universities, and professional organizations that educate and train the practitioners of the future.

***Access the free documents online at http://www.fema.gov/fima/rmsp.shtm.***

# [FOCUS ON EMERGENCY MANAGEMENT & PUBLIC SAFETY]

## The Civil Defense Legacy

***By William R. Cumming***
***(The Vacation Lane Group)***

With completion of the first fifteen months since the signing of the Homeland Security Act of 2002, Public Law 107-296 (November 25, 2002) it becomes timely to assess whether the legacy of the civil defense programs, functions, and activities stimulated by the enactment of the Federal Civil Defense Act, Public Law 81-920, in the early 1950's has continued to impact current homeland security thinking. It is also important to understand the legacy in order to be able to capture what is and is not useful in the long-term struggle against terrorism and prevention and threats of employment of weapons of mass destruction. It must be remembered that the perceived greatest threat during the life of the FCDA was strategic nuclear attack as opposed to WMD threats or employment by terrorists. It is argued, however, that some of the programs, functions, and activities of the civil defense structure and its research have value in the new milieu. It might even make for greater clarity of both administration and public perceptions if the current organizational title of the Federal Emergency Management Agency (FEMA) as it exists in the Department of Homeland Security (DHS) namely the Emergency Preparedness and Response Directorate be renamed the Civil Defense Directorate.

First, from the standpoint of personnel and organization, no current leadership either in DHS or elsewhere exists that served in an appointee or civil service capacity in those programs, functions, or activities authorized and appropriated pursuant to Public Law 81-920. Why? The Civil Defense programs, functions and activities were housed in the Department of the Army until 1972 when the Defense Civil Preparedness Agency became an independent civil agency within the Pentagon reporting to the Secretary of Defense as opposed to the Secretary of the Army. Rather than strengthening the advocacy of civil defense, this represented the abandonment by the Secretary of the Army ( pre-Goldwater-Nichols 1986) of the civil defense advocacy role. Left to advocacy by a relatively junior executive level appointee, John Davis (former governor of North Dakota), the civil defense programs, functions and activities were about to be impacted by the fallout from Watergate. As will be discussed, one of the most important civil-military links was now left to the civilian side of government to nurture and protect. Perhaps this breach could even be analyzed in having fallout for current military operations in Iraq. A subject for discussion elsewhere.

As of 1972, DCPA had approximately 1400 personnel down from its peak strength of about 1700 in the late 1960's. In 1974, lack of support from the Ford administration resulted in a significant collapse in the effort to defend civil defense in the budget wars. The result a significant RIF (Reduction in Force) for DCPA in 1974 and 1977.

Significantly, several titles of the Civil Defense Act were allowed to lapse. Including the title cross-referencing the Defense Production Act of 1950. Later these lapsed titles would be incorporated into standby emergency legislation along with lapsed titles of the Defense Production Act of 1950, as a standby legislative package called the "Defense Resources Act." Although briefed to Congressional staff in the early 1980's, this package was never formally submitted to Congress although it was played in major REX-ALPHA and BRAVO exercises from 1981-88. These were major Pentagon mobilization exercises designed to test civil-military interface and for other purposes.

By the time FEMA was augmented by civil defense assets (July 15, 1979) in Executive Order 12148, civil defense personnel transferred by OMB determination order numbered less than 1000 (still the largest transfer of personnel into the new agency). Funding which had never exceeded $250M had diminished to just over $100M.

Primarily through egotism and ignorance in the White House, the transferred civil defense personnel, even though they dominated the higher civil service positions in FEMA, were regarded as a budgetary problem because of the prejudice of the defense budget examiners in OMB, particularly those managing the 050 accounts and this prejudice was also reflected in the President's reorganization project team that worked the FEMA reorganization (Reorganization Plan No. 1 of 1978). Additionally, in the fall of 1981, with the formation of the State and Local Programs Directorate (which lasted until November 1993) the civil defense program was largely considered as a preparedness grant program that could be used to assist state and local governments. To the extent that policy drivers existed in the FCDA as amended, various Presidential Decision Directives or National Security Directives were issued in an attempt to vitiate the civil defense agenda. The amendment of Public Law 81-920 in 1981 had authorized so-called "dual use" of civil defense assets for both nuclear attack planning and natural disaster preparedness. It also specifically authorized program assets to be utilized in enhancing offsite safety in privately operated nuclear power stations. The Armed Services Committees of the Congress had given DCPA administrative discretion to adopt "dual use" as early as 1975 but the administration had chosen not to pursue this concept aggressively. Even now, "dual use" transformed into a debate over whether DHS should be "all-hazards" adsorbs much intellectual capital in DHS. In 1993, one year before repeal of Public Law 81-920, the statute was amended to mandate "all-hazards" the transformed term from "Dual use".

No standby Executive Orders (PEAD's) or other emergency actions except the standby legislation mentioned above were predicated on Public Law 81-920 after FEMA began operations. Various National Security Directives were issued by President's Carter, Reagan, and Bush (41) in an effort to correlate civil defense with strategic doctrine, but these essentially were watered down versions of the civil defense statute as it existed prior to the loss of the earlier titles. Since only OMB and Congressionally funded programs, functions, and activities (not unfunded actions by the National Security Council and its staff), had significance the potential of the civil defense programs, functions, and activities diminished.

Perhaps, the fact that the civil defense budget was made part of the VA-HUD appropriations bill in 1980 and no longer part of the DOD appropriation was additional reason for DOD to have diminished interest in civil defense. Also, up until repeal of the act, at least one Associate Director of FEMA was confirmed by the Senate Armed Services Committee. After repeal, no Associate Director had their nomination reviewed by Senate Armed Services. Additionally, repeal led to lapse of any direct oversight by the Armed Services Committees of oversight of FEMA.

It also ended the confirmation of at least one of the FEMA Associate Director positions (PAS) by the Senate Armed Services Committee and the annual rite of a senior DOD official testifying on behalf of civil defense authorizations. Also, a Congressionally mandated report asking that the Executive Branch thoroughly analyze and provide any needed modifications to the civil defense program resulted in a March 1992 report entitled "Disaster Preparedness" that led to the statutory enactment of all-hazard use of the FCDA in public law 103-160 and the repeal a year later in public law 103-337. It should be noted that some would argue that the FCDA was not repealed since significant portions were retained as a new Title VI of the "Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 100-107 ( November 23, 1988)." The Clinton Administration used the change in oversight to redirect the primary energies of FEMA to natural disasters. This redirection seems to have not prevented the end of FEMA's role as an independent agency post 9/11 by its incorporation into the Department of Homeland Security by Public Law 107-296 November 25, 2002.

Extract From E.O. 12148:
2-204. In order that civil defense planning continues to be fully compatible with the Nation's overall strategic policy, and in order to maintain an effective link between strategic nuclear planning and nuclear attack preparedness planning, the development of civil defense policies and programs by the Director of the Federal Emergency Management Agency shall be subject to oversight by the Secretary of Defense and the National Security Council.

It should be noted that the language still exists in E.O. 12148, even though the Executive Order has been amended a number of times.
[The Vacation Lane Group is a nonprofit corporation dedicated to the expansion of knowledge of emergency management and homeland security in the context of a democratic society. Vacation Lane Group, 1631 N. Randolph St., Arlington, VA 22207, Tel (703) 351-7588]

# [The Safety Zone]

## Facts About Ricin
## (Centers for Disease Control and Prevention)

**What ricin is**
Ricin is a poison that can be made from the waste left over from processing castor beans. It 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. For example, it is not affected much by extreme conditions such as very hot or very cold temperatures.

**Where ricin is found and how it is used**
Castor beans are processed throughout the world to make castor oil. Ricin is part of the waste "mash" produced when castor oil is made. Ricin has some potential medical uses, such as bone marrow transplants and cancer treatment (to kill cancer cells).

**How you could be exposed to ricin**
It would take a deliberate act to make ricin and use it to poison people. Accidental exposure to ricin is highly unlikely. People can breathe in ricin mist or powder and be poisoned. Ricin can also get into water or food and then be swallowed. Pellets of ricin, or ricin dissolved in a liquid, can be injected into people's bodies. Depending on the route of exposure (such as injection or inhalation), as little as 500 micrograms of ricin could be enough to kill an adult. A 500-microgram dose of ricin would be about the size of the head of a pin. A greater amount would likely be needed to kill people if the ricin were swallowed. In 1978, Georgi Markov, a Bulgarian writer and journalist who was living in London, died after he was attacked by a man with an umbrella. The umbrella had been rigged to inject a poison ricin pellet under Markov's skin. Some reports have indicated that ricin may have been used in the Iran-Iraq war during the 1980s and that quantities of ricin were found in Al Qaeda caves in Afghanistan. Ricin poisoning is not contagious. It cannot be spread from person to person through casual contact.

**How ricin works**
Ricin works by getting inside the cells of a person's body and preventing the cells from making the proteins they need. Without the proteins, cells die. Eventually this is harmful to the whole body, and death may occur. Effects of ricin poisoning depend on whether ricin was inhaled, ingested, or injected.

**Signs and symptoms of ricin exposure**
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 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.

*Skin and eye exposure:* Ricin in the powder or mist form can 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 death has not occurred in 3 to 5 days, the victim usually recovers. Showing these signs and symptoms does not necessarily mean that a person has been exposed to ricin.

**How ricin poisoning is treated**

Because no antidote exists for ricin, the most important factor is avoiding ricin exposure in the first 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. 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 seizure 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.

**How you can know whether you have been exposed to ricin**

If we suspect that people have inhaled ricin, a potential clue would be that a large number of people who had been close to each other suddenly developed fever, cough, and excess fluid in their lungs. These symptoms could be followed by severe breathing problems and possibly death. No widely available, reliable test exists to confirm that a person has been exposed to ricin.

**How to protect yourself and what to do if you are exposed to Ricin**

First, get fresh air by leaving the area where the ricin was released. Moving to an area with fresh air is a good way to reduce the possibility of death from exposure to ricin. If the ricin release was outside, move away from the area where the ricin was released. If the ricin release was indoors, get out of the building. If you are near a release of ricin, emergency coordinators may tell you to either evacuate the area or to "shelter in place" inside a building to avoid being exposed to the chemical.

If you think you may have been exposed to ricin, you should remove your clothing, rapidly wash your entire body with soap and water, and get medical care as quickly as possible. Quickly take off clothing that may have ricin on it. Any clothing that has to be pulled over the head should be cut off the body instead of pulled over the head. If you are helping other people remove their clothing, try to avoid touching any contaminated areas, and remove the clothing as quickly as possible.

As quickly as possible, wash any ricin from your skin with large amounts of soap and water. Washing with soap and water will help protect people from any chemicals on their bodies. If your eyes are burning or your vision is blurred, rinse your eyes with plain water for 10 to 15 minutes. If you wear contacts, remove them and put them with the contaminated clothing. Do not put the contacts back in your eyes (even if they are not disposable contacts). If you wear eyeglasses, wash them with soap and water. You can put your eyeglasses back on after you wash them.

After you have washed yourself, place your clothing inside a plastic bag. Avoid touching contaminated areas of the clothing. If you can't avoid touching contaminated areas, or you aren't sure where the contaminated areas are, wear rubber gloves, turn the bag inside out and use it to pick up the clothing, or put the clothing in the bag using tongs, tool handles, sticks, or similar objects. Anything that touches the contaminated clothing should also be placed in the bag. If you wear contacts, put them in the plastic bag, too. Seal the bag, and then seal that bag inside another plastic bag. Disposing of your clothing in this way will help protect you and other people from any chemicals that might be on your clothes. When the local or state health department or emergency personnel arrive, tell them what you did with your clothes. The health department or emergency personnel will arrange for further disposal. Do not handle the plastic bags yourself.

If someone has ingested ricin, do not induce vomiting or give fluids to drink. Seek medical attention right away. Dial 911 and explain what has happened.

**To get more information about ricin, you can contact one of the following:**

***(1)*** Regional Poison Control Center (1-800-222-1222)
***(2)*** Centers for Disease Control and Prevention Public Response Hotline (888) 246-2675
***(3)*** Agency for Toxic Substances and Disease Registry (ATSDR) (1-888-422-8737)

[This fact sheet is based on CDC's best current information. It may be updated as new information becomes available.]