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THE THREAT OF MADRASSAS: AN EVALUATION OF THE ROLE OF ISLAMIC
EDUCATION IN JEMAAH ISLAMIYAH TERRORIST ATTACKS IN INDONESIA

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ABSTRACT

Policy makers in the United States and western world have accused some madrassas of radicalizing their students and encouraging jihad. Madrassas are schools that focus upon Islamic studies with the goal of training religious authorities. Many madrassas also include secular education in their curriculum. The *9/11 Commission Report* recommends the increased attention of the United States to madrassas in Pakistan, warning that certain radical madrassas serve as ‘potential terrorist sanctuaries’ and are ‘incubators for violent extremism’. Since the *9/11 Commission Report*, researchers have debated whether radical madrassas are prevalent enough to pose a threat to United States national security, and whether these schools have been instrumental in past large-scale terrorist attacks. Though madrassas in Pakistan are often the focus of this debate, the use of Islamic schools by Jemaah Islamiyah, an al-Qaeda-affiliated terrorist group in Indonesia, demonstrates the dangers these radical institutions present for United States national security and international security.

In order to capture the role radical Islamic schools played in Jemaah Islamiyah attacks, the educational backgrounds of 68 individuals involved in five terrorist attacks in Indonesia since 2002 were collected. These backgrounds were analyzed along with other connections, such as family ties, that the individuals had to other terrorists within the network. In three of these attacks, the Islamic schools played a significant role in completing and maintaining the network. The Jemaah Islamiyah networks illustrate that the security threats of radical madrassas lie in their ability to create relationships between like-minded individuals and to act as hubs for planning terrorist attacks. Therefore, even though radical madrassas are in the minority, it is evident that these schools present significant security implications for the western world.

The United States has supported and promoted secular education in the Muslim world in order to combat the threat of radical madrassas. Islamic schools continue to play a significant role in the education systems for many countries including Pakistan and Indonesia. The United States must continue to support education in the Muslim world and must be vigilant of the operation of radical madrassas.

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INTRODUCTION TO MADRASSAS, TERRORISM, AND THEIR CONNECTION

Madrassas are Islamic religious schools that concentrate on the Quran and other religious texts in order to preserve the Islamic culture and build character in their youth. In many countries in Southeast Asia and in the Middle East, madrassas provide education for millions of Muslim children, and represent a vital part of their weak educational systems. Limited resources in countries such as Pakistan, India, Bangladesh, and Indonesia prevent their governments from providing adequate state school infrastructure, especially in rural villages. These rural areas often rely upon privately funded schools and madrassas, which often offer free food and boarding in addition to the promise of education.

Policymakers in the western world believe some madrassas are instrumental in supporting and ‘breeding’ Islamic terrorists. Madrassas are currently a concern for United States national security and international security for three separate reasons, including providing poor education, indoctrinating and recruiting children, and providing areas for terrorist sanctuaries. The *9/11 Commission Report* recommended the increased attention of the United States to radical madrassas operating as ‘potential terrorist sanctuaries’ and ‘incubators for violent extremism.’

Security concerns have arisen over the potential for radical madrassas to indoctrinate youth. Radical madrassas provide a way for active terrorists to deliver extremist propaganda and to encourage students to fight in jihad (Stern, 2000). Studies reveal that a majority of the terrorists who participated in international attacks in recent years did not attend madrassas. Despite this, extremist madrassas give radicals an outlet to spread their anti-Western rhetoric and create sympathizers for terrorist movements. The potential spread of the jihadist perspective threatens both the regional security of countries which have radical madrassas and global security.

Madrassas also present security concerns because of their potential to become terrorist sanctuaries, where terrorists can connect and interact with one another. Terrorist sanctuaries are areas in which terrorists are able to recruit, fundraise, and plan activities for upcoming terrorist plots. In several instances, madrassas in Pakistan have been responsible for running and supporting training camps and aiding terrorist initiatives. Madrassas also may shield terrorists in between or during the planning stages of terrorist operations.

While the focus of the security threats of madrassas centers on Pakistan, other regions of the world are perhaps just as important when studying the threat of religious schools to regional and global

security. Islamic schools operating in Southeast Asia, particularly in Malaysia and Indonesia, have known ties to the al-Qaeda affiliated terrorist group, Jemaah Islamiyah. Jemaah Islamiyah is active in Indonesia, Malaysia, Singapore, Thailand, and the Philippines. President George W. Bush designated these regions in Southeast Asia as the second front for the global war on terror (Acharya, p. 1). Terrorist attacks that have occurred in Indonesia since 2002 demonstrate the madrassas' potential in connecting like-minded individuals and creating social networks vital to planning successful attacks. While these radical madrassas aiding in terrorist recruitment are in the minority, the effects they have on enabling successful terrorist attacks cannot be ignored. In further studying the exact trends of recruitment from these schools, the dangers of madrasa education can be better assessed.

What is Terrorism?

Terrorism is most generally defined as the use of threat and violence as a means to achieve a political goal. The exact definition of terrorism is widely debated, but most point to 'politically motivated violence' as a key part of defining terrorism (Krueger, 2003, p. 120). Terrorist movements often seek to overthrow or destabilize a targeted regime or political influence in the region (Horgan, 2005, p. 1). The targets of terrorist violence are the citizens or non-combatants affiliated with the political entity which the terrorist movement seeks to undermine. The targeting of the general public creates widespread fear and uncertainty on a greater scale than targeting government entities alone (Horgan, 2005, p. 1-2). By inciting panic, the terrorist organization ensures that the general public is aware of its agenda. This use of terrorism is considered to be a psychopolitical tool (Horgan, 2005, p. 2). In general, terrorist groups seek to create a state of terror, which clinically refers to a state of constant dread or fearfulness (Horgan, 2005, p. 14). In developing this context, terrorists believe their political objectives will be better met (Horgan, 2005).

The focus of this paper is upon international terrorism. This is the use of terrorism that involves the citizens of more than one state (Krueger, 2003, p. 2). Many of the al-Qaeda affiliated groups constitute international terrorism because their targets often include both members of the country in which they attack and other Westerners. The formal definition of international terrorism also takes into account whether the terrorist's nationality is the same as the country in which they attack. For example, the 9/11 attacks in the United States were international terror attacks because the terrorists were not Americans and the targeted individuals represented numerous nations.

The lines between what activities should be classified as terrorism and what is resistance, defense, or warfare are often blurred. The differentiation between terrorism and warfare is that warfare has certain rules of engagement and accepted norms for behavior (Hoffman, 1954, p. 26). These rules prohibit the use of certain weapons and the attacking of civilians. In the past, terrorists have disregarded traditional or accepted warfare practices by taking hostages, treating POWs unacceptably, and targeting civilians (Hoffman, 1954, p. 26). Taylor and Quayle reported that terrorists view their activities as a defensive warfare measure provoked by the enemy (as cited in Horgan, 2005, p. 88). Islamic terrorists and radical sympathizers often claim their violent attacks are a defensive tool against the West, which oppresses their countries and cultural values. There is a concern that this defensive jihadist viewpoint will spread throughout madrassas, bringing youth to terrorist movements. The defensive jihadist perspective creates a collective identity for the students at radical madrassas and impresses upon the students their responsibility and duty of defending their people and religion against perceived threats.

Madrassa Background

The term madrassa often refers to any school dedicated to Islamic studies including the Quran, the sayings of Prophet Mohammed (*hadiths*), and the jurisprudence and law (*fiqh*). Madrassas actually originated as schools for higher studies, but today the term is a catchall for any institution providing Islamic education whether it is primary, secondary, or advanced education (Blanchard, 2008, p. 2). The first madrassa, Nizamiyah, was built in Baghdad in the 11th century (Blanchard, 2008, p. 2). Madrassas provided food and board at the time and proliferated across the Muslim world as institutions for producing future religious scholars, *ulama* (Blanchard, 2008, p. 2). During these times, the curricula varied in different regions, but the classical tradition of Arabic linguistics and the memorization of the Quran remained as an important part of the curriculum in all madrassas (Blanchard, 2008, p. 2). Colonial rule in the 19th and 20th centuries brought secular institutions that undermined the role of the religious schools and education. The Iranian Revolution and the Afghan-Soviet War spurred the revitalization of madrassas in the Middle East, increasing the number of madrassas in operation. During the 1990s madrassas played an important role in the political education of students in the Muslim world.

Madrassas evolved from institutions called *kuttab*, which focused only upon the Quran, the main text for the Islamic religion (Blanchard, 2008, p. 2). Madrassas were created to add modern, secular education to the religious education of the *kuttabs*. Today, the focus on secular education in madrassas ranges from non-existent to compatible with public education requirements. Despite the fact that

madrassas were historically created with the intention of adding secular education to the students' religious studies, in various parts of the world the sciences, mathematics, and even reading are nearly non-existent in madrassa education. Because some madrassas serve only as evening Islamic schools in addition to the student's secular studies during the day at public school, secular education would not be a requirement for these madrassas. However, many madrassas operate as an alternative to public school, and still do not provide these secular subjects such as mathematics and science, leading to concerns about whether madrassa properly and adequately educate their students for the modern world.

Madrassas are often described as institutions that educate rural, impoverished children because public education is not available to poverty-stricken families in the rural regions, especially in Pakistan. It is believed that poverty-stricken families chose to send their children to madrassas in order to provide their children with boarding and food in addition to the promise of education. In the poor areas of southern Punjab, the Sunni sectarian political party, Sipah-e-Sahaba Pakistan, has reportedly paid parents for sending their children to madrassas (Stern, 2000). Stories such as these feed the stereotype that students attending madrassas are predominately poor. Some madrassas are created with the motivation for providing the impoverished with education and shelter. Former President Pervez Musharraf of Pakistan, in order to justify the existence of madrassas explained that, "Very few of these schools resort to military training techniques. Most are driven by humanitarian goals: to feed and provide shelter for these poverty-stricken boys" (Profile of a Madrassa, 2001). It is evident that in some instances madrassas do provide education for the poor who would otherwise not have access to it, but madrassas also provide education to wealthier students as well.

A study completed by Learning and Educational Achievements in Punjab Schools (LEAPS) shows that impoverished children are not the only children attending madrassas in Pakistan. LEAPS reveals that madrassas actually have a higher proportion of wealthy students than public schools do. LEAPS explains that wealthy parents make a strategic choice to send their children to a secular public or private school during the day and a madrassa during the evenings. These evening madrassas concentrate solely on Islamic studies, making the children more attractive for employment in the religious sector. In addition, the child is also qualified for other jobs and further schooling because of the modern, secular education (Winthrop, 2010, p. 17). Furthermore, LEAPS has published that for areas in which madrassas are the only form of educational institution, more families than not opt to keep their children out of school rather than sending them to the madrassa (Winthrop, 2010, p. 18). The LEAPS study presents

data and statistics that contrast the argument that madrassas only provide education for those without access to other forms of education.

Overall, there is a range in the type of education being received at madrassas and the type of students attending these institutions across the Muslim world. These diversities make it difficult to accurately generalize madrassa education and discuss the challenges associated with education at these institutions. While some incorporate adequate secular education, others focus solely upon the Islamic studies. In the discussion of terrorist ties to madrassas, it is important to distinguish radical madrassas from the madrassas that aim at fully educating their students.

THE TIES BETWEEN MADRASSAS AND TERRORISM IN PAKISTAN

The focus of the security concerns of madrassas is often in Pakistan, where it is believed that impoverished children attend madrassas because of their lack of access to public education. The unavailability of public institutions and the poor quality of education received at public institutions force parents to seek alternative forms of education, such as private schools or madrassas. When radical madrassas are the only schools for these children to attend, it potentially exposes these students to extremist propaganda. Understanding the historical connections between madrassas and terrorism in Pakistan is important for assessing the potential security challenges madrassas can present today. This section reviews the prevalence of madrassa education in Pakistan and the security challenges that madrassas create in Pakistan in order to better explain the potential threats of madrassas on global security.

The Current Impact of Madrassa Education in Pakistan

The actual number of madrassas in Pakistan and the percentage of children attending madrassas have been debated for the past decade. It has been reported that there are over 45,000 madrassas in Pakistan, which have in the past had little accountability to the government (Singer, 2001, p. 1). Madrassas in Pakistan range in size from a few students to several thousand students (Singer, p.1). Estimating the proportion of the population enrolled in madrassas in Pakistan remains controversial. However, current research concludes that less than ten percent of all the students enrolled in full-time education in Pakistan attend madrassas (Winthrop, 2010, p 14). Furthermore, only ten to 15 percent of the madrassas in Pakistan are estimated to be affiliated with extremist ideologies and political groups, indicating the students attending radical madrassas are in the extreme minority (Singer, p. 3).

Though radical madrassas account for a very small proportion of the education system, the effects can be devastating for those children receiving education in radical madrassas. These schools allow extremists to spread the jihadist perspective, promoting the murder of innocent civilians and martyrdom through suicide attacks (Singer, p. 3). Some include weapons and physical tactical training in their weekly regimen, and weekly lessons are developed with political speeches, spreading anti-US and anti-Western rhetoric (Singer, p. 3). Because these children often are boarded at the school, they are dependent upon those in the school and cut off from the rest of society that can help counter these extremist views (Singer, 2001, p. 3). Children, being young and uneducated in addition to being cut off from society, become highly susceptible to being programmed towards violence (Singer, p.3).

Current statistics show that madrassa education in Pakistan is not as prevalent as once believed. Furthermore, radical madrassas in operation are in the minority. However, madrassas tied to terrorism do present national security challenges for Pakistan, the United States, and the rest of the world.

Ties between Madrassas and Terrorism in Pakistan

The global security concerns about madrassas are historically rooted in their use to recruit Islamic fighters (*mujahideen*) in the 1980s to combat the Soviet Union after its invasion of Afghanistan (Blanchard, 2008, p. 2). The rise of the Taliban, which was born in madrassas located along the Pakistan-Afghanistan border, illustrates the role these institutions can play in connecting like-minded individuals and recruiting other individuals to extremist ideology. Today internal and localized conflict in the Tribal Belt region that lines the Pakistan-Afghanistan border correlates with high enrollment rates in madrassas (Winthrop, 2010, p. 16). President Obama called the Tribal Belt “the most dangerous place in the world” for Americans (Winthrop, p. 8). The United States has a strategic interest in keeping Pakistan secure, especially in the Tribal Belt region where conflict bears international security implications. This conflict endangers United States national security by creating an atmosphere in which recruiting and planning international terrorist attacks is easier.

Prior to 1979, Pakistan had very few madrassas with numbers remaining in the low hundreds (Singer, 2001, p. 1). With the Soviet invasion of Afghanistan in 1979, the number of madrassas in Pakistan increased significantly, partly because they were seen as factories for the mujahideen. In the 1980s, the United States, European countries, Saudi Arabia, and other Persian Gulf states supported the madrassas financially in order to defeat the Soviets (Blanchard, 2008, p. 2). The war in Afghanistan brought millions of refugees across the Pakistan border, many of which included orphans (Singer, 2001, p. 2). The madrassas began to operate as orphanages for many of these children from Afghanistan, providing food and shelter for their students (Singer, p. 2). The conditions resulting from the war created a pool of individuals who were susceptible to radical ideologies and jihadi rhetoric. In addition, because the Pakistani society had to absorb the refugees, they could better understand the need for the defense of Islam and the Afghan population. The extremist rhetoric taught at the radical madrassas aimed at recruiting more individuals to fight against the Soviets. The historic use of madrassas during the Soviet-Afghan War to recruit mujahideen and preach jihadi rhetoric demonstrates the current security concerns over madrassas for the Western world. In key areas of Pakistan, it is believed that some madrassas

continue to preach extremist ideologies, generating more sympathizers for terrorists' actions against the Western world.

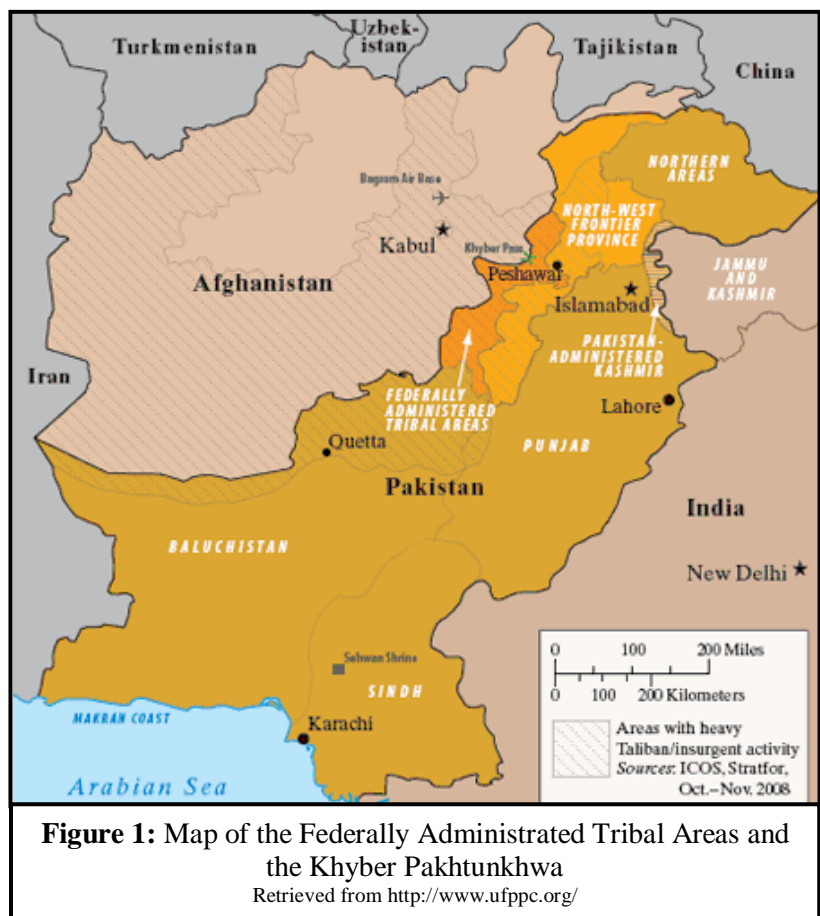
Though the members of the Taliban came from various madrassas along the Pakistan-Afghanistan border, the story of the Dar-Uloom Haq madrassa is important for understanding the concern of radical madrassas across the Muslim world. Dar-Uloom Haq was founded in 1947 by Maulana Abdul Haq, who is often referred to as the 'father of the Taliban'. The fatwa, a formal decree made by a religious authority, calling for the Islamic defense against the Soviets was issued at Dar-Uloom Haq (Long, 2010). In the mid-1990s, the Taliban (literally meaning 'students') was created by former mujahideen and Islamic clerics who had studied and trained at the Dar-Uloom Haq. Nearly 90 percent of the Taliban leadership, including Mullah Omar and ten other top leaders, graduated from Dar-Uloom Haq. Today, the madrassa is believed to continue to spread extremist ideologies about the importance of global jihad.

Despite its connections with the Taliban, Dar-Uloom Haq continues to be a competitive madrassa in which over 15,000 applicants vie over the 400 positions that will remain open for the year (Singer, 2001, p. 2). The school takes about 2,000 to 4,000 students from ages six to 35 (Singer, p. 2; Long, 2010). It boards about 1,500 students and the other 1,000 students are day students (Singer, p. 2). The children receive eight years of school at the madrassa, studying the Quran from dawn until dusk leaving little to no time for secular education. Most of the schooling is done in Arabic; however, students often speak English as a third language in addition to their native language (Long, 2010). The student dormitories are rumored to have paintings of tanks and Kalashnikovs, exposing the youth to violent outlooks. In a news report, a journalist asked a group of students what their plans after graduation will be. In unison they replied, "We will dedicate our lives to jihad" (Sardar, 2007). Sami ul-Haq, the current director of the school, attested that the school does not train its students to handle weapons, even though he states that one of the core objectives of the school is to transform its students into jihad fighters (Profile of a Madrasa, 2001). In 1997 during the Taliban offensive in eastern Afghanistan, the Dar-Uloom Haq madrassa sent all of its military-aged students to fight in the war (Singer, 2001, p. 3). It is clear that this school is governed by the principles of jihad and has actively participated in recruiting and sending students to become fighters in the global jihad. Dar-Uloom Haq is a popular example of the role madrassas can play in influencing its students to participate in jihad and subscribe to extremist ideologies.

Osama Bin Laden used madrassas across the Muslim world to recruit foreign fighters to create his 55th Brigade used during the Soviet-Afghan War. After training and fighting in the Afghan war, these groups went to localized conflicts in areas such as Kashmir and Chechnya to “defend Islam” (Singer, 2001, p.3). With respect to this historical account, concerns over the enrollment of foreign students in Pakistan’s madrassas were raised. Reforms in 2006 eliminated the opportunity for foreigners to be part of the madrassa system in Pakistan. Prior to these reforms, ten to 50 percent of the students enrolled in madrassas in Pakistan were foreigners (Singer, p. 4). Because radical madrassas could use their influence to bring students into jihad, it was believed that madrassas would be responsible for adding Islamic fighters to localized conflicts across the world, thus bringing greater global instability.

Internal conflict within Pakistan, especially along the Tribal Belt, continues to threaten international security. According to the National Counterterrorism Center in the United States, terrorist attacks in Pakistan during 2009 caused 6,041 civilian casualties (Winthrop, 2010, p. 7). Many of these attacks were based in the Tribal Belt, where the top ten districts for the highest enrollment rates in madrassas are found (Khwaja, 2005, p. 3). In 2009, the Federally Administrated Tribal Area (FATA) and Khyber Pakhtunkhwa (formerly North West Frontier Province) were the location of 1,322 of the 1,915

terrorist attacks that occurred in Pakistan. These two districts, found in the Tribal Belt, coincidentally have the highest enrollment rates in madrassas for the entire country, with 7.5 percent of the children enrolled in madrassas (Winthrop, p. 16). It is believed that the percentage recorded for madrassa enrollment in FATA and Khyber Pakhtunkhwa could actually be low because the estimates were based on a census that left out parts of the two districts and did not include the orphans or homeless children in Pakistan



(Winthrop, p. 17). In addition, public school administrators are given financial incentives to over-report the students enrolled in their own schools, meaning that madrassas attendees would actually represent a larger portion of the enrolled students in Pakistan (Winthrop, p. 17). Regardless, there appears to be some correlation between the number of student enrolled in madrassas and conflict in Pakistan. These districts which hold the highest enrollment rates continue to produce security risks to the international community, as terrorists use this region for planning and training members for international terrorist attacks. The indications that madrassa education in the region adds to the conflict through enabling the recruitment of terrorists and creating sympathizers also presents a security dilemma.

The connections between madrassas and terrorism in Pakistan have direct consequences on national and regional security. Statistically “suicide bombers in Afghanistan and the tribal areas of Pakistan tend to be young, illiterate and poor, and were recruited by the Taliban in local madrassas” (Winthrop, 2010, p. 19). The madrassa graduates lack the resources, the skills, and the know-how to successfully create international attacks of the magnitude of 9/11, London Bombings, and the Madrid bombings (Winthrop, 2010, p. 19). The attacks in Afghanistan and the Tribal Belt are considered less sophisticated forms of attacks because of their focus on regional, unprotected soft targets (Ethan Bueno de Mesquita as cited by Winthrop, p. 19). These attacks in Afghanistan and Pakistan are less lethal and require less-skilled attackers. However, the chaos these attacks cause in the region allow for the planning and the training of terrorists for other international attacks. In an analysis of 21 large-scale international terrorist plots since 2004 reveals that over half of the plotters had “received direction from or trained with al-Qaeda or its allies in Pakistan,” including those involved in the Time Square Bombing plot (Winthrop, p. 8). While madrassa graduates from Pakistan are not involved in large-scale international terrorist attacks, radical madrassas within the region do have specific international security implications.

Even though radical schools may be few in numbers, their influence on the population cannot be underestimated and their potential to create conflict and chaos in the country should not be overlooked. These schools can spread the philosophical ideas of jihad, creating sympathizers, which further develops security risks in the region and the rest of the world. Evidence of the historical uses of madrassas in Pakistan demonstrates the potential madrassas have in creating conflict and promoting terrorist movements.

THE LINKS BETWEEN EDUCATION AND TERRORISM IN SOUTHEAST ASIA

The focus of the *9/11 Commission Report* was upon Pakistan and its madrassas. However, other regions of the world, including Southeast Asia, have Islamic schools with terrorist connections, and present international security challenges. Certain pesantrens, a form of Islamic religious school located in Southeast Asia, have been tied to Islamic terrorism since the 1990s. The effects of these connections did not become widely known until after attacks in Indonesia starting in 2002. This section presents an overview of the education system in Indonesia, terrorist activities in Southeast Asia, and terrorists' connections to pesantrens.

Background on Pesantrens and Madrassas in Indonesia

The goal of pesantrens, like madrassas, is to transmit religious knowledge, preserve the Islamic traditions, and serve as centers for the training of *ulama*, or *kyai* in Java. Pesantrens, in contrast to madrassas, typically place a greater emphasis on the establishment of religious authority, meaning there is less time devoted to secular education. Pesantrens are always boarding schools dedicated to the study of classical Islamic sciences, jurisprudence, Arabic grammar, and Arab sciences (Hefner, 2007). Residential pesantrens have existed in Java since the 16th century, particularly on the coast where Islam was first adopted (Hefner, 2007). The pesantren complex often consists of a mosque, study rooms, dormitories, and the *kyai's* house. Students typically enter at the ages of 11 or 12 and reside in the school for three to four years (Hefner, 2007). There are no specified grade levels, and there is no amount of time the students are required to stay. Students stay long enough to acquire the basic knowledge to serve as a mosque leader, *imam*, or a religious teacher, *ustadz* (Hefner, 2007).

The introduction of modern, Islamic madrassas to Indonesia during its colonization led to curriculum reforms in the pesantrens. Until the early years of the 20th century, the pesantrens' curriculum focused entirely upon classical Islamic traditions of knowledge. The Dutch colonization of Indonesia introduced western education and the concept of general education for the population's youth. With the introduction of secular education, Islamic madrassas, which embrace general education, spread across the Indonesian islands (Hefner, 2007). However, as the modern madrassas were introduced to West Sumatra and South-central Java, traditionalists denounced these institutions as being western and irreligious (Hefner, 2007). Despite the denouncement of the modern madrassas, enrollment in these institutions rose in the early 1900s, and the enrollment in traditional pesantrens, which did not include general education, declined (Hefner, 2007). Influenced by the population's demand for modern Islamic schools, pesantrens in the 1920s expanded their curricula by introducing general mathematics, history,

and English to its traditional Islamic studies (Hefner, 2007). In the 1970s, the government began to enforce that all pesantren students received elementary education in basic mathematics and sciences in addition to the religious sciences. Students were required either to attend state schools or participate in a pesantren created general education program (Hefner, 2007). In 1989, the Law of Education was passed requiring Islamic schools to adjust their personal curriculum to the national standards issued by the Ministry of National Education (Hefner, 2007).

Current Role of Madrassas and Pesantrens in Indonesia's Education System

Indonesia is the largest Muslim country in the world, with a population of 225 million. Within Indonesia's borders there are 37,000 madrassas and 10,000 pesantrens. These institutions represent a vital component of Indonesia's education system. There are currently 44 million children enrolled in formal education from primary to secondary schools in Indonesia. Of these students, about 5.7 million (or 13 percent) attend madrassas and 20 to 25 percent attend pesantrens (about 8.8 million) (Blanchard, 2008, p. 5; Hefner, 2007). Islamic schools reach a greater population in Indonesia in comparison to Pakistan. When discussing the United States national security implications of radical madrassas, Pakistan is often the focus despite recent findings that the attendance of madrassas in Pakistan is believed to be much lower than in Indonesia. However, in Indonesia only five percent of the students are believed to attend radical Islamic schools (Atran, 2008, p. 13). Like Pakistan, Islamic schools in Indonesia and the surrounding regions have been linked to terrorist groups operating in Southeast Asia.

Statistics show that madrassas and pesantrens are a vital contribution to the public education received in Indonesian. Pesantren enrollment rates nearly doubled between 1977 and 1997 (Hefner, 2007). In the 1990s, the enrollment in state schools dropped for the poor, while the enrollment in pesantrens and madrassas grew steadily. Responding to the demand for Islamic-based education, the government opened public madrassas. In 1989, privately owned madrassas accounted for 96 percent of the madrassas in Indonesia (Hefner, 2007). These privately owned madrassas received small government grants for specific improvements in programs or infrastructure needs (Hefner, 2007). However, the government still had limited control over the activities occurring within the madrassas. Shortly after their creation, government schools accounted for 6.4 percent of the madrassas at the primary level, 10.6 percent at the junior high level, and 13 percent at the senior secondary level (Hefner, 2007). From 1997 to 2001, Indonesia suffered from the East Asian Financial crisis, which led to a sharp decline in funding for the state education system (Hefner, 2007). During this time, however, madrassa enrollment

continued to grow, with the greatest growth at the senior secondary level of education (Hefner, 2007). In Indonesia, there has been a clear demand for Islamic education, as enrollment rates in both pesantrens and madrassas increased throughout the 1990s.

In Indonesia, the highest demand for madrassa education tends to come from students in the junior secondary age group. Twenty-one percent of all the adolescents enrolled in junior secondary schooling attend madrassas (Hefner, 2007). Children in this age range are more susceptible to turmoil and are in the process of identity formation, leaving them susceptible to turn to extremist ideals (Hefner, 2007). Because the adolescent years are seen as the time when children become responsible for their religious duties, parents tend to enroll their children in Islamic schools because of their influence on their character (Hefner, 2007). This may account for the leap in enrollment rates between elementary and junior secondary schooling.

Like Pakistan, it is difficult to quantify how the education received in Islamic schools compares to public schools. A study in 1999 indicated that 85 percent of the pesantrens served rural parts of Indonesia, whereas only 14 percent were located in suburban areas (Hefner, 2007). With clear class distinctions between the rural and suburban populations, it is difficult to evaluate and generalize the type of education received between public and Islamic schooling. In Indonesia, all junior and senior secondary students must pass national examinations. The failure rates tend to be 2.5 times higher in madrassas and pesantrens than in the public school system (Hefner, 2007).

There are two separate reasons cited for the variance in test scores. First, the population receiving the education tends to differ greatly. Because the pesantrens are located mainly in rural areas, 50 percent of their students are the children of farmers or laborers (Hefner, 2007). This rate is nearly 50 percent higher than students from the public school system. The second reason is that funds available to public schools are nearly twice the amount than those available to Islamic schools for education materials (Hefner, 2007). It is difficult to speculate that Islamic school education is truly inferior by simply using test scores to evaluate the effectiveness of teaching in these institutions. However, the statistics do indicate that children in Islamic institutions do not understand the secular material in the classrooms as required by the national government curriculum.

Overview of Terrorism in Indonesia and Jemaah Islamiyah (JI)

The beginning of Islamic conflict and jihad in Indonesia dates back to its fight for independence from the Netherlands. In the late 1940s, the Islamic political movement Darul Islam was established with the goal of bringing an Islamic government to power following Indonesia's independence (Abuza, 2009). The group became radical and violent in order to fight the government in which they felt was too secular (Jemaah Islamiyah, 2009). Under the presidency of Muhammad Suharto, Darul Islam suffered politically and many of its members were either jailed or sent into exile (Abuza, 2009). Two former Darul Islam members, Abdullah Sungkar and Abu Bakar Ba'asyir, created Jemaah Islamiyah (JI) in 1992 during their exile in Malaysia. Jemaah Islamiyah originally aimed to topple the secular government through 'political agitation and violence' in order to establish an Islamic state in Indonesia, Singapore, Thailand, Malaysia, the Philippines, and Brunei (Abuza, 2009). The JI primary document outlining the group's objectives, the *General Guidebook for the Struggles of Jemaah Islamiyah*, states that clandestine cells would be responsible for carrying out the struggle through guerilla warfare (Abuza, 2009). Since its founding, JI remains to be al-Qaeda's closest partner in the Southeast Asia region. The JI network has a presence in four different regions including: Malaysia and Singapore; Java; Mindanao, Sabah and Sulawesi; and Australia and Papua.



Figure 2: Map of Southeast Asia including Indonesia, Malaysia, the Philippines, and Singapore

Retrieved from <http://www.waronterrornews.com>

Jemaah Islamiyah built its alliance with al-Qaeda under the coordination of Hambali, who was born and educated in Indonesia. In the 1980s, Hambali move to Malaysia where he was radicalized under various clerics. Abdullah Sungkar inspired Hambali the most and encouraged him to strive for a radical Islamic regime in Southeast Asia (National Commission, 2004). Sungkar sent Hambali to

Afghanistan to wage jihad against the Soviets in 1986. Hambali trained at Rasul Sayyaf's Sada camp, and then returned to Malaysia eighteen months later, where he became the regional leader for Sungkar's newly formed JI (National Commission, 2004). In 1998, Sungkar and Abu Bakar Ba'asyir, then the spiritual leader for JI, aligned with Osama bin Laden and became partners in the al-Qaeda network (National Commission, 2004). Jemaah Islamiyah remained an independent entity, but al-Qaeda provided training to their recruits and financial support to the group. Hambali was later sent to Karachi, Pakistan, to meet with Khalid Sheikh Mohammed (the mastermind of the 9/11 attack) and Mohammed Atef to find training opportunities in Afghanistan for the JI members (National Commission, 2004). Al-Qaeda began to fund JI's ambitious terrorist plans and supplied them with bomb-making experts and suicide operatives to carry out attacks, while JI would locate the supplies necessary for bomb-making (National Commission, 2004).

As Hambali's relationship with al-Qaeda grew, he led Jemaah Islamiyah attacks against the West. In the last decade, the JI network divided over the perceived need for terrorist attacks to reach its political objective. Though the Bali Bombing of 2005 and Jakarta Hotel Bombings in 2009 are often attributed to JI, no evidence indicates that the JI board approved attacks after 2004. After Sungkar's death in 1999, the leadership of JI was passed to Ba'asyir. Following the Christmas Day attacks in 2000 on 18 different Christian churches in the region and the 9/11 attacks, Ba'asyir realized that these attacks created a barrier between the group and the average population. Ba'asyir decided to stop terrorist attacks to regain the public's trust and align better with the public's goals. Many in the group, including Hambali, had more hardline perspectives and wanted to continue with terrorist attacks. Hambali, with his al-Qaeda connections, took over planning various new attacks with his followers, who included Imam Samudra and Ali Gufron. The splinter group, Tanzim Qaedat al-Jihad, was eventually led by Noordin Top and has been linked with the planning of the later attacks.

Background on Pondok Ngruki and Luqmanul Hakiem

A Southeastern Asia terrorist expert, Zachary Abuza, estimates that Jemaah Islamiyah had at least 60 to 100 pesantrens which served as centers for recruitment and ideological indoctrination (Rabasa, 2005). Pondok Ngruki and Luqmanul Hakiem are two of the Jemaah Islamiyah (JI) affiliated pesantrens widely discussed in the media. Sungkar, Ba'asyir, and six other individuals founded Pondok al-Mukmin of Ngruki in the early 1970s. Ngruki Foundation is a network of schools, medical centers,

and various other non-educational institutions. The Foundation was created to promote Muslim education and welfare and to reach out to the town's orphans (Noor, 2007, p. 4).

The Ngruki Foundation, *Yayasan Pendidikan Islam dan Asuhan Yatim Miskin Ngruki* (YPIA), supports and manages five different schools which teach ages four to 24. Sekolah Tadika in Surakarta hosts children from ages four to six. The primary school, Sekolah Dasar Ngruki, serves children between the ages of six and 12. The middle school, Sekolah Menengah Umum al-Islam Ngruki, educates students from the ages of 15 to 18. Pondok al-Mukmin of Ngruki, which receives the most media attention, is the only school that offers boarding to the students. Al-Mukmin serves the students between four and 19. University an-Nur (also known as Ma'ahad Aly or Islamic Academy) services the al-Mukmin graduates, Menengah graduates, and non-Ngruki students between the ages of 18 and 24, offering the equivalent of a Bachelors of Arts degree (Noor, 2007, p. 8).

In 2007, al-Mukmin taught 1,500 students of both genders and had about 300 faculty and staff members. The full capacity is 3,500; however, enrollment decreased after the media coverage of the school's and Ba'aysir's influence in the 2002 Bali Bombings. The curriculum is compatible with secular institutions in Indonesia and offers studies in mathematics, social sciences, biology, physics, national citizenship, and English (Noor, 2007, p. 13). Despite this, several Ngruki graduates were radicalized and participated in JI terrorist attacks in the region. According to Muhammed Wildan, a former student of Ngruki, the school's curriculum was not responsible for ideological indoctrination; rather, students became radicalized through informal education and after-school activities or support groups (Noor, p. 27). A student recalls that classroom activities promoted radicalized views of how the Muslim society interacts with the rest of the Indonesian society.

“Inside Ngruki's wall, anti-Semitism was rampant. On Thursday night public speaking classes, the most popular topic was the threats facing Islam. Global Jewish power and Indonesia's Christian-controlled economy fuelled our fears. We, the student, delivered impassioned speeches quoting the verse of the Koran that reads ‘the infidels and Jews will never stop fighting us until we follow their religion.’ I was no different and my words received praise, and injected me with pride and genuine satisfaction” (Noor, p. 29).

According to this student's account, the teachers were not necessarily promoting and spreading these ideas in their classroom instruction. However, the teachers also did not pose different views of the situation, and even reinforced these ideas by praising the students for their arguments. This student also reported that the school played Arab music about jihad and had paintings on the dormitory walls that

read, “Die as a noble man or die as a martyr” (Rabasa, 2005). The school did not necessarily promote jihad through its curriculum; rather, it created an atmosphere in which jihad against infidels and the West was depicted as a Muslim duty and an act worthy of the greatest praise.

Sungkar and Ali Gufron founded Pondok Luqmanul Hakiem in Johor, Malaysia in 1992. Ali Gufron was instrumental in the 2000 Christmas Eve attacks and the 2002 Bali Bombing. The school used Sungkar’s radical teachings to promote JI and is believed to have been created for the purpose of recruiting its students to jihad. Luqmanul Hakiem was modeled directly after al-Mukmin and used many Ngruki graduates and JI members as teachers. By 1993, the school became the hub for JI’s Mantiqi I, which is the regional subdivision of JI in charge of Malaysia. Many prominent JI members were students at Luqmanul Hakiem or attended lectures held at the school including: Hambali, Amrozi, Ai Imron, Zulkarnaen, al-Ghozi, Dulmatin, Azahari, and Noordin Top. Many members of JI’s leadership, including Hambali, married female students of the pesantren. Noordin Top, the leader of Tanzim Qaedat al-Jihad, began attending lectures at the school in 1995 while he was studying for his master’s degree. Later, Noordin became director of Luqmanul Hakiem when Malaysian authorities required that the school be led by a Malaysian national to remain open. At the school’s height it had 350 students; however, the school ceased operations in 2002 after the Malaysian government pursued JI members in late 2001.

These two pesantrens, in addition to several other JI-affiliated schools, significantly contributed to the success of the JI and Tanzim Qaedat al-Jihad terrorist attacks in Indonesia after 2002. Extremist ties to pesantrens and madrassas in Southeast Asia have gone beyond JI’s use of the schools. With the collapse of President’s Soeharto’s New Order Government in May of 1998, the country saw the rise of Islamic paramilitary (Hefner, 2007). These groups such as Laskar Jihad in Yogyakarta and Islamic Defenders Front in Jakarta were both tied to independent pesantrens. The estimated number of schools connected to terrorist or extremist groups is low compared to the number of religious schools operating in Indonesia, but the influence of these schools cannot be overlooked. Similar to Pakistan, these radical schools are in the minority, but these institutions have proven their potential to cause international security threats. In comparison to Pakistan, these Islamic school graduates have directly produced international terrorist attacks.

STUDIES OF SOCIAL FACTORS THAT LEAD TO TERRORISM

Researchers over the past 50 years have used trait studies and terrorist profiling to describe the social and psychological factors that may lead individuals to radicalization and terrorism. Researchers conducted interviews with terrorists in order to create profiles including personality traits and clues as to why these individuals had become terrorists (Horgan, 2005, p. 48). In the 1970s, terrorists were viewed as psychopathic; however, this view was largely dismissed in the 1980s and 1990s. More recently social factors and backgrounds, such as education, age, and personal commitments, have become the method for explaining why individuals may engage in terrorism.

In recent years, the notion that terrorism appeals to the uneducated and poverty-stricken youth has emerged. These traits have been used to describe the impacts of madrassa education on the success of terrorist movements. Historically, though, many individuals involved in terrorist movements have been highly educated. Peter Bergen mentions in *The Madrassa Scapegoat* (2006) that Russian anarchists, German Marxists of Bader-Meinhof gang, and Aum Shinrikyo members came from elite and educated classes (p. 122). Russell and Miller, in their leading study that reviewed 350 terrorists from various groups, depicted the typical terrorist as single, male, and between the ages of 22 and 24 (as cited in Horgan, 2005). They argue that the typical terrorist had some university education, likely in the humanities, and came from middle to upper class families. They hypothesized that radicalization occurred due to the individual's exposure to Marxism and other revolutionary philosophies during his or her university education. Many of the suicide bombers, in Russell and Miller's study, were unmarried males in their late teenage years or early twenties. Though Russell and Miller's study was completed in 1977 prior to widespread Islamic terrorism, many other studies depict Islamic terrorists with similar descriptions. However, currently these descriptions of terrorists are under debate with the respect to the rise of global Islamic terrorism.

Education, social class, age, marriage, practice of religion, and the surrounding social networks of individuals are factors used to explain an individual's proclivity towards terrorism. While some of these characteristics may influence an individual to join a terrorist movement, none of these characteristics alone determine that an individual will become a terrorist. The remaining parts of this section describe several traits that researchers have pinpointed as social factors that may lead individuals into terrorism.

Education

Current research shows that many international Islamic terrorists tend to be educated, dismissing current stereotypes that terrorists received poor education. Peter Bergen (2006) conducted a study of 79 prominent terrorists involved in five international terrorist attacks (World Trade Center Bombing in 1993, African Embassy 1998, September 11th, Bali Nightclub Bombings in 2002, and the London Bombings in 2005) and concluded that overall many of these terrorists were not madrassa graduates (p. 117). In fact, all five of the masterminds had university degrees and 54 percent of the sample had some college education (Bergen, p. 118). Overall Bergen's sample indicates that terrorists are well-educated. Another study by Marc Sageman (2008), which included 172 terrorists, found that 62 percent of his sample had attended university. According to both of these studies, madrassa education was not a characteristic of the majority of international terrorists. Sageman found that only 13 percent of his sample attended madrassas, whereas Bergen found that 11 percent attended madrassas (Sageman, p. 52; Bergen, p. 118). Individuals involved in attacks in Indonesia accounted for the majority of the terrorists that attended Islamic schools. These two studies affirm Russell and Miller's argument that terrorists in general are well-educated.

As Islamic terrorism has evolved over the years, the education level attained by the terrorists has decreased. Sageman divided his sample into three different waves. The first wave includes those who met during the Afghan-Soviet War. Many of these terrorists are considered to be part of al-Qaeda Central and have an intense loyalty to one another (Sageman, 2008, p. 48). The second wave of terrorists includes those who joined in the 1990s and were motivated by the world-wide suffering of Muslims in areas such as Bosnia, Chechnya, Kashmir, and the Philippines. This group looked to the first wave terrorists as heroes and volunteered for jihad in these hotspots (Sageman, p. 49). The third wave comes after the Iraq invasion and the destruction of al-Qaeda training camps in Afghanistan. The destruction of these camps broke the recruits' ties with al-Qaeda Central. Many are self-recruited and seldom leave their home countries for training. These members are often second generation Muslim immigrants who have moved to the West (Sageman, p. 49). The group involved in the London Bombings in 2005 best represents the third wave terrorists. According to Sageman's sample, the educational level of terrorists from the first wave to the third wave has decreased dramatically. The first wave had a large percentage of doctorate degrees and 60 percent had attended university (p. 58). Many members of the second wave had joined college but dropped out to join the jihad movement, and the members of the third wave were too young to have gone to college (Sageman, p. 58). Many of the third wave terrorists dropped out of

high school (Sageman, 2008, p. 58). Overall many of the terrorists attended secular schools; however, the educational level of Islamic terrorists has decreased overtime, partly attributed to the age in which members were recruited.

Many of the terrorists in Bergen and Sageman's studies had strong backgrounds in the sciences and mathematics. Bergen (2006) found that 58 percent of his sample held scientific or technical degrees with the most popular degree being engineering followed by medicine (p. 118). Sageman (2008) argues that engineers and doctors are the most prestigious occupations in the Middle East and many of those in the middle-class seek to serve their country and reach the highest rank in society (p. 59). On university campuses in Egypt and Iran, 25 percent of the students were studying humanities whereas 60 to 80 percent were studying medicine, engineering, and science (Beit-Hallahmi and Argyle as cited by Ramakrishna, 2006, p. 134). Though the societal trend is to study sciences, too few jobs exist for those graduating with science degrees because the lack of modernization and the investment in these types of jobs. Many of the graduates who do obtain jobs related to their science degrees use political connections or bribery to secure their positions (Sageman, 2008, p. 59). Resentment for society and the government breed as those in the middle-class are unable to find jobs and are unable to resort to bribery like those who are wealthier (Sageman, p. 59). Sageman argues that the frustration in not obtaining jobs when those in higher social classes are able to leads these middle-class men with science degrees to join terrorist movements against the government (p. 59).

The scientific thought process may also explain why such a large percentage of terrorists have scientific degrees. It is believed that the learned methods of thought in science and technical field lead people to Salafi perspectives.¹ Sageman (2008) argues that engineers are taught by elementary building blocks (p. 59). They go back to the drawing board and construct their argument from the foundation. This thought process is also used by the Salafi perspective in which individuals believe that in order 'to build an ideal utopia, [they must] return to the purity of the first community, that of the Prophet' (Sageman, p. 59). According to Moojan Momen, "When scientist and engineers become religious, they often tend towards fundamentalist religion" (as cited by Ramakrishna, 2006, p. 134). For scientists who are familiar with the 'building blocks' thought process, the Salafi perspective is attractive. In contrast, individuals in the social sciences are trained to ask critical questions about cultures, traditions, and

¹ Salafi individuals adhere to fundamentalist version of Islam that believes it is necessary to return to the practices of the earliest Muslims.

beliefs, and therefore ask questions about the Salafi Islamic ideals. Social scientists are often trained to approach text from multiple dimensions and analyze the contradictions and ambiguities within the Islamic writings (Malise Ruthven as cited Ramakrishna, 2006, p. 135). These differences in analysis methods and ways of thought are believed to bring more scientists to fundamentalism and radical beliefs. Furthermore, Bergen and Sageman's studies shows that many terrorists were not highly educated in religious studies (due to the small proportion that attended madrassas), which may cause the terrorists to miss the historical analysis of the Quran and lead to a literalist interpretation of its contents (Sageman, 2008, p. 58). These theories do not indicate that scientists are more susceptible to extremist ideologies, but are meant to explain why scientists are highly represented in Bergen and Sageman's sample sets.

The motivation to study mathematics and sciences or humanities also lies within different personality traits. There are two different basic types of individuals, abstract or intuitive and concrete or objective. According to Ronald Johnson, intuitive individuals tend to have creative solutions during problem solving and they are willing to explore new ideas, enjoy change, and are more subjective (as cited in Ramakrishna, 2006, p. 132). Intuitive individuals are able to 'see what could be' rather than just what is (Ramakrishna, p. 132). Meanwhile, a concrete individual is often simple and is strongly solution-oriented (Ramakrishna, p. 132). For example, engineers and scientists often are concrete individuals. Concrete individuals tend to look for more simplistic explanations, similar to the way engineers or scientists are taught to think (Ramakrishna, p. 132). It is unclear whether or not individuals with these concretist personality types tend to seek out the science field or whether the concretist personalities develop from exposure to scientific thinking. However, it is clear that concrete individuals have personality traits that lead some to fundamentalist ideas and potentially radical or extremist perspectives.

In addition to personality traits that may attract scientific individuals to terrorism, educated individuals with analytical capabilities and scientific skills are in high demand for the successful planning and execution of a terrorist attack. While these skills and analytical capabilities may be learned outside of the traditional classroom, it is clear that terrorists need a great deal of education in particular subjects. For example, terrorists have to plan integrated logistics and must have the intellectual and scientific know-how to assemble and transport weapons. In addition the business-side of a terrorist organization requires analytical capabilities to ensure that the procurement of weapons will be financed

appropriately. A skillful, educated member is required for raising money through drugs and contraband smuggling and extortion. Lastly, some form of engineering education is required to assemble bombs correctly. It is necessary to have a large number of scientists working on terrorist attacks to make them successful and to avoid any disasters while assembling the bombs. Krueger and Maleckova argue that terrorist organizations may actually prefer more educated individuals. The two cite a study completed in 2001 by Nasra Hassan which shows that the supply for suicide bombers is actually much higher than the demand for suicide bombers. A Hamas leader who was interviewed stated that they recruit suicide bombers who show a commitment and a determination to carry out the plot (as cited in Krueger, 2003, p. 122). Krueger and Maleckova argue that an individual who attains higher levels of education has proven their commitment and determination in reaching goals they set for themselves (Krueger, p. 122). They believe that university-educated individuals would be more attractive recruits for suicide bombers.

Sageman and Bergen's studies show that, contrary to many of the terrorist profiles existing today, terrorists in recent large-scale international attacks have been educated members of society. As Sageman notes, however, more recent terrorist attacks include less educated terrorists than previous attacks. A majority of the terrorist included in these two studies did not have madrassas education, but rather had public, secular education. Many of these individual's had successfully completed or were in the process of completing university degrees. Both studies indicated that terrorists educated in Indonesia represented a large portion of the group of terrorists that did receive madrassa education. These findings show that Indonesia and Jemaah Islamiyah is a clear point of interest when evaluating the security threats of Islamic schools.

Religious Fundamentalism

Islamic terrorist groups use the concept of jihad to promote terrorism against the West and to recruit members to fight for their political goals of removing Western influence from the Muslim world. Global and political Islamic terrorism derives from the objective to establish a supreme government in Islamic regions of the world. Terrorists believe that the United States and other Western nations are inhibitors of this goal and oppressors of the Islamic way of life in these Islamic regions.

Osama bin Laden often references that violence against the West, particularly the United States, is the religious duty of a faithful Muslim. "Hostility towards America is a religious duty, and we hope to be rewarded for it by God. [...] I am confident that Muslims will be able to end the legend of the so-called superpower that is America" (Yusufzai, 1999, p. 2). The concept of jihad is central to

understanding the reason that some religious fundamentalists subscribe to terrorism. Osama bin Laden uses the concept of jihad to wage a political war against the West. He explains that it is not only a good Muslim's duty to participate in the jihad, but that because it is such a major part of the religion it is a great sin not to participate. "We should fully understand our religion. Fighting is a part of our religion and our Sharia [the Islamic legal code]. Those who love God and his Prophet and this religion cannot deny that. Whoever denies even a minor tenet of our religion commits the gravest sin in Islam" (*Quotes*).

It is often believed that jihadi terrorists have extensive religious education, centered on more extremist interpretations of the Quran and other religious texts. However, research shows that many have actually obtained relatively little religious education. Many have adopted Islam later in their lifetimes, and very few are actually religious scholars. In Sageman's sample of 172 terrorists (2008), only 25 percent were deeply religious as children and about 67 percent were actually secular when they were young (p. 51). The remaining terrorists were Christian converts (Sageman, p. 51). Sageman finds that throughout the different waves of terrorism, the number of individuals with religious backgrounds decreases. Two-thirds of the terrorists in the first wave had religious backgrounds, whereas only one-third of the second wave had religious backgrounds, and a very small minority in the third wave had religious backgrounds (Sageman, p. 51). Sageman found that because of the Indonesian terrorists' connections with pesantrens, many were devoted to Islam at an early age (p. 51).

Post and Denny completed interviews with 35 incarcerated members of Palestinian-affiliated terrorist groups. For most of these prisoners, their boyhood heroes were religious figures such as the Prophet Muhammad or the radical Wahhabist, Abdullah Azzam (as cited in Horgan, 2005, p. 92). These childhood heroes indicate that many of those within these specific Palestinian groups grew up as religious fundamentalists. For this particular study most had some high school and some education beyond high school. The families of these prisoners were reported to be well-respected in their communities and were reported to be supportive of the individual's commitment to the cause (Horgan, p. 92). Religious fundamentalism is often seen as one of the main motivators for engagement in terrorism today. However, it is evident that in general many terrorists have very little religious education and training. As Sageman points out, many had been recent converts studying the religion for only a few years, indicating that these terrorists may not have had proper time to internalize the religion and learn the historical background of the Quran.

Social Connections and Cultural Factors

Many terrorist networks are composed of social connections that individuals made throughout their life. People become affiliated with terrorism because family members, friends, or new acquaintances are already members of a terrorist movement. In Sageman's study (2008) two-thirds of the terrorists were friends with people who had already joined the movement or already had some connection to terrorism, and one-fifth of the sample had close relatives involved in terrorist movements (p. 66, 67). Because these connections are made previous to planning attacks, a sense of commitment to one another develops in the network. Five of the seven individuals, who had committed suicide together on April 3, 2004 due to their involvement in the Madrid bombings, had grown up together in Tetouan, Morocco (Sageman, p. 67). The process to joining jihad is accomplished through friendship, kinship, and discipleship links, proving that social connections are just as crucial as the ideological commitment (Militant Jihadism, 2006, p. 9). Many of the connections, however, are made because of Islamic ideology. Titled the "*Halah* Theory", many young men will meet at a local radical mosque, go out to eat, become friends, and continue these relationships (Sageman, p. 68). Later, they call on each other when they are planning a specific terrorist attack.

The reason that many friends and family members become involved in terrorism is due to the cultural values in Islamic societies. Many terrorist come from cultures with collectivist societies and high power-distance, or great respect for their 'elders'. This too contributes to the dedication each terrorist has towards the rest of the group. In a collectivist society, "individuals are expected to be loyal to the in-group and subordinate personal [goals] to those of collective" (Ramakrishna, 2006, p. 130). The collectivist ideals may bring those who do not wish to engage in terrorism to nevertheless remain loyal to the cause because of their loyalty to the group. For example, many family and friends have agreed to hide members involved in terrorist plots because of their loyalty to their friends as opposed to their actual beliefs on the benefits of terrorism or their motivation to participate in terrorism. It is "psychologically satisfying" to those individuals to show their loyalty to their group, in addition to finding this loyalty as their individual duty (Ramakrishna, p. 131).

Group dynamics may play a large role in bringing certain individuals to terrorism who may not typically be characterized as aggressive. The process of deindividuation is described as "a process where social restraints are weakened and impulsive and aggressive tendencies are released as a person loses his or her own personal identity as a part of being a large group" (Horgan, 2005, p. 114). According to

Schwartz (2009), terrorism is characterized as a “maximally collectivist” position. This is where the interests of the terrorist “become fused with the group he represents” (p. 541). The individual loses his or her own personal sense of identity, as it becomes combined with the group’s identity. The individual then becomes dedicated to the group’s greater goal. In an effort to derive a sense of purpose, individuals attach themselves intensely to the group and are willing to unquestioningly pursue any task the leader of the group assigns to them (Erikson as cited in Schwartz, 2009, p. 545). In this sense the group’s ideologies inform the personal identity of the individuals. Erikson explains that the identity crisis many adolescents face makes them susceptible to totalistic collective identities that ensure certainty for their actions and beliefs (as cited in Horgan, 2005, p. 54). It is in the religious and often frustrated groups, that the troubled youth find an identity and an explanation for the difficulties and hardships they face (as cited in Horgan, p. 54). Adolescents trying to form their own personal identities are already susceptible to taking on the identity of a group. For students attending radical madrassas, the process of deindividuation makes them particularly susceptible to extremist propaganda. This process also occurs in the Halah groups mentioned earlier.

Another cultural element that describes an individual’s radicalization is power-distance. According to Oflufemi A. Lawal, in high power-distance societies people accept that power is “inequitably distributed in society” (as cited in Ramakrishna, 2006, p. 130). These individuals regard that which is said by elders, scholars, and imams as fact, and will not question those in authority. These individuals accept that authority has been “naturally concentrated” in the hands of the religious leaders who deliver radical rhetoric (Ramakrishna, p. 130). Concrete individuals seek interpretations of the scriptures that are unambiguous, straightforward, and literal. These interpretations are sought by individuals who come from ambiguity-intolerant societies, where they want concrete answers (Ramakrishna, p. 142). Fundamentalism appeals to those who are concretist, as described earlier (Ramakrishna, p. 132). There is often dualistic thinking involved where all issues are either black or white. Concretists feel greater satisfaction when there is always a right and a wrong (Ramakrishna, p. 133). Those who immigrate to the West from these communities are often overwhelmed with the choices they encounter, where something is not necessarily right-or-wrong and where there is no one to tell them what to think, do, act, and feel. This is where there are reports that many of the fundamentalists leave a structured Islamic life in the Middle East, move to the West, and become involved in alcohol and sex. Then they find a radical mosque, turn to fundamentalism, and are imbued with jihad ideology. This is the reported scenario for the group of 9/11 planners based in Germany.

Conclusion

According to Sageman and Bergen, the majority of the terrorists involved in international attacks did not have madrassa education. Instead, university education, particularly in the sciences, seemed to be more prevalent than madrassa education. Each author noted that the individuals involved in the Indonesian terrorist plots were the main source of terrorists with madrassa or pesantren education. Religious Fundamentalism, social connections, and cultural factors are used to explain why individuals become terrorists. Overall, both of the studies' findings for Islamic terrorists displayed similar results.

METHODOLOGY FOR ASSESSING PESANTRENS INFLUENCE ON TERRORISM IN INDONESIA

This study focuses on the role pesantrens and madrassas played in forming the networks for five international terrorist attacks by Jemaah Islamiyah or Tanzim Qaedat al-Jihad that have taken place in Indonesia since 2002. The biographical details and educational backgrounds of the 68 individuals for the following five plots were collected and recorded.

1. Bali Nightclub Bombings of 2002
2. Marriott Bombing of 2003
3. Australian Embassy Bombing 2004
4. Bali Bombing of 2005
5. Jakarta Hotel Bombings of 2009

The biographical information collected consists of the terrorist's birth place, age, and the family's socio-economic status. Any organizational ties the individuals had to mosques, charities, or other forms of religious study groups were also recorded. Additionally, any educational information regarding where the individual had gone to elementary school, high school, or university were collected along with any ties to peers or teachers, who were also involved in terrorism. Lastly, any familial ties to terrorism were also noted whether it was a father who fought in the Afghan-Soviet War or an uncle involved in the rebel group, Darul Islam.

Collecting both biographical information and education backgrounds avoided a root cause approach which would allow education to count too heavily for the individual's recruitment to the plot. The biographical information and social connections created a more complete context as to how the terrorists became involved in the plot. For some terrorists involved, only small pieces of information about their backgrounds could be found. This often included how they were connected to some of the individuals in the plot, but in other instances it was one piece of information regarding their education. In these scenarios only that information could be noted, without any information regarding the larger context. For others, more complete information could be found about the individual's relationships, the individual's connections to a particular community, and how this person had transitioned into terrorism.

Collecting the biographical and educational information for the terrorists in open source files proved to be difficult. In many cases, this information is not publicly available or is often estimated. For example, years of birth are often estimated on other type of biographical information. Because madrasa

connections to terrorism and typical education backgrounds have been debated in the last few decades, this type of information was available for well-known terrorists. Information for terrorists who played smaller roles in the plot was often difficult or impossible to find.

The first step to collecting data for the terrorists involved in the five attacks was to figure out who was involved in the plot. The Global Security Terrorist Database was used to collect the list of individuals in each plot. The Global Security Terrorist Database also has general and biographical information for the terrorists. Most of the information obtained from this database included the year of birth, terrorist group of affiliation, and attack involvement. For several of the terrorists there was more detailed information, including education backgrounds. In addition, Global Security also dictates the reliability and confidence of the information on a scale. This was often the first source used to gather background information on each of the terrorists.

Newspapers also provided background information for the 68 terrorists, specifically in articles detailing the arrests of the terrorists or detailing why the terrorist was wanted. In most cases, these newspapers were Jakarta-based and very few of the newspapers were Western-based. Fortunately, the Jakarta Post, which much of the information came from, is written in English, and translating was not an issue. The process of finding these types of newspaper articles required a large amount of time and the sifting through multiple articles to pinpoint the specific information in which this case study required. In addition, the use of newspaper sources required cross-checking the information provided.

Because finding information in newspapers was extremely labor-intensive, other articles written by international security groups were researched. Articles written by groups like International Crisis Group contained specific information about the composition of the attack networks, and required less labor to sift through articles to find the detailed information. The International Crisis Group had several publications regarding the network composition of Jemaah Islamiyah attacks and the education background of the terrorists involved in these attacks. These articles were particularly useful in finding both education backgrounds and the individuals' social connections to terrorism.

Because of the nature of the information, it was often necessary to cross-reference different articles to ensure the quality of the backgrounds. The backgrounds of terrorists are often deduced through rigorous analysis of known connections to different towns, organizations, and individuals. Because of this, much of this data depends on human judgment and can be flawed. Therefore, it was

necessary to carefully examine the sources used by different articles, and it was often necessary to use second sources to validate the information found.

After collecting the terrorists' backgrounds and depicting these characteristics in an excel spreadsheet, Analyst's Notebook was used to create a better representation of the network. Analyst's Notebook is a software program that creates a visual representation of social networks. All of the social and educational ties between the individuals were depicted in Analyst's Notebook in order to better analyze the entire picture. These diagrams were created for each of the five attacks in order to analyze how the networks were formed. Lastly, a diagram of the entire sample was created to show each of the connections to pesantrens in order to fully understand how influential these schools were for all five of the plots. The diagrams created can be found in Appendices A through E. An additional diagram was also created that portrayed both educational backgrounds and social connections between the terrorists; however, because of its complexity it was difficult to derive any benefit from the analysis of this diagram.

DATA FOR THE FIVE INTERNATIONAL TERRORIST ATTACKS

Of the 68 individuals involved in the five attacks, only 43 educational records were found in open sources. Of these 43 individuals, 34 had associations with pesantrens including being students, teachers, or simply attending evening lectures. In order to examine the role Islamic schools play in connecting the individuals involved in the attacks, each of the individuals' backgrounds were analyzed within the context of their recruitment to the attack. The data for each of the five attacks follows.

Bali Nightclub Bombing of 2002

Planning for the Bali Nightclub Bombing began in February 2002 in Bangkok with Hambali, Ali Gufron, and several other leaders of JI who had discussed bringing the jihad to Southeast Asia. During this meeting, the group decided to follow al-Qaeda's initiative of attacking soft targets. The attack included three different bombs on the island of Bali, which is a popular tourist destination for Westerners. The first bomb went off at 11:05pm on the 12th of October inside of Paddy's Bar. In this attack, a bombing vest was used, which indicated that it was a planned suicide attack. The second bomb, placed in a Mitsubishi van in front of the Sari Club, went off only ten to fifteen seconds afterwards. The intent was to kill more people who had been exiting the club at the time. A minute after the van explosion in front of the club, another bomb exploded at the United States consulate a few miles away. No one was injured or killed at the site of the consulate. The final death count was 202, with hundreds of injuries. It is often referred to as Australia's September 11th because of the large amount of Australian citizens that died in the attack.

Of the 22 terrorists involved in the Bali Nightclub Bombings of 2002, twelve of the individuals had some form of contact or affiliation with Pondok Ngruki or Luqmanul Hakiem, the pesantrens associated with Jemaah Islamiyah. Of these twelve individuals six were students at the pesantrens, two were the founders, one was a teacher, and two had attended lectures held at the pesantrens. Three of the terrorists attended school at Madrasah Allyah Darul Illmi, which was affiliated with a religious group aimed at recruiting terrorists. Two of the individuals involved in the attack were educated at Islamic High Schools and four had attained university education and degrees. Three of the terrorists held leadership roles in the schools including the founders, Ba'asyir and Ali Gufron, and Noordin Top who was the director of Luqmanul Hakiem. In contrast, two of the individuals were university lecturers, Wan Win Wan Mat and Azahari Husin. Wan Win Wan Mat was a Muslim cleric at Malaysia Technology University, while Azahari was an engineering and technology studies professor. For five of the men involved in the plot, little information could be found for their backgrounds, especially for their

educational background. These men carried smaller roles in the attack; specifically they participated in the robbery of a jewelry store to help finance the attack. Fifty percent of the terrorists involved in the plot did have interaction with the pesantrens. The school connections did play a large role in the planning of this attack; however, there were other important social connections between the individuals. (See Appendix A for a diagram of the network's social and school connections)

Table 1: Education Backgrounds of Terrorists Involved in the Bali Bombing of 2002			
Terrorist	Schools of Association	Association	Attended
Hambali	Islamic High School, Al-lanah	Student	-
	Luqmanul Hakiem	attended lectures	-
Imam Samudra (Abdul Aziz)	Islamic High School (MAN in Serang)	Student	-
	Pondok Ngruki	Attended Lectures	-
	University Education: Engineering	Student	-
	Al-Irsyad High School	Computer Teacher	-
Ali Gufron	Al-Mukmin of Ngruki	Student	-
	Luqmanul Hakiem	Founded	-
Idris	Luqmanul Hakiem	Student	-
Dulmatin	Pondok Ngruki	Student	-
Wan Min Wan Mat	Malaysia Technology University: Muslim Cleric	Lecturer	-
Azahari Husin	University of Reading: Engineering	Doctorate student	-
	Technological University of Malaysia	Professor	-
	Luqmanul Hakiem	Lecturer	-
Noordin Top	Technological University of Malaysia: Accountancy	Student	1991
	Luqmanul Hakiem	Teacher & Director	? - 2002
Zulkarnaen	Al-Mukmin of Ngruki	Student	-
	Indonesian University: Biology	Student	-
Amrozi	Luqmanul Hakiem	Student	-
Abdul Rauf	Pondok Ngruki	Student	1992-1997
	Madrasah Allyah Darul Ilmi	Student	1997-2000
Yudi	State Elementary School	Student	-
	Pondok Ngruki	Student	1992-1995
	Madrasah Allyah Darul Ilmi	Student	-
Andi Hidayat	State Islamic High School in Banten	Student	Graduated 2000
	Madrasah Allyah Darul Illmi	Member of Study Group	-

Iqbal	Dropped out second year of high school	Student	-
Faturrahman al-Ghozi	Islamic High School in Serang	Student	-
Ali Imron	Al-Mukmin	Student	-
Ba'asyir	Ontor Islamic Boarding School	Student	Graduated 1959
	Allrsyad University	Student	Graduated 1963

Marriott Bombing of 2003

Jemaah Islamiyah used a car bomb to attack the JW Marriott Hotel in Jakarta on the 5th of August 2003. Asmar Latin Sani, an Ngruki graduate, drove a Toyota van up to the taxi stand in front of the hotel where the bomb then exploded. The attack killed twelve people and injured 150. The bombing of the hotel symbolized an attack against the West. The United States embassy and various other Western embassies used the hotel for events and to house their citizens. In addition, Marriott is a Western brand.

All twelve of the terrorists involved in the Marriott Bombing of 2003 had connections to Ngruki or Luqmanul Hakiem. Five of these individuals (Noordin Top, Hambali, Azahari, Toni Togar and Idris) had previously been involved with the Christmas Day Bombing of 2000 or the Bali Nightclub Bombing of 2002. Nine of the terrorists graduated from the pesantrens, while the others either attended lectures or taught at the pesantrens. Four of the individuals attended Ngruki from the time span between 1987 and 1994. It is plausible that the four met each other at the school. Noordin Top, as the leader of this plot, relied upon his connections with Luqmanul Hakiem and Ngruki to create the plot's network. Noordin Top and Azahari Husin were the only individuals with university education and advanced university degrees in this particular attack. (See Appendix B for a diagram of the network's social and school connections)

Table 2: Education Backgrounds of Terrorists Involved in the Marriott Bombing of 2003			
Terrorist	Schools of Association	Association	Dates Attended
Hambali*	Islamic High School, Al-lanah	Student	-
	Luqmanul Hakiem	attended lectures	-
Noordin Top*	Technological University of Malaysia: Accountancy	Student	1991
	Luqmanul Hakiem	Teacher & Director	? - 2002
Idris*	Luqmanul Hakiem	Student	-
Muhammad Rais	Pondok Ngruki	Student	1991-1995
	Luqmanul Hakiem	Student	1996-1999
	Luqmanul Hakiem	Teacher	2000-2001
Rusman Gunawan	Most likely Luqmanul Hakiem	Student	-
	Abu Bakar Islamic University	Student	-
Jabir	Pondok Ngruki	Student	1993-1996
	Darusyahada	Student	1996-1998
	Darusyahada	Teacher	1999-2004
Sardona Siliwangi	Pondok Ngruki	Student	1993-1997
	University an-Nur	Student	2000-2002
Asmar Latin Sani	Pondok Ngruki	Student	1991-1995
Tohir	Pondok Ngruki	Student	1990-1994
	Luqmanul Hakiem	Student	1998
	Luqmanul Hakiem	Teacher	2000
Azahari Husin*	University of Reading: Engineering	Student	-
	Technological University of Malaysia	Professor	-
	Luqmanul Hakiem	Lecturer	-
Toni Togar	Pondok Ngruki	Student	1987-1990
Ismail	Luqmanul Hakiem	Student	1991-1998

*These individuals were also involved in the Bali Bombings of 2002

Australian Embassy Bombing of 2004

On the 9th of September 2004, a car bomb exploded in Jakarta in front of the Australian Embassy. Eleven were killed in the attack and 173 were wounded. No employee of the Australian embassy was killed. Other embassies in the location experienced damage from the explosion. The building adjacent to the Australian Embassy housed the Greek Embassy on the twelfth floor and was

guttled. The attack occurred a month before Australian elections. It is believed the group wanted to test Australian support for the War on Terrorism.

The planning for the Australian Embassy Bombing of 2004, took place while the Indonesian government was on a manhunt for Noordin Top and Azahari Husin. Noordin and Azahari were instrumental in the previous two attacks. Noordin was often responsible for the financial planning for the attacks and Azahari was responsible for the bomb making. Many of the figures involved in this plot, were members of Jemaah Islamiyah (JI) who were charged with allowing the two to stay in their homes and continue to conduct their terrorist activities. The East Java division of JI was the network charged with taking care of Noordin and Azahari who were on the run. They used their JI network but also used business partnerships, schoolmates, and other forms of connections to take care of the two men.

Of the 23 terrorists involved in this plot, none had university education besides Noordin Top and Azahari Husin. No biographical information was available for six of the individuals involved in the plot. These individuals include the suicide bomber, two candidate suicide bombers, the trainer in a military academy for the suicide bombers, and individuals that were charged with protecting Noordin and Azahari. Twelve of the 22 had connections to the JI pesantrens including being students, teaching, and attending lectures. (See Appendix C for a diagram of the network’s social and school connections)

Table 3: Education Backgrounds of Terrorists Involved in the Australian Embassy Bombing of 2004			
Terrorists	School of Association	Association	Dates Attended
Son Hadi	Pondok Ngruki	Student	1988-1991
Fida	University an-Nur	Teacher	2000-2002
Jabir*	Pondok Ngruki	Student	1993-1996
	Darusyahada	Student	1996-1998
	Darusyahada	Teacher	1999 - 2004
Deni	Pondok Ngruki	Student	1992-1995
	al-Husein (JI School)	Student	1995-1997
	University an-Nur	Student	2000-2003
Urwah	Al-Muttaqien (JI school)	Student	1990-1996
	University an-Nur	Student	2000-2003

Ubeid	Pondok Ngruki	Student	1992-1995
	Darussyahada	Student	1995-1998
	University an-Nur	Student	2000-2003
Umar	University an-Nur	Student	-
Al-Anshori	Pondok Ngruki	-	2002-2003
Baharudin Soleh	Pondok Ngruki	Student	1993-1994
Irun Hidayat	Serang Islamic High School	Student	-
Chandra	Studied with Son Hadi in East Java Bangil	Student	-
Azahari Husin*	University of Reading: Engineering	Doctorate Student	-
	Technological University of Malaysia	Professor	-
	Luqmanul Hakiem	Lecturer	-
Noordin Top*	Technological University of Malaysia: Accountancy	Student	1991
	Luqmanul Hakiem	Teacher & Director	to 2002
Ahmad Arif	Indonesia's Surabaya Institute of Technology	Student	-
*These individuals were also involved in either the Bali Bombing of 2002 or Marriott Bombing of 2003			

Bali Bombings of 2005

On the 1st of October 2005, a series of bombs went off on the island of Bali. Twenty-five were killed and at least 100 were injured. The first explosion occurred at Raja's Restaurant in the heart of the tourist district around 7:00 pm. Two more bombs went off shortly afterwards at open-air seafood restaurants on tourist-filled Jimbaran beach, which is about 19 miles from Raja's restaurant.

Of the 13 terrorists involved in the Bali Bombings of 2005, three had been students at the Jemaah Islamiyah affiliated pesantrens. Noordin Top, Azahari, Imam Samudra, and another individual, Muhammed Cholily, had university educations. Two individuals' backgrounds were not found. The remaining men had graduated from State Islamic Schools or were teachers at State Islamic Schools. Instead of drawing members from Jemaah Islamiyah, Sugiarto, the field commander, chose to draw from friends he had in the area. With the exception of bringing in the suicide bombers, the network was comprised of those who had participated in previous attacks with Noordin Top. The others were brought

in by Sugiarto because of the locality. (See Appendix D for a diagram of the network's social and school connections)

Table 4: Education Backgrounds of Terrorists Involved in the Bali Bombings of 2005		
Terrorist	Schools of Association	Association
Salik Firdaus	Al-Muttaquien	Student
	Darusyahada	Student
Agus Puryanto	State Islamic Institute (Sekolah Tinggi Agama Islam Negeri)	Student
Muhammed Cholily	University in Malang	Student
Noordin Top*	Technological University of Malaysia: Accountancy	Student
	Luqmanul Hakiem	Teacher & Director
Minso	Darusyahada Islamic Boarding School	Student
Jabir*	Ngruki	Student
	Darusyahada	Student
	Darusyahada	Teacher
Imam Samudra	Islamic High School (MAN in Serang)	Student
	Pondok Ngruki	Attended Lectures
	University Education: Engineering	Student
	Al-Irsyad High School	Computer Teacher
Subur Sugiarto	Semarang High School	Teacher
Joko Wibowo	Islamic Junior High School	Student
*These individuals were also involved in Bali Bombings of 2002, Marriott Bombings of 2003, or the Australian Embassy Bombing of 2004.		

Jakarta Hotel Bombings of 2009

Twin suicide bombings occurred in the capital city of Indonesia, Jakarta, on 17 July 2009 at the Ritz-Carlton and the JW Marriott hotels. The two suicide bombers checked into the JW Marriott on 15 July 2009 into room 1808, where authorities found a third undetonated bomb after the morning explosions. The bombers smuggled explosives and home-made bomb materials past the metal detectors and security guards, and then assembled the bombs in their room. On 17 July 2009, the suicide bombers detonated their bombs at 7:45am at the JW Marriott and 7:47am at the Ritz Carlton. Both of the explosions occurred at the lower levels of the high-rises with casualties totaling nine deaths and 53 injuries.

The clearest connection amongst those involved in planning the Jakarta Hotel Bombings is the members and associations made with one specific family. While individuals of the plot did train or attend various pesantrens, the links between the individuals remain within the family. There are yet some unclear ties between different members of the group, but the majority is connected to Syaifudin Jaelani, his brothers, and brothers-in-law. Jaelani was also responsible for recruiting the suicide bombers to the plot.

ANALYSIS

Sixty-eight different terrorists were involved in making these five attacks possible for Jemaah Islamiyah. The pesantrens did play a significant role in enabling the completion of some of these networks and were vital to the success of the terrorist attacks. Overall 50 percent of this sample had some form of relation to the schools whether they had been students, teachers, the founders, or attendees of evening lectures. This reveals that madrassas and religious schools have in the past been used for terrorist sanctuaries and likely as recruiting grounds for the terrorist plots. The educational backgrounds for 25 of the 68 individuals could not be found. Many of these individuals played small roles in the plot, but were still vital to its success. While this portion is large in comparison to the total sample, there are still clear points of contact in the network that had developed from pesantren connections. Through the study of these networks individually and collectively, it is clear that pesantrens in Indonesia did provide the members of Jemaah Islamiyah with hubs for their networks. However, these networks were also composed with familial, business, and religious group ties.

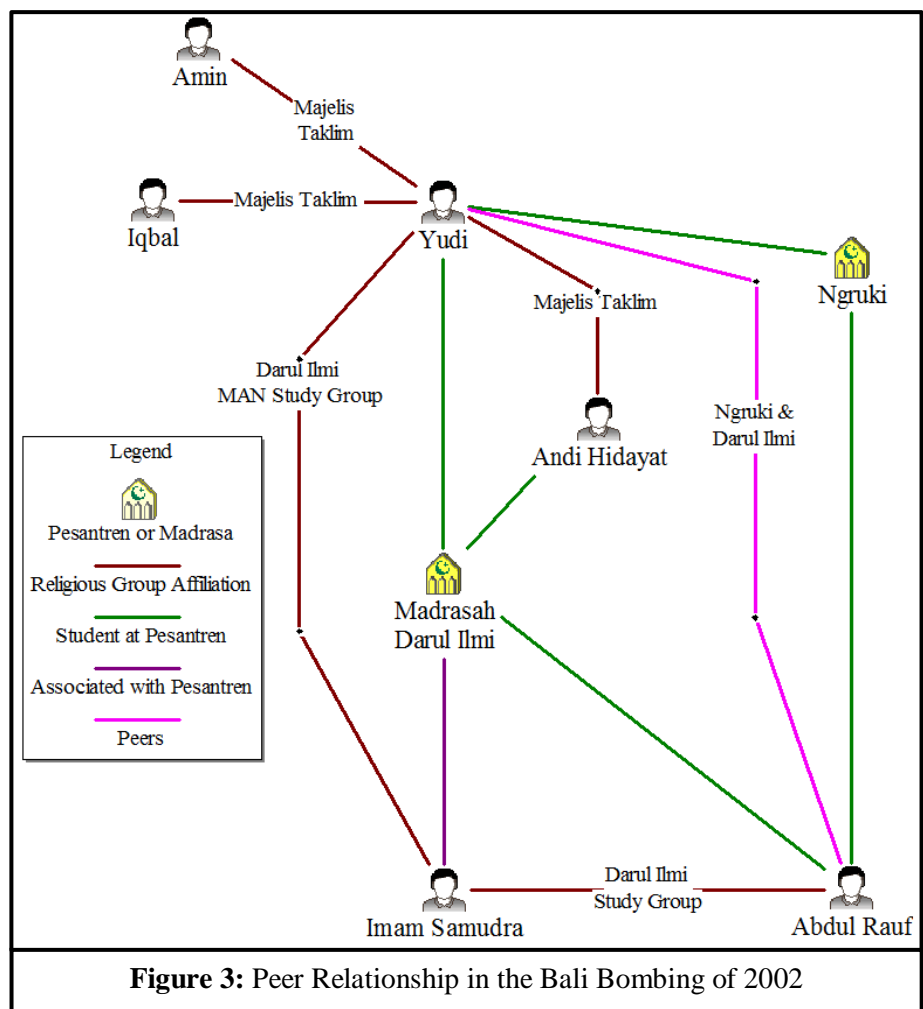
The pesantren connections contributed significantly to the first three attacks, the Bali Bombing of 2002, the Marriott Bombing of 2003, and the Australian Embassy Bombing of 2004. The networks for the last two bombings were comprised mostly of individuals from a certain location due to the fact that Noordin Top was in hiding. Because of these connections with local individuals there were significantly less pesantren ties in the Bali Bombings of 2005 and the Jakarta Hotel Bombings of 2009. In addition, the ties to the key JI pesantrens decreased due to the closing of the JI schools and the Indonesian and Malaysian government crackdown on terrorism.

School Connections & Student-Teacher Relationships

In each of the terrorist plots, excluding the hotel bombing in Jakarta in 2009, the pesantrens played a significant role in forming the networks. Specifically, five pesantrens were influential in connecting individuals for each of the plots. Many argue that madrassas and other forms of Islamic schools do not create a threat because in reality the radicalized madrassas are not that prevalent as compared to other forms of public schools, private schools, and non-radicalized madrassas. These terrorist plots, however, prove that even in small numbers, these schools present a threat. In many cases, student-teacher relationships and peer relationship created small cliques within the networks. The tie between Azahari Husin and Noordin Top at the Malaysia Technology University shows that student-teacher relationships play a significant role outside of pesantrens and madrassas as well.

In the Bali Bombing of 2002, Imam Samudra and Rauf's relationship brought many important players into the network. Rauf met Imam Samudra at Madrasah Darul Ilmi, which acted as a recruiting ground for Imam Samudra (Indonesian Backgrounder, 2002, p. 23). Rauf had attended the study group that Imam Samudra created for the purpose of recruiting individuals to jihad. From there Rauf had recruited Yudi, who went on to assist with assembling the bomb. Rauf and Yudi were classmates at Pondok Ngruki and had both gone to Madrasah Darul Ilmi afterwards. Yudi had been the head of a Muslim student organization at the Madrasah Darul Ilmi, called *Ikatan Santri Daar El-Ilmi* (Indonesian Backgrounder, p. 23). After finishing school, Yudi returned to help with his family's business and created an Islamic study group, *majelis taklim*, for the local youth (Indonesian Backgrounder, p. 23).

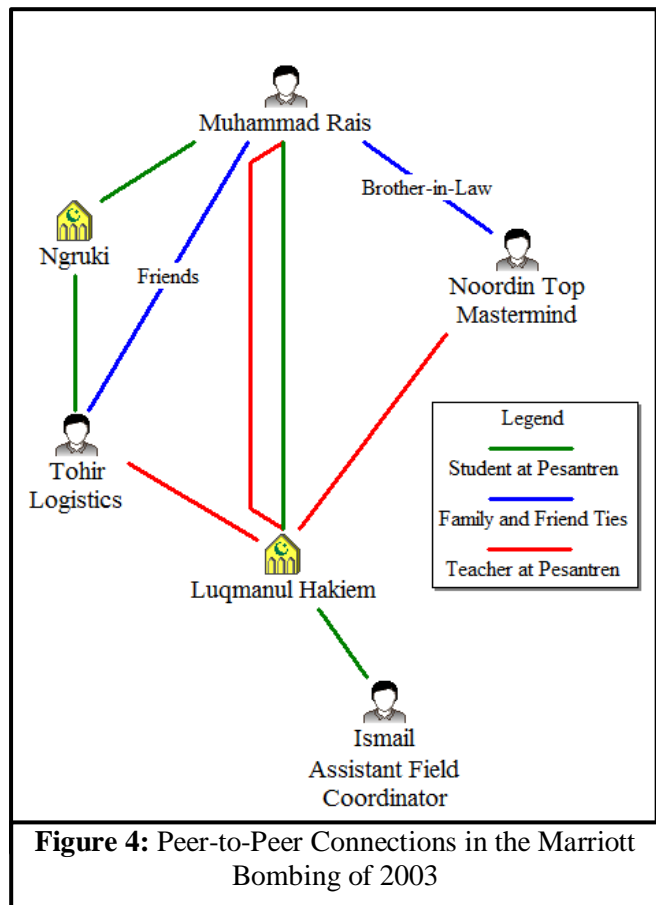
The *majelis taklim* allowed the youth to openly discuss religious issues with the general public. Yudi was responsible for bringing in the suicide bomber, Iqbal and two of his other students from the *majelis taklim*, Andi Hidayat and Amin (Indonesian Backgrounder, p. 23). Andi and Amin participated in the robbery of a jewelry store, which was done to finance the plot. The peer-to-peer relation between Yudi and Rauf represents an important example of how the pesantrens have provided radical social



networks for the individuals to draw upon when planning terrorist attacks. This relationship was vital for the recruitment of a suicide bomber for the Bali 2002 attack. In addition, the study group created by Imam Samudra presents an example of how radical ideas may spread through Islamic schools after hours in extracurricular activities. There was no information indicating that the curriculum at this

madrassa was radical, but the madrassa did act as a hub to connect radicalized individuals. Because Rauf and Yudi had been at Ngruki as well, they may have been radicalized prior to their attendance at the study group. Even if this was the case, the study group allowed them to share and spread their radical perspectives.

In the Marriott Bombing of 2003, two of the individuals Muhammad Rais and Ismail were school friends at Luqmanul Hakiem (Terrorism in Indonesia, 2006, p. 3, 4). Both of the individuals attended the pesantren from 1996 to 1998, and Rais later switched over to a teacher role in 2000 (Terrorism in Indonesia, p. 3). Noordin Top had been teaching at Luqmanul Hakiem when Rais and Ismail attended the school. It is possible that they became actively involved in jihad at this point. There was, however, no explicit evidence that indicated that Top ever taught Rais or Ismail at Luqmanul Hakiem. Top and Rais fled the school in 2002 and started an automobile repair shop together, later asking Ismail to join (Terrorism in Indonesia, p. 4). Luqmanul Hakiem brought these three individuals together and aided in the



planning of the Marriott Bombing. Rais also attended Ngruki between 1991 and 1994 with a close friend, Tohir (Terrorism in Indonesia, p. 4). Tohir, too, became a teacher at Luqmanul Hakiem in 2001 and coordinated logistics for the Marriott Bombing. It is evident that Noordin Top, who was the director of Luqmanul Hakiem at this time, continued to hire teachers associated with Jemaah Islamiyah and their radicalized philosophy. Whether this was done in order to help recruit more members into the organization is unknown, but it is clear that Luqmanul Hakiem provided Noordin, Tohir, and Rais with a sanctuary to cover their terrorist activities. In addition, when composing the Marriott Bombing plot, Noordin Top relied upon these connections within Ngruki and Luqmanul Hakiem.

Student-teacher relations were particularly important in the Australian Embassy Bombing of 2004. Noordin Top and Azahari Husin remained in hiding following the Marriott Hotel Bombing of 2003. An individual in the JI organization charged a higher ranking member, Fida, to be responsible for the hiding of Noordin and Azahari. Fida's father was the leader of a mosque where various JI activities had been coordinated in the past

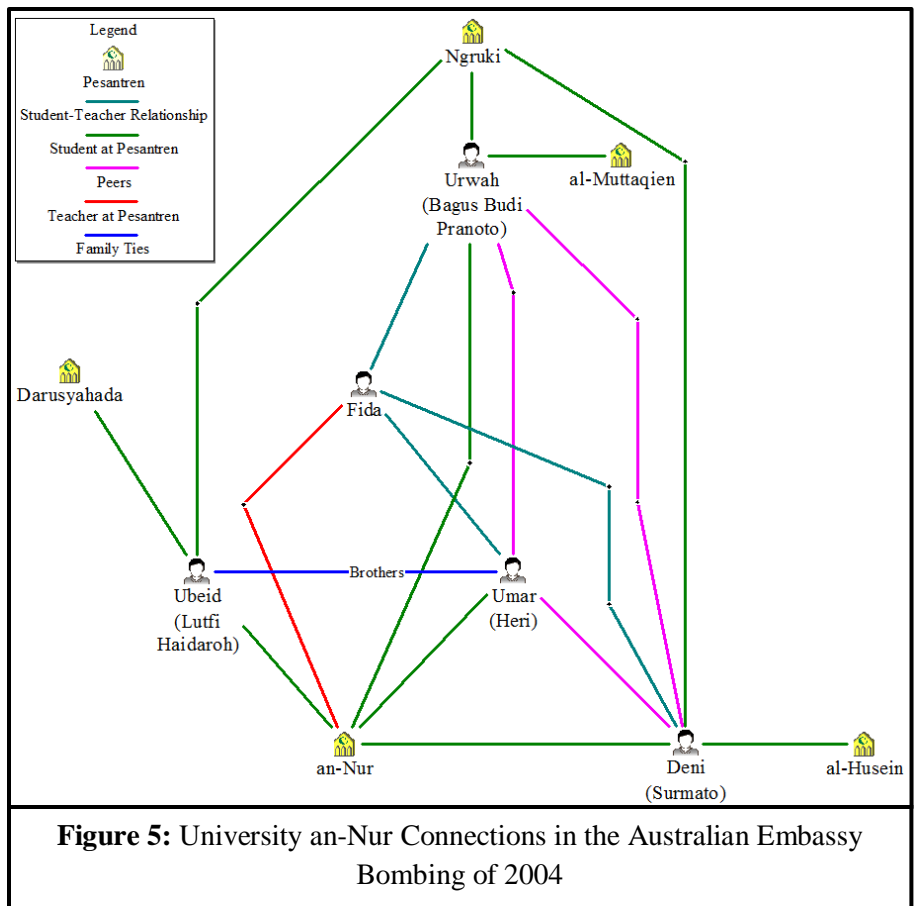


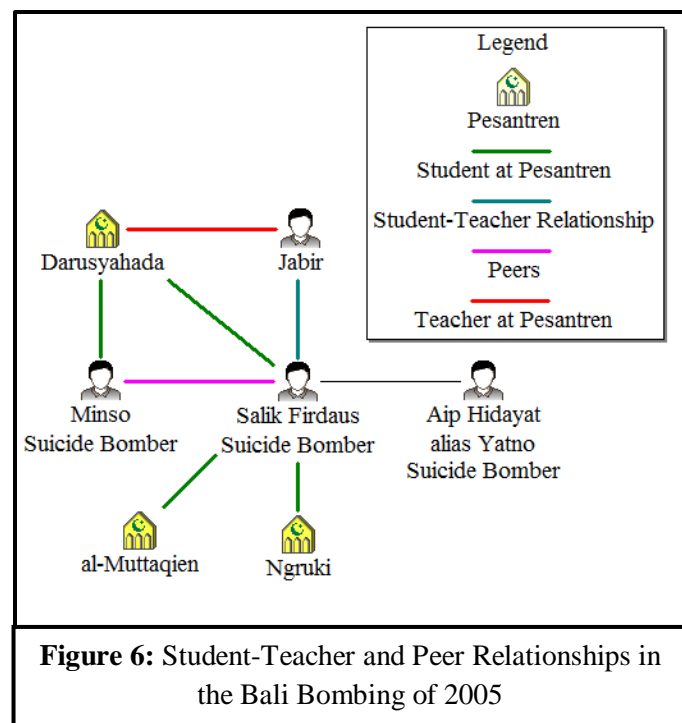
Figure 5: University an-Nur Connections in the Australian Embassy Bombing of 2004

(Terrorism in Indonesia, 2006, p. 7). Fida was also a teacher at University an-Nur, and was responsible for recruiting three of his students for the plot: Deni, Umar, and Urwah (Terrorism in Indonesia, p. 7). They were all classmates at the University. Deni and Urwah studied previously at Jemaah Islamiyah schools. Deni had attended Ngruki from 1992 to 1995 and al-Husein from 1995 to 1997 before coming to the University in 2000. Urwah had attended al-Muttaqien from 1990 to 1996 before coming to the University in 2000. Because Ngruki, al-Husein, and al-Muttaqien were all affiliated with the Jemaah Islamiyah network, it is likely that Deni and Urwah were radicalized prior to attending University an-Nur. However, no evidence specifically states the date that Deni and Urwah first became affiliated with the JI network. Regardless, Fida was the individual that actually invited them to participate in a terrorist plot. The last individual involved in the plot that attended University an-Nur was Ubeid, who was the brother of Umar. Although Umar is only recorded as attending University an-Nur, Ubeid had attended Ngruki from 1992 to 1995, Darusyahada from 1995 to 1998, and then came to University an-Nur in 2000. While the other three were clearly students of Fida, there was no indication that Ubeid was one of his students despite the fact that he did attend the school during the same years as the others. This clique within the network shows the access and influence that teachers have on their students in recruiting them

to participate in terrorist plots. Again, it is not only teachers in the pesantrens that have these connections to do so, but it is apparent that these connections are used. By having JI or radicalized individuals in leadership roles in these pesantrens, it enabled the Jemaah Islamiyah network to connect with more individuals that share the same religious philosophy and radicalized perspectives.

In addition to the University an-Nur clique, Pondok Ngruki played a role in connecting the network with a religious educator for the suicide bomber at the end of Australian Embassy Bombing plot. Jabir, who had also been involved with the Marriott Hotel Bombing in 2003, attended Ngruki from 1993 to 1996. There he was classmates with the religious teacher, Baharudin Soleh, who had attended Ngruki between 1993 and 1994 (Terrorism in Indonesia, 2006, p. 10). This is another example of how this group had used its pesantren networks to recruit individuals to the plots.

The Bali Bombings of 2005 provides another example of the importance of student-teacher relationships to the development of the plot. Jabir was a teacher at the Darusyahada madrassa which has been affiliated with Jemaah Islamiyah. Jabir recruited his student Salik Firdaus, who became one of the suicide bombers (Terrorism in Indonesia, 2006, p. 17). Salik was on the teacher track in the Darusyahada madrassa, which often meant automatic induction into Jemaah Islamiyah (Terrorism in Indonesia, p. 17). He had also attended al-Muttaqien as a student. Salik was responsible for recruiting the other two suicide bombers, Minso and Aip Hidayat (Terrorism in Indonesia, p.17). Minso was also a student at Darusyahada, but did not appear to have any initial connections with Jabir. Yatno's education is unknown, but it is believed he joined the plot due to his financial standing and the promise of payment.



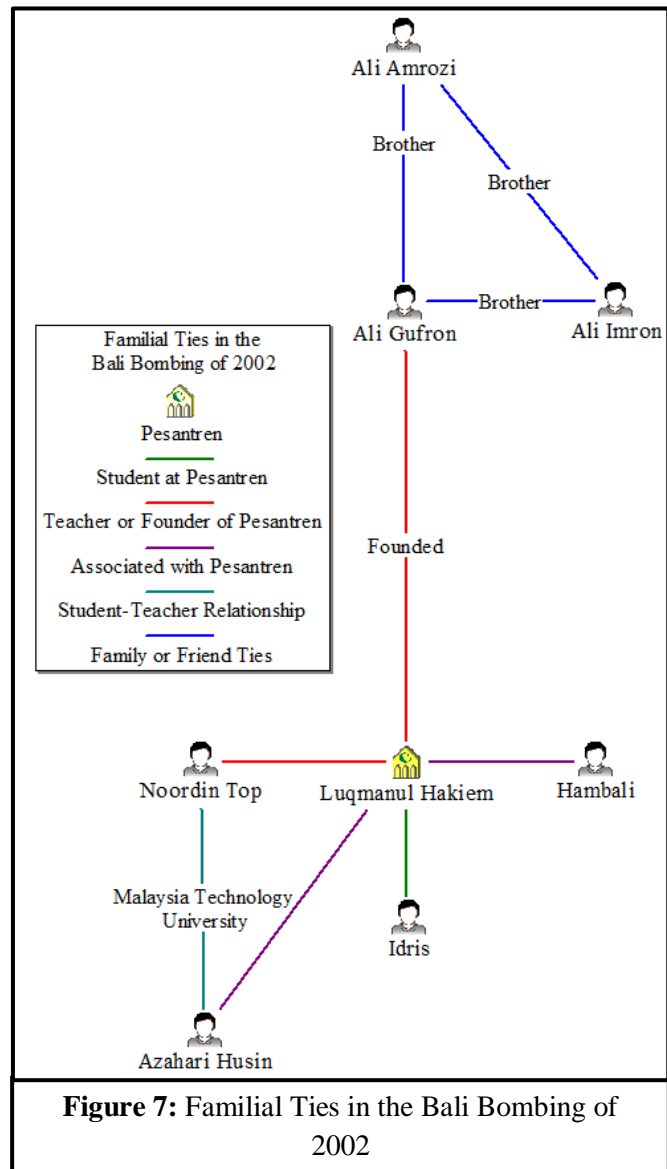
Key members for the Bali Bombings of 2002 and 2005, the Marriott Bombing, and the Australian Embassy Bombing were recruited due to connections made in the pesantrens. Suicide bombers for the Bali Bombings of 2002 and 2005 were found through pesantren and madrassa

relationships. These connections prove that radical madrassas present a national security threat by connecting like-minded individuals, who can call upon one another during the planning of a terrorist attack. In addition, Noordin Top’s Luqmanul Hakiem provided a sanctuary for terrorist activities by housing and creating legitimate jobs for Tohir and Rais who were teachers.

Familial Connections

Familial ties to terrorism played a significant role in the development of the networks for all five of the terrorist plots. In some cases, family members were recruited to the plot. In other cases, the individuals had familial connections to terrorists outside of the plot. The family member’s involvement in terrorism may have led these individuals to radical perspectives and their own involvement in Jemaah Islamiyah.

In the Bali Nightclub Bombing of 2002, Ali Gufron, the field commander, recruited both of his brothers, Ali Imron and Ali Amrozi. Imron helped design and assemble the bomb, as well as train the suicide bomber. Amrozi purchased the explosives and found the van used for the bombing (Indonesia Backgrounder, 2002, p. 31). This family connection was integral to the success of the bombing. All three of these individuals attended pesantrens associated with Jemaah Islamiyah. Imron had attended al-Mukmin, while Amrozi is reported as being associated with Luqmanul Hakiem (Indonesia Backgrounder, p. 20). In addition, their father in 1992 established a pesantren of his own, al-Islam which is considered one of the JI-affiliated pesantrens (Atran, 2008, p. 11). The father’s religious and political views were not found; however, in many



other cases these strong jihad connections between brothers reflect that there are greater familial ties to the terrorist groups.

In the Bali Nightclub Bombing of 2002, a marriage connected two of the individuals involved in the plot. However, it is likely that this marriage had resulted from the two individuals already knowing each other instead of the terrorists meeting as a result of the marriage. Many of the men “marry into jihad”, and it appears that was the case with Umar Patek and Dulmatin (Abuza, 2010). They trained together in an al-Qaeda camp in Afghanistan in the mid-1990s. Dulmatin married Patek’s sister, but a date for this union was not found. It is reported that Dulmatin was a bomb making student of Azahari Husin, though he had no formal technical education. He was an electronics specialist and had set off the bomb at the United States consulate during the Bali Bombing. No other indications were found that connected Azahari and Dulmatin other than their affiliation through the JI network.

The Marriott Bombing of 2003 had two members that were united by a marriage and another set that were siblings. Rais and Noordin were both affiliated with Luqmanul Hakiem as described previously. In addition, Rais is also Noordin Top’s brother-in-law, as Rais married Noordin’s sister (Terrorism in Indonesia, 2006, p. 3). It is likely that Rais and Top had become friends based on their radical perspectives before Rais married Noordin’s sister. No other members of Noordin’s family appear to be radicalized.

More significantly, there was a set of brothers in the Marriot Bombing that show connections from JI to Pakistani madrassas. Gunawan, who is Hambali’s brother, played a large role in securing funding from al-Qaeda for the bombing. During the planning of the plot, Gunawan was in Pakistan studying at Abu Bakar Islamic University and two other madrassas in Karachi (Hambali’s Younger Brother). Gunawan, with a group of about 19 other students, was sent to Pakistan for more training to develop into JI leaders (Hambali’s Younger Brother). Prior to being sent to Pakistan, Gunawan had undergone training at a Malaysian pesantren, likely Luqmanul Hakiem. In addition to showing the impacts of familial ties to the plot, the use of Pakistani madrassas for educating JI operatives highlights the security threats of radical madrassas in connecting terrorists from around the world. However, the reforms of the Pakistani madrassas in 2006 aimed to eliminate the issues of foreigners studying in the country to reduce the global spread of jihadi terrorists.

Jabir, who was also involved in the Marriott Bombing, had family members that were extensively involved in Islamic extremist groups. His cousin was Fathurrahman al-Ghozi, who was a JI bomb-maker and had participated in previous plots with JI and other terror groups in the region (Ismail, 2006). Jabir's family connections to terrorism show how radical thoughts transfer between family members. Jabir was likely introduced into an environment of radical perspectives through his family. Jabir attended Ngruki and Darusyahada as a student and became a teacher at Darusyahada (Terrorism in Indonesia, 2006, p. 7). He was able to spread these radical ideas during his schooling and as a teacher in these institutions. For Jabir, the question remains whether he was radicalized at these schools or at home.

Family connections in the Australian Embassy Bombing of 2004 brought in an extensive network of Darul Islam individuals. Urwah, one of Fida's students at University an-Nur, had connections with Iwan, a Darul Islam member (Terrorism in Indonesia, 2006, p. 8). Iwan was responsible for establishing a camp in West Java to train the suicide bombers for the attack. Iwan was also in charge of selecting the suicide bomber from the attendees of the camp (Terrorism in Indonesia, 2006, p. 8). He carried out these tasks with the help of his wife's uncle, Saptono, who was also a Darul Islam member (Terrorism in Indonesia, 2006, p. 9). The Darul Islam network played a large role in training the bombers and providing safe houses for them the night before the attack; however, the educational backgrounds of many of these individuals are unknown. Interestingly, Iwan's brother was enrolled at University an-Nur. There is no information regarding whether Iwan's brother was a friend of Urwah or whether he attended the school during the planning of the attack. With Iwan heavily involved in Darul Islam and planning terrorist

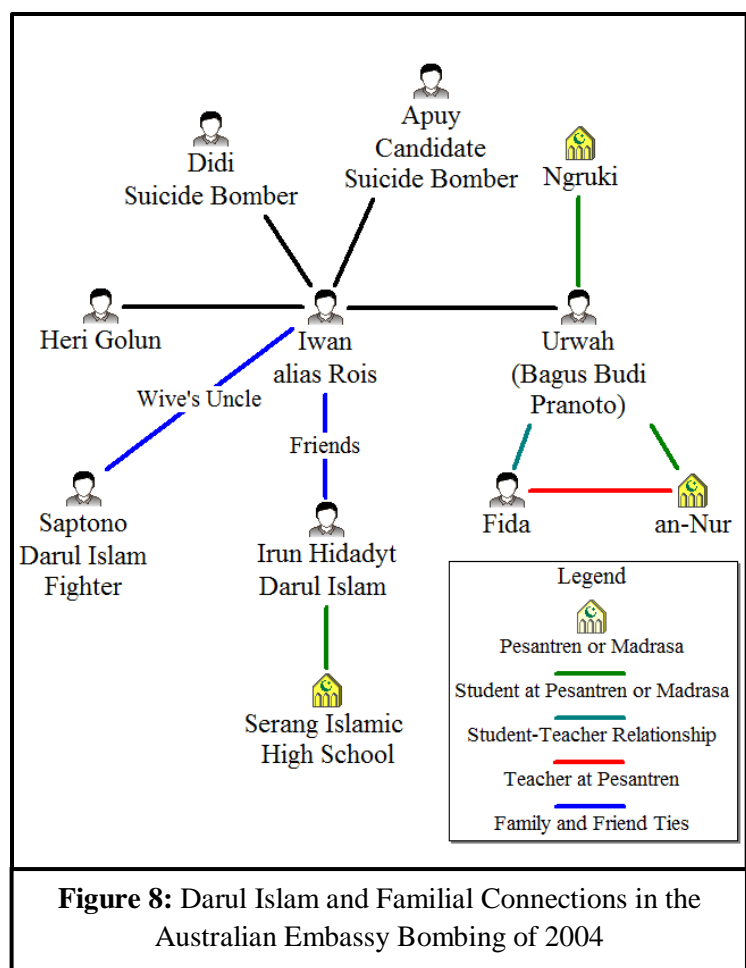


Figure 8: Darul Islam and Familial Connections in the Australian Embassy Bombing of 2004

safe houses for them the night before the attack; however, the educational backgrounds of many of these individuals are unknown. Interestingly, Iwan's brother was enrolled at University an-Nur. There is no information regarding whether Iwan's brother was a friend of Urwah or whether he attended the school during the planning of the attack. With Iwan heavily involved in Darul Islam and planning terrorist

attacks, it is possible that his brother was radicalized as well. Urwah, who was recruited from a student-teacher relationship, was an important member of the plot. He provided connections that enabled the group to find and train suicide bombers.

Heri Sigu Samboja was recruited to the Australian Embassy attack through his father's connections. Heri was a teacher at the Darul Fitroh pesantren and a former Ngruki student. His father, Khumaidi served in the Afghan-Soviet War with Fahim. Fahim was the head of the Darussalam Foundation and had recruited other members for the plot through this organization (Terrorism in Indonesia, 2006, p. 9). Fahim asked Khumaidi if his son would be interested in joining the plot. Heri then attended a bombing course (Terrorism in Indonesia, 2006, p. 9). Heri's father was never directly connected

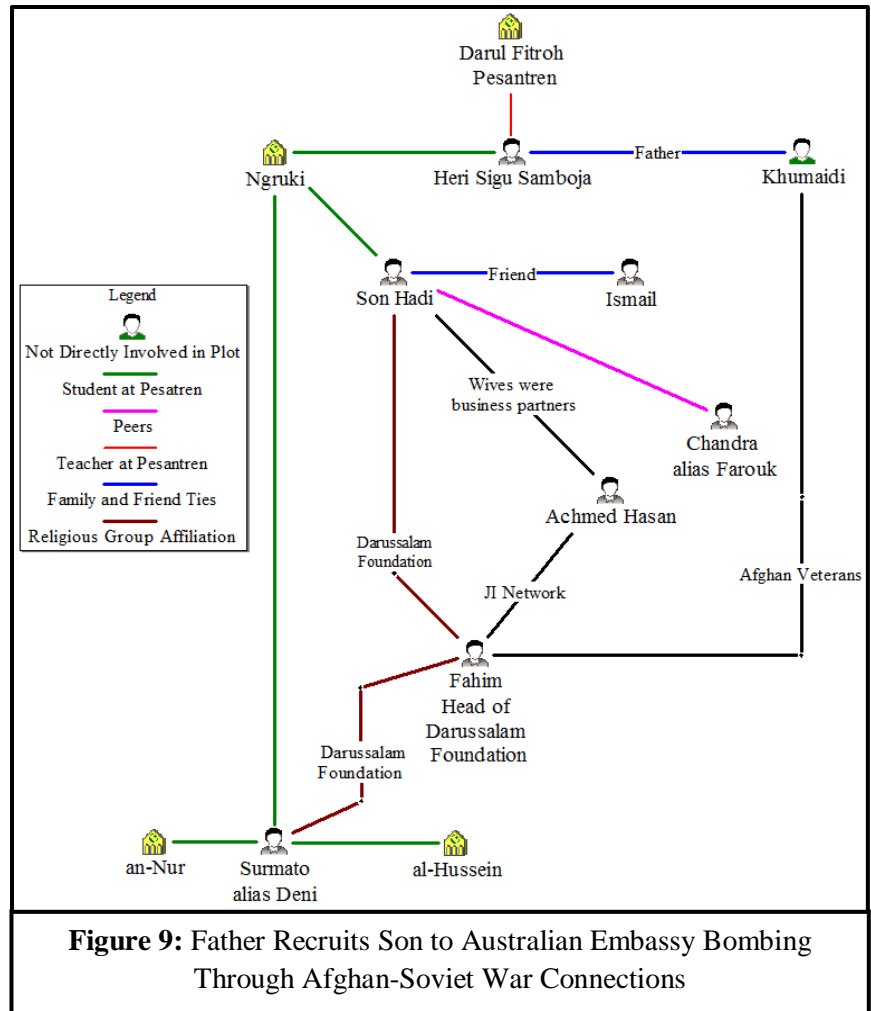


Figure 9: Father Recruits Son to Australian Embassy Bombing Through Afghan-Soviet War Connections

to the Australian Embassy Bombing, but was responsible for his son's recruitment to the plot. It is likely Heri was radicalized through his father's beliefs and his attendance at Ngruki. Though Heri may have been connected to other individuals through Ngruki, his familial connections to terrorism was responsible for his recruitment to the Australian Embassy Bombing.

The Jakarta Hotel Bombing network was created almost exclusively upon family connections. Jaelani was the center of this network, and his family was highly connected to the jihad world. He recruited his brother and brother-in-law to the plot, Mohamed Syahrir and Ibrohim, respectively (Davis, 2010, p. 6). Syahrir was a mechanic for Indonesia's national airline and constructed the bombs used for the plot (Indonesia: Noordin, 2009, p. 1). Ibrohim became a member of Jemaah Islamiyah in 1999.

Ibrohim left a higher-paying hotel job to move to the Ritz-Carrolton flower shop in 2005 (Indonesia: Noordin, p. 2). It has been speculated that this was a long-term move to make the two high security hotels more accessible (Indonesia: Noordin, p. 2). Ibrohim acted as the field commander for the plot. Another one of Jaelani's brothers-in-law, Amir Ibrahim, coordinated the logistics for the attack, including booking the hotel room (Indonesia: Noordin, p. 2). The Jakarta Hotel Bombing is perhaps the most profound example of how family connections between radicalized individuals can make a successful terrorist plot. It is also believe that Noordin Top's father-in-law played an integral role in his hiding following the attacks.

Family connections played two roles in creating the networks for the terrorist attacks. First, it is likely that many of the individuals were radicalized through a combination of their family's viewpoints and their association with the JI-affiliated pesantrens. Second, familial ties were directly responsible for recruiting the terrorist to the plots. Overall, those recruited by familial ties played major roles in each of the plots. These connections may be just as important as the pesantren connections discussed earlier in successfully planning the attacks.

The Role of Religious Groups

Several of the terrorists involved in the attacks were members of religious group outside of pesantrens or madrassas. Other research mentioned previously showed that the curriculum of these schools did not preach extremist views, but after-school sessions became responsible for exposing the students to these ideas. These religious groups were useful resources for Jemaah Islamiyah to turn to in order recruit additional people into terrorist plots.

In the Bali Nightclub Bombing of 2002, there were three different forms of Islamic religious groups that played a role in recruiting the individuals to the plot. Three individuals arrested and charged with hiding explosives for Rauf were members of Pesatuan Islam (PERSIS). PERSIS is a long-established Muslim organization with a Wahhabist orientation (Indonesian Backgrounder, 2002, p. 23). The second group was briefly described previously, which was the *majelis taklim* that Yudi directed in his hometown. Yudi recruited three individuals from his *majelis taklim* for the robbery of a jewelry store to raise funds for the attack (Indonesian Backgrounder, p. 23). One of these individuals also became the suicide bomber (Indonesian Backgrounder, p. 23). Yudi, one of the members of his *majelis taklim*, and Rauf all attended a study group created by Imam Samudra at Madrassa Darul Ilmi, which ultimately led to their participation in the plot.

According to a paper written by the International Crisis Group, Imam Samudra became the head of a Banten-wide madrassa organization after graduating from the Serang Islamic High School. This position granted him access to the madrassas in the area. He used these connections to create study groups at Darul Ilmi in order to recruit new members (Indonesian Backgrounder, 2002, p. 22). Rauf and Yudi became part of this study group, which led to their roles in the Bali Nightclub Bombings. It is unknown whether Yudi created the majelis taklim in his hometown with the same objective in mind and to simulate these study groups, but it was just as effective at creating connections with like-minded individuals to recruit for terrorist attacks. Imam Samudra was likely looking for men to carry out the attacks. Jemaah Islamiyah would recruit these men, normally used as foot soldiers, from pesantren or Islamic High Schools about a month before the attack was schedule to take place (Indonesian Backgrounder, p. i). Normally schools which had teachers who participated in the Darul Islam rebellion of 1950s or had graduated from Pondok Ngruki were chosen as places for recruiting (Indonesian Backgrounder, p. i). However, the creation of the study group gave them access to more individuals.

Imam Samudra created several of these study groups at Islamic High Schools to recruit members to Jemaah Islamiyah plots. These study groups proved to be very effective in recruiting individuals from Islamic High Schools, which promoted moderate forms of Islam. Therefore, even if a school has a neutral curriculum, the threat remains that the teachers or community members interacting with students in after-school activities may spread radical perspectives. An individual that was part of a training camp in Pandeglang run by Imam Samudra in 2001 describes how he was recruited. One of the members of Samudra's group would start a conversation with the students and invite them to attend a meeting. When they arrived to the meeting the leader would show a video about the war in Ambon and Poso, which was meant to provoke outrage at the Christians (Indonesian Backgrounder, 2002, p. 21). The individuals would be invited back for other religious study session where Sungkar's teachings of faith and jihad were discussed. The individual reported that about four months into the study group they would be told that jihad was something they each needed to put into practice. The study group was then focused on military training for about 70 percent of the meeting time and 30 percent was dedicated to religious matters (Indonesian Backgrounder, p. 22). These study groups were created in five different areas around Banten including Menes, Ciruas, Kasemen, Benggala, and Kramatwatu (Indonesia Backgrounder, p.22). These examples demonstrate how religious groups outside pesantrens are also places in which individuals may be recruited to terrorism.

Conclusion

Overall, the pesantrens did play a role in creating and maintaining the networks of the terrorist attacks, particularly the Bali Bombing of 2002, the Marriott Bombing in 2003, and the Australian Embassy Bombing in 2004. The information collected and the methods of reviewing the information in this case study does not reflect upon whether or not the pesantrens were responsible for radicalizing the individuals. Rather, it focused on reviewing how the connections at the pesantrens made the five Indonesian terrorist attacks successful. Recent studies focused on the threats of madrassa education go too far in reducing the roles these institutions play in connecting terrorists together. This case study shows that pesantrens were important in both recruiting individuals as well as providing sanctuaries for these terrorists to plan their activities. Though the schools may or may not have promoted the radical jihad, it does provide a means to pull like-minded individuals together in order to find better relationships for the jihad. There were other forces that tied these groups together including relationships to other terrorists or participation in study groups, some of which were aimed specifically for recruiting JI terrorists. It is evident through the study of these attacks that the pesantrens did contribute to the success of the plot, and it does prove that radical Islamic schools do present a national security threat to the United States and the rest of the world.

It is no coincidence that after the establishment of Ngruki, several other pesantrens were used to facilitate Jemaah Islamiyah activities. With the example of Imam Samudra's study groups, it is clear that the JI members saw the pesantrens and madrassas as effective ways of recruiting members to terrorist plots. Luqmanul Hakiem was created by Sungkar, likely for promoting his extremist teachings to the students that would attend, and for providing another school to be active in creating and maintaining the JI network. Two individuals involved in the Marriott Bombing of 2003, Sardona Siliwangi and Asmar Latin Sani, were working together to set up a new Ngruki-like pesantren in Bengkulu (Terrorism in Indonesia, 2006, p. 4). While Ngruki was more than a pesantren, it is likely that the schools in the complex would have been used to establish terrorism connections. Jemaah Islamiyah saw great benefits in creating and maintaining these schools.

The most alarming evidence found in this case study was how many teachers, both in pesantrens and in other forms of schooling, were responsible for recruiting their students. This perhaps exhibits the high power-distance experienced in these societies. As noted before students and younger individuals in these societies often do not question those who are 'in power' or hold leadership roles. This was

described earlier in terms of mosque leaders or religious figures, but this could also apply to those in the teacher role, especially at religious schools where they are expected to be authorities on the subject.

For this group of individuals, very few had university education in comparison to earlier studies in terrorist profiling. This study would follow those that had indicated that terrorists were religious fundamentalists. With such a large proportion of individuals actively engaged in pesantren education, it can be understood that they did have a firm understanding of the Quran and the Islamic religion through their Islamic studies classes in these schools. None of the individuals appeared to have been converts to Islam, as Sageman's study depicted. It is not clear whether these individuals could be identified as uneducated. The Ngruki complex is known to have administered excellent secular education in addition to its Islamic studies. If university education is the qualifier of a well-educated individual, then a majority of these individuals were not well-educated. As Sageman noted, many of the terrorists that he considered to be in the third wave (those joining the terrorist movement after 9/11) did not have university education. The lack of university education in this sample seems to affirm Sageman's theory that those involved in plots following 9/11 seem to be less educated than their predecessors. However, because many of these individuals had chosen pesantren education, they may have been pursuing a religious career, in which university education is not needed.

The Marriott Bombing of 2003 is most representative of the pesantren and madrassa threat. Noordin Top recruited individuals for this plot only from his networks within the pesantren and a subset of the Jemaah Islamiyah members. Though it is evident that the schools played a large role in coordinating this network, it still does not explain how and why the individuals were drawn to these schools. For example, some were already involved in Jemaah Islamiyah before they became lecturers at Luqmanul Hakiem. Regardless of how these individuals first became associated with these schools, these attacks capture the threat that radical madrassas and pesantren present. Even in small numbers these radical Islamic schools have contributed to devastating terrorist attacks against the western world.

CONCLUSION AND IMPLICATIONS

Jemaah Islamiyah's connections to Islamic schools are a select example used to demonstrate the security challenges of radical madrassas and pesantrens. The inclusion of several Jemaah Islamiyah affiliated pesantrens demonstrates that terrorist ties to Islamic schools are not isolated to particular individuals and incidents (Atran, 2008, p. 13). For Jemaah Islamiyah, school connections were instrumental in connecting like-minded individuals and creating social networks for individuals to use when planning terrorist attacks. In Indonesia, pesantren relationships contributed to the success of international terrorist attacks since 2002.

Jemaah Islamiyah's successful attacks have been located in a particular region of the world, and while still against Western nations, did not cause devastation equivalent to international attacks such as 9/11, the London Bombings of 2005, and the Madrid Bombings of 2004. Jemaah Islamiyah attacks have occurred on larger scale than those regional attacks occurring in Pakistan and Afghanistan, which often create an atmosphere for planning international terrorist attacks. However, Jemaah Islamiyah has directly and symbolically attacked Western nations and has shown its desire to expand its network and impact beyond Southeast Asia. The group has so far failed in its attempts to expand its reach, which is commonly attributed to Indonesia's changes in anti-terrorism policy and the arrests of JI members following the Bali Bombing of 2005.

Peter Bergen, the author of *The Madrassa Scapegoat (2006)*, argues that large-scale international attacks such as 9/11 and London Bombings require a certain type of education. In analyzing Marc Sageman's results indicating that a large portion of terrorists did obtain collegiate education, Bergen argues (2006) that data shows a strong correlation between technical education and terrorism, "suggesting that perpetrating large-scale attacks requires not only a college education but also a facility with technology. This type of education is simply not available at the vast majority of madrassas" (p.118). In addition, Bergen cites that madrassas do not educate students with the proper language skills for executing attacks against "Western targets" (p. 118). The results of this case study counter this view. JI members predominately did not have collegiate education, and only two had strong backgrounds in technical skills. In these five plots, Azahari Husin had trained many individuals to create the bombs used for the attacks. In addition, these five attacks either directly or symbolically attacked Western targets effectively. While these targets remained within Indonesia, many of the individuals involved were actually Malaysian-born. Therefore, these attacks constitute international terrorist attacks, and differ

greatly from the madrassa threats found in Pakistan where terrorist attacks are considered regional conflicts.

The data examined from Pakistan and Indonesia proves that the threat of madrassas is not isolated to a specific geographic region. However, the threats of madrassas do range from regional terrorism in Pakistan to international terrorism in Indonesia. Because of Jemaah Islamiyah's close ties with many members of al-Qaeda through Hambali, the group was able to obtain the resources and training needed to execute large-scale international terrorist attacks, such as the Bali Bombing of 2002 and 2005. In addition, Noordin Top, who had a financial background and a master's degree, and Azahari Husin, a Western-educated technical professor, created a partnership vital to the success of these plots. Therefore, even if other members of the plots did not have the technical or language skills to successfully plan the attacks, these members could provide the proper guidance for carrying-out these tasks. Therefore, the success of many of these sophisticated attacks proves that radical pesantrens and madrassas graduates in Indonesia do have the potential skills and ability to present United States national security threats.

The conclusions derived from this study bears implications for anti-terrorism policies. First, it proves that monitoring schools suspected of delivering extremist propaganda and operating as terrorist sanctuaries is necessary. As with any security challenge, the problem lies in having adequate resources to monitor the issue. Because radical madrassas represent a small minority, monitoring all the madrassas operating in Islamic countries would be both inefficient and unrealistic. The difficulty is categorizing and differentiating between radical schools and moderate madrassas, which provide accurate historical context to the Quran. In Pakistan, the madrassas presently causing the most concern are those in the Tribal Belt region that are suspected of adding to the regional conflict. Although radical madrassas may be located outside of this region in Pakistan, greater attention should be paid to the Tribal Belt because of the international security implications of its ongoing conflict. Increased attention should be paid to madrassas that are determined to be radical and those suspected of providing sanctuaries for terrorists. However, radical Islamic schools are not limited to only Pakistan, and it is important to monitor madrassas outside of Pakistan as well. Indonesia and Malaysia have been particularly productive in monitoring and shutting down pesantrens linked to Jemaah Islamiyah. Understanding how these countries detected the pesantrens may aid in countering the threat of radical madrassas in other countries or locations.

The United States has become very active in investing and promoting secular education in the Middle East and other Muslim countries today in an attempt to counter jihadi perspectives. Investment in education in the Muslim world has two advantages. First, it is believed that greater secular education will counter the radical religious education that encourages youth to join the global jihad. Scholars of conflict have argued that governments can use their power to invest and reform the education sectors within their country. These reforms can often be used to shape the curriculum towards certain social and political objectives to help reduce conflict (Winthrop, 2010, p. 6). Second, with greater secular education, individuals will be able to participate in the modern, interconnected world alleviating the frustration of not being integrated into the workforce.

A United States Agency for International Development report asserts that “access to quality education alone cannot dissuade all vulnerable youth from joining terrorist groups” (US Agency, 2003, p. 5). However, by investing in education, the United States can at least reduce the risk that these ‘vulnerable youth’ will join a terrorist group. Education aid is promoted as a method of ‘winning the hearts and mind’ (Winthrop, 2010, p. 35). Aid is often seen as a strategy aimed at dissuading individuals from joining terrorist groups that fight against the United States because of its role in providing the population with greater access to education. The fact, however, is that education aid is an investment in reducing the national security implications of poor education. Much of our education development aid in the Middle East is described as going to secular educational institutions. The students in these nations need education that will give them the necessary analytical skills and the knowledge of the Islamic religion to counter those imbuing radical rhetoric.

Madrassas dedicated to providing Islamic education without adding political views of jihad to the context are important for countering the threat of radical madrassas. Non-radical madrassas reach a larger percentage of the population than radical madrassas. However, traditional madrassas concentrated on the memorization of the text do little to counter the security challenges madrassas present. These traditionalist schools are embedded in cultural traditions that are not easily changed by external entities. However, concentration on providing the necessary resources for moderate madrassas may enhance security. In Sageman’s study he shows that the terrorists actually have very little religious education. While the reverse is true for the case study presented on attacks in Indonesia, it does not dispel the fact that inadequate religious education has led individuals to embrace radical perspectives. These institutions not only provide their students with education on the Islamic religion, but also have the

potential to help their students understand the historical aspects of the Quran. Theoretically, with a healthy combination between madrassa and secular education, students should have the analytical skills to not succumb to extremist propaganda.

As this case study points out, pesantrens were not the only connection that the terrorists had to one another. Relationships in religious groups and their local communities were also important for the assembling the networks for the successful attacks. There is currently little research available on what attracts individuals to these radical madrassas, whether students are radicalized prior to attending the madrassas, and how the students become radicalized once they are there. The terrorists who were educated at Ngruki represent a small portion of the individuals who have attended Ngruki schools in the past. The question remains of what happened within the school walls that brought some students to radicalization and other to speak out against the global jihad. Understanding why this difference occurs is important for determining the role radical madrassas play in spreading extremist perspectives, creating sympathizers for terrorist activities, and recruiting individuals to terrorist attacks.

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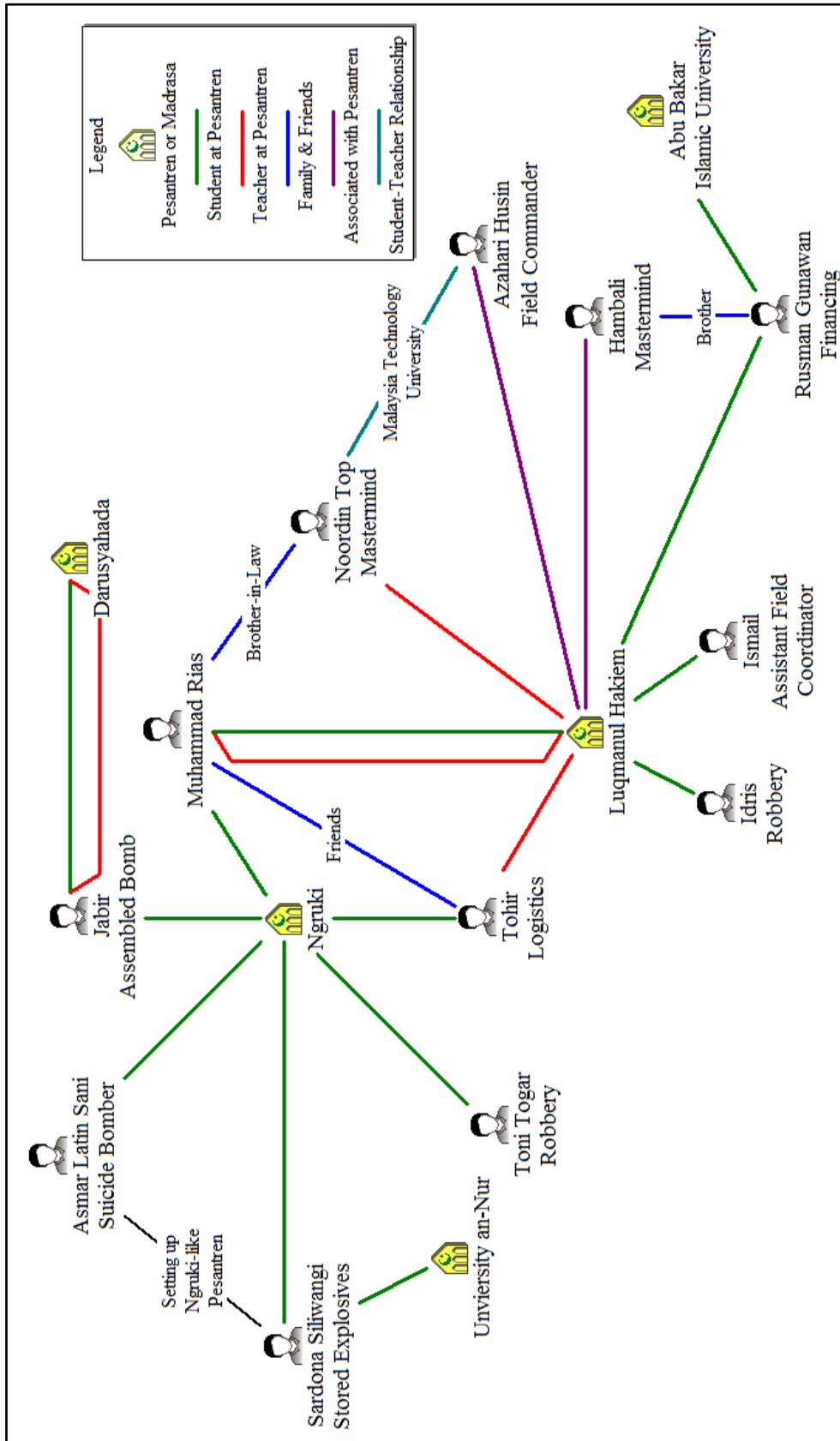
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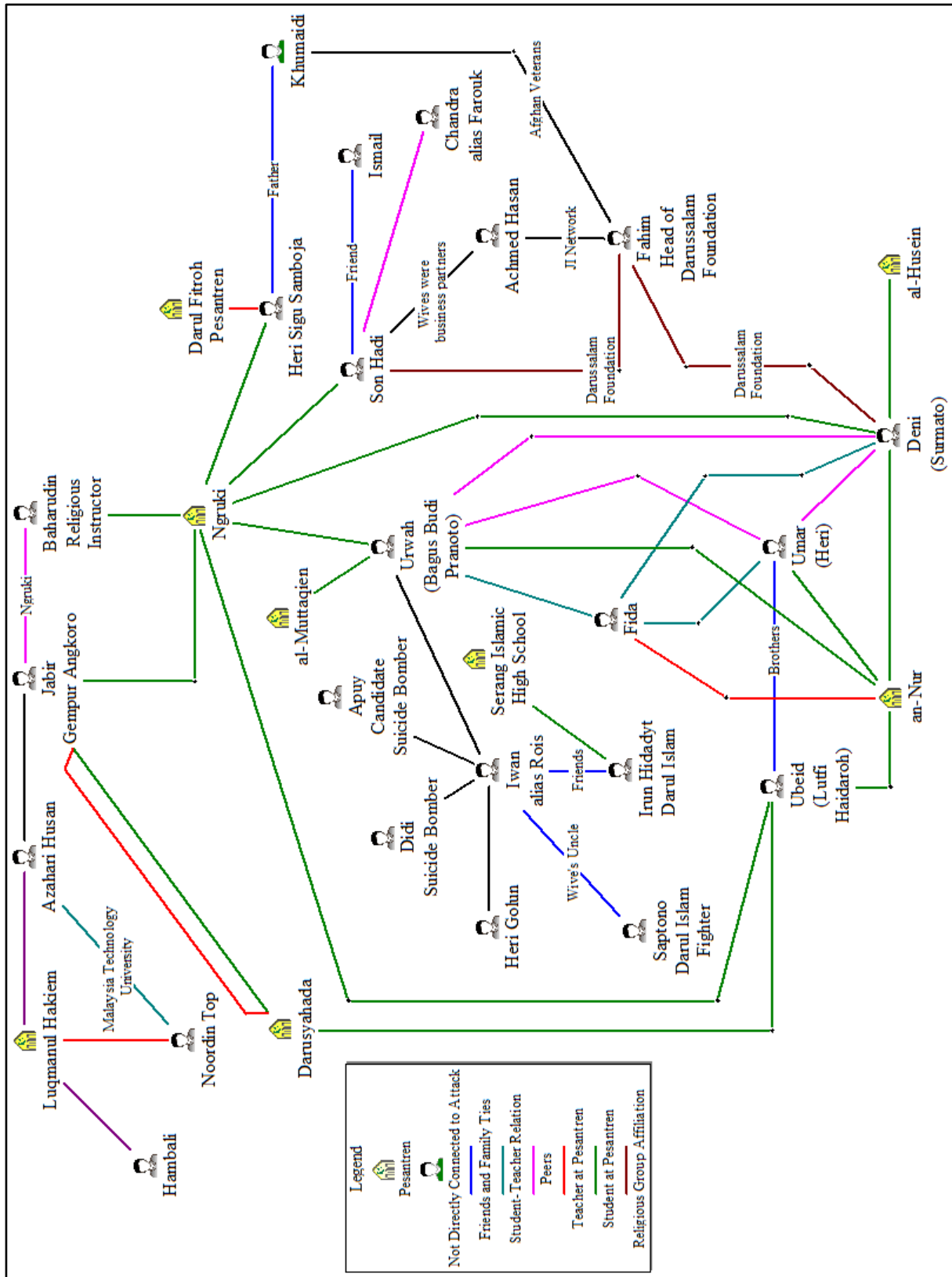
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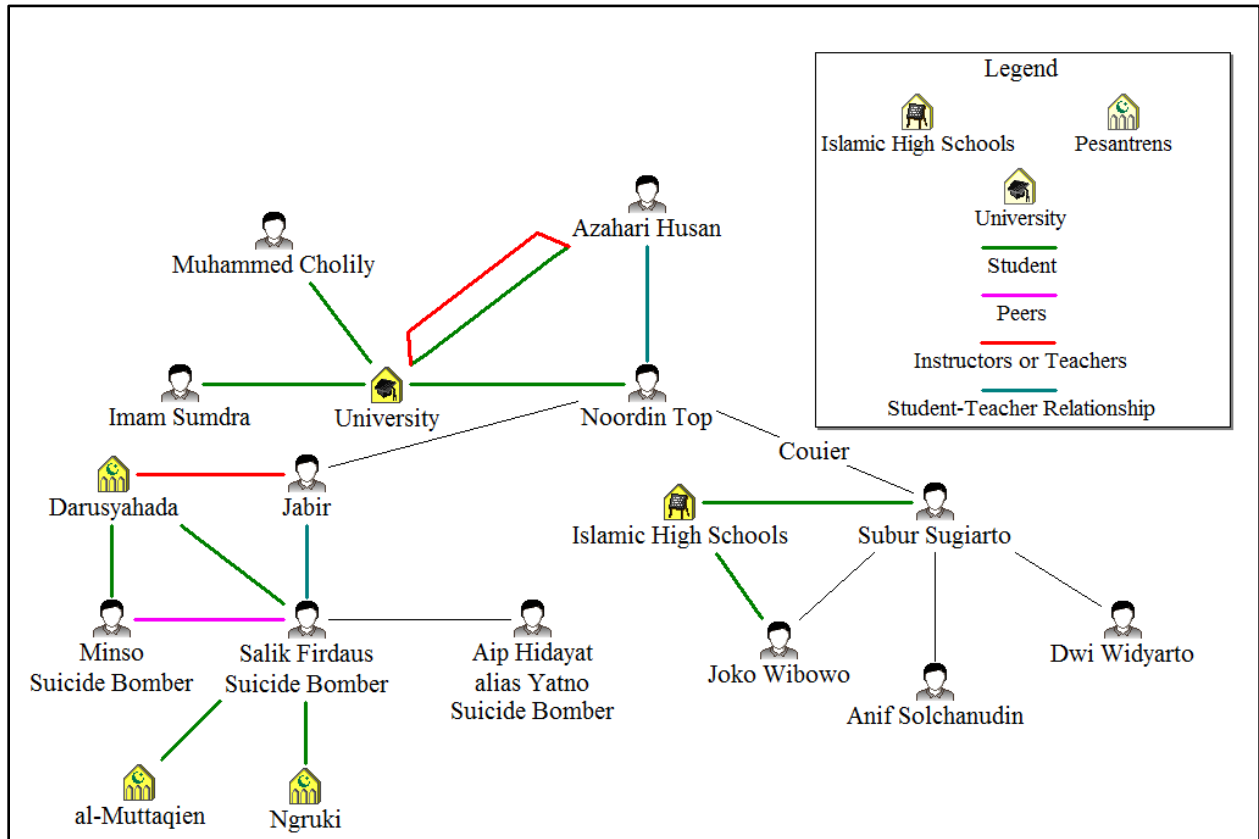
APPENDIX B: MARRIOTT BOMBING OF 2003 NETWORK DIAGRAM



APPENDIX C: AUSTRALIAN EMBASSY BOMBING OF 2004 NETWORK DIAGRAM



APPENDIX D: BALI BOMBINGS OF 2005 NETWORK DIAGRAM



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