After the attacks of September 11, 2001, officials of the United States government realized that this was a new type of war that would be fought on all fronts, including inside the United States. For this reason, the Bush Administration reorganized a large part of the bureaucracy and spent billions of dollars to protect its citizens. This problem of terrorism, however, is a global problem and one that the United States shares with countries all over the world. The People’s Republic of China and Singapore are the focus of this thesis in order to determine what if any homeland security policies developed by their governments could be used to better protect citizens of the United States. Several policies such as legislation, education and internal security measures were evaluated for the United States to institute. Each chosen policy is followed by a brief description of how these laws might come into being within the U.S. governmental system.
HOMELAND SECURITY LESSONS FOR THE UNITED STATES

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ABSTRACT

After the attacks of September 11, 2001, officials of the United States government realized that this was a new type of war that would be fought on all fronts, including inside the United States. For this reason, the Bush Administration reorganized a large part of the bureaucracy and spent billions of dollars to protect its citizens. This problem of terrorism, however, is a global problem and one that the United States shares with countries all over the world. The People’s Republic of China and Singapore are the focus of this thesis in order to determine what if any homeland security policies developed by their governments could be used to better protect citizens of the United States. Several policies such as legislation, education and internal security measures were evaluated for the United States to institute. Each chosen policy is followed by a brief description of how these laws might come into being within the U.S. governmental system.
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ABBREVIATIONS

Bank Secrecy Act-BSA
Biological Research and Production Centers-BRPC
Biological and Toxin Weapons Convention-BWC
Biological Weapons-BW
Chemical and Biological Weapons-CBW
Chemical Weapons Convention-CWC
Chemical Weapons-CW
Container Security Initiative-CSI
Cooperative Threat Reduction-CTR
Defense Advanced Research Projects Agency-DARPA
Department of Defense-DoD
Department of Homeland Security-DHS
Department of Justice-DOJ
Federal Bureau of Investigations-FBI
Federal Emergency Management Agency-FEMA
Federal Response Plan-FRP
Financial Crimes Enforcement Network-FinCEN
Gross Domestic Product-GDP
Golden Shield Project-GSP
Highly enriched uranium-HEU
North American Free Trade Agreement-NAFTA
North Atlantic Treaty Organization-NATO
Nuclear, Chemical, Biological-NBC
Nuclear Emergency Response Team-NEST
Organization for the Prohibition of Chemical Weapons-OPCW
People’s Armed Police-PAP
People’s Liberation Army-PLA
People’s Republic of China-PRC
Shanghai Cooperation Organization-SCO
Totally Information Awareness-TIA
United Nations-UN
Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism- USA PATRIOT ACT
United States-U.S.
United States Visitor and Immigrant Status Indicator Technology-US-Visit
Weapons of Mass Destruction-WMD
EXECUTIVE SUMMARY

After the attacks of September 11, 2001, officials of the United States government realized that this was a new type of war that would be fought on all fronts, including inside the United States. For this reason, the Bush Administration reorganized a large part of the bureaucracy and spent billions of dollars to protect its citizens. This problem of terrorism, however, is a global problem and one that the United States shares with countries all over the world. The People’s Republic of China and Singapore are the focus of this thesis in order to determine what if any homeland security policies developed by their governments could be used to better protect citizens of the United States. Several policies such as legislation, education and internal security measures were evaluated for the United States to institute. Each chosen policy is followed by a brief description of how these laws might come into being within the U.S. governmental system.
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I. INTRODUCTION

September 11th showed that the world is no longer safe using the traditional military approaches. People the world over watched as 19 men using box cutters attacked the most powerful nation in history. The asymmetrical attacks of September 11 2001 forced governments to change the way they thought about security. This thesis begins by analyzing how the United States protects its citizens. While these policies are far-reaching and effective, no silver bullet exists that can protect the United States. This is why the United States must be open to learning from other countries while protecting what makes it unique. Only by understanding how the United States attempts to prevent and ultimately respond to terrorist threats will we be able to assess U.S. homeland security strengths and weakness.

After analyzing the U.S. homeland security structure, this thesis examines the homeland security policies of the People’s Republic of China and Singapore for dealing with a range of security issues. These two vastly different countries were selected for a variety of reasons. First, China is comparable in size with the United States, despite the having immensely different forms of governments and populations. In examining a system with a vastly different political system the reader will realize that certain homeland security policies transcend the political spectrum. This will show that all countries despite their cultural and political backgrounds have homeland security policies that if implemented might protect citizens of the United States. By contrast Singapore is a small city-state that is closer to the U.S. in political terms but that has what may be considered draconian laws. Singapore shows that homeland security can be effective on the macro scale. In order for homeland security to work the process must be bottom up, not top down with cities and states deciding what their specific needs are, and then implementing them.

After analyzing the homeland security policies of the PRC and Singapore, this thesis will determine whether there are any policies the U.S. government could implement into its own homeland security structure. Implementing some of the
recommended policies will require an open mind and an acceptance that the United States
does not know everything. By doing this the United States can potentially tap the
immense pool of knowledge and know-how of other countries in dealing with the same
type of threat the United States faces. This, however, is not easily done. A challenge for
this thesis is to identify policies that, if implemented, will not undermine the civil
liberties Americans hold dear. Another challenge for this thesis has been obtaining
information about a subject governments keep closely guarded.

The United States has the most dominant military in history. The U.S. military, in
a matter of hours, can have forces anywhere in the world. This type of force structure is
ideal when the adversary has a standing army that operates within defined borders.
However, when one’s adversary is a shadowy network of terrorist cells that strike without
regard for life, new strategies must emerge to counter this threat. The United States has
remained vigilant in fighting this new threat. The United States, however, must maintain
this vigilance by continuously evolving its strategy in order to stay one step ahead of its
enemies. If this is a global war that affects people the world over, the United States must
be willing to learn from other countries. In order to recognize any shortcomings in the
United States homeland defense structure, this thesis must first identify what the U.S.
homeland defense strategy entails.
II. U.S. HOMELAND SECURITY STRUCTURE

A. INTRODUCTION

The United States has always had homeland security in one form or another. Local police, the FBI and the military among others have always had the mission of ultimately protecting the United States. Whether this is protecting our local streets as the police do, or protecting our country from invasion as the military does their ultimate goal is to protect the United States. Until this new form of terrorism appeared this previous system work well. However, September 11th showed the system was not prepared for terrorism that has no regard for human life, operates within independent cells and has no country that it is fighting for. This new terrorism does not seek the capture of strategic targets nor does it wish to fight pitched battles. This new terrorism purely seeks the destruction of the United States by any means necessary. Because this new form of terrorism is so different from threats faced in the past a new strategy had to emerge. This new strategy involves among other things, preemptive military strikes, increased funding, and the creation of a new department of homeland security. The Department of Homeland Security (DHS), which is charged with coordinating and planning the nation’s homeland security strategy, was created in 2002 with the passing of the Homeland Security Act.¹ This new brought numerous agencies into the DHS. Furthermore, this new department is now second only to the Department of Defense in terms of size with its sole mission being to protect the United States homeland.

B. NUCLEAR TERRORISM

Many different people and organizations contribute to the task of keeping nuclear weapons out of the United States. This section, however, identifies those policies that are particularly designed for the prevention of, and response to, nuclear terrorism. Nonproliferation helps to keep nuclear weapons, as well as chemical, biological and

radiological weapons, out of the hands of terrorists. The nonproliferation policy of the United States is “marshalling international efforts to deny proliferators the material, equipment, expertise, and technology necessary to pursue weapons of mass destruction (WMD) and the means to deliver them.” Building a nuclear weapon is not that technologically insurmountable. The difficulty lays with obtaining the necessary materials. The amount of nuclear material needed to create a weapon is modest.

According to standard calculations, only six to eight kilograms of plutonium and 15 to 25 kilograms of highly-enriched uranium (HEU) are needed to make an implosion-type nuclear bomb; hence, even minor leakage episodes could provide the makings of a major proliferation catastrophe.

The United States nuclear non-proliferation strategy centers on three policies: helping other countries secure their weapons and radiological material, strengthening international treaties, pressuring countries to strengthen their export controls and finally counterproliferation. The United States has recognized it is within its interest to help other countries in their nonproliferation efforts. The Nunn-Lugar act, or Cooperative Threat Reduction (CTR) act, is the cornerstone of this strategy.

Designed to limit the threat of suddenly itinerant weaponry, Nunn-Lugar established a fund to pay for the identification, destruction and disposal of nuclear and chemical weapons. The initiative also actively welcomed former Soviet scientists into the American community, hoping to lure prospective bomb-makers and chemical-mixers away from rogue nations.

This type of cooperation has expanded to include over thirty countries at a cost of over $86 million dollars. This type of cooperation however, does not necessarily mean destroying nuclear weapons.

The agencies have provided a range of assistance, including radiation detection equipment and training, technical exchanges to promote the development and enforcement of laws and regulations governing the

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export of nuclear-related equipment and technology, and other equipment 
and training to generally improve countries’ ability to interdict nuclear 
smuggling.\textsuperscript{6}

This type of assistance helps build trust and fosters future cooperation in dealing with 
issues involving proliferation. Some countries, nonetheless, are not open to this type of 
cooperation. For this reason, the United States has developed a strategy of pressuring 
countries to tighten their export controls.

Global trade has revolutionized the world we live in. It is now possible to obtain 
just about anything from anywhere in the world without much difficulty. Governments 
and individuals import all types of goods, mostly for legitimate civilian use; however, 
some governments and individuals wish to import items that can help in the production of 
WMD. The problem with identifying many of these items is they have a dual-use 
capacity, which makes them applicable to civilian use.

The United States, in cooperation with other nations, controls the export of 
goods, technology, and software that have civilian applications but could 
also be used to make weapons of mass destruction or missiles to deliver 
them.\textsuperscript{7}

The vast majority of countries around the world actively support export controls and the 
treaties that support export controls. Some countries, such as China and Pakistan, have 
been at odds with the export control regime, which has forced the U.S. government to 
pressure these countries into tightening export controls. Pressure to tighten one’s export 
controls usually takes the form of economic sanctions.

International transfers most frequently trigger nonproliferation sanctions. 
The buyers and sellers in those transfers are creating third-party 
consequences: reduced security for the rest of the world. It is, therefore, 
fully appropriate for the third parties—or at least the United States—to 
weigh into the transaction. Indeed, given the money-making character of 
many sanction-triggering events, the objectives of sanctions might 
sometimes be formulated in quantitative terms. In the frequently repeated

\textsuperscript{6} United States, General Accounting Office, Nuclear Nonproliferation: U.S. Efforts to Help Other Countries 
Combat Nuclear Smuggling Need Strengthened Coordination and Planning (Washington: GAO, 2002)
\textsuperscript{2}.

\textsuperscript{7} United States, Office of Technology Assessment, Export Controls and Nonproliferation Policy 
words of Senator John Glenn, the objective of such sanctions is “to take the profit out of proliferation.”

The final facet of the U.S. strategy for keeping nuclear weapons from rogue nations or terrorist organizations is counterproliferation. Counterproliferation is a sometimes-controversial policy; nonetheless, counterproliferation is a strategy the United States deems acceptable. Counterproliferation is defined as:

The activities of the Department of Defense across the full range of U.S. efforts to combat proliferation, including diplomacy, arms control, export controls, and intelligence collection and analysis, with particular responsibility for assuring U.S. forces and interests can be protected, should they confront an adversary armed with weapons of mass destruction or missiles.

Origins of U.S. counterproliferation strategy stem from experiences during the Gulf War. The threat posed by Saddam Hussein’s possible WMD was a wakeup call for the U.S. military. Counterproliferation is a policy of the Department of Defense (DoD). The policy is intended to demonstrate that the United States will not be deterred by WMD and is capable of defending itself should WMD be used. DoD’s counterproliferation policy takes three forms: 1) the DoD hopes to stem proliferation through the more traditional strategy of nonproliferation; 2) the second form of DoD response is the protection of U.S. civilians, military forces, and its allies; 3) finally, the United States will maintain the capability to eliminate Nuclear, Chemical, and Biological targets.

The aforementioned policies contribute to keeping WMD away from U.S. shores. The United States nevertheless, has a strategy for finding nuclear weapons should one reach the United States’ and for limiting civilian causalities in the event one of these weapons detonates. The Department of Energy’s Nuclear Emergency Response Team (NEST) is the United States’ last line of defense from nuclear weapons. NEST consists of over 1,100 men and women whose expertise range from computer security to nuclear

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9 National Security Council (US), Agreed Definitions, a memorandum from the National Security Council (Senior Director for Nonproliferation and Export Controls) to Assistant Secretary for Political-Military Affairs, Robert L. Galluci, and Assistant Secretary of Defense for Nuclear Security and Counterproliferation, Ashton Carter, February 18, 1994, p. 1.
physicists. NEST says that it can be anywhere in the United States within four hours.\textsuperscript{11} When a threat is deemed creditable, NEST rushes into action with suitcase-sized radiation detection equipment, along with other high-tech detection equipment. NEST has been on 125 searches. All but 30 of these have turned out to be hoaxes. The results of the remaining 30 are classified. The first action of any operation is to determine weather or not the threat is legitimate.

NEST’s first line of defense is a computer at Lawrence Livermore National Lab in California. It is loaded with thousands of pages of publicly available nuclear-weapons data from newspaper articles to spy novels. NEST compares the text of extortionist phone calls and notes to this information, to see if presumed terrorists know what they are talking about or are simply mimicking something they saw on "JAG."\textsuperscript{12}

Once a creditable threat has been identified, NEST will try to locate the weapon and diffuse it before it can explode on the American homeland. The United States, however, has had to prepare for all eventualities. Response procedures in the event of a nuclear attack are outlined in the Federal Response Plan (FRP), which is administered by the Federal Emergency Management Agency (FEMA).

The FRP describes the mechanism and structure by which the federal government mobilizes resources and conducts activities to address the consequences of any major disaster or emergency that overwhelms the capabilities of State and local governments. Federal assistance is available under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as well as individual agency authorities, to save lives; protect public health, safety, and property, alleviate damage and hardship, and reduce future vulnerability.\textsuperscript{13}

The Federal Response Plan contains in detail a chain of command, which will help facilitate a response during an emergency. The FRP more importantly details what responders are to do when faced with an emergency. The responders, however, must be highly trained and knowledgeable in order to respond effectively and efficiently.

\textsuperscript{11} Andrew Schneider, “Elite U.S. Team Works to Keep Nuclear Bombs from Terrorists” St. Louis Post-Dispatch 21 Oct. 2001
The Department of Justice’s Office for Domestic Preparedness was set up in 1998 to provide the appropriate training for emergency responders.

The U.S. Department of Justice (DOJ) Office for Domestic Preparedness (ODP) was established in 1998 to help provide training to first responders across the nation as part of an integrated program that also includes the provision of specialized equipment, exercises, and technical assistance. The objective is to help provide America’s response community with a baseline understanding of the training necessary to effectively and safely respond to an act of terrorism involving the use of WMD.14

Volumes could be written and have been written on the complete strategy employed by the United States for dealing with nuclear terrorism. So many different agencies and people are involved in the writing of policies and training of responders that it would be beyond the scope of this thesis to describe every aspect of how the United States prevents and responds to a nuclear catastrophe. This section was written simply to provide the reader with a general overview of how the United States deals with the threat posed by nuclear terrorism.

C. CHEMICAL TERRORISM

In 1995, a Japanese religious cult named Aum Shinrikyo showed the world how useful chemical weapons are for conducting terrorist attacks. Hoping to usher in the apocalypse, this cult released the nerve agent named Sarin into the Tokyo subway system. This attack injured more than 50,000 people. Had this group been more effective, the potential for thousands more casualties were there.15

Chemical agents are chemical substances that are intended for use in warfare or terrorist activities to kill, seriously injure, or seriously incapacitate people through their physiological effects. A chemical agent attacks the organs of the human body in such a way that it prevents those organs from functioning normally. The results are usually disabling or even fatal.16

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Chemical weapons pose more difficulty for use than any other WMD. The problem with chemical weapons is the amount required to cause significant damage. The release of a chemical agent in, for example downtown Chicago would cause negligible damage, especially when compared to biological or nuclear weapons. The physiological effects of a chemical attack would, however, be considerable. This section on chemical terrorism will focus on U.S. efforts to strengthen international chemical treaties and on detection and response policies for combating chemical weapons inside the United States.

One of the most comprehensive treaties for limiting the spread of WMD is the Chemical Weapons Convention (CWC). Formally known as the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, this treaty is responsible for banning an entire weapons class. The Chemical Weapons Convention was signed January 13, 1993 with the United States Senate ratifying it on April 24, 1997.\(^\text{17}\) The Chemical Weapons Convention provides for very intrusive inspections at government and civilian sites. The CWC had its beginnings with the 1925 Geneva Protocol, which banned the use of chemical and Biological weapons.

The CWC not only bans the use of chemical weapons, but unlike the Geneva Protocol also bans their development, production, stockpiling and transfer and requires that all existing stocks of chemical weapons be destroyed within 10 years.\(^\text{18}\)

The Chemical Weapons Convention is the cornerstone of the chemical nonproliferation regime. States are now forbidden to openly pursue these weapons under threat of economic sanction, international isolation, and war. This provides a large impetus to states or terrorists seeking to acquire these weapons.

Some of the equipment necessary to produce nuclear weapons has dual purposes. The equipment and precursor agents used in the production of chemical weapons that have dual uses are much more extensive. Any country with a civilian chemical infrastructure would be able to produce chemical weapons rather easily. For this reason, a


\(^{18}\) “1993 Chemical Weapons Convention (CWC)” Harvard University, Faculty of Arts and Sciences [Cambridge] 31 Jan. 2001
stringent export control regime is in place. The CWC has chemicals divided into three categories. Schedule one chemicals are toxic chemicals that have few or no legitimate uses and were developed primarily for weapons production; these include chemicals such as Sarin and Mustard Gas. Schedule two chemicals are chemicals that can be used for CW production, but have certain legitimate uses. These include chemicals used in fertilizer or pesticide production. Finally, schedule three chemicals are chemicals that can be used for CW production, but have many legitimate uses such as paint thinners and lubricants. By dividing chemicals into three different groups, the CWC is able to more easily identify high-risk chemicals.

Pursuant to the Convention, the countries are required to notify the Organization for the Prohibition of Chemical Weapons (OPCW) not less than 30 days in advance of every export of a Schedule 1 chemical, in any quantity, to another State Party. In addition, countries are required to provide a report of all exports of Schedule 1 chemicals to other States Parties during each calendar year.

The Chemical Weapons Convention and its export controls allow the United States along with the rest of the world to stem the proliferation of chemical Weapons.

The United States has a detailed plan for responding to a chemical weapons attack and is attempting to develop accurate chemical detection equipment. Responding to a CW attack would fall to FEMA in the event the president declares a federal disaster under the Stanford Act. In the event the president did not issue a federal disaster, the responsibility would fall to the Environmental Protection Agency. In the event of a chemical attack, the federal government would follow similar procedures to a nuclear or biological attack as outlined in the Federal Response Plan.

Following a chemical or biological attack, early detection and identification of the agent used will greatly increase any effectiveness of a response. The difficulty is developing a machine that can accurately identify harmful chemicals or biological agents without numerous false alarms.

Chemical agents can be detected by several means that incorporate various technologies. The technologies are grouped into five major categories: point detection, stand-off detection, analytical instruments, sorbent sampling, and colormetric (color change). The type of technology needed for CA and Toxic Industrial Materials (TIM) detection will be dependent on the type of CA agent or TIM used and the objective of the first responder unit.22

The goal of chemical detection equipment is to have in the near future a nationwide detection system. This type of system not only will allow first responders to more effectively treat the sick, but will also act as a deterrent against potential aggressors.

D. BIOLOGICAL TERRORISM

Biological terrorism has the potential to kill millions of people around the world in a short amount of time. Chemical weapons require a person to be exposed to the actual chemical agent for it to be effective. This, however, does not hold true for biological agents. Biological agents can be highly infectious. If a person was to walk through an international airport while being infected with smallpox, the disease would spread throughout the world in a matter of days or even hours.

Similar again to chemical and nuclear weapons, biological weapons (BW) have a nonproliferation regime targeted at stopping their spread. U.S. policy for fighting the threat posed by BW is three fold: 1) U.S. provided assistance to the former Soviet Union, 2) the Biological Weapons Convention 3) finally, U.S. response to a biological attack.

The most extensive BW program in history was located inside the former Soviet Union. With the collapse of the Soviet Union, the United States offered to help secure and dismantle their BW weapons as done with Soviet nuclear weapons. The United States has helped Russia stem the proliferation of BW by entering into four areas of

cooperation. 1) Increasing the transparency at Biological Research and Production Centers (BRPCs) that once participated in Soviet/Russian BW programs. 2) securing or destroying pathogens and weapons technology so that they are not sold, stolen, accidentally deployed or leaked, or used to reactivate a biological weapons program. 3) redirecting biological weapons scientists towards peaceful pursuits and discouraging them from interacting with terrorist groups or proliferating states. 4) finally, strengthen U.S. preparedness for a biological attack.23

The second cornerstone of U.S. non-proliferation policy is the Biological Weapons Convention and its export controls. “The 1972 Biological and Toxin Weapons Convention (BWC) prohibits the development, production, stockpiling, and transfer of biological weapons (BW) agents in types and quantities beyond those justifiable for defensive or other peaceful purposes.”24 The BWC, however, is flawed. The BWC has no provisions for inspections; because of this lack of inspection, the Soviet Union was able to develop a sophisticated BW program. Efforts at strengthening the BWC failed when the United States formally rejected the draft protocol in November 2001.25 The United States opposed this treaty because its representatives to the conference said the BWC would have caused risks in U.S. biological warfare defensive preparations, risked losing highly sensitive and highly valuable intellectual property from the US pharmaceutical and biotechnology industries, and finally the risk of the loss of integrity and utility in the multilateral export control regimes the U.S. participates in.26 The export control regime that the United States was fearful the draft protocol would undermine is the Australia Group.

The Australia Group is an informal arrangement, which aims to allow exporting or transshipping countries to minimize the risk of assisting chemical and biological weapon (CBW) proliferation. The Group meets

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annually to discuss ways in which the national level export licensing measures of its 34 participants can collectively be made more effective in ensuring would-be proliferators are unable to obtain necessary inputs for CBW programs, which are banned under international law.  

The BWC is effective in that it legitimizes export controls, economic sanctions against those seeking to acquire BW, and finally U.S. counterproliferation policies.

The United States seeks detection equipment similar to the kind used to detect chemical Weapons. The problem with biological detection equipment is the need to detect microscopic pathogens while filtering out the biological background that simple exists in our world. “The challenge for a biological agent detection system is to be able to pick out a specific signal from the biological agent while rejecting, or at best minimizing, any signals originating from the nonpathogenic (nontoxic) biological background.”28 The hope is that within the next five years there will be a commercially viable biological detection system in place.

Finally, the response to a biological attack follows the same Federal Response Plan. One major difference, however, is the burden a biological attack would place on a nation’s health care facilities. “Ultimately, it will be the public health system that will be called on to mitigate and ameliorate the consequences of a terrorist attack using biological weapons.”29 The Center for Disease Control sums up what is considered necessary to respond to a biological or chemical attack. “A comprehensive public health response to a biological or chemical terrorist event involves epidemiologic investigation, medical treatment and prophylaxis for affected persons, and the initiation of disease prevention or environmental decontamination measures.” 30

The previous sections on Nuclear, Chemical and Biological Terrorism detailed plans for dealing specifically with these weapons. However, many people and agencies

30 United States, Center for Disease Control, Biological and Chemical Terrorism: Strategic Plan for preparedness and Response (Atlanta: CDC, 2000) 7.
contribute to keeping WMD off U.S. shores. Combating money laundering helps deny terrorists the financial mean to purchase these weapons, while port and border security help stop these weapons from actually coming onto U.S. territory. The following sections analyze these and other facets of the homeland security structure.

E. PORT/BORDER AND AIRLINE SECURITY

The United States with its porous borders and numerous sea ports might seem like an easy target to smuggle weapons into. This section will begin by showing how the United States keeps WMD from being shipped to its ports. This section will then look at how the United States defends her long and undefended borders. Included, are the effects of Posse Comitatus and U.S. limits on defending her borders, airports and domestic targets. Finally, this section will detail how the United States defends her airports and planes.

The United States imports more goods than any country on earth. In 2001 the United States processed more than 214,000 vessels and 5.7 million sea containers. With half of the incoming U.S. trade arriving by ship, the United States needs secure ports.31 The fear in the United States is that one of the 21,000 containers entering the U.S. each day might contain a WMD.32 In order to help prevent this from happening, the United States has set up several programs. Besides the normal port security that was standard before 9/11, the U.S. has set up the Container Security Initiative and deployed technology designed to keep WMD from entering the United States.

The Container Security Initiative (CSI) was setup after 9/11 with the idea to push the U.S. virtual border back as far as possible. The United States has deployed agents at ports around the world in order to screen cargo containers for WMD.

The Container Security Initiative consists of four core elements. These are: (1) establishing security criteria to identify high-risk containers; (2) pre-screening those containers identified as high-risk before they arrive at U.S. ports; (3) using technology to quickly pre-screen high-risk containers; and (4) developing and using smart and secure containers. The

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The fundamental objective of the CSI is to first engage the ports that send highest volumes of container traffic into the United States, as well as the governments in these locations, in a way that will facilitate detection of potential problems at their earliest possible opportunity. By deploying agents at ports in places like Hong Kong and Rotterdam, the United States has provided for another layer of defense. This layer of defense will hopefully detect any possible threats before they reach U.S. shores.

With 200 million cargo containers moving between the major seaports each year, it would be impossible to search every one or even half. In order to search more containers and especially search high-risk containers, the United States has deployed some very high-tech equipment. Three systems have been deployed at U.S. ports and ports around the world to assist U.S. agents under the CSI.

Radiation Detection Pagers are small, self contained gamma-ray radiation detectors that alert its carrier to the proximity of radioactive materials. These are extremely useful. They allow the user to conduct their duties at a port while this pager works to detect any radiation around the user. X-Ray Inspection Systems detect differences in material densities in order to produce an image of the vehicle or container contents. Instead of a security agent being forced to unload everything in a container, this machine allows the entire container to be scanned for contraband without ever opening its doors. Finally, Gamma-Ray Inspection Systems directly use gamma-rays or use pulsed fast neutrons to generate gamma-rays to produce images of the container’s contents, 3-D mappings of content location, as well as other important information. The usefulness of this machine mirrors the usefulness of the X-Ray machine.

How does a country such as the United States, with the longest unprotected border in the world, stop people from entering illegally? With 400,000-500,000 illegal immigrants settling in the United States every year, the United States has not figured out

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how to secure its border. The agency responsible for stopping or deterring illegal border crossings is the Border Patrol. With a border to the north that is 5,500 miles long, and a border to the south that is 2,000 miles long, the United States has only 350 agents to protect the northern border and 10,150 to protect the southern border. The border patrol simply does not have the resources or manpower to adequately defend the borders.

The only U.S. agency that has the manpower and resources to defend 7,500 miles worth of border is the Department of Defense. This, however, cannot be discussed because of a law dating back to the Civil War, the Posse Comitatus Act of 1878. The originally passed act reads:

> From and after the passage of this act it shall not be lawful to employ any part of the Army of the United States, as a Posse Comitatus, or otherwise, for the purpose of executing the laws, except in such cases and under such circumstances as such employment of said force may be expressly authorized by the Constitution or by act of Congress.

This one law, which is well over a hundred years old, keeps the United States government from employing the most powerful military on Earth from defending her own borders. The exception to this is military bases. For example, the United States would have to make all nuclear power plants military bases, so that the military could protect those installations. Therefore, the United States does have a limited ability to militarily protect domestic targets. The purpose of this thesis is not to decide whether this law is morally right or wrong or whether the United States would be better with or without this law. The sole purpose of this thesis is to identify why the U.S. has left its border unsecured and to show what might be done to protect that border. Since the United States is unable to use it’s military to protect its border, then what has the United States done in this post-9/11 world?

The Department of Homeland Security plans to establish a program to strengthen management of the pre-entry, entry, status, and exit of foreign nationals who travel to the United States.

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United States. This program, known as the United States Visitor and Immigrant Status Indicator Technology (US-VISIT), is to facilitate legitimate trade and travel, enhance national security, and adhere to U.S. privacy laws and policies.\textsuperscript{39} The US-VISIT program is the cornerstone of the U.S. plans to facilitate safe entry and exit to the United States.

The US VISIT system will be implemented incrementally, but eventually will collect information on the arrival and departure of most foreign nationals such as: date; nationality; classification as an immigrant or non-immigrant; complete name; date of birth; citizenship; sex; passport number and country of issuance; country of residence; U.S. visa number, date and place of issuance (where applicable); alien registration number (where applicable); and complete address while in the United States. The information will be stored in databases maintained by DHS and the Department of State as part of an individual's travel record.\textsuperscript{40}

This program, once fully implemented, will help the United States protect its citizens by keeping track of who comes in and out of this country. All of the 9/11 hijackers entered the United States legally, then overstayed their visas. Had this system been in place then, 9/11 might have been prevented. This program, however, will only force terrorists to look for another way to enter this country, and with 7,500 miles of unprotected border they need not look far. Finally, this section looks at how the United States defends her airports and planes. The United States, where human flight was invented, has surprisingly developed few policies to defend flight. Prior to 9/11, the United States practiced typical airport security measures such as using metal detectors. One of the only other strategies employed to protect air travelers was a U.S. Special Forces unit know as Delta Force, part of which acts as the United States’ elite anti-hijacking force.\textsuperscript{41}

The United States in this post 9/11 world uses several different methods to protect its airports. The United States uses federal air marshals, who are agents dressed in civilian clothing to protect airplanes. This started back in the 1970’s and the number of marshals is a closely held secret. However, it is known that before 9/11 there were fewer

\textsuperscript{40} United States, Department of States, Fact Sheet: US VISIT Will Collect Biometric Data on Foreign Visitors (Washington: 2003) 1.
than 20 air marshals. The United States keeps its number today a secret because the marshals wear civilian clothes and remain undercover during the flight. The United States has determined the possibility of having an undercover marshal on an airline flight presents a creditable enough deterrent to hijackers.

F. MONEY LAUNDERING

The United States must find and seize terrorist assets. Terrorists cannot function without money. Terrorists cannot buy weapons, food, or even the plane ticket to reach the United States without money. Terrorists acquire money through a variety of sophisticated and unsophisticated money laundering techniques. “Money laundering is the criminal practice of filtering ill-gotten gains or “dirty” money through a maze or series of transactions, so the funds are “cleaned” to look like proceeds from legal activities.”43 The United States along with countries all over the world are working on strategies to combat this money laundering.

The United States publishes a national money laundering strategy each year. The national money laundering strategy helps to clarify the U.S. objectives and goals in combating money laundering.

The 2003 Strategy focuses on three major goals: (1) to cut off access to the international financial system by money launderers and terrorist financiers more effectively; (2) to enhance the Federal government’s ability to target major money laundering organizations and systems; and (3) strengthen and refine the anti-money laundering regulatory regime for all financial institutions to improve the effectiveness of compliance and enforcement efforts.44

Domestic legislation has been used to fight money laundering for decades. The foundation of this legislation has been the Bank Secrecy Act (BSA) of 1970. The BSA required banks and other bank like institutions that deal in cash to:

- Keep records related to certain monetary instrument purchases and funds transfers.

42 Mike M. Ahlers “Customs agents to beef up air marshal program” CNN 2 Sep 03 http://www.cnn.com/2003/TRAVEL/09/02/air.marshals/
• Report currency transactions of more than $10,000 by, through, or to the financial Institution.
• Report the transport of currency across U.S. borders.
• Report certain accounts that United States citizens and residents hold at foreign financial institutions.
• Report suspicious transactions relevant to possible violations of the law.⁴⁵

The BSA has been expanded over the years to meet new threats. After the attacks of 9/11, the BSA has been greatly expanded. Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA Patriot Act) has significantly expanded the powers of the U.S. government to fight money laundering. The USA Patriot Act required the BSA be extended to include anti-money laundering requirements of financial institutions, such as investment companies, which had not previously been subjected to BSA regulations. The USA Patriot Act also expands the fight against money laundering to include:

• Requiring that every financial institution establish an anti-money laundering program that includes, at a minimum, (i) the development of internal policies, procedures, and controls; (ii) the designation of a compliance officer; (iii) an ongoing employee training program; and (iv) an independent audit function to test the program
• Requiring Treasury to prescribe, jointly with the federal functional regulators, regulations setting forth minimum standards regarding the verification of the identity of any person seeking to open an account
• Requiring each U.S. financial institution that establishes, maintains, administers, or manages a private banking account or correspondent account in the United States for a non-U.S. person to take certain anti-money laundering measures with respect to such accounts
• Prohibiting certain financial institutions from establishing, maintaining, administering, or managing a correspondent account in the U.S. for a foreign shell bank (other than certain foreign shell banks with regulated affiliates)

• Permitting financial institutions, their regulatory authorities, and law enforcement authorities to share information regarding persons engaged or reasonably suspected, based on credible evidence, of engaging in terrorist acts or money laundering activities.\textsuperscript{46}

One of the final tactics the United States uses to fight money laundering was the creation of the Financial Crimes Enforcement Network (FinCEN). FinCEN is an organization in the Department of Treasury, whose sole purpose is to fight money laundering.

The mission of the Financial Crimes Enforcement Network (FinCEN) is to support law enforcement investigative efforts and foster interagency and global cooperation against domestic and international financial crimes; and to provide U.S. policy makers with strategic analyses of domestic and worldwide money laundering developments, trends and patterns. FinCEN works toward those ends through information collection, analysis and sharing, as well as technological assistance and innovative, cost-effective implementation of the Bank Secrecy Act and other Treasury authorities.\textsuperscript{47}

Through this system of domestic legislation and governmental oversight, the United States tries to combat money laundering. The United States also subscribes to international treaties and international regulations that fight money laundering.

After 9/11, the United States has made an ever more concerted effort to enlist other countries in this fight. The United States government realizes no amount of legislation will stop money laundering unless other countries get similarly serious about this global problem.

G. DOMESTIC LEGISLATION

A nation’s laws are what govern the actions of its citizens. Performing acts of terrorism are, of course, illegal in all countries. One difference is the laws countries pass that limit civil liberties in the name of security. Citizens of the United States feel the freedoms enshrined in the Constitution and Bill of Rights are what make the country great. These freedoms, however, come at a price. Terrorists are able to use the free and open society that the United States holds dear to plan and execute attacks.

\textsuperscript{46} United States, Department of Treasury, Report to Congress in Accordance with 356(C) of the Uniting and Strengthening American by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA Patriot Act) (Washington: 2002) 7.

\textsuperscript{47} United States, Department of Treasury, About FinCEN/Overview (Washington: 2001) http://www.fincen.gov/af_overview.html Last accessed Feb 04
government of the United States can pass legislation that could almost certainly prevent any future terrorist attacks. This legislation would, of course, be so intrusive and draconian as to undermine the foundation that the United States was built on. The problem for governments worldwide is how to protect their citizens without undermining their freedoms.

The United States’ solution to this is the USA Patriot Act and USA Patriot Act II. The purpose of this thesis is not to decide whether this legislation is correct but only to provide information on domestic legislation that is employed by states to fight terrorism. The USA Patriot Act was passed quickly and overwhelmingly in the days following the attacks of 9/11. The Patriot Act was intended to grant the federal government new powers to fight terrorism.

The Act grants federal officials greater powers to trace and intercept terrorists’ communications both for law enforcement and foreign intelligence purposes. It reinforces federal anti-money laundering laws and regulations in an effort to deny terrorists the resources necessary for future attacks. It tightens our immigration laws to close our borders to foreign terrorists and to expel those among us. Finally, it creates a few new federal crimes, such as the one outlawing terrorists’ attacks on mass transit; increases the penalties for many others; and institutes several procedural changes, such as a longer statute of limitations for crimes of terrorism.48

Some in the government, such as Attorney General John Ashcroft, want the powers granted in the Patriot Act to be expanded in what is being called the USA Patriot Act II. The Patriot Act II would expand the powers of the government into places that Americans generally feel are their rights and not the power of the government. “The government would be allowed to carry out electronic searches of virtually all information available about an individual without having to show probable cause and without informing the individual that the investigation was being carried out.”49 Right or wrong, for better or worse, the USA Patriot Act is what the U.S. government has decided will best protect its citizens without eroding their civil liberties.


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H. DOMESTIC SECURITY OPERATIONS, INCLUDING REGULATING INFORMATION

The United States has no domestic security force. The Federal Bureau of Investigation (FBI) is the sole federal agency that has the power to investigate and enforce federal law. The Central Intelligence Agency is forbidden by law to spy on the American people. The United States has therefore had much difficulty in coordinating the efforts of different agencies to protect U.S. citizens. The Department of Homeland Security (DHS) was created after the attacks of 9/11. “DHS has three primary missions: Prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage from potential attacks and natural disasters.”

The DHS has no authority to enforce any federal laws. The DHS also has no intelligence gathering capability of its own. The DHS must rely on other agencies, giving them needed intelligence while also relying on other agencies to carry out their orders for preventing terrorism.

Although the United States has no domestic national security force, the FBI does enforce federal laws. Enforcing federal law domestically, preparing for a terrorist attack, or gathering intelligence on foreign nations requires information. The information that this requires is enormous. For this reason, the Defense Advanced Research Projects Agency (DARPA) has begun the Totally Information Awareness (TIA) project. “The TIA system would be able to search through "vast amounts" of data -- such as credit card records, passport applications, driver's licenses, arrest records, and the purchases of guns, chemicals or airline tickets -- for patterns that could indicate terrorist activity.” By using this information the United States government will be able to recognize certain patterns that could indicate terrorist activity. This will diminish the ability of terrorists to hide behind mountains of data. Because of the obvious implications for civil liberties, certain safeguards will be put into place. “To ensure the TIA project will not violate the privacy

of American citizens, the Department has safeguards in place”. 52 Because of these safeguards, the U.S. government will not be able to monitor as closely the activities of its own citizens.

Contrary to some recent media reports, IAO is not building a “supercomputer” to snoop into the private lives or track the everyday activities of American citizens. Instead, IAO is developing an experimental prototype system that consists of three parts—language translation technologies, data search and pattern recognition technologies, and advanced collaborative and decision support tools. Together, these three parts comprise the Total Information Awareness (TIA) project. 53

As stated earlier, the problem with protecting ones citizens at home is finding that middle path that will protect them on one hand while still allowing for civil liberties on the other. The United States has created effective policies that have prevented more terrorist attacks than have been carried out. The United States, however, has to be correct 100% of the time, terrorists only have to be correct once. For this reason the United States has to harness the resources of the global community in order to prevent and fight terrorism. Next, this thesis will examine the People’s Republic of China. With the purpose of having a controlled study the author will use the same set of homeland security issues that were used to explain the U.S. homeland security system. By doing this the strengths and weaknesses of the U.S. system will be more easily identifiable.

III. CHINA’S HOMELAND SECURITY STRUCTURE

The People’s Republic of China is an authoritarian communist regime. Leaders of the PRC do not have the same constraints leaders of the United States have. The PRC occupies a huge landmass that contains the world’s largest population. The leadership in Beijing believes that in order to effectively control a huge population, the government needs to develop highly effective internal security measures. These internal security measures have lead to a massive internal security bureaucracy. The Chinese internal security approximates the U.S. Homeland Security Department in terms of size and scope. What the leaders of the PRC would consider internal conflict, the leaders of the United States might simply consider an expression of freedom. However, political differences must be set aside so that the United States and the PRC can learn from one another. The PRC undeniably has certain internal security measures that the United States could employ to better deal with terrorism. The PRC also undeniably has internal security measures that the United States could never impose on its citizens without changing the foundation the country is built upon. The challenge is to remain open to new ideas and accept the possibility that the United States government can learn from a communist country.

In order to fully understand how the Chinese government defends against terrorism and internal strife, this thesis must examine several facets of China’s internal security structure. The problem, however, in dealing with a closed communist country is that the relevant information may be either skewed or classified. Because of the problems in obtaining information, such as the Chinese response to nuclear terrorism, this thesis may be incomplete in certain aspects. However, by detailing many aspects of China’s internal security structure the reader should be confident in understanding of how this internal security structure operates.

A. NUCLEAR TERRORISM

The People’s Republic of China, like the United States, sees the cornerstone of its NBC terrorism strategy in the international nonproliferation regime. In the modern era
the Chinese government has never taken center stage in the international arena; because of this, the Chinese government is not at the forefront of making treaties and pushing for a strengthened nonproliferation regime. Therefore, it is difficult to identify what the Chinese government has on its own to strengthen the nonproliferation regime. The Chinese government has signed all of the major international agreements and has recently strengthened its export controls. The Chinese have been for many years responsible for certain types of proliferation. This is beginning to change; however, China still does not have the export controls the U.S. government seeks.

The Chinese government, is not a global leader on the issue of nuclear terrorism, but it has increasingly shown a willingness to strengthen the international non-proliferation regime. The Chinese strategy for dealing with international terrorism on the international stage is for countries to work only under the umbrella of legitimacy of the United Nations (UN). The Chinese government, according to this strategy, has signed most, if not all, of the international treaties on proliferation and terrorism. The Chinese government has always been more concerned with what goes on inside its borders than what goes on in the international stage. Domestically, the Chinese employ many different policies that eventually contribute to its fight against nuclear terrorism. The Chinese keep all matters related to their nuclear policy secret. Therefore, this thesis is very limited in scope concerning Chinese nuclear policy.

B. CHEMICAL TERRORISM

Chemical Weapons (CW) have never played an important role in Chinese military doctrine. Since the Chinese military has never been a big producer of CW, the Chinese have readily supported the CW nonproliferation regime. The cornerstone of this regime is the Chemical Weapons Convention. “Although China signed the CWC in January 1993, Beijing did not ratify the treaty until December 1996.”54 The specifics of the CWC were covered in earlier sections. What is important to note here is that the PRC has signed and ratified this treaty. Aside from the CWC, the strategy in Beijing centers on obtaining non-lethal chemical weapons and preparing for a massive chemical release.

The Chinese government has decided that by using non-lethal CW, it will be able to more effectively fight terrorism and specifically hostage takers. The leadership in Beijing was impressed by the use of a non-lethal CW during the Moscow theatre standoff. During this standoff in December 2002, several dozen armed Chechen rebels held 700 people for 3 days. The standoff ended when Russian Special Forces sent gas into the theater just before the raid to free the hostages. The gas was a type of drug agent that caused the people in the theater to faint, thereby neutralizing everyone in the theater, hostages and hostage takers. The Chinese see this as a viable way to confront terrorists. Even though 115 hostages were killed by the gas, the Chinese wish to learn from their Russian counterparts on using these types of non-lethal CW. “The Beijing leadership has cited Russian authorities’ handling of the hostage drama in Moscow last week as a successful model for the resolution of similar crises that may occur in China”. This strategy seeks to use CW to defeat terrorists. In the event, however, terrorists use CW against Chinese targets, the leadership in Beijing wants to be prepared.

Preparing for all eventualities will not only limit lives lost but also plays a certain deterrence role. Terrorists may think twice about attacking a target that is prepared to respond to all eventualities, thereby negating the effects the terrorists wish to achieve.

In published papers, Chinese military strategists emphasize preparedness for chemical or nuclear warfare by means of special fortifications, improvised masks, and utilizing reconnaissance to detect CW use by the enemy.

Because of China’s obsession with secrecy, it is not possible to learn specifics about response plans through open source literature. Only by reading excerpts like the one mentioned above do we see that the Chinese have a response plan. The Chinese have also begun to prepare their cities for a CW attack.

Recently, China has developed a domestic preparedness capability to address large-scale public exposures to hazardous materials, including CW terrorism. Rapid response detachments have been organized to handle chemical disasters, accidental or otherwise.\(^5\)

By signing the CWC, preparing a response to a CW attack and publicly stating a willingness to use non-lethal CW, the Chinese have developed a comprehensive strategy for combating chemical terrorism.

C. BIOLOGICAL TERRORISM

As reflected in the open literature, the Chinese strategy revolves around the BWC and preparedness. The Chinese government did not at first sign the BWC, saying that the treaty discriminated against Third World countries. China finally acceded to the BWC in 1984, twelve years after the United States.\(^6\) China has also started to prepare for the possibility of a terrorist attack involving BW. No specifics on how the Chinese would respond in the event of an attack are available, as with chemical weapons, we only know that a response plan exists.

Beijing is building up a comprehensive system against biological terrorism, which may include military rapid-response units against bio-chemical attacks. Western military analysts said the People's Liberation Army already had units specializing in bio-chemical warfare -- and that units were expected to undergo further training to cope with bio-chemical terrorism.\(^6\)

The Chinese government maintains that it has never produced BW. Given the inexperience with highly infectious agents, the Chinese government needs to rapidly update its training to include modern practices. “The PRC claims that it has no maximum containment (Biosafety Level 4) laboratories for work with extremely contagious and


virulent organisms”. The repercussions of having little to no experience working with extremely contagious and virulent organisms directly affect the Chinese bio-defense strategy.

Even today, China’s BW defense emphasizes ridding an affected area of infected insects and vermin, on the assumption that modern armies would employ these crude methods of delivery. Although the use of insects as BW agent vectors is theoretically possible, it is not practical by any modern standard and can be seen as a throwback to the Japanese biological warfare during WWII as well as the Korean War allegations. For example, to foil enemy attacks with disease-infected insects or rats, a PLA handbook on BW suggests using simple brooms and nets and burying contaminated debris.

D. PORT/BORDER AND AIRLINE SECURITY

The PRC has an even longer and more dangerous border than the United States. China borders on some extremely poor nations, such as North Korea, while also bordering massive heroin producing nations such as Burma and Afghanistan. The challenges Chinese authorities face in securing their border is similar to those faced by the United States. China needs to keep its border open so that commerce can continue to thrive. The Chinese, however, need to stem the flow of refugees and terrorists entering the country. In order to do this the Chinese government employees three main policies: the use of technology, the armed forces, and regional cooperation.

The Chinese government has deployed a system named “eGo” at its border crossing with Hong Kong. The eGo system helps facilitate low-risk traffic crossings while assisting customs agents as they combat smuggling.

The Shenzhen Customs system assigns unique electronic identity numbers to both drivers and vehicles, encoded in tamper-resistant wireless communication windshield tags. One tag is permanently mounted on the windscreen and one tag is assigned to the driver. The driver inserts the “driver tag” in a hanger mounted on the windscreen when he or she is in

the car. As the driver and vehicle approach the customs lane, both tags are read by the reader and a match is made.64

By using technology such as this the Chinese government is more efficiently able to promote commerce while protecting its borders. This is one such case of using technology to help facilitate border crossings.

The Chinese have no law similar to the U.S. Posse Comitatus Act. Since there is no limit on using the PLA inside China, the Chinese government is able to deploy soldiers at its border crossings. While the PLA are the main military force of China, the People’s Armed Police (PAP) is a lightly armed paramilitary force. The PAP while not the actual customs or border agents, are the agency responsible for the defense of China’s border areas.

The PAP frontier defense units are stationed along and responsible for the defense of China’s border areas. Essentially a lightly armed infantry forces, the frontier defense units would provide early warning of border violations and constitute the first line of defense in the event of a border incursion. During recent years, the PAP frontier defense troops stationed in the frontier regions of southern China were often involved in counter drug-smuggling missions.65

The Chinese government has also deployed regular PLA troops along their borders. PLA troops have most recently been deployed along their border with North Korea.

Chinese armed forces have moved into new positions along the country's border with North Korea, charged with defending an 870-mile-long frontier that is often violated by hungry refugees from that isolated state. Chinese Foreign Ministry officials confirmed in a statement today that army troops had replaced the police along the border, though they did not confirm Hong Kong press reports that as many as 150,000 soldiers were involved.66

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The PAP is subordinate to the Ministry of Public Security and the Central Military Commission. Therefore, by using the PAP and PLA to defend the border, the Chinese government has a more effective system for securing their borders.

The Chinese government engages in cooperation with its neighbors, which more effectively controls their borders. Although bilateral cooperation exists with each of China’s neighbors the cornerstone of China’s regional multilateralism on its western border is the Shanghai Cooperative Organization (SGA). In 1997 Russia, China, Kazakhstan, Tajikistan and Kyrgyzstan signed a border deal, which eventually lead to the creation of the Shanghai Group. The SGA has held joint military exercises and anti-terrorism exercises. By holding military exercises with four of its neighbors, the Chinese government has greatly increased its border security. The Chinese now have the ability to share intelligence, and they now know what to expect from their neighbors and can count on them to help deal with specific threats.

Finally, besides standard airport security and improved vigilance, the Chinese government has two policies for keeping their airplanes secure, flying police and an elite anti-hijacking unit. In the wake of September 11, Beijing announced a plan to put two uniformed police officers lightly armed on every internal flight. The reasoning behind this plan is that terrorists will be further deterred knowing two armed agents are on every flight. In addition, passengers have a higher rate of surviving in the incident with two officers aboard. Similar to other countries around the world, the PRC has an elite anti-hijacking force. This elite unit from the Special Police School of the People’s Armed Police Forces has practiced neutralizing a hijacker once the order is given from the national anti-hijacking headquarters.

E. MONEY LAUNDERING

Money Laundering has become a serious problem worldwide. The Chinese government continues to fight international money laundering; however, the Chinese government seems to be more concerned about the money laundering of its own citizens. “Inside sources say money laundering on the Chinese mainland must be up to a yearly sum of RMB 200bn Yuan, a figure about 2 percent of the nation's GDP or a near equivalent of US$22.5 bn of the country's export earnings in China in 2001.”

Money laundering inside China has grown to be such a problem that the central government has begun to issue rules that all banks inside China must follow. These laws, while new to China bring the country in line with other industrialized countries. These new laws are what the government sees as the best way to combat this new threat. Some of the new laws are:

- Financial institutions shall establish a customer’s identity registry system to verify the identities of customers who process financial business including deposits and settlement with them.
- When opening deposit accounts or providing settlement service for individual customers, financial institutions shall verify the customers IDs and record the names and ID numbers.
- Financial institutions shall not provide financial services including deposits and settlement for institutional customers who fail to show valid documents as required by relevant rules.

The Chinese government will certainly create more and stricter laws to combat money laundering as it’s banking and financial system expands. For now, however, the international community needs to make sure Chinese law keep up with realities of the day so China does not become a haven for terrorist money.

F. DOMESTIC LEGISLATION

In December 2001, the Chinese government strengthened existing anti-terrorism laws, which have brought a crackdown on China’s minority Muslim population. The crackdown has prompted rights groups to accuse China of using the War on Terrorism as an excuse to crackdown on minority groups.

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At the end of December 2001, China amended the provisions of its Criminal Law with the stated purpose of making more explicit the measures it already contained to punish "terrorist" crimes. Amnesty International is concerned that the new provisions enlarge the scope of application of the death penalty in China and may be used to further suppress freedom of expression and association.\(^7^3\)

This law has enabled China to place its Muslim minority under suspicion. China has made a concerted effort to limit the demographic domination of Uighurs in the Northwest region of China. China has limited this domination by moving ethnic Han Chinese into this region along with Tibet, which has the effect of making the Uighurs and Tibetans minorities where they had once been the majority.

Officially, fewer than 40% of Xinjiang’s 20 million people are Han Chinese. Still, that’s a giant leap from 1949, when the Chinese made up 4%-5% of the population. The shift may be even more dramatic, says a Western diplomat in Beijing, perhaps 60%-65% Han, if you tally all the police and army troops.\(^7^4\)

By using the war on terrorism as a pretext for curbing dissent within its Muslim population, Beijing now has an even tighter control. The Chinese government sees the largest terrorist threat coming from its Muslim population. For this reason the government in Beijing seeks to control all aspects of the way Islam is practiced in its country and especially in Xinjiang.

Government officials reportedly continue to restrict religious activities, including the building of mosques, in areas where ethnic unrest has occurred. The government controls the appointment of imams. According to one account, imams are required to undergo political indoctrination and their sermons are censored by government officials. Uighurs reportedly are also prohibited from congregating in large numbers, including gathering family members to observe traditional religious holidays. Government employees, teachers, and students must abide by government restrictions. For example, it has been reported that students, teachers, and government officials are not allowed to observe the daily act of praying five times. Mosques apparently are required to record the names of the individuals attending each day's religious activities. Students that are


found to have attended mosques more than three times reportedly can be permanently expelled from school. Children who are found to have been taught Islam reportedly could also be expelled from school. Uighur Muslims appear to be the only Chinese citizens who are subject to capital punishment for political crimes. In 2000, according to Human Rights Watch, at least 24 Uighur Muslims were executed. Finally, prison officials reportedly have tortured Uighur prisoners. In October 2000, one Uighur prisoner reportedly died as a result of torture and other mistreatment.75

The Chinese government has needed to only strengthen certain laws. The reason for only strengthening them is that the laws in Communist China have always been such that limit personal freedom.

The second aspect of China fighting terrorism through domestic policies is through its regional cooperation. The Shanghai Cooperation Organization (SCO) is a regional block that fosters closer ties between China, Russia, Kazahkstan, Tajikistan, Kyrgyzstan, and Uzbekistan.76 These countries have no formal military alliance like the North Atlantic Treaty Organization (NATO), and have no free trading policies such as North American Free Trade Agreement (NAFTA).

While one of the SCO's key tasks is to fight the so-called "three evil forces" -- separatism, extremism and terrorism -- Chinese analysts argue that the organization embodies a new security concept and a new type of multilateral institution in the post-Cold War environment. It is not a military alliance directed against any third parties, but a forum for dialogue and consultation on an equal basis, and a mechanism for enhancing regional cooperation in political and economic spheres. 77

These six countries do engage in certain types of military cooperation, but more importantly, these countries engage in anti-terrorism exercises and have agreed to open a regional anti-terror center. The anti-terrorism exercises and the regional anti-terror center will help the SCO better coordinate policies for dealing with terrorism in the region and provides for regional cooperation in responding to a terrorist attack.

G. DOMESTIC SECURITY OPERATIONS, INCLUDING REGULATION OF INFORMATION

Two policies are emerging in China to protect its citizens from terrorism. One policy was the creation of a new anti-terrorism bureau. The second policy is creating a system known as the Golden Shield project. These policies have different methods, but the goals are the same for both, stopping terrorism. China is hoping these two policies will give it an edge over the terrorists.

China’s new anti-terrorism bureau is under the Ministry of Public Security. This new bureau is somewhat akin to the U.S. Department of Homeland Security (DHS). The Chinese department, however, is much more limited in size and scope.

Vice-Minister of Public Security Zhu Entao said the newly-established anti-terrorism bureau under the Ministry of Public Security would analyze information, coordinate campaigns and provide advice to combat terrorism. Furthermore, the bureau will also conduct investigations into terrorist organizations and maintain contact with international anti-terrorism agencies, he said.78

The Chinese now have a central agency that can collect and analyze terrorist threats, and the director of the U.S. DHS will have a counterpart in China.

The most ambitious and far-reaching project China has undertaken to protect its citizens from terrorism is the Golden Shield Project (GSP). The GSP is a civil libertarian’s nightmare. However, from a purely homeland security standpoint, the GSP would make a terrorist attack highly unlikely. The GSP envisions a “gigantic online database with an all encompassing surveillance network – incorporating speech and face recognition, closed-circuit television, smart cards, credit records, and Internet surveillance technologies.”79 The system that China foresees is right out of the book 1984. Except for a few technologies such as closed circuit television and internet surveillance technologies the GSP looks very similar to the U.S. Total Information Awareness Project (TIA). One of the main fundamental differences, however, is that the

TIA is not designed or allowed to spy on American citizens. Whereas the TIA is designed to monitor activities overseas, the GSP is specifically designed to monitor the activities of Chinese citizens living in China.

The Chinese government has made numerous strides in creating and implementing homeland security policies, particularly due to its limitless governmental authority. As the next chapter will show, some Chinese policies are incompatible with the U.S. system of government, while some if implemented correctly would improve U.S. security. The view of the author is that while some Chinese policies are effective homeland security policies, they are not particularly conducive to individual rights and liberties. This limits their potential use in the United States, however, if the government’s sole purpose is to prevent and fight terrorism without regard to individual rights and liberties, then China is a good country from which to learn.
IV. HOMELAND SECURITY LESSONS FOR CHINA FOR THE UNITED STATES

This thesis has so far explained the ‘homeland security’ strategies for both the United States and China. The question here is what the United States can learn from China. China has many homeland security policies that can be effective at stopping terrorists from operating within its borders. The problem is finding those policies that, while effective, do not prove incompatible with the U.S. system. Whereas the problem for Chinese authorities is to simply find the most effective homeland security policies, the United States must find the most effective homeland security policies while upholding the Constitution and personal privacy.

There are many areas in fighting terrorism in which, the United States does better, and there are areas the Chinese do better. This thesis at this point identifies those policies deemed superior to U.S. policies or that fill in the holes in U.S. policy. Policies are evaluated solely for their effectiveness in fighting terrorism. After the policies have been identified, this thesis will distinguish which ones are suitable for the U.S. system. Finally, this section will show how the selected policies can be implemented into the U.S. system.

Six policies have been recognized as more effective than any policy the United States has in effect. In several instances, the Chinese have chosen policies that are inappropriate for the United States, because they would never work in the present U.S. system. The following explains why the selected policies would benefit the U.S. system. The policies listed are in order of most likely to be implemented in the U.S. system compared to those that because of the United States style of government would be difficult to implement.

A. CHEMICAL TERRORISM

U.S. and international law bans the use of all chemical weapons, even non-lethal chemical weapons. The Chinese, however, choose not to enforce this part of the CWC. The Chinese wish to have all options on the table, which the United States should also want. The U.S. needs to follow the Chinese lead by publicly declaring its intention to use non-lethal chemical weapons. The United States must first rescind or modify the executive order issued by President Ford in 1975. The executive order states that non-lethal chemical weapons can only be used in wartime to control prisoners, protect
civilians, and carry out rescue missions, and then only after the President authorizes its use. The United States needs all reasonable options available. Criticism could be muted by explaining the need to have all options open and by explaining that it is better to incapacitate a person than kill him. Since this is a domestic issue, the only people or agencies involved would be the White House. Furthermore, the only action that needs to be taken would be rescinding the Executive Order. Although over 100 people died in the Moscow theater hostage standoff, the use of non-lethal chemical gas provided an opportunity to act that might not have been available otherwise. Therefore, this policy can be deemed successful in the event the United States uses a non-lethal chemical gas to achieve an objective that would have otherwise proved unobtainable. Terrorists might reconsider taking hostages in China because of Chinese stated intention to use non-lethal chemical to regain control of the situation. It is this aspect of Chinese policy the United States needs to adopt, publicly stating a willingness and intention to use non-lethal chemicals to end a hostage situation.

B. PORT/BORDER SECURITY

The United States must stem the flow of illegal immigrants into the country. The United States must assume terrorist organizations will infiltrate the United States by illegally crossing the border. The U.S. border patrol simply does not have the resources to secure the borders. With the DoD already having the necessary resources, Posse Comitatus should be amended. China has a lightly armed police force under the Ministry of Defense. The central government, however, has the ability to deploy the PLA when deemed necessary, as on the North Korean border. The United States need not necessarily deploy regular ground troops to protect the border.

The United States only needs a domestic paramilitary force that would have the responsibility of securing the U.S. border and domestic targets, which are determined to need further protection, such as nuclear power plants. Implementing a policy such as this would require cooperation between many different government agencies and civilian agencies. First, the U.S. Congress would have to repeal or amend Posse Comitatus. If repealing or amending Posse Comitatus is impractical, then declaring the U.S. border and

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80 Knickerbocker, Brad. “The fuzzy ethics of non-lethal weapons” Christen Science Monitor
http://www.csmonitor.com/2003/0214/p02s01-usmi.html
domestic targets military bases would give the required authority to protect these areas. The White House, Department of Homeland Security, Department of Justice, Department of Energy, Department of Transportation, Department of Defense, Department of Treasury, and FBI would all need to reach a consensus on how the plan should be implemented. Civilian agencies such as the American Civil Liberties Union would have to be consulted. Their grievances could be met by enshrining in whatever regulation is finally written safeguards to protect American freedoms.

Images of the United States becoming a police state would frighten the vast majority of Americans. Therefore, the American people would need to be educated in what this would mean. The American people, I believe, would accept having some type of soldiers protecting the border and nuclear plants; this would be similar to the National Guardsmen protecting U.S. airports. Data are gathered each year on the number of illegal immigrants entering the United States; thus one way to judge success is whether or not there is a decline in the number of illegal immigrants entering this country. Additionally, this study could do a quantitative analysis comparing high-risk installations around the world that use some type of government soldiers and those that do not with the number and types of incidents. Judging whether a domestic paramilitary force is a success or not might be impossible. This, however, does not mean the policy is ineffective.

Fewer than 20 air marshals were in the U.S. program prior to 9/11, and today the government keeps the number secret. This is in stark contrast to the policy of China, which puts two uniformed officers on each internal flight. Washington believes keeping terrorists guessing as to whether or not a sky marshal is on the flight or not and who the marshal is provides a creditable enough deterrent. The Chinese system, however, forces potential hijackers to plan to encounter two armed police officers. The central problem here is whether the American people want to see two armed police officers on each flight they take. The police might make the American people feel they are at a higher risk or the U.S. is becoming a police state that watches your every move. These are both reasonable concerns. At this point, the American people and their lawmakers must decide what level of protection they want. This thesis argues that if the uniformed officers were unobtrusive, the American people would accept this as a new reality in the post 9/11
world and become grateful for the additional protection. The White House, Congress, Department of Justice, Department of Homeland Security, Department of Transportation, and Federal Aviation Administration would need to coordinate this policy. Civilian agencies would need to be reassured this is solely for protection and will not invade personal freedoms in any way, other than a noticeable presence on every flight.

Finally, the airlines would need to sign off on this plan and optimistically shoulder some of the financial burden. This is justifiable because in the end airlines will become more profitable given that flying is safer. After the policy is accepted, an ongoing study would compare the frequency of incidents prior to the policy being implemented and after the policy is implemented. If the frequency of incidents is determined to be lower after the uniformed officers are on every flight, then the policy can be called a success. Also, if U.S. intelligence is able to determine terrorists were deterred from hijacking because of the presence of officers, this policy will be given further creditability.

C. DOMESTIC LEGISLATION

The United States engages in unprecedented cooperation with nations all over the world. The United States, however, must not neglect its neighbors. The United States needs the help of both Canada and Mexico. Mexico, which desperately wants a place on the international stage, should be treated as an equal in fighting this threat. Canada, as well, would provide additional support if only further engaged by the United States. Cooperation exists between these countries, for example, the smart card program, and the North American Free Trade Agreement. Further cooperation, however, is needed. Six regional countries, Russia, China, Kazakhstan, Tajikistan, Kyrgyzstan and Uzbekistan make up the Shanghai Cooperation Organization (SCO). The SCO has conducted anti-terrorism exercises while setting up an anti-terrorism center. This center helps facilitate cooperation in areas such as responses to an attack involving WMD, border security, and drug trafficking. The United States, by engaging its neighbors, will enhance its status in the fight against terrorism while gaining valuable regional cooperation. This cooperation would allow the United States to further secure its border while leading to future cooperation involving a host of issues. The White House, Department of State,
Department of Homeland Security, Department of Defense, Department of Justice, and the CDC would be involved in furthering this cooperation. Regional cooperation is one area whose benefit is hard to determine. Improved relations between the three countries, increased cooperation, and a further reduction in incidents might be the only way to prove its effectiveness.

The United States has limited experience in cracking down on high-risk groups. The U.S. experience in Ruby Ridge and Waco has shown the United States that these types of operations carry significant risks. The Chinese, however, take suppression of ethnic minority groups very seriously. If the United States suppressed or even investigated groups performing suspicious activities, the United States would be able to possible break up more terrorist cells and crime syndicates. This, however, crosses the line between protecting citizens and severely limiting their freedoms. The constitutionally protected rights of freedom of expression, speech, religion and the right to gather in peaceful groups is what makes the United States unique. Limiting a Muslim’s right to practice his/her religion has no advantages in protecting the United States. Therefore, this thesis rejects the policy of cracking down on ethnic minority groups as counterproductive, which would set a harmful precedent for the American society.

D. DOMESTIC SECURITY OPERATIONS, INCLUDING REGULATION OF INFORMATION

Finally, the United States Total Information Awareness (TIA) project is a highly complex undertaking that will help the U.S. fight terrorism. The TIA, however, does not focus on the 270 million Americans. The Chinese, through its Golden Shield project, will be able to monitor the activities of its citizens. The Chinese system is so highly intrusive that carrying out a terrorist attack would be next to impossible. China’s Golden Shield project enables the government to protect people from themselves. The Golden Shield project would so fundamentally change the United States that terrorists could claim victory. If the Golden Shield was presented to the American people as a surefire way to prevent terrorism, the belief of this author is the vast majority of Americans would still overwhelmingly reject it. The United States must increase its security against terrorism
without changing the way people live. The Golden Shield is an Orwellian policy, which if implemented, would transform American society into one that Americans would find unlivable.

Any president who adopts internal security measures from a communist country risks political suicide. The American people were taught during fifty years of Cold War that the way communist countries treat their people was wrong. People across the political spectrum might reject the ideas simply because of its origin. Also, if the U.S. government agrees to learn from China, a major problem will be implementing the chosen policies in a way that are palatable to the American people. However, there are some legitimately good ideas within China on how to deal with internal security and terrorism. To ignore a country as important as China simply because of its current political philosophy might prove fateful.
V. SINGAPORE’S HOMELAND SECURITY STRATEGY

Singapore was founded in 1819 as a British trading colony. Singapore is a small city-state, whose main island compromises 604.2 sq km of its total land area of 685.4 sq km. In 1965, Singapore became an independent country. Singapore has thrived because of its strategic location as one of the world’s busiest ports. Singapore is located on the southern most tip of Malaysia, on the straits of Melacca. Singapore is the world’s busiest port in terms of cargo tonnage handled and is second only to Hong Kong as the world’s busiest container terminal.81 Singapore, which is a small city-state, has blended high-tech modernization with traditional Chinese culture. The Singaporean government places a vast interest in maintaining an orderly society; this has led Singapore to become one of the safest cities in the world. Singapore is also a close friend of the United States, which supports the only dry dock outside the United States where a U.S. aircraft carrier can be serviced. Singapore also hosts almost 100 U.S. naval ship visits a year.82 This close relationship with the United States, along with the possibility of disrupting world economic activity, has made Singapore an attractive target to terror groups. This chapter will follow the format of the previous ones by examining Singapore’s homeland security structure, finishing with identifying specific Singaporean policies that are superior to U.S. policies.

A. CHEMICAL TERRORISM

For a country the size of Singapore, a chemical or biological attack would be catastrophic for the entire nation. For this reason, Singapore maintains a vigilant resolve for countering this and other terrorist threats. Singapore does not produce chemical weapons and has consistently sought the elimination of all chemical weapons. The cornerstone of Singapore’s fight against chemical weapons is the CWC. Singapore has also invested heavily in detection technology, which can be used to detect chemicals inside containers that transverse Singapore’s busy ports and to help mitigate the effects of a chemical attack on its citizens.

81 United States, U.S. Embassy Singapore, Singapore- The Regional Maritime Hub (Singapore: State Department, 2001)
The Singaporean government has been a staunch supporter of the CWC. Singapore ratified the CWC in May of 1997.\textsuperscript{83} The Singaporean government has also codified CWC restrictions into national law with the passage of the Chemical Weapons (Prohibition) Act.\textsuperscript{84} In addition, the Singaporean government has formed the Defense Science Organization (DSO) National Laboratories. The laboratories at DSO are involved in creating technology to fight and detect chemical agents. In May of 2003, DSO joined the prestigious league of world-class chemical verification laboratories.\textsuperscript{85} These verification laboratories act as independent conformation centers for the presence of chemical agents. Once the OPCW conducts an inspection, they will send the samples to laboratories such as the one in Singapore to be tested for chemical agents or precursors.

One of Singapore’s main contributions for fighting chemical weapons is in the advancement of detection technology. DOS has created four indigenous chemical detection technologies. The high efficiency lateral passive sampler (HELPS) for detection of chemical exposure is one such technological innovation. “HELPS is a reusable and cost effective chemical dosimeter that can accurately determine the level of chemical exposure that a person has received during an incident. HELPS is an air sampler designed to be small, compact, easy to use and to give faster results.”\textsuperscript{86} HELPS is similar to a radiation badge, which helps determine the level of radiological exposure. HELPS is also re-usable, which makes it a very cost effective device.\textsuperscript{87} The Scent Mate kit for early diagnosis of exposure to chemical agents allows first-responders and hospital workers to ascertain whether or not an individual has been exposed to a nerve-agent. This type of technology could prove highly useful in the event a nerve agent such as sarin is released.

In March 1995, members of Aum Shinrikyo punctured 11 plastic bags filled with sarin in five cars on the Tokyo subway, killing 12 people and injuring over 5,000. After the

\textsuperscript{83} Singapore, Ministry of Foreign Affairs, Opening Address by MOS Raymond Lim at the First Regional Meeting of National Authorities of States Parties in Asia (Singapore: MOF, 2003)
attack, over 4,000 people, believing they had been exposed, rushed to hospitals, which quickly overwhelmed the staff and facilities.\textsuperscript{88} These 4,000 people took time and hospital beds away from people that had been actually exposed. With the Scent Mate kit, people could have been easily screened for exposure, thereby saving time and resources. DOS’s automated sampling system for cost effective building protection against chemical attacks will help large buildings save money because fewer detection devices will be needed. The system is an automated, multi-point sampling system for chemical detection networks. Finally, the Portable sampling system for on-site identification of chemical agents can be used with portable instrumentation to identify the contamination on-site so that quick remedial action, such as detoxification and medical treatment, can be undertaken. The equipment is designed to sample air, water and surface samples (such as soil, cement and concrete) for direct analysis.\textsuperscript{89}

Responding to a chemical, biological or nuclear attack can strain the resources of any agency. These problems are especially compounded when an attack happens in a densely populated city. Densely populated cities such as New York City, Hong Kong and Singapore all have some type of pre-determined response plans in place in the event of a WMD attack. Instead of focusing on Singapore’s response plan, which is usually unique to a particular city given its location and resources, the author will focus on Singapore’s highly developed Civil-Defense Force.

Singapore’s Civil-Defense force has evolved from what was formally a vigilante squad, formed to prevent crimes and report suspicious activity of neighbors, into a highly effective volunteer force.\textsuperscript{90} When a city gets its citizens involved on a scale such as in Singapore, the benefits are numerous, which include emergency preparedness but also a sense of community. “The Singapore Civil-Defense Force (SCDF) has trained more than 60,000 residents as Civil Defense (CD) volunteers. Of these, 7000 residents continue to participate in Civil Defense activities as active volunteers.”\textsuperscript{91} The SCDF is broken down

\textsuperscript{88} http://cfrterrorism.org/security/chemical2.html
\textsuperscript{89} Singapore, DOS, Forging Closer International Co-Operation on Chem-Bio Defense: DSO National Laboratories to Host More Than 260 Experts at 3\textsuperscript{rd} SISPAT (Singapore: DOS, 2002)
into local communities, so in event of an incident, these people are working to save their neighborhoods and their neighbors. The SCDF is trained in basic firefighting and to recognize and respond to a chemical or biological attack.92

B. BIOLOGICAL TERRORISM

Biological terrorism would devastate any city in the world, let alone a city-state the size of Singapore. Singapore, because of its relatively small size, has become a good example of how densely populated cities the world over can prepare for biological weapons. Singapore’s international effort to fight biological terrorism centers on its participation in the BWC and the government’s willingness to publicly support all measures to strengthen the ban on biological weapons. Singapore is not powerful enough to have a policy, such as preemption. Therefore, Singapore has devoted its time and treasure on domestic response. These domestic responses include education, shelters, civil-defense forces, technology, and crack military units trained in biological terrorism.

Singapore’s international commitment to stopping the production, stockpiling and spread of biological weapons is shown with its willingness to sign international agreements. Singapore signed the BWC in 1975.93 Most countries in the world have signed the BWC, the difference however is Singapore’s willingness to strengthen these protocols.

The Government of Singapore sponsored a session on the Biological and Toxin Weapons Convention (BTWC) which was conducted by an expert in the field who presented an overview of the BTWC Protocol, gave examples of areas in which the BTWC Protocol can benefit from the practical experience of the implementation of the Convention, and outlined the Protocol’s perspective on declarations and inspections.94

Singapore does not have the international stature that would be needed to propose new protocols or strengthening the ones that are already in effect. Singapore, although prosperous, does not have the same problems that the United States, China and Russia have, therefore it would be much easier for the leaders of Singapore to introduce effective

93 Singapore, Ministry of Defense, Singapore’s Participation in the Proliferation Security Initiative (PSI) (Singapore: MoD, Jan 2004)
legislation. Therefore, Singapore has invested the majority of its resources into domestic programs dealing with biological terrorism.

The Singaporean government has not been shy about facing the harsh realities, which confront its society. The leaders of Singapore have realized the only way its citizens will ever reach a true level of preparedness is through education. The Singaporean government has done such a good job in educating the people about terrorism; 64 percent of residents believe their government is prepared and able to handle a terrorist attack.95 The government has managed to obtain this level of confidence by telling its citizens what the threats are, how to recognize suspicious activity, and how to respond to a terrorist attack. The U.S. government may have very detailed response plans for dealing with a biological attack. The average citizen, however, has no idea how to respond other than sealing yourself in a room with plastic sheeting. The Singaporean government has created pamphlets that detail exactly what the threat is, how to recognize it, and finally, what to do should it occur. The pamphlet details everything from first aid, shelter protection, water distribution, food rationings, chemical incidents, in-place protection, bomb threats and biological attacks.96 The advantages to a plan such as this is your citizens will feel better protected; and if something does occur, the effects will be mitigated because of the education, response plan.

Singapore has begun a program called total defense. A major facet of this program is building shelters that can be sealed in the case of a biological attack. The city has built enough space to house one-fourth of its population. These new shelters include decontamination chambers. In case of an attack, residents are urged to evacuate their homes and head outside, where officials will direct them to the closest shelter.97 It is the

97 Abbugao, Martin. “Singapore campaign prepares citizens for terror attacks.” Agence France Presse 16 Feb 03. 29 Feb 04. http://web.lexis-lexis.com/universe/document?m=dbce877ae6d179b56c6b07c352de1555c&docnum=1&wechp=dGl6VlHzSkVb&md5=9616c5aaa6672842d9c869cf71422fd
education, the building of facilities that will protect the people, and the high level of
awareness that has led to 64 percent of residents believing their government can protect
them from future terrorist attacks.

C. NUCLEAR TERRORISM

Singapore’s policy on nuclear terrorism is similar to its policy on chemical and
biological terrorism. Singapore has signed every major international agreement
concerning nuclear issues. Singapore has signed the NPT, CTBT and has put into place
the appropriate export controls. Singapore signed the NPT and CTBT in 1976 and in
1999.98 Singapore, again decided to focus its attention and resources on mitigating the
effects a nuclear explosion would have on its domestic population. Education, the
building of shelters and a very detailed macro-response plan is what Singapore, with its
limited size, population and resources feel would have the most profound effect.

D. PORT/BORDER AND AIRLINE SECURITY

Port security is a big concern for the Singapore government because of the
amount of shipping that crosses its ports and waters. Security is also a big problem for
Singapore. Coordinating Minister for Security and Defense, Dr. Tony Tan, speaking
about piracy said, “Half of the attacks in the world take place in the waters around
Singapore, and more than half of the world's oil passes through the Straits of Malacca.”99

Dr. Tan went on to say,

There is also the worry that terrorists may hijack an LNG carrier and
deliberately use it as weapons of mass destruction either in the Straits of
Malacca or in our port. So it is a serious issue. The pirates are now using
more lethal equipment, high speed boats, rapid fire machineguns.100

The USS COLE was attacked in October 2000 by terrorists using a small boat laden with
explosives. The small boat crept alongside the COLE and exploded, which ripped a hole in

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98 Tan Yee Woan. “Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-
99 Ramesh S. “Singapore's security agencies focus on port and maritime sector”
Channelnewsasia.com 14 Feb 04. 29 Feb 04.
http://www.channelnewsasia.com/stories/singaporelocalnews/view/71069/1.html
100 Ramesh S. “Singapore's security agencies focus on port and maritime sector” Channelnewsasia.com 14 Feb 2004.
its side, killing 17 sailors and injuring 39. A major concern for Singapore, as Dr. Tan spoke on, is the concern terrorists will highjack a ship carrying fuel or natural gas and sail it into port exploding it upon impact. With half of the world oil going though the Straits of Malacca, opportunity abounds to find a suitable ship. With Singapore having the only dry dock outside the United States where an aircraft carrier can be serviced, an attack similar to the USS COLE, but on a much more horrifying scale, is certainly within the realm of possibility.

Singapore has taken several steps to ensure the security at its ports and waterways. Singapore has signed on to the US container security initiative, which gives US customs agents, the authority to search shipping containers that are destined for the United States. Singapore is on schedule to meet a July 1, 2004 deadline set by the International Maritime Organization (IMO) for enhanced port security. These new security measures set by the IMO include pre-arrival notice of 24 hours before entering port. Singapore has also taken additional measures; Singapore requires that its 1,200 harbor craft make meticulous log entries, which details their exact movements. Singapore has been upgrading its coast guard and naval forces since the late 1990’s. “The Republic of Singapore Navy (RSN) vision of a World Class Navy was first articulated publicly by the RSN's former CNV RADM Richard Lim in 1996”. An example of this upgrade can be seen in Singapore’s decision to purchase six new multi-mission frigates from the French company DCN. Singapore further protects its sea-lanes and ports by enhancing international cooperation, while showing a persistent military presence in and around the straits of Melacca.

Singapore has strengthened international security in the area of maritime security by holding security exercises, and increasing regional cooperation. In the area of security

exercises Singapore in 2003 held an exercise with Japan off Singapore’s coast. The
exercise conducted with Japan included a hijacking simulation in which the hijacked ship
was intercepted in Singaporean waters. After the ship refused to surrender, Singaporean
forces stormed the ship, regaining control of the vessel and taking the hijackers into
custody.106 Singapore’s navy was the first in Southeast Asia to participate in the U.S. led
Proliferation Security Initiative (PSI). The PSI conducts training operations designed to
intercept, board, and search vessels suspected of carrying weapons of mass destruction.107
Singapore has also conducted naval exercises with India, Brunei, Indonesia, Malaysia,
among others. At the annual Asian security conference held in Singapore, the Minister of
Defense spoke of the need to expand bilateral-cooperation such as the Indonesia-
Singapore Coordinated Patrols in the Singapore Straits. The Defense Minister also
offered three suggestions on how regional states and extra regional stakeholders can
come together to address the challenges of maritime security. First, establishing a firm
commitment to closer international cooperation on maritime security issues. Second, try
to build on regional anti-piracy frameworks that already exist or are starting to come into
place. Finally, the defense minister suggested considering an integrated multi-
dimensional approach to the problem of maritime security.108

In addition to upgrading its navy and instituting policies that help protect its ports
and territorial waters, Singapore is committed to having a military presence in the straits
of Melacca. Singapore has begun escorting ships deemed of high value; these include
ships carrying liquefied petroleum gas and liquefied natural gas carriers, crude oil tankers
and cruise ships. In addition, Singapore has an advanced radar system that can track up to
5,000 ships at one time and has patrol boats in those areas not covered.109

106 Cher, Derek. “Singapore and Japanese coast guards conduct largest counter terrorism and piracy
http://www.channelnewsasia.com/stories/eastasia/view/60479/1.html
108 International Institute for Strategic Studies. Remarks by Dr Tony Tan Keng Yam, Deputy Prime
Minister and Minister for Defense, at the Plenary session on “Maritime Security after September 11th”.
Singapore: Shangri-La Dialogue, 2003
After the attacks of September 11, airport security became a prime concern for all nations, including Singapore. Singapore, while extremely concerned with security at its airports, has not come up with new and innovative ideas. Singapore has followed international norms on upgrading its airline security. Singapore recently spent $45 million on a new baggage-screening device at its main Changi Airport. The new device incorporates advanced X-ray techniques such as computer tomography. Singapore has also invested in hardened, bulletproof cockpit doors.\textsuperscript{110} Singapore has begun to place armed air marshals on some of its flights. Singapore has signed an agreement with Australia, which allows armed air marshals on flights between the two countries. Singapore is working on a similar deal with Indonesia.\textsuperscript{111} One area that Singapore has the ability to set its self apart is in its technological research. Singapore is researching biometrics, which would include scanning a passenger’s retina or fingerprints. Also, Singapore is dedicated to finding a solution that shoulder-fired missiles pose to commercial aircraft.\textsuperscript{112}

E. MONEY LAUNDERING

Singapore is the financial hub of Southeast Asia. Because of the sheer volume of financial transactions in Singapore, money laundering is bound to be a concern. "The Economist has estimated that about US$500 billion to US$1.5 trillion is laundered each year through the global banking system".\textsuperscript{113} Singapore, being a major player in the financial markets has been a steadfast proponent of money laundering rules and regulations. Singapore has several ways of dealing with money laundering.

First, the international standard for AML/CFT practices is set by the forty Recommendations of the Financial Action Task Force, or FATF, an inter-governmental

body established by the G-7. Though not a binding international convention, Singapore
has made a political commitment to implementing the 40 Recommendations.\textsuperscript{114} Singapore
even conducts an annual self-assessment in order to determine if it is in full
compliance with the regulations. Secondly, Singapore has established a clear legal
framework designed to foster international cooperation for prosecuting money launderers.
The third key element is a robust and comprehensive regulatory framework. Singapore's
AML laws are centered in the Corruption, Drug Trafficking and Other Serious Crimes
(Confiscation of Benefits) Act, or CDSA. The CDSA criminalizes the money laundering
of benefits derived from 187 predicate offenses, and provides for the confiscation of these
benefits. Responsibility to investigate offenses under the CDSA lies with the Commercial
Affairs Department, or CAD, an agency within the Singapore Police Force.\textsuperscript{115} The fourth
element of Singapore’s strategy to combat money laundering is the ongoing supervision
of financial institutions to foster sound AML/CFT practices. Singapore has a strong
tradition for rigorous supervision of financial institutions. The two aspects of this
supervisory process with regards to AML/CFT are: issuing detailed guidelines to
financial institutions, setting out their obligations with respect to know-your-customer
principles, disclosure of suspicious transaction reports, and internal control policies and
procedures; and carrying out offsite reviews and onsite inspections to monitor
institutions' adherence to these guidelines.\textsuperscript{116}

F. DOMESTIC LEGISLATION

Singapore’s anti-terrorism legislation centers around two relatively new pieces of
legislation and one very old but effective piece of legislation. Singapore has always been
known for having very strict internal security laws. The example most often cited is the
law that makes chewing gum a crime. Therefore, with a history of strict internal security
laws, the people have not been as adverse as Americans to strict new anti-terrorism

 nexis.com/universe/document?_m=b9a8b5543a50b5235f1d406aaa8a40711&_docnum=1&wchp=dGLbVzb-
zSkVA&md5=41ba20b79313491c31d425f5765fb9e9

\textsuperscript{115} ebbit

 nexis.com/universe/document?_m=b9a8b5543a50b5235f1d406aaa8a40711&_docnum=1&wchp=dGLbVzb-
zSkVA&md5=41ba20b79313491c31d425f5765fb9e9

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legislation. Some of Singapore’s domestic laws may be considered draconian. These laws have, however, provided for a very clean and orderly society. The days of the Singaporean government using these laws as a political mean to an end are increasingly rare. The Singaporean government today uses these laws to prosecute drug traffickers, criminals, money launderers and terrorists. The government has even released a booklet explaining to the public what the laws are and how they affect them.

In 2003, Singapore passed strict legislation, which was intended to combat cyber terror. The Computer Misuse Act, which was passed in the late 1990’s, was amended in November, 2003 to give the government new powers to combat cyber terror. The new laws allow the government to monitor all computer and computer-related activity that occurs within Singapore. Once officials determine a cyber-terror act will be committed, they now have the authority to take pre-emptive action. This gives the government unprecedented authority to monitor the activists of the people with its borders. The authorities have tried to reassure its citizens that these new powers will not be used to invade their privacy. The MPs in Singapore’s parliament were won over not by forcing the government to write checks or balances into the new law or other measures that would ensure the protection of civil liberties. The MPs were won over by Senior Minister of State (Law and Home Affairs) Ho Peng Kee, telling them, not to worry about abuse.

The second aspect of Singapore’s anti-terrorism legislation was to make terrorism, terrorist co-conspirators, and people who finance terrorism a crime. The acts of committing a crime have always been illegal. These new laws however, state terrorism is illegal.

Singapore has strengthened its anti-terrorism laws, adopting regulations, which punish as criminal acts the funding of terrorism and the spreading of hoax threats. The Ministry of Law said it was formally codifying United Nations resolutions adopted after the attacks on New York and Washington.
These new laws bring the domestic laws of Singapore inline with the policies of other countries fighting terrorism.

The centerpiece of Singapore’s ability to fight terrorism is legislation called the Internal Security Act (ISA). The ISA is used to counter security threats such as racial and religious extremism, espionage, terrorism and subversion. The ISA has recently been used to neutralize the activities of terrorist or terrorist-linked organizations in Singapore, including the Liberation Tigers of Tamil Eelam and Jemaah Islamiah, an extremist Muslim group that planned to bomb several foreign embassies and major installations in Singapore. The key provisions of this law are:

- The ISA allows detention without charge or trial of any person deemed to be a threat to the security or economic life of the state for a period of up to two years, without limitation on renewal.
- Following release, individuals may be placed under two-year renewable restriction orders preventing them from making public statements, participating in organizations or political activity, traveling, and communicating or associating with individuals formerly detained under security legislation without official permission.120

This law, albeit extremely controversial, would undoubtedly be effective against terrorists. The United States has no comparable law, for a law such as this to be passed the constitution would have to be amended. This law would certainly help prevent or deter terrorism; however, if this type of law were ever passed in the United States, then the terrorists would certainly have won.

G. DOMESTIC SECURITY OPERATIONS, INCLUDING INFORMATION REGULATION

The Singaporean government has a long history of using internal security forces in order to prevent dissent. As mentioned earlier, this role has shifted more to a role of terrorism and crime prevention. The Singaporean government created in 2002 the Homefront Security Center (HSC), which is akin to the U.S. Department of Homeland Security. HSC is responsible for coordinating the resource capabilities of the government. The HSC is a key element of the National Security Task Force (NSTF). The NSTF is

staffed by both police and military elements. Once intelligence is obtained from HSC and a threat is deemed to be creditable, the information is passed to NSTF. NSTF then, with its internal security forces, takes the appropriate paramilitary action. With the ability to monitor people’s computer activity, telephone conversations and arrest people for an indefinite period of time, all without government oversight, there is no lack of intelligence gathering resources at their disposal. Singapore also in 2002 established the Joint Counter Terrorism Center (JCTC), which has been set up to serve as the central coordinating intelligence agency to integrate the activities of the country’s various intelligence services and be the main contact point with foreign intelligence agencies. Therefore, it is easy to determine the frame of Singapore’s “homeland security” apparatus. Two agencies, the HSC and the JCTC, coordinate intelligence and military resources, respectively, while the NSTF oversees the two and ultimately makes the decisions regarding homeland security strategy and operations.

121 Singapore, Ministry of Defense, Protecting our nation (Singapore: MinDef, 2002)
VI. HOMELAND SECURITY LESSONS FROM SINGAPORE FOR THE UNITED STATES

This thesis has now explained the “homeland security” strategies for Singapore. The question here is what the United States can learn from Singapore. Singapore has many homeland security policies that are effective at stopping terrorists from operating within its borders. The problem is finding those policies that, while effective, do not prove incompatible with the U.S. system. Whereas the problem for Singaporean authorities is to simply find the most effective homeland security policies. The United States must find the most effective homeland security policies while upholding the constitution and personal privacy.

There are many areas in fighting terrorism the United States does better, and there are areas the Singaporean’s do better. This thesis will at this point identify those policies deemed superior to U.S. policies or fill in the holes in U.S. policy. Policies are assessed solely for their effectiveness in fighting terrorism. After those policies have been identified, this thesis will distinguish which ones are suitable for the U.S. system and should be implemented. The following policies will be identified under the corresponding that they were listed under in the body of the thesis, even though some may be general and defend against other types of terrorism as well.

A. CHEMICAL TERRORISM

During the Cold War the United States had an effective civil-defense force. Once the threat of invasion or nuclear war faded, the importance of this type of program also faded. In Singapore, however, interest in these types of programs has only increased. Due to Singapore’s size, population, and relatively homogenous society, these types of programs are much easier. In the United States, people feel it is the responsibility of the government to protect them and to know exactly what to do in the event of emergencies. This, however, is naive and potentially disastrous. Americans need to learn to take a measure of responsibility in the event of an emergency. This is one area that the United States would be well advised to learn from Singaporeans. Singapore has trained over
60,000 residents to be in the civil-defense force with 7,000 currently active. With Singapore’s population, this means there is a member of the civil-defense force for every 571 people.

This is a program that could be instituted all across the United States. With the federal government determining guidelines and training standards, cities would be responsible for building and actually training this force. This force is all voluntary, so the cost would be negligible when compared to the potential benefits. This would help build community cohesion and would help save an untold number of lives in the event of a terrorist attack or natural disaster. The civil-defense force could be trained as in Singapore in basic firefighting, how to recognize and respond to a chemical or biological attack, while assisting people with information and support in the event of an evacuation. With using the Singaporean model of one civil-defense person per 572 people, this program could be established in cities all across American from small West Texas towns to New York City.

B. BIOLOGICAL TERRORISM

When Secretary of Homeland Security Tom Ridge briefly talked about chemical/biological attack and suggested people could duct tape themselves inside a room, he nearly caused mass hysteria. The American public has no idea what to do in the event of this type of attack. Panic and hysteria would set in; people might rush to evacuate the cities. All of these actions would hinder any governmental effort at controlling the situation. President Bush has spoken very bluntly about the danger Americans face. This needs to now be backed up with an education program telling Americans what to do in the event of an emergency. People now know they should be scared of terrorism but have no idea what to do if terrorism occurs. Singapore has not been shy about describing the threats its citizens face. The government tells its citizens what the threats are, how to recognize suspicious activity, and how to respond to a terrorist attack. The Singaporean government has created pamphlets that detail exactly what the threat is, how to recognize it, and finally what to do should it occur. The pamphlet details everything from first aid, shelter protection, water distribution, food rationings, chemical incidents, in-place protection, bomb threats and biological attacks.
The advantage to a plan such as this is citizens will feel better protected; and if something does occur, the effects are mitigated because of the education. In the event of an attack, the government will have wished it had prepared and educated average citizens. This could, however, be potentially very expensive and disruptive. Even after 9/11 Americans like to believe they are safe from the dangers around them. This type of education program will undoubtedly make some Americans more fearful. This, however, may be what is needed to save lives during the next terrorist attack.

During the Cold War, Americans built numerous shelters. This has since come to represent America’s paranoid, overly fearful Cold War days. This type of paranoia and fear needs to be brought back to some degree. Americans need to know there is somewhere else to go other than their duct-taped room. Singapore’s Total Defense Plan involves building numerous shelters that can be sealed during a chemical or biological attack. These shelters include decontamination rooms. Singapore has built enough shelters to house one quarter of the entire population in the event of a catastrophe. The U.S. government should begin a program of building shelters with de-contamination chambers that can house one quarter to one half the population in cities with a million or more inhabitants. This would be very expensive; however, it would pump money into the economy while the government preformed its most basic function, protecting the American people. Without educating its citizens about the true nature of the threat and providing its people with a place to go in an emergency, how does the government expect to truly protect its people?

C. DOMESTIC LEGISLATION

This is a very sensitive subject for the United States. Americans are spilt on whether they believe the patriot act is a violation of their civil rights or an appropriate response to this new world, post 9/11. Without amending the Constitution, the United States government could not pass the type of legislation passed in Singapore, no matter how effective against terrorists. Singapore’s laws on cyber terrorism and the jailing of citizens indefinably with charges are completely against American society. These laws are, however, more effective at fighting terrorism than the Patriot Act. These laws will not be recommended because of their incompatibility with American government.
Singapore’s laws do show, however, how far some countries are willing to violate its citizens’ rights in the name of fighting terrorism.

Domestic preparedness is must easier to implement in a city-state of a few million than in a country of several hundred million. What Singapore can effectively show the United States is the federal government can and should provide general direction of homeland security. However it is more effective when implemented by the cities and states, which can tailor the program to meet their specific needs. Singapore has shown what can be accomplished when large cities to small municipalities employ homeland security policies that meet their needs, instead of federal one size fits all.
VII. CONCLUSION

After the United States lost thousands of its citizens, the government vowed to fight terrorism and protect its citizens. The United States has reorganized a large part of its government, spent billions of dollars and gone to war twice in order to fulfill this vow. This, however, is still not enough. The United States government must be willing to learn from countries around the world. Some policies will, of course, not be compatible with the U.S. system, but some will.

This thesis has attempted to show the reader the homeland security policies of China and Singapore and suggest ones that could be implemented into the U.S. system. This thesis attempted to do this by first analyzing how the U.S homeland security structure deals with a range of issues. By doing this the reader will gain an understanding of how the United States government defends its citizens. Next, the thesis analyzed how the China’s homeland security structure deals with the same range of issues. By doing this, the thesis was able to show policies China had, the United States did not have, or policies Singapore had that were superior to the comparable U.S. policies. Policies such as an increased number of air marshals or a stated intention to use non-lethal chemical weapons are both policies that the Chinese use. Recognizing and implementing these policies might strengthen the United States fight against terrorism. The United States would be able to increase its strength simply by participating in international cooperation. The same process is repeated in the next section of the thesis by analyzing Singapore. Singaporean policies such as education and effective planning would prove invaluable to the United States in the event of another attack. China and Singapore are able to more effectively secure their homeland because of fewer international obligations. Considering the amount of time, energy, and wealth spent fighting the war on terrorism overseas these new policies are easily implemented. The next phase of the thesis was to identify those policies that the United States lacked. Simply lacking those policies was insufficient justification for implementing them. The thesis also had to show they were compatible with the U.S. system. Finally, this thesis showed how those policies might be implemented.
This thesis was limited by a lack of information. Information detailing how the United States and Singapore fight, prevent and respond to certain threats remains classified. Although the thesis was limited by a lack of information, sufficient information was available with which this thesis could be completed and recommendations made. This is a global war on terrorism, and the United States must learn from other countries, not just attempt to lead them. Only through international cooperation on a scale never before witnessed can we win the war against terror. Finally, this thesis will end with a quote.

“Together we shall either save our planet, or together we shall perish in its flames”

-John F. Kennedy
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