

KARMAN ARGUES AGAINST AMNESTY FOR SALEH AS AL-AWLAKI FAMILY CONTINUES PROTESTS



A portion of a photo of Abdulrahman al-Awlaki from his Facebook memorial page.

As I wrote yesterday, the family of Anwar al-Awlaki and his son, Abdulrahman, has spoken out against the US killing of these two American citizens, one just 16 years old, in separate drone strikes in southern Yemen. The birth certificate of Abdulrahman has now been released to confirm his age and to counter false media reports that he was over 20 years old. In addition, the family has provided the name and age of a 17 year old cousin, Ahmed Abdulrahman al-Awlaki, who was killed in the same strike with Abdulrahman last Friday while they were enjoying a nighttime barbecue.

So far, I've seen no claims issued by the US that Abdulrahman was a militant. Instead, the implicit assumption is that Abdulrahman was collateral damage in a strike that was targeted at Ibrahim al-Bana, who is described as the media chief for al-Qaeda in the Arabian

Peninsula. By contrast, Anwar al-Awlaki was placed on Obama's official "hit list" of persons targeted for killing. The US has made multiple accusations against him, but those allegations have not been substantiated. Here is the Indian publication Frontline on the veracity of the US accusations:

After the events of September 11, 2001, Awlaki was among the small group of radicalised American Muslims who threw in their lot with Al Qaeda. His sermons in English with an American accent urging Muslims to wage jihad against the West reputedly had a wide fan following on YouTube and other websites. After a U.S. Army officer of Palestinian origin, Major Nidal Mallik Hassan, went on a killing spree in a military base at Fort Hood in November 2009, Awlaki's name hit the headlines. It was reported that the U.S. Army veteran was in touch with Awlaki before he went on the rampage in which 13 people were killed. Awlaki had denied having encouraged Hassan in any way but later praised his act saying that it had prevented the U.S. soldiers who were killed from being deployed in Afghanistan or Iraq where they "would have killed Muslims".

Awlaki was also blamed for attempts to blow up American passenger planes, though the claims have not been substantiated. The Obama administration linked Awlaki with the failed Christmas 2009 attempt of Umar Farrouk Abdulmutallib, the "underwear bomber", to bring down a Detroit-bound plane. Awlaki was also accused of playing a key role in the October 2010 "mail bomb" plot. Packets containing bombs, originating from Yemen and bound for the U.S., were intercepted in Dubai and Europe. In May 2010, a Pakistani-American who tried to detonate a car bomb in Manhattan told the U.S.

authorities that he was inspired by Awlaki's sermons.

In one of his sermons recorded in early 2010, Awlaki urged American Muslims to stage attacks. "Jihad against America is binding upon myself just as it is binding on every other able Muslim."

But if reports in the Arab media are anything to go by, Awlaki was only a minor cog, used mainly for propaganda purposes, in Al Qaeda's major network. His fluency in both English and Arabic coupled with his knowledge of the Quran helped him gather a big fan following, especially among the youth. Experts on Yemen have said that he had no operational role in Al Qaeda. The top commanders are Yemenis and Saudis who have been leading the fight against the U.S. presence in the region for many years. The AQAP's main leadership continues to be intact and is no doubt busy hatching new terror plans. Awlaki was forced to flee into the desolate mountain region where his tribe is located and where Al Qaeda has a presence in order to escape from the Americans, who had put a bounty on his head.

The failure of the US to provide any substantiation for its allegations against Anwar al-Awlaki is telling. Marcy has written extensively on the propensity of Obama Administration figures in the intelligence community to leak classified information that puts the administration in a good light. There have been no such leaks with details confirming the allegations against al-Awlaki, so the information above from Frontline stands as a fairly strong impeachment of US claims.

In very closely related news regarding Yemen and the US, the Financial Times has a long article this morning detailing how Yemeni President Ali

Abdullah Saleh has stolen millions of dollars, perhaps even from US funding provided for counterterrorism activities, with his son has using up to \$5 million to purchase luxury real estate in the Washington, DC area:

A *New York Times* story last year said there was a sense in Yemen that the country was run as “a family corporation.” A 2005 State Department cable, written by an officer at the U.S. Embassy in Sanaa and released this year by WikiLeaks, made the case that “Rampant official corruption impedes foreign investment, economic growth, and comprehensive development.” The State Department’s most recent annual human rights report on Yemen says that “officials frequently engaged in corrupt practices with impunity” and that international observers “presumed that government officials and parliamentarians benefited from insider arrangements and embezzlement.”

“It’s a poor country, so there isn’t a lot of money to steal, but because it’s poor it needs every dollar it can get,” David Newton, who served as U.S. ambassador to Yemen between 1994 and 1997, told me. “Corruption really hurts.”

President Barack Obama’s administration – which has been targeting suspected al Qaeda militants operating in Yemen with drone strikes, including U.S.-born cleric Anwar al-Awlaki, who was killed in late September – has worked closely with Saleh’s government on counterterrorism matters but has spoken out against the regime. During his address to the U.N. General Assembly on Sept. 21, Obama said Yemenis calling for Saleh’s ouster were seeking to “prevail over a corrupt system” and that “America

supports those aspirations.”

/snip/

Stephanie Brancaforte, the Berlin-based campaign director for **Avaaz**, a global human rights group that has worked extensively on Yemen and that alerted me to the D.C. properties, criticized U.S. policy. “Saleh’s forces have not only killed protesters – they have inflicted a humanitarian crackdown by intentionally cutting off water and electricity to millions of people,” she said. “The U.S. invested more than \$100 million to fight terrorism in Yemen, but that money has primarily gone to prop up a corrupt family... Meanwhile, the average Yemeni is less likely to be a victim of terrorism than malnutrition.”

Fortunately, there is a powerful voice speaking out against Saleh and especially against the current efforts to grant Saleh and his family immunity in return for him leaving office.

Yemini activist Tawakul Karman is one of three winners of this year’s Nobel Peace Prize. From Reuters:

Yemini Nobel peace laureate Tawakul Karman made an impassioned plea to the United Nations on Tuesday to repudiate a Gulf Arab plan that would grant immunity to her country’s “war criminal” president.

Karman, who was awarded the Nobel Peace Prize jointly with two Liberian women this month, arrived in New York as the five permanent members of the U.N. Security Council circulated a draft resolution to the full 15-nation body. That proposal urges the swift “signature and implementation” of the Gulf Arab plan, under which Yemini President Ali Abdullah Saleh would be immune from prosecution.

“The youth’s peaceful revolution is against the GCC (Gulf Cooperation Council) initiative, especially because it gives immunity to Saleh and his family,” Karman told reporters at a demonstration near the United Nations, where she was greeted by a cheering crowd of around 150 Yemeni supporters.

“We don’t think that the Security Council will be trapped in a resolution that will give immunity to the regime,” said Karman, who dedicated her Nobel prize to the Arab uprisings and to those killed in the upheavals.

Just as the Obama Administration was too slow to withdraw its support for the Mubarak regime during the Egyptian uprising, once again former Nobel Peace Prize laureate Obama finds himself continuing to provide lavish support for a corrupt war criminal, this time in Yemen, while the subjects of the war criminal languish in enforced poverty and suffer abuse.

AS AL-AWLAKI FAMILY MOURNS ABDULRAHMAN, 16, US DEVELOPS “KAMIKAZE DRONES” TARGETING SINGLE HUMANS

On Saturday, I wrote about a series of Friday drone attacks in southern Yemen. The most prominent of these attacks killed Ibrahim al-Bana, who is described as the media chief for al-Qaeda in the Arabian Peninsula. This same attack, however, also killed Abdulrahman al-

Awlaki, the son of Anwar al-Awlaki, the American cleric targeted and killed last month in Yemen in another US drone attack.

Yesterday, the al-Awlaki family spoke out for the first time since the deaths, granting interviews with the Washington Post. Notably, it turns out that Abdulrahman was only 16 years old, despite many media reports (including the AP report as carried in the Post that I quoted Saturday) that he was 21. Here is how Abdulrahman's grandfather (Anwar's father) described the killing:

"To kill a teenager is just unbelievable, really, and they claim that he is an al-Qaeda militant. It's nonsense," said Nasser al-Awlaki, a former Yemeni agriculture minister who was Anwar al-Awlaki's father and the boy's grandfather, speaking in a phone interview from Sanaa on Monday. "They want to justify his killing, that's all."

And Abdulrahman wasn't the only teenager killed in this attack. His 17 year old Yemeni cousin also died. In fact, the family claims the attack took place at a nighttime barbecue and several teenagers were killed:

In a separate statement Monday, the Awlaki family said that Abdulrahman "along with some of his tribe's youth have gone barbecuing under the moonlight. A drone missile hit their congregation killing Abdulrahman and several other teenagers."

The Post article also has a link to a Facebook page memorializing Abdulrahman.

The family disputes the description the US put out after his death that Anwar al-Awlaki was the head of al-Qaeda external operations:

The family, in its statement, said,

“Anwar was never a ‘militant’ ” nor was he “the head of Al Qaeda external operations.”

Abdulrahman became the second American citizen killed in Yemen as “collateral damage” in an attack targeted at someone else, as al Qaeda propagandist Samir Khan was killed in the attack on Anwar al-Awlaki. However, since virtually all attacks carried out by the US, including the two discussed here, are initially characterized by US spokespeople as only killing “militants”, a big question becomes whether the intent all along was to kill the two additional Americans, even though there is no indication that either of them had been put on Obama’s “hit list”.

There are several key questions in the case of Abdulrahman. Did the US know he was only 16? Did the US know there were additional teenagers at the cookout? Was there a conscious decision to kill Abdulrahman under the belief that he was a militant?

New technology that is in development has the potential to reduce the number of collateral damage deaths, if there is indeed a desire to reduce them. AFP reported yesterday on the development of “kamikaze drones”:

A miniature “kamikaze” drone designed to quietly hover in the sky before dive-bombing and slamming into a human target will soon be part of the US Army’s arsenal, officials say.

The article notes the issues that have developed in Pakistan with the killing of innocent civilians in drone strikes that employ the larger Hellfire missiles and points out how the new drones are intended to improve that situation:

The Switchblade, however, is touted as a way to avoid killing bystanders.

“Flying quietly at high speed the

Switchblade delivers its onboard explosive payload with precision while minimizing collateral damage,” the company said.

The US has a \$4.9 million contract with the developer, AeroVironment, to supply the new drones “as soon as possible”. It will be interesting to see just how popular the new drones become with their CIA and JSOC operators. Will there be an effort to hit individuals with Switchblades when they are isolated and perhaps even in the open, or will the lure of killing a larger number of “militants” at one time (with attendant collateral damage likely) maintain the current status quo of most drone attacks hitting small gatherings?

DETAILS OF SILICON-TIN CHEMISTRY OF ANTHRAX ATTACK SPORES PUBLISHED; WILLMAN TUT-TUTS

On Saturday, the *Journal of Bioterrorism & Biodefense* published an article (pdf) by Hugh-Jones, Rosenberg and Jacobsen that provides the details of their theory, first described in a McClatchy article, that the anthrax spores employed in the 2001 anthrax attacks were “weaponized” by a process that involved tin-catalyzed polymerization of silicon monomers. Wasting no time, David Willman was quickly trotted out in the Los Angeles Times on Sunday to tut-tut this latest information as arising from “critics” of the FBI and to provide an outlet for those who unquestioningly parrot the FBI’s conclusion from its Amerithrax

investigation that Bruce Ivins acted alone in carrying out the attacks.

Shortly after the McClatchy article was published, I provided this perspective on the new revelations it contained:

The presence of silicon and how it may have gotten into the anthrax material has been a point of great controversy throughout the entire investigation. This question is important because the chemical nature of the silicon and the level at which it is present is presumed to be an indicator of whether the anthrax spores have been "weaponized" to make them suspend more readily in air so that they are more effective in getting into the small passageways of the lungs of the intended targets of the attack. Early in the investigation, Brian Ross published "leaked" information that the spores had been weaponized through addition of bentonite and that Iraq had a weaponization program that used bentonite. This report turned out to be false, as no evidence for bentonite has been found. A more sophisticated type of weaponizing would rely on mixing the spores with nanoparticles of silica (silica is the common name for the compound silicon dioxide) to make them disperse more easily.

The FBI carried out a special form electron microscopy that could identify the location of the silicon in the spores from the attack material. They found that the silicon was in a structure called the the spore coat, which is inside the most outer covering of the spore called the exosporium. If silica nanoparticles had been used to disperse the spores, these would have been found on the outside of the exosporium (see [this diary](#) for a discussion of this point and quotes from

the scientific literature) because they are too large to penetrate it. No silicon signature was seen on the outside edge of the exosporium. What is significant about the type of silicon treatment suggested in the McClatchy piece is that both high silicon and high tin measurements were found in several samples and that there is an alternative silicon treatment that would involve a tin-catalyzed polymerization of silicon-containing precursor molecules. McClatchy interviewed scientists who work with this process and they confirmed that the ratio of silicon to tin found by the FBI is in the range one would expect if such a polymerization process had been used.

What McClatchy doesn't mention in their report is that it would seem for a polymerization process of this sort, the silicon-containing precursor molecules would be small enough to penetrate the exosporium before being polymerized, or linked together into much larger molecules, once they reached the spore coat. This would mimic the location of silicon incorporated "naturally" into spores.

As the photo above shows, the anthrax spores in the attack material had silicon that was found exclusively in the spore coat and not in the exosporium. This photo is taken from a news article (subscription required) published in March, 2010 in *Science* magazine. I quoted the article in this diary from the same day:

A more detailed analysis by Joseph Michael and Paul Kotula of Sandia National Laboratories in Albuquerque, New Mexico, contradicted that conclusion. Studying individual spores with a transmission electron microscope, they found that the silicon was located within the spore coat, well inside the

cell's exosporium (outermost covering). By contrast, when they looked at surrogate spores weaponized with silica, the silicon was clearly outside the exosporium.

But the Sandia study, presented last September to a National Academies panel reviewing the science behind the investigation, still leaves questions. Out of 124 spores from a letter mailed to Senator Patrick Leahy of Vermont, Michael found the silicon-and oxygen signature in 97–78% of the sample. The signature was present in 66% of a sample from a letter to former Senator Tom Daschle and in 65% of spores from a letter sent to the *New York Post*.

Out of nearly 200 other anthrax samples from different labs, none came close to displaying such a prominent silicon signature. The highest, in a sample from Dugway Proving Ground in Utah, was 29%. The researchers couldn't find silicon in the coat of a single spore out of some 300 taken from RMR-1029, the flask in Ivins's lab identified as the source of the bacteria used in the attacks; they concluded that all the silicon had come from the culture.

Note that the Sandia study found that the attack material had silicon present in the spore coats of a higher percentage of the spores than in any samples they analyzed where silicon had been incorporated into the spore coat during culture.

Note also that the only "weaponization" treatment employed in the Sandia study was the treatment of spores with silica nanoparticles which coated the exosporium rather than the spore coat.

As I had suggested after first reading the McClatchy article, the Hugh-Jones *et al.* article [full citation: Hugh-Jones ME, Rosenberg BH, Jacobsen S (2011) The 2001 Attack

Anthrax: Key Questions, Potential Answers. J

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S3:001. doi:10.4172/2157-2526.S3-001] describes in detail the chemistry of how the silicon monomers could penetrate the exosporium prior to polymerizing on the surface of the spore coat:

All the evidence in the public domain is consistent with the concept that the spore coats of the attack anthrax were silicone-coated. Silicone polymers are typically formed by hydrolysis of a silicon compound such as dimethyldichlorosilane (or other silanes with similar substituents), which contains no oxygen. Hydrolysis replaces the chlorine atoms with oxygen to form dimethylsilanol, which polymerizes spontaneously to form polydimethylsiloxane, containing silicon and oxygen in equal amounts. The polydimethylsiloxane chains can then be cross-linked ("cured") to form a three-dimensional silicone coating for encapsulation. This step requires an organotin catalyst such as a dibutyltin dicarboxylate.

A procedure of this kind can be envisioned for encapsulating B. anthracis spores. Silane monomers like dimethyldichlorosilane are low-molecular-weight liquids that probably can penetrate the exosporium, the loose-fitting membrane sac that encloses the spore. If silane monomers were added to a suspension of dry spores in an organic solvent, the silane would not contact moisture until it reached the spore coat, where residual moisture diffusing from the core inside the spore would cause hydrolysis, followed by polymerization at the spore coat. The polysiloxane chains that would be formed at the spore coat could then be cross-linked to encapsulate the spore. This step would require continued diffusion

of moisture from inside the spore, as well as an organotin catalyst. Organotins have low solubility in water but, like silanes, are soluble in organic solvents such as ether, carbon tetrachloride, etc. The ratio of tin to silicon in the attack spores is "about right" for a tin catalyst used to produce a silicone coating, according to a chemist in the field.

As stated previously in the McClatchy article, Hugh-Jones, *et. al.* point out that it would not have been possible to treat anthrax spores with this process at USAMRIID, where Ivins carried out all of his work:

It would be difficult not to conclude that the spores in the attack letters were prepared for some purpose other than terrorism. Potential procedures that might be applicable for silicone coating of spores, barely touched on here, are complex, highly esoteric processes that could not possibly have been carried out by a single individual. They would require a laboratory with specialized capabilities and expertise not found at USAMRIID, in addition to the possession of the correct strains of *B. anthracis* Ames associated with flask RMR 1029.

Personnel at USAMRIID all agree that no work with non-aqueous (dry or suspended in organic solvents) anthrax spore preparations is carried out there. The technological ramifications of this are that had Ivins engaged in such work, he would have encountered barriers. His need to decontaminate areas where he worked with dry spore powder would have been greater than areas where he worked with suspensions of spores in water since dry powder would be more likely to disperse over larger portions of the work area. Furthermore, there is no indication that the hot suite where Ivins worked with spores is equipped

to handle organic solvents. Safe removal of volatile solvent fumes [ether fumes are responsible for the explosions and fires frequent in amateur meth labs] while still preventing release of spores would require additional air-handling technology that there would have been no reason to have at the USAMRIID hot suites if only water suspensions of spores would be present. Furthermore, the actual polymerization and curing process would be likely to generate organotin vapors that can be quite toxic if not vented properly.

In response to this publication of the details of how anthrax spores could come to have the silicon and tin content observed, even including the observed location of the silicon in the attack material, David Willman attacked this information in Sunday's Los Angeles Times. Here is how Willman describes various recent questions that have been raised about the FBI's data and conclusions:

One account came from three scientists – long critical of the FBI – whose questions were the subject of a story in the New York Times. Another came from the nonprofit group ProPublica, the PBS documentary unit Frontline and McClatchy Newspapers. The coverage highlighted the lingering antagonism toward the FBI among some of Ivins' colleagues at the Army's biowarfare research center at Ft. Detrick, Md.

In response to the reports, FBI spokesman Michael Kortan said the bureau stood by its conclusion that Ivins was the perpetrator, "based both on the scientific findings and the results of the extensive traditional criminal investigation."

Note that Hugh-Jones, *et. al.* are described as "long critical of the FBI" and that USAMRIID personnel who disagree with the FBI are painted as having "lingering antagonism toward the FBI".

Willman then trots out an FBI spokesman to assure us that the FBI has no doubts about its work or conclusions.

Willman goes to special pains to address the silicon-tin story. After again calling Hugh-Jones, Rosenberg and Jacobsen “longtime critics of the FBI” lest we forget that phrase, Willman goes on to try to impeach Rosenberg by pointing out that she was an early advocate of the theory that Steven Hatfill had been behind the attacks.

But Willman’s attempt to negate the silicon-tin polymerization theory falls far short of the science:

Joseph R. Michael, the investigation’s top scientist in charge of determining whether the mailed anthrax was treated with additives, acknowledged that it may never be established how tin or another common element, silicon, got into some of the spores. But Michael said that if tin or silicon had been intentionally added, it probably would have coated the exterior surfaces. He said he found trace levels of tin and silicon only inside the spores.

This is the same Joseph Michael of Sandia National Laboratories who produced the image at the top of this post. Recall that in those experiments carried out for the FBI, Michael and his colleagues found that silica nanoparticles added to spores after they were dried resulted in the silicon signature showing up on the exosporium, rather than on the spore coat, as found in the attack material. Michael’s work was carried out before the tin-catalyzed silicon polymerization theory was advanced. In his quote to Willman, it’s not clear whether Michael has not read the Hugh-Jones *et. al.* paper and its explanation of how the silicon monomers would be expected to penetrate the exosporium before polymerizing at the spore coat or if he is just choosing to claim that such a treatment would be unlikely, so that it would be probable that exogenously added silicon or tin would be

found on the exosporium. At any rate, Willman's quote makes Michael appear entirely unable to consider theories that conflict with his experiment that included only one among the countless number of techniques that could have been employed to introduce the silicon and tin to the attack spores.

YEMEN TRIES TO CLAIM US DRONE STRIKES AS YEMENI AIR FORCE STRIKES

As MadDog alerted us this morning, there were multiple strikes against alleged terrorist targets in southern Yemen Friday night. What stands out to me in scanning the various media reports about these attacks is that even though it is crystal clear that these attacks are carried out by US drones firing missiles, Yemeni defense officials try to claim that the attacks are carried out by the Yemeni air force. This is an interesting contrast to the approach taken by Pakistani officials, where even though the official position of Pakistan's government is that US missile strikes are not allowed, Pakistani officials make no efforts to claim the strikes as their own, allowing the assumption that the strikes are carried out by the US to go unchallenged.

The most recent report on the strikes in Yemen that I can find is this brief update from Reuters [Note: the Reuters article was revised and expanded significantly while this post was being written; the passage quoted is from the earlier version and no longer appears directly as quoted, but the drone death toll of 24 and government claim of responsibility survives.]:

The death toll from air strikes that killed a senior al Qaeda official in southern Yemen has risen to 24, local officials said on Saturday.

The Defense Ministry said Yemeni aircraft had carried out the attack on Friday night.

This report has the highest death toll I've seen on the story and includes the note that Yemeni officials claim they carried out the attacks.

By contrast, the CNN report on the attacks puts the death toll at only 7 and reports that there were three drone attacks. This report, although it quotes Yemeni officials, is silent on responsibility for this attack, although it does reference the earlier attack that killed Anwar al-Awlaki as having been carried out by the US [Note: this article also was updated, with the death toll up to 9 now.]:

The son of U.S.-born militant cleric Anwar Al-Awlaki was among those killed in a trio of drone attacks in southern Yemen on Friday night, a security official said.

The attacks, carried out in the Shabwa district, killed seven suspected militants, the defense ministry said. It would not confirm that Abdul Rahman Anwar Awlaki was among them.

The senior security official in Shabwa, who did not want to be named because he is not authorized to speak to the media, said the younger Awlaki had been hiding in the mountains of Shabwa for more than eight months. He had first-hand knowledge of the death, he said.

As also mentioned in a number of other reports, the CNN story goes on to mention that Ibrahim al-Banna, the head media officer for AQAP, was killed. They cite Yemeni defense officials as

the source of this information.

The same AP article that MadDog cited also is carried by the Washington Post. Note that this article opens by flatly stating that the attacks were carried out by US drones and later actually cites confirmation by Yemeni "security officials", with no reference to Yemeni defense officials trying to claim responsibility, even though the Defense Ministry is cited in identifying the key figures killed:

An American drone strike in southern Yemen has killed seven al-Qaida-linked militants, including the media chief for the group's Yemeni branch and the son of a prominent U.S.-born cleric slain in a similar attack last month, government officials and tribal elders said Saturday.

/snip/

The Yemeni Defense Ministry identified the slain media chief as Egyptian-born Ibrahim al-Bana. Tribal elders in the area also said the dead included Abdul-Rahman al-Awlaki, the 21-year-old son of Anwar al-Awlaki, a gifted Muslim preacher and savvy Internet operator who became a powerful al-Qaida recruiting tool in the West. He, along with another propagandist, Pakistani-American Samir Khan, were killed in a Sept. 30 U.S. drone attack.

/snip/

Security officials said the strike that killed them was one of five carried out over night by an American drones on suspected al-Qaida positions in Shabwa and the neighboring province of Abyan in Yemen's largely lawless south.

Interestingly, this report indicates that there were five separate drone attacks Friday night, but reports only the death toll of seven from

the most prominent single attack, rather than summing the toll from all five attacks to the higher level of 24 reported by Reuters.

Pakistan's Dawn.com carries AFP's report on the attacks in Yemen. This report is noteworthy both because the Dawn headline puts both "US air" and "Qaeda militants" in quotation marks and because it does the best job of any of the media reports I've seen in adding some perspective to Yemen trying to claim responsibility for the attacks:

Apparent US air strikes killed seven suspected al Qaeda militants in southern Yemen, one of them the media chief of the jihadist network's regional affiliate, a local official said on Saturday.

The Yemeni defence ministry confirmed the deaths but insisted that Friday evening's strikes in Shabwa province, a militant stronghold east of the main southern city of Aden, were carried out by its own forces.

"Three strikes, apparently American, which were launched against positions held by al Qaeda militants in Azzan, one of the group's bastions, killed seven of them, including the Egyptian, Ibrahim al-Banna'a," the local official said.

The article conclude with this helpful explanation:

Yemen routinely denies that the United States carries out offensive operations on its territory, insisting that it plays a purely logistic and intelligence role in support of Yemen's own counter-terror operations.

Accounts of drone attacks in Pakistan, by contrast, do not hesitate in noting that the drones are American, even though the official

Pakistani position is that they do not approve of these actions. Here is Pakistan's Express Tribune carrying an AFP report on drone attacks there on Friday:

A US drone strike targeting a militant compound in a Pakistani tribal region killed four rebels in the fourth attack in two days near the Afghan border, security officials said Saturday.

The drones fired eight missiles Friday night at the compound in Baghar, 40 kilometres west of Wana, the main town of South Waziristan tribal district, where the military launched a ground offensive two years ago.

"The strike killed four militants and wounded three others," a senior security official told AFP on condition of anonymity.

The delicate dance relating to attribution of the drone strikes does not stop here, however. Despite the report leading with identifying the drones as American and no claims to the contrary coming from either Pakistan government officials or local officials at the attack site, this article concludes by noting that the US doesn't officially admit to the use of drones:

Defense Secretary Leon Panetta has said for the first time that the United States was waging "war" in Pakistan against militants, referring to the covert CIA drone campaign that Washington refuses to discuss publicly.

And there we have the lovely circumstances regarding the US reliance on drones to carry out attacks that in some cases are described as amounting to illegal extrajudicial executions.

The US refuses to publicly acknowledge these actions, citing their "covert" nature in a convenient dodge from accepting responsibility for controversial (or possibly illegal)

measures. Yemen is quick to falsely claim responsibility, perhaps to curry favor with the US and perhaps as an attempt to enhance the posture of a government facing a very popular citizen uprising that appears to be poised on ousting the President. By contrast, Pakistan does not fear public disagreements with the US.

Its government has a stronger grip on power.

That allows it to maintain its public position that Pakistani forces alone should be in charge of attacking militants in Waziristan, and allows the Pakistani government to object to US drone strikes as a breach of sovereignty, especially when innocent civilians are killed.

Whatever the posturing by the host countries, however, the US drones on, determined to strike "enemies" wherever they are to be found.

BLOOMBERG AVERTS ZUCCOTTI PARK SHOWDOWN AS OCCUPY WALL STREET GOES GLOBAL

At the end of the day yesterday, the burning question was whether New York Mayor Michael Bloomberg would send the New York Police Department into Zuccotti Park this morning to clear it of protesters under cover of a request from the owners of the property (although used as a public park, the property is privately owned). This morning, we learn that the property owners and Bloomberg have backed down, postponing for now the planned cleaning which had been put forward as the reason for potentially clearing the park. From CNN:

| The New York mayor's office said

Brookfield Properties, the owners of Zuccotti Park, told the city late Thursday the scheduled cleaning is off for now and “for the time being” they are “withdrawing their request” made earlier in the week for police assistance during the cleaning operation.

“Our position has been consistent throughout: the City’s role is to protect public health and safety, to enforce the law, and guarantee the rights of all New Yorkers. Brookfield believes they can work out an arrangement with the protesters that will ensure the park remains clean, safe, available for public use and that the situation is respectful of residents and businesses downtown, and we will continue to monitor the situation,” Deputy Mayor Cas Holloway said.

There had been fears of a standoff between New York officers tasked with clearing the park early Friday and protesters who wouldn’t budge. The city had ordered the protesters to leave by 7 a.m. so crews could clean the park.

But the protesters mopped, collected trash and scrubbed the pavement in the dead of the night as the Friday deadline neared for them to leave the premises for a cleanup. When the word of the postponed cleaning filtered through the more than 1,000 protesters who filled the park, they were elated.

What began about a month ago with a handful of protesters in New York City is now spreading across the globe:

The Occupy Wall Street movement has sparked nationwide protests in more than 1,400 cities, according to Occupy Together, which has become an online hub

for protest activity.

It also inspired solidarity rallies on Thursday that were due to take place at more than 140 U.S. college campuses in 25 states, according to Occupy Colleges. Some social media photos showed about a dozen or so protesters at various colleges.

According to the website of United for Global Change, 15october.net/, there are 869 cities in 71 countries where protests are being planning.[sic]

Even here in lowly Gainesville, a small blue dot in the middle of the reddest portion of Florida, the occupy movement is alive. A permit was granted for protesters to sleep overnight in the downtown Bo Diddley Plaza Wednesday night, but protesters attempted to stay overnight Thursday night as well, leading to the arrest of Bo Diddley's son, Ellas McDaniel:

Ellas Anthony McDaniel, 56, said he was charged with trespassing around midnight Thursday because he refused to leave the Bo Diddley community plaza after it closed as is customary at 11:30 p.m. McDaniel said he complained to police that he had not been read his Miranda rights.

"They said if I go back in there, I'll be arrested," McDaniel said. "I'm not a vagrant. My father wasn't a vagrant. If he was a vagrant, they wouldn't have named this park after him. He didn't raise no vagrants. He raised men. He raised me to stand up for what I believe, because he stood up for what he believed."

The arrests in Gainesville do not stand alone. Cities across the US have varied widely in their responses to the protests, with some large scale arrests (hundreds were arrested as they

took to the Brooklyn Bridge) and some cities, such as Los Angeles, working closely with protesters to assure peaceful protests with few to no arrests.

With the large number of protests planned around the world for tomorrow, this weekend should tell us just how much momentum the movement is gaining. One of the primary reasons Brookfield Properties and Mayor Bloomberg (whose girlfriend is on the board of Brookfield) may have backed down from a confrontation today is that there was a growing belief that there is now sufficient attention on the protest that a major crackdown would lead to a huge outpouring of support for the movement with overwhelming numbers of people joining the protesters on the streets. At the time of this writing, unconfirmed reports on Twitter indicate a significant police presence around Zuccotti Park and a few reports of individual arrests, but no massive police action appears imminent.

If there are indeed over 1400 different protests in the US tomorrow and nearly 900 more in international cities, it is clear that the protests are striking a nerve across the globe.

Although some attack the movement as lacking a clear purpose or set of demands, it seems to me that the resonant theme is that Wall Street represents the hub of a system which for too long has enriched a very few while relying on lax regulation, poor law enforcement and a purchased government to deprive everyone else of their resources and their opportunities. This movement represents a growing awareness among the "99%" that this situation is no longer sustainable.

How far will the movement go and does it have the potential to lead to real change? Only time will tell, but if the movement maintains anything like its current momentum for a few more weeks, the possibility begins to look more like a probability.

PROJECT BACUS FACILITY AT DUGWAY HAS BOTH FERMENTATION AND WEAPONIZATION CAPABILITIES

CNN informs us this morning that a report card issued by the bipartisan WMD Terrorism Research Center, headed by former Senators Bob Graham and Jim Talent, has issued failing grades to the US in its Bio-Response Report Card (pdf). The primary news from the report card, according to CNN, is that “The United States remains largely unprepared for a large-scale bioterrorism attack or deadly disease outbreak”. The grades:

The report card gave 15 F’s, 15 D’s and no A’s in its assessment of current bio-defense capabilities in the United States.

As I was reading the report, however, one short passage jumped out at me since I have been concentrating recently on the anthrax attacks of 2001. As noted in this diary, I was aware of Judy Miller’s reporting from September 4, 2001 on Project BACUS, which involved the construction and operation of a small facility capable of producing bioweapons:

In a nondescript mustard-colored building that was once a military recreation hall and barbershop, the Pentagon has built a germ factory that could make enough lethal microbes to wipe out entire cities.

Adjacent to the pool tables, the

shuffleboard and the bar stands a gleaming stainless steel cylinder, the 50-liter (53-quart) fermenter in which germs can be cultivated.

The apparatus, which includes a latticework of pipes and other equipment, was made entirely with commercially available components bought from hardware stores and other suppliers for about \$1 million – a pittance for a weapon that could deliver death on such a large scale.

Miller goes on to claim in this article that this facility “never made anthrax or any other lethal pathogen”. Instead, she cites two production runs of biopesticides in 1999 and 2000.

The BACUS facility turns up in the WMD Terrorism Research Center’s Report Card. In this case, the source cited is not the New York Times article I cite above, but Miller’s 2001 book, *Germs: Biological Weapons and America’s Secret War*:

The first piece of hard evidence regarding the capability of non-state actors to produce sophisticated biological weapons came in 1999 from a Defense Threat Reduction Agency study called Biotechnology Activity Characterization by Unconventional Signature (BACUS). The initial purpose of the study was to determine if a small-scale bioweapons production facility would produce an observable “intelligence signature.”

The answer was no. The study concluded that even when using “national technical means,” it would be extremely difficult, if not impossible, for the intelligence community to detect a clandestine production facility. This conclusion was somewhat expected. The surprise,

however, came from an experiment conducted as part of the study. Individuals, with no background in the development and production of bioweapons and no access to the classified information from the former U.S. bioweapons program, were able to produce a significant quantity of high-quality weaponized *Bacillus globigii*—a close cousin to the well-known threat, Anthrax.

From the New York Times article, I had viewed the BACUS site as solely a fermentation site. This disclosure that the facility also is equipped to weaponize the material produced makes it even more likely that this site, or one very similar to it, could have served as the real source of the material used in the 2001 anthrax attacks.

The second important disclosure in this short passage from the report is that it was possible for people “with no background in the development and production of bioweapons” or access to US bioweapons technology could use this facility to produce “a significant quantity of high-quality weaponized” anthrax simulant.

So, now that we know that the BACUS facility was fully operational at the time of the anthrax attacks, that it could produce and weaponize spores and that it could be successfully operated by individuals without bioweapons expertise, how is it that the entire staff of the Dugway site, where the BACUS facility is located, was eliminated in the Amerithrax investigation? McClatchy reporter Greg Gordon shed some light on that topic yesterday in a live chat put on in coordination with the recent McClatchy/ProPublica/Frontline documentary on the Amerithrax investigation:

At Dugway, which unlike USAMRIID did make anthrax powder, the FBI examined who was present at work and during what hours on the days before the anthrax was

postmarked. The bureau concluded that none of Dugway's researchers could have flown to New Jersey and back during their windows of opportunity

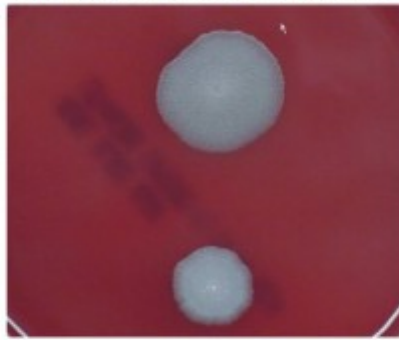
It is clear from this description that the FBI prejudiced the investigation of Dugway personnel by looking only for "lone wolf" actors rather than allowing for the possibility of multiple personnel acting in concert to perpetrate the attacks. Even for a facility as small as BACUS, such an assumption becomes almost ludicrous on its face. I have experience with fermentation equipment such as the 50 liter fermenter installed at BACUS, and it is quite a stretch of the imagination that a single person could prepare the starter culture, prepare and sterilize the fermentation medium, monitor the 18-24 hour fermentation run, harvest and process the spores and then dry and weaponize them without help from another person. In this regard, note that the Report Card quote above implies that it was a team, rather than a single person, who carried out the demonstration run described. The team would not need to be huge, but at least two to three people working together would be my estimate of what it would take to successfully carry out the steps outlined above.

Did the FBI examine records of fermenter use at Dugway in the months preceding the attacks? Did they investigate whether the BACUS facility had been in use? Did they look for evidence of material being shipped from Dugway to a recipient on the East Coast who could have dropped the letters in the Princeton mailbox?

The combination of the full functionality of the BACUS facility, coupled with the description of the weak criteria on which Dugway personnel were eliminated as suspects in the Amerithrax investigation demands further attention from the FBI. But don't hold your breath waiting for that to happen.

FBI ACCUSED IVINS OF HIDING MATERIAL WHILE FBI HID DATA FROM PUBLIC, IVINS' ATTORNEY

Figure 5.2 *B. anthracis* Colony Morphotype "B"



Photograph of colonies formed by growth of *B. anthracis* cells on blood agar. The colony on the top displays the morphology designated "Type B." The colony on the bottom displays the typical wild-type morphology.

Source: USAMRIID. This image is a work of the United States Army Medical Research Institute for Infectious Diseases, taken or made during the course of an employee's official duties. As a work of the U.S. federal government, the image is in the public domain.

A huge portion of the FBI's circumstantial case against Bruce Ivins

in the Amerithrax investigation of the 2001 anthrax attacks relies on the scientific analysis carried out to provide a genetic fingerprint of the anthrax spores in Ivins' RMR-1029 flask as the source from which the attack material was cultured. One of the central supporting pieces of evidence the FBI touts in this regard is the claim that Ivins submitted a sample to the FBI in April of 2002, labeled as arising from the RMR-1029 flask, but missing the key genetic variants which the FBI used to characterize the material in RMR-1029.

Through diligent analysis of thousands of pages of FBI files, a team consisting of McClatchy, ProPublica and Frontline has found that the FBI has not been entirely forthcoming about samples submitted to them by Ivins:

Prosecutors have said Ivins tried to hide his guilt by submitting a set of false samples of his Dugway spores in

April 2002. Tests on those samples didn't display the telltale genetic variants later found in the attack powder and in sampling from Ivins' Dugway flask.

Yet records discovered by "Frontline," McClatchy and ProPublica reveal publicly for the first time that Ivins made available at least three other samples that the investigation ultimately found to contain the crucial variants, including one after he allegedly tried to deceive investigators with the April submission.

Paul Kemp, who was Ivins' lawyer, said the government never told him about two of the samples, a discovery he called "incredible." The fact that the FBI had multiple samples of Ivins' spores that genetically matched anthrax in the letters, Kemp said, debunks the charge that the biologist was trying to cover his tracks.

As a ProPublica article piles onto the material above from McClatchy, the lead prosecutor in the case continues to claim that the one sample lacking variants is a strong indicator of Ivins' guilt and shows that he tried to hide the RMR-1029 flask from further scrutiny:

Rachel Lieber, the lead prosecutor in a case that will never go to trial, thinks that Ivins manipulated his sample to cover his tracks.

"If you send something that is supposed to be from the murder weapon, but you send something that doesn't match, that's the ultimate act of deception. That's why it's so important," Lieber said.

But did Ivins really manipulate the sample? That is not entirely clear, especially when the

microbiology and genetics relevant to the situation are considered along with the new knowledge that three other samples submitted by Ivins did have all of the genetic variants present.

The photo above comes from the National Academy of Science report on their investigation into the scientific approach taken by the FBI in the Amerithrax investigation. The photo shows the subtle difference in the growth habit on agar for a colony arising from a single normal cell (bottom) and a colony arising from a single variant cell (top). For their analysis, the FBI developed DNA tests that could distinguish four specific mutations that could produce four of the colony variants observed. It should be noted that the FBI found that in some cases, more than one different DNA change within the same gene could produce the same apparent colony shape variant, but they chose a single DNA change to track for each colony variant.

What needs to be kept in mind is that these colony variants are present at a low concentration in RMR-1029. As the National Academy report described in its finding 5.5, the analysis did not address the relative abundance of the various DNA types in either the RMR-1029 reference material or any of the investigative samples:

Finding 5.5: Specific molecular assays were developed for some of the *B. anthracis* Ames genotypes (those designated A1, A3, D, and E) found in the letters. These assays provided a useful approach for assessing possible relationships among the populations of *B. anthracis* spores in the letters and in samples that were subsequently collected for the FBI Repository (see also Chapter 6). However, more could have been done to determine the performance characteristics of these assays. In addition, the assays did not measure the relative abundance of the

variant morphotype mutations, which might have been valuable and could be important in future investigations.

Keep in mind that RMR-1029 contained material produced in multiple fermenter runs at Dugway and a number of flask cultures at USAMRIID.

Each individual culture that went into the RMR-1029 had the potential to produce its own spectrum of randomly arising DNA mutations which could have manifested as one of the colony variants chosen for analysis. Note also that the attack material was produced in one or more cultures presumably initiated with material arising from RMR-1029. The way in which the “starter” material was removed from RMR-1029 and how it was used to start the attack culture(s) would determine which variants were carried along, and in what ratios to one another and to the “normal” type. Furthermore, the conditions under which the attack cultures were produced would affect the final spectrum of variants present in the attack spore preparation.

Generally, microbiologists contend with the issue of randomly arising mutations by starting new cultures from a colony derived from a single cell from an older culture. This is achieved most often through use of a “streak plate” such as this one from Wikipedia:

To produce such a plate, the microbiologist starts with a liquid suspension of the old culture and dips into it a small sterilized wire loop which brings along with it a very small sample of the culture. The loop is then rubbed lightly over a small portion of the surface of a nutrient agar plate. The loop is then lifted off the surface of the agar, the plate rotated a few degrees, and the loop is rubbed lightly over the agar surface again, overlapping with the original area that received the liquid from the starter culture. This process is repeated several more times. After the plate is incubated for an appropriate amount of time, the pattern seen in the photo emerges. Because the concentration of bacteria in the starter culture

is high, the region of the plate receiving the liquid directly from the starter culture is completely covered with a "lawn" of bacteria.

As the starter bacteria are diluted with the successive rotations of the plate, individual colonies become apparent. The larger colonies separated by relatively large distances from one another can safely be assumed to have started from individual cells being deposited on the agar by the loop.

With that as background, now we can turn to the issue of the samples from RMR-1029 that Ivins provided to the FBI. The actual text of the sample preparation instructions in the subpoena under which Ivins and other researchers were ordered to submit samples is included on pages 76 and 77 of the Amerithrax report:

1. Collect each B. anthracis Ames strain stock as per your institutional inventory and personal knowledge.
2. Prepare a minimum of two TSA [tryptic soy agar] slant tubes per stock by prelabeling with permanent waterproof labels. Include the following information on the label: "B. anthracis Ames strain," with other designators used by your laboratory, date and your lab name. Additional information for each stock shall be provided separately.
3. A representative sample of each stock shall be used for inoculation of the TSA slants. If the stock is an agar culture, do not use a single colony, but rather use an inoculum taken across multiple colonies. Thawed frozen stocks or other liquid suspensions shall be well mixed prior to transfer of inoculum to the TSA.
4. Inoculate each TSA slant in a zig zag manner over the surface of the agar.
5. Incubate the slants at 35°C – 37°C for 12-18 hr to confirm culture growth.

6. Individually wrap the slants in packaging materials approved for shipment of infectious select agents in accordance with regulations for the shipment of such materials.

The subpoena went to USAMRIID on February 15, 2002 and on February 27 Ivins prepared and submitted a set of samples. However, on March 28, those samples were rejected by the FBI. From page 78 of the Amerithrax report:

On or before March 28, 2002 – the date the FBIR was officially up and running and had received its first sample, FBIR001 -Dr. Ezzell's lab technician advised Dr. Ivins and his lab technician that their submissions were not prepared according to the protocol. Specifically, Dr. Ivins and his lab technician used homemade slants as opposed to the commercially available Remel slants specified by the protocol, so the four slants prepared on February 27, 2002 were rejected by the FBIR, and Dr. Ivins was told to resubmit his culture samples on the appropriate slants.

Note that the portion of the protocol that the FBI put into the Amerithrax report did not mention that the TSA slant tubes had to be commercially prepared rather than homemade. Tryptic soy agar is one of the most widely used culture media in microbiology and it is not at all uncommon for researchers to prepare their own slants, as many laboratories go through very large volumes of both petri dishes and slants with TSA.

Ivins resubmitted samples on April 10. From the ProPublica article:

In April 2002, Ivins prepared a third sample from RMR-1029. This time, his lawyer said, he plucked a sample using a technique called a "single colony pick,"

a method biologists use to maintain purity when growing bacteria. Ultimately, this sample tested negative for the morphs. Prosecutors said they're not even sure that the sample Ivins submitted came from the flask. If it did, they said, he obstructed justice, since their subpoena instructed scientists to capture diverse samples of spores that would be sure to reproduce any morphs. Ivins told investigators he'd followed standard procedures for microbiologists when he sampled just one colony.

The Amerithrax report is vague about just what instructions, if any, were provided to Ivins when he was preparing his original sample:

On February 27, 2002, one of the FBI Special Agents heading up the scientific side of the investigation received a telephone call from Dr. Ivins regarding the submission. This agent no longer has an independent recollection of the telephone call from Ivins, but his contemporaneous notes from the call reflected that Dr. Ivins identified himself as a research microbiologist and provided his telephone number and facsimile number. Dr. Ivins also identified which cultures of B. anthracis he had in his possession, though RMR-1029 was not listed. One of the cultures noted, however, was "1987 spores fm Dugway," which is likely a reference to RMR-1029 with an incorrect date of 1987 instead of 1997. The agent noted: "will set up slants per subpoena today," referencing Dr. Ivins. Given the notation of Dr. Ivins's fax number and this statement, this agent believes that he faxed the protocol to Dr. Ivins that day for use in preparing his submissions.

Again, it seems important to me that the version of the protocol the FBI chose to insert into this section of the Amerithrax report does not have the instruction to use a commercial TSA slant. Is there another version of the protocol? Was that other version in the subpoena itself? [I will attempt to track down the actual subpoena, but the FBI document dump is not indexed.] Depending on how carefully Ivins reviewed the protocol instructions in April for his resubmission, and possibly which version of the protocol he may have reviewed, it is not all that surprising Ivins would rely on a single colony isolate for the RMR-1029 sample he submitted. Admittedly, the instructions in the Amerithrax report specifically state "liquid suspensions shall be well mixed prior to transfer of inoculum" and RMR-1029 was a highly concentrated liquid suspension. However, the same section also states "If the stock is an agar culture, do not use a single colony, but rather use an inoculum taken across multiple colonies." This part is really sloppy, as "multiple colonies" normally would be interpreted to be as few as three or four and most likely not more than ten. Sampling in this way would be very likely to miss most if not all of the morphological variants present at low concentration, so sampling "multiple colonies" in this way would almost certainly give the same result as picking a single colony, is Ivins is believed to have done.

The ProPublica article points out that just before he submitted the homemade slant, Ivins had been discussing with the FBI the possibility of using DNA analysis to type the morphological variants and to use that information as a tool in identifying the source of the material used in the attacks. Note that this first sample he submitted after the discussion had all the variants present, but was rejected by the FBI. Although we will never know why Ivins used a single colony for the April submission, it could be as simple as him being busy and not looking back carefully at the instructions. It also is very likely that Ivins (and the other

researchers submitting samples) was not told the exact nature of the analyses to be carried out. The DNA typing that eventually was carried out along the lines that Ivins had suggested above had not yet been developed in 2002 when he submitted this sample. If he suspected that DNA analysis was to be carried out, using a single colony would have been the logical choice, since a mixed population could produce ambiguous results in DNA sequencing. However, the fact remains that three out of four samples the FBI got from Ivins had the morphological variants present, so their continued insistence that the one sample lacking them is evidence of his guilt is hard to fathom.

FBI'S LONE WOLF CASE AGAINST IVINS CONTINUES TO CRUMBLE

Back in May, McClatchy provided new information that added significant doubt to the FBI's accusation that Bruce Ivins worked alone in the 2001 anthrax attacks. The key information McClatchy reported was that in addition to the already known abnormally high silicon content in the spores found in the attack material, high concentrations of tin were often found in association with the silicon. They then went on to provide convincing evidence that this unique chemical fingerprint could have come about from a process in which a tin-catalyzed polymerization of silicon-containing precursor molecules was employed to confer on the spores their unique properties which allowed them to suspend very easily in air. The key point in this observation is that this highly sophisticated chemical treatment of the spores requires both expertise and equipment that Ivins

did not have, making it impossible for him to have carried out the attacks alone if the spores were indeed treated with this process.

This morning, William Broad and Scott Shane continue this thread of argument in a New York Times article. Broad and Shane report that the scientists who first raised the tin-silicon combination issue now have a scientific article coming out in the Journal of Bioterrorism & Biodefense:

F.B.I. documents reviewed by The New York Times show that bureau scientists focused on tin early in their eight-year investigation, calling it an “element of interest” and a potentially critical clue to the criminal case. They later dropped their lengthy inquiry, never mentioned tin publicly and never offered any detailed account of how they thought the powder had been made.

The new paper raises the prospect – for the first time in a serious scientific forum – that the Army biodefense expert identified by the F.B.I. as the perpetrator, Bruce E. Ivins, had help in obtaining his germ weapons or conceivably was innocent of the crime.

Here is how I described the science behind the current question when the McClatchy article was published:

The FBI carried out a special form electron microscopy that could identify the location of the silicon in the spores from the attack material. They found that the silicon was in a structure called the the spore coat, which is inside the most outer covering of the spore called the exosporium. If silica nanoparticles had been used to disperse the spores, these would have been found on the outside of the exosporuim (see [this diary](#) for a

discussion of this point and quotes from the scientific literature) because they are too large to penetrate it. No silicon signature was seen on the outside edge of the exosporium. What is significant about the type of silicon treatment suggested in the McClatchy piece is that both high silicon and high tin measurements were found in several samples and that there is an alternative silicon treatment that would involve a tin-catalyzed polymerization of silicon-containing precursor molecules. McClatchy interviewed scientists who work with this process and they confirmed that the ratio of silicon to tin found by the FBI is in the range one would expect if such a polymerization process had been used.

What McClatchy doesn't mention in their report is that it would seem for a polymerization process of this sort, the silicon-containing precursor molecules would be small enough to penetrate the exosporium before being polymerized, or linked together into much larger molecules, once they reached the spore coat. This would mimic the location of silicon incorporated "naturally" into spores.

In today's article, Broad and Shane report that both Alice Gast, who chaired the National Academy of Science panel that reviewed the FBI's scientific work and Nancy Kingsbury, the head of an ongoing Government Accountability Office analysis, agree that the silicon-tin issue is worthy of further investigation.

In my ongoing analysis of the known scientific facts surrounding the anthrax attacks, I have been insistent that further attention needs to be paid to secret government laboratories as the potential real source of the attack material.

Broad and Shane appear to be headed in that same direction:

If Dr. Ivins did not make the powder, one conceivable source might be classified government research on anthrax, carried out for years by the military and the Central Intelligence Agency. Dr. Ivins had ties to several researchers who did such secret work.

Note that since Ivins “had ties” to several researchers within these classified facilities, that opens a direct route by which such a facility could have received a sample from Ivins’ RMR-1029 flask which has been identified genetically as the likely precursor from which the attack material was cultured.

We also learn this morning that on Tuesday evening, the PBS series Frontline will air an episode produced in cooperation with McClatchy and ProPublica. This report will center on the tremendous pressure the FBI applied to Ivins and how such pressure “can shred an individual’s life”:

According to this hard-edged report done in partnership with McClatchy Newspapers and Propublica, the FBI did more than zero in. Under tremendous pressure to solve the case that started in 2001 with anthrax mailed to U.S. senators and network anchors, the agency squeezed Ivins hard – using every trick in the book to get a confession out of him even as he insisted on his innocence to the end.

Ivins was a troubled guy with some distinctive kinks, the report acknowledges, but even FBI consultants in the case now admit that the agency overstated its evidence and never found a smoking gun to prove the researcher’s guilt. In fact, evidence was revealed last summer that shows Ivins did not have the equipment needed to make the powdery kind of anthrax sent through the mail. That didn’t stop the FBI then – or

now – in acting like it found its man.

Even as both scientists and journalists poke gaping holes in their now-closed investigation, the FBI continues to stand firm in its position that Ivins acted alone in the anthrax attacks, and their spokesman reiterated this position to Broad and Shane. Given the apparent momentum of the scientists and journalists, though, the FBI's position begins to look more and more like something Saddam Hussein's infamous "Baghdad Bob" would spout.

PAKISTAN ASKS FOR UPDATE ON RAYMOND DAVIS INVESTIGATION; OBL IMMUNIZATION DOCTOR ACCUSED OF TREASON

On Tuesday, noting the felony charge Raymond Davis faces in Colorado over a parking lot fight, I asked what happened to the investigation the US promised regarding Davis killing two Pakistanis in Lahore earlier this year. It turns out I'm not alone in asking that question. Karen DeYoung at the Washington Post reports that Pakistan has made a formal request for an update on the investigation. In other Pakistan news breaking this afternoon, we learn that a commission in Pakistan has urged filing of conspiracy and high treason charges against the doctor who assisted the CIA by setting up a fake immunization program in order to gain access to the suspected compound where Osama bin Laden was hiding.

It turns out that Pakistan asked about the Davis investigation a day before I did. From DeYoung's post:

In an Oct. 3 diplomatic note to Justice and the State Department, Ambassador Husain Haqqani referenced "the ongoing investigation" and asked that "the latest status in the matter may kindly be conveyed to the Embassy." Haqqani said no reply had yet been received.

Asked the same question, Justice spokesperson Laura Sweeney declined to comment on the department's behalf.

DeYoung also provides further background on the initial steps taken in the US to start the Davis investigation:

In a May 26 letter to Pakistani Interior Minister Rehman Malik, Mary Ellen Warlow, director of the Criminal Division of Justice's international affairs office, said that the department was "currently investigating" the Lahore shooting and requested that Pakistan "take steps to preserve all evidence relating to these events" and set up a liaison officer at the embassy to handle the matter.

That, Pakistan says, is the last it heard.

Note that this letter to Pakistan came over two months after Davis was released in mid-March.

If that letter was the last Pakistan heard about the investigation, it seems safe to assume that no US investigators have been to Pakistan to examine the evidence Pakistan was instructed to preserve or to interview witnesses. Also, it remains unclear whether the investigation into Davis' actions also is to include investigation into the vehicle which struck and killed a pedestrian after it was dispatched from the consulate in Lahore to rescue Davis.

Voice of America brings us the news on the recommendation of treason charges against the Pakistani doctor:

A Pakistani commission said Thursday that the government should file conspiracy and high treason charges against Shakeel Afridi.

Afridi is accused of running a fake vaccination campaign to help U.S. intelligence obtain DNA samples of bin Laden and his family.

/snip/

The Pakistani government set up the commission to investigate how U.S. forces managed to track down bin Laden and carry out the operation without Pakistan's prior knowledge.

The article goes on to inform us that this same commission also interviewed Ahmad Shuja Pasha, who heads Pakistan's main intelligence organization, the ISI. In addition, the commission interviewed bin Laden's wives and children. The commission is headed by a Supreme Court judge, but it is not clear how binding its recommendations will be.

**AFGHANISTAN AFFECTS
US-PAKISTAN DANCE,
SIGNING AGREEMENT
WITH INDIA; US MET
WITH HAQQANI**

NETWORK

The never-ending twists and turns in the relationship between the US and Pakistan continues, with Afghanistan now entering the picture by signing an agreement with Pakistan's chief rival India. Also, it is being reported that earlier this summer, Pakistan's ISI helped to arrange a meeting between US officials and the Haqqani network. This is a remarkable development since the relationship between the ISI and the Haqqani network has been the central feature of the latest dispute between the US and Pakistan.

While still in New Delhi after signing the agreement with India, Afghan President Hamid Karzai realized he needed to reassure Pakistan, whose biggest fear is that India will have more influence than Pakistan in Afghanistan after the US exit:

"Pakistan is our twin brother, India is a great friend. The agreement we signed with our friend will not affect our brother," Karzai said in a foreign policy speech in New Delhi.

"This strategic partnership ... is not directed against any country ... this strategic partnership is to support Afghanistan."

The Reuters report goes on to characterize the agreement:

Karzai and Indian Prime Minister Manmohan Singh sealed an agreement on Tuesday that spanned closer political ties to fighting terrorism and allowed India to help train its police and army.

It signals a formal tightening of links that may spark Pakistani concern that India is increasingly competing for leverage in Afghanistan.

In another very remarkable development, the Wall Street Journal is reporting this morning that earlier this summer, Pakistan's ISI arranged a meeting between the US and the Haqqani network.

That article is behind a paywall, so here is how Pakistan's Express Tribune reports on the development:

US officials met with leaders of the Haqqani network in a meeting arranged by the Inter-Services Intelligence agency (ISI) earlier this summer, *The Wall Street Journal* reported on Wednesday.

The meeting was held "in an effort to draw" the group into talks "on winding down the war."

The fact that the US would meet with the Haqqani network is stunning, given the strong rhetoric the US has used in accusing the ISI of aiding the Haqqani network attack on the US embassy and ISAF headquarters. As a result, the story of the meeting seems full of internal inconsistencies:

Officials from Pakistan and the US said the initiative did not yield much. Washington had earlier also said that the group was "beyond reconciliation."

The report states that the US had come to terms with the fact that targeting the group was not the solution and that they would have be drawn into peace talks.

Given the current rhetoric, it is hard to accept that " the fact that targeting the group was not the solution" is still the operative belief held by the US. In fact, there are reports this morning of the US taking out a major leader of the Haqqani network in an airstrike near the Pakistan border in Afghanistan. Despite the overwhelming evidence that the US position now appears to be one of attacking the Haqqani network until it is decimated, the Express

Tribune article carries this quote from a US official describing the decision to meet with the Haqqani network:

We've got no illusions about what the Haqqanis ultimately are. The war is going to end with a deal. That's what we're trying to make inevitable. The more parties involved in talking, that's probably going to make for a better deal.

It would be interesting to know whether the summer meeting, followed by the enhanced rhetoric this fall, represents evolution in the consensus of US leaders, where an attempt at negotiation was found to be fruitless or, alternatively, whether there are competing camps within US leadership who continue to hold to advocate opposite approaches favoring violent or peaceful solutions. Only time will tell.