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Colombia: Countering the Marijuana Trade



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An Intelligence Assessment

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*GI 86-10012
February 1986*

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Colombia: Countering the Marijuana Trade



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An Intelligence Assessment

This paper was prepared by 
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Hemisphere Branch, Office of Global Issues, with a
contribution from the Narcotics Analysis Branch of
the Office of Imagery Analysis. 

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Comments and queries are welcome and may be
addressed to the Chief, Terrorism/Narcotics Analysis
Division, OGI, on 

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**Colombia:
Countering the
Marijuana Trade**

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Key Judgments

*Information available
as of 22 January 1986
was used in this report.*

Colombian marijuana growers suffered the most significant setback in years when an extensive eradication campaign conducted by the Colombian National Police in 1985 eliminated most of the fall marijuana crop in the important northeastern growing area. The eradication campaign has not yet significantly reduced marijuana exports because traffickers are obtaining supplies from unaffected areas, stockpiles, and herbicide-damaged plants. If the Colombians sustain their eradication program, we expect the full impact on supplies will be demonstrated in spring and summer 1986 when exports should be substantially reduced.

On the basis of an aerial survey flown in July 1985, we estimate that marijuana production in the northeast may be as low as 1,200 metric tons, an 85-percent reduction from the 1983 estimate for the same area. Overflight of approximately one-half of the growing area in the northeast revealed little marijuana in areas where cultivation had once been abundant. No attempt was made to estimate production outside this area.

We expect that marijuana growers and traffickers will react by intensifying cultivation in areas of previously low production. Aerial surveys spotted marijuana around the Golfo de Uraba near the Panama border as well as in northern Bolivar Department; U-2 flights over Colombia in September photographed several suspect marijuana fields in southern Bolivar; and [redacted] some marijuana growers from northeastern Colombia have moved into Venezuela.

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Current joint drug interdiction operations in the Caribbean involving the United States, Colombia, and several Caribbean nations are likely to discourage marijuana exports through early 1986. On the basis of their response in the past, we expect large trafficking organizations will wait out the interdiction forces and then intensify shipments north from stash sites on the Colombian coast and elsewhere in the Caribbean. Small traffickers, however, do not have the resources to stand down temporarily and will probably continue trying to get loads through.

We judge the government's eradication program has already significantly reduced the amount of marijuana available for market, an unprecedented achievement in Colombian drug control. To sustain the momentum, the government must not only continue eradication programs in the northeast to prevent growers from reestablishing their fields but also expand them to new areas before cultivation gets a firm hold.

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Contents

	<i>Page</i>
Key Judgments	iii
Introduction	1
Marijuana Cultivation	1
The Aerial Survey	1
The 1985 Fall Marijuana Estimate	3
Assessing the Impact of Eradication	5
Countermeasures	5
Alternate Trafficking Routes and Techniques	10
Interdiction Operations	11
Outlook	11

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Figure 1
Primary Marijuana Cultivation Areas and Eradication Efforts

July-September 1985



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Introduction

According to official US Government figures, about 90 percent of the marijuana consumed annually in the United States is imported. Colombia has dominated the marijuana export trade since 1982, supplying from 40 to 70 percent of US imports. Over the past 15 months, the Colombian Government assisted by the United States made a concentrated effort to reduce marijuana exports from Colombia. The Colombian National Police initiated an extensive marijuana eradication campaign starting in 1984, and joint Colombian, US, and Caribbean forces have recently intensified interdiction operations in the Caribbean. We believe the combination of effective eradication and increased interdiction has disrupted normal marijuana trafficking operations, forcing traffickers to seek new ways to circumvent control efforts and to meet market obligations in North America. The Colombian Government seems determined to keep the drug traffickers on the defensive, which could lead to significant changes in marijuana-growing and trafficking patterns in Latin America and the Caribbean.



planting can occur several times a year, depending on the amount of rainfall. The crop in northeastern Colombia is planted over several weeks starting sometime in March and continuing through April. Maturation takes six to seven months; the harvest usually begins in September and continues into November. We estimate that this crop, sometimes called the fall crop, normally accounts for 80 to 90 percent of the marijuana grown in the northeast.



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The Aerial Survey

To gauge the effectiveness of Colombia's yearlong marijuana eradication program, the Colombian National Police and the US Department of State conducted an aerial survey in July 1985. Concentrating on the northeast, the survey covered approximately 3,500 square kilometers, or 40 to 50 percent of the known growing area. The survey team investigated growing areas in Bolivar Department and around the Golfo de Uraba in the Departments of Choco and Antioquia. The team was able to confirm that marijuana is grown in these areas but did not obtain adequate information to estimate production.



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The team found little marijuana in former high-density growing areas, including the Rio Frio Valley, the hillsides and valleys near the northern coast, and the Serrania de Perija Mountains. Areas where large marijuana fields flourished in 1983 were covered with ferns, other natural vegetation, or scattered wild marijuana. Caretaker shacks burned by eradication teams were charred and uninhabited. Although some of the land was planted with corn and other crops, most was evidently abandoned.



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Marijuana Cultivation

Marijuana can grow almost anywhere in Colombia, but past estimates indicate that the greatest concentration of commercial marijuana cultivation is in northeastern Colombia, on the slopes and valleys of the Sierra Nevada de Santa Marta, the Serrania de Valledupar, and the Serrania de Perija Mountains. At altitudes of 600 to 1,200 meters, the marijuana plantations extend from ridgeline to ridgeline, often covering entire mountainsides. Over the past decade, Colombian growers using slash-and-burn techniques have cleared huge areas of land—often government owned—to grow marijuana. Unknown quantities of marijuana are also grown elsewhere in Colombia,



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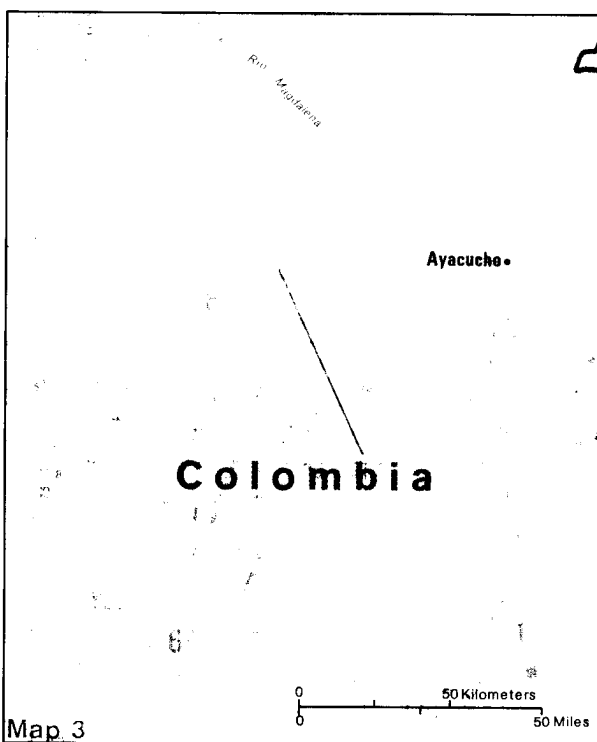
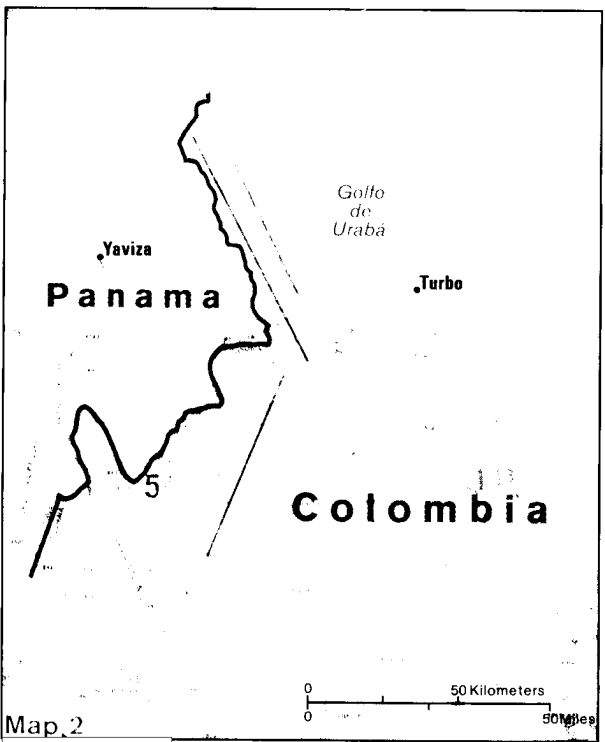
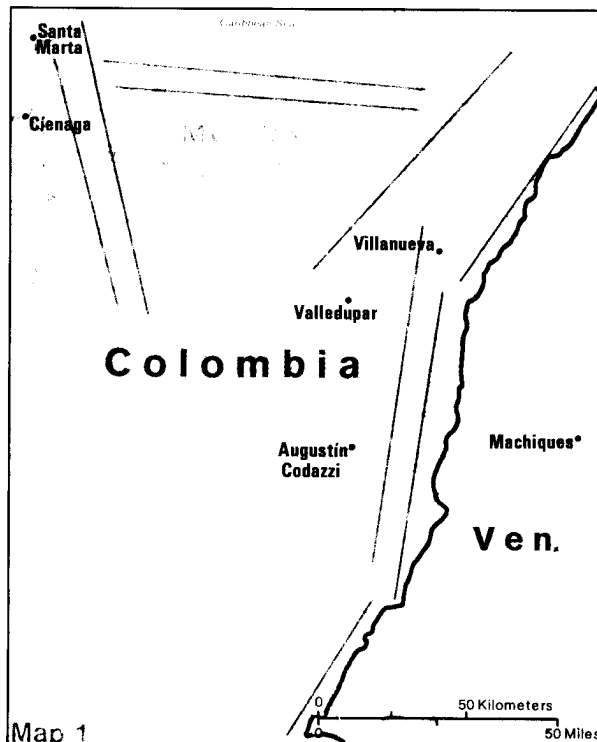
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Figure 2
Aerial Survey Flightlines

July 1985



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Colombia: Marijuana Eradicated, 1985 ^a 25X1

Month	Hectares
Total	7,107
May	420
June	744
July	1,166
August	1,776
September	1,180
October	966
November	855
December	NA

^a Reported by the US Embassy.

[Redacted]

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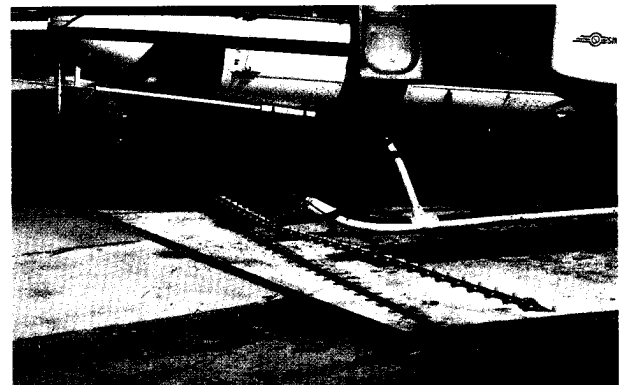


Figure 3. Glyphosate spraying equipment on Bell 212 helicopter operated by the Colombian National Police. This helicopter can carry 500 gallons of glyphosate. (The Colombian police use the gallons sprayed as an indication of the number of hectares eradicated.) [Redacted]

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The 1985 Fall Marijuana Estimate

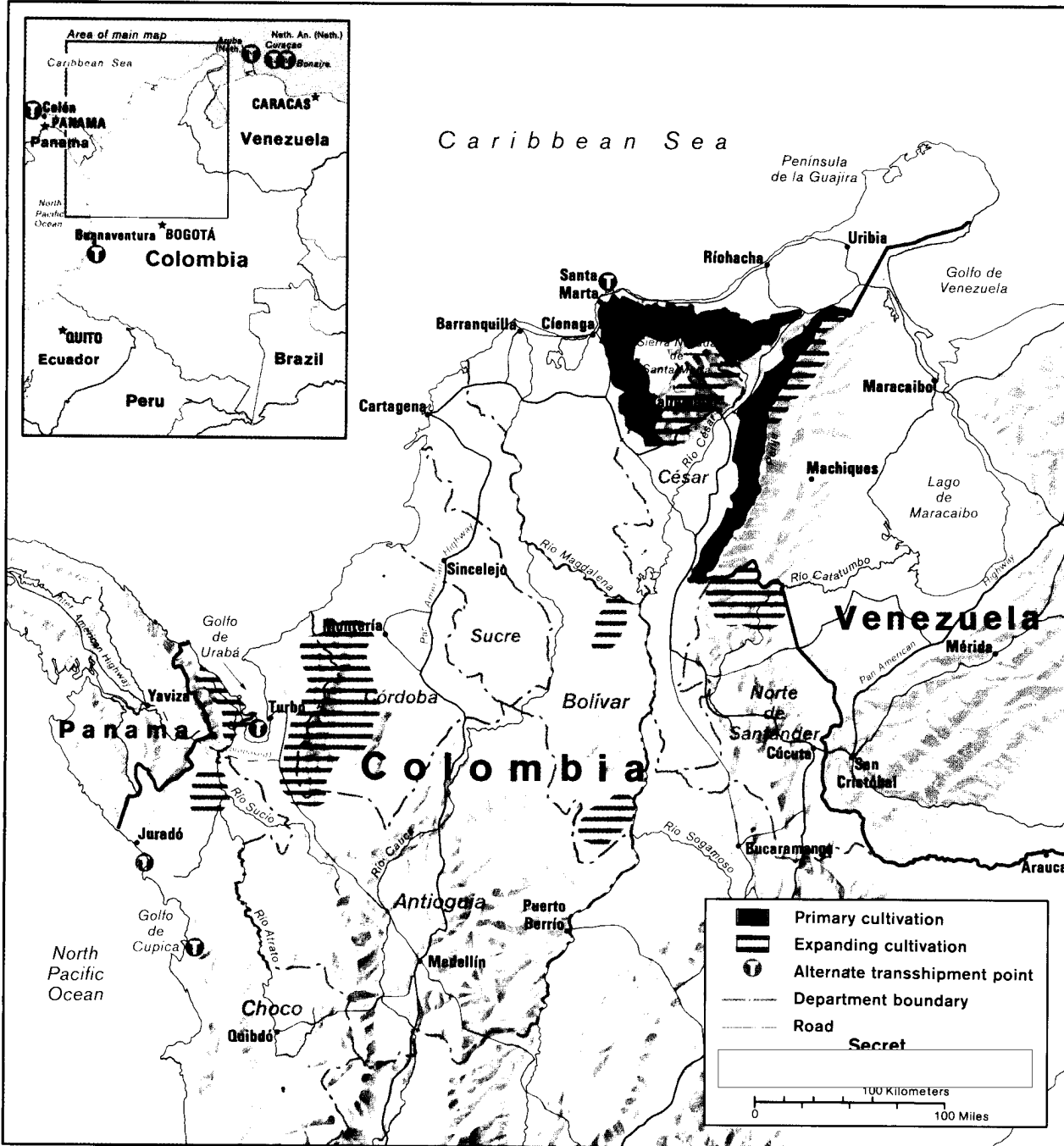
We estimate the marijuana crop in the Sierra Nevada de Santa Marta, Serrania de Perija, and Serrania de Valledupar Mountains covered approximately 1,300 hectares at the time of the survey. This is an 85-percent reduction from the 8,500 hectares estimated [Redacted] for the same area in 1983. As a result, we conclude Colombia's total 1985 marijuana production was lower than it has been for several years, and we expect eradication efforts since the late July aerial survey have further reduced the crop.

[Redacted]

Not only was hectareage reduced but yields also were less. We estimate that under normal condition 25X1 mercially grown marijuana in northeastern Colombia results in an average yield of 1,100 to 1,200 kilograms per hectare. On the basis of field conditions, we

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Figure 4
Marijuana Cultivation



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conclude that some 20 percent of the marijuana observed in July was wild, reseeding itself after spraying operations eliminated the primary crop. Yields from such reseeded plots would be much lower than those obtained from cultivated fields. Taking this into account, we calculated total production based on an average yield of 900 kilograms per hectare. Because much of the wild marijuana probably was not harvested, we estimate potential marijuana production in northeastern Colombia totaled no more than 1,200 tons, and probably less, in July—a reduction of more than 8,000 tons from the probable production in 1984. [redacted]

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Although the estimate allows us to assess the impact of the aerial spray campaign on marijuana production in the areas surveyed, it has limitations. Fields replanted after early eradication may not have been mature enough to be detectable from the air, although we doubt this occurred in many instances. Our main concern is that we could not determine if a major shift in cultivation to areas outside the northeast has occurred. [redacted] such a shift may have begun as early as 1983, when growers first learned that the Colombian Government intended to eradicate marijuana. [redacted]

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Assessing the Impact of Eradication

Bogota's eradication campaign has had a severe effect on the northeastern growing region, [redacted]

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[redacted] Cultivators with small operations have been put out of business, and the larger growers have been forced to abandon operations or relocate them to areas not being sprayed, [redacted]

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[redacted] growers have harvested and sold a portion of the sprayed crop, albeit at a lower profit margin. [redacted]

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[redacted] the eradication campaign still has not had a major impact on the traffickers who, although forced to scramble, reportedly continue to satisfy their export requirements. [redacted]

[redacted] traffickers are meeting demand primarily by supplementing the herbicide-damaged marijuana with leaf from areas not yet sprayed. [redacted]

[redacted]

[redacted]

[redacted] traffickers could be meeting demand by drawing down stockpiles and by obtaining limited amounts of marijuana from other countries. In early September, US Coast Guard officers described marijuana seized from a Colombian mother ship as old and of marginal quality. [redacted]

[redacted] one smuggling group was planning to transport Jamaican-produced narcotics to Colombia for mixing with Colombian-produced drugs before moving the contraband north. Colombian traffickers could also obtain supplies from Belize or Mexico, where marijuana is widely cultivated. [redacted]

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Seizure statistics—a rough indication of the level of trade—often present a conflicting picture and do not necessarily verify the effect of the eradication operation. Seizures by Colombian authorities are down more than 40 percent for the period January through September 1985, compared with 1984. The tonnages seized by US Coast Guard interdiction forces are down by more than 30 percent for the period January through mid-November 1985. [redacted]

[redacted] however, traffickers are temporarily holding back shipments until intensified interdiction efforts in the Caribbean end in February 1986. The large drop in in-country seizures may suggest that traffickers and growers have altered smuggling routes and shifted cultivation to new areas to avoid government antinarcotics activities, which remain concentrated in the northeast. [redacted]

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Countermeasures

We conclude that, given continued low levels of eradication outside the northeast growing area, a large-scale shift in cultivated areas would be the most effective way for growers to adjust to a sustained eradication campaign. Reports indicate several areas have the potential to become important marijuana cultivation sites:

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- **The Serrania de Motilones and the Serrania de Valledupar Mountains Inside Venezuela.** Over the past several months, the Colombian police have seized numerous marijuana-loaded, Venezuelan-licensed vehicles on the roads from Venezuela to Valledupar, Colombia, [redacted]. The American Consulate in Barranquilla reported that the Venezuelan military recently destroyed 100 hectares of marijuana cultivation in the northwestern mountains. The 1985 survey covered large areas of these mountains on the Colombian side, where there had been extensive eradication, but none on the Venezuelan side of the mountains.

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- **The Southern and Eastern Parts of the Sierra Nevada de Santa Marta.** [redacted] planting has expanded in this area. The July 1985 survey did not cover the southern portion of the Santa Marta range, and only one flightline was flown along the southeastern side of the mountains. Although some marijuana was detected, we believe cultivation in this area was insignificant in 1985. This section of the mountains could become more important in 1986 if growers realize there has been no eradication there.

- **Bolivar Department.** [redacted] growers are expanding cultivation around several towns in southern Bolivar. Growth in this area has been confirmed on overhead imagery: high-altitude reconnaissance by a U-2 in August picked up some suspect marijuana fields in southern Bolivar, and imagery from the aerial survey aircraft clearly shows marijuana in the mountains of north-central Bolivar. [redacted] growers in this area migrated from the Serrania de Perija Mountains in the northeast and continue to maintain contact with growers there. [redacted] marijuana cultivators forced to relocate to Bolivar have established ties to the Revolutionary Armed Forces of Colombia (FARC) insurgent group. The growers reportedly pay the rebels in exchange for protection from government antinarcotics forces. 25X1

- **Golfo de Uraba Region.** The survey imagery indicated substantial marijuana cultivation along the Panama border in the Department of Choco. In late September, [redacted] the existence of

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marijuana fields in the Rio Sucio and Rio Atrato basins and in Choco Department; growers in these areas have reportedly taken over land intended for reforestation. [redacted]

supplies by next spring or summer. Just how tight supplies become will depend largely on how much of a shift in growing areas has taken place inside Colombia over the past few years. If the shift began as early as December 1983, when Colombian authorities first debated using an herbicide for aerial application against marijuana, the impact of the eradication will be lessened. We doubt, however, that traffickers could shift enough production in two years to completely offset the 7,000 or more hectares eradicated in 1985.

[redacted]

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[redacted] marijuana cultivation extends along the border between Antioquia and Cordoba Departments, east of the city of Turbo. The Colombians are concerned about the spread of cultivation into the Uraba area and plan to establish a forward eradication base there.

- **Norte de Santander Department.** Growers have reportedly established operations in the northern portion of this department. [redacted]

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[redacted] recent cultivation probably was initiated by growers who have been displaced by eradication operations in nearby Cesar Department. [redacted]

Even though major growers are expanding cultivation, they are convinced that the government's eradication program cannot be sustained and that eventually they will be able to reestablish large-scale cultivation in the northeast [redacted]. We doubt that marijuana production in the northeast can rebound to previous levels as long as Colombian authorities keep the pressure on the growers. However, some growers will continue to operate in the region, producing relatively small quantities of marijuana. [redacted] growers remaining in areas where eradication occurred have

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DEA informants report that traffickers do not anticipate any marijuana shortages, largely because marijuana grown in these new areas is expected to make up the losses in the northeast. We believe that this analysis is correct for the short term, but the impact of the 1985 eradication campaign in northeastern Colombia should begin to cause some tightening in

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adopted several new cultivation techniques—such as planting fields on the sides of ravines and in steep valleys and intercropping marijuana with licit crops—designed to make detection and eradication more difficult. [redacted]



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Alternative Trafficking Routes and Techniques

Elimination of the northeast as a major supplier will force Colombian traffickers to use a wider variety of trafficking routes. In the past, traffickers usually shipped their marijuana to the Guajira Peninsula on Colombia's north coast for consolidation and loading onto mother ships. [redacted]

[redacted] traffickers may be making more extensive use of alternative routes, and we believe more diverse shipping techniques will be employed to better protect scarce supplies. These routes and methods include:

- More maritime trade out of the Golfo de Uraba region. The port of Turbo, long a secondary marijuana export center, may be used more frequently over the next several months. A variety of ships and barges have been used to move marijuana produced in Choco Department down the Rio Atrato to the Golfo de Uraba. US Coast Guard officers stationed at Barranquilla indicate that maritime smuggling from the Golfo de Uraba is increasing. [redacted]

[redacted] Turbo now serves as a major transshipment point for marijuana grown along the border of the Departments of Cordoba and Antioquia.

- Greater use of Pacific coast transshipment points. [redacted] drug traffickers use two locations to stage marijuana shipments from Colombia's west coast. One staging area extends from the city of Jurado, just south of the Panama border, to the Gulf of Cupica. Marijuana is stacked on the beach near the Gulf of Cupica to await maritime shipment. Another staging location is farther south in the area around the port of Buenaventura. [redacted] in August multiton shipments of marijuana were being loaded onto mother ships in the port of Buenaventura. [redacted] traffickers use the beaches near Buenaventura to land aircraft. [redacted]

- More use of legitimate merchant ships. According to information obtained by the US Coast Guard, marijuana smugglers have increased their use of merchant ships sailing from Colon, Panama. Ships leaving Colon declare for Aruba in the Netherlands Antilles, then rendezvous with mother ships off Barranquilla to pick up marijuana. Some of these ships even jettison legitimate cargo to make room for marijuana, according to US Coast Guard sources.

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- Marijuana grown along the Colombian-Venezuelan border could be transshipped to the islands off the north coast of Venezuela where numerous hidden inlets provide security. [redacted]

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Boats depart Barranquilla and sail to the islands of Aruba, Bonaire, and Curacao, where marijuana ostensibly of Venezuelan origin is loaded onto mother ships for transport to predetermined locations.

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- Better deception techniques. Marijuana traffickers are using bays busy with pleasure yachts and fishing boats to better disguise their operations. Two of the more heavily used bays, Taganga and Ensenada de Concha, lie just north of Santa Marta. [redacted]

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[redacted]. Pleasure boats in the area could also be transshipping marijuana grown in the interior areas of Bolivar and Antioquia; hauling marijuana to the Guajira Peninsula for loading onto mother ships or to stash sites in the Netherlands Antilles; or meeting mother ships at any predetermined location off the Colombian coast.

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- More extensive use of containerized cargo ships. US Customs officials have recently identified the vast potential for increased smuggling of contraband using maritime containers. Containers are easily modified by equipping the sides and roof with false compartments for illicit drugs. The large volume of

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containers passing through the ports of Barranquilla, Cartagena, and Buenaventura bound for US destinations may be impossible for traffickers to resist, and the extensive repositioning and transshipping of cargo containers complicates the screening of such cargo for illegal shipments.

- **Barge operations.** Drug smugglers occasionally use oceangoing tugs to tow barges loaded with marijuana. The barges are towed by one tug from Colombia to a location in the Caribbean (Hispaniola in one case) where it is met by another tug that tows it to a predetermined point off the US coast. The largest maritime marijuana seizure in history occurred in 1985 when the Coast Guard seized a tug with a barge carrying 160 tons of marijuana off the South Carolina coast. The use of oceangoing tugs to tow barges loaded with marijuana offers traffickers greater flexibility. If smugglers suspect that an interdiction is imminent, they can easily release the barge before the tug is seized. Because the barge does not show up on radar, the Coast Guard is unaware of its existence. In some cases, marijuana-laden barges are submerged, later recovered, and hauled to destinations along the US coast, according to US Coast Guard sources. [redacted]

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Interdiction Operations

On 1 November a combined narcotics interdiction operation made up of air and maritime forces from the United States, Colombia, and several Caribbean nations began in the Caribbean. We believe these stepped-up enforcement efforts will curtail marijuana shipments as long as the operations continue. [redacted] traffickers continually monitor the movements of interdiction forces, and they are constantly aware of the level of effort arrayed against them as well as the approximate location of maritime forces. They may also have contacts among the South American and Caribbean forces participating in the operation. [redacted] major traffickers have nearly ceased maritime shipments of marijuana from the north coast of Colombia, and several Coast Guard sources believe the traffickers are waiting out the interdiction operation. [redacted]

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Large trafficking organizations probably can absorb the losses incurred during a temporary suspension of operations, but smaller traffickers with less financial cushion and fewer markets must find ways to evade the interdiction forces. According to a United States Coast Guard source, one trafficker whose ship was seized near the Bahamas had hauled the marijuana from the coast of Colombia east, through the Leeward Islands, then north about 150 kilometers until he could turn west to the Bahamas. This circuitous route took the trafficking ship some 600 kilometers out of its way and probably extended the transit time by a week. The eastern Caribbean route was almost certainly used to avoid transiting the narrow and constantly patrolled passages between Mexico, Cuba, Hispaniola, and Puerto Rico. The trafficker was carrying a relatively small load of marijuana, according to US Coast Guard sources. We expect that most of the shipments seized during the current operations will belong to small exporters. [redacted] 25X1

Large marijuana traffickers are already preparing to move marijuana north once interdiction operations end. A US Coast Guard officer in Panama has identified several suspect drug smuggling ships in Colon that he believes are waiting to pick up marijuana stashed along the Colombian coast. DEA sources indicate that some Colombian traffickers are buying their own ships from contacts in other Latin American countries. In addition, US Coast Guard sources report that Colombian traffickers are attempting to obtain more ships of non-Colombian registry to haul marijuana. An increase in the number and type of ships will make the interdiction task even more complicated. [redacted] 25X1

Outlook

Colombia's 1985 eradication campaign has implications beyond the immediate effect on 1985/86 marijuana exports to the United States. The success of the 1985 program has essentially taken the northeast growing region out of production, a major achievement in the history of marijuana control in the Western Hemisphere. Colombia has set an example of

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effective drug control that can be duplicated by other countries in the region. Colombia will have to keep up the pressure in the northeast both to discourage growers from moving back and to deny traffickers the large and easily accessible supplies from the region. The eradication program will also have to be expanded to prevent establishment of major new growing areas.

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In the absence of continued government control measures, marijuana cultivation could bounce back quickly in the northeast. Marijuana is easy to grow, adapts to a variety of physical conditions, and requires little maintenance. It is typically cultivated by migrant laborers and subsistence farmers, of which there are many in Colombia. Growers whose fields are eradicated one year can be back in business the next, especially if marijuana brokers provide subsidies—as is often the case—for tools, seeds, and living expenses. Still, persistent efforts by the Colombian National Police should discourage the kind of unrestricted cultivation formerly found in the northeast.

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