

National Narcotics Intelligence Consortium, Committee  
on the Judiciary

Re: **NARCOTICS PRODUCTION**  
**IN**

132857

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**NATIONAL NARCOTICS INTELLIGENCE  
CONSUMERS COMMITTEE  
(NNICC)**

132857

**U.S. Department of Justice  
National Institute of Justice**

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**THE NNICC REPORT  
1990**

**The Supply of Illicit Drugs  
to the United States**

**June 1991**

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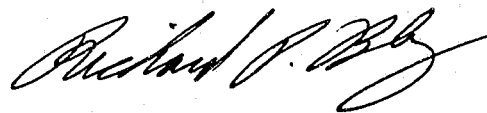
## PREFACE

The National Narcotics Intelligence Consumers Committee (NNICC) Report is the product of a cooperative effort involving federal agencies with drug-related law enforcement, foreign and domestic policy, treatment, research, and intelligence responsibilities. In April 1978, the NNICC was established to coordinate the collection, analysis, dissemination, and evaluation of strategic drug-related intelligence, both foreign and domestic, that is essential to effective policy development, resource deployment, and operational planning. In 1990, membership consisted of the Central Intelligence Agency, U.S. Coast Guard, U.S. Customs Service, Department of Defense, Drug Enforcement Administration, Federal Bureau of Investigation, Immigration and Naturalization Service, Internal Revenue Service, National Institute on Drug Abuse, Department of State, and the Department of the Treasury. The Office of National Drug Control Policy is an observer. The Deputy Assistant Administrator for Intelligence of the Drug Enforcement Administration serves as Chairman.

The NNICC Report for 1990 is the 13th estimate prepared by the NNICC. In recent years, the NNICC has reviewed and updated various drug production estimation methodologies. This continuing effort has resulted in a number of revised cultivation and production estimates for previous years. Since illicit cultivation, production, and distribution of controlled substances are, by definition, illegal, there are often little reliable data upon which to base estimates of the quantities of drugs involved. This document, based on the best data currently available and on the combined available expertise of NNICC member agencies, is a comprehensive assessment prepared for the Federal Government on the worldwide illicit drug situation

in 1990. A primary source for production estimates and drug control efforts in foreign countries is the Department of State's International Narcotics Control Strategy Report. This report is prepared annually in accordance with the provisions of Section 481 of the Foreign Assistance Act of 1961, as amended (22 U.S.C. 2291).

Data from the Drug Abuse Warning Network (DAWN) which have historically been incorporated in the NNICC Report were unavailable for 1990 due to an ongoing redesign of the DAWN emergency room sample. As mandated by the National Institute on Drug Abuse (NIDA), DAWN statistics included in past NNICC Reports were compiled from data obtained from consistently reporting emergency room facilities (consistent panels) which reported their information 90 percent or more of the time during a particular period. Due to sample redesign, there has been a decline in the number of consistent panels making trend analysis statistically less reliable. When completed, the redesigned sample will provide more representative and trendable data. DAWN data will appear in future NNICC Reports.



RICHARD P. BLY  
CHAIRMAN

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FEDERAL BUREAU OF INVESTIGATION  
DEPARTMENT OF THE TREASURY  
U.S. CUSTOMS SERVICE  
U.S. COAST GUARD

# NNICC

DEPARTMENT OF STATE  
DEPARTMENT OF DEFENSE  
INTERNAL REVENUE SERVICE  
CENTRAL INTELLIGENCE AGENCY  
NATIONAL INSTITUTE ON DRUG ABUSE  
IMMIGRATION AND NATURALIZATION SERVICE  
OFFICE OF NATIONAL DRUG CONTROL POLICY

The NNICC Report is produced annually for the use of NNICC member agencies and other interested agencies of the Federal Government. The style, format, coverage, and content are designed to meet their specific requirements. Comments and queries are welcome and may be addressed to:

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## EXECUTIVE SUMMARY

In 1990, there was fluctuation in all indicators for cocaine. Diminished wholesale supplies were reported in major U.S. cities at mid-year. By year's end, however, cocaine was once again reported to be readily available. Movement in price and purity of cocaine also paralleled those of supply confirming the short term pressure on cocaine distribution undoubtedly caused by law enforcement disruption of trafficking in the United States and abroad throughout 1990. Cocaine prices fell at year's end but remained above those seen in 1989. Average purities at all levels (gram, ounce, and kilogram) for the year decreased from those observed in 1989. There were also decreases in most cocaine abuse indicators as well. In spite of these decreases, there was an increase in the amount of individuals who reported using cocaine daily or almost daily.

In Fiscal Year (FY) 1990, there was a decrease in the amount of cocaine seized in the United States. The decline is attributed to effective multi-national enforcement efforts which prevented, in part, multi-ton quantities of cocaine from reaching the United States. In addition, traffickers have diverted increasing amounts of cocaine to Europe where prices are higher. Control over cocaine trafficking to the United States remains in the hands of Colombian organizations. Cocaine continues to be shipped to the United States by these organizations primarily using traditional routes through Mexico and the Caribbean. There also appears to be greater division of labor within the trafficking organizations and a trafficking "service" industry continues to expand providing transportation and related services while engaging in polydrug smuggling.

Cocaine hydrochloride (HCl) production for 1990 is estimated to be somewhat higher than that

estimated for 1989. Law enforcement efforts resulting in the seizure of multi-ton drug shipments, chemicals, currency, and bullion in addition to the forfeiture of drug-related assets may have resulted in forcing traffickers to adopt more efficient means of cocaine production. Although multi-ton shipments of cocaine are still encountered, a general trend toward increased use of smaller but more frequent shipments of cocaine to the United States appears to reflect the success of concerted U.S. and foreign law enforcement.

The heroin abuse situation in the United States is characterized by the prevalence of high-purity Southeast Asian heroin in major U.S. metropolitan areas on the East Coast. Heroin available in the United States originates in Southeast Asia (the Golden Triangle composed of Burma, Laos, and Thailand); Mexico and Guatemala; and Southwest Asia (Afghanistan, Pakistan, and, to a lesser degree, Iran). New York City is a central hub for Southeast Asian heroin trafficking and distribution in the United States. Southeast Asian heroin is also shipped directly to the U.S. West Coast.

Major Southeast Asian trafficking organizations composed of ethnic Chinese and Sino-Thai criminals control the shipment of Southeast Asian heroin to the United States. The ethnic and clannish nature of these organizations makes law enforcement more difficult. Nigerian nationals, operating independently, frequently use Nigerian or other west African nationals as couriers to bring heroin into the United States. The heroin is often ingested by the courier.

Mexican heroin is found principally in southwestern and western states. Heroin from



Mexico and Guatemala is smuggled into the United States principally across the land border with Mexico. There is evidence that Colombian cocaine organizations have shipped limited quantities of heroin to the United States. It is not known, at this time, whether the heroin originated in Colombia or was simply purchased and transshipped.

Significant smuggling of Southwest Asian heroin into the United States also continues. Ethnic Middle Eastern traffickers continue to use established distribution networks in the United States for Southwest Asian heroin.

Marijuana remained the most commonly used illicit drug in the United States in 1990. Marijuana use has decreased in the past few years. Attitudinal changes and increased cost have contributed to this decrease. Mexico accounted for most of the marijuana consumed in the United States in 1990. In recent years, the proportion of marijuana cultivated in the United States, particularly in underground, indoor cultivation facilities, has increased. Marijuana is also imported in large quantities from the Far East. Growers in Thailand, Laos, and the Phillipines cultivate cannabis for eventual sale and consumption in the United States. This Asian marijuana is shipped on ocean-going vessels in commercial cargo direct to U.S. ports or on motherships from ports in the Far East to predetermined points just outside U.S. territorial waters. There, ships are met by smaller, faster smuggling vessels which bring the illicit cargo ashore for domestic distribution.

The Drug Enforcement Administration (DEA), in conjunction with other federal and state agencies, conducted an aggressive cannabis eradication program in 1990 in the United States. The effort resulted in the eradication of millions of plants, the arrest of thousands of violators, and the seizure of several thousand weapons. It is estimated that an eradication campaign conducted in Hawaii in 1990 eradicated almost 85 percent of that State's summer crop. As mentioned above, the number and sophistication of domestic indoor growing operations has increased over the past several years with interstate and intrastate growing operations emerging.

The Chemical Diversion and Trafficking Act of 1988 placed under Federal control the distribution of twelve precursor and eight essential chemicals used in the production of illicit **dangerous drugs**. The act also brought under Federal control the distribution of tableting and encapsulating machines. In 1990, 12 additional chemicals and their salts were added to those already under control. In addition, extensive diplomatic initiatives are currently underway to encourage the enactment of vigorous and stringent international chemical control legislation.

Clandestine laboratories produce most of the illicit dangerous drugs available in the United States. In 1990, 521 domestic clandestine laboratories were seized. Methamphetamine continued to be the most prevalent clandestinely produced dangerous drug. Clandestine manufacture of the drug is centered in California. There was increased availability of d-methamphetamine hydrochloride or "Ice" on the U.S. mainland during 1990. Seven "Ice" laboratories were seized in California. The sale of "Ice" continues to be controlled by Asian groups composed primarily of Koreans and Filipinos.

LSD remains a popular drug with the high school and, to a somewhat lesser extent, college population in the United States. This is attributed to its low price, ready availability, and relatively low dosage when compared to the 1960s. Demand for the hallucinogen PCP continues to decrease compared to the early 1980s. The demand has been displaced, to a certain degree, by the widespread availability of crack cocaine. MDMA, most available in Louisiana and Texas in 1990, continued to be used by a college population attracted by its fast acting nature and resultant euphoric effect. The euphoria is accompanied by feelings of relaxation and warmth without the hyperactivity associated with stimulants.

Effective legislation and international cooperation continued to result in decreases in availability, in the United States, of Methaqualone. Internationally, large amounts of the drug are still trafficked to and consumed in Southern Africa.

In the United States, benzodiazepines, often diverted from legitimate medical use, are frequently

sought by crack cocaine addicts to mitigate the adverse effects of cocaine consumption. DEA continued to cite widespread diversion of these drugs to the illicit market in 1990. Pharmaceutical products containing narcotics similarly continued in demand during 1990.

Controlled substance analogues, although still produced, are a relatively small part of the drug abuse problem when compared to the abuse of heroin, cocaine, and marijuana. However, in those areas where analogues are available, there have been instances of abusers suffering severe adverse reactions including death. Some analogues of narcotics, for example, may be thousands of times more potent than morphine. In 1990, an amphetamine analogue,

N, N-dimethylamphetamine was permanently placed on Schedule I of the Controlled Substances Act.

In 1990, considerable emphasis was placed by law enforcement on disrupting the flow of drug monies. These aggressive initiatives may have directly led to some cash shortages in major drug organizations and contributed to shortages of cocaine in the United States in 1990. Asset seizures have increased steadily in recent years. In FY 1990, the DEA seized assets worth over \$1.06 billion. Forfeiture proceedings were finalized against assets worth an additional \$427 million. Some \$330 million has been seized throughout the world in cases in which DEA has participated.

# I

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## COCAINE

### AVAILABILITY AND USE IN THE UNITED STATES

#### AVAILABILITY/PRICE/PURITY

In 1990, there was fluctuation in all cocaine availability indicators. At mid-year, diminished wholesale supplies were reported in major U.S. metropolitan areas. At year's end, however, cocaine was reported readily available. Fluctuation in price and purity also paralleled those in supply. By midyear, prices in most regions were at the highest levels in recent years while purity at all distribution levels fell to lows not seen since 1985. Prices nationally in late 1990 ranged from \$13,000 to \$40,000 per kilogram (2.2 pounds) compared to \$11,000 to \$35,000 reported in late 1989. In many areas, prices were higher by as much as 68 percent. Considering that average purity levels declined in 1990, the price, when expressed in terms of pure cocaine, rose even more. Prices fell at year's end but remained substantially above 1989 levels. Gram (.032 ounces) purities in 1990 averaged 54 percent compared to 66 percent in 1989. The average purity per kilogram in 1990 was 80 percent compared to 87 percent in 1989. Purity averaged 58 percent at the ounce level compared to 75 percent in 1989. Decreased shipments to an average 1,102 to 1,543 pounds (500 to 700 kilograms) and increased frequency of shipments were reported in many areas. In 1990, four cocaine HCl laboratories were seized in the United States. Although low, this is the first rise since 1985 when 33 such laboratories were seized.

#### USE

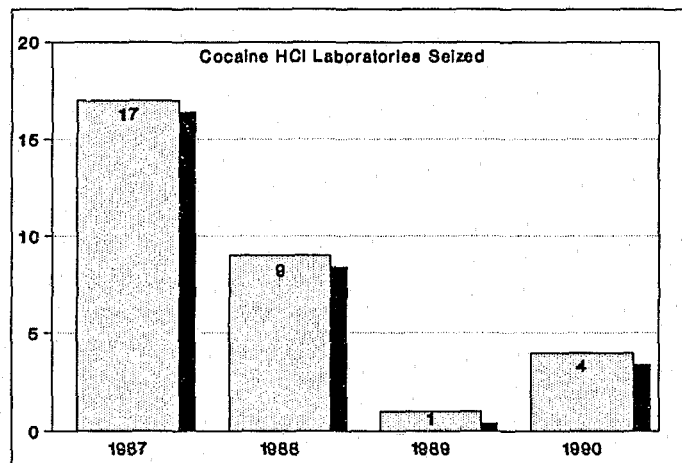
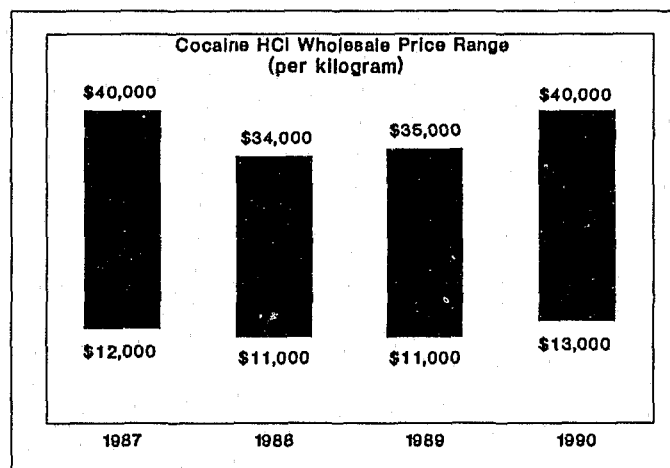
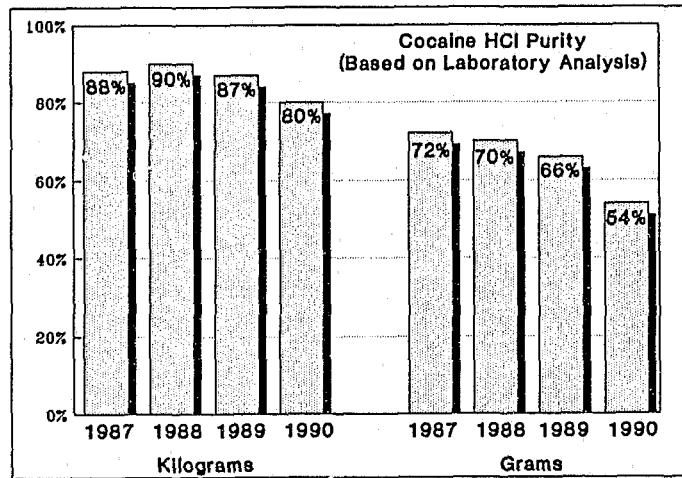
Significant declines appeared in cocaine abuse indicators in 1990. The National Institute on Drug Abuse (NIDA) sponsored National Household Survey (see glossary) reflects downward trending in numbers of current cocaine users. Gangland violence and drug-associated homicides, however, remain high.

In the past few years (1985-1990), reported current cocaine use (use in the past month) decreased some 72 percent. Current users declined from 2.9 million (1.5 percent of the population age 12 and older) in 1988, to 1.6 million (0.8 percent) in 1990. Among the 6.2 million past-year cocaine users in 1990, 662,000 (10.6 percent) used cocaine once a week or more, a decline from 862,000 reported in 1988. However, 336,000 (5.4 percent) reported daily or almost daily use compared with 292,000 in 1988. The number of current crack users stayed stable at nearly half a million.

Use of illicit drugs by high school seniors dropped according to the National High School Senior Survey (see glossary). Some 47.7 percent surveyed stated use of an illicit drug at least once. This is down from 66 percent in the early 1980s. Use of cocaine within the past year decreased to 5.3 percent in 1990, the lowest figure since 1975.

Reported current cocaine use fell to 1.9 percent. Daily use fell to 0.1 percent. The proportion of

## U.S. Cocaine HCl Trafficking Indicators



Source: Drug Enforcement Administration

students using crack declined to 1.9 percent from the 3.1 percent reported in 1989. Crack use within the past month fell to 0.7 percent, one-half that of 1.4 percent in 1989 and the lowest figure since 1975.

The National High School Senior Survey does not include data on dropouts whose use may be higher. Follow-up surveys of some 12,000 graduates of classes from 1976-1988, however, show annual and current use of cocaine down from 10.8 percent to 8.6 percent and 3.8 percent to 2.4 percent respectively among these young adults. Follow-up data on college students show lifetime use declining from 14.6 percent in 1989 to 11.4 percent in 1990; annual use dropping from 8.2 percent to 5.6 percent; and current use down from 2.8 percent to 1.2 percent.

## TRAFFICKING

In FY 90, some 114 tons (104 metric tons) of cocaine were seized in the United States, a 13 percent drop from 1989. The decline is attributed, in part, to effective multi-national enforcement and the diversion by traffickers of increasing amounts of cocaine to Europe. Seizures along the U.S. Southeast border came to more than 39 tons (36 metric tons) in 1990, a 22 percent increase over 1989. Control over cocaine trafficking to the United States remains with Colombian organizations. There are indications that Bolivians are becoming involved in cocaine HCl distribution in Europe and the United States. Both Bolivian and Peruvian criminal organizations continue to exert influence over cocaine trafficking in their countries and neighboring nations. Significant seizures continued in Colombia, Guatemala, Mexico, and the Caribbean in 1990.

Drug-laden flights from Colombia to northern Mexico continued in 1990. A joint U.S./Mexico Northern Border Response Force (NBRF) formed in 1990 forced traffickers to stage further south and into Guatemala. Large cocaine staging and transshipment areas were reported in Mexico as well as in South and Central America. Reports suggest limited cooperation among drug cartels to include occasional pooling of transportation resources.

In 1990, the amount of cocaine estimated to have transited Mexico increased in spite of intensive interdiction. Authorities seized a record 53 tons (48.5 metric tons) of cocaine in 1990. As cited, the creation of the NBRF forced traffickers to stage further south. Traditional border smuggling organizations in Mexico move cocaine, heroin, and marijuana into the United States using a variety of ingenious means. The use of pack animals to ferry cocaine across the Mexican border, for example, increased in 1990. In October, 2.4 tons (2.2 metric tons) were seized from smugglers using horses. The Mexican military, in addition to the police, are regularly involved in anti-drug missions and the Army often assigns up to 25 percent of its troops to the effort. Conversely, traffickers are well armed and often resist enforcement. Some 64 federal agents and 24 soldiers have died since 1988 in Mexico.

Drug smugglers have proven their resiliency in the past and they will undoubtedly shift delivery methods to spread risk in response to the NBRF and other successful enforcement or interdiction efforts. Increased use of airstrips in southern Mexico, Guatemala, and Honduras has occurred as the result of interdiction actions in northern Mexico.

Transshipments of cocaine through Guatemala increased in 1990 partly as a result of increased interdiction programs in Mexico. Uncontrolled landing strips continue to be used to refuel aircraft from Colombia or to offload cocaine for transshipment by land, sea, or air to the United States. The government, working with U.S. law enforcement, seized or controlled the delivery of over 16.5 tons (15 metric tons) of cocaine. Nevertheless, corruption continues to be a concern for U.S. law enforcement. In 1990, three Army officers were arrested on drug charges and the mayor of Zacapa Department's capital city was arrested for trafficking several tons of cocaine monthly in tractor trailers to the United States.

Trafficking continued in Central America with several nations used as transit points for cocaine headed north to the United States. Throughout Central America, cocaine is moved by private automobile or aircraft, by drug courier on commercial

flights, or concealed in maritime cargo. Smugglers even occasionally used hull-attached compartment devices to ship cocaine by ocean-going vessel.

Increased use of **Belize** is evident in seizures, crashes of drug-laden aircraft, and increased availability of cocaine locally. In October 1990, a plane was seized with some 602 pounds (273 kilograms) of cocaine and police report seizing some 1,393 pounds (632 kilograms) total in 1990. **Costa Rica's** importance rose in 1990 with large amounts of cocaine transiting the small nation. There are unverified reports of small cocaine processing laboratories operating in Costa Rica. Costa Rican police seized 1.25 tons (1.14 metric tons) of cocaine including 992 pounds (450 kilograms) in a controlled delivery to the United States. Authorities seized drug-related assets valued at \$2,650,000.

**El Salvador** is growing in importance as a transit country as well. Cocaine is moved on commercial aircraft through civil and military airports. Suspect private planes are reportedly using small rural airstrips. Criminals involved in smuggling illegal aliens, stolen cars, and counterfeit U.S. currency to the United States may also have drug connections. Salvadoran officials believe that coca cultivation has been attempted on a small scale in the vicinity of San Salvador and in the Santa Ana area.

**Honduras** lies midway along the route to North America from Colombia and has a long, virtually unguarded Caribbean coastline. There are also a number of offshore islands traditionally used by smugglers. Smuggling of illicit drugs by aircraft and small boats easily goes undetected, and shipments can be consolidated in relative security for onward shipment by land, sea, or air. Information obtained in conjunction with seizures outside Honduras suggests significant trafficking. In 1990, a group of Colombians, Guatemalans, and Hondurans was arrested in Honduras. The group reportedly shipped some 5.5 tons (5 metric tons) of cocaine to the United States over the previous three years.

**Nicaragua** may play a larger role in cocaine trafficking in the future given its proximity to traditional air and sea smuggling routes to the United States. In April 1990, the government seized 353

pounds (160 kilograms) of cocaine. In June, a Colombian aircraft with over 661 pounds (300 kilograms) crash landed in Nicaragua near Honduras. Rumors also persist of Sandinista involvement in drug trafficking as they control both the police and the military.

Large seizures of cocaine in 1990 suggest that **Panama** remains a key transit nation. In 1990, police seized over 5.5 tons (5 metric tons) of cocaine with some 2.2 tons (2 metric tons) seized in the free port of Colon. Panama remains a money laundering center for proceeds derived from the cocaine trade.

The eastern Caribbean continued to be a major operational area for traffickers. Shifting of air smuggling away from southeastern U.S.-based radars continued in 1990. Increased enforcement in **The Bahamas** has forced some traffickers to adopt routes which avoided that country and its waters. As a result, cocaine seized in The Bahamas decreased from 6 tons (5.48 metric tons) in 1989 to 4 tons (3.5 metric tons) in 1990. Airdropping of drugs from twin engine aircraft to "go-fast" boats continued in 1990. Favored airdrop sites shifted from Cay Sal Bank/Andros Island to southeast Bahamas in the vicinity of Mayaguana. Intelligence indicates that some smugglers are using legitimate flight plans to mask their activity.

Small amounts of cocaine are also smuggled from the Caribbean into the United States aboard cruise ships. Potentially substantial amounts may also enter the United States in commercial cargo containers entering or transiting U.S. ports - a threat which is currently being examined by U.S. law enforcement agencies. In 1990, drugs were often smuggled from The Bahamas by privately owned pleasure boats into Florida. The cocaine was picked up on Andros Island, Bimini, Exuma, Grand Bahamas Island, and Long Island. Following a lull, airdropping in Bahamian waters increased in October 1990. In December 1990, several public officials were arrested on trafficking charges in The Bahamas. There is substantial cooperation with the United States on law enforcement matters. Bahamian enforcement personnel ride U.S. Coast Guard ships and assist in the search of vessels in Bahamian waters. In May 1990, a Bahamian shiprider seized 1,257 pounds

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(570 kilograms) of cocaine from a ship which had been stopped and boarded.

As noted above, drug flights were pushed further south in Bahamian waters. More airdropping also occurred near Cuba, the Dominican Republic, Jamaica, and Puerto Rico. Traffickers transit Cuban air and sea space to avoid U.S. interdiction. The Cuban government attempts to deny the use of its territory to traffickers as reflected by increased reports of Cuban searches of suspect vessels in 1990. The Cuban government stated its intent to shoot down air space violators. Yet, in 1990 no downings took place. Jamaica's long coastline and small security force make conditions ideal for drug smuggling. The nation's strategic position near sailing routes also enhances its attractiveness as a way station for drug smuggling vessels. Couriers also transit Jamaican airports with cocaine.

Hispaniola is used by traffickers as a transit point for cocaine as well. The Dominican Republic's proximity to the United States and its large numbers of uncontrolled airstrips and coastal areas make it vulnerable to drug trafficking. Local criminals with links to Dominican gangs in New York engage in cocaine trafficking. Cocaine seizures in the Dominican Republic in 1990 doubled to 3 tons (2.59 metric tons) from the previous year. In September 1990, approximately 1.5 tons (1.4 metric tons) of cocaine was seized ashore after being landed from a ship anchored off the southern coast. The number of Haitians carrying multi-pounds of cocaine out of Haiti to the United States increased in 1990. During a three month timespan in 1990, some 30 Haitian couriers were arrested with a total of 132 pounds (60 kilograms) in Miami and San Juan.

Limited use of direct flights to Canada or New England from Latin America continued in 1990. Traffickers also increasingly used staging areas near or just inside U.S. borders. Smuggling of liquid cocaine occurred in personal effects such as shampoo, hair conditioner, mouth wash, and toiletries as well as in liquor and beer. Other techniques noted in 1990 included use of concealed compartments in metal pallets, cocaine resembling coffee beans, compressed cocaine pellets for body carries, and cocaine imbedded in tennis shoes and textiles.

Primary destinations for multi-hundred pound or ton shipments of cocaine entering the United States include Houston, Los Angeles, Miami, New York, and Phoenix. Los Angeles, Miami, and New York are also pick-up points for proceeds. In addition, both cartels maintain operational headquarters in major U.S. cities to control wholesale distribution networks. In 1990, traffickers also shifted distribution patterns from domestic staging areas to avoid law enforcement. In response to enforcement, traffickers made greater use of circuitous land routes. Automobiles equipped with sophisticated concealed compartments were also used to move drugs domestically.

## DEVELOPMENTS IN SOURCE REGIONS

### PERU

**Cultivation:** Most of the world's coca is grown in Peru. In 1990, an estimated 299,611 acres (121,300 hectares) of coca were cultivated in Peru. Estimated 1990 coca leaf production for Peru is 152,130 tons (138,300 metric tons) with a potential yield of 440-473 tons (400-430 metric tons) of cocaine HCl. Some 65 percent of the illicit cultivation in Peru occurs in the Upper Huallaga Valley (UHV) which includes portions of Huanuco, San Martin, and Ucayali Departments. Other illicit growth occurs in La Convencion and Lares valleys in Cuzco and in Huanta and La Mar Provinces along the Rio Apurimac in the Ayachucho Department. There are smaller areas of growth in Pasco and Puno Departments. In addition, coca cultivation in the UHV appeared in the northern UHV in 1990 beyond range of government heliborne operations, a situation that has been corrected with the establishment of additional refueling points.

**Processing:** Peru is a major processor of coca paste and cocaine base. Most processing occurs in the UHV. Coca leaves are processed into paste in crude maceration pits positioned near cultivation sites. Coca paste is collected for processing into cocaine

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base at clandestine laboratories. Cocaine base laboratories range from small single structures to more sophisticated complexes. The average laboratory produces about 441 pounds (200 kilograms) of base per day. There are also a small number of cocaine HCl laboratories in Peru. One cocaine HCl laboratory was seized in the Lima area in 1990. Cocaine HCl production, though not widespread, is rising. Traffickers are reportedly moving some of their laboratories from isolated, jungle locations into or near towns where corrupt officials or dependent workers can provide protection. Smaller laboratories are now favored to spread risk in the event of seizure. Essential chemicals required by clandestine laboratories in Peru are diverted from legitimate chemical shipments entering Peru's seaports. Chemicals are also reported to enter Peru from Brazil, Chile, and Ecuador.

Although Colombians control a sizeable portion of the cocaine processing in Peru, Peruvian traffickers are developing independent cocaine base operations. Upwards of 20 distinct Peruvian organizations have been identified. In the last half of 1990, the price of coca derivatives increased steadily in the UHV. This price increase is attributed, in part, to self-limited cultivation by campesinos (peasant farmers) in response to *Sendero Luminoso* (SL) (Shining Path) Maoist insurgent demands for a greater share of cocaine base profits. The SL attempted, with limited effect, to set prices in 1990 among Colombian traffickers, coca growers, and laboratory operators in Peru with anecdotal evidence that non-compliers were subject to execution. Tax was charged by the insurgents on coca leaf, coca paste, and cocaine base. The SL has also extended its area of influence east and south to the Apurimac, Ene, Tambo, and Ucayali river valleys. There, the insurgents are reportedly forcing growers to abandon legitimate crops and plant coca.

Prices for coca products fluctuated in Peru in 1990. Pre-August prices averaged \$400 to \$800 per kilogram of cocaine base, \$180 to \$280 per kilogram for coca paste and \$40 to \$80 per hundredweight of dried coca leaf. Post-August prices rose to \$1,200 per kilogram for cocaine base, \$300 to \$500 per kilogram of coca paste, and \$140 per hundredweight of coca leaf.

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**Trafficking:** Cocaine base is moved by air, and, to some extent, by river from UHV staging areas to Colombia for cocaine HCl conversion. Some cocaine base is also shipped by air, river, or overland to Brazil or Ecuador. According to some reports, cocaine base is also transported to Bolivia for final processing and shipment to the United States and Europe.

**Control:** Eradication in Peru has been hampered as coca cultivation areas are also areas of SL presence. In addition, rivalry exists between the military and police in the region. In 1990, the military imposed a prior notice requirement on police operations which led to the leaking of information. The requirement for prior notice was subsequently rescinded. Until December 1990, the military had also imposed restrictions on operations in key trafficking towns such as Uchiza.

From February 1989 to March 1990, eradication virtually ceased due to deteriorating security in the UHV. When re-initiated in March 1990, eradication was limited to coca seedbeds. Some 233,240 square meters were eradicated (a potential 38,421 acres or 15,555 hectares of mature coca plants). Widespread objections preclude large-scale herbicide spraying in Peru. In 1990, government interdiction resulted in destruction of 159 cocaine base laboratories and one cocaine HCl laboratory, seizure of several tons of coca paste, 4.5 tons (4.1 metric tons) of cocaine base, 1.1 tons (1.0 metric tons) of cocaine HCl and the cratering of 19 airstrips.

## BOLIVIA

**Cultivation:** Bolivia is the second largest cultivator of coca. In 1990, an estimated 124,241 acres (50,300 hectares) was cultivated compared to 130,663 acres (52,900 hectares) in 1989. The crop potentially produced 70,840 tons (64,400 metric tons) of coca leaf with a potential cocaine HCl yield of 259 to 435 tons (235 to 395 metric tons). Primary growing areas are in the Apolo, the Chapare, and the Yungas de La Paz. About 75 percent of the illicit cultivation occurs in the Arani, Carrasco, and Chapare Provinces in Cochabamba Department. In the Yungas,



cultivation occurs between Guanay and Inquisivi, cities northeast of La Paz on the eastern slope of the Andes. Nearly all of the legal cultivation of some 34,827 acres (14,100 hectares) occurs in the Yungas.

In Bolivia, thousands of small farmers plant coca plots which average between 1 and 2 acres. Migrant laborers are used to harvest the crop four times a year. Average monthly dry leaf price fluctuated from \$8 to \$53 per hundredweight in 1990. The break even cost in production and transportation is generally thought to be about \$30 per hundredweight.

**Processing:** Dried coca leaves are processed throughout the Chapare in maceration pits at crude coca paste laboratories. The coca paste is refined into cocaine base or cocaine HCl in the Beni, Cochabamba, or Santa Cruz Departments. Counternarcotics operations are affecting both price and acquisition of product in Bolivia. Traffickers are producing more *agua rica* (liquid paste) as *agua rica* can be stored longer and subsequently turned into coca paste or cocaine base. Low prices for coca paste and occasional non-payment by Colombian traffickers have also caused Bolivian traffickers to move into cocaine base and cocaine HCl production.

Due to aggressive enforcement in 1990, major traffickers moved some cocaine conversion operations to less accessible areas in the Chapare and the Beni. Colombian and Bolivian traffickers integrate operations vertically from wholesale paste purchase through cocaine HCl refining and export. The less profitable production of paste production is left to farmers and middlemen. A growing share of Bolivian coca paste is now refined into cocaine base or HCl in Bolivia. Quality of processing varies widely with 4.4 to 9 pounds (2.0 to 4.0 kilograms) of coca paste required to produce a kilogram of cocaine base. Cocaine base converts to cocaine HCl at about one to one. Speculation is that up to one third of Bolivian coca paste may be processed in Bolivia prior to export. Chemicals required for processing generally enter Bolivia by truck from Chile or by train and aircraft from Argentina and Brazil. Paraguay may also be a source for chemicals.

**Trafficking:** Most coca paste and cocaine base is shipped to Colombia in private aircraft from airstrips

on ranches in the Beni. Most cocaine HCl produced in Bolivia is smuggled out of South America through Argentina, Brazil, or Colombia. Occasionally, Bolivian cocaine transits Mexico on its way to the United States. Reportedly, rivers bordering Brazil are used to move essential chemicals into Bolivia and coca products out of the country. Increasingly, cocaine HCl is moved through Argentina and Paraguay. Some 30 to 35 major organizations manage the traffic in Bolivia. In Bolivia, processing, storage, and transshipment facilities are spread over the Beni, Pando, and rural Santa Cruz Departments.

**Control:** In 1990, sustained Bolivian enforcement efforts led to depressed coca leaf prices. Some 20,007 acres (8,100 hectares) of coca were eradicated. The number of cocaine HCl and coca paste laboratories destroyed in 1990 nearly doubled. The "Meco" Dominquez organization, a major trafficking group, was also disrupted. Dominquez and 19 associates were arrested and the organization's cocaine laboratories were destroyed. Some \$300,000 in cash, nine aircraft, and valuable real estate and commercial enterprises were seized incident to the arrest of Dominquez. Other major traffickers arrested included Mario Ariaz-Morales and Martin Morales-Daczer. Police and military operations were stepped up in 1990. The Navy increased riverine patrols and the Army conducted special operations against laboratories.

## COLOMBIA

**Cultivation:** Colombia is third in worldwide coca cultivation with all cultivation illicit. There is widespread cultivation in the *llanos* (plains) which encompass almost one half of eastern Colombia. Heavy growth occurs in Caqueta, Guaviare, Putumayo, and Vaupes Departments. There is substantial crop expansion in Bolivar Department as well as cultivation in south and southwest Colombia. Surveys confirm diminution in cultivation around San Jose del Guaviare and some increase in the southern *llanos* near Calamar. Cultivation in 1990 is estimated at 99,047 acres (40,100 hectares) compared to 104,728 acres (42,400 hectares) in 1989. Dry coca leaf production in 1990 was 35,310

tons (32,100 metric tons) potentially yielding 72 tons (65 metric tons) of cocaine HCl, a decrease from 1989's estimated 37,290 tons (33,900 metric tons) of dry coca leaf and 77 tons (70 metric tons) of cocaine HCl.

**Processing:** Most of the cocaine HCl in the world is produced in Colombia. Laboratories there use some domestic cocaine base but rely mostly on Bolivian- and Peruvian-produced cocaine base. Colombian cocaine laboratories range from small, simple operations to large, sophisticated laboratory complexes which are often located in remote areas. Government initiatives to control the chemical trade have prompted traffickers to adopt new processing formulas which use alternative chemicals, as well as require production and recycling of essential chemicals on-site at clandestine laboratories.

**Trafficking:** Over 150 Colombian groups traffic in cocaine with control resting in "cartels" centered in Medellin and Cali. Coca paste, cocaine base, and cocaine HCl are smuggled into Colombia with cocaine HCl smuggled out of Colombia primarily by private aircraft. Aircraft use numerous unimproved and private airstrips moving multi-hundred pound shipments into the Caribbean, where they are air dropped to waiting vessels, or into Mexico or Central America, particularly Guatemala, for transshipment to the United States. Multi-ton shipments of cocaine HCl destined for abroad are concealed in maritime commercial cargo with smaller amounts smuggled out by every imaginable means. Colombian insurgent groups such as the Revolutionary Armed Forces (FARC) and the Army of National Liberation (ELN) also benefit from the illicit trade. They "tax" narcotics profits and protect crops, laboratories, and storage facilities, occasionally extracting payment in weapons. Insurgent groups have also carried out kidnappings and terrorism in support of traffickers' aims.

**Control:** In 1990, the Colombian National Police and the military targeted the drug trafficking infrastructure in Colombia. Enforcement resulted in seizure or destruction of nearly 50 tons (45 metric tons) of cocaine HCl and some 6.6 tons (6 metric tons) of cocaine base. Included was a strike against a major transportation complex which resulted in a

20 ton (18 metric ton) seizure and destruction of 24 airstrips. More than 900,000 gallons of essential chemicals, 320 laboratories, and over 125 airstrips were destroyed during the year. Thirty-six drug aircraft were seized in Colombia in 1990. In Colombia, coca eradication occurs manually in conjunction with laboratory raids. Some 2,223 acres (900 hectares) were eradicated in 1990. In 1990, the government extradited 14 traffickers. Due to potential changes in Colombian law, however, the future of extradition is in jeopardy.

In late 1990, the government offered reduced sentences to traffickers who surrender and confess to a narcotics offense. As of December 1990, five traffickers and one terrorist turned themselves in including Fabio Ochoa on December 18, 1990. (Jorge Luis Ochoa subsequently surrendered on January 15, 1991 and Juan David Ochoa surrendered to Colombian authorities on February 16, 1991.) Extradition will likely be totally suspended if the issue is put to a vote by the Constituent Assembly scheduled to adjourn in July 1991. In 1990, police killed several mid-level enforcers and lieutenants of major Medellin traffickers in gun battles ancillary to raids. The government also paid a heavy price for their action with 420 deaths sustained by assassination or during enforcement operations. Government pressure on Medellin organizations indirectly resulted in expanded influence for Cali traffickers.

## DEVELOPMENTS IN OTHER NATIONS

### ARGENTINA

Bolivian cocaine base is processed in Argentina into cocaine HCl and transhipped to Europe, or to a lesser extent, the United States. Small cocaine HCl laboratories are reported in Corboda, Jujuy, Salta, and Tucuman Provinces. Three such laboratories were seized as of November 1990. Argentina also makes essential chemicals which are illegally shipped to clandestine laboratories in Bolivia. Cocaine HCl

### COCAINE

<b>Cocaine Production Estimate</b>				
<b>(U.S. Customary)*</b>				
<b>Potential Cocaine HCl Production by Country, 1989 - 1990</b>				
		<b>Net Coca Cultivation (acres)</b>	<b>Estimated Coca Leaf Yield (tons)</b>	<b>Potential Cocaine HCl Capacity (tons)</b>
Peru	1989	297,388	151,030	440 - 468
	(mature)	(251,940)	(204,930)	(594 - 638)
	1990	299,611	152,130	440 - 473
	(mature)	(265,278)	(216,590)	(627 - 671)
Bolivia	1989	130,663	75,130	264 - 451
	(mature)	(91,637)	(85,360)	(259 - 440)
	1990	124,241	70,840	259 - 435
	(mature)	(96,824)	(89,100)	(270 - 457)
Colombia	1989	104,728	37,290	77
	1990	99,047	35,310	72
<b>Potential Cocaine HCl Production:</b>		1989 781 - 996 tons (mature 930 - 1,155 tons)		
		1990 770 - 979 tons (mature 968 - 1,199 tons)		
Source: <i>International Narcotics Control Strategy Report 1991</i>				

\*See page 10 for metric conversion.

Note: *The International Narcotics Control Strategy Report 1991 (INCSR)* states cultivation in hectares and yields in metric tons. All figures have been converted to acres or short tons, as appropriate, in the chart above. A new procedure introduced in the *INCSR* this year for calculating coca leaf production is shown in parenthesis. Previous methods did not deduct immature, non-producing fields from net cultivation before calculating production. Multiple harvests of coca do not begin until plants are at least two years old. In parenthesis, only mature cultivation is used to calculate production.

COCAINE

Cocaine Production Estimate				
(Metric)				
Potential Cocaine HCl Production by Country, 1989 - 1990				
		Net Coca Cultivation (hectares)	Estimated Coca Leaf Yield (metric tons)	Potential Cocaine HCl Capacity (metric tons)
Peru	1989	120,400	137,300	400 - 425
	(mature)	(102,000)	(186,300)	(540 - 580)
	1990	121,300	138,300	400 - 430
	(mature)	(107,400)	(196,900)	(570 - 610)
Bolivia	1989	52,900	68,300	240 - 410
	(mature)	(37,100)	(77,600)	(235 - 400)
	1990	50,300	64,400	235 - 395
	(mature)	(39,200)	(81,000)	(245 - 415)
Colombia	1989	42,400	33,900	70
	1990	40,100	32,100	65
Potential Cocaine HCl Production:		1989 710 - 905 metric tons (mature 845 - 1,050 metric tons)		
		1990 700 - 890 metric tons (mature 880 - 1,090 metric tons)		
Source: <i>International Narcotics Control Strategy Report 1991</i>				

NOTE: According to recent UHV Reduction Agency (CORAH) and U.S. Agency for International Development (USAID) reports, the dry leaf yield of mature coca in the UHV ranges between 2.0 and 2.7 metric tons per hectare. A mean yield factor of 2.3 metric tons is used for this area. Other areas of Peru have lower yields similar to the Yungas in Bolivia. Last year's reported yield of 1.14 metric tons is used for areas of Peru outside the UHV. According to Bolivia's Coca Eradication Directorate (DIRECO), mature coca leaf yield averages 2.7 metric tons in the Chapare and 1.0 metric tons in the Yungas.

The conversion rate for calculating potential cocaine HCl production from dry leaf is 322-345:1 in Peru and 195-330:1 in Bolivia. Production in Colombia is determined by multiplying a yield factor of .8 metric tons per hectare by net cultivation. All Colombian cultivation is assumed to be mature. The conversion rate for Colombia is 500:1.

#### COCAINE

is smuggled from Bolivia, Chile, and Paraguay by courier to Argentina on commercial aircraft and overland. Shipment is then made to Europe and the United States by air courier or concealed in maritime cargo. Seizures in 1990 at the international airport in Buenos Aires nearly tripled to 1,102 pounds (500 kilograms). An additional 542 pounds (246 kilograms) were seized at the port of Quequen. The organizations responsible for major trafficking in Argentina are primarily Bolivian using Argentine couriers. Colombian traffickers are also reportedly operating in Argentina.

## BRAZIL

Brazil is a major legal producer of ether, acetone, and other essential chemicals used in cocaine processing. Despite control, substantial amounts of the chemicals are diverted to illicit cocaine processing laboratories in Bolivia, Colombia, and Peru. The number of such clandestine cocaine HCl laboratories in Brazil may be increasing. Four laboratories were seized in 1990. Cocaine HCl seizures by Brazilian authorities in 1990 rose by 29 percent to some 2.4 tons (2.2 metric tons). Most trafficking through Brazil involves coca products refined in neighboring countries which are being transshipped to the United States and Europe. Maritime smuggling occurs out of the ports at Belem and Manaus. Corumba, Recife, Rio de Janeiro, and Sao Paulo are known land and air transshipment points. Virtually all major operations in Brazil are controlled by Colombians, Bolivians, or Peruvians. To date, Brazilians participate mainly in support roles. Several Brazilian cases also suggest connections between Colombian traffickers and Italian criminal groups intent on smuggling cocaine through Brazil to Europe and the United States.

Brazilian *epadu* variety coca is cultivated primarily in remote areas of Amazonas State by Indians working for Colombians. Police reconnaissance in Amazonas during 1990 revealed significantly diminished coca cultivation. Although coca was not found in most former cultivation areas, some 15.4 tons (14 metric tons) was destroyed. New growth was discovered in northwestern Amazonas.

## ECUADOR

An important transit nation for chemicals used by clandestine laboratories in Colombia and Peru is Ecuador. Ecuador is also a minor cultivator of coca and a few clandestine laboratories have been seized in the country. A small number of laboratories reportedly operate near Colombia and Peru. Chemicals are often trucked from Guayaquil into eastern jungles. Once there, they are moved into Colombia by truck or river boat. Ecuador is also a transit country for finished Colombian coca products bound for the United States and Europe. Most product leaves Ecuador by sea from Guayaquil. During the first six months of 1990, 666 pounds (302 kilograms) of cocaine were seized in the United States from ships and aircraft originating in Ecuador. During the same time frame, approximately 331 pounds (150 kilograms) were seized at U.S. airports. In 1990, Ecuadoran authorities seized 1,236 pounds (561 kilograms) of cocaine HCl and 1,559 pounds (707 kilograms) of coca paste and cocaine base.

## PARAGUAY

Another transit route from Bolivia to Brazil and Argentina runs through Paraguay with unpatrolled borders facilitating trafficking. Reportedly, chemicals are also shipped through Paraguay to Bolivia. Some members in the Paraguayan military have been involved in overseeing some trafficking. In July 1990, a plane crashed with 1,102 pounds (500 kilograms) of cocaine and the government relieved two generals for allowing the drugs to transit their area of responsibility. On September 13, 712 pounds (323 kilograms) and \$210,000 were seized from a Bolivian plane at a military airstrip. There is also a large overseas Chinese population in Paraguay. There is speculation that links may exist to Chinese criminal organizations such as the 14K Triad of Hong Kong which may be trafficking in heroin or engaged in money laundering.

## **VENEZUELA**

Colombian cartels use Venezuela to transit cocaine destined for Europe and the United States. Some 4.3 tons (3.9 metric tons) of cocaine were seized in Venezuela in 1990 along with an additional 1.9 tons (1.7 metric tons) of coca products. Cocaine enters Venezuela from Colombia and is transshipped by air courier, commercial air cargo, or in sea freight. Stockpiling of cocaine in Venezuela was reported. Coca cultivation, although not yet significant, is occurring along the border with Colombia. Some coca processing may also be taking place in the same region. Seizure data suggests that greater numbers of Venezuelans are now directly involved in trafficking. Venezuela is also used as a transit country for essential chemicals diverted to clandestine laboratories in Colombia. Colombian and Venezuelan traffickers have reportedly made use of Venezuelan cultural connections with Italy to forge links with Traditional Organized Crime groups involved in the distribution of cocaine in Italy and Europe.

## **EUROPE**

Increasingly larger quantities of cocaine are destined for Europe where overall prices remain higher than those in the United States. France experienced increased cocaine availability in Paris and in southern France near Italy, Spain, and Switzerland. South American traffickers increased operations to and through Italy and sought links with organized crime families through cultural and ethnic bridges in Brazil and Venezuela. The use of Portugal and Spain as entry points for cocaine continued at significant levels again reflecting the use of cultural, ethnic, and historical links with populations in Latin America. South American violators took advantage of historical and cultural links between Suriname and The Netherlands to ship cocaine for distribution in Europe. There were

a few cases in 1990 in which the Soviet Union was used as a transit point for cocaine from South America destined for western Europe. Cocaine seizures in the United Kingdom during the first six months of 1990 increased 100 percent to 5.5 tons (5 metric tons).

## **THE FAR EAST**

There are indications of increased cocaine trafficking through Japan. Since 1988, South American traffickers may have been attempting to raise demand for cocaine in Japan. Japanese prosperity attracts traffickers looking to expand markets. In 1986, cocaine prices were very high at \$160 to \$180 per gram and \$160,000 to \$180,000 per kilogram. In early 1989, the price per kilogram dropped to \$85,000. By late 1989, price ranged from \$70,000 to \$75,000. The average price as of February 1990 was \$50,000 to \$65,000. Intelligence reveals Japanese organized crime (Yakuza) involvement in domestic cocaine trafficking. In fact, any significant expansion of the cocaine trade within Japan by South American cocaine traffickers can only come through collaboration with the Yakuza. It is believed that the Yakuza would not tolerate any significant cocaine trade in Japan absent their direct involvement and control. In most instances, cocaine seized by Japanese authorities for domestic consumption was transported from the United States.

There have been limited crack cocaine seizures by Japanese police. Traffickers will likely continue to exploit the potential of Japan. Japan could possibly serve as a transshipment point for cocaine destined for the United States given the occasional routing of oceangoing cargo ships from Latin America to the Far East prior to calls on U.S. West Coast ports. In 1989, the Japanese National Police seized 30 pounds (13.6 kilograms) of cocaine. In 1990, from January to June, 132 pounds (60 kilograms) were confiscated.

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## **COCAINE**

# II

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## OPIATES

### AVAILABILITY AND USE IN THE UNITED STATES

#### AVAILABILITY/PRICE/PURITY

The current U.S. domestic heroin situation is characterized by the predominance of high purity, retail-level heroin of Southeast Asian origin in a number of major East Coast cities. Mexican heroin, much of which is high-purity black tar, continues to dominate supplies in most areas on the West Coast. Southwest Asian heroin predominates in Chicago and in Puerto Rico.

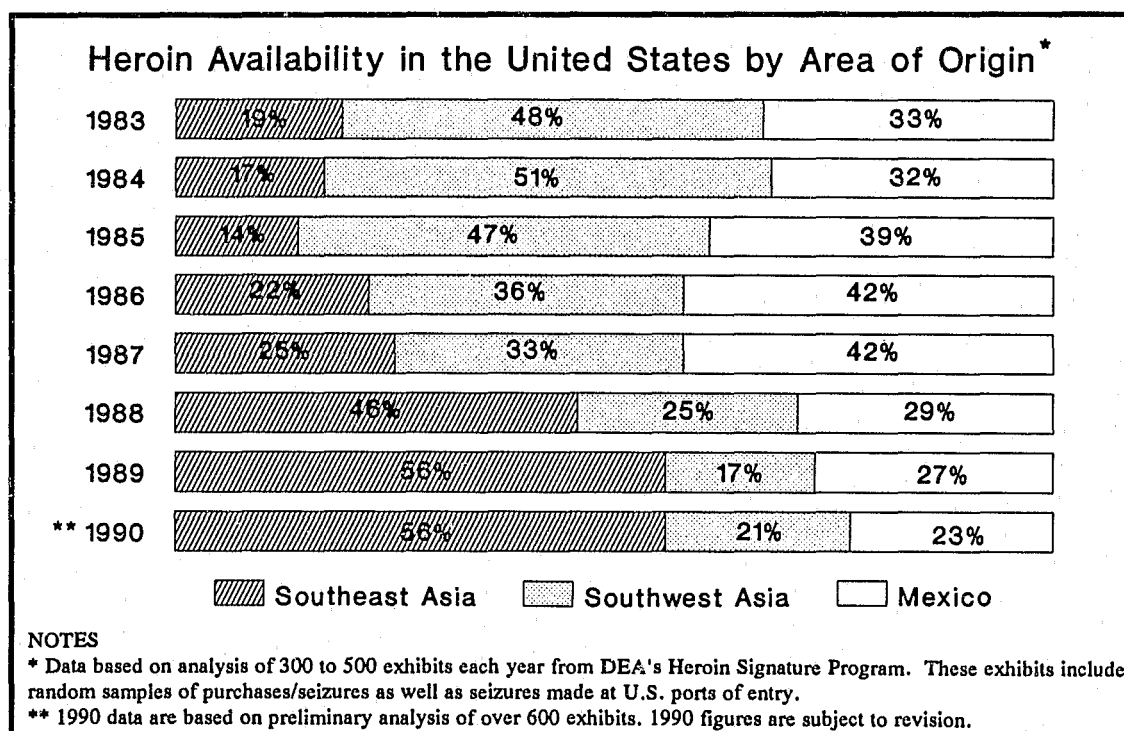
Heroin available for use in the United States originates from three primary regions; Southeast Asia, Mexico, and Southwest Asia. According to DEA's Heroin Signature Program (HSP) (see Glossary), the general trend since 1985 shows a rather substantial increase in the proportion of Southeast Asian heroin samples analyzed combined with a significant decline in the proportion of Southwest Asian and, to a lesser extent, Mexican heroin.

In 1985, Southeast Asian heroin constituted 14 percent of the samples analyzed in the HSP. By 1990, the percentage had escalated to 56 percent of the samples. Southeast Asian heroin is readily available on the East Coast. In 1990, Mexico was the source of most heroin confiscated in the western and southwestern United States and constituted 24 percent of that sampled in the HSP, down from 39 percent

in 1985. The Southwest Asian countries of Afghanistan, Pakistan, and, to a lesser extent, Iran were the origin of about 20 percent of the heroin sampled in the program in 1990 as compared to 47 percent in 1985. Such heroin predominates in Chicago and Puerto Rico.

The average purity of all heroin samples analyzed through DEA's Domestic Monitor Program (DMP) (see Glossary) was 18.2 percent in 1990. Due to the addition of Miami, Puerto Rico, Washington, D.C., Seattle, and San Francisco to the DMP in 1990, comparisons with 1989 average purity data is not statistically valid due to the generally lower purity, retail-level heroin available in many of the newly included areas. DMP analysis also indicates that, of the heroin exhibits analyzed in which a signature for geographic source of origin could be determined, some 46 percent were of Mexican origin, 42 percent of Southeast Asian origin, and 12 percent from Southwest Asia. The DMP sample data base, it should be recalled, differs from that of the HSP. The DMP covers retail-level samples from selected U.S. cities while the HSP draws samples randomly from all levels of distribution.

The purity level of Southeast Asian heroin exhibits analyzed in the DMP during 1990 was the highest for all sources, averaging 29.1 percent. Southeast Asian heroin was predominant in northeastern U.S. cities to include New York, Baltimore, and Washington, D.C. as well as in Atlanta and Detroit. In New York City, where 88 percent of the exhibits analyzed were of Southeast Asian origin, the average purity of the exhibits was 40.6 percent. During 1990, Mexican heroin, the



purity of which averaged 14.4 percent, was predominant in western U.S. cities to include Los Angeles, Phoenix, San Francisco, and Seattle, as well as Miami. Southwest Asian heroin, which averaged 13.1 percent purity, was predominant only in Chicago and Puerto Rico.

Prices at the wholesale level for Southeast Asian heroin in the United States ranged from \$70,000 to \$240,000 per kilogram (2.2 pounds) in 1990. Costs differ from ethnic group to ethnic group depending upon the nature of the relationship between buyer and seller. Unit cost among ethnic Chinese buyers may be lower than when selling to outsiders, for example, reflecting increased perceived risk, etc. Prices for Southeast Asian heroin in 1989 ranged from \$125,000 to \$180,000 per kilogram nationally. In 1990, the price for Mexican heroin averaged \$65,000 to \$180,000 per kilogram nationally. In 1989, Mexican black tar heroin could be purchased, on average, for \$70,000 to \$130,000 per kilogram. Southwest Asian heroin at the wholesale level cost \$80,000 to \$200,000 per kilogram in 1990 compared to \$80,000 to \$180,000 per kilogram seen in 1989. In New York City, prices for Southwest Asian heroin are stable but lower than the national average price. Southwest Asian heroin can be acquired in bulk for as low as \$60,000 per kilogram.

## OPIATES

## USE

The National Institute on Drug Abuse's (NIDA) most recent estimate of the heroin addict population, completed in 1982, indicated that there were 492,000 addicts in the United States.

## TRAFFICKING

Major Southeast Asian trafficking organizations, often under the control of criminal groups which are predominantly Sino-Thai or ethnic Chinese, oversee the movement of Southeast Asian heroin into the United States. These criminal groups link associates in major cities in Australia, Hong Kong, Malaysia, Taiwan, Thailand, and Singapore. Chinese Americans with links to these criminal organizations are the largest importers of heroin from Southeast Asia into the United States. In recent years, these organizations have shipped increasingly larger quantities of the narcotic to the United States. Chinese or ethnic Thai nationals are often used to courier the heroin to the United States. In addition, multi-pound quantities of the narcotic are shipped into the United States secreted in containerized



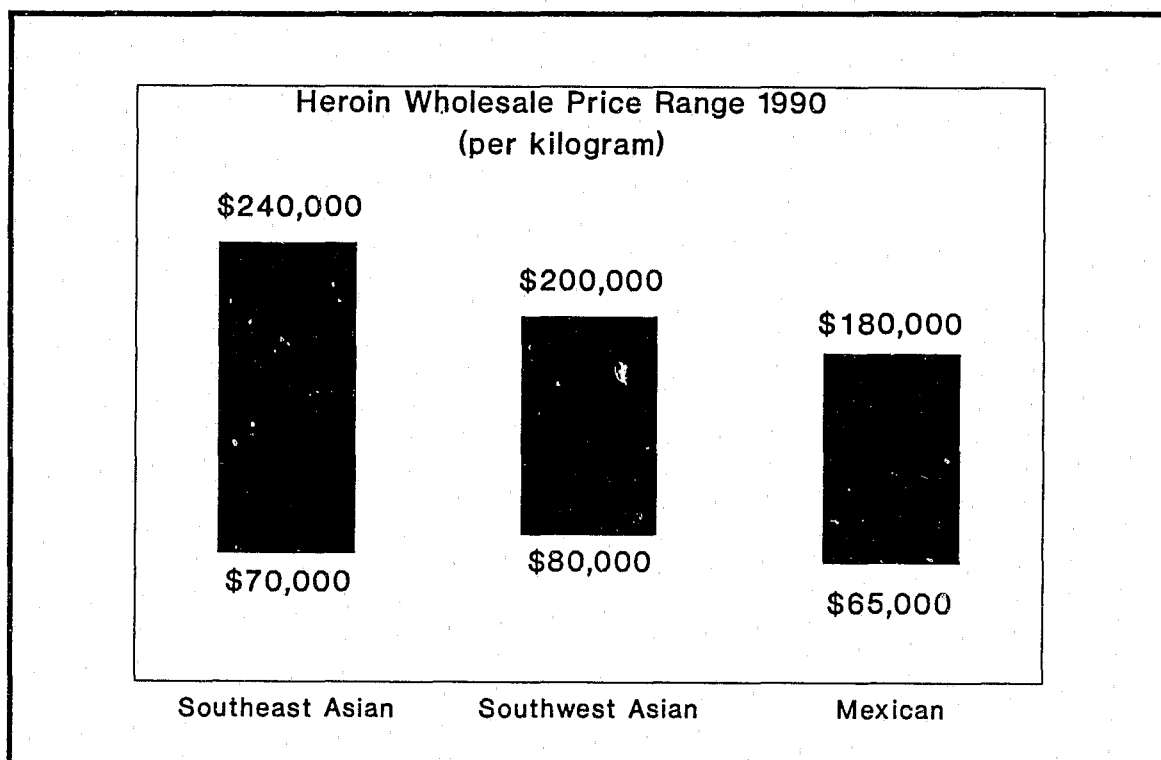
freight aboard commercial marine vessels, air freight cargo, and in international mail parcels, as well as by courier on commercial air flights.

Couriers frequently carry heroin either on their person or ingested in compact form in balloons or condoms. The record seizure obtained from a "swallower" was 227 balloons with an estimated gross weight of 2.9 pounds (1.3 kilograms). In an attempt to increase the size of each shipment, these couriers supplement internal body carries with checked baggage containing narcotics.

In 1990, New York City remained the primary distribution center in the United States for heroin from Southeast Asia. However, San Francisco, Seattle, Los Angeles, and Washington were also documented as points of entry for Southeast Asian heroin. Heroin traffickers are continually developing new routes and expanding distribution of high purity heroin. In New York, Southeast Asian heroin is the

heroin which is most readily available. However, Southwest Asian heroin is also available and is brought into New York City by ethnic Middle Eastern organizations. Mexican brown heroin is rarely encountered in New York City. In recent months, there has been some evidence which suggests limited shipment of heroin into New York City by Colombians. The origin of this heroin remains, as yet, unknown.

The heroin may have originated in Colombia or may have simply been transshipped through Colombia. According to U.S. Embassy and DEA reporting, no opium poppies were eradicated in Colombia in 1990 nor were any processing laboratories seized. The heroin in question may have been purchased from traditional heroin traffickers in Europe, Mexico or South America. In any case, the situation requires close monitoring to determine if it presages polydrug distribution by Colombian cartels.



Chemical analysis of heroin samples purported to have originated in Colombia in the past have resulted in identification of the drugs as having been processed using techniques indigenous to Southwest Asia and Mexico. The samples which have been identified range from extremely low purities to nearly 100 percent which may indicate an ongoing effort to perfect production methods. There is reporting which suggests that the Colombians may be testing for market demand. There is also substantial reporting relative to the bartering of cocaine for heroin in Europe and Latin America, particularly Brazil. An alliance may also be forming between some South Americans and Italian criminal elements in Europe which could lead to additional involvement of the cartels in heroin trafficking.

In 1990, heroin traffickers used various routes to transport heroin into the United States from Asia. Some heroin was imported directly into New York City and sizeable quantities also reached the city by way of the U.S. West Coast and Canada. The heroin was moved into the city ingested by the courier, body carried, or secreted in luggage. Couriers also carried drugs on their persons in specially designed clothing and accessories. Couriers often used circuitous routing to mask the origin of their travel. New and unusual smuggling techniques noted in 1990 included 4.4 pounds (2 kilograms) of heroin secreted within the walls (insulation area) of two office-type refrigerators, 6 pounds (2.8 kilograms) secreted in 24 boxes of electrical cords, and 32 pounds (14.5 kilograms) discovered in a shipment of lace. In each case, the seizures were manifested as checked baggage aboard commercial flights.

As cited above, heroin trafficking from Southeast Asia continues to be dominated by ethnic Chinese or Sino-Thais. They also control distribution at the wholesale level in New York City often working with local ethnic Chinese gangs. The ethnic Chinese traffickers are able to move multi-hundred pound shipments of the drug by air or sea. Ethnic Chinese organizations and street gangs also maintain control over some of the lower-level distribution within New York City. Ethnic Chinese wholesalers do deal with non-Chinese buyers, but remain relatively clannish complicating enforcement directed

against them. The ethnic Chinese in New York are most closely associated with wholesale and retail distribution organizations run by other gangs such as ethnic Caribbean groups or black gangs. These groups tend to be extremely violent and are also involved in cocaine and crack cocaine trafficking. There is limited evidence to suggest that some ties between Chinese traffickers and non-Chinese drug dealers may have developed while narcotics traffickers were incarcerated in prison.

Pakistani traffickers used long established distribution networks to import Southwest Asian heroin into New York City and other parts of the United States in 1990. They are also known to occasionally deal with other ethnic groups from Southwest Asia such as Afghans and Indians. Other Middle Eastern groups active in the import and distribution of Southwest Asian heroin in the United States include Afghans, Albanians, Iranians, Israelis, Lebanese, and Turks. Points of entry for Southwest Asian heroin included not only New York City but Los Angeles and San Francisco as well. Significant quantities of the drug also entered the Canadian cities of Montreal, Toronto, and Vancouver for local consumption and movement on to the United States.

New York City remained a key staging point for heroin destined for other areas in the United States. New York traffickers supply the East Coast from Boston to Baltimore and Washington, D.C., and points further south to include Miami. Traffickers use a variety of means to transport the drug domestically including automobiles equipped with concealed compartments, private planes, buses, trains, and legitimate delivery services. In addition to moving large shipments of the drugs commercially or by courier, small quantities are moved through the mails to other metropolitan markets in the United States.

West Africans, particularly Nigerians also transport heroin from Southeast Asia and Southwest Asia both to Europe and the United States. As reported by the El Paso Intelligence Center (EPIC), worldwide seizures involving Nigerian nationals totaled 1,640 pounds (744 kilograms) in 384 incidents in 1990 as compared to some 787 pounds (357 kilograms) of heroin in 227 incidents in 1989.

## OPIATES

Nigerians have established links with organizations involved in the movement of cocaine to Europe and, in 1990, engaged in the bartering of heroin for cocaine in Latin America. As a result, Nigeria has become a major drug transit country.

Heroin enters Nigeria from Southwest and Southeast Asia for transshipment to Europe and North America as well as for expanding domestic consumption. Most of the heroin originates in Pakistan and Thailand and reaches Nigeria by air or land routes which are varied in reaction to law enforcement pressure. Nigerians may also purchase heroin of Burmese origin in India. Endemic corruption remains a problem in Nigeria. The Nigerian Government, however, is sensitive to the issue of corruption. Only recently, the head of the Nigerian Drug Law Enforcement Agency stepped down amid charges of corruption. There are at least seven known courier groups based in Nigeria. Membership is principally Nigerian, although other West Africans are occasionally involved.

As cited in the 1991 *International Narcotics Control Strategy Report (INCSR)*, a Nigerian trafficking group was uncovered using Dakar-Yoff International Airport in Senegal in 1990. The typical courier in this group flew Ethiopian Airways from Bombay to Addis Ababa to Dakar (and sometimes on to Lagos). Three to five couriers would board an aircraft along with an "expediter" who might denounce a courier to customs if it appeared that inspection was tight to distract attention away from the other couriers. A "convoying officer" unknown to the couriers was often aboard to ensure that the couriers did not disappear.

In late 1990, the number of heroin traffickers arrested in Nigeria declined. However, the average confiscation was larger. Improved detection forced couriers to use overland routes into the country. Arrests of Nigerians abroad continue at high levels. In order to counteract the increasing numbers of Nigerians involved in drug trafficking, Nigeria requires that Nigerians obtain clearance from Nigerian

drug authorities prior to applying for a visa for travel to Thailand. The government plans to extend such requirements to other trafficking areas in the future.

Other transit points in sub-Saharan Africa include Chad, Cote d'Ivoire, Ethiopia, Kenya, and Senegal. Heroin from the Middle East, Southwest Asia, and Southeast Asia passes through these African nations. Interdiction and enforcement in most African nations is hampered by scarce resources, competing priorities, and increasing sophistication in smuggling techniques employed by the traffickers. Both false personal and commercial documentation are used by smugglers further complicating detection efforts by less technologically sophisticated security forces. In many instances, police and military resources are diverted to internal security missions with the situation further exacerbated by endemic corruption.

In 1990, Mexican heroin trafficking to the United States continued to be dominated by Mexican nationals and Mexican-Americans. In general, Mexican heroin is smuggled across the U.S./Mexican border in relatively small amounts by illegal immigrants, migrant workers, and Mexican nationals related to families involved in opium or those controlling heroin production. Means of importation include concealment in motor vehicles, public transportation, external body carries, commercial cargo, and commercial package express services. Points of entry for Mexican heroin destined for the western, southwestern, and mid-western United States can be found along the entire U.S./Mexican border. Corruption of public officials remains a matter of serious concern which the Mexican Government has moved to address. The Salinas government has toughened penalties for drug-related offenses and has swiftly moved to dismiss officials suspected of corruption.

## DEVELOPMENTS IN SOURCE REGIONS

### SOUTHEAST ASIA

**Cultivation:** Most of the world's illicit opium and refined heroin is produced in Southeast Asia for consumption by a large addict population in the region or to be shipped to western markets. Estimates of opium cultivation have generally increased steadily in the Golden Triangle (Burma, Laos, and Thailand). Total production for the 1990 growing season, however, was 2,822 tons (2,565 metric tons) compared to 3,141 (2,855 metric tons) in 1989. Most of the world's illicit opium poppy is grown in **Burma** and some 88 percent (2,475 tons or 2,250 metric tons) of the opium produced in Southeast Asia comes from that nation as well. Growing areas in Burma are controlled by insurgents with most opium poppies grown in the Shan State. Heavy cultivation exists east of the Salween River, and in eastern and southern parts of Shan State. Some opium poppy is grown in southern Kachin and Chin State near India.

Most poppy fields are on hillsides prepared for planting by slash and burn methods. Seeds are sown from September to October and harvested January to March. Burma produced about 2,475 tons (2,250 metric tons) of opium in 1990. However, other reports suggest that lower average yields exist in Burma which, if applied, would reduce total production to the 1,320 to 1,980 ton (1,200 to 1,800 metric ton) range. Farmers in Burma receive subsistence prices often selling their entire stock when buyers enter the region. Growers in insurgent areas must sell to insurgents exclusively.

In **Laos**, 1990 opium production was 303 tons (275 metric tons) compared to 413 tons (375 metric tons) in 1988/1989. Cultivation dropped 28 percent from 104,061 acres to 75,335 acres (42,130 to 30,500 hectares). Primary opium poppy cultivators in Laos are ethnic hill tribes which spill across national boundaries.

In **Thailand**, opium poppy cultivation is estimated at 8,484 acres (3,435 hectares) compared to 10,065 acres (4,075 hectares) in 1989. The Thai crop is less than 2 percent of total Golden Triangle cultivation. Opium poppies are grown almost exclusively in the north at elevations above 3,000 feet and are planted between late August and early September to late October. Harvesting occurs from November to March. Some of the 1990/1991 crop was planted earlier to frustrate eradication and take advantage of higher prices. Opium production was 44 tons (40 metric tons) compared to 55 tons (50 metric tons) in 1989.

**Processing:** Most processing of opium and heroin in Southeast Asia occurs in Burma with only minimal processing in Laos and Thailand. In **Burma**, the Shan United Army (SUA) and the Wa insurgent organizations operate large refineries along the Thai border. Refining is more often accomplished, however, in crude, temporary structures. Equipment is hidden in the jungle until the April to September processing season. The Kokang, Wa, and Kachin ethnic groups also operate large heroin refineries along the border with the People's Republic of China. Heroin is sold openly in Yunnan Province on the Chinese side of the border adjacent to insurgent enclaves. In Kachin State, the Kachin Independence Army continues to depend on drug revenue to support itself following the collapse of its ally, the Burmese Communist Party (BCP). In 1990, the SUA under Chang Chi-fu aka Khun Sa remained the dominant trafficking group retaining substantial control along the Thai-Burma border despite combined government and Wa military action. The Wa appear to be emerging as the SUA's major rival.

**Trafficking:** In **Burma**, smuggling is controlled by well armed insurgents, primarily the SUA (now also known as the Mong Tai Army), the Kokang, and the Wa. Illicit narcotics are consumed by a substantial addict population in the region and also leave for Western markets in various forms to include opium, morphine base, heroin base, and heroin number 4. Khun Sa's SUA controls primary transit routes throughout its territory to the Thai border. While **Thailand** remains the principal exit to the world market, increasing amounts of opiates leave via

### OPIATES

southern China to Hong Kong, south through Rangoon and other Burmese cities toward Malaysia and Singapore, and westward through India and Bangladesh. Heroin is also shipped to southeastern ports along the Tenasserim coast for transit down the Andaman Sea to western locales via southern Thailand, Malaysia, Singapore, and Hong Kong.

Thai, as well as Sino-Thai financiers and middlemen, play a major role in trafficking from Laos and Burma. Thai military, police, and civilian officials along the border have long dealt with minority groups there for security and economic reasons which has led to some corruption. Thailand's well developed transportation system also provides convenient conduits for drugs flowing from the region. Narcotics leave by air in passenger and cargo planes, by sea in oceangoing transports or fishing trawlers, and overland by truck to Malaysia. The volume of international trade in the region makes interdiction difficult.

Heroin produced by insurgent groups other than the SUA reaches western distribution networks, but not to the extent of the SUA product. Heroin produced in the areas controlled by groups such as the Burma National Democratic Allied Army, the United Wa State Army, and the Kachin Independence Army does not have the reputation for quality associated with heroin produced by the SUA. Government support of the Wa did allow that group to expand its heroin operations along the Chinese border and to portions of southern Shan State along the Thai border in 1990.

**Control:** Since realignment of military priorities after 1988's civil unrest, Burmese Government pressure on opium poppy cultivators and traffickers has diminished considerably with the Wa faction benefiting in particular. DEA's Rangoon Country Office has reported that there has been some eradication in the Kokang area of the northeastern Shan State. Opium and heroin seizures did increase in 1990, but no major traffickers were targeted. Army and police resources, it appears, remain concentrated on suppression of political opposition. Since 1988, the military has assumed the principal role in narcotics enforcement and all senior police positions are now held by Burmese Army officers.

The suspension of aerial eradication of opium poppies in Burma in 1988-89 and diminished enforcement has contributed to substantial increases in opium cultivation, heroin refining, and narcotics trafficking. An encouraging development was reported by the DEA's Rangoon Country Office in January 1991. A reported 1,500 acres (607 hectares) of opium poppies were eradicated in the Kokang area. As previously noted, following the breakup of the Burmese Communist Party in the late eighties, the government took a conciliatory position vis-a-vis the Wa and the Kokang Chinese. The resulting accommodations allowed the government to assign the military to internal security functions. It also allowed the government both the breathing space and the necessary resources to direct military operations against less accommodating factions such as the SUA. In 1990, for example, the government provided direct operational support for Wa military action against Khun Sa enlarging, at least temporarily, areas under Wa control along the Thai border.

In 1990, Thai police arrested one major trafficker. Heroin seizures increased to about 2,399 pounds (1,088 kilograms) up from 1,543 pounds (700 kilograms) in 1989. Some 25 percent of the seizures were from West African couriers, primarily Nigerians. The Thai Border Patrol Police reported destruction of two heroin refining laboratories, and a joint Border Patrol-Provincial Police investigation resulted in the arrest of several suspects involved in refining. Thailand's control efforts also remain hampered by the lack of an asset seizure law and conspiracy statutes which would facilitate prosecution of major violators.

Reports of Lao military involvement with traffickers persist. Laos has attempted to reduce slash and burn agriculture. A U.S. Government-funded crop substitution project in Laos will continue in 1991 and the Lao have agreed to farm-to-market road checkpoints to prevent the project from becoming a cover for smuggling. The central government has indicated its willingness to cooperate with the United States and has stated a desire to continue receiving narcotics control and development assistance to reduce cultivation and enhance law enforcement. However, to date, they have not acted in a manner which would signify unwavering commitment.

## OTHER TRAFFICKING IN ASIA

### CHINA

There are increasing reports that illicit opium poppy is grown in the People's Republic of China and the nation is becoming a transit country for opiates originating in the Golden Triangle. Opium poppy cultivation is reportedly taking place in Yunnan Province near the border with Burma and Laos by farmers, some of whom are ethnically related to Burmese and Lao hill tribes. Some essential chemicals manufactured in China, such as acetic anhydride, are reported to be diverted to clandestine heroin laboratories in the Golden Triangle. China has a special police force in Yunnan to interdict drug smugglers and Chinese police regularly cooperate with foreign authorities on narcotics enforcement. During the first half of 1990, Chinese police report the seizure of some 1700 pounds (771 kilograms) of heroin and 789 pounds (358 kilograms) of opium. In recent years, police officials in Hong Kong have reported that upwards of half of the heroin seized in Hong Kong has entered overland through southern China.

### HONG KONG

Hong Kong is a major transit point for heroin. Most trafficking involves heroin number 4 (injectable). Heroin found in Hong Kong originates in the Golden Triangle and is moved into Hong Kong by air, overland from China, or by sea intermixed in the considerable international cargo which transits the Crown Colony. Hong Kong authorities estimate that upwards of one half of all heroin now enters by way of southern China with a sizeable portion probably re-exported to the United States. Hong Kong's extensive Chinese Triad criminal community abets both local and international trafficking although their degree of involvement is unclear. Regardless, Triads are thought to be moving control over their criminal enterprises overseas, to include the United

States, in anticipation of Hong Kong's reversion to China in 1997.

Through October 1990, Hong Kong authorities seized approximately 176 pounds (80 kilograms) of heroin number 4, 154 pounds (70 kilograms) of heroin number 3 (smokeable), and 132 pounds (60 kilograms) of raw or prepared opium. During 1990, extensive cooperation continued with foreign law enforcement which resulted in several successful investigations to include the arrest of key members of an international narcotics syndicate and the neutralization of a large Nigerian drug smuggling ring. In Hong Kong, heroin number 3 is no longer the drug of choice as street purity fell to an all-time low of 2.82 percent in May 1990.

### MALAYSIA

Although no opium poppy is grown in Malaysia, illicit heroin processing and trafficking are serious problems. Heroin base is smuggled from Burma or Thailand and is converted into heroin number 3 locally. Trafficking is monopolized by ethnic Chinese organizations. In 1990, officials seized about 66 pounds (30 kilograms) of heroin destined for the United States. Despite severe penalties for drug trafficking, no significant diminution of trafficking or production occurred. Effective land border controls did, however, force more smuggling by fishing boat from Burma and Thailand. Nigerians have also been caught smuggling heroin to the United States from Thailand through Malaysia.

### OTHER NATIONS

Other countries in Asia are used to varying degrees as transshipment points for heroin. Virtually no country with any sizeable international trade is immune from use as a transit point. Nepal, for example, may be used to transit heroin routed from Pakistan through India and onward to Europe and the United States. In addition, some narcotics may enter Nepal from Burma, Hong Kong, and Thailand.

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Australian, American, and ethnic Chinese criminals are active in transshipping heroin through the **Philippines** with Manila's international airport often used by couriers in transit. From January through September 1990, authorities in the Philippines seized some 65 pounds (29.4 kilograms) of heroin. Traffickers also use **Singapore** to stage and ship narcotics. Authorities there have seized heroin from oceangoing vessels and from couriers transiting from Thailand and Hong Kong to Australia, Canada, Europe, and the United States. **Japan**, with its highly developed international commercial activity, often serves as a transshipment point for heroin contained in commercial cargo destined for other end user nations.

## MEXICO AND GUATEMALA

### MEXICO

**Cultivation:** Mexico has produced heroin since the early 1900s and has been a supplier to the United States since the late 1940s. Mexico, however, did not become a major supplier to the United States until the 1970s. Mexican heroin is found principally in the western and southwestern United States; however, heroin of Mexican origin can also be found in the mid-western United States and New York City. Mexican opium poppy cultivation, once largely confined to the Mexican tri-state area of Sinaloa, Chihuahua, and Durango, has expanded over recent years to include the entire Mexican west coast from Sinaloa down to the Mexico/Guatemala border.

The traditional opium poppy harvests in Mexico occur December to January and February to April, but year-round cultivation of opium poppy is now evident in southwestern Mexico. This is due to improved agricultural production techniques and favorable climatic conditions to include attempts by the growers to circumvent eradication efforts. There is no licit opium poppy cultivation in Mexico. Total opium production for the 1990 growing season was 68 tons (62 metric tons) compared to 73 tons (66 metric tons) in 1989. Approximately 13,462 acres

(5,450 hectares) of opium poppy were under cultivation in 1990.

**Processing:** Both traditional brown and black tar heroin are produced in Mexico. However, the largest percentage of heroin currently produced in Mexico is the black tar variety. The black tar heroin production technique precludes the necessity of maintaining costly, stationary laboratory sites and allows conversion of opium gum into heroin directly at the field or at a nearby ranch or village. The mobile laboratory is much harder to detect and can be moved with the harvesters as they go from field to field to collect the opium gum. The black tar procedure allows the average laboratory operator to produce 6.6 to 11 pounds (3 to 5 kilograms) per day during the harvest season. This product can be on the road to the United States in less than two to three days after the gum has been collected in the mountains.

Mobile heroin conversion laboratories are found throughout Mexico usually located close to growing areas. Of late, laboratories are reported to be more often near a town. This provides the "chemist" with much easier access to the necessary chemicals and the ability to maintain a higher degree of security. The Government of Mexico (GOM) reports the destruction of 24 such heroin laboratories within the past two years. Based on seizures during recent years, it is evident that black tar heroin is preferred by U.S. addicts over traditional Mexican brown due to its higher purity and the fact that it can be smoked. This factor makes it especially popular in the inner-city at polydrug or crack houses. Availability of Mexican heroin remained stable throughout the United States during 1990.

**Trafficking:** Mexican heroin is smuggled into the United States by well organized familial groups that have existed for decades. Some of these traditional smuggling groups are also deeply involved in cocaine trafficking.

**Control:** Some 11,486 acres (4,650 hectares) of opium poppy were confirmed to have been eradicated in Mexico during 1990. The Office of the Attorney General (PGR) reported eradication of 6,632 acres (2,685 hectares) and the Mexican military reported destruction of 14,711 acres (5,956 hectares). U.S.

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Government analysis indicates that some Mexican eradication is necessarily repetitive because it occurs early in a crop season and planters re-cultivate the same fields. The net effective eradication in 1990 of 11,486 acres (4,650 hectares) could have produced some 58 tons (53 metric tons) of opium gum. Participation of U.S. representatives in eradication verification flights enabled the U.S. Government to verify 15 to 20 percent of the claimed illicit crop eradication by the PGR. Statistics for eradication by the military forces are still largely unverified, but there is clear evidence of intensified military eradication efforts. PGR efforts through the first ten months of 1990 showed a significant increase in opium poppy destruction compared to the same period in 1989.

During 1990, the GOM enacted strong measures to combat official corruption, one of which increased sentences of current or former government employees convicted of drug-related offenses by 50 percent. The government has dismissed or charged some 500 employees with narcotics-related corruption since the current regime took office. In addition, President Carlos Salinas de Gortari assigned the PGR responsibility for coordinating all anti-drug efforts and gave the office the lead in interdiction.

## **GUATEMALA**

**Cultivation/Processing:** Within the last two years, opium poppy production in Guatemala has increased. Farmers in the western provinces of San Marcos and Huehuetenango have diverted their energies from farming fruits and vegetables to the growing of the more lucrative opium poppy. U.S. Government surveys indicate that in 1990, after eradication, there were an estimated 2,087 acres (845 hectares) of opium poppy under cultivation. Most of this crop was hidden in steep, narrow, high mountain valleys favored by Guatemalan opium poppy growers. In 1990, the potential yield was estimated to be 14 tons (13 metric tons). This estimate was based on a yield of 13 pounds per acre (15 kilograms per hectare). Most opium poppy in the country is planted in very small plots by subsistence farmers and is harvested

up to three times per year. Mexican traffickers provide financing, seed, and a market for local growers. Most processing occurs in Mexico; however, police did seize one morphine base processing laboratory in Guatemala in 1990 which confirms the involvement of Guatemalans in opium refining.

**Control:** In an effort to control opium poppy production, the Government of Guatemala (GOG) has been conducting aerial eradication with great success. As a countermove, cultivators are relocating their fields to more remote areas, some insurgent-held, thus neutralizing, to some extent, the effectiveness of the aerial eradication effort. Pilots have been reluctant to conduct aerial spraying in insurgent-held areas. This may result in a decrease in the amount of acreage sprayed in the future. The GOG has increased their manual eradication efforts utilizing the Policia Militar Ambulante (PMA), a Ministry of Defense entity equipped, trained, and mandated to undertake this type of field operation.

## **SOUTHWEST ASIA**

### **PAKISTAN**

**Cultivation:** Pakistan is a producer of and a transit country for opiates. Mean production of raw opium is up 25 percent to 182 tons (165 metric tons) from 143 tons (130 metric tons) in 1989 due to better weather and a fall in onion prices which has driven some farmers to plant opium poppy. However, production remains less than 1988 pre-drought levels of some 226 tons (205 metric tons). Major areas of growth are in the Northwest Frontier Province (NWFP) near Afghanistan. Cultivation increased from 14,944 acres (6,050 hectares) in 1989 to 19,834 acres (8,030 hectares) in 1990. The government maintains a credible poppy ban in some areas under its direct control. However, the ban is offset by increased production in areas of nominal government control. Cultivation is both rain-fed and irrigated in the tribal areas of Khyber, Bajaur, and Mohmand and in the NWFP's Dir District.

## **OPIATES**



**Processing/Trafficking:** Processing of opium into heroin takes place in the Khyber, Mohmand, and Bajaur Agencies of the NWFP and in remote regions of Baluchistan. There are well over 100 small, mobile clandestine laboratories operating in areas controlled by independent, heavily armed tribes with traditional cross-border connections.

**Control:** In 1990, special anti-drug investigative units, although formed, were not activated despite two years planning. Few important traffickers were arrested and widespread corruption exists. No major laboratory operators or owners were arrested and few laboratories were seized in 1990. However, in October 1990, following a shootout in Baluchistan Province with heavily armed traffickers, the paramilitary Frontier Corps did seize some 2 tons of suspected heroin and adulterants. An opium poppy cultivation ban is in effect in Bajaur, Mohmand, Malakand, Swat, Gadoon, and the southern subdistricts of Dir. Some 457 acres (185 hectares) of opium poppies were eradicated in 1990. The government expanded the ban during the 1990-1991 season to the Panjkora Valley in upper Dir and several areas in Bajaur.

## AFGHANISTAN

**Cultivation:** Afghanistan is the world's second largest producer of illicit opium. Over 80 percent of Afghanistan's total production of some 457 to 677 tons (415 to 615 metric tons) is grown in Nangahar Province and the Helmand Valley. In 1990, production dropped from the 644 tons (585 metric tons) in 1989. The drop is due to significant decrease in cultivation in the Helmand Valley which had accounted for some 44 percent of production. Currently, it accounts for about 6 percent. The reduction was mandated by the former political leader of the area in an effort to secure political recognition. However, following his assassination in 1990, cultivation and production is expected to resume. Opium poppy has been a traditional crop for generations in Afghanistan and is widely used for medicinal and culinary purposes. Furthermore, due to its hardy nature and assured yield, opium poppy is considered a reliable cash crop.

**Processing/Trafficking:** Most opium from Afghanistan is processed into heroin at crude laboratories in Pakistan. Trafficking occurs along the borders with Iran and Pakistan. As of this writing, in spite of unstable political and military conditions in the Middle East/Persian Gulf, there has been no discernible drop in trafficking along traditional drug smuggling routes through Turkey.

**Control:** The Kabul regime, in Afghanistan, exerts little control over production and trafficking. Seizure statistics announced by the Kabul Government are suspect and often cite Resistance or Pakistani involvement in trafficking. Unconfirmed reports suggest the government may condone production and cultivation in some areas. There is a similar lack of control in Resistance dominated areas where most of the cultivation and production occur. Although a number of mujaheddin commanders oppose trafficking, others tolerate growth and sale by farmers who depend on opium poppies for their livelihood. Some commanders may even use drug revenues to finance their operations. Both the National Commander's Shura and the Afghan Interim Government in Peshawar, Pakistan have declared opposition to narcotics cultivation and production.

## OTHER TRAFFICKING IN SOUTHWEST ASIA

### INDIA

India is a major transit nation for opium and heroin produced in Afghanistan, Burma, and Pakistan as well as a potential producer of these narcotics. High-grade heroin from Afghanistan and Pakistan is transported across the Indo-Pakistan land border to traffickers and couriers who convey the drugs to Europe and the United States. There are reports of increasing amounts of Burmese heroin entering India through its northeast border for domestic use and, perhaps, international markets. Large quantities of acetic anhydride are smuggled through India to refineries in opium producing nations. In addition to diversion of licitly produced opium, there have

been reports of illicit cultivation in India. Due to considerable turmoil in the central government over the past year, anti-narcotics efforts have received low priority. Press reports did indicate, however, that the government destroyed a dozen or so heroin laboratories in 1990.

## **IRAN**

Data on opium poppy cultivation and heroin trafficking in Iran is limited, as Iran remains a denied area to U.S. law enforcement. There is a sizeable domestic addict population of at least 2 million people with some heroin also transshipped to Europe and the United States. Although the government banned opium cultivation in 1980, growth reportedly occurs in remote areas of the country near Pakistan and Afghanistan. Previous estimates have placed total opium production in the 220 to 440 ton (200 to 400 metric ton) range. Allegedly, laboratories for producing morphine base and heroin operate in Kurdish areas in the northwest and Baluch areas in the southeast. Iranian traffickers have expanded narcotics trafficking in the United States by exploiting the ethnic Iranian population in California.

## **EUROPE/MIDDLE EAST TRAFFICKING**

### **GREECE**

Greece serves as a commercial nexus for extensive international trade conducted between Europe and the Middle East. Its long, jagged coastline and outer islands contribute to its usefulness as a transit country for drug smugglers. In 1990, police made 26 heroin seizures of 1.1 to 22 pounds (one-half to 10 kilograms). Sizeable quantities of heroin from Lebanon and Syria pass through Greece in Transport Internationale Routier (TIR) trucks which are not subject to customs inspection while in transit. The trucks enter Greece on ferry lines or overland from Turkey and continue by ferry to Italy

or travel overland through Yugoslavia. Drugs are transported by Greeks and by foreigners such as Italians, Iranians, Lebanese, Pakistanis, and Syrians. Most transit smugglers, however, are Greek. Recent arrests suggest involvement by Greek nationals and Greek-owned commercial vessels in transshipping drugs from Lebanon. Greek authorities suspect that links exist between some Greek drug traffickers and certain Middle Eastern terrorist groups. Greek police report seizures of 179 pounds (81 kilograms) of heroin in 1990, double those of 1989.

### **SOVIET UNION**

Heroin traffickers have used the Soviet Union as a transit country for heroin and hashish from Southwest Asia. Seizures have been made from passengers at the international airport in Moscow and from trucks and cargo containers. In recent years, drug abuse has increased in the Soviet Union. Drugs abused include opiates, marijuana, hashish, and dangerous drugs. A large share of these illicit drugs are produced inside the Soviet Union itself.

### **CYPRUS**

Cyprus is a favorite location utilized by Middle Eastern traffickers to negotiate deals with third country buyers. Heroin is concealed in the substantial container traffic which transits Cyprus and traffickers take advantage of air connections to convey illicit narcotics as well as currency and bullion to and from Europe. Police cooperate fully with foreign enforcement officials but control over trafficking is complicated by the political division of the country.

### **EGYPT**

Egyptian addicts consume Southwest Asian and Lebanese heroin. Egypt's developed international air system makes the country suitable for the transit of heroin and opium for Europe and America. In

### **OPIATES**

1990, increased seizures of drugs from Lebanon and Syria occurred in Egypt. In addition, some heroin may also enter Egypt through Libya although the border opens and closes in reflection of the state of relations between the two nations.

## LEBANON

Lebanon is a major illicit narcotics producing and trafficking country. About 35 tons (32 metric tons) of opium were produced in 1990 from 7,904 acres (3,200 hectares) of opium poppy as compared to 50 tons (45 metric tons) of opium from 11,115 acres (4,500 hectares) in 1989. This decline is attributed principally to poor growing weather. Increasingly, Lebanese cannabis cultivators have turned to opium poppy cultivation. In the past, Lebanon was the center of a significant heroin refining trade that depended upon morphine base from Turkey and Iran. Using foreign chemists, Lebanese and Syrian traffickers used morphine base or raw opium from Iran and Turkey to produce heroin for export to Egypt, western Europe, and the United States. Current intelligence suggests that there is less reliance on imported opium products and that opium poppies grown in Lebanon are used more and more frequently to produce the opium used in Lebanese heroin conversion laboratories.

Over 30 alleged heroin conversion laboratories have been identified in Lebanon. Lebanese laboratories tend to be sophisticated in comparison with those found in Turkey or Pakistan, using modern scientific equipment. Precursor chemicals appear to be readily available and may be imported from Europe. Lebanese laboratory operators often use imported "experts" as chemists to accomplish the opium-morphine-heroin conversion. American, French, and Turkish chemists are often cited in reports.

Lebanon supplies regional demand for heroin and ships drugs to Australia, Canada, Europe, and the United States. Most of the warring factions in the country, as well as some known terrorist organizations, are involved in one or more aspects of the illicit narcotics trade. Sixty-five percent of the

country is controlled by Syria. Periodic reporting suggests Syrian Army control over drug production in the Bekaa Valley. Almost all opium is converted locally to heroin. Large amounts of heroin may be smuggled to the United States. Heroin is also produced from morphine base imported from Afghanistan through Syria and Turkey. The various Lebanese factions profit from the drug trade by providing protection for production and by garnering fees for false documentation used by couriers. Profits are used occasionally to purchase weapons.

## SYRIA

Syria is a transit point for illicit Southwest Asian narcotics and a refiner of Lebanese and Southwest Asian heroin. Lebanese heroin for Europe and the United States, and morphine base and opium from Asia, enter Syria via Turkey en route to processing laboratories in Lebanon's Bekaa Valley. Heroin also transits Syria to buyers in the Persian Gulf. As noted above, Syria occupies Lebanon and its Army benefits from control over drug operations in the Bekaa Valley. High level officials are suspected of involvement in drug trafficking.

## TURKEY

Turkey's role as a major source country for illicit opium ceased with the Turkish opium ban in 1972. Since then, due to its location between producing countries in the east and consuming countries in the west, Turkey has become a transshipment country for opiates which originate in Afghanistan, Iran, and Pakistan. Refinement of some of these opiates takes place in laboratories in southeastern Turkey and around Istanbul. Turkey is a major transit country for European bound Southwest Asian heroin smuggled westward through Turkey, Bulgaria, and Yugoslavia on the so-called "Balkan route." Some Lebanese heroin may be transshipped in this manner as well. Some opiate shipments continue on to the United States.

Some 250,000 TIR trucks transit Turkey each year. Turkish police made several large seizures in 1990. In January, three TIR trucks were stopped and 243 pounds (110 kilograms) of heroin along with 157 pounds (71 kilograms) of morphine were seized. In February, 139 pounds (63 kilograms) of heroin were seized. In September, 487 pounds (221 kilograms) of morphine were found near Istanbul. Turkish and Iranian trafficking organizations operate

out of Istanbul controlling morphine base and refined heroin connections with Eastern Turkey, Iran, and Pakistan, as well as distribution to Canada, Europe, and the United States. Trafficking organizations in Turkey are often dominated by ethnic groups such as the Kurds and Laz. Licit opium poppy cultivation and processing takes place under strict government control.

Illicit Opium Production Estimate			
Major Source Countries			
Country	Year	Tons	Metric Tons
Burma	1989	2,673	2,430
	1990	2,475	2,250*
Thailand	1989	55	50
	1990	44	40
Laos	1989	413	375
	1990	303	275
Mexico	1989	73	66
	1990	68	62
Guatemala	1989	13	12
	1990	14	13
Afghanistan	1989	644	585
	1990	457 - 677	415 - 615**
Pakistan	1989	143	130
	1990	160 - 204	145 - 185***
Lebanon	1989	50	45
	1990	35	32
Iran	1989	220 - 440	200 - 400****
	1990	220 - 440	200 - 400
Total	1989	4,284 - 4,504	3,893 - 4,093
	1990	3,776 - 4,260	3,432 - 3,872
Source: <i>International Narcotics Control Strategy Report 1991</i>			

## NOTES

Opium generally converts to heroin at a ratio of 10:1.

Point estimates cited above reflect a mathematical mean point estimate and are not intended to imply a degree of accuracy or certitude which cannot be obtained due to the nature of illicit drug cultivation and production.

\* Other reporting suggests that lower average yields exist in Burma which, if applied, would reduce total production to the 1,320 to 1,980 ton range (1,200 to 1,800 metric tons).

\*\* Information obtained subsequent to *INCSR* publication suggests that multi-cropping and use of fertilizers in Afghanistan renders the 457 ton (415 metric ton) estimate the lower end of a potentially higher production range in Afghanistan.

\*\*\* The range stated here encompasses the mean point estimate contained in the *INCSR*. Use of a range, it is believed, reflects the uncertainty inherent in estimating production in Pakistan.

\*\*\*\* The range shown for Iran encompasses the mean point estimate contained in the *INCSR*. Use of a range, it is believed, reflects the uncertainty inherent in estimating production in Iran where U.S. law enforcement agencies have no official presence.

OPIATES

<b>Illicit Opium Cultivation Estimate</b> <b>Major Source Countries</b> <b>Net Cultivation</b>			
<b>Country</b>	<b>Year</b>	<b>Acres</b>	<b>Hectares</b>
Burma	1989	353,210	143,000
	1990	370,747	150,100
Thailand	1989	10,065	4,075
	1990	8,484	3,435
Laos	1989	104,061	42,130
	1990	75,335	30,500
Mexico	1989	16,302	6,600
	1990	13,462	5,450
Guatemala	1989	3,013	1,220
	1990	2,087	845
Afghanistan	1989	46,066	18,650
	1990	30,566	12,375
Pakistan	1989	14,944	6,050
	1990	19,834	8,030
Lebanon	1989	11,115	4,500
	1990	7,904	3,200
Iran	1989	na	na
	1990	na	na
Source: <i>International Narcotics Control Strategy Report 1991</i>			

# III

## CANNABIS

### AVAILABILITY AND USE IN THE UNITED STATES

#### AVAILABILITY/PRICE/PURITY

Marijuana, a Schedule I controlled substance and by-product of the *Cannabis sativa* L. plant, remained the most commonly used illicit drug in the United States during 1990. Both the cannabis plant and delta-9 tetrahydrocannabinol (THC), the plant's primary psychoactive chemical, are controlled substances. The flowering tops and leaves are collected, dried, and then usually smoked in a pipe or as a cigarette. The flowering tops, also known as colas or buds, are highly valued because of their higher THC content.

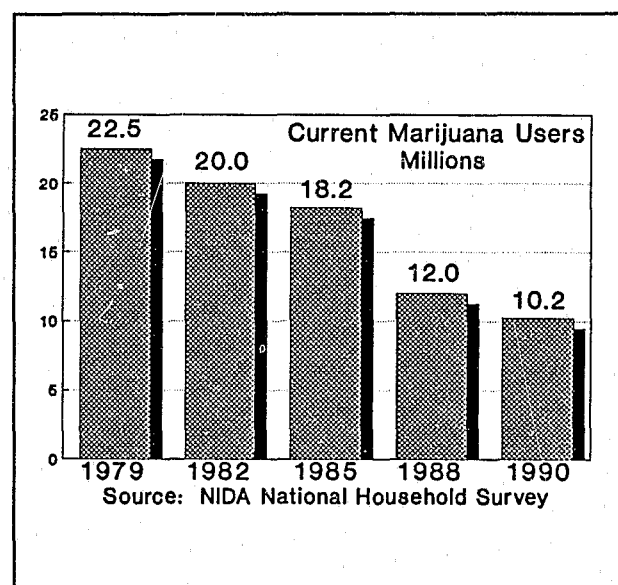
Marijuana usage in the United States has decreased over the past several years. In addition to attitudinal changes, substantially increased cost is believed to have contributed to the downward trending in marijuana usage in recent years. Prices for a pound of commercial grade marijuana during the early 1980s ranged between \$350 to \$600 while in 1990 the cost ranged between \$350 to \$3,000. Similarly, sinsemilla, the unpollinated female plant with its inherently higher THC content, ranged between \$1,000 to \$2,000 per pound ten years ago. In 1990, the price ranged between \$400 to \$6,000 per pound.

During the late 1970s and early 1980s, the THC content of commercial grade marijuana averaged under 2 percent. By comparison, the average in 1990 was 3.3 percent. The average THC content of sinsemilla in 1990 was 8.97 percent which compares

to averages in the late 1970s and early 1980s of between 3 to 6 percent. Moreover, during 1990, marijuana seized from an outdoor growing operation in the state of Idaho was found to contain a concentration of 19.35 percent THC, the highest recorded to date.

#### USE

Approximately 66.5 million Americans have tried marijuana at least once in their lifetime, and 20.5 million have used marijuana at least once in the past year, according to the 1990 National Household Survey on Drug Abuse. Of the past-year users, 5.5 million used marijuana once a week or more, and 3.3 million used it daily or almost daily. "Current" use of marijuana, defined as any use during the past month, has been steadily declining since 1979 when there were 22.5 million current users. This decline represents a 55 percent decrease from 1979 to 1990.



The downward trend noted in marijuana usage among the general population was further evident when viewed in a microcosm. According to the National High School Senior Survey (See Glossary), current use of marijuana among high school seniors is down from a peak of 37 percent in 1978 to 14 percent in 1990. Of significance in

recent years has been the attitudinal change among seniors with regard to marijuana usage. The cited report noted that in 1990, 77.8 percent of seniors surveyed perceived a "great risk" of harm associated with regular marijuana use, compared to 35 percent in 1978.

U.S. Domestic Marijuana Prices				
(Dollars)				
	1987	1988	1989	1990
<b>Commercial Grade</b>				
Wholesale (pound)	350 - 1,450	350 - 1,800	350 - 2,000	350 - 3,000
Retail (ounce)	60 - 130	40 - 250	40 - 250	25 - 200
<b>Sinsemilla</b>				
Wholesale (pound)	1,400 - 2,100	700 - 3,000	700 - 3,000	400 - 6,000
Retail (ounce)	160 - 210	100 - 300	100 - 300	80 - 300
Source: Drug Enforcement Administration				

THC Content				
(Percent)				
	1975	1980	1985	1990
Sinsemilla	na	6.40	7.28	7.60
Buds	1.34	3.81	4.88	5.49
Commercial Grade	.75	.82	3.12	2.81
Hashish*	2.31	2.58	6.49	6.86
Source: Drug Enforcement Administration				
* Hashish users represent a very small percentage of the marijuana user population in the United States. This is due to the general preference for domestically-produced marijuana with a high THC content as well as general unfamiliarity with the drug.				



## TRAFFICKING

While Mexico accounted for most of the marijuana available in the United States during 1990, the proportion from domestic sources of supply increased in 1990 to some 18 percent as compared to some 13 percent in 1989. Tertiary sources of supply for marijuana available for consumption in the United States during 1990 included Colombia, Jamaica, Laos, the Philippines, and Thailand.

During 1987, an estimated 3,300 to 5,500 tons (3,000 to 5,000 metric tons) of marijuana were cultivated in the United States. This compares to an estimated 5,500 to 6,600 tons (5,000 to 6,000 metric tons) cultivated during 1990. Of that amount, approximately 3,650 tons (3,318 metric tons), representing some 7.3 million cultivated cannabis plants, were eradicated. It is further estimated that 27 percent of the cannabis plants eradicated during 1990 were sinsemilla.

During 1990, the DEA sponsored a Domestic Cannabis Eradication and Suppression Program (DCE/SP) in conjunction with other federal, state and local law enforcement authorities in 50 states. The National Guard and Civil Air Patrol also participated. The DCE/SP resulted in the eradication of, as previously mentioned, 7.3 million cultivated cannabis plants, 118.5 million low potency ditchweed plants, the arrest of 5,729 violators, and the seizure of 3,210 weapons. In recent years, the DCE/SP has placed increasing emphasis on the investigation and prosecution of major domestic cannabis cultivators and trafficking organizations. The net result during 1990 was the forfeiture of assets valued at over \$38 million, almost quadrupling the amount seized in 1988. The U.S. Fish and Wildlife Service, National Park Service, and Bureau of Indian Affairs also have long-term programs to combat cannabis cultivation on public lands.

The five major cultivated cannabis producing states in 1990 were Missouri, Oklahoma, Nebraska, Hawaii, and Kentucky, respectively. These states accounted for approximately 58 percent of the

cultivated cannabis eradicated during 1990. Ditchweed, or hemp, growth remains most prolific in the U.S. midwest. Its wild growth there is as a result of extensive cultivation during World War II to serve as a ready source of rope, one of its by-products. Five states, specifically, Kansas, Indiana, Nebraska, Oklahoma, and Tennessee accounted for approximately 94 percent of the ditchweed eradicated in 1990.

One of the major accomplishments of the DCE/SP was Operation Wipeout conducted in Hawaii from July to November 1990. It was estimated that the program eradicated approximately 85 percent of Hawaii's summer cannabis crop. As a result, the street price of marijuana increased from \$1,600 to \$2,200 per pound to \$4,600 to \$6,000 per pound. According to DCE/SP eradication statistics, over 750,000 cultivated plants were eradicated in Hawaii during 1990. It is believed by some law enforcement officials that growers are moving their operations to Washington and Oregon in response to enforcement and eradication.

Domestic cultivation trends of significance in recent years include cultivator efforts to enhance the potency of marijuana through the employment of advanced agronomic practices to include hydroponics and cloning. There is also movement toward indoor production. The number of indoor growing operations seized in 1990 reached an all-time high of 1,669, up from 1,398 seized in 1989. Indoor growing operations were found in all but three states during 1990, with the greatest number, 281, seized in Oregon. As profit potential associated with marijuana cultivation increases, so too do the number and sophistication of indoor growing operations. Over the last several years, highly sophisticated and large-scale interstate/intrastate growing operations have emerged. More recently, these operations appear to be moving underground. From October to November 1990, for instance, DEA and other law enforcement officials seized four large-scale underground growing operations in California and Arizona. An aggregate of approximately 27,147 marijuana plants were seized from these growing operations. Their combined value is estimated at \$325.7 million.

<b>Marijuana Production Estimate</b> (U.S. Customary)			
	<b>Year</b>	<b>Net Cultivation (acres)</b>	<b>Net Production (tons)</b>
Mexico	1989	133,133	33,220
	1990	86,574	21,687
Colombia	1989	5,607	3,080
	1990	3,705	1,650
Jamaica	1989	692	209
	1990	3,013	908
Belize	1989	185	72
	1990	161	66
Others	1989	na	3,850
	1990	na	3,850
United States	1989	na	5,500 - 6,600
	1990	na	5,500 - 6,600
<b>Marijuana Availability</b> (Tons)			
		<u>1989</u>	<u>1990</u>
<b>Gross Marijuana Available:</b>		45,931 - 47,031	33,660 - 34,760
LESS Seizures*, seizures in transit and losses:		< 3,850 - 4,950 >	< 3,850 - 4,950 >
<b>Net Marijuana Available:</b>		40,981 - 43,181	28,710 - 30,910
Source: <i>International Narcotics Control Strategy Report 1991</i>			

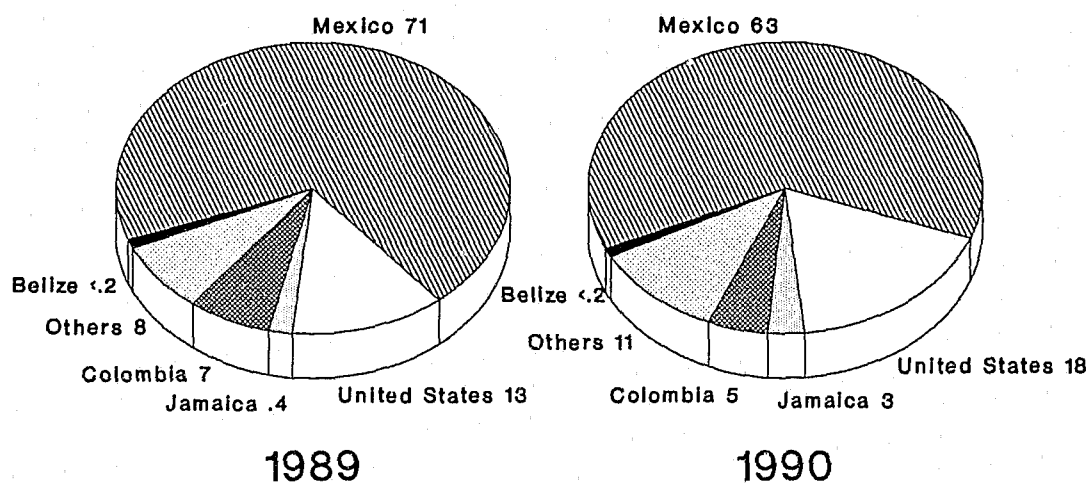
See following page for metric.

\* U.S. seizures in this table and the table which follows include coastal, border, and internal (not domestic eradicated sites): seizures in transit include those on the high seas, in transit countries, from aircraft, etc. The loss factor includes marijuana lost because of abandoned shipments, undistributed stockpiles, and inefficient handling and transport, etc.

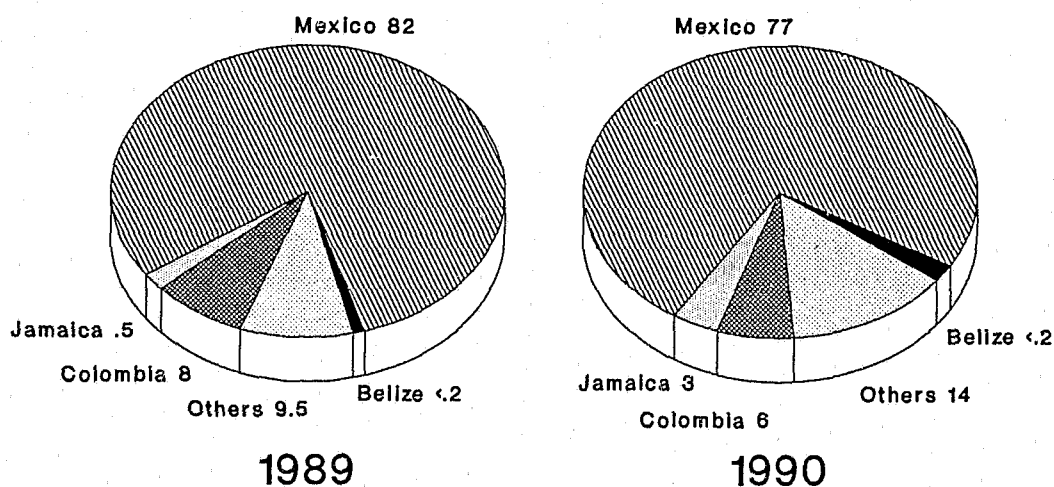
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Marijuana Production Estimate (Metric)			
	Year	Net Cultivation (hectares)	Net Production (metric tons)
Mexico	1989	53,900	30,200
	1990	35,050	19,715
Colombia	1989	2,270	2,800
	1990	1,500	1,500
Jamaica	1989	280	190
	1990	1,220	825
Belize	1989	75	65
	1990	65	60
Others	1989	na	3,500
	1990	na	3,500
U.S.	1989	na	5,000 - 6,000
	1990	na	5,000 - 6,000
Marijuana Availability (metric tons)			
		<u>1989</u>	<u>1990</u>
Gross Marijuana Available:		41,755 - 42,755	30,600 - 31,600
LESS Seizures, seizures in transit and losses:		< 3,500 - 4,500 >	< 3,500 - 4,500 >
Net Marijuana Available:		38,255 - 39,255	26,100 - 28,100
Source: <i>International Narcotics Control Strategy Report 1991</i>			

### Percentage of Total Marijuana Supply by Country of Origin\*



### Percentage of U.S. Marijuana Imports by Country of Origin\*



\* Percentages are rounded off and reflect midpoints of the quantity ranges in these graphs. For purposes of calculation and comparison, all the marijuana produced overseas is assumed to be potentially available for import to the United States.

## **DEVELOPMENTS IN SOURCE REGIONS**

### **LATIN AMERICA**

#### **COLOMBIA**

Colombia, once the primary source country for marijuana available in the United States, now provides only a small percentage of total marijuana imports. During 1990, Colombia cultivated approximately 3,705 acres (1,500 hectares) of cannabis. This cultivation had the potential of producing 1,650 tons (1,500 metric tons) of marijuana. Cultivation in Colombia's traditional growing areas of Sierra Nevada de Santa Marta and Serrania de Perija of northeastern Colombia is significantly lower than in previous years. Other growing areas include the departments of Narino, Putumayo, Valle de Cauca, and Cauca along the Pacific coast.

#### **MEXICO**

Mexico continues to be the major foreign source of marijuana imported to the United States. Mexico is estimated to provide upwards of 70 percent of the marijuana consumed in the United States. Net cultivation of some 86,574 acres (35,050 hectares) in 1990 reflect a significant decrease compared to 133,133 acres (53,900 hectares) under cultivation in 1989. This decrease is attributed to unfavorable weather conditions and intensified eradication on the part of the Mexican government.

Cannabis continues to be grown throughout Mexico with major growing areas found principally in the western states of Chihuahua, Jalisco, San Luis Potosi, Sinaloa, Sonora, and Zacatecas. On the east coast, Veracruz is believed to contain large growing areas. There is some cultivation of sinsemilla in Mexico, but most of the cannabis produced is of the commercial variety. During 1990, cultivation was

also confirmed in the southern states of Chiapas, Guerrero, Michoacan, and Oaxaca. While two harvests a year have been traditional, the cycle is not rigid. In many areas of Mexico, cannabis is grown continuously throughout the year. Serious drought in northern Mexico in 1990 adversely affected marijuana production in that region, but abundant rains fell in the southern region making up for the shortfall. In addition, deep-sunk wells are used by affluent traffickers as a source of water for irrigation to minimize dependence on rain water during seasonal drought periods.

Cannabis continues to be cultivated primarily by subsistence farmers who rely on it as their only cash crop. The cannabis is often intermingled with legitimate crops such as corn and beans. Some traffickers have introduced more advanced agricultural technology and taught farmers how to avoid or negate the effects of aerial eradication. These same traffickers control the processing and transport of the marijuana. Mexican-produced marijuana is smuggled into the United States predominantly by vehicle (98 percent) and, to a far lesser extent, by private aircraft (2 percent). U.S. detection, monitoring, and interdiction efforts along the Southwest border account for the dramatic reduction in the use of private aircraft which has occurred over the past several years.

The Mexican Government reported seizing 449 tons (408 metric tons) of marijuana during 1990, a slight decrease over the 453 tons (412 metric tons) seized in 1989.

#### **BELIZE**

An aggressive aerial eradication program has resulted in reducing the amount of marijuana produced in Belize in 1990 to 66 tons (60 metric tons), a decrease from 72 tons (65 metric tons) produced in 1989. An estimated 161 acres (65 hectares) of cannabis were cultivated in 1990, and 827 acres (335 hectares) of cannabis were eradicated. As a result of this persistent effort, growers are planting cannabis under vegetation and intermingling cannabis with food crops to conceal cultivation. An

increase in the planting of the indica variety of cannabis which is much shorter than the indigenous plants has also been noted. Use of indica allows planting under secondary jungle canopy and makes both detection and aerial eradication more difficult.

## **BRAZIL**

Brazil is a major producer of marijuana with illegal cultivation of cannabis confirmed in 20 of its 26 states and in the Federal District of Brasilia. The greatest production takes place in the northeastern states of Bahia and Pernambuco.

In 1990, the Brazilian Federal Police (DPF) seized about 11 tons (9.9 metric tons) of marijuana and eradicated 8.9 million cannabis plants. The plants destroyed could have produced an estimated 3,944 tons (3,585 metric tons) of marijuana assuming average plant yield of 400 grams. Reliable estimates of total cannabis cultivation have not been obtained to date. Marijuana traffickers exhibit considerable competence in concealing cultivation.

Most cannabis cultivated in northeastern Brazil is for domestic consumption. Marijuana not intended for domestic consumption is usually trucked from the interior to port cities on the northeast coast and to the northern region, primarily Belem. DPF officials believe that large quantities of marijuana are exported from Belem to Suriname and French Guiana, and occasionally on to The Netherlands for distribution in The Netherlands and Europe. Belem provides a natural link for marijuana traffickers because of its large Surinamese community and the considerable commercial activity, both legal and illegal, conducted there between Brazil and Suriname.

Marijuana production and trafficking are usually controlled by Brazilian nationals, but unconfirmed reports suggest involvement of foreign nationals in support activities associated with trafficking.

## **JAMAICA**

Jamaica continued cannabis eradication in 1990. The government eradicated 2,544 acres (1,030 hectares) of cannabis, a 32 percent decrease from 3,730 acres (1,510 hectares) eradicated in 1989. A gross estimated 5,558 acres (2,250 hectares) were cultivated in 1990, representing a significant increase over the 1989 gross estimate of 4,421 acres (1,790 hectares) of cultivation. While over 2,470 acres (1,000 hectares) of cannabis were eradicated in 1990, a lack of aviation resources during the year prevented Jamaica from making more substantial reductions in the cannabis crop.

As a result of successful eradication campaigns since 1987, cannabis farmers have virtually ceased large-scale cultivation (5 to 50 acre plots). Most of the cannabis is now grown in plots of 1 acre or less. Moreover, cultivation has shifted from the more accessible wetlands of western/central Jamaica to remote sites in the highlands, including the Blue Mountains of eastern Jamaica. In an attempt to conceal cultivation and evade heliborne eradication operations, extensive plots of cannabis are now cultivated along the base of steep, narrow ravines and canyons.

It is estimated that cultivation, after eradication, increased from 692 acres (280 hectares) in 1989 to 3,013 acres (1,220 hectares) in 1990, resulting in an estimated, harvested yield increase from 209 tons (190 metric tons) in 1989 to 908 tons (825 metric tons) available for export and domestic consumption in 1990.

In Jamaica, maritime traffickers used pleasure boats with concealed storage areas to carry relatively small quantities of marijuana. Commercial fishing and cargo vessels are used to carry larger shipments. Traffickers also conceal marijuana in container cargo shipments intermingled with legitimate exports. Intelligence suggests that some cocaine traffickers may be using existing marijuana smuggling infrastructures to facilitate shipments of cocaine to the United States.

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## PARAGUAY

Cannabis is grown primarily in the northeastern region of Paraguay along the Brazilian border. The marijuana is consumed domestically and exported to Brazil. An estimated 1,050 acres (425 hectares) of cannabis were cultivated in 1990, the same as in 1989. An estimated 1,013 acres (410 hectares) of marijuana were eradicated in 1990 as a result of manual eradication conducted by the government. In comparison, about 958 acres (388 hectares) of cannabis were destroyed in 1989 as a result of U.S. Government-sponsored aerial eradication. The U.S.-sponsored program was not continued in 1990 because of other counter-drug priorities.

## SOUTHEAST ASIA

In the late 1980s, Southeast Asia emerged as a major exporter of marijuana to the United States. Most of the marijuana destined for the United States comes from Thailand and Laos, and, to a lesser extent, the Philippines and Cambodia. Other nations such as Australia, Burma, Indonesia, Malaysia, some of the Pacific islands, and Vietnam also produce marijuana. However, the extent of cultivation and ultimate export are not known for these countries. As a result, specific figures are unavailable for 1990.

In the past several years, there has been a shift in trafficking patterns accompanied by changes in cultivation, processing, storage, transportation, and routing. Trafficking occurs from cultivation areas in northern Southeast Asia to staging points along Thailand's southern coast, western Cambodia, and the coast of Vietnam. Marijuana is often moved using ten-wheel trucks. At export points, the marijuana is loaded onto trawlers and transported to motherships anchored 65 to 100 nautical miles from shore in the Gulf of Thailand. Oceangoing vessels (commercial and non-commercial cargo ships, utility vessels, and fishing trawlers), private yachts, and sailing vessels have all been used either individually or as motherships. Commercial aircraft have not been used to any great extent to move marijuana to

the United States. However, there are indications that this mode is utilized for shipments destined for Europe.

Major traffickers make use of oceangoing vessels. Trans-Pacific shipments of marijuana usually occur during the spring and summer months. Some reports indicate that the only real hindrance to trans-Pacific shipping of marijuana are the monsoons and Pacific storms. When the mothership sails to within 200 to 700 nautical miles of the U.S. coast, the contraband is offloaded to smaller, faster vessels. Traffic to the United States is dominated by Americans. Other nationalities engaged in trafficking include Australians, British, Canadians, Chinese out of Hong Kong and Taiwan, Germans, and Thais. To date, over \$100 million in assets have been seized from American marijuana smugglers alone.

In recent years, there have been a few cases of Southeast Asian trafficking organizations using South American countries and Canada as transshipment points for marijuana destined for the United States. Canadian authorities seized some 22 tons (20 metric tons) in 1988. Southeast Asian marijuana ultimately destined for consumption in the United States has even been seized off the coast of Brazil.

Farmers in Southeast Asia generally harvest two cannabis crops per year. If water is available, cannabis can be grown on a year-round basis. In Thailand, growers plant their first crop in mid-June or, at the latest, in August or September. The crops are harvested in December and January. In October or November, a second crop is planted for harvest in April. Filipino farmers generally plant two crops per year as well. The first is planted in March and harvested in June. The second crop is planted in November for harvest in January. In Thailand, the monsoons can adversely affect the crop. However, the farmers store and warehouse marijuana, if necessary, to accommodate an early harvest and will package during the rainy season.

Packaging methods, ranging from the crude to the sophisticated, have been used by traffickers in Southeast Asia. The first step is usually to press the marijuana into 1 kilogram (2.2 pound) blocks using

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a hydraulic press. The blocks are placed into aluminum foil or plastic bags and then vacuum packed. The packets are hermetically sealed with a heat sealing device and wrapped with nylon reinforced plastic tape. Tin cannisters, burlap gunny sacks, nylon or canvas gym bags, and boxes have all been used to contain the brick packages. The entire process maintains composition, eliminates odor, and prevents mildew.

Accurate eradication figures for 1990 are not available. However, in 1989, Southeast Asian law enforcement officials eradicated unprecedented amounts of plants and seedlings and seized record quantities of marijuana. Seizures and intelligence reflect continued increases in the availability of Southeast Asian marijuana in the United States during the first half of 1990. The total quantity of cannabis plants and seedlings destroyed in Southeast Asia rose to over 47 million in 1989, a 68 percent increase over 1988. Most of the eradication in 1989 occurred in the Phillipines followed by Indonesia and Thailand. Seizures accounted for some 365 tons (332 metric tons) of marijuana in 1989. Thailand reported seizures of 275 tons (250 metric tons) accounting for 64 percent of the total in 1989. Seizures of Southeast Asian marijuana declined in the United States in 1989 to 5.5 tons (5 metric tons) down from 121 tons (110 metric tons) in 1988.

Prices for Southeast Asian marijuana vary depending upon the form, the market, and the quality. U.S. law enforcement has seized Thai marijuana, for example, with THC content as high as 9 percent. The high THC content is the major reason for American abuser preference for Thai marijuana. In the northeastern part of Thailand and in Laos, marijuana sells for approximately \$12.00 to \$28.00 per kilogram (2.2 pounds). This price may increase to \$60.00 to \$80.00 per kilogram for delivery at coastal areas. In the United States, the marijuana sells for \$1,000 to \$2,000 per kilogram and \$1.5 million to \$2 million per metric ton.

## MIDDLE EAST

### LEBANON

Cannabis is grown primarily in the northern Bekaa Valley. In the Bekaa Valley, cannabis cultivation is conducted on a large scale, using mechanized equipment, irrigation, and fertilizers. The land is level across the floor of the valley, approximately ten miles from east to west and cannabis is planted like any licit crop next to roads and near homes and villages. Almost all the cannabis grown in Lebanon is converted to hashish at processing plants located within the local area.

About 5 percent of the hashish produced is converted further to hashish oil which has a THC content of 20 percent. Increasingly, Lebanese cannabis cultivators have turned to opium poppy cultivation.

### PAKISTAN/AFGHANISTAN

Cannabis grows wild in parts of Pakistan and Afghanistan and is also deliberately cultivated. Hashish produced from local cannabis is consumed locally and is exported to other countries. Shipments consisting of multi-hundred pounds have been moved to North America, primarily Canada and the United States, and to Europe in maritime cargo. There have been large hashish seizures in Pakistan to include a 8,690 ton (7,900 metric ton) hashish seizure on October 10, 1990 in Baluchistan. This seizure is reflective of the large volume of hashish trafficking taking place in the area.



# IV

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## DANGEROUS DRUGS

The term "dangerous drugs" refers to broad categories of abused substances, both licit and illicit, which include the following: stimulants other than cocaine; narcotics/analgesics other than opiates; hallucinogens other than cannabis products; and all depressants and sedatives other than alcohol. Each class of substance is generally unlike other classes in its primary action and effect on the user.

### THE CHEMICAL DIVERSION AND TRAFFICKING ACT OF 1988

The Chemical Diversion and Trafficking Act of 1988 (CDTA) which was signed into law in November 1988 placed under Federal control the distribution of 12 precursor and 8 essential chemicals used in the production of illicit drugs, as well as the distribution of tableting and encapsulating machines. During 1990, 12 additional chemicals and their salts were added to the CDTA as part of the Crime Control Act bringing the total number of listed precursor chemicals to 23 and the number of essential chemicals to 9. The CDTA requires that all firms which handle these "regulated chemicals" maintain readily retrievable receipt and distribution records and makes the reporting of suspicious orders mandatory. The law also grants DEA the authority to stop an import or export of a chemical not destined for legitimate medical, scientific, or commercial use.

Government action pursuant to the CDTA has included an extensive effort to identify and educate U.S. firms on all aspects of the law. The U.S. Government has elicited industry cooperation

to ensure that all domestic transactions involving listed chemicals are for legitimate business and industrial purposes. The U.S. Government has also taken appropriate legal action against firms which continue to act as suppliers to the illicit drug trade. The CDTA and related initiatives have made the diversion of chemicals more difficult and have directly led to a decrease in the number of clandestine laboratories operating in the United States during 1990.

The major impetus of the CDTA at the international level is to insure that the United States imports only those quantities of chemicals required for legitimate needs, and that the United States is not exporting chemicals used in foreign countries for illicit drug production. Since the inception of the CDTA, imports to the United States of ephedrine and pseudoephedrine, which are the immediate precursors of methamphetamine, have decreased approximately 35 percent from 1989 to 1990. Exports of chemicals to Latin America by U.S. firms have been reduced by approximately one-half. This has been accomplished, in part, by DEA investigations which have led to the denial of regular customer status to a significant number of Latin American companies. Unfortunately, it appears that the European chemical industry is filling the void created by the decline in U.S. exports.

Extensive diplomatic initiatives are underway with both user and supplier nations to encourage the enactment of stringent chemical control legislation where none is in place, and to encourage more vigorous enforcement of the import restrictions currently in effect in several Latin American countries. Training programs and on-site assistance

for the establishment of chemical monitoring units have been provided to a number of foreign governments, including the governments of Aruba, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, and Venezuela.

## STEROIDS

A new area of concern to U.S. federal law enforcement agencies is the enactment of the Anabolic Steroids Control Act of 1990, the provisions of which became effective on February 27, 1991. The DEA is implementing major initiatives to include regulatory, enforcement, and demand reduction programs as well as liaison with appropriate state and industry representatives to ensure that the pharmaceutical industry develops control procedures which will eliminate the diversion of steroids. Suppliers engaged in illegal activities will be dealt with either through the regulatory process or through criminal enforcement actions where illegal activities are documented. Legitimate imports of anabolic steroids will be strictly controlled and monitored, and all enforcement efforts will be brought to bear against smugglers of counterfeit products. Suppliers

who do not meet stringent security and recordkeeping requirements will not be granted DEA registration.

State and local regulatory and enforcement agencies will be supported in their efforts to curtail diversion and trafficking of steroids at the local level through the provision of assistance with legislative initiatives, technical expertise, and policy interpretation and direction.

## CLANDESTINE LABORATORIES

Clandestine laboratories continue to produce most of the illicit dangerous drugs available in the United States. During 1990, 521 domestic clandestine laboratories were reported seized, an approximately 35 percent decrease from 1989 seizures. As previously stated, this decrease was due primarily to the enactment of the CDTA and related state legislation. As in past years, methamphetamine continued to be the most prevalent clandestinely manufactured substance in the United States. In 1990, 429 methamphetamine and 51 amphetamine laboratories were seized.

Clandestine Laboratory Seizures in the United States				
	1987	1988	1989	1990
PCP	11	21	11	11
Methamphetamine	653	629	652	429
P2P	11	11	33	17
Amphetamine	73	90	93	51
Methaqualone	2	5	5	1
Cocaine	14	8	1	4
Other	11	20	12	8
<b>Total</b>	<b>775</b>	<b>784</b>	<b>807</b>	<b>521</b>
Source: Drug Enforcement Administration				

## DANGEROUS DRUGS

**Selected Illicit Dangerous Drugs Price Information**  
(Dollars)

<b>Wholesale Prices</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>
Methamphetamine (oz)	1,000 - 1,500	700 - 1,800	450 - 2,000	500 - 2,400
Methaqualone (d.u.*)	.50 - 2	.50 - 2	.50 - 2	.50 - 3.50
PCP (oz - liquid)	100 - 500	100 - 500	100 - 1,000	100 - 1,000
LSD (d.u.)	1 - 2.50	.35 - 1.50	.35 - 1.50	.30 - 3.50
MDMA (d.u.)	na	na	na	2 - 20

**Retail Prices**

Methamphetamine (gm)	60 - 120	60 - 125	50 - 125	50 - 150
Methaqualone (d.u.)	3 - 10.50	3 - 10.50	3 - 10.50	3 - 10
PCP (1 cigarette**)	30 - 70	30 - 70	30 - 70	30 - 70
LSD (d.u.)	3 - 6	2 - 8	1 - 8	1 - 10
MDMA (d.u.)	na	na	na	5 - 30

\* Dosage units.

\*\* A full-length cigarette saturated with PCP and sold in Los Angeles.

Source: Drug Enforcement Administration

## STIMULANTS

**Methamphetamine:** The most prevalent clandestinely produced controlled substance in the United States continues to be methamphetamine. In 1990, 429 methamphetamine laboratories were seized, accounting for approximately 82 percent of all clandestine laboratory seizures. The 1990 figure represents a 34 percent decrease over the previous year's record total of 652. The DEA participated in 386 of the methamphetamine laboratory seizures made in 1990, compared to 549 in the previous year.

The Houston, Los Angeles, San Diego, San Francisco, and Seattle Field Divisions of DEA accounted for approximately 76 percent of the methamphetamine laboratory seizures during 1990. This suggests that the clandestine manufacture of methamphetamine is still based primarily in the western and southwestern United States. Although methamphetamine laboratory seizures declined in almost every DEA Field Division, the San Francisco Field Division continues to report the highest number of methamphetamine laboratory seizures with 106 in 1990 as compared to 172 in 1989.

The relatively simple method of producing methamphetamine, known as ephedrine reduction, remains the primary method of manufacturing methamphetamine. This process, once noted almost exclusively in the southern California area, has become widespread throughout much of the United States. Prior to the emergence of the ephedrine reduction method, phenyl-2-propanone (P2P) was the major precursor used to synthesize methamphetamine. The use of this method continues to be utilized as indicated by the 17 P2P laboratories seized in 1990. Its use is further confirmed by the 169 methamphetamine or amphetamine laboratories seized in 1990 which produced or were capable of producing P2P as an intermediate step to the finished product.

**d-Methamphetamine hydrochloride ("Ice"):** "Ice" is not a new analogue of methamphetamine HCl. Rather, it is rock-like crystals of high purity methamphetamine HCl and derives its name from its appearance: clear, large, chunky crystals which

resemble ice crystals. The drug is often mistaken for shards of broken glass or rock candy. Other terms for "Ice" include quartz, glass, crystal meth, Shabu, Kaksonjae, Hanyak, Hiropon, Batu, and crack meth.

Since the mid-1980s, there have been attempts to smuggle "Ice" from Taiwan and South Korea into Hawaii. However, it was not until the summer of 1988 that its use became relatively widespread in that State. By 1989, there was distribution of this substance on the U.S. mainland, but it was very limited and restricted to the West Coast. By 1990, distribution of "Ice" increased on the U.S. mainland, although distribution remained limited primarily to retail amounts. While the majority of the "Ice" available continued to be concentrated on the West Coast, principally in California, seizures and availability of "Ice" were also noted in Colorado, Florida, Montana, New York, Nevada, North Carolina, Oklahoma, and Texas. Investigations revealed that most of the "Ice" seized originated from sources of supply in California.

Much of the increase in the availability of "Ice" on the U.S. mainland during 1990 is believed to be due to the presence of clandestine laboratories operating in California. During the year, 7 "Ice" laboratories were seized nationwide. All but one of these laboratories were located in California. In addition, reporting indicates that California-based laboratories were supplying "Ice" to distributors in Hawaii during 1990. These domestically produced supplies are believed to have partly compensated for shortages which occurred during the year in Hawaii in the supply of "Ice" from foreign sources. These shortages were caused by the disruption of several major trafficking organizations engaged in the smuggling of "Ice" from South Korea.

The sale of "Ice" during 1990 was predominantly controlled by Asian groups. These groups are organized along ethnic lines with Filipinos and South Koreans being the dominant groups. In addition to domestic manufacture, laboratories in South Korea and the Philippines continued to be responsible for the "Ice" available in the United States during 1990. "Ice" sold for \$200 to \$300 per gram on the West Coast and in Hawaii during 1990.

## DANGEROUS DRUGS

At the ounce level, the drug sold for approximately \$6,000 on the West Coast and \$7,000 to \$13,000 in Hawaii. Prices for "Ice" at all levels of the traffic were considerably higher in Hawaii during the supply shortage which occurred there during the first half of 1990.

All of the "Ice" analyzed by DEA to date has had high purity levels of 90 to 100 percent. In the United States, ingestion of "Ice" has been almost exclusively by smoking. In the Far East, however, the preferred method of administration is by injection. The high purity combined with the smoking of the drug accounts for the intensity of the euphoric effect and its rapid onset which occurs 6 to 10 seconds after administration. Treatment experts report that it is not uncommon for the effects of "Ice" to last as long as 8 to 16 hours. These effects frequently include heightened energy, euphoria, confusion, paranoia, nausea, and extreme psychosis. Reporting by a number of treatment experts during 1990, however, indicates that tolerance to "Ice" develops with continued use. This is significant in demystifying the appeal of the "intense, long-lasting high" which attracts many users. With continued use, the level of euphoria reached during initial use becomes less attainable and the duration of the euphoric effects less prolonged.

**Amphetamine:** In 1990, 51 clandestine amphetamine laboratories were seized, as compared to 93 in 1989 and 90 in 1988. Twenty-two (or 43 percent) of the amphetamine laboratories confiscated in 1990 were seized in the DEA's Dallas Field Division. The second highest number of seizures (8) occurred in the DEA's Houston Field Division.

## HALLUCINOGENS

**LSD:** LSD, a popular drug of the psychedelic generation of the 1960s, remained available in many areas throughout the United States during 1990. LSD is an abbreviation for lysergic acid diethylamide. It is produced from lysergic acid, a substance derived from the ergot fungus which grows on rye or from lysergic acid amide, a chemical found in

morning glory seeds. Both of these precursor chemicals are on Schedule III of the Controlled Substances Act. LSD, however, is a Schedule I controlled substance as it has no currently accepted use in medical treatment in the United States.

Although availability fluctuates in different parts of the country from time to time, the overall supply of LSD has remained relatively constant since 1980. The drug's relatively inexpensive cost, averaging between \$1.00 and \$10.00 per dosage unit, ready availability, and, in the case of blotter acid, intriguing designs, make LSD especially attractive to the high school and, to a somewhat lesser extent, college-age population who use it primarily as a weekend recreational drug.

Pure, high potency LSD is produced in crystalline form and then diluted as a powder or a liquid for incorporation into ingestible forms. LSD is sold in tablets, thin squares of gelatin commonly referred to as window pane, and impregnated paper known as blotter acid. The potency of this hallucinogen on the illicit market today generally varies in strength from 20 to 80 micrograms per dosage unit which is markedly lower than that encountered during the late 1960s when use was at its peak. At that time, users were ingesting LSD that ranged in strength from 150 to 300 micrograms which often resulted in harmful reactions known as "bad trips." Today, milder doses may account for the relatively few LSD-related emergency room cases.

Retail-level LSD distribution networks in the United States are comprised of young adults who have known each other through long association and common interests. At the wholesale production and distribution level, LSD is believed to be tightly controlled by California based organizations which have operated with relative impunity for over twenty years.

In 1990, LSD removals were the third largest of the dangerous drug removals nationwide. During 1990, approximately one-half million dosage units of LSD were confiscated in the United States by the DEA.

**PCP:** Phencyclidine, commonly referred to as PCP, was developed in 1957 as a human anesthetic and later utilized in veterinary medicine as a powerful tranquilizer. Its use for humans was discontinued in 1965, however, because of its adverse side effects of confusion and delirium. In 1978, its commercial manufacture was discontinued and PCP was transferred from Schedule III to Schedule II of the Controlled Substances Act thus classifying it as a drug with a high potential for abuse. Since that time, phencyclidine available in the United States has been produced in clandestine laboratories.

PCP enjoyed a brief popularity in the late 1960s when it was trafficked as a "Magic Peace Pill." Abuse resurfaced from 1975 onwards with its appeal generated by low price and powerful effects. From the period 1981 through 1985, trafficking and abuse of the drug escalated significantly, particularly among persons under the age of twenty-one. During 1985, and continuing to the present, demand for PCP has been displaced somewhat due, in large measure, to the widespread availability of crack cocaine.

PCP is sold under numerous names including Angel Dust, Crystal, Supergrass, Killer Joints, Ozone, Wack, Embalming Fluid, and Rocket Fuel that reflect the range of its bizarre and volatile effects. In its pure form, it is a white crystalline powder that readily dissolves in water. Most PCP now contains contaminants resulting from its makeshift manufacture, causing the color to range from tan to brown and the consistency to range from a powder to a gummy mass. The liquid form of PCP remains the most commonly encountered although it is sold in tablets, capsules, and as a powder. PCP is typically applied to a leafy material such as mint, parsley, oregano, or marijuana, and smoked.

PCP has been used to adulterate commercially manufactured cigarettes, usually by dipping the cigarette in liquid PCP. The most popular commercial types used are dark paper wrapper cigarettes such as Shermans or Tijuana Smalls. PCP can also be injected hypodermically into cigarettes. Reporting indicates that the majority of the nation's PCP supply is manufactured and distributed by Los Angeles-

based street gangs. Eleven PCP laboratories were seized in 1990; 8, or nearly three-fourths of them, were seized in California. PCP laboratory seizures since the mid-1980s have ranged from 8 to 21, considerably less than the high of 79 reported in 1978.

While buses and trains are used to transport PCP from California sources of supply, vehicular traffic is believed to have been the primary means for transporting PCP to major U.S. metropolitan areas during 1990. Cities which have experienced significant abuse levels in recent years include Baltimore, Chicago, Los Angeles, New Orleans, New York City, San Francisco, St. Louis, and Washington, D.C. The level of abuse in these areas appears, however, to have diminished in recent years, supplanted by increased crack availability.

**3,4-Methylenedioxymethamphetamine (MDMA):** MDMA, known chemically as 3,4-methylenedioxymethamphetamine is also known by several street names such as Ecstasy, XTC, MDM, Adam, E, Clarity, Essence, and Doctor. MDMA is not to be confused with MDA, another hallucinogen, although a structural relationship exists between the two substances. It is similarly related to methamphetamine, a stimulant, as a 3,4-methylenedioxymethamphetamine analogue of amphetamine. It has been described by users, most of whom are college students and recent graduates, as a fast-acting drug which produces feelings of alertness, euphoria, relaxation, and emotional warmth without the resulting hyperactivity produced by stimulant substances.

MDMA which is usually sold in tablet form, was most available in the states of Louisiana and Texas during 1990. Retail prices range from \$7.50 to \$30.00 per dosage unit; wholesale prices ranged \$2.00 to \$20.00 per dosage unit. Dosage units vary in strength from 55 to 150 milligrams. Two MDMA laboratories were seized in 1990. One each was found in DEA's Miami and San Francisco Field Divisions.

Narcotics/Analgesics and Heroin Substitutes/Supplements				
	Retail Prices (Dollars)			
	1987	1988	1989	1990
Codeine/Glutethimide (Set)	7 - 14	7 - 14	7 - 14	7 - 14
Hydromorphone (4 mg) (Dilaudid)	20 - 60	20 - 80	20 - 80	20 - 60
Pentazocine/Tripelennamine (Set)	10 - 20	10 - 20	10 - 20	8 - 20
Source: Drug Enforcement Administration				

## DEPRESSANTS

**Methaqualone:** The reduction in availability of methaqualone (Quaalude) is an excellent example of the results of effective legislation and international cooperation. Once the principal illicit depressant in the United States, methaqualone trafficking and abuse have dropped over the last decade to a minimal level. Previously, methaqualone had been smuggled from Colombia and Mexico where it was tableted from bulk powder which had been legitimately manufactured in producing countries and subsequently diverted by international traffickers. During the latter half of 1981, agreements were reached with most producing countries which stringently control production and distribution of methaqualone. Additionally, methaqualone was placed in Schedule I of the Controlled Substances Act in August 1984 prohibiting its manufacture, distribution, or possession in the United States and its territories except for research purposes.

Internationally, large amounts of methaqualone are trafficked from India to and through eastern Africa and on to southern Africa. Additionally, Austria, Czechoslovakia, Hungary, and Germany are believed to maintain inventories of methaqualone powder to satisfy medical requirements. However, traffickers have been unsuccessful in their attempts to purchase large quantities from these remaining stockpiles. Faced

with the shortage of bulk methaqualone powder, traffickers have manufactured counterfeit Quaalude tablets using alternative depressants or sedative/hypnotic substances as the active ingredient. In 1990, all of the purported Quaaludes smuggled into the United States were counterfeit and generally contained diazepam, phenobarbital, or secobarbital. Diazepam remained the primary active ingredient in counterfeit Quaaludes smuggled across the U.S. border from Canada. Counterfeit Mandrax tablets smuggled from Mexico contained secobarbital, phenobarbital, propoxyphene, or caffeine.

## NARCOTICS/ANALGESICS AND HEROIN SUBSTITUTES/SUPPLEMENTS

Pharmaceutical products containing narcotics remained a significant part of the overall illicit drug trafficking situation in the United States during 1990. These products were used alone or in combination, both as substitutes for and as supplements to heroin. These drugs are primary drugs of choice for a substantial portion of the narcotic addict population in the United States. In 1990, pharmaceutical opiates that were used frequently included oxycodone (Percodan), hydromorphone (Dilaudid), pentazocine (Talwin) and codeine combinations such as hydrocodonebitartrate (Vicodin).

## DANGEROUS DRUGS

## **BENZODIAZEPINES**

The seven most frequently abused benzodiazepines are: diazepam, alprazolam, lorazepam, triazolam, chlordiazepoxide, flurazepam, and temazepam. Benzodiazepines are readily available through traditional medical avenues due to the prevalence with which they are prescribed for such conditions as "anxiety" and "panic disorders." They are frequently sought by crack cocaine users to mitigate the effects of cocaine dependence such as paranoia, panic, and anxiety. All DEA Divisions mention the diversion of benzodiazepines, particularly alprazolam (Xanax) and diazepam (Valium), as a significant problem. Because they are both readily available and cheap, they present a serious problem.

## **CONTROLLED SUBSTANCE ANALOGUES**

The term "controlled substance analogue" refers to clandestinely-produced substances which are chemically and pharmacologically similar to

substances listed in the Controlled Substances Act, but are not themselves controlled. In terms of the number of users and extent of distribution, the problem of controlled substance analogues appears relatively small when compared to that of the abused substances such as heroin, cocaine, and cannabis. Nevertheless, in those areas of the United States where controlled substance analogues are available, substantial numbers of people use them with some suffering severe adverse reactions, including death.

A serious aspect of the current abuse of controlled substance analogues is the production of narcotic analogues. The substances consist of variations of the parent compounds fentanyl and meperidine (Demerol). Some of the clandestinely produced analogues of fentanyl are a thousand times more potent than morphine. In 1990, the DEA San Francisco Field Division seized one dismantled clandestine laboratory that was capable of producing fentanyl. Also, in 1990, the amphetamine analogue, N,N-dimethylamphetaminewas permanently placed into Schedule I of the Controlled Substances Act.



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## DRUG MONEY

In the normal drug trafficking organization, there are certain weaknesses, which if exploited successfully by law enforcement agencies, could be used to immobilize the organization. In a common cocaine trafficking organization, the international transportation of the drugs and the laundering of the profits are usually contracted out to other organizations which specialize in these operations. Consequently, these areas are vulnerable to law enforcement. In money laundering operations, drug proceeds pass through three stages: placement, layering, and integration.

The first stage, placement, is the most difficult in the money laundering process. Placement comprises all the various methods used to get the drug money into the financial system. In 1990, cocaine case evidence and consequent intelligence seem to indicate that the bulk movement of cash out of the United States by secreting it in various cargo shipments is still very popular. The funds are then "placed" in the banking systems of other countries which makes manipulation of the funds much easier than if placed in U.S. banks. In the movement of money to the Orient, the use of individual couriers carrying cash, money orders, or cashier checks seems to be the method of choice.

In both the Orient and Latin America, businesses, whether legitimate companies or shell companies, are also used to move drug money. Gold shops, jewelry stores, and travel agencies as well as import and export companies are used as a sort of underground banking system. Drug dollars are brought to a business in the United States and, within hours, an equivalent sum in U.S. dollars or in a local currency can be picked up in another country. In 1990, money launderers used commodities to move

their money. Precious metals businesses imported gold and, after scam purchases with drug money, the payments were sent overseas or deposited into U.S. accounts. Other commodities such as tools were bought with drug money and smuggled into Colombia and resold for pesos. Businesses "exempted" from the Bank Secrecy Act were also used to deposit cash in banks.

Small non-bank financial institutions in 1990 were also employed to move money. Exchange houses or *casas de cambios* along the U.S. southern border were the most popular, commingling drug monies with their own bank deposits. Check cashing shops were used in reverse as well, issuing checks for cash. Cash transmittal businesses popular with illegal immigrants transmitted monies internationally for inflated commissions. Most charge between 5 and 7 percent. Even well-known, legitimate money transfer companies were unwittingly used to transfer funds in the United States.

Structuring or "smurfing" deposits into U.S. bank accounts either in the form of cash, money orders, or cashier checks is still being used probably because of unfamiliarity with new anti-structuring legislation. In 1990, there has been direct collusion with bank officials of non-U.S. based banks such as the Indonesian bank, Bank Dagang Negara; the Italian bank, Bank Leumi; and the Yugoslavian bank, Bank Ljubijanska. Collusion with officials from U.S.-based banks seems to have lessened in recent years.

In the second stage of money laundering, layering, the money which is already in the banking system is wire transferred from bank to bank or from one business to another in order to complicate the

paper trail. There was a noticeable trend change in 1990. In many previous money laundering cases, Panamanian banks were the first offshore banks to receive laundered drug funds which were either stored there or further transferred to European or Latin American banks. In 1990, this was less frequently the case. Funds, if they were wired to Panama, were first wired to Europe or South America.

One of the most effective tools in the field of anti-money laundering enforcement is legislation requiring cash transaction reporting for sums over U.S. \$10,000 or its equivalent in local foreign currency. Australia has passed very comprehensive laws detailing cash transaction reporting and it has established a cash transaction reporting agency which collects and analyzes these reports in order to supply investigative leads to law enforcement. In Latin America, Venezuela and Panama have also passed cash transaction recording and reporting legislation. Colombia may soon pass similar legislation as well. Many nations are reluctant to impose these reporting requirements on the banking system of their countries.

Some also believe that these banking regulations may drive the transmitting of illegal profits into the underground banking systems which exist internationally.

Asset seizures have increased yearly. In FY 90, the DEA seized assets worth over \$1.06 billion. Some assets eventually are returned to innocent third parties and the forfeiture proceedings against other assets will, of course, take months and even years. In FY 90, forfeiture proceedings were finalized against assets worth \$427 million. Internationally, as various countries adopt asset seizure legislation, more and more assets are being seized. At this writing, there are no statistics available for the total sum seized in 1990. However, some \$330 million has been seized throughout the world in cases in which the DEA participated. In Mexico alone, over \$150 million has been seized by local authorities. In Colombia, over \$81 million has been seized. Of course, asset sharing agreements between the United States and other nations will add a great deal of impetus to this recent initiative.

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## GLOSSARY

**Coca Paste:** Conversion of coca leaf to coca paste occurs in crude maceration pits, usually a hole in the ground lined with heavy plastic or metal drums. The process takes a few days. However, the coca leaves may be worked or stomped for only a few hours. Depending upon pit size, the process may require two to five workers. The coca leaves are placed in a pit, an alkaline material (sodium carbonate) and water are added. A water immiscible solvent is added (kerosene) and the mixture agitated (stomped). Cocaine alkaloids and kerosene separate and the water and leaves are drained. Cocaine alkaloids are extracted from the kerosene into a diluted acid solution. Alkaline material (sodium carbonate) is added which causes a precipitate to form. The acid and water are drained and the precipitate is filtered and dried to produce the coca paste, an off-white to light-brown, putty like substance.

**Cocaine Base:** Processing of coca paste into cocaine base is more complicated than coca paste production and requires more sophisticated skills and equipment. Cocaine base can be produced at coca paste locations, but most facilities are situated away from cultivation. The laboratories are often located near rivers and airstrips to facilitate acquisition of coca paste and cocaine base shipment. Coca paste is dissolved in sulfuric or hydrochloric acid and water. Potassium permanganate is combined with water and the mixture added to the dissolved coca paste. Allowed to stand for about six hours, the solution is then filtered and ammonia water added to form another precipitate. The solution is drained and the precipitate dried with heating lamps. The resulting powder is cocaine base.

**Cocaine Hydrochloride (HCl):** The final stage of cocaine processing requires sophisticated skill and equipment. It calls for expensive chemicals and is dangerous. The laboratory usually consists of several buildings such as dormitories, mess facilities,

storage sheds, and the lab itself. Communications operations, generators, filtering and drying equipment, and even chemical recycling facilities may also be present. Initially, acetone or ether is added to cocaine base to dissolve cocaine base and the solution is filtered. Hydrochloric acid diluted in acetone or ether is added to the solution causing cocaine to precipitate as cocaine HCl. The remaining acetone/ether solvent can be discarded or reused. Cocaine HCl is dried under heat lamps, laid out to dry with the aid of fans, or dried in microwave ovens.

**Domestic Monitor Program (DMP):** The DMP is a retail-level heroin purchase program designed to provide federal, state, and local authorities with intelligence relating to heroin purity, price, availability, adulterants, and geographic source areas (signature analysis).

**Drug Abuse Warning Network (DAWN):** DAWN is a federally funded program co-sponsored by the Drug Enforcement Administration and the National Institute on Drug Abuse. It collects information relating to drug abuse occurrences that have resulted in a medical crisis and subsequently have been identified as drug abuse episodes by participating hospital emergency rooms and medical examiner offices nationwide.

**Heroin, Black Tar:** Black Tar heroin is a relatively high purity heroin made from opium poppies grown in Mexico using techniques classified as Mexican in origin. Colors may range from brown to black with a consistency as sticky as roofing tar or hard like coal. Typically, black tar is the hydrochloride salt that is injected.

**Heroin, Southeast Asian Number 3:** Number 3 heroin is also known as smoking heroin which varies in color from tan to grey to red and is granular or

lumpish in composition like fish tank gravel or pet litter. The heroin is not produced with a purity of higher than 50 percent; it usually ranges between 20 to 40 percent. In the manufacturing process of number 3 heroin, large amounts of caffeine are added. Caffeine is the one common chemical characteristic in number 3 heroin. It is readily found in analysis despite any attempt to dilute the heroin. Normal usage for number 3 is smoking, but it can also be dissolved in lemon and/or lime juice for injection.

**Heroin, Southeast Asian Number 4:** Number 4 heroin is injectable, highly soluble in water, and normally sold as a fluffy white powder which may vary in color from white to creamy yellow. The consistency has been likened to that of laundry detergent. The wholesale purity of number 4 heroin usually ranges from 80 to 100 percent.

**Heroin Signature Program (HSP):** The HSP identifies and quantifies selected heroin characteristics and secondary constituents. From resultant data, heroin exhibits are classified according to the process by which they were manufactured, which in turn enables the association of exhibits with geographic regions. HSP data for 1990 is based upon examination of over 600 exhibits. Exhibits include random samples of domestic purchases and seizures as well as seizures made at U.S. ports of entry both at the retail and wholesale level. Based on the exhibits analyzed, percentages of the total U.S. supply are assigned to each source region. The data is based on a qualitative not quantitative measure and therefore is not a direct measure of availability. HSP data for 1990 is subject to revision due to the lag time in laboratory analysis.

**National High School Senior Survey:** The National High School Senior Survey is sponsored by the National Institute on Drug Abuse and the University of Michigan's Institute for Social Research. Researchers surveyed 15,676 seniors in 137 public and private schools from the graduating class of 1990. The survey also includes data on drug use from a follow-up of some 12,000 graduates from the senior classes of 1976-1989.

**National Household Survey:** The National Household Survey is a probability-based sample of 9,259 people representative of the U.S. household population age 12 and over. The surveys have been conducted every two years since 1972 by NIDA. Not included are persons on military installations, in nursing homes, dormitories, hospitals, jails, prisons, or the homeless.

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## **CONVERSION FACTORS**

1.1 (Short) Tons = 1 Metric Ton

2.204 Pounds = 1 Kilogram

2.47 Acres = 1 Hectare