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Illegal Procurement of US Technology

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3/21/2012

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What is Counterintelligence?

- Protection of Information
- Awareness through outreach initiatives
- Disrupting / Neutralizing Foreign Threats
- Economic, Political, Military/Defense





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Two main focus areas:

- Economic Espionage:
 - The targeting of intellectual property to advance the economic / military interests of foreign entities: (Insider Threat-CI / Cyber Intrusion).
- Proliferation:
 - The growth of WMD arsenals, weapons systems, delivery systems, and their expansion across the globe: (CI & WMD Initiatives).



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2009 Annual Report to Congress Assymmetric Threat

- 108 countries involved in collection efforts against sensitive and protected U.S. technologies.
- Private-Sector: Who is stealing our technologies?
- What are the primary motivations?
- Foreign government involvement: What are the identified tactics?

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18 U.S.C. Section 1831

Economic Espionage

- a) In General - Whoever, intending or knowing that the offense will benefit any foreign government, foreign instrumentality, or foreign agent, knowingly –
1. steals, or without authorization copies, duplicates, takes, carries away or conceals, or by fraud, artifice, or deception obtains a trade secret;
 2. without authorization copies, duplicates, sketches, draws, photographs, downloads, uploads, alters, destroys, photocopies, replicates, transmits, delivers, sends, mail, communicates, or conveys such information;
 3. receives, buys, possesses a trade secret, knowing the same to have been stolen or appropriated, obtained, or converted without authorization;
 4. attempts to commit any offense described in any of paragraphs (1) through (3); or
 5. conspires with one or more other persons to commit any offense of described in any of paragraph (1) through (3), and one or more of such persons do any act to effect the object of the conspiracy,
- shall, except as provided in subsection (b), be fined not more than \$500,000 fine; or imprisoned not more then 15 years, or both.
- b) Organizations - Any organization that commits any offense described in subsection (a) shall be fined not more than \$10,000,000.



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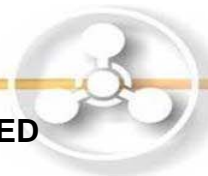


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18 U.S.C. 1832
Theft of Trade Secrets

- a) Whoever, with the intent to convert a trade secret, that is related to or included in a product that is owned produced for or placed in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner of that trade secret, knowingly –
1. steals, or without authorization copies, duplicates, takes carries away, or conceals, or by fraud, artifice, or deception obtains a trade secret;
 2. without authorization copies, duplicates, sketches, draw, photographs, downloads, uploads, alters, destroys, photographs, replicates, transmits, delivers, send, mails, communicates, or conveys such information:
 3. receives, buys, or possesses a trade secret, knowing the same to have been stolen or appropriated, obtained, or converted without authorization;
 4. attempts to commit any offense described in any paragraphs (1) through (3); or
 5. conspires with one or more persons to commit any offense described in paragraphs (1) through (3), and one or more of such persons do any act ot effect the object of the conspiracy,
- shall, except as provided in subsection (b), be fined under this title or imprisoned not more than 10 years, or both.
- b) Any organization that commits any offense described in subsection (a) shall be fined not more than \$5,000,000.



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18 U.S.C. 1839

Definitions

As used in this chapter—

1. the term “foreign instrumentality” means any agency, bureau, ministry, component, institution, association, or any legal, commercial, or business organization, corporation, firm, or entity that is substantially owned, controlled, sponsored, commanded, managed, or dominated by a foreign government;
2. the term “foreign agent” means any officer, employee, proxy, servant, delegate, or representative of a foreign government;
3. the term “trade secret” means all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if—
 - a) the owner thereof has taken **reasonable measures** to keep such information secret; and
 - b) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public; and
4. the term “owner”, with respect to a trade secret, means the person or entity in whom or in which rightful legal or equitable title to, or license in, the trade secret is reposed.



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How can you protect your company?

- Recognize that insider/outsider threats exist and that you could be a target.
- Take steps to identify and value your trade secrets.
- Develop and implement a proactive plan to safeguard your trade secrets.
- Secure physical and electronic versions of your trade secrets.
- Confine your intellectual knowledge on a “need to know” basis.
- Provide training to your employees on your safeguarding and security plan.

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Counterintelligence

Home - About Us - What We Investigate - Counterintelligence



Spies haven't gone the way of the Cold War.

Far from it. They're more prolific than ever—and targeting our nation's most valuable secrets. As the lead agency for exposing, preventing, and investigating intelligence activities on U.S. soil, the FBI works to keep weapons of mass destruction and other embargoed technologies from falling into wrong hands, to protect critical national secrets and assets, and to strengthen the global threat picture by proactively gathering information and intelligence.

Noshir Gowadia: Hawaii Man Accused Of Selling Secrets To China To Finally Face Trial

ANDREW BRUNYD / 24/5/12 11:27 PM ET

HONOLULU — A former B-2 stealth bomber engineer from Maui who is accused of selling military secrets to China is due to face trial in federal court this week.

Noshir Gowadia has pleaded not guilty to 21 counts, including conspiracy, violating the arms export control act and money laundering. The indictment accuses Gowadia of helping China design a cruise missile with stealth capabilities.

The trial comes some 4 1/2 years after Gowadia's arrest and more than three years after his trial was originally scheduled to be held. The 65-year-old, Hawaii resident has been in federal detention since his October 2005 arrest because a judge ruled he was a flight risk.

Jury selection is scheduled to begin Tuesday at U.S. District Court in Honolulu, and opening statements are expected the following day. The trial is expected to last at least two months.

Noshir Gowadia said his father is looking forward to defending himself.

"I'd be very confident that he will be found 100 percent innocent of any crimes. He is looking forward to finally getting his day in court," the

FBI Traces Trail of Spy Ring to China

Updated March 15, 2012 12:58 PM ET

The FBI traces the trail of a spy ring to China, according to a report from The Wall Street Journal. The report says the FBI has identified a network of spies who have been passing secrets to China for years.

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Russian Spy Case

Wall Street Journal Headlines

Alleged Spy Claimed Official Was Adviser
July 2, 2010 12:37 p.m.
The alleged Russian secret agent who posed as a Canadian entrepreneur claimed a former Clinton administration national security official was an adviser to his company.

- Judge Grants Bail to Russian Spy Suspect
- Russia's Response: More Frank Than Usual
- Interactive: Russia's 117
- Video: Will probe hurt U.S. Russia ties?

Alleged Russian Spies: A Novel Idea?

June 25, 2010 12:24 p.m.
If the tale of the 11 alleged Russian secret agents seems familiar, it's: Novelist Nelson DeMille laid out a strikingly similar story 20 years ago in his espionage thriller "The Charn School."

U.S., Russia Swap Agents to End Crisis


July 14, 2010 12:41 p.m.
In the final chapter of a saga worthy of a spy novel, the U.S. and Russia completed one of the biggest prisoner swaps between the countries since the Cold War.

- Video: Interactive: Russia's 117
- Press Agreements: Prosecutors' Letter
- Vote: What country came out ahead?
- Readers React: Hope I wasn't a dunder!

Russian Spy Case Takes Cold-War Turn

July 7, 2010 12:23 p.m.
The U.S. is reportedly considering sending the suspected deep-cover Russian agents to Moscow in exchange for the release of alienated spies held in Russia.

Related Photos



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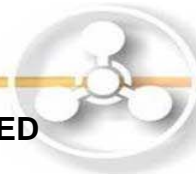
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Sudden Resignation/Termination: *What is your plan?*

- In general, when an employee suddenly resigns, what is the line of communication between the employee's manager, human resources, IT and security?
 - *Is the employee originally from another country?*
 - *Are they taking a job back in their home country?*
 - *Does IT see any abnormal activity in the company's "EDL?"*
 - *What company are they going to? Competitor?*
 - *How sensitive was the technology that the employee had a "need to know"?*
 - *Is the technology "dual use" or ITAR controlled?*



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Counterproliferation...

It's A Complicated Business

- Represents one of the greatest security challenges facing the U.S.
- Requires an understanding of intricate export laws, international diplomatic sensitivities, and a variety of sophisticated technologies.
- Encompasses different yet related threats, including terrorism, WMD, international espionage, and the theft of intellectual property and its trafficking.





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Counterproliferation

- Counterproliferation efforts aim to eliminate or reduce the threats caused by the development and spread of WMD.
- FBI Objectives:
 - Discourage interest by states from acquiring, developing, or mobilizing resources for WMD purposes;
 - Prevent state efforts to acquire WMD capabilities or efforts to provide such capabilities;
 - Roll back or eliminate WMD programs of concern
 - Deter weapons use;
 - Mitigate the consequences of any WMD use.





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The WMD Challenge

“For millennia, every major new technology has been used for hostile purposes, and most experts believe it naïve to think that the extraordinary growth in the life sciences and its associated technologies might not similarly be exploited for destructive purposes.”

-National Academy of Science, National Research Council 2006





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The WMD Challenge

- Nuclear weapons-related technologies are old and discoverable:
 - Increasing number of states will seek nuclear power technology;
 - Google “how to build a nuclear bomb.”
- Universities and industries are leading the way in biotechnology and chemistry, spreading knowledge and dual-use equipment and materials.
- Globalization of technology.
- Sophisticated biotechnology capabilities on every continent, with the exception of Antarctica.





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The WMD Challenge

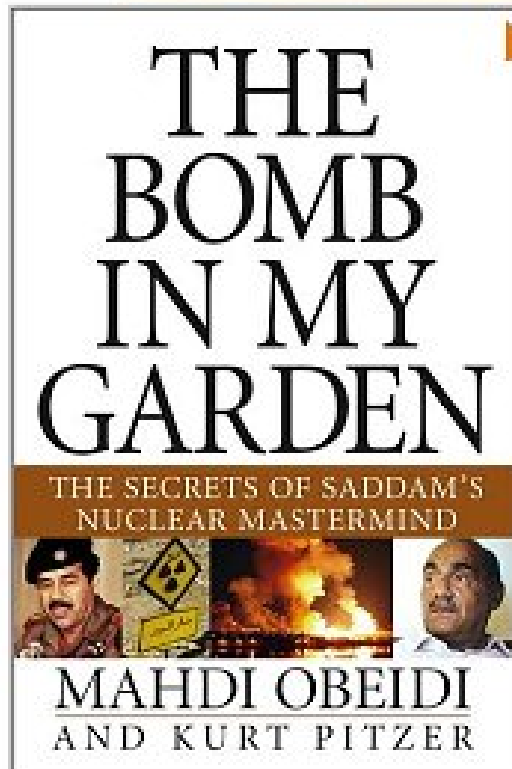
“The WMD proliferation challenge in the 21st Century is keeping states and non-actors from doing what they *can* do if they *choose* to do so.”

– Ambassador Kenneth C. Brill, Director of the National Counterproliferation Center 2009





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In *The Bomb in My Garden*, Dr. Obeidi reveals how he circumvented the international safeguards specifically intended to bar developing nations from obtaining the knowledge and materials needed to build nuclear weapons. He recounts his many “shopping trips” abroad, during which he inveigled, bribed, and cajoled scientists and engineers at companies throughout the United States and Europe into assisting him. And he details the complex system of front companies and financial institutions he used to pull it all off.

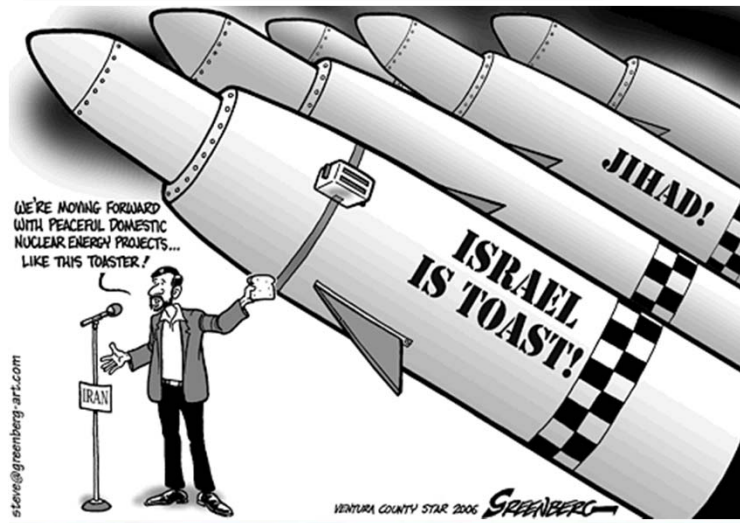
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Countries of Concern



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Countries of Concern

- Iran
 - Unmanned Aerial Vehicle parts (UAVs); Electronics Components; Specialty Steels and Alloys; Nuclear engineering software and steel tensile strength measuring machinery and software.
- China
 - Hot press industrial furnace.
- India
 - Vibration amplifiers/processor units, and cable assemblies.
- Pakistan
 - Graphite products for nuclear reactors.
- North Korea
 - Exporter of nuclear technology.
- Syria
 - Strong relationships with North Korea and Iran.





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Countries of Concern

“If our capabilities are focused solely on Iran and North Korea..., we will have done policymakers a huge disservice when an ‘over-the-horizon’ nation goes nuclear...or starts putting the pieces together for a biological weapon.”

– Ambassador Kenneth C. Brill, Director of the National Counterproliferation Center 2009





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Proliferators Examined

- Who?
 - Terrorists
 - Other Countries
 - Brokers/Front Companies
 - Private Industry
 - Research Institutions
 - Universities





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Proliferators Examined

- Factors Influencing Proliferation Activities
 - WMD goals and aspirations
 - Capital and natural resources
 - Technical infrastructure
 - Technical expertise
 - Ability to acquire dual-use goods and technical expertise





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Proliferators Examined

Front companies

Unsolicited e-mails

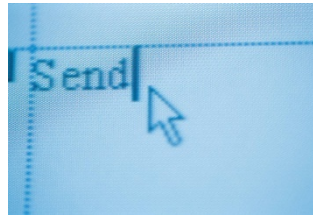
Virtual offices

Liaison with
universities with ties
to defense contractors

Recruitment by foreign
intelligence services

Attending & hosting
conferences

Procurement intermediaries



R&D facilities relocated
overseas

Circumventing
export control
laws

Visiting scientific and
research delegations

Hacking





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Proliferators Examined

- Methods of Payment
 - Letters-of-Credit
 - Wire Transfers
 - Government accounts
 - Personal accounts
 - Offshore accounts
 - Credit cards
 - PayPal accounts





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Aviation Services International (ASI) & Delta Logistics (DL), Netherlands



- Owned and operated by Dutch citizens Robert and Niels Kraaijpoel



Law Enforcement Sensitive





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ASI Investigation Overview

- **Department of Commerce, Boston, opens case on a tip regarding electronic components going to Iran from a Dutch company.**
- **ASI receives two shipments of electronic communications equipment from a U.S. company:**
 - one in November 2005
 - and one in January 2006
- **ASI advises the U.S. company that the UAV parts are for the Polish Border Guards.**

Law Enforcement Sensitive





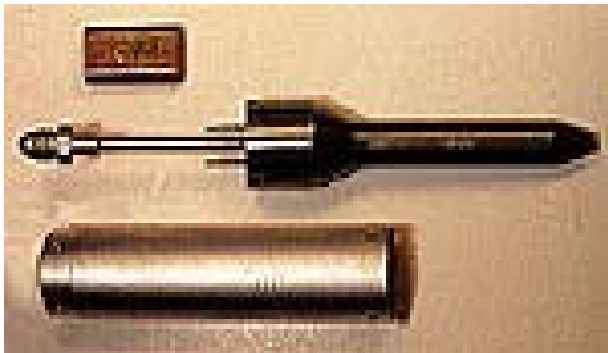
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U.S.-origin goods sold
to Iran by ASI

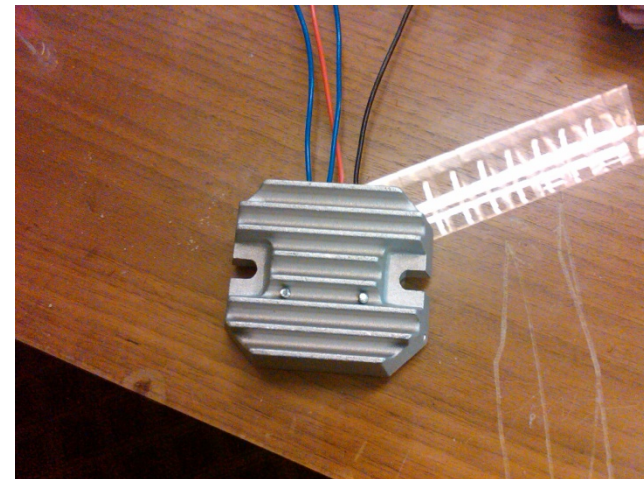
**BB-2590/U – UAVs and
other Military equipment**



**Heated pitot tubes – Measures
air speed**



Iranian C130 parts



Law Enforcement Sensitive

Voltage Regulators-UAVs



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Proliferators Examined

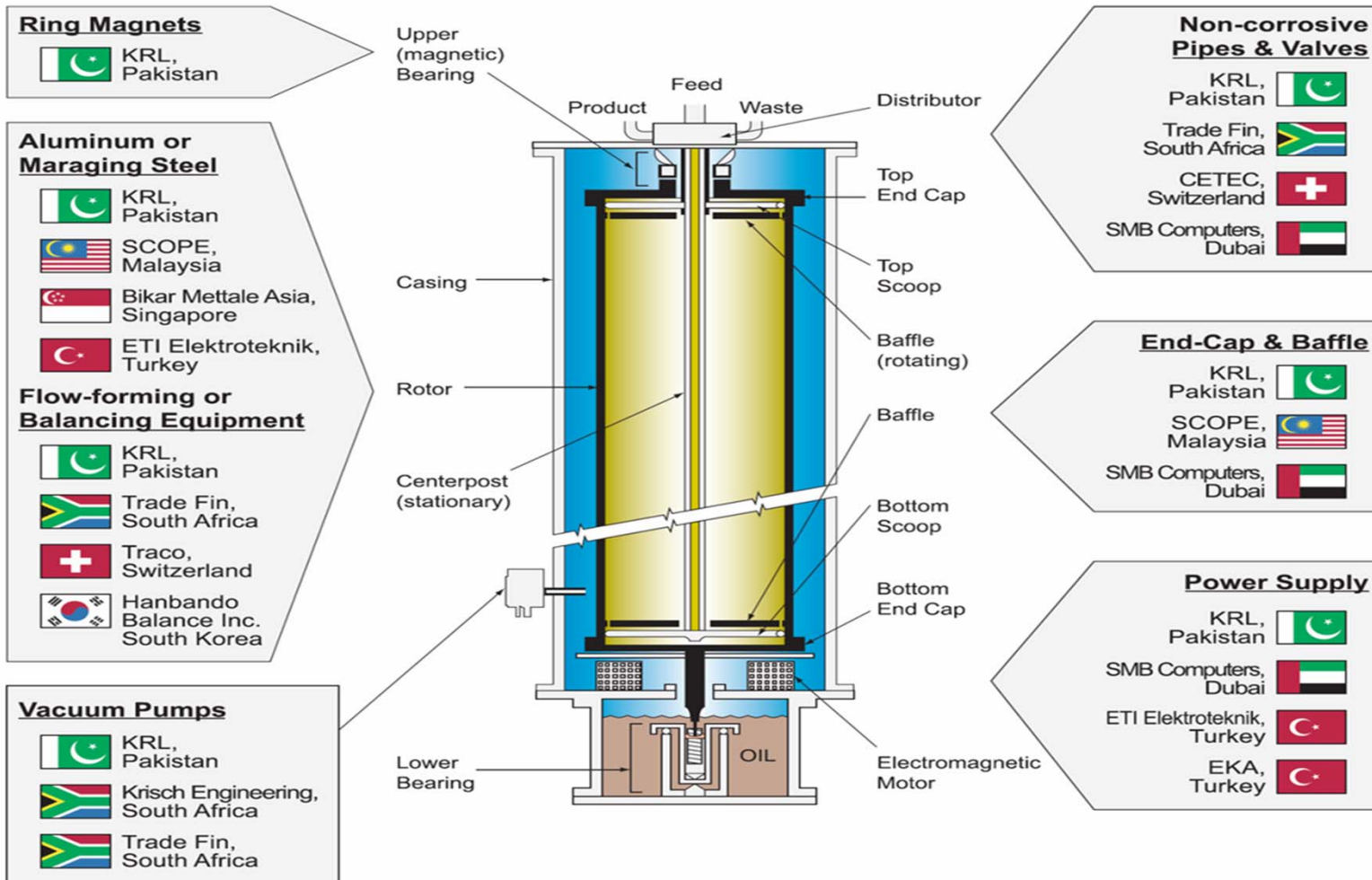
- Freight forwarders
- Traditional mail services (i.e. DHL, FedEx, UPS)
- Transshipment nodes (Exploitation of friendly countries and Free Trade Zones)





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Widespread Proliferation



Source: Center for Nonproliferation Studies, January 2005

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FBI's Role in Counterproliferation

- Unique dual-mission integrating traditional law enforcement with intelligence collection
- Largest domestic complement of agents, analysts, linguists, and surveillance specialists
- Provide valuable intelligence to the US Intelligence Community
- Foreign Intelligence Surveillance Act (FISA) tools
- Neutralization and intelligence collection through criminal prosecution





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Other Agency Partners

- Department of Homeland Security, Immigration and Customs Enforcement (ICE)
- Intelligence Community Partners (eg. CIA)
- Department of Commerce
- State Department
- Department of Defense
- State and Local Law Enforcement





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EXPORT VIOLATIONS

- **ARMS EXPORT CONTROL ACT**
 - 22 USC SECTION 2278
 - International Traffic in Arms Regulations (ITAR) 22 CFR SECTIONS 120-130
 - Regulates defense articles and services.
- **EXPORT ADMINISTRATION REGULATIONS (EAR)**
 - 15 CFR SECTIONS 730-774
 - Regulates items considered dual-use.
- **INTERNATIONAL EMERGENCY ECONOMIC POWERS ACT**
 - 50 USC 1705
 - Gives the president broad authority to regulate exports and other international transactions in times of national emergency.
- **TRADING WITH THE ENEMY ACT**
 - 50 USC app SECTION 16
 - Presidentially declared trade embargos under certain circumstances.
 - Circumstances are during time of war or national emergency.





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Red Flag Indicators

- The customer or its address is similar to one of the parties found on the Commerce Department's list of denied persons.
- The customer or purchasing agent is reluctant to offer information about the end-use of the item.
- The product's capabilities do not fit the buyer's line of business, such as an order for sophisticated computers for a small bakery.
- The item ordered is incompatible with the technical level of the country to which it is being shipped, such as semiconductor manufacturing equipment being shipped to a country that has no electronics industry.
- The customer is willing to pay cash for a very expensive item when the terms of sale would normally call for financing.
- The customer has little or no business background.
- The customer has little or no technical abilities.





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Red Flag Indicators, cont.

- The customer is unfamiliar with the product's performance characteristics but still wants the product.
- Routine installation, training, or maintenance services are declined by the customer.
- Delivery dates are vague, or deliveries are planned for out of the way destinations.
- A freight forwarding firm is listed as the product's final destination.
- The shipping route is abnormal for the product and destination.
- Packaging is inconsistent with the stated method of shipment or destination.
- When questioned, the buyer is evasive and especially unclear about whether the purchased product is for domestic use, for export, or for re-export.
- The customer utilizes free email services such as gmail/yahoo.





Assistant Director Dr. Vahid Majidi,
Weapons of Mass Destruction Directorate
2007





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Questions



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