Case 36: Parcel Bombs on Cargo Planes

John Mueller

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In October 2010, the al-Qaeda affiliate in Yemen sent two packages by air from Yemen to Chicago containing bombs placed within printer cartridges making them difficult to detect but also difficult to detonate. Also included was a copy of Charles Dickens' novel, *Great Expectations*, apparently put there as a talisman of great things to come.¹ So far, not so good. The plot was disrupted by detailed information supplied by a member of the group who was either an informant for Saudi intelligence or had what Ruxton McClure calls "a crisis of confidence" and defected to the Saudi side.

Putting the best face on the failure, the group later gloated that the caper cost them only \$4200 while causing airline security costs for their enemy to escalate by billions.² They also promised to "continue to strike blows against American interests and the interest of America's allies."³ They did try again in 2012 but, as McClure notes, that effort also failed due to the work of a Saudi agent on the inside.

At the center of all this, are the efforts of Hassan al-Asiri, the group's supposed master bombmaker, an "evil genius" according to House Homeland Security Committee chairman Peter King. Thus far, his record is pretty miserable. He was apparently responsible for these two attempts as well as that of the failed underwear bomber (Case 33). The only one of his bombs to actually explode was placed on the body (probably in the rectum) of his brother who was standing next to his target, a Saudi prince, at the time. The brother was killed; the prince escaped with only minor wounds.⁴ The attempts may be getting more creative, but, notes McClure, with "none managing to succeed."

¹ "Al-Qaida Magazine Details Parcel Bomb Attempt," NPR, November 22, 2010.

² "Al-Qaida Magazine Details Parcel Bomb Attempt."

³ "Yemen-based al Qaeda group claims responsibility for parcel bomb plot," CNN News, November 6, 2010.

⁴ Benjamin H. Friedman, "Washington Post Defines Worst Fears Down," nationalinterest.org, May 10, 2012.

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1. Overview

On October 29, 2010, two planes flew out of Sanaa, the capital of Yemen, carrying large quantities of plastic explosive concealed within two Hewlett-Packard printers, addressed as parcels for delivery to Jewish organizations in Chicago, United States of America. One of these printers was intercepted at East Midlands Airport, United Kingdom, the other in Dubai, United Arab Emirates. The bombers used the air freight companies UPS and FedEx to send the parcels. Qatar Airways confirmed the interception of one device that had flown from Sanaa to Doha, Qatar, before being delivered to Dubai, where it was intercepted. The other device passed through Cologne in Germany, before being intercepted at East Midlands Airport. Both devices were expected to explode in mid-air, somewhere over the eastern seaboard of the United States.¹

Prince Muhammed bin Nayef, chief of Saudi intelligence and a member of the Saudi royal family, notified John O. Brennan, a senior White House official and former CIA station chief in Riyadh, the capital of Saudi Arabia, of the threat, and informed CIA agents in Saudi Arabia. Bin Nayef himself was informed of the plot by a former Guantanamo Bay detainee, Jabr al-Faifi, who upon release from Guantanamo had rejoined al-Qaeda in Yemen. Al-Faifi notified Saudi intelligence operatives of the plot before turning himself in.²

Using the tracking number provided by al-Faifi, the package at East Midlands airport was discovered in the early hours of the morning of Friday, October 29, 2010, aboard a UPS Boeing 747 cargo plane, although authorities did not locate the explosive device until sometime later. Authorities also created a security cordon at the airport, although they later lifted it. At around 9am the second package was found in Dubai aboard a FedEx plane.³ At 1pm a security cordon was again put in place at East Midlands airport, after a second suspected package was found.

Later that afternoon the FBI announced that the two packages were addressed to religious buildings in Chicago, and at 6:35pm in the evening an Emirates airlines passenger flight from Yemen landed at John F. Kennedy escorted by US air force jets. The plane, Flight 201, was carrying a parcel sent from Yemen, and flew via Dubai.⁴ FedEx also confiscated another package sent from Yemen, and suspended all shipments from Dubai. FedEx flights that landed at Newark and Philadelphia were also investigated and found clean, and a British Airways flight from London to New York was "met by US officials as a 'precautionary measure."⁵

¹ "Q&A: Air Freight Bomb Plot," BBC News, November 2, 2010.

² Mark Mazzetti and Robert F. Worth, "U.S. Sees Complexity of Bombs as Link to Al Qaeda,"

New York Times, October 30, 2010.

³ Mazzetti and Worth, "U.S. Sees Complexity of Bombs as Link to Al Qaeda."

⁴ Gordon Corera, "Bomb plot shows growing creativeness and ambition," BBC News, October 30, 2010.

⁵ Corera, "Bomb plot shows growing creativeness and ambition."

Authorities and media outlets speculated that the bombers probably ran a "dry-run" in September 2010, when a parcel carrying an assortment of menial paraphernalia⁶ was sent via express delivery from Yemen to the United States. The likelihood is that the perpetrators tracked the location of their parcels via the internet, and garnered approximate times of arrival in the continental United States in order to gauge what time they needed to set on the bomb alarms.⁷ These dry-run parcels were tracked and picked up by US intelligence officials, who "suspected the 'dry run' packages had been sent by al-Qaeda's Yemeni branch."⁸

The bomb-designer would appear to be Ibrahim Hasan al-Asiri, a figure who has emerged as the leading bomb-designer of an al-Qaeda affiliate named al-Qaeda in the Arab Peninsula (AQAP).⁹ He was responsible for the failed Christmas Day bombing of 2009 (Case 33) as well as an attempted suicide bombing aimed at Prince Muhammed bin Nayef, the Saudi security chief.¹⁰

2. Nature of the adversary

AQAP claimed responsibility for the attempted bombing a week after news of the plot broke in international media. No other terrorist groups claimed responsibility, and prior to their "admission of guilt," intelligence experts around the world had already suggested that the most likely perpetrators were AQAP operatives.

AQAP has been called the "'most active operational franchise' of al-Qaeda beyond Pakistan and Afghanistan."¹¹ The organization's roots lie in the very origins of al-Qaeda itself. Osama bin Laden's father was born in Yemen, and bin Laden is said to consider the village of al-Rubat in southern Yemen to be his "ancestral home."¹² Indeed, bin Laden "has employed Yemeni jihadists in a variety of positions of special trust including his personal bodyguards, drivers, and other aides."¹³ During the 1980s bin Laden successfully recruited a large number of young Yemenis to fight in Afghanistan against the Soviets, with the support of the Yemeni government at that time.¹⁴ His success may have been due to his "skillful effort to reach out to youths from former landowning families who had fled from the Marxist [People's Democratic Republic of Yemen—i.e. the country of South Yemen] . . . were receptive to recruitment by any Islamist organization opposed to secularism and communism."¹⁵ In South Yemen, the PDRY adopted an extremely oppressive stance towards Islam and of course the

⁶ Such paraphernalia included "books, religious literature and a computer disk." "Parcel bomb plotters 'used dry run', say US officials," BBC News, November 2, 2010.

⁷ "Parcel bomb plotters 'used dry run', say US officials," BBC News.

⁸ "Parcel bomb plotters 'used dry run', say US officials," BBC News.

⁹ "Saudi man 'key suspect' in jet bomb plot, says US," BBC News, November 1, 2010.

¹⁰ Abdullah al-Shihri, "Prince Mohammed bin Nayef, Saudi Prince Injured In Suicide Attack,

Vows To Continue Fight Against Terrorism," Huffington Post, August 28, 2009.

¹¹ "Profile: Al-Qaeda in the Arabian Peninsula," BBC News, September 11, 2012.

¹² W. Andrew Terrill, The Conflicts in Yemen and U.S. National Security, Strategic Studies

Institute, U.S. Army War College, January 2011, 43.

¹³ Terrill, *The Conflicts in Yemen and U.S. National Security*, 43.

¹⁴ Terrill, *The Conflicts in Yemen and U.S. National Security*, 45 ("Yemeni fighters participating in the conflict may have numbered in the tens of thousands.").

¹⁵ Terrill, The Conflicts in Yemen and U.S. National Security, 46.

wealthy, resulting on both counts in a large number of conservative young men who fled South Yemen, to serve later in al-Qaeda [and who] directed their fierce anti-communism and religious devotion to serve bin Laden's objectives."¹⁶ Promising his Yemeni recruits that following Afghanistan they would take the holy war to Yemen, bin Laden founded al-Qaeda in 1988, but in the absence of backing from Saudi Arabia his plans came to naught.¹⁷

Regardless, returning from Afghanistan, a large number of al-Qaeda sympathizers and operatives were welcomed into Yemen as heroes, and three brigades of these "Yemeni jihadists" contributed to the victory of the north in the civil war of 1994. These Yemeni jihadists "were to become the seeds of serious problems later on." The first al-Qaeda terrorist attack in Yemen occurred in 1992, and al-Qaeda operatives contributed to the logistics of the 1998 US embassy bombings in Kenya and Tanzania. The USS Cole bombing was in fact performed by Yemeni al-Qaeda operatives, working under bin Laden's direct instructions.¹⁸

After 9/11, the Yemeni government's policy on al-Qaeda altered dramatically.¹⁹ President Saleh aligned himself with the United States, and with US support attempted to crush al-Qaeda in Yemen. In 2004 the government killed the head of al-Qaeda in Yemen, and subsequently ambushed and killed his replacement.²⁰ Both the US and Yemen considered the problem contained. Yemeni and US efforts to control al-Qaeda shifted elsewhere. This was a mistake.

Since then al-Qaeda has not only reorganized itself in Yemen, but the country has become a primary recruiting ground, a hot-bed of al-Qaeda activity. For about two years the organization went quiet in Yemen, until 2006 when 23 "experienced and resourceful terrorists escaped *en mass* from a Yemeni Political Security Organization (PSO) prison."²¹ The escape group included Jamal al-Badawi, the "alleged mastermind of the USS Cole bombing," as well as Nasser Abdul Karim al-Wuhayshi (a "former personal assistant to bin Laden in Afghanistan") and Qasim al-Raymi.²²

Al-Wuhayshi and al-Raymi led the reorganization of al-Qaeda in Yemen, and vastly expanded its recruitment.²³ Other factors leading to the group's reemergence included the number of Saudi terrorists moving into Yemen throughout the late 2000s, as well as the ultimate "merger of the Saudi and Yemeni branches of al-Qaeda in January 2009."²⁴ This merger resulted in the rebranding of the organization as "al-Qaeda in the Arabian Peninsula" (AQAP). Two of the senior figures present in the al-Qaeda video announcing the merger

¹⁶ Terrill, *The Conflicts in Yemen and U.S. National Security*, 46.

¹⁷ Terrill, *The Conflicts in Yemen and U.S. National Security*, 46-48.

¹⁸ Terrill, The Conflicts in Yemen and U.S. National Security, 49-51

¹⁹ Terrill, *The Conflicts in Yemen and U.S. National Security*, 51.

²⁰ "Profile: Al-Qaeda in the Arabian Peninsula," BBC News.

²¹ Terrill, *The Conflicts in Yemen and U.S. National Security*, 54.

²² "Profile: Al-Qaeda in the Arabian Peninsula," BBC News.

²³ "Profile: Al-Qaeda in the Arabian Peninsula," BBC News.

²⁴ Terrill, *The Conflicts in Yemen and U.S. National Security*, 54. See also "Profile: Al-Qaeda in the Arabian Peninsula," BBC News ("Umar Farouk Abdulmutallab . . . allegedly told investigators that AQAP operatives trained him in Yemen, equipped him with a powerful explosive device and told him what to do.").

were in fact former Guantanamo Bay detainees who had been "released from Guantanamo into the custody of the Saudi government's 'deradicalisation programme for militants' [and] ... both left the facility within weeks."²⁵

Additionally, and perhaps critically, "al-Qaeda forces in Yemen do not have a history of striking at civilians within their own society, so long as those civilians are outside of the government...al-Qaeda operations in Yemen are aimed at the security forces and at foreign targets such as the US embassy."²⁶ At least that was the status quo until September 2008.

Following a September 2008 attack on the US embassy in Yemen, it was suggested that the skills required for that attack were most likely learned in Iraq or Somalia, and that fighters returning from Iraq gave al-Qaeda's Yemeni branch a number of younger, hardened radicals who were "infuriated by the invasion of Iraq to a degree that did not occur with most older leaders."²⁷ Al-Qaeda propaganda suggested that Americans were committing atrocities against Iraqi civilians, a notion many young Yemenis bought into, leading to further recruitment.

Since the merger, AQAP has grown more and more sophisticated and audacious. The 2009 failed Christmas Day bombing was attempted by a terrorist trained in Yemen, and in particular AQAP has stepped up its campaign against the Yemeni government. In 2010, fighters attacked an intelligence and security headquarters, killing and injuring a number of policemen, just one amongst many other "high profile attacks against important government targets in southern Yemen."²⁸ Since then, AQAP has continued growing in sophistication, skills, support, and numbers, to the point where in August and September, 2010, AQAP felt confident enough to engage Yemeni forces in conventional battle, fighting in the towns of Lawder and Hawta (towns with populations of 80,000 and 20,000 respectively) for several days before retreating. The combat required the use of Yemeni tanks and armored vehicles to dislodge AQAP.

In February 2010, Qasim al-Raymi announced that in the wake of the increased US presence in Yemen (which included advisors, intelligence gathering resources, unmanned drones and the launching of cruise missiles) the US would now be a target for AQAP.²⁹ This was followed several months later by the attempted parcel bombing.

At present, AQAP's active fighters are most likely around 200 to 300, although some analyses (including that of the US State Department) put their roster as high as 1000.³⁰ In 2012 Said al-Shihri, the reputed second-in-command

²⁵ "Profile: Al-Qaeda in the Arabian Peninsula," BBC News.

²⁶ Terrill, *The Conflicts in Yemen and U.S. National Security*, 55.

²⁷ Terrill, The Conflicts in Yemen and U.S. National Security, 57.

²⁸ Terrill, *The Conflicts in Yemen and U.S. National Security*, 59-60.

²⁹ Raissa Kasolowsky, "Top Yemen al Qaeda leader threatens U.S. attacks," Reuters, February 23, 2010.

³⁰ "Profile: Al-Qaeda in the Arabian Peninsula," BBC News; Country Reports on Terrorism 2012, Chapter 6: Foreign Terrorist Organizations, *U.S. Department of State*, May 30, 2013, available at http://www.state.gov/j/ct/rls/crt/2012/209989.htm.

of AQAP was killed in a government operation.³¹ Al-Shirhri was another Guantanamo Bay detainee that was released from detention in 2007.³²

Ibrahim Hasan al-Asiri was the bomb-maker responsible for both the failed Christmas Day bombing on board a plane bound for Detroit in 2009, as well as for the cargo bomb plot. Al-Asiri was also responsible for surgically planting a bomb inside his own brother, who then unsuccessfully attempted to assassinate Saudi security chief Prince Mohammed bin Nayef in 2009 in a suicide-bombing. All of these plots have been claimed by AQAP.

Ibrahim al-Asiri was born into the middle class of "comfortable Riyadh neighborhood" in Saudi Arabia.³³ His family maintains that he (and his younger brother who attempted the suicide bombing) had no deep feelings about religion or jihad "until the death of a brother in a car accident in 2000."³⁴ According to a sister, "It was after that they started swapping video tapes and cassettes on the Mujahideen in Chechnya and Afghanistan, and they became at times distant. Abdullah [the younger brother] started to go out a lot with new friends to camps known as 'preaching camps."³⁵ In the meantime, al-Asiri was accepted to King Saud University where he studied chemistry, eventually quitting school after the US invasion of Iraq in 2003.³⁶ On his way to join an anti-American militia group in Iraq, he was arrested by the Saudi government. After serving nine months in prison, time which "only further served to radicalize him.... al-Asiri tried to start his own jihadist cell to overthrow the Saud royal family."³⁷ A raid by police in 2006 killed six members of his cell, leading him to flee with his brother to Yemen, where he met AQAP's deputy leader of the time, Saeed al-Shihri as well as the informant-to-be, Jabir al-Faifi. At that time, AQAP was in its formative stages, but by the time the various radical groups with vendettas against both Saudi Arabia and Yemen had merged into AQAP, plans were already afoot.

Prince Muhammed bin Nayef was al-Asiri's first major target. Al-Asiri's younger brother, Abdullah, "arranged to meet face to face with Prince Mohammed on the pretense that the younger al-Asiri wanted to defect."³⁸ Al-Asiri either surgically planted a bomb within his own brother, or sewed the bomb into the lining of his brother's underwear (details remain unclear). The bomb killed his brother when detonated, and "lightly wounded" bin Nayef. Since then, al-Asiri has been responsible for several other attempted bombings, each attempt getting more creative and yet none managing to succeed. As fast as he conjures up new, innovative ways to conceal explosives, the authorities have found ways to stop him and prevent such attempts in the future. At present, the bombmaker is

³¹ "Yemen says key al-Qaeda chief Said al-Shihri killed," BBC News, September 10, 2012.

³² "Yemen says key al-Qaeda chief Said al-Shihri killed," BBC News.

³³ Massimo Calabresi, "Profile of Al Qaeda's Top Bombmaker Ibrahim al-Asiri," *Time*, August 5, 2013.

³⁴ David Williams, "Al Qaeda supergrass foiled cargo jet 'printer bombs' with eight times amount of explosive needed to down plane," *Daily Mail*, November 10, 2010.

³⁵ Williams, "Al Qaeda supergrass foiled cargo jet."

³⁶ Calabresi, "Profile of Al Qaeda's Top Bombmaker Ibrahim al-Asiri."

³⁷ Calabresi, "Profile of Al Qaeda's Top Bombmaker Ibrahim al-Asiri."

³⁸ Calabresi, "Profile of Al Qaeda's Top Bombmaker Ibrahim al-Asiri."

still at large. However it is reported that he was almost taken out by a drone strike in Yemen in August 2013.³⁹

3. Motivation

As noted, AQAP did not consider the USA a primary target for many years, and mainly attacked targets in Saudi Arabia and attempted to incite regime change in Yemen and Saudi Arabia.⁴⁰ However, this historical avoidance of the US as a target has apparently shifted. In the wake of the attempted cargo bomb attack AQAP claimed explicit responsibility, and stated that they would "continue to strike blows against American interests and the interest of America's allies."⁴¹ This shift in AQAP policy also makes sense when factoring in the case of Umar Farouk Abdulmutallab, another AQAP bomber who attempted to blow himself up on a plane flying from Amsterdam to Detroit in December 2009.⁴² Indeed, as early as that attack, experts started describing this shift in policy. The official AQAP statement claiming credit for the December 2009 attempt stated that the attack was "to respond directly to the unjust American aggression on the Arabian Peninsula...This comes in the aftermath of the cruel attack using cluster bombs and cruise missiles launched from American ships that occupy the Gulf of Aden against proud Yemeni tribes in Abyan, Arhab, and Shabwah, killing dozens of Muslim women and children and even killing entire families."43

One commentator noted in December 2009 that "AQAP has taken note of the increased cooperation between American and Yemeni security forces and appears to have identified the United States and its interests as its primary target, replacing Saudi Arabia and Yemen, which have historically been the primary targets of al Qaeda groups on the Arabian Peninsula." The writer, Chris Harnisch, cited a number of public statements by AQAP for asserting this shift in position, including a request by a former secretary of bin Laden's to "attack airports and trains in the West," a video from a Saudi AQAP commander noting that the "first enemy is the Crusaders, among them America and NATO," and a video released by AQAP of the interrogation of an alleged double-agent in al-Qaeda, who was forced by his AQAP interrogators to state that Yemeni "security services...oppress the mujahideen at the request of America." A December 2 discussion on the forum "al Fallujah" noted with some enthusiasm the idea of "taking the war to enemy territory . . . guerilla warfare in America." Al Fallujah is not exclusively AQAP but does function as a sort of discussion forum for various terrorist organizations. Other evidence of the new campaign against the USA comes in the form of official statements released late in December 2009 describing President Obama as "the leader of the Crusader campaign." The

³⁹ Jim Miklaszewski, Courtney Kube and Richard Esposito, "Reports: Al Qaeda's master bombmaker wounded in US drone strike," NBC News, August 13, 2013.

⁴⁰ Robert F. Worth, "Yemen Emerges as Base for Qaeda Attacks on U.S.," *New York Times*, October 29, 2010.

⁴¹ "Yemen-based al Qaeda group claims responsibility for parcel bomb plot," CNN News, November 6, 2010.

 ⁴² Miklaszewski, Kube and Esposito, "Reports: Al Qaeda's master bombmaker wounded."
⁴³ Harnisch, "Christmas Day Attack: Manifestation of AQAP Shift Targeting America,"

www.criticalthreats.org, December 29, 2009.

statement also asked AQAP supporters "to face the Crusader campaign and its agents in the Arabian Peninsula by striking their military bases, their intelligence embassies, and their fleets in the waters and lands of the Arabian Peninsula, so that we stop the repeated massacres over the lands of the Muslims."⁴⁴

Finally, the self-proclaimed rationale for AQAP's violence against the US has been consistently based on US foreign policy in the Middle East. The Spring 2013 issue of AQAP's online English-language magazine, *Inspire*, punts an "overarching theme … that has been integrated into previous issues, but never before in such a central role … that it is America's fault that they are targeted in attacks, based on political decisions and its 'crusade' against the Muslim population." That specific issue particularly highlights "the wars in Afghanistan and Iraq, as well as drone strikes in Afghanistan, Pakistan, Yemen and Somalia."⁴⁵ This fits with typical al-Qaeda motivations for acts of terrorism

4. Goals

AQAP's general goal is to "purge Muslim countries of Western influence and replace secular 'apostate' governments with fundamentalist Islamic regimes observant of sharia law." Other "associated" objectives include "overthrowing the regime in Sana'a; assassinating Western nationals and their allies, including members of the Saudi royal family; striking at related interests in the region, such as embassies and energy concerns; and attacking the U.S. homeland.⁴⁶

In this particular case the goals of this operation are difficult to comprehend exactly. A number of possibilities present themselves. According to AQAP themselves, the aim of the plot was to significantly increase US security spending, leading them to claim that even though the cargo bombs never detonated, the plot was actually successful in its aims.⁴⁷ AQAP justified the notion that the plot was successful by noting that the total costs of the operation from their side came to a mere \$4,200.⁴⁸ They also noted that they were trying to create an air of paranoia and again they succeeded in this. AQAP stated that they didn't need to succeed in one huge attempt, but that by creating panic in increments, one small attack at the a time, they will succeed in their goals.⁴⁹ AQAP also claimed that the attack was aimed at disrupting air traffic, particularly cargo movement via airlines. In this they were partly effective, although not for an extended period of time (with the exception of cargo shipped from Yemen).

⁴⁴ Harnisch, "Christmas Day Attack: Manifestation of AQAP Shift Targeting America."

⁴⁵ "AQAP Releases New Edition of *Inspire* Magazine," www.msasecurity.net, May 31, 3013, available at

http://www.msasecurity.net/Portals/91068/docs/MSA%20AQAP%20Releases%2011th%20Edition%200f%20Inspire%20Magazine%205.31.13.pdf.

⁴⁶ Masters and Laub, "Al-Qaeda in the Arabian Peninsula (AQAP)," Council on Foreign Relations, August 22, 2013.

⁴⁷ Scott Shane, "Qaeda Branch Aimed for Broad Damage at Low Cost," *New York Times*, November 20, 2010.

⁴⁸ Shane, "Qaeda Branch Aimed for Broad Damage at Low Cost."

⁴⁹ "Al-Qaida Magazine Details Parcel Bomb Attempt," NPR, November 22, 2010, available at http://www.npr.org/templates/story/story.php?storyId=131520780.

Experts also suggest that this attack may have been an attempt to draw "broader publicity" and assist with recruiting.⁵⁰ A week after the bombs were discovered, AQAP took responsibility for the attempted bombings, and, in the same release, claimed responsibility for downing a plane that had crashed in Dubai several weeks prior. However a number of investigating agencies stated that this claim was not true, that no evidence of foul play was discovered while investigating the plane crash, and that AQAP was claiming responsibility for something they didn't do in an attempt to make themselves look somewhat more successful in their objectives.

In light of this analysis it seems reasonable to suggest that an aspect of the cargo bomb plot was simply creating public awareness of AQAP and their goals. While it is very possible that the event would have disrupted air traffic as well as struck fear into the American public—certainly a viable "goal" so to speak—the overarching theme of these attacks seems to be that AQAP is setting themselves up as the "go-to" organization for young Muslims seeking jihad. There is little doubt that with the creation of their magazine, *Inspire*, and their growing internet presence, they are attempting to increase recruitment and generate support. Indeed, it is interesting to note that according to the Council on Foreign Relations, AQAP has "mastered recruitment through propaganda and media campaigns."⁵¹ It is unclear to what extent the AQAP recruit base has enlarged over previous years. However, the fact that they were willing to engage Yemeni ground forces in conventional combat in Lawder and Hawta seems to support the notion that they have grown at least somewhat in numbers.

This cargo bomb plot therefore seems to have two important motivations. The first was, as described, the direct aim of attacking the United States based on their support for Israel and their foreign policy in the Middle East. This is the selfstated motivation of AQAP. The second motivation was to increase public awareness and recruitment.

5. Plans for violence

The devices themselves consisted of mobile phones with most of the unnecessary paraphernalia (including the sim cards and the screens) removed in order to save the battery life. Alarms were set using an ordinary cellphone alarm clock, which upon activation was intended to trigger the devices. The explosives consisted of pentaerythritol tetranitrate (PETN), a close relative of nitroglycerin and a powerful explosive. PETN was the same explosive used by Umar Farouk Abdulmutallab, another AQAP bomber who attempted to blow up a plane flying from Amsterdam to Detroit in December 2009 as well as by Richard Reid, the infamous shoe-bomber who attempted to blow up a flight to Miami in December 2001.⁵²

Although typically easy to detect, PETN can be extremely difficult to detect when utilized in this way.⁵³ Traditional methods of bomb detection,

⁵⁰ Worth, "Yemen Emerges as Base for Qaeda Attacks on U.S."

⁵¹ Masters and Laub, "Al-Qaeda in the Arabian Peninsula (AQAP)."

⁵² "Q&A: Air Freight Bomb Plot," BBC News.

⁵³ "Cargo bomb plot: What is the explosive PETN?" BBC News, November 1, 2010.

including the use of sniffer dogs and x-ray screening devices, are incapable of detecting the substance when it is enclosed in a device such as a printer cartridge.⁵⁴ Furthermore, it is a common explosive used by civilian firms for uses such as quarrying and demolitions, which means it is relatively easy to purchase on the open market.⁵⁵ PETN is manufactured as a white powder, and is often used in plastic explosives like Semtex. For traditional methods of bomb detection to reveal PETN, the "air from the container in which it is sealed needs to be 'sucked out' first."⁵⁶ Furthermore, the printer cartridges used to conceal the explosives are containers that would normally contain white powder within, which makes detection all the more difficult.⁵⁷

According to Scotland Yard, the bombs were timed to detonate somewhere over the east coast of the continental United States. This is an estimation of the possible detonation, since, "because shipping times cannot be predicted accurately, it remains unclear whether the plotters themselves would have known where the bomb would have detonated or what it would have destroyed. But cargo industry sources say it could be possible to narrow down a time window to as little as a few hours, using prior deliveries as a guide."⁵⁸

The size of the devices used were approximately 300 and 400 grams of PETN respectively.⁵⁹ Most newspaper sources suggest that this is more than enough to down a plane, with the Daily Mail suggesting that as little as 50 grams would be sufficient.⁶⁰ Bryan Walsh notes that PETN "is powerful even in quantities as small as a hundredth of a pound." However, he continues, the substance needs to be ignited in order to be dangerous, and a typical primer such as a blasting cap is unfeasible in the type of device used in the cargo bomb plot. Moreover, the ignition sequence for the device is "difficult, but not impossible."⁶¹

Furthermore, had the bombs exploded, the results might have been limited. In all likelihood, if the bombs had had any impact, they would have only blown a hole in the fuselage of their respective cargo planes.⁶² Even this isn't clear-cut, since other cargo in the plane might have muffled the blast. Had the bombs managed to blow actual holes in the fuselage, they might destabilize the planes sufficiently to cause them to crash. However the damage from a plane crashing in the countryside would have been negligible, and even had the bombers been able to get the timing of the detonation right, there is little to suggest that mass damage to the civilian population on the ground would have occurred. The most noted example of a plane breaking up over a crowded area is that of the Lockerbie bombing of 1988, in which only 11 people were killed on

⁵⁴ "Saudi man 'key suspect' in jet bomb plot, says US," BBC News.

⁵⁵ "Cargo bomb plot: What is the explosive PETN?" BBC News.

⁵⁶ "Cargo bomb plot: What is the explosive PETN?" BBC News.

⁵⁷ "Cargo bomb plot: What is the explosive PETN?" BBC News.

⁵⁸ John F. Burns, "Yemen Bomb Could Have Gone Off at East Coast,," *New York Times*, November 10, 2010.

⁵⁹ Williams, "Al Qaeda supergrass foiled cargo jet."

⁶⁰ Williams, "Al Qaeda supergrass foiled cargo jet."

⁶¹ Walsh, "Why It's Not Easy to Detonate a Bomb on Board."

⁶² Walsh, "Why It's Not Easy to Detonate a Bomb on Board."

the ground.⁶³ In February, 2009, a plane crashed in a suburban area of Buffalo, New York, killing only one person on the ground.⁶⁴ In November, 2001, an Airbus A300 crashed in urban Belle Harbor, New York, with only five deaths on the ground.⁶⁵ In each of these cases, all of the passengers flying on the planes were killed. However, the damage to those on the ground was minimal.

On a cargo plane, only two pilots are present. If the bombs had detonated, the pilots would most likely have lost their lives in the ensuing crash, but other casualties would most likely have been very limited.

6. Role of informants

According to British officials, the primary tip-off of the plot came from Jabr al-Faifi, a former Guantanomo Bay detainee and an AQAP member at the time of the plot. Al-Faifi reportedly revealed the plot to Saudi intelligence, and turned himself in to Saudi authorities in mid-October 2010.⁶⁶

Jabr al-Faifi was captured by US forces while fighting in Afghanistan.⁶⁷ He stated that he had been recruited at a mosque in Saudi Arabia, and that he joined the fight because "after he had read a newspaper article [urging] Muslims to join jihad in Afghanistan [he] did so because he felt he was not a faithful Muslim due to drug use, smoking and lack of prayer."⁶⁸ He was given two weeks training, and did end up at the front lines in Afghanistan, but he denied having fired a weapon at any time.⁶⁹ He was held for five years at Guantanamo Bay before being released to Saudi Arabia. Upon his release he "vowed never to participate in another jihad" and that he wanted to return to Saudi Arabia to "take care of his parents and resume his job as a taxi driver."⁷⁰

In Saudi Arabia, al-Faifi entered the Saudi militant rehabilitation program at the Muhammad Bin Naif al-Munasaha Center, where he was assessed to be a "low risk" threat and was used as a guinea pig in a case-study of the effectiveness of the program.⁷¹ The program operates by "using religious arguments and financial and other incentives to draw people away from extremism."⁷² After being released from the program, al-Faifi joined AQAP, thereafter moving to Yemen. Saudi authorities listed him on a list of their 85 most-wanted terrorists.⁷³ In September 2010 he notified Saudi officials that he wanted to turn himself in and on October 16, 2010, a Saudi plane collected him in Yemen.⁷⁴ He was

⁶³ M. M. Charles, "Aircraft Accident Report No 2/90 (EW/C1094)," Department of Transportation, December 21, 1988.

⁶⁴ Doug Alexander and Chris Dolmetsch, "Continental Plane Reported Icing Before Crashing," Bloomberg News, February 19, 2009.

⁶⁵ "NTSB Press Release," NTSB News, October 26, 2004.

⁶⁶ "Parcel bomb plotters 'used dry run', say US officials," BBC News.

⁶⁷ Andy Soltis, "Bomb tip from Qaeda traitor," New York Post, November 2, 2010.

⁶⁸ "Ex-Gitmo inmate who joined al-Qaida surrenders," Washington Post, October 16, 2010.

⁶⁹ "Ex-Gitmo inmate who joined al-Qaida surrenders," Washington Post.

⁷⁰ "Ex-Gitmo inmate who joined al-Qaida surrenders," Washington Post.

⁷¹ "Ex-Gitmo inmate who joined al-Qaida surrenders," Washington Post.

⁷² "Ex-Gitmo inmate who joined al-Qaida surrenders," Washington Post.

⁷³ Soltis, "Bomb tip from Qaeda traitor."

⁷⁴ Soltis, "Bomb tip from Qaeda traitor."

brought in for questioning where he revealed the details of the cargo bomb plot.⁷⁵ This version of events was disputed by Yemeni officials who suggest that al-Faifi had been a double-agent working for Saudi intelligence back when he first rejoined al-Qaeda.⁷⁶

Al-Faifi's information was absolutely critical to the successful resolution of the plot. Information provided to the Saudis and thereafter passed on to US, Qatari, and British officials included the tracking numbers of the parcels themselves, allowing investigators to go straight to the illicit cargo without having to perform time-consuming and dangerous searches for the devices.⁷⁷

Al-Faifi's motivation for turning on AQAP is unclear, whether or not he infiltrated the organization as a spy or actually joined AQAP with genuine intentions to support their jihad, and then changed his mind. It's possible that he may have gotten tired of Yemen and the discomfort of the militia lifestyle, and simply wanted a free ride out to Saudi Arabia. This is hardly a convincing argument by itself, but it should be recalled that the rehabilitation program would have educated him as to the potential benefits of informing—especially the financial benefits. On the other hand, the threat to his life and that of his family would have been significant. Alternatively, taking into account that al-Faifi stated in his Guantanamo release hearing that he never fired a weapon while on the front lines in Afghanistan, it is possible that he simply baulked at the idea of taking lives, especially civilian lives. Whatever the truth, it is undeniable that his actions were instrumental in foiling the plot.

7. Connections

AQAP is not simply an affiliate of al-Qaeda itself, but rather its strongest pillar. The al-Qaeda organization has evolved from a single group to a network of organizations and individuals with common beliefs, overlapping membership, and decentralized control. As the United States State Department explains, "AQ serves as a focal point of 'inspiration' for a worldwide network of affiliated groups."⁷⁸ The disintegration of the central organization has occurred along geographic lines, with groups such as al-Qaeda in Iraq (AQI), al-Qaeda in the Islamic Maghreb (AQIM), al-Shabaab, and a host of other groups all forming the collective popularly known as al-Qaeda.⁷⁹

It is hard to state with any certainty the exact roles played by any of these different organizations in this particular plot, with the exception of AQAP itself. The various plots claimed by AQAP as an independent entity have all involved the use of PETN as an explosive device and innovative, ingenious delivery systems. Thus it would seem that AQAP was the primary author of this plot, and not simply part of a larger AQ plot. It does not appear on the surface that coordination or cooperation with any other part of the AQ network was required

⁷⁵ Soltis, "Bomb tip from Qaeda traitor."

⁷⁶ Soltis, "Bomb tip from Qaeda traitor."

⁷⁷ Soltis, "Bomb tip from Qaeda traitor."

⁷⁸ Country Reports on Terrorism 2012, U.S. Department of State.

⁷⁹ Country Reports on Terrorism 2012, U.S. Department of State. Other groups include "the Islamic Movement of Uzbekistan, the Islamic Jihad Union, Lashkar i Jhangvi, Harakat ul-Mujahadin, and Jemaah Islamiya. Tehrik-e Taliban Pakistan and the Haqqani Network."

in this instance. This is reinforced by the suggestions discussed earlier, namely that the bomb-maker was a member of the AQAP, and that the authorization came from a senior AQAP leader.

8. Relation to the Muslim community

The Dubai package had a woman's name and address in Sanaa listed as the return address.⁸⁰ This name and address were valid, and a woman and her mother were picked up by Saudi intelligence operatives. The two women were both later released, and Saudi intelligence revealed that the woman's name and address had been used as a cover by the real perpetrators.

The Department of Homeland Security announced at the time that the plot may have been "associated with two schools in Yemen—the Yemen American Institute for Languages-Computer Management, and the American Center for Training and Development."⁸¹ Indeed, much AQAP recruiting is supposed to take place in the Muslim community, and they attempt to derive their legitimacy from the teachings of Islam. As the second issue of the AQAP magazine, *Inspire*, announces, "It is absolutely necessary have a sense of commitment to the Islamic Nation and its world, in the geographical, political and military dimensions and in every field … [and] We must open the minds and hearts of the Islamic Nation's youth, so that they feel commitment to the Islamic Nation as a whole. This is a fundament in the religion and the faith, as well as in the politics and the strategic military concept."⁸²

The two parcels were addressed to two synagogues in Chicago, perhaps symbolic of targeting not just the US but also Israel. AQAP condemned Saudi Arabia for their involvement in defusing the plot, announcing to the Saudi regime that, "God has exposed you and showed the world that you are nothing but treacherous agents to the Jews because these bomb packages were headed to Jewish-Zionist temples, and you had to intervene with your treacherous ways to protect them, so may God curse you for being the oppressors."⁸³ One article in *Inspire* describes how "Jihad is the peak of Islam."⁸⁴ In another article written by the leader of AQAP at the time of the cargo bomb plot, Anwar al-Awlaki himself, describes in great detail the religious justification for the actions and goals of AQAP.⁸⁵ In a sense, AQAP attempts to derive their legitimacy out of Islam and the sense that they are fighting for the so-called "Islamic Nation" or global Muslim community.

9. Depiction by the authorities

The day following the attempted bombing, the White House released a very brief statement:

⁸⁰ Mazzetti and Worth, "U.S. Sees Complexity of Bombs as Link to Al Qaeda."

⁸¹ Mazzetti and Worth, "U.S. Sees Complexity of Bombs as Link to Al Qaeda."

⁸² Abu Mus'ab al-Suuri, The Jihadi Experience, *Inspire*, 21, Fall, 2010, available at http://info.publicintelligence.net/InspireFall2010.pdf.

⁸³ "Yemen-based al Qaeda group claims responsibility for parcel bomb plot," CNN News.

⁸⁴ Shaykh Ibrahim al-Banna, "Obama's Ploy and the Peak of Islam," *Inspire*, 23, Fall, 2010.

⁸⁵ Shaykh Anwar al-Awlaki, The New Mardin Declaration: An Attempt at Justifying the New World Order, *Inspire*, 33, Fall, 2010.

Last night, intelligence and law enforcement agencies discovered potential suspicious packages on two planes in transit to the United States. Based on close cooperation among U.S. government agencies and with our foreign allies and partners, authorities were able to identify and examine two suspicious packages, one in East Midlands, United Kingdom and one in Dubai. Both of these packages originated from Yemen. As a result of security precautions triggered by this threat, the additional measures were taken regarding the flights at Newark Liberty and Philadelphia International Airports.

The President was notified of a potential terrorist threat on Thursday night at 10:35, by John Brennan, Assistant to the President for Homeland Security and Counter-terrorism. The President directed U.S. intelligence and law enforcement agencies, and the Department of Homeland Security, to take steps to ensure the safety and security of the American people, and to determine whether these threats are a part of any additional terrorist plotting. The President has received regular updates from his national security team since he was alerted to the threat.⁸⁶

President Obama would later make a press conference in which he noted that the attack posed a "credible terrorist threat" to the United States.⁸⁷ He further stated that Yemeni President Ali Abdullah Saleh "had pledged 'full co-operation' to hunt down the terrorists." The President stated emphatically that "Going forward we will continue to strengthen co-operation with the Yemen government to disrupt plotting by al-Qaeda in the Arabian Peninsula, and to destroy this al-Qaeda affiliate. We will also continue our efforts to strengthen a stable, secure and prosperous Yemen so the terrorist groups do not have the time and space they need to plan attacks from within its borders."⁸⁸ President Obama also personally called Saudi King Abdullah the day after the resolution of the plot to thank him for the role that Saudi officials had played in preventing the bombing.⁸⁹

During the Senate Hearing investigating the incident, Senator Joe Lieberman made a statement regarding the security lapses in which he noted that, Beginning with the attacks against America on September 11, 2001, our terrorist enemies have consistently sought to use airplanes as weapons of mass destruction, and more generally, they have seen in our aviation system a strategic choke point of international transit and commerce that could be brought to a halt, or at least stopped, through terrorist attacks. We have seen shoe bombers, liquid bombers, and underwear bombers. Again and again, terrorists have sought different ways to blow up an airplane. In the most recent attempt, of course, terrorists hid bombs inside the toner cartridges of printers and sent them to the United States as air cargo. This plot, as the others before it, was thwarted, in this case largely because of extraordinary intelligence, and here we give thanks and credit to our friends

⁸⁶ "Press Secretary Gibbs on Potential Suspicious Packages," The White House Blog, October 29, 2010.

⁸⁷ Bill Chappell, "Cargo Packages Contained 'Explosive Materials' White House Says," NPR Blog, October 29, 2010.

⁸⁸ Vikram Dodd, "Yemen bomb scare 'mastermind' lived in London," The Guardian, October 29, 2010.

⁸⁹ Soltis, "Bomb tip from Qaeda traitor."

and allies in Saudi Arabia. But there was in this an element of good fortune or luck, and luck, of course, is not a strategy to defend our Nation from a threat of terrorists.⁹⁰

Representative Ed Markey also made a statement noting that, "It is time for the shipping industry and the business community to accept the reality that more needs to be done to secure cargo planes so that they cannot be turned into a delivery systems for bombs targeting our country."⁹¹

The tone of these and other responses from the authorities is realistic without being alarmist. Authorities appeared to understand that they had gotten "lucky" on this one, and that they would need to step up their game in future. It would seem that the US government didn't try to hide the gravity of the situation, nor the fact that the existing security systems had let them down. At the same time, the authorities made it clear that they were now aware of the problem, and would be working to fix it in the future. In summary, the authorities' depiction of the event was tense, but not fearful, and largely realistic in its depiction of the risks and the government's need to respond.

10. Coverage by the media

Coverage of the event in the media varied from alarmist to precautionary to salutary of the role played by the intelligence community. Many media outlets noted the role of the informant and the fact that he was a Guantanamo Bay releasee. The BBC covered the event in some detail, and particularly addressed the problems of detecting PETN in this form of device. Most media articles went into considerable depth about the problems of detecting the substance, the gaps in security, and the "lucky break" in the form of the informant. While certainly not designed to incite panic, the vast majority of media coverage was far from congratulatory of the role played by the informant. CBS's coverage was particularly alarmist, noting in the introduction to one of their stories, "The skies may still not be safe.' That's the concession from White House officials who admit they're concerned there could be more bombs out there."⁹² This theme did tend to run through certain media accounts of the incident. However, there was little suggestion that passengers on regular flights should panic or put off their travel plans.

Very few commentators assessed the actual fundamental aims of the plot, or the potential damage that would have ensued had the plot been successful. This went largely unreported. Finally, media outlets by-and-large reported the incident accurately and consistently. As information was released, the media updated their stories, and most outlets released follow-up pieces in the aftermath, looking at details as released by the authorities. Expert opinions tended to speculate very accurately about the sources and implications of the plot.

⁹⁰ "Closing the Gaps in Air Cargo Security," Hearing before the Committee on Homeland Security and Governmental Affairs, United States Senate, S. Hrg. 111-1105, Second Session, Nov. 16, 2010.

⁹¹ Mark Mazzetti, Robert F. Worth and Eric Lipton, "Bomb Plot Shows Key Role Played by Intelligence," *New York Times*, October 31, 2010.

⁹²"Suspect Named in Cargo Bomb Plot," CBS News, November 1, 2010, available at http://www.cbsnews.com/video/watch/?id=7010740n.

11. Policing costs

Some 26 million tonnes of cargo travels by air each year, consisting predominantly of electronics, engineering or machine parts, pharmaceuticals, and fruit and vegetables. The manpower and time required to disassemble goods from their packaging and then reassemble the package is simply "unrealistic."⁹³ This is where the vast bulk of policing costs arise.

In the case at hand there were little to no costs in terms of investigation or surveillance, and there was no court case to speak of. The informant surrendered himself to authorities, and presumably is in protective custody at the present time, which would like comprise a significant cost, as would the cost of maintaining other informants within various terrorist organizations, including AQAP. However these costs cannot be assigned exclusively to the policing of cargo bombs, but rather to the policing costs of terrorism in general. Informants' roles are not to watch out for cargo bombs, but to watch for any activity which may pose a significant threat (cargo bombs being one such example). Similarly communication watchdog agencies such as the British General Communications Headquarters (GCHQ) and the US National Security Agency, have invested billions of pounds and dollars respectively into electronic surveillance, which would obviously include the tracking of communications between terrorists with regards to potential plots. This "policing cost" is tremendous, but cannot be isolated simply to this one case, but rather to the general problem of combatting terrorism.

The primary *direct* cost, as noted above, is and will be in the form of airport screening of cargo, and even on this there is little chance of a dramatic increase in cost from the screening procedures employed prior to the cargo bomb plot. The governmental response to the incident is covered in further detail below, but suffice it to note that since x-ray technology and dog-sniffing do not significantly improve the odds of detecting PETN,⁹⁴ the primary form of "policing" will be through "increased vigilance."⁹⁵ Furthermore, much of the costs of investigating cargo will be borne by the cargo carriers themselves, who (as in Britain and the US) will find themselves compelled by legislation to increase their own security and protection.

12. Relevance of the internet

As noted above, the attackers most likely used the internet to track a number of harmless packages sent by express delivery in September as a "dry run."⁹⁶ Even in the absence of this dry run, the internet would have been crucial in planning the timing of the detonation in order to maximize the damage. The bombs were most likely intended to detonate over major US cities, and doing so may have resulted in a similar outcome to the Lockerbie bombing, whereby

⁹³ Lighton, "'No silver bullet' for air cargo security concerns."

⁹⁴ "Cargo bomb plot: What is the explosive PETN?" BBC News.

⁹⁵ Clare Lighton, "'No silver bullet' for air cargo security concerns," BBC News, November 1, 2010.

⁹⁶ "Parcel bomb plotters 'used dry run', say US officials," BBC News.

inhabitants on the ground would suffer damage and loss of life as the planes exploded overhead and rained down upon the ground. However, even with the use of the internet, this intention could only have been a hope: the bombers would have been forced to make a rough guess as to the best time to detonate the bombs. In the immediate aftermath, Interpol released a worldwide alert, informing governments, airlines and cargo companies of the plot and the danger. This information was disseminated quickly and efficiently through the internet.

Prior to the plot, AQAP had also "stepped up its recruitment drive on the Internet, issuing an English-language magazine that include[d] articles with titles like 'Make a Bomb in Your Mother's Kitchen.""⁹⁷ Indeed, the primary role of the internet in this and similar atrocities is in the aftermath. AQAP uses it to broadcast messages and statements, including comments on different issues, the chastisement of the USA and its various allies in the Middle East, the claiming of responsibility for various acts, and the generation of public support for their cause. AQAP publishes its newsletter, Inspire, via the internet, and uses a number of blogs and forums to broadcast their message.⁹⁸ Indeed, *Inspire* contains an entire section entitled "Open Source Jihad" which the magazine describes as a "resource manual for those who loathe the tyrants; includes bomb making techniques, security measures, guerilla tactics, weapons training and all other jihad related activities."99 A column in this section entitled "2.0 extras" and written by an "Asrar al-Mujahideen" (a.k.a. "Terr0r1st") describes methods for jihadists to use computers and the internet "safely."¹⁰⁰ This includes the use of encryption programs and file shredders. AQAP is unabashedly and extensively using the internet not only to propagandize and recruit, but to teach prospective "jihadists" how to operate.

13. Are we safer?

In May 2012, eighteen months after the cargo bomb plot, the Federal Bureau of Investigation released a public statement announcing that

As a result of close cooperation with our security and intelligence partners overseas, an improvised explosive device (IED) designed to carry out a terrorist attack has been seized abroad. The FBI currently has possession of the IED and is conducting technical and forensics analysis on it. Initial exploitation indicates that the device is very similar to IEDs that have been used previously by al Qaeda in the Arabian Peninsula (AQAP) in attempted terrorist attacks, including against aircraft and for targeted assassinations. The device never presented a threat to public safety, and the U.S. government is working closely with international partners to address associated concerns with the device.¹⁰¹

⁹⁷ Worth, "Yemen Emerges as Base for Qaeda Attacks on U.S."

⁹⁸ Chris Harnisch, "Christmas Day Attack: Manifestation of AQAP Shift Targeting America."

⁹⁹ Asrar al-Mujahideen (a.k.a. Terr0r1st), "2.0 extras," *Inspire*, 58, Fall, 2010, available at http://info.publicintelligence.net/InspireFall2010.pdf.

¹⁰⁰ Al-Mujahideen, "2.0 extras."

¹⁰¹ FBI Statement on Seizure of IED Overseas, Federal Bureau of Investigation, National Press Releases, May 7, 2012.

This somewhat cryptic statement may refer to a plot very similar to the cargo bomb plot, one that was averted by an undercover agent in Yemen, who not only successfully infiltrated an AQAP cell, but was able to seize the device itself.¹⁰² Yet again crisis was averted through excellent human intelligence, from sources within the organization itself. So long as intelligence services maintain a high penetration of these terrorist cells and groups, it seems that the world is a relatively safe place. The concern, however, is that human intelligence is insufficient, and that these new, creative explosive devices pose a serious difficulty for airport screening devices.

The primary problem with regards to these devices is that they can go through x-ray scanners without being picked up.¹⁰³ Indeed, the bomb picked up at East Midlands Airport wasn't found until numerous searches of the printer had been conducted, even though officials knew for a practical certainty that the device was within the printer. Traditional scanning devices struggle to detect this particular form of device involving the explosive PETN.¹⁰⁴ PETN is relatively easy to get hold of, and the way in which it was set within the printer cartridges made it extremely difficult to detect.¹⁰⁵ In order for sniffer dogs or machines to detect PETN, it is necessary to suck out the air from the container in which it is sealed: a tricky process, and the reason British intelligence operatives struggled to locate the device within the printer even though they had the actual tracking number of the parcel.¹⁰⁶

In the wake of the October 2010 plot, a number of countries and private companies reacted by cutting off cargo and/or passenger flights from Yemen. The United Kingdom and the Netherlands banned cargo flights from Yemen and Somalia as well as increased security measures screening departing cargo from their own airports.¹⁰⁷ Additionally, 30 'trans-shipment' screening exemptions were revoked for foreign freight being loaded at UK airports, including "flights from Islamabad, Doha, Tripoli and Mumbai."¹⁰⁸ The British government in particular enacted review of air freight security, and immediately gave increased guidance to airport security staff on identification of suspicious packages.¹⁰⁹ They also suspended carriage of toner cartridges larger than 500 grams in passenger's hand luggage for all flights departing from the UK.¹¹⁰ The FBI and Homeland Security also "warned local officials across the country that packages from abroad with no return address and excessive postage [require] a second examination."¹¹¹

¹⁰² Cody Curran, James Gallagher, Courtney Hughes, Paul Jarvis, Adam Kahan, Patrick Knapp, Matthew Lu, and Jared Sorhaindo, "AQAP and Suspected AQAP Attacks in Yemen Tracker 2010, 2011, and 2012," www.criticalthreats.org, May 21, 2012.

¹⁰³ Lighton, "'No silver bullet' for air cargo security concerns."

¹⁰⁴ "Cargo bomb plot: What is the explosive PETN?" BBC News.

¹⁰⁵ "Cargo bomb plot: What is the explosive PETN?" BBC News.

¹⁰⁶ "Cargo bomb plot: What is the explosive PETN?" BBC News.

¹⁰⁷ "Parcel bomb plotters 'used dry run', say US officials," BBC News.

¹⁰⁸ "New air cargo restriction imposed after bomb plot," BBC News, November 4, 2010.

¹⁰⁹ Lighton, "'No silver bullet' for air cargo security concerns."

¹¹⁰ Lighton, "'No silver bullet' for air cargo security concerns."

¹¹¹ Gordon Rayner and Duncan Gardham, "Cargo plane bomb plot: ink cartridge bomb 'timed to blow up over US," The Telegraph, November 10, 2010.

Prior to the incident, in August 2010, the US introduced a statutory requirement that 100 percent cargo on passenger planes must be screened for explosives.¹¹² Large packages are required to be disassembled and packaged in smaller items, allowing viewing by "advanced X-ray machines which give more than one view of the package."¹¹³ The US also employs explosives trace detection for cargo on both passenger and non-passenger flights.¹¹⁴ This ramping up of screening methods seems to be the trend throughout the world, however one questions whether this alone is sufficient, and even whether or not screening will detect the devices.

Following the incident, the US Senate Committee on Homeland Affairs and Governmental Affairs held hearings to discuss the screening and security issues raised by the cargo bomb plot.¹¹⁵ While the details of the hearings beyond the scope of this analysis, the main point of the hearings was that while 100 percent of luggage on passenger flights is being screened, only 60 percent of cargo is being screened. The Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Act) P.L. 110-53(2007) required 100 percent screening of cargo.

The Transportation Security Administration (TSA) notes that traditionally security measures would be left to the air carriers themselves, but due to the logistics of the process, much of that screening is today undertaken by the TSA itself, using a "multi-dimensional strategy to reconcile the requirements of the mandate, the security needs of passengers, and the needs of a U.S. economy that relies on an air cargo industry." This strategy involved three programs: including 100 percent screening of cargo on narrow-body passenger aircraft (such as Boeing 737 and 757s, and Airbus 320s), which accounts for 96 percent of passenger flights in the US. In addition the Certified Cargo Screening program is a "voluntary program designed to enable certain vetted, validated and certified facilities to screen cargo prior to delivering the cargo to the air carrier." Finally, the Indirect Air Carrier Screening Technology Pilot is a program whereby participants work "directly with TSA to provide information and data on cargo, commodity-types, and a certain cargo screening technology."¹¹⁶ The most important development, therefore, is the Certified Cargo Screening Program, which imposes chain of custody standards on facilities supervising cargo delivery. These programs are aimed at implementing 100 percent screening of air cargo in the US, but it is unclear how close the TSA is to achieving this.

The details of US cargo screening technology are unclear. It isn't certain that the high level of screening conducted by the TSA and the cargo companies will even be able to detect explosive devices in the form used in the cargo bomb plot.

¹¹² "Q&A: Air Freight Bomb Plot," BBC.

¹¹³ "Q&A: Air Freight Bomb Plot," BBC.

¹¹⁴ "Q&A: Air Freight Bomb Plot," BBC.

¹¹⁵ "Closing the Gaps in Air Cargo Security," Hearing before the Committee on Homeland Security and Governmental Affairs, United States Senate.

¹¹⁶ "Frequently Asked Questions: Air Cargo," Transportation Security Administration, revised January 16, 2013, available at http://www.tsa.gov/stakeholders/frequently-asked-questions-1.

Furthermore, even if US technology is able to detect these types of threats, the main threat (as demonstrated by the 2010 cargo bomb plot as well as the IED attempt in May 2012) remains cargo that is shipped into the United States from overseas. On this, there is little the US can do beyond providing technical assistance to foreign governments. Indeed, according to their website, the "TSA is working closely with its foreign government counterparts to leverage existing air cargo security practices and to work towards comparability across systems to the greatest extent possible." Furthermore, the "TSA has been working in both bilateral and multilateral forums to better understand the air cargo security regimes currently in place in other countries in order to promote best practices while also enhancing air cargo security systems, where necessary, in order to ensure commensurate levels of security from system to system."¹¹⁷ However, the TSA recognizes that this is an "ongoing" process. In short, foreign governments do not have the technological or financial clout exerted by the TSA in its screening procedures, and there remains the threat that foreign governments will be unable to adequately screen cargo on flights into the US.

Thus, the primary takeaway from the episode has been this emphasis on "increased vigilance," as noted above. Profiling of senders and recipients has played a part, and perhaps the single most encouraging aspect of the case is that despite the devices being unnoticed by traditional screening methods, there has not been a repeat performance (including the 2012 incident, which was shut down before the IED even made it onto a plane). While the information received from an informant was critical both in this case and in the February 2012 incident, it would appear that to date there has not been any incident involving such printer-cartridge-cargo bombs where the devices have gotten on board a plane.

Furthermore, al-Awlaki, the former leader of AQAP, was killed in a US drone strike in September 2011. While Ibrahim Hasan al-Asiri, AQAP's bombexpert, remains alive and at large, it seems that al-Awlaki was the "go-to-guy" for planning these types of operations. Putting aside the questions of legality and morality that surround the use of drones, his absence does seem to make the world a safer place, if only for the short term. It seems inevitable that someone will replace him at some point, not only in terms of prestige within the organization but also in terms of expertise in devising these plots. Indeed,

As a result of Awlaki's death, AQAP may have more difficulty recruiting foreigners and conducting attacks on the U.S. in the short term. However, Awlaki was not one of the founding members of the organization, and other active AQAP leaders will continue to pose a threat. More importantly, AQAP and its supporters have established a safe haven in Yemen that has progressively expanded during the Arab Spring.¹¹⁸

For the moment, the mastermind is dead, and security officials around the world are aware of the threat posed by these cargo-bomb devices.

¹¹⁷ "Frequently Asked Questions: Air Cargo," Transportation Security Administration.¹¹⁸ "The Death of AQAP's Anwar al Awlaki," www.criticalthreats.org, available at

http://www.criticalthreats.org/yemen/al-qaeda-arabian-peninsula/anwar-al-awlaki-death-september-30-2011.

On the flip side, Ibrahim Hasan al-Asiri, while reportedly wounded in an August 2013 drone strike, is still at large, and needs to be found.¹¹⁹ Furthermore, the manner in which AQAP and others are attempting to sneak explosive devices aboard planes is getting increasingly more creative, and since it was only possible to forestall the 2010 *and* 2012 attacks due to the good fortune (or perhaps foresight) of having informants in the right place at the right time, the next attempt may be even more creative still. As one security expert noted to a news agency, "this time we were extremely lucky."¹²⁰

14. Conclusions

There are a number of takeaways from the event as it unfolded. Firstly, the role of human intelligence is not just critical in preventing terrorist strikes, but is also extremely good. Saudi and US intelligence services seem to have infiltrated AQAP very efficiently. Furthermore, inter-agency cooperation seems to be stronger than ever. The way in which the information was passed from al-Faifi to Saudi intelligence to US officials and then to the British government was extremely efficient at a time when the bombs were in fact ticking away. The case represents an excellent example of human intelligence and inter-agency cooperation working to prevent terrorism.

Another encouraging feature of the case was the swift and immediate response by authorities to the intelligence they received. The US, British and U.A.E. governments responded immediately to the information they received and were able to locate and defuse two ticking time bombs, as well as implement safety and security measures immediately to guard against any other bombs that may have been in transit.

On the other hand, the fact that the bombs even made it onto the plane is a big question mark against the screening techniques used at airports. The techniques used by al-Asiri to pull off a successful bombing attack are getting ever more ingenious. The sooner that he is either in custody or eliminated as a threat, the safer the Western world will be, and in particular the US, which remains a major target for AQAP.

As shocking as it is that the bombs were able to make it onto the planes, however, the fact remains that bombing a cargo plane is unlikely to result in significant casualties. The goal of bombing a cargo plane remains dubious, and in some ways the case poses more questions than answers. The symbolic value of striking a blow against American imperialism may be important to AQAP, but their repeated attempts to act against the continental United States have failed as yet to achieve anything substantial, and in retaliation the US military has stepped up its campaign in Yemen to the point where AQAP is being forced to replace leaders on a regular basis. Indeed, the extent to which US drone strikes and the Yemeni military have been able to eliminate AQAP leadership is testament again to the strength of the various agencies' human intelligence on the ground. Regardless of the true intentions behind the strike, such an attack is unlikely to claim a large number of lives.

¹¹⁹ Miklaszewski, Kube and Esposito, "Reports: Al Qaeda's master bombmaker wounded."

¹²⁰ "Cargo bomb plot: What is the explosive PETN?" BBC News.

In summation, the attack was averted, and whether al-Faifi was a doubleagent or he had a last-second crisis of conscience, the point remains that the procedures in place were extremely effective at preventing the attack once the information was received. Furthermore, Western governments are now aware of the problems posed by air freight, and have taken significant measures to prevent such an attack from being successful.