The PARANOID Newsletter

Because they ARE out to get you.

If you know the enemy and know yourself,
you need not fear the result of a hundred battles.

If you know yourself but not the enemy,
for every victory gained you will also suffer a defeat.

If you know neither the enemy nor yourself,
you will succumb in every battle

- Sun Tzu

Introduction

This is the twelfth issue of the PARANOID newsletter. This newsletter is for the person who takes their privacy VERY seriously. Lets face it, America is a POLICE STATE. Anything the government doesn't like is now considered terrorism. What would our founding fathers say if they were alive today! This twelfth edition of the paranoid newsletter discusses white racists developing weapons of mass destruction and explosive taggants.

Terror Anthrax linked to type made by U.S.

By WILLIAM J. BROAD December 3, 2001

The dry powder used in the anthrax attacks is virtually indistinguishable in critical technical respects from that produced by the United States military before it shut down its biowarfare program, according to federal scientists and a report prepared for a military contractor.

The preliminary analysis of the powder shows that it has the same extraordinarily high concentration of deadly spores as the anthrax produced in the American weapons program. While it is still possible that the anthrax could have a foreign source, the concentration is higher than any stock publicly known to be produced by other governments.

The similarity to the levels achieved by the United States military lends support to the idea that someone with ties to the old program may be behind the attacks that have killed five people. The Federal Bureau of Investigation recently expanded its investigation of anthrax suspects to include government and contractor laboratories as a possible source of the deadly powder itself, or of knowledge of how to make it.

Its high concentration is surprising, weapon experts said, and far beyond what military analysts once judged as the likely abilities of terrorists. Still, experts caution that the emerging evidence is tentative and that it is too early to rule out other possible suspects, be they **domestic lone wolves** or hostile foreign states

like Iraq.

A yardstick for measuring the quality of anthrax emerged almost three years ago when William C. Patrick III, a longtime federal consultant and one of the nation's top experts on biological weapons, wrote a report assessing the possible risks if terrorists were to send anthrax through the mail. Based on the difficulty of developing advanced anthrax, he predicted that the terrorist germs would be one-twentieth as concentrated as what the government developed and what has recently turned letters into munitions.

"**The quality of the spores is very good**," said a federal science adviser who shared the Patrick report with The New York Times. "**This is very high-quality stuff**" — equal, he said, in concentration to that produced by the United States military before it abandoned germ weapons. The high quality lends credence to the idea that someone with links to military laboratories or their contractors might be behind the attacks. "**It's frightening to think that one of our own scientists could have done something like this**," he said. "But it's definitely possible."

He said the anthrax sent to the Senate contained as many as one trillion spores per gram, a figure confirmed by an administration official. A gram is just one-twenty-eighth of an ounce. Yet in comprising up to one trillion spores, a gram of anthrax powder has vast potential to kill. If a lethal dose is estimated conservatively at 10,000 microscopic spores, then a gram in theory could cause about 100 million deaths. The letter sent to Tom Daschle, the Senate Democratic leader, is said to have held two grams of anthrax — enough, in other words, to make about 200 million lethal doses, assuming it could be distributed to victims with perfect efficiency.

Analysis of the Daschle powder has been hampered by the small amount recovered after an aide opened the letter, and by technical missteps as the investigation got under way, making some conclusions iffy. That is why investigators are taking great care in opening the anthrax-contaminated letter sent to Patrick J. Leahy, chairman of the Senate Judiciary Committee. The aim is to scrutinize the evidence as closely as possible.

Spore concentration is just one factor experts will examine in the Leahy letter, and their findings could significantly alter their picture of the powder. Other **factors that reflect the quality of anthrax** production **include** whether the powder has been **ground to a size that easily lodges in the lungs** and whether it has been treated to make it **static free and free-floating**. Investigators will look for **antistatic additives** that might be a possible hallmark of a particular government's weapons program. (Thanks for the tips!)

Mr. Patrick, in his risk assessment, sketched out both what the American military achieved and what a terrorist might do. His 28- page report, dated February 1999, was written for a federal contractor advising the government on how to handle the growing number of anthrax hoaxes and what to expect if real anthrax were to be sent through the mail. When these hoaxes first came up, **we assumed none of the bad guys could achieve high-grade anthrax**, said a contractor official, who spoke on the condition of anonymity.

It is unknown publicly exactly how makers of anthrax weapons achieve high spore concentrations, but the black art is said to involve precise drying, sifting, milling and removal of impurities. In his assessment, Mr. Patrick drew on personal knowledge acquired while working in the nation's offensive biological weapons program from 1951 to 1969, when it was dismantled, at which time he was chief of the division of product development. He won five patents with his colleagues for ways to make biological weapons.

His 1999 report focused on what kinds of contamination terrorist anthrax would cause when a letter was opened and what the requirements for decontamination were. Mr. Patrick postulated that the concentration of anthrax would be 50 billion spores per gram. "This assumes a dried powder of moderate ability to generate into

an aerosol when the envelope is opened," he wrote. He predicted that an envelope would hold 2.5 grams of anthrax — an amount strikingly close to what is thought to have been mailed to Senator Daschle.

In his report, Mr. Patrick said the American program had achieved a concentration of one trillion spores per gram — what scientists today say is near the theoretical limit of how many of the microscopic spheres can be packed into a tiny space. Today, no terrorist or scientific maverick is known to have published anything that comes close to describing how to make concentrated anthrax powders. **Timothy W. Tobiason, a habitué of gun shows who sells a self-published cookbook on how to make germ weapons, including "mail delivered" anthrax, sketches out only the most rudimentary steps. The book series is titled "Scientific Principals of Improvised Warfare" Volumes 1-6.**

Experts judge Mr**.** Tobiason's recipes as flawed in spots and at best capable of producing only low-quality anthrax. His book deals mostly with the production of wet anthrax, though it does suggest a way to grind clusters of dried anthrax into microscopic pieces, which can settle into the lungs. It is unclear if any foreign nation has achieved high anthrax concentrations. The United States suspects that more than a dozen countries are clandestinely studying biological weapons, with anthrax among the top agents. Ken Alibek, a former top official in the Soviet germ weapons program who is now president of Advanced Biosystems, a consulting company in Manassas, Va., said that it was routinely possible to create dry anthrax that contained 100 billion spores per gram and that, with some effort, 500 billion was possible.

"The infectious dose," Dr. Alibek said, "can be quite large." Still, the 500 billion figure is half the concentration that the American government and whoever sent the letters are said to have achieved. "I don't think they're manufacturing this in caves," Dr. Alibek said of the terror anthrax. "It's coming from another source." Lone wolves perhaps?

ADL Book Review

Courtesy of the Anti Defamation League, the following books have been described in their briefings. After reading their descriptions, who WOULDN'T want to read them!

The Poor Man's James Bond

Survivalist guru Kurt Saxon is the author of *The Poor Man's James Bond*, a work similar to Benson's *Encyclopedia*. Such books not only explain how to build bombs and explosives; they also often discuss the manufacture of chemical and biological agents. Saxon, for example, has explained the manufacture of ricin in his books and videotapes.

Silent Death

Silent Death, a book written by "Uncle Fester," provides even more detail. "Uncle Fester" – actually Green Bay chemist Steve Preisler, a convicted criminal who wrote one of his books while in prison – describes himself as the "world's foremost clandestine chemist." His book is for the "home or clandestine manufacture of poisonous materials, with an emphasis on guerrilla war applications. Topics covered in *Silent Death* in detail include nerve gases, ricin, botulin toxin, and much more." **The Japanese cult Aum Shinrikyo, who launched a poison gas attack in Tokyo's subways in 1995, had copies of Preisler's book.**

Careless Talk gets Right Wing Yahoo's LONG prison sentences

Learning from the mistakes of others

Two members of one South Texas faction of the sovereign citizen group known as the Republic of Texas, Johnie Wise and Jack Abbott Grebe, received 24-year prison sentences in 1999 for sending threatening e-mails to various federal agencies. They were acquitted of charges of planning to develop weapons of mass destruction (a third person was acquitted on all counts). This charge centered on discussions by the two men to modify a cigarette lighter to eject a cactus needle that would be coated with some sort of biological agent such as HIV, rabies, botulism or anthrax. According to an informant, the device would be used against the families of government employees. Although the Republic of Texas members had discussed developing rabies or anthrax for use in this fashion, they never actually made the device, nor is it clear that they would have proceeded with the rather far-fetched idea.

Why wasn't this a one man operation? Why goto jail for threats? TRUST NO ONE!

Dummies posses bioweapon for three years before betting busted

Learning from the mistakes of others

Members of an anti-government group known as the Minnesota Patriots Council produced a quantity of ricin in 1992 to assassinate a U.S. deputy marshal and a deputy sheriff. The assassination was never executed. Three years later, Leroy Wheeler, Douglas Baker, Dennis Henderson, and Richard Oelrich-were arrested and convicted of "possession of ricin for use as a weapon" and given short sentences. They had learned about the poison from commercially available how to books on poisoning.

Why were these dummies sitting on illegal Ricin when they no longer needed it?

White racists have a proud history of cooking up WMD's.

In the early 1970s, Muharem Kurbegovic, a Yugoslavian-born terrorist who sent toxic chemicals through the mail to a Supreme Court justice and threatened to use nerve-gas devices against the Capitol and the president of the U.S. He was arrested in August 1974 for a bombing that killed three people at the Los Angeles International Airport; following the arrest, police searching his California home found that he had all the ingredients necessary to construct a nerve-gas bomb.

The Covenant, the Sword, and the Arm of the Lord survivalist group from Missouri whose members belonged to Christian Identity were raided in 1985 and were found with a 30 gallon drum of cyanide.

In 1972, police arrested two teenagers, Steven Pera and Allen Schwander, who had started a small group called R.I.S.E. New recruits to the group tipped off police, who discovered that Pera and Schwander actually had typhus bacillus. The two teenagers skipped bail and fled to Cuba.

In April 1997, an anthrax hoax was directed at the international headquarters of B'nai B'rith, the well-known Jewish organization, in Washington, D.C. B'nai B'rith received an envelope in the mail that contained a petri dish with an unknown substance and a letter that statements aimed at Jewish liberalism and the Jewish community, as well as a reference to anthrax The reaction by police was swift but harsh: four B'nai B'rith employees were taken outside, stripped to their underwear, and decontaminated with a bleach-water spray in full

public view in front of photographers. Meanwhile, more than 100 other employees were quarantined in the building for eight hours until authorities decided the substance was not dangerous.

Dr. Gordon C. Oehler, Director of the CIA's Nonproliferation Center, testified to Congress that "extremist groups worldwide are increasingly learning how to manufacture chemical and biological agents, and the potential for additional chemical and biological attacks by such groups continues to grow".

Robbing banks the intelligent way.

Really intelligent people don't steal in conventional ways.

This is a much more "low key" way of stealing from a bank and will draw much less attention to you than a standard robbery would since, often, the bank won't publicize the theft, lest the other customers realize just how weak bank security is. Additionally, successful depository trap thefts are exceedingly rare, with only a dozen or two every year, compared to the thousands of standard style robberies. This is the pinnacle of the robbers art, to steal the money before it ever gets to the bank, and without anyone even knowing they've been robbed!

A depository is where people go to at the bank to drop off money without going inside, usually at night or when the bank is closed. A bank customer uses a key to unlock the depository chute, into which they place their money bag. When they close the chute, the money drops into a safe inside the bank. The chute is designed to resist forced entry to the same degree as the safe itself. And if someone left the chute unlocked, you wouldn't be able to retrieve the money by "fishing" for it because the chute has two intermeshed drums (like gears) that'd cut any line.

There is one occasion of this crime that has received widespread publicity in the past. In Japan, during the 80's, someone make an exact duplicate of a banks depository, and placed it over the original. Apparently people were too stupid to realize that the depository was now a good foot further than it was before, but that's neither here nor there. Point is, people put their money in the duplicate, which was emptied out afterwards by the criminal in readiness for the next victim. The thief scored more than $300,000 in one night and was never caught. He also never repeated the crime, thus there was no pattern for the police to try to catch him with.

Recent unclassified Lone Wolf missions

Switch-a-roo technique gives racists access to mainstream print media.

New York, NY, December 21, 2009 In an effort to lure young people into the white supremacist movement, neo-Nazis are using deceptive new tactics to appeal directly to high school and college students through advertisements in their school newspapers. Neo-Nazi Kevin McGuire of Bozeman, Montana placed advertisements in school newspapers offering "free music downloads." In November, 2009 unsuspecting students at high schools in San Francisco and Carmel, Indiana were tricked into running ads promoting the racist "Victory Forever" site operated by McGuire.

The Victory Forever site initially displayed a page of music by independent artists, including at least one nigger musician. However, between the time when the ads were purchased and when they actually ran, the site was changed to promote racist material. "While the hatemongers have used stealth tactics before, now they are

taking it to the next level by attempting to trick unsuspecting students into logging on to sites that appear harmless, but in reality are promoting music with a white supremacist message," according to the ADL. Clearly "switcharoo" tactics are effective and content can be changed as soon as newspapers are printed and delivered to evade censorship. The website victoryforever.com is also selling skinhead music CD'd for the rock bottom price of 25 for $10 USD to promote distribution.

Five Poles destroy "Arbeit Macht Frei" sign at Auschwitz

New York, NY, December 18, 2009 Five lone wolf Poles steal and destroy the "Arbeit Macht Frei" sign from the former death camp Auschwitz. The iron sign was stolen early Friday morning after having been unscrewed and ripped from its moorings at the memorial site in southern Poland. The sign was cut into three pieces, each containing one of the words Arbeit Macht Frei and scattered. The theft was carefully carried out and the lone wolves completely avoided attracting the attention of night watchmen or security cameras. The sign was removed through a hole in the camp fence before being loaded into a van.

So what are YOU doing for the white race?

Traditional ATF stereotyping of bombers (from a 1980's publication)

The bomber population of the United States is extremely heterogeneous, with varying motives, resources, skills, and ability to adapt to a changing control environment. For ease of discussion, bombers are divided into four categories which differ from each other in most characteristics. These categories include terrorists, common criminals, the mentally disturbed, and vandals and experimenters. The characteristics of the various types of bombers are described

The terrorist groups active in the United States vary widely in ability, resources, training, and adaptability. They share the common characteristics, however, of high motivation, action as a part of a group, and a continuing involvement in catastrophic, illegal activities against society. These characteristics activities make the terrorist particularly dangerous to society and a particularly appropriate target for anti bombing controls. Terrorists can be roughly divided into political, reactionary, and separatist groups. Political groups are primarily interested in attracting attention to, and sympathy with, their cause. For that reason they engage in spectacular events, such as bombings, but generally attempt to avoid or limit injury and death resulting from their bombings. Political terrorists often have considerable resources available to them, due to the significant number of people who support their aim, if not necessarily their means. The leadership of most of these groups are of above-average intelligence,and have either had specialized training or have studied extensively in terrorist activities. They are thus able to adapt to a changing environment, although the range of responses available to them may be limited by their political aims.

Reactionary groups, such as the Ku Klux Klan and the American Nazi Party, share some of the characteristics of the political terrorists, but generally do not possess the same levels of training, motivation, and resources, and are not as capable of reacting effectively to a changing control environment. They also differ in that their bombings are usually directly targeted at the individual or group they intend to influence, rather than simply at a spectacular target.

Lone wolves are highly motivated and highly educated, good luck dealing with them :-)

ATF Tips for removing taggants from explosives and gunpowders

In order to remove a nonmagnetic taggant with an opaque encapsulant from an explosive, the explosives could be acetone dissolved, the taggants and other Solid material removed by filtering, and the explosives reconstituted. This complex operation wouId require specialized knowledge, be roughly equivalent in danger and difficulty to fabrication of explosives from raw materials, and would result in less reliable explosives.
This is actually safe, easy, requires only solvent and a coffee filter. There is no loss of reliability or potency.

Taggant removal from some gunpowders could be significantly easier than from explosives, as some gunpowder grains are considerably larger than the identification taggants. Separation from these powders may therefore be accomplished simply by screening, even if the taggants are nonmagnetic. Tests with several Du Pont IMR powders have shown that it would be difficult to separate the taggants from the chips and fines contained in the gunpowder package, but all small particles could easily be separated from the intact grains by screening. It has been proposed to alleviate this problem by agglomerating the taggants into clumps whose size roughly matches the specific powder grain size.

Fabrication of explosives may be accomplished by a variety of means, but a considerable degree of expertise is required to avoid the risk of premature detonations, and to ensure high reliability. It should be noted that fabrication of detonators is significantly more difficult than fabrication of the explosive charge.

Keep telling yourself that ATF. Teenagers are building explosives from SCRATCH and are doing just fine.

The effectiveness of detection taggants can be severely limited by creating a seal between the explosives and the detection taggant sensor as the vapor could not escape the package to trigger the sensor. Such a seal can be constructed with the appropriate industrial materials and equipment, but a reliable seal would be very difficult to fabricate with the resources normally available to individuals. Hence specialized knowledge, advance planning, and the resources to buy the required material, would be needed to defeat the detection taggants.

So machines that vacuum pack and seal your food in a plastic bag can't seal your C4 + blasting cap? Rubbing alcohol can't be used to clean off residue on the outside of the sealed bag all of a sudden?

Criminal bombers would fail to make use of countermeasures, even when the necessary knowledge and equipment could be obtained without enormous efforts. However, some terrorists and professional criminals would make use of countermeasures. This judgment is based on an assessment of the type of personality that is generally involved in this kind of criminal activity.

3M COLOR-CODED TAGGANT

More research has been conducted with the 3M identification taggant than with any other. It is the baseline taggant proposed by BATF for implementation if a taggant program is legislated, and is the taggant used for the OTA cost, safety, and utility analyses. The taggant consists of an irregular chip of thermosetting melamine alkyd, approximately 0.12 mm thick and about 0.40 mm in its greatest dimension. Figure 6 shows the eight-layer construction; variation of the sequence colors provides the necessary library of codes. A total of approximately 6 million unique codes is available, when al Iowances are made for certain forbidden adjacencies (colors too difficult to distinguish) and other restrictions. One face of the taggant visably fluoresces when

illumi-nated with black Iight (366 nanometers) as an aid in recovery, either in the field or laboratory. The other face contains iron powder, allowing the taggant to be picked up by a magnet, another recovery aid.

In theory, the taggant can be recovered from the debris by use of a magnet and a black light, read in the field by a low-power microscope, and traced through the BATF tracing center. In fact, laboratory separation may be needed in most bombings; the recovery and laboratory procedures are quite simple, however, and can be performed in the field with little equipment and training. Several variations of the basic concept have been tried, some including a polyethylene encapsulant and some including slightly different chemical and physical properties of the individual layers.

WESTINGHOUSE CERAMIC TAGGANT

The Westinghouse taggant consists of a mixture of rare-earth compounds, bound together into a ceramic-1ike particle, whose appearance is similar to a grain of sand, and whose largest dimension is approximately 0.2 mm. Each of the rare-earth compounds fluoresces at a characteristic wavelength when illuminated by ultraviolet radiation (325 nanometers). A scanning monochronometer is used to read the wavelength of the various rare-earth compounds, and thus to identify the taggant code. The 10 rare earths that have been evaluated, and their characteristic emission wavelengths are:

Strontium chlorophosphate. europium	447
Yttrium vanadate thulium.	476
Yttrium phosphate cerium, terbium	546
Yttrium vanadate erbium	555
Yttrium vanadate: dysprosium	575
Yttrium vanadate: samarium	608-648
Yttrium vanadate: europium	618
Yt t r i um oxysulfide europium	626
Strontium fluoroborate. europium,	626
samarium	687
Strontium fluoroborate europium	375

As in the 3M taggant, the Westinghouse taggant incorporates a spotting phosphor which fluoresces in the visible range when illuminated by shortwave ultraviolet radiation (254 nanometers) and magnetic particles, both of which assist in the recovery process. Due to the limited number of rare-earth compounds available, and the fact that the individual components are not ordered like the 3M taggant layers, the Iibrary of possible codes is only approximately 3,000, even with three distinct spotting phosphors. Use of different concentrations or pairing of two different taggants to form a unique species can significantly increase the library, with approximately 600,000 codes available for the paired taggant variation. A significant number of compatibility tests have been conducted with the taggant, as have a small number of survivability-recoverability tests. Due to the ceramic nature of the taggant, it is extremely survivable and does not thermally degrade in high-energy explosives (such as boosters), as does the 3M taggant. In addition, since the rare-earth doping is homogeneous throughout the material, the full code can be read from even a small recovered taggant chip. The Westinghouse taggant is extremely gritty, and hasbeen shown to sensitize explosives if not encapsulated in a polyethylene coating.

No additional effort is currently underway with the Westinghouse taggant, due to a Westinghouse concern over liability should some taggant not be fully encapsulated and thus cause sensitization of an explosive material.

From the limited data available, it would appear that the Westinghouse taggant shows interesting potential, particularly due to its high survival rate, although solutions must be sought to ensure 100-percent encapsulation. In addition, some further limitations are imposed by the relatively small code library available and by the rather complex laboratory identification procedure required.

CURIE POINT TAGGANT

The Curie point taggant consists of a collection of five distinct ferrites, packaged with an ultraviolet sensitive spotting phosphor in a binder of potassium silicate. Ferrites exhibit the property that their ferromagnetism disappears when the temperature of the ferrite is raised above a specific temperature, designated the Curie point temperature. identification of a particular taggant is thus accomplished by placing the recovered taggant in a temperature-controlled chamber and recording the magnetism as a function of temperature. Approximately 50 ferrites have been identified whose Curie point falls in a laboratory practical temperature range. The 50 ferrites, used in combinations of s at a time, yield a library of approximately 2 million unique species. As the taggants are ceramics, their survivability in high-energy explosives, such as boosters, should be good. Very preliminary tests have demonstrated the survivability of the taggant in boosters and high-power commercial explosives such as Power Primer. The Curie point taggants share the potential sensitization problem of the Westinghouse taggants, and must therefore be encapsulated with 100-percent certainty. The Curie point taggants have another serious drawback: magnetic separation from powdery materials such as gunpowders and powdery dynamite would be an obvious simple countermeasure.

Electromagnetic taggants incorporated into a detonator, such as the passive harmonic radar taggant investigated by the ATF contractor, Aerospace Corp., offer the possibility of detection at a distance with a relatively low rate of false alarms. All of the concepts so far proposed, however, can be easily defeated by wrapping explosives in metal foi1. In addition, inclusion of such devices would probably have a significant effect on the procedures used to manufacture detonators, on detonator cost, and significant false alarms could be caused by common diodes from radios, calculators, and other electronic instruments.

Confinement sharply decreases survival, (of taggents) even under optimum recovery conditions. Only one test has been conducted with explosives confined in a pipe bomb; in that test scores of taggants were recovered from 60 Percent Extra Dynamite. When that result is compared to the chamber survival tests (in which over 1,000 taggants were recovered from 60 Percent Extra) it appears Iikely that considerably fewer taggants would survive in pipe bomb detonations using one of the more powerful explosives.

Black and smokeless powders are much less energetic than the least energetic dynamite. Gunpowders are normally used as fillers for pipe bombs, however, so the effect of confinement is expected to be considerable, Tests with both black and smokeless powders were conducted in a 20-ft semicircular chamber having steel walls but a sand floor. Due to the poor recovery conditions, only 2 to 3 dozen taggants were recovered for the black powder bombs, and from O to 3 for the smokeless powder. When black powder bombs were detonated under near ideal recovery conditions, using the 8 ‘ x 12 ‘ x 20 ‘ bunker, an average of 1,100 taggants survived 1 lb of the FFFg powder. No ideal recovery tests have been conducted with smokeless powders, but the one pipe bomb test with explosives gives an indication that scores to hundreds of taggants should survive.

In summary, the 3M identification taggants survive the detonation of cap-sensitive high explosives in large numbers for small charges which are unconfined. Survival decreases as the charge size increases, but sufficient taggants should survive even a large charge of the most energetic commercial explosive. The effect of confinement significantly reduces taggant survival, but taggants can probably survive pipe bombs filled with low-energy explosives and gunpowder; their survival in pipe bombs filled with higher energy explosives is uncertain. Individual taggants do not survive booster detonation but pellets made from the taggants do. Taggants

would probably survive the explosion of detonators and detonating cord, but there is little or no test data.

Current passenger and carry-on baggage scanning systems at airports have an overall probability of detecting guns or knives of over 80 percent, while they estimate less than a 20-percent detection probability for explosives. (Remember, this is 1980's data)

BATF currently keeps a record of the amount of explosives stolen, recovered, and expended in bombings. While it is possible totrace and allocate cap-sensitive high explosives that are recovered in their original cartridges (by the date-shift code stamped on the cartridge).

The British use a tagging system that apparently consists of different colored threads interspersed in the explosive The threads do not survive the detonation, but the system cannot be defeated by simply discarding the cartridge, as can the current U.S. date-shift code. The
West Germans use a system similar to the date-shift code, while the Irish dye their explosives (from the single plant) to indicate a destination.

Taggants will be missed quite often if visual recovery means are emphasized.

It appears that the power of the explosive does not significantly affect recovery probability or the laboratory time necessary to separate taggants from the debris. Confinement and the occurrence of fire, however, do significantly affect laboratory recovery time, as the size of the taggants decreases

Statement to Congress on ANFO

Dear Sir:

Referring to questions put to me by Mr. David Garfinkle of Science Applications, Inc. about the initiation and the damage potential of explosive devices loaded with ANFO, I would like to answer you with the following statements.

ANFO generally consists only of ammonium nitrate and fuel oil at a weight ratio of about 95 to 5, but may be used to designate other types of ammonium nitrate based explosives. The density is approximately 0.78 gicms, the energy density E. = 2.9 X 103 J\cm3, and the ratio of specific heats of the gaseous products is I' "= 2.554. Under ideal conditions (i.e. quantities of several hundred kg and a strong initiation source) ANFO detonates at a rate of 5 km\s 'with a Chapman-Jouguet pressure (at the shock front) of 55 kbar. In small samples (e.g. 10 to 20 kg) . even if confined, the detonation velocity is considerably lower, depending on confinement conditions and initiation, and typically between 1.9 and 2.8 km/s. The shock front pressure in these cases is also considerably lower than 55 kbar. Samples with small dimensions and negligible confinement will not detonate at all, (e.g. cylindrical samples in thin plastic confinement 5 cm or less in diameter, or unconfined layers of 5 cm or less in diameter, or unconfined layers of 5 cm or less in thickness) .

The ANFO commercially sold and used in the U.S.A. can generally not be initiated by a detonator only. A "booster" made of about 50 to 500 g of high explosives such as Composition C4, which can be initiated by a detonator only, is generally used to start the detonation. A criminal use of this type ANFO in quantities of 1 or 2 kg does not seem reasonable since the efficiency of a destructive explosive device under these circumstances would generally not be significantly improved beyond that resulting from the booster alone.

It is possible, however, to produce high explosives similar to ANFO which can be detonated by a detonator only. Some ANFO sold and used in the Federal Republic of Germany for mining and quarrying purposes has this property called "cap sensitivity". It is also possible to modify the composition of the blasting agent such that it

becomes cap sensitive, e.g. by replacing the fuel oil by hydrazine hydrate. The sensitivity of ANFO can be increased by certain additives, aluminum powder or potassium perchlorate. In some cases, the sensitivity of the ANFO-like blasting agent can be increased by crushing the ammonium nitrate prills. Most of the premixed ANFO commercially sold in the U.S.A., however, does not become cap sensitive by crushing the prills. ANFO obtained by first crushing prilled ammonium nitrate commercially bought in the U.S.A. and then mixing it with fuel oil will also, in general, not be cap sensitive. If either the ANFO or the ammonium nitrate used to mix it were obtained from certain areas outside the U.S.A., crushing of the prills may render it cap sensitive. In all these cases of "cap sensitivity", however, a high powered detonator (e.g. one containing 1 g base charge) is still needed, and also a certain amount of special information is required, whereas modern propellants as well as all types of black powder can be initiated by a heat source only, like match heads, squibs, or even only an electrically heated wire or a spark.

MATERIAL	REQUIRED FOR INITIATION	
	CONFINED	UNCONFINED
Small amounts of commercial ANFO (-- 2 kg.)	Booster charge of 50-500 g high explosive	(NO Reaction)
Large amounts of commercial ANFO (> 50 ka)	Booster charge of 50-500 g high explosive	Booster charge of 50-500 g high explosive
Sensitized ANFO or special mix blasting agent	Detonator with at least lg base charge or 6" prima cord (50 grainift.) + small detonator like below	Detonator with at least 1 g base charge or 6" prima cord (50 grain\ft.) + small detonator like below
Military explosive like Comp. B or Comp. C-4	Small detonator with about .25 g base charge	Small detonator with about . 25 g base charge
Modern propellant or black powder	Heat source like matchhead, squib, hot wire, or spark	(No explosion; only violent burning possible)

To compare the damage producing capability of destructive explosive devices, one has to consider air blast, fragmentation, and potential incendiary effects. Assuming the initiation problems can be resolved for an explosive device containing only a few kg of a blasting agent similar to ANFO, then the air blast caused by this device could do approximately as much air blast damage as a device with the same weight of TNT. The density difference between ANFO and TNT (approximately 0.8 vs. 1.6) would require a larger confinement volume for a device containing ANFO.

Comparing fragmentation of a device loaded with TNT versus one loaded with a blasting agent similar to ANFO, the latter would produce a smaller number of fragments larger in size and with a somewhat lower velocity than the TNT device. The total damage producing capability of the fragments of the ANFO device would probably come fairly close to that of the TNT device. Neither one of the two device types would produce any significant incendiary effect.

The damage producing capability of propellant or black powder loaded devices will generally be significantly

smaller than that of devices loaded with an ANFO-like blasting agent due to the following reasons:

(a) The rate Of energy release is much higher in high explosives, including blasting agents like ANFO, than in propellants including black powder. Expressed, e.g. in Megawatts, a 5 cm diameter device loaded with ANFO delivers energy at a rate of about 10,000 MW; a gun cartridge of the same diameter delivers energy at a rate of about 500 MW.

(b) The rate of detonation of high explosives,including blasting agents like ANFO, is only weakly depending on ambient conditions whereas the propellant burn rate strongly depends on the ambient pressure. Propellants including black powder which are initiated in a metallic shell will frequently violently rupture the shell at a time when only a fraction of the propellant energy has been released, producing only very few medium velocity fragments and only a moderate pressure wave . The burn rate of the still remaining mass of propellant will at the time of the shell rupture drop to a very low rate imposing no other danger than a fire hazard. A high explosive or blasting agent detonated in a metallic confinement like a bomb shell will always produce a number of high velocity fragments and a strong air blast.

To summarize, it can generally be expected that the damage caused with a device loaded with an ANFO-like blasting agent, if it is properly initiated, is somewhat smaller than that of a device of equal weight loaded with TNT, but significantly larger than that of a device of equal weight loaded with black powder or modern propellants.

Very truly yours,
Roland R. Franzen
Senior Staff Engineer

(Thanks Roland!)

Thank you for reading our twelfth edition

Visit Resist.com to buy future and archived editions.

Sure you can trust the government, just ask an Indian!

We work with a separate organization that allows us to maintain our privacy and acts as a cashier for sales and donations. Please refer to THE PARANOID NEWSLETTER in all your correspondence, otherwise the staff will confuse your correspondence with another newsletter. Send email to TM_Metzger@yahoo.com (Note the "_" character is not a space) or send us snail mail with your donation and request for additional newsletters to:

Tom Metzger
P.O. Box 401
Warsaw, In 46581