



## ISIS REPORT

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### Profitable and Low-Penalty: Illicit Procurement of Items with Nuclear Applications for Pakistan<sup>1</sup>

**David Albright, Paul Brannan and Andrea Schedel**

In 2004, U.S. authorities arrested Asher Karni, an Israeli citizen living in South Africa, for re-exporting U.S.-made triggered spark gaps and oscilloscopes from South Africa to Pakistan, which were likely intended for Pakistan's nuclear weapons program. Triggered spark gaps are listed as a dual-use item under U.S. and Nuclear Supplier Group (NSG) guidelines. Their non-military use is in lithotripters, a medical device used to disintegrate kidney stones. They can also be used to detonate nuclear weapons or separate missile stages, creating a burst of precisely timed electrical current that causes detonation. Oscilloscopes are equipment that exhibit graphs of electrical signals, displaying the timing, voltages, frequency, and other attributes of signals. The models of oscilloscopes sought by Karni had application in nuclear weapons and missile delivery systems, capable in particular of being used to measure the yields and effects of nuclear weapons tests.

Karni was the owner and sales director of Top-Cape Technology, located in Cape Town, South Africa, a company which boasted on its website about its skill in acquiring civilian and military electronic goods. U.S. authorities arrested him on U.S. territory for export control violations following close cooperation with South African authorities. According to the U.S. Government's Sentencing Memorandum against Karni, he also procured items for entities affiliated with the nuclear weapon and missile programs of India, Russia, China, and Israel. Karni subsequently pled guilty and was sentenced to three years in prison in 2005 after being convicted of five U.S. felony charges, including conspiring to sell controlled nuclear technology to Pakistan. Karni paid a monetary penalty of \$500;

<sup>1</sup> See an extended ISIS analysis of this case: <http://isis-online.org/publications/southafrica/asherkarni.html>. See also United States District Court for the District of Columbia, Government's Sentencing Memorandum, *United States of America v. Asher Karni*, Case Number 04-396 (RMU), Filed August 5, 2005; United States District Court for the District of Columbia, Government's Motion for Revocation of Release Order and Memorandum in Support of Detention, *United States of America v. Asher Karni*, Mag. No. 03-707M, Filed January 14, 2004.

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236 Massachusetts Avenue, NE, Suite 500 Washington, DC 20002

TEL 202.547.3633 • FAX 202.547.3634

E-MAIL [isis@isis-online.org](mailto:isis@isis-online.org) • [www.isis-online.org](http://www.isis-online.org)

representing \$100 for each of his five felony convictions, a reduced penalty for his cooperation on the U.S. investigation of his network's activities.<sup>2</sup>

Karni bought the controlled items at the request of Humayun Khan (no relation to Abdul Qadeer Khan), a Pakistani citizen and the CEO of a Pakistani company called Pakland PME Corporation. Khan allegedly acted as a procurement agent or buyer to supply Pakistan's nuclear weapon and military programs; Khan told U.S. officials he had been in business with the Pakistani Ministry of Defence for over 40 years. All of Khan's Pakistani "clients" and recipients of procured items were likely companies or individuals affiliated with the nation's nuclear and missile programs, or officials at the programs themselves. Khan was indicted in 2005 on U.S. felony charges of conspiracy to circumvent export controls on U.S. controlled or dual-use equipment. He and Pakland PME Corporation were placed on the U.S. Denied Persons export list, which prevents exports to persons of proliferation concern, for a period of ten years. Pakistan apparently refused to cooperate with the U.S. investigation into the network's activities, but at the same time, U.S. officials were not forceful in their requests.<sup>3</sup> Political considerations surrounding Pakistan's cooperation with U.S. counterterrorism efforts may have prevented more forceful extradition demands. If Khan had been extradited to the United States, he could have faced trial on four felony counts and a maximum sentence of thirty-five years in prison.

## Lessons

This case study shows that perpetrators of illicit trade are detected and prosecuted. Even when schemes are transnational and quite sophisticated, U.S. authorities can be dogged in catching smugglers. It also underlines the notion that elaborate, state-directed illicit nuclear procurement programs are at the root of most efforts by nuclear smuggling networks to circumvent the export laws of nuclear technology supplier nations, and that targeting these state-directed efforts is key to stopping illicit nuclear trade. Pakistan's nuclear procurement programs rely on cultivating domestic and foreign company officials who are willing to assist it in obtaining needed items for its unsafeguarded nuclear weapons program. Such individuals and companies are often all too willing to break foreign export control laws for profit.

This case study shows that companies within a proliferant state, such as Pakland PME Corporation, operate at the behest of the state's secret military or nuclear entities. If these companies are caught violating another country's laws, their home governments protect them, in what has to be seen as a conspiracy to avoid foreign prosecution. In some cases, antiquated international extradition treaties further protect them. Some countries are not legally obligated to comply with a U.S. extradition request. In the case of Pakistan, which willingly disregarded the laws of an important ally and then protected a suspected criminal from U.S. prosecution, it could defend its action because its national

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<sup>2</sup> United States District Court of the District of Columbia Judgment in a Criminal Case, *United States of America v. Asher Karni*, Case Number 04-0396-01, Filed August 8, 2005.

<sup>3</sup> Josh Meyer, "Illegal Nuclear Deals Alleged: Investigators Say Pakistan Has Secretly Bought High-Tech Components for its Weapons Program from U.S. Companies," *Los Angeles Times*, March 26, 2005.

laws prevent extradition at the government's discretion. The U.S. attorneys prosecuting Asher Karni even had to worry about a U.S. extradition treaty with Israel, Karni's home country, because the United States does not have extradition rights for Karni's crimes under the treaty. Such outdated legal agreements explain at least part of the reason why illicit nuclear trade is so difficult to stop. Key players of nuclear smuggling rings such as Khan, far from receiving systematic and rigorous punishments for their crimes, instead operate with the knowledge that their government will allow them to continue profiting from the trade with impunity, effectively acting as purchasing agents of the state.

This case also shows how smugglers seek out accomplices in countries where purchase orders are subject to less scrutiny. South Africa dismantled its nuclear weapons program in the early 1990s and rejoined the international community as a nuclear nonproliferation hero; nuclear supplier countries welcomed it into the Nuclear Suppliers Group. The result was that other suppliers subjected exports to South Africa with far less scrutiny than that given to other, more sensitive states. When combined with South Africa's nascent export control system, this lax supplier scrutiny of purchase orders created an ideal opportunity for smuggling, which Karni and several in the A.Q. Khan network exploited. In the case of Karni, he used South Africa as a transshipment, or "turntable" state. An individual acting from within such a country can receive items prohibited for export to a sensitive state under false pretenses and facilitate their shipment to this state.

Despite the arrest and conviction of Karni, this case study illustrates that penalties for illicit nuclear trading are often too lenient to have any deterrent effect on would-be smugglers. In the event that nuclear smugglers worldwide are actually tried and convicted, they usually receive only light punishments, ranging from manageable fines to suspended jail time. Even smugglers who engage in conspiracies to procure items that are shipped onward to proliferant states still only receive jail sentences of just months to at most a few years. Such lenient penalties will not succeed in deterring others from committing a crime that could ultimately result in the detonation of a nuclear weapon, killing tens or hundreds of thousands of innocent people. Humayun Khan acted from within Pakistan to procure war material, and could have faced a jail sentence of up to 35 years and high fines if found guilty. However, Pakistan's refusal to cooperate with the U.S. investigation and prosecution continues to prevent such penalties from being enforced. Although illicit trade by Pakistan is often tolerated and thus its reaction to U.S. requests for cooperation is unsurprising, the lack of sustained U.S. pressure for gaining prosecution of Khan reinforces the view that penalties for illicit nuclear trade are minimal.

## The Case

### Procurement of Oscilloscopes

Humayun Khan approached Asher Karni for the first time around August 2002 inquiring about particular models of oscilloscopes manufactured by a U.S. company called Tektronix, Inc., located in Oregon. The models of oscilloscopes sought by Khan had application in nuclear weapons and missile delivery systems for use in measuring nuclear

weapons tests. Khan, a distributor of Tektronix's products in Pakistan, would have been aware that they were a controlled U.S. item and exportable to Pakistan only with an export license. In 1993, Humayun Khan and Pakland were involved in at least one other procurement of a controlled model Tektronix oscilloscope from the United States.<sup>4</sup> Khan notified Karni that in seeking to purchase the oscilloscopes, he should "pls (sic) approach these carefully as all items are controlled."<sup>5</sup> Khan provided Karni what were likely phony end user company or organization names for all of the equipment he procured for Pakistan in order to protect the Pakistani defense establishment and deceive the supplier.

Karni contacted an Israel-based sales affiliate of Tektronix, called Eastronix, which placed an order for one oscilloscope with Tektronix' New York affiliate, Newtronix. Khan opened a letter of credit in January 2003 with the National Bank of Pakistan to transfer to the Standard Bank of South Africa an amount of \$13,417 for the item. In March 2003, the New York company shipped Karni the oscilloscope, which he received in South Africa and subsequently re-exported via air freight to the National Bank of Pakistan in Islamabad. Khan frequently used branches of the National Bank of Pakistan as delivery addresses. The end user as told to Karni, was a Pakistani company called M/S Four Seas Commercial Enterprise, still unlikely to be the true final recipient. Figures 1 and 1.1 show the routes of the purchase orders and shipments of all the oscilloscopes procured or attempted to be procured by the Karni-Khan network. In April 2003, Karni wired Khan a sales commission of \$968.01 for the oscilloscope procurement through a transfer to an Islamabad bank account from the Standard Bank of South Africa.

In May 2003, Khan placed a \$1.3 million order of 22 models for one type of oscilloscope, 14 models of another type, and related components, to be procured from Tektronix on behalf of an end user given to Karni, a Pakistani company called M/S Matrix Telecom Technologies (figure 1). He urged Karni to take "a word of advice from the Guru... do not purchase all the items together and never contact Tektronix U.K. office!"<sup>6</sup> Karni contacted an Austria-based sales associate of Tektronix for a price quote on the oscilloscopes, and told the associate that the end user of the items was a Pakistani telecommunications company. Two days later, a sales representative of Tektronix, who had become suspicious of the enquiry, contacted Khan (assumedly who had been listed by Karni as a primary contact for M/S Matrix Telecom Technologies) to inquire about the end user of the products. He denied knowing anything about the order or about any Pakistani attempts to procure oscilloscopes. The next day, Khan sent Karni an irate e-mail claiming that Karni had exposed Pakistan and demanded greater discretion. Apparently, Karni never sent any order on behalf of Khan's stated customer, M/S Matrix Telecom Technologies.

In July 2003, Khan contacted Karni requesting two oscilloscopes and related components from Tektronix on behalf of Khan's stated end user, Al-Technique Corporation of Pakistan (figure 1). This order was likely part of the \$1.3 million order described above.

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<sup>4</sup> United States District Court for the District of Columbia Grand Jury Indictment, *United States of America v. Humayun A. Khan*, Grand Jury sworn in October 31, 2003, p. 4.

<sup>5</sup> Ibid, p. 7.

<sup>6</sup> Ibid, p. 9.

Khan opened a letter of credit with the National Bank of Pakistan, to be paid to the Standard Bank of South Africa in the amount of \$32,332 for the oscilloscopes. In August 2003, Karni succeeded in importing the items with the assistance of an intermediary, the CEO of Giza Technologies, located in New Jersey. Giza Technologies obtained the items and then shipped them to Karni likely without the knowledge of Tektronix. It is not clear what end user information the CEO of Giza Technologies provided to Tektronix. Karni re-exported the equipment to the National Bank of Pakistan's Supermarket Branch, located in Islamabad, with the final consignee listed as Al-Technique (figure 1.1). According to the *Los Angeles Times*, U.S. officials tracked this shipment from the United States to South Africa, and on to Pakistan.<sup>7</sup> The circumstances surrounding how they became aware of the shipment are unclear. U.S. authorities stated that Karni's arrest prevented him from further fulfilling the entire \$1.3 million oscilloscope order.

### **Procurement of Triggered Spark Gaps**

Khan contacted Karni in June 2003 in search of a specific model of triggered spark gaps made by a U.S. company called Perkin Elmer Optoelectronics, located in Massachusetts. Triggered spark gaps are a dual-use item restricted by the Nuclear Suppliers Group because of their application in triggering nuclear weapons detonations. Based on NSG guidelines, the United States requires an export license to send triggered spark gaps to countries of nuclear proliferation concern, including India, Iran, North Korea, and Pakistan. An export of spark gaps to South Africa was not illegal, but re-export of the items to Pakistan was a violation of U.S. law.

Karni informed Khan that obtaining the triggered spark gaps would be difficult, and according to the U.S. Bureau of Industry and Security, Karni initially decided to decline pursuing the order after speaking about the strict export restrictions with a Perkin Elmer sales representative at Polytec, Inc., based in France.<sup>8</sup> The sales representative had offered a price quotation but also inquired about the items' end user, end user contact information, end use, and requested confirmation that the items would not be re-exported from South Africa or used in a nuclear program. However, Karni later decided to continue looking into the procurement. An anonymous source in South Africa informed U.S. export control officials in July 2003 that Karni had gone ahead to arrange procurement of the triggered spark gaps from Perkin Elmer with the assistance of his New Jersey-based intermediary, Giza Technologies. Perkin Elmer officials later told U.S. export authorities that it had received two nearly identical enquiries from companies seeking to purchase triggered spark gaps, one of which was Giza Technologies, for 200 spark gaps. The other company's identity is unclear, but it may have been Top-Cape or another broker. Perkin Elmer later told U.S. authorities that a normal request for spark gaps is in the amount of five or six per year for a hospital or medical firm. The head of

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<sup>7</sup> Meyer, "Illegal Nuclear Deals Alleged."

<sup>8</sup> Department of Commerce, Bureau of Industry and Security, "Press Release: Pakistani Businessman Indicted for Trafficking in Nuclear Detonators and Testing Equipment," April 8, 2005. <http://www.bis.doc.gov/news/2005/pakistanibusinessman.htm>

Giza Technologies nevertheless apparently assured Karni that he could obtain the spark gaps and then re-export them to South Africa.

In July 2003, Karni informed Khan that he could procure the spark gaps,, which he would sell to him for \$950 each. Pakland officially placed an order with Karni worth \$208,000 for 200 units of spark gaps, stipulating that they were for an end user called AJKMC Lithography Aid Society in Pakistan (see figure 2 below). According to the U.S. Government’s Sentencing Memorandum against Asher Karni, AJKMC Lithography Aid Society was likely a phony front company and not the true end recipient of the items.<sup>9</sup> AJKMC Lithography Aid Society may have been listed under the same address as Pakland, and the U.S. Government notes that its initials may have stood for “All Jammu and Kashmir Muslim Conference,” a Pakistani political party that supports Islamic militant groups operating in Kashmir.<sup>10</sup> In an indication of confusion on the parts of the smugglers, “lithography” refers to a printing process and not a process related to the lithotripter medical device.

A letter of credit was issued by the National Bank of Pakistan to provide eventual transfers to the Standard Bank of South Africa for purchase of the 200 triggered spark gaps. Acting upon the information from its South African source, U.S. export control officials convinced Perkin Elmer to cooperate on a sting operation to tamper with the spark gaps and render them useless, and then export them to Giza Technologies in New Jersey via Federal Express. U.S. authorities wanted to follow the shipment and also gather critical evidence from in-the-act violations. Figure 3 shows the path of Khan’s purchase order and the shipment route followed closely by U.S. authorities. An export of 66 of the total 200 triggered spark gaps, re-characterized as “electrical splices and couplings for switching” upon export by Giza Technologies, was soon en route to South Africa via a U.S. freight forwarder called AEI Freight Forwarding, owned by DHL Danzas, which was also cooperating on the sting operation. Giza Technologies had addressed the package to the Baragwath Hospital located in Soweto, South Africa, the phony end user given by Karni for Giza Technologies to provide to Perkin Elmer officials. It was tracked by U.S. authorities to Top-Cape, then to the widely-used transshipment point of Dubai, United Arab Emirates via AEI Freight Forwarding (see figure 3 below). A U.S. export enforcement agent stationed in Dubai attempted to have the shipment halted at port, but the UAE customs director would not cooperate with the request. Finally, the shipment arrived at the National Bank of Pakistan’s Main Branch in Islamabad with a note indicating that AJKMC Lithography Aid Society should be notified upon the package’s arrival (see figure 4). A Top-Cape associate of Karni’s notified Khan that the remaining spark gaps would ship in the following months, in separate shipments of 67 items. The letter of credit opened by Khan with the National Bank of Pakistan in the amount of \$208,000 was used to pay for the \$69,438 procurement of 66 triggered spark gaps to a Top-Cape account. According to a U.S. government Memorandum in Support of Detention of Karni, Karni and the head of Giza Technologies would have profited significantly from fulfilling the entire procurement of 200 triggered

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<sup>9</sup> Government’s Sentencing Memorandum, Filed August 5, 2005, p. 10.

<sup>10</sup> Meyer, “Illegal Nuclear Deals Alleged.”

spark gaps; the CEO of Giza Technologies would have earned a \$10,590 commission, while Karni would have taken in around \$80,000.

In December 2003, U.S. export enforcement officials conducted a search of Giza Technologies' offices. In cooperation with South African law enforcement, South African authorities also simultaneously raided the offices of Top-Cape Technology. They gathered enough evidence to warrant the arrest of Asher Karni in January 2004 when he and his family landed at Denver International Airport for a skiing vacation. Karni's laptop was seized, providing further evidence to the case. Karni's assistant at Top-Cape, Marisa Ann Sketo-Kirsh, an American citizen, currently faces two charges of importing and exporting controlled items used in nuclear devices in a Cape Town, South Africa magistrate court.<sup>11</sup> It is unclear whether other U.S. and foreign associates of Karni were ever charged with crimes. The United States may have chosen to focus on the defendants with the most evidence against them.

Asher Karni pled guilty to five felony charges in September 2004 in the District of Columbia. His sentence was reduced in light of cooperation with the U.S. investigation, in particular, for providing substantial information in the case against Humayun Khan. His prison sentence was reduced from a possible maximum 6.5-8 years to his three year sentence. However, his cooperation was at best limited; the U.S. government has transcripts of phone calls indicating that Karni continued arranging illicit exports and financial transfers from prison.<sup>12</sup>

### **Humayan Khan remains at large**

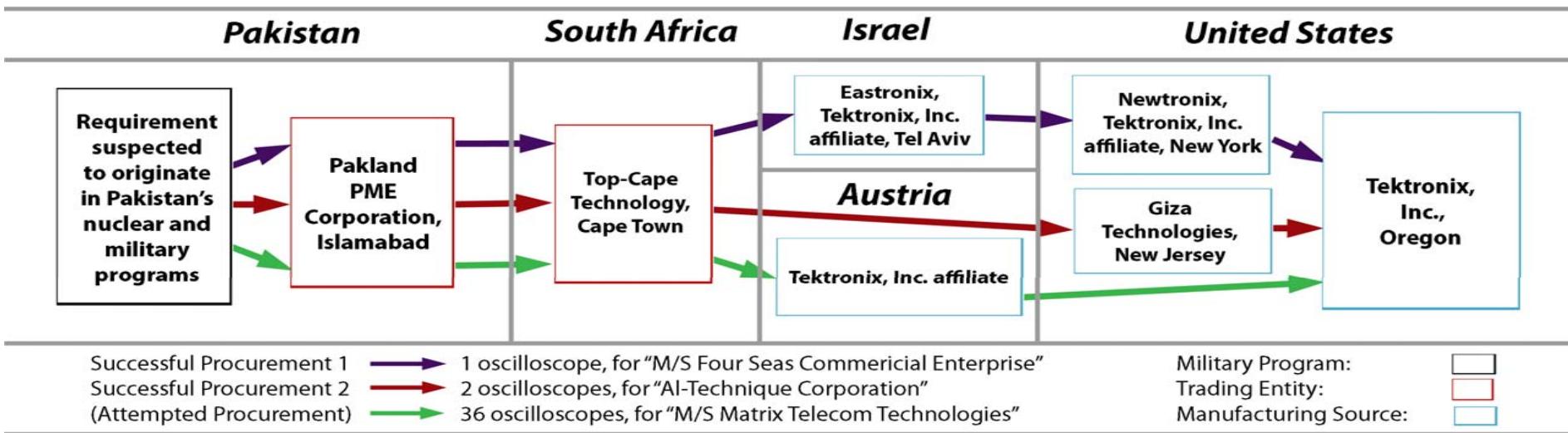
Efforts so far to extradite Humayan Khan have proved futile. He has been forbidden under U.S. law from importing any U.S. controlled items. But Khan deserves more punitive actions including sanctions, particularly given his refusal to cooperate. He should at least receive the same level of sanctions as were recently applied to A.Q. Khan and 12 of his associates for their proliferation crimes, and who now have to fear the U.S. government seizing their assets. At the same time, the U.S. government should make it a policy in its relationship with Pakistan to insist that it stop illicit nuclear procurement.

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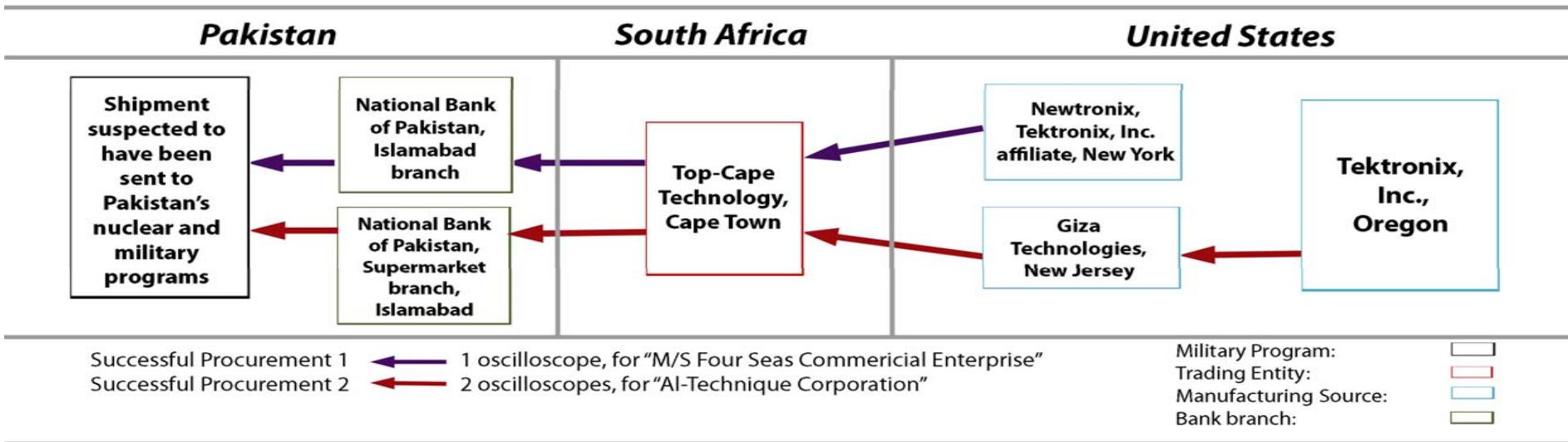
<sup>11</sup> Caryn Dolley, "Nuke Smuggling Charges: Woman in Cape Court," *Cape Times*, January 24, 2008.

<sup>12</sup> Government's Sentencing Memorandum, Filed August 5, 2005, pp. 25-28.

**Figure 1: Pakistan's Procurement of Controlled Model Oscilloscopes - Order Routes**



**Figure 1.1: Pakistan's Procurement of Controlled Model Oscilloscopes - Shipment Routes**



JUL-03 15:20 PAKLAND P' CORP. ISB

FSC 01 2003/003

**PAKLAND P'ME CORPORATION***Engaging Our Future*

**tektronix**  
in & Measurement

*S&S Power Co. 609/12/2003*

Commission Invoice # 736AKMC/04/PCT/01.

Against Commercial Invoice # 020703-01EG&amp;G

11-Jul-03

Top-Cape Technology, 109 Ocean View Drive, Green Point 8005, Cape Town, South Africa.  
 Attn: Mr. Asher Karni. Fax: 0027214330463.  
 Customer: AJKMC Lith. Aid Society. PO Ref: AJKMC/AIDL/H04/PCT/01/2003.  
 Order Date: July 11, 2003. Payment mode: LC at site.

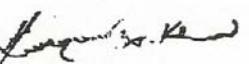
Item	PF	Qty	Order Value US\$	Commission (US\$)	
				Rate	Value
EG&G, GP-20B	TSG	200	1,040.00	24.8%	18,000.00
<b>TOTAL</b>		<b>200</b>	<b>208,000.00</b>	<b>TOTAL</b>	<b>18,000.00</b>

Submitted by:  
**REMARKS**

Humayun Khan  
 Your prices offer refers your email dated June 27, 2003.  
 Pls ensure TT reimbursements only.

Remit to:

Humayun A. Khan.  
 US\$ Account # **███████████**  
 Habib Bank Limited.  
 C.D.A.Civic Centre Branch # 602, Islamabad-44000, Pak.



Authorized.

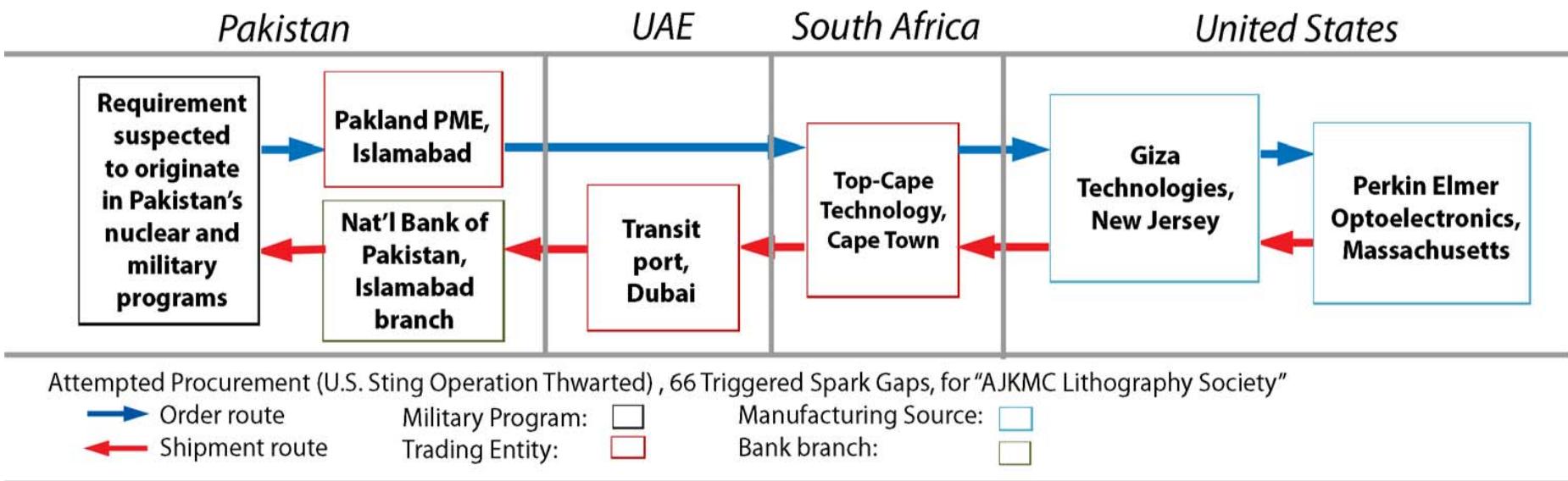
Unit # 7 & 8, 2nd Floor, Multamadi Plaza, F-6/4, Jinnah Avenue, Blue Area, Islamabad-44000, Pakistan.  
 Tel: +92-51-2271211, 2872136 Fax: +92-51-2271199 E-mail: humayunk@psst.pak.pk

TOTAL P.01

Figure 2: Purchase order invoice from Humayun Khan of Pakland to Karni for 200 triggered spark gaps worth \$208,000.

**Figure 3: Pakistan's Attempted Procurement of Triggered Spark Gaps**

**Order & Shipment Routes**



AEI HOUSEBILL INQUIRY SCREEN 1

ACTION-CODE: I	MB	FINAL
ORG: CPT HB: 7168867	DST: ISB DST: ISB IC:	RDR: DATE: 01 OCT 03
AGNT:		ASSEMBLY-LOC:
CNSE: 0053NISB	NAME: NATIONAL BANK OF PAKISTAN,	*
	ATTN: MAIN BRANCH ISLAMABAD,	*
	STR: PAKISTAN	*
	CITY: NOTIFY: AJKMC LITHEOGRAPHY	ST: ZIP:
	CNTRY: AID SOCIETY	VAT: /
CNSE-REF:	/	/
NOTIFY-PARTY:	NAME: NOTIFY: NATIONAL BANK	*
	ADDR: OF PAKISTAN	*
	ADDR:	*
SHPR: T0376	NAME: /M/S TOP CAPE TECHNOLOGY CC	*
	ATTN: 109 OCEAN DRIVE,	*
	STR: GREENPOINT 8005.	*
	CITY: CAPE TOWN,	ST: ZIP:
	CNTRY: SOUTH AFRICA.	VAT: /
SHPR-REF: #310703-003	/	MSG-CODE: CURR: ZAR
BILL-REF:	MANIFEST CMDTY DESCR: SCIENTIFI	
NEXT FUNCTION: TR		
HOUSEBILL INQUIRY - PRESS ENTER TO CONTINUE OR CLEAR TO EXIT		

**Figure 4: AEI Freight Forwarding (cooperating on U.S. government sting operation) housebill indicating Karni's shipment of the 66 triggered spark gaps to the National Bank of Pakistan, Islamabad. AJKMC Litheography (sic) Aid Society is listed as the entity to notify upon arrival.**