

1983 DOMESTIC MARIHUANA  
ERADICATION/SUPPRESSION PROGRAM, 1982.

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FINAL REPORT

DEPARTMENT OF JUSTICE  
DRUG ENFORCEMENT ADMINISTRATION

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Cannabis Investigations Section  
U.S. Drug Enforcement Administration  
U.S. Department of Justice

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## EXECUTIVE SUMMARY

DEA's 1982 Domestic Marihuana Eradication/Suppression Program expanded to include 25 states from the seven states participating in 1981. DEA's role in this cooperative venture is to encourage State efforts and to contribute, within resource limitations, funding, training, and investigative and aircraft resources to support the efforts of State and local law enforcement agencies in domestic marihuana eradication/suppression.

In 1982, DEA provided \$843,340 to help defray the expenses of State/local marihuana eradication activities. These expenses include payment of officers' overtime and per diem as appropriate, and other costs such as rental of equipment and vehicles, fuel for vehicles and aircraft, and repairs necessitated by their use.

DEA conducted four Marihuana Aerial Observer Schools in which 120 State/local officers received training in detecting marihuana from the air and related eradication skills. Additionally, DEA supported aerial observer schools conducted by the States of Florida, Mississippi, California and Texas.

The DEA Airwing flew 481 missions for a total of 1,332 flying hours in support of the eradication program this year. This effort represented 12% of the Airwing's total missions for the year. Of the 481 missions flown, 396 resulted in positive sightings of marihuana fields.

Eradication efforts were extremely successful. In excess of two and one-half million (2,590,388) marihuana plants, in 4,657 plots, were eradicated. This resulted in the arrests of 2,512 subjects and the seizure of 785 weapons. Forty percent of the plants were high potency sinsemilla. Ninety-five percent of this total number of plants were eradicated in states with DEA cooperative programs.

Quantitative analyses of data derived from the 1982 program reveal that domestic marihuana production for 1982 was significantly greater than that estimated for previous years. Using a relatively accurate plant count and conservative weight per plant factors, it is estimated that 1,653 metric tons of marketable marihuana were eradicated. The strategic intelligence estimate for 1981 domestic marihuana production was 1,200 metric tons. Therefore, the program shows that in 1982, 38% more domestic marihuana was eradicated than was previously believed to exist.

Although a total U.S. marihuana production figure is not easily determined, the statistics obtained from this program reveal, without doubt, that the United States is becoming a major source for the drug.

By all measures, the 1982 DEA Domestic Marihuana Eradication/Suppression Program was extremely successful. Operational relationships and procedures have been established and an intelligence data base has been developed. A significant amount of marihuana has been eradicated and numerous cultivators arrested. Additional states have asked to participate in 1983.

DEA's 1983 Domestic Marihuana Eradication/Suppression Program will begin on a solid conceptual foundation.

## INTRODUCTION

Since 1979, DEA has supported marihuana eradication efforts by State and local law enforcement agencies in California and Hawaii. In 1981, this support included eradication programs in five additional states.

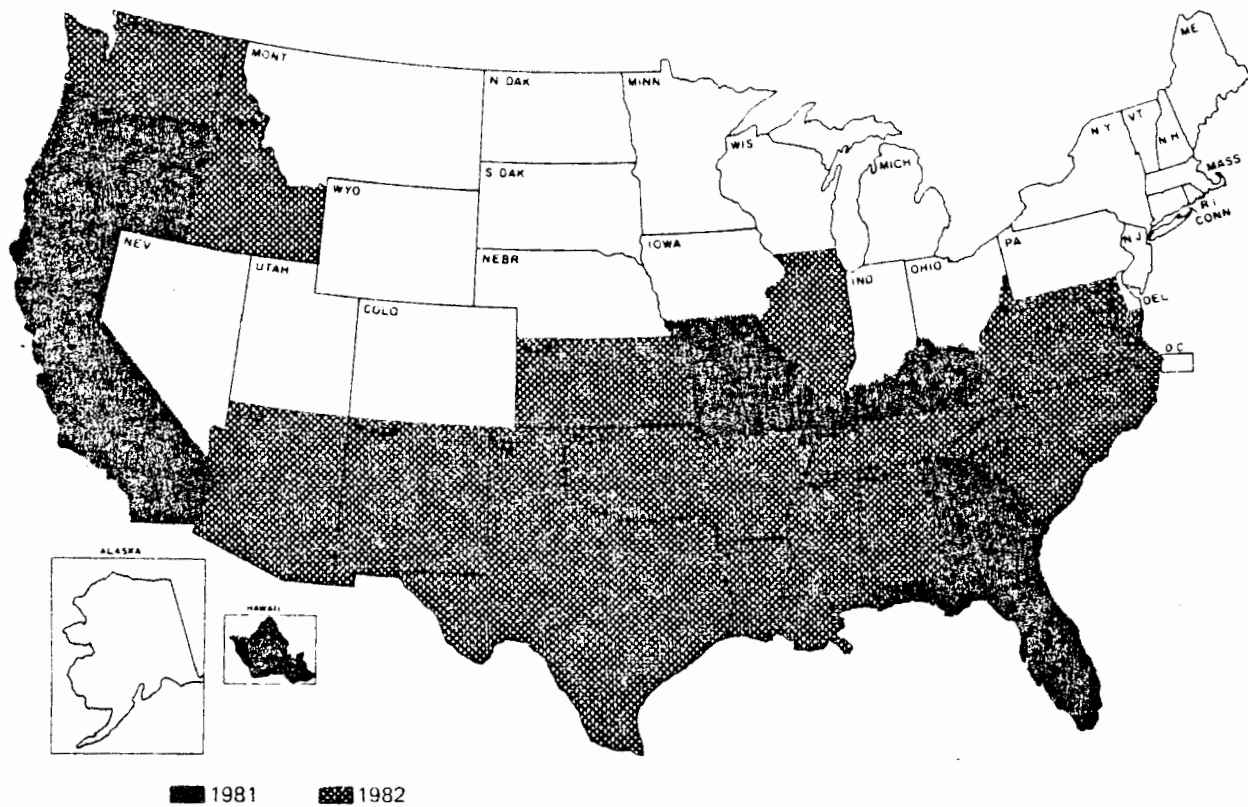
By 1982, domestic cultivation of marihuana had proliferated. In addition to the greater amounts of marihuana produced, a higher proportion of it was cultivated using the "sinsemilla" technique. This resulted in marihuana of greater potency and higher value, thus providing a compelling incentive to the grower. To counter this new threat, DEA's 1982 program expanded to include 25 states. Participating states are indicated on the map on page 2.

DEA's strategy established a concept for the application of Federal involvement domestically within a flexible framework. Resource application is scaled to the local situation consistent with DEA's priorities and a policy of encouraging maximum State and local participation and initiative. The goal of this strategy is to both deter commercial sinsemilla or high grade marihuana cultivation and to suppress the proliferation of that cultivation in areas which have not yet developed a large or sophisticated growing or marketing capability.

Elements of DEA's program include: 1) financial assistance to the states to help defray marihuana eradication expenses, 2) training of State and local officers in marihuana detection and eradication techniques, 3) investigative and aircraft assistance as required and 4) a public awareness program to engender public and public official awareness and support for marihuana eradication/suppression programs.

This is the final report for the 1982 DEA Domestic Marihuana Eradication/Suppression Program. The report will describe how the program was conducted, resources expended and results achieved.

Domestic Marihuana Eradication/Suppression Program: 1982



## ERADICATION STATISTICS AND INTELLIGENCE OVERVIEW

A primary goal of the 1982 Domestic Marihuana Eradication/Suppression Program was to develop an intelligence data base concerning domestic marihuana cultivation. This data base is necessary for assessing the magnitude and threat of the domestic marihuana problem for use in program planning as well as for use in developing measures of effectiveness for program evaluation.

In order to evaluate the program and to obtain intelligence information, eradication statistics and other information were requested from DEA field offices and State/local counterparts for each of the 50 states, whether or not the state was part of the 1982 DEA program. Responses were requested to the following questions:

1. Eradication Statistics (combined statistics for all agencies within the state)
  - A. Number of marihuana plcts raided.
  - B. Number of plants seized.
  - C. Number of arrests.
  - D. Number of weapons seized.
2. Cultivation Techniques
  - A. Percentage of total (or seized) marihuana crop that was sinsemilla
  - B. Percentage of crop that was grown in greenhouses.
  - C. Other special or unusual plant types or cultivation techniques.
3. Intelligence Estimates
  - A. Percentage of total marihuana crop in state that was eradicated.
  - B. Rate of increase in amount of cultivation from previous year.
  - C. Factors indicating increased sophistication in cultivation from previous year.
  - D. Distribution system, location of consumer markets, etc. for marihuana grown in state.
  - E. Group counties of state by subjective estimate of whether it is a:
    1. Major cultivation area.
    2. Moderate cultivation area.
    3. Counties not listed in 1 or 2 above will be considered as having little or no marihuana cultivation.



A detailed intelligence report which discusses all aspects of the domestic marihuana situation is being prepared for later distribution. Quantitative highlights of the results of this questionnaire are presented here and in the chart on page 7.

#### Eradication Statistics and Estimates

As can be seen from page 7 , Columns A, B, D and E, 4,657 plots containing 2,590,388 plants were eradicated. Ninety-five percent of this total number of plants were eradicated in the 25 states with DEA cooperative programs. Locating the fields also resulted in the arrest of 2,512 subjects and the seizure of 785 weapons.

Hawaii seized the greatest number of plants (19.9% of the total), followed by Georgia, Kentucky and Tennessee (14.4%, 12.3% and 11.3% of the total, respectively). California led in arrests of marihuana cultivators (16.3%), followed by Hawaii (13.1%) and Oregon (11%).

The average marihuana plot sizes for the states are presented in Column C, obtained from the data in Columns A and B. Some states average less than a hundred plants/plot, as illustrated by California, Washington and Oregon where cultivators strive for a high quality product in small remote plots to avoid detection. Other states average larger plots. These may become smaller in subsequent seasons with increased law enforcement activity. No average plot size was computable for Hawaii since the plants tend to be scattered through the jungle, rather than in defined plots.

Column F indicates for each state the estimated percentage of the marihuana crop that was cultivated using the sinsemilla technique. For many states, this estimate is based on the actual percentage of the eradicated marihuana that was sinsemilla and, for those states with significant eradication, it approaches a reasonably valid representation for the entire crop in that state.

A weighted average percentage of sinsemilla for the entire United States was computed by multiplying elements of Columns B and F for each state to get the number of sinsemilla plants per state, and relating their summation to the total of Column B. This yields an estimate of 1,047,000 plants or 40.42% of the domestic marihuana crop as sinsemilla. This higher than expected proportion of sinsemilla, with its high THC content, is significant. It is a measure of the increased sophistication of domestic marihuana cultivators and it portends a more potent marihuana product in circulation.

Column G presents the estimate by each state of the percentage of the marihuana crop that was grown in greenhouses. A weighted average percentage for the entire United States was computed in

the same manner as in the previous paragraph for percentage of sinsemilla. This resulted in a U.S. average of 3.78% of the marihuana crop estimated to be grown in greenhouses. Marihuana cultivation in greenhouses is harder to detect and is an additional element of illicit cultivation sophistication. This parameter will be monitored during the coming season.

#### Strategic Estimates of Domestic Marihuana Production

Traditionally, estimates of domestic marihuana production are derived from analyses of U.S. consumer data (estimated number of users, frequency and dosage of use, etc.), combined with field survey data indicating the relative proportions of marihuana in the traffic from domestic production and the various foreign sources. The latest published estimate \* for domestic marihuana production in 1980 is 700 - 1,000 metric tons. Not yet published estimates for 1981 indicate an increase to 900 - 1,200 metric tons.

Quantitative analyses of data derived from the 1982 Domestic Marihuana Eradication/Suppression Program reveal that domestic marihuana production for 1982 was significantly greater than that estimated for previous years.

Column B indicates that a total of over two and one-half million marihuana plants were eradicated in 1982 in the U.S. This figure was derived from actual plant count rather than estimates for most states and is considered reasonably accurate. Any error contained therein would result primarily from plants eradicated without being counted in the state total, an error on the side of conservatism.

"Plant count" was selected as the primary unit of measure rather than weight. Plant count is independent of the size of the plant at the time it is eradicated and represents the potential of the plant at maturity. The use of plant weight at the time of eradication provides inconsistent statistics as a result of the various plant sizes due to stage of growth, the loss of weight as the plant dries, etc. To arrive at an estimated weight of marketable marihuana for that which was eradicated, the following factors are used: One sinsemilla plant yields two pounds of marketable material; one regular marihuana plant yields one pound of marketable material. These factors are considered conservative. Their use, in conjunction with an accurate plant count, provides a consistent statistical measure.

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\* The National Narcotics Intelligence Consumers Committee, The Supply of Drugs to the U.S. Illicit Market from Foreign and Domestic Sources in 1980 (with projections through 1984).

To arrive at a weight estimate for the eradicated marihuana, two pounds are assigned to each plant assumed to be sinsemilla of the total plants eradicated (40.42% of 2,590,388 plants) and one pound to each of the remaining plants. This yields a total weight of 3,637,400 pounds or 1,653 metric tons of marketable marihuana eradicated.

One can compare the 1,653 metric tons of domestic marihuana eradicated in 1982 with the top estimate of domestic marihuana production for 1981, i.e. 1,200 metric tons. It can be seen that in 1982, 38% more domestic marihuana was eradicated than was previously believed to exist.

Estimates by the states of the percentage of the marihuana crop in each state that was eradicated vary from one to fifty percent (Column H). These estimates are extremely speculative, precluding the development of a statistically valid estimate for total domestic marihuana production in the U.S. It is apparent, however, that the 1,653 tons that were eradicated represent only a portion of the marihuana that was cultivated. To obtain a realistic estimate, it will be necessary to examine this data in relation to updated statistics and estimates from the 1983 marihuana eradication campaign and in terms of estimates derived from traditional methods.

Although an exact U.S. marihuana production figure is not easily obtained, the statistics obtained from the 1982 DEA Domestic Marihuana Eradication/Suppression Program reveal, without doubt, that the United States is becoming a major source for the drug.

## PROGRAM MANAGEMENT AND COORDINATION

DEA's Domestic Marihuana Eradication/Suppression Program is managed by the Cannabis Investigations Section at DEA Headquarters. Two Staff Coordinators are assigned full time to coordinate the many aspects of the program with other Headquarters elements, DEA division and resident field offices, and to represent Headquarters at meetings with State/local and other Federal officials.

In each participating state, a Special Agent from the appropriate DEA field office serves as Field Program Coordinator. His function is to develop, in conjunction with his State/local counterpart, an operational plan for the state eradication program and serve as coordinator and conduit for DEA support to the state program. A Program Coordinator in the division office assists division management in monitoring the program and compiles program statistics and intelligence within the division.

Coordination responsibility is also assigned to elements of DEA's Office of Training and the DEA Airwing in regard to their participation in the program.

## COOPERATION WITH OTHER FEDERAL AGENCIES

### U.S. Forest Service

The U.S. Forest Service became actively involved in domestic marihuana eradication in 1982, as a result of increased marihuana cultivation in National Forests. Their efforts have been generally coordinated with DEA. However, the need for closer coordination in 1983, particularly to avoid duplication in funding of state and local efforts, is recognized. In 1982, the Forest Service applied approximately \$400,000 dollars to the program. In 1983 they anticipate a budget for the program of 1.9 million dollars. They are also funding a research project using aerial photography to find fields on public lands. Additionally, the Forest Service is sharing with DEA the results of its test program involving the use of LORAN C equipment in plotting the location of marihuana fields.

### Bureau of Land Management (BLM)

With the increase of marihuana cultivation on public lands under their jurisdiction, the Bureau of Land Management is also becoming actively involved in domestic marihuana eradication. They are researching advanced methods of aerial detection of marihuana and intend to commit additional resources in 1983 to eradication efforts. Their program is being coordinated with DEA and the U.S. Forest Service.

### National Guard

In 1982, the National Guard in Hawaii and Arkansas provided essential helicopter support to marihuana eradication efforts in those states. The State of New Mexico activated the National Guard to help manually destroy a fifty acre field in the state.

DEA's policy is to encourage the states to seek the assistance of the National Guard in their eradication efforts.

## FUNDING

A major element of DEA's Domestic Marihuana Eradication/Suppression Program is to provide funding to State/local agencies to help defray the expenses of their eradication activities. These expenses include payment of officers' overtime, salary and overtime of reserve officers (during the time that they are engaged in the eradication process), per diem as appropriate, and other costs such as rental of equipment and vehicles, fuel for vehicles and aircraft, and repairs necessitated by their use.

A total of \$843,340 was allocated to participating states for this purpose in 1982. The amount allocated to each state appears on the chart on page 11. In addition to funding to the states, \$12,500 was allocated for marihuana eradication programs in Puerto Rico and the U.S. Virgin Islands. Although Texas participated in DEA's cooperative program, it requested no funding and received training assistance only.

A brief description of the funding process follows. Each DEA Field Program Coordinator and his respective State/local agency counterpart develop an operational plan, with funding requirements, for their state. After approval by the appropriate DEA division office and the Cannabis Investigations Section (OM), OM authorizes the division to expend program funds in the state. OM monitors the state's progress through monthly status reports and incrementally allocates these funds as a function of the program's progress with respect to the operational plan.

Letters of Agreement are executed between DEA and one or more State/local agencies within each state. The DEA Field Program Coordinator, under supervision of the division office, then apportions the funds authorized for use in that state among the participating agencies and monitors the program's activities and expenditures.

Additional funding was allocated to DEA's Office of Training (\$30,000) for Marihuana Aerial Observer Schools and to the DEA Airwing (\$50,000) for marihuana detection flights in support of State programs.

ALLOCATION OF FUNDS - FY 82

<u>STATE</u>	<u>FUNDS ALLOCATED - FY 82</u>	
ALABAMA	\$20,000	
ARIZONA	13,200	
ARKANSAS	25,240	
CALIFORNIA	87,500	
FLORIDA	65,000	
GEORGIA	52,000	
HAWAII	45,000	
IDAHO	29,000	
ILLINOIS (Combined with Missouri/Kansas)		
KANSAS (Combined with Missouri/Illinois)		
KENTUCKY	60,000	
LOUISIANA	14,000	
MARYLAND	15,000	
MISSISSIPPI	34,000	
MISSOURI/ILLINOIS/KANSAS	36,000	
NEW MEXICO	7,000	
NORTH CAROLINA	45,000	
OKLAHOMA	25,000	
OREGON	66,000	
PUERTO RICO/U.S. VIRGIN ISLANDS	12,500	
SOUTH CAROLINA	15,900	
TENNESSEE	40,000	
VIRGINIA	50,000	
WASHINGTON	39,000	
WEST VIRGINIA	<u>47,000</u>	
	\$843,340	SUBTOTAL
<u>OTHER</u>		
DEA TRAINING	30,000	
(For four Marihuana Aerial Observers Schools which trained 120 officers from 22 states)		
DEA AIRWING	<u>50,000</u>	
(For flights in direct support of State programs)		
	\$923,340	TOTAL

## TRAINING

### Marihuana Aerial Observer Schools

Four Marihuana Aerial Observer Schools were conducted by DEA at which 120 State and local enforcement officers from 22 states received training in detecting marihuana from the air and related eradication skills. The Office of Training assigned an agent instructor to coordinate the instructional and administrative aspects of the course while the Airwing assigned an agent pilot to schedule aircraft support. Additionally, DEA supported Aerial Observer Schools given by State authorities in California, Mississippi, Arkansas and Florida.

The schools were conducted during July and August when marihuana fields were at a stage of growth allowing detection from the air. It was apparent that the schools need to be given earlier so the trained personnel can be prepared to function at the beginning of the eradication cycle commencing in July.

Considerable interest was generated for the schools and requests for training were received far in excess of that which could be provided. Several more schools will be scheduled for early spring and summer 1983. Photographs of fields taken from aircraft will be used to teach identification since actual plots will not be available that early.

### Prosecutors' Seminars

In October, Headquarters Program Coordinators attended a two day Prosecutors' Seminar hosted by the California Bureau of Narcotic Enforcement and attended by State and county prosecutors and two U.S. Attorneys. The purpose in attending was to determine the desirability of DEA hosting similar fora in other states. The consensus was that such seminars are an excellent medium by which to orient and motivate prosecutors concerning marihuana cultivation cases. It also served to remove the skepticism of some prosecutors concerning the ability of a trained observer to detect marihuana from the air. Legal problems incident to evidence handling and collection, warrants, seizures, surveillances and sentences were debated with various prosecutors offering the benefit of their experiences. The latest developments in case law and precedents were discussed as well. A series of similar seminars in various states will be sponsored by DEA as part of the 1983 Domestic Marihuana Eradication/Suppression Program.



## INVESTIGATIVE AND AIRCRAFT SUPPORT

### Investigative Support

DEA field offices provide investigative support to State/local eradication efforts, when requested, as resources permit. A primary area in which this occurs is the DEA adoption of investigations involving seized assets where prosecution under Federal law is more appropriate than under state law.

### Aircraft Support

The DEA Airwing flew 481 missions for a total of 1,332 flying hours in support of the eradication program this year. This effort represented 12% of the Airwing's total missions flown for 1982. Of the 481 missions flown, 396 resulted in positive sightings of marihuana fields.

Almost all of these missions were flown using DEA's single engine high wing aircraft. DEA helicopters were not utilized for the eradication campaign except for the Hughes 500 stationed in Chicago. It was deployed for several days to Arkansas in support of a special joint eradication operation.

The DEA Airwing has in the past been the backbone of the air search effort. However, due to heavy Airwing commitments to the Caribbean interdiction operation and to investigative support, an effort has been made to prevail upon State and local agencies to use their aircraft when possible. This was done with success in 1982. Where funds to fly their aircraft was a problem, DEA provided money for gasoline, oil, etc. In some cases aircraft were rented and in some cases private citizens provided aircraft.

## PUBLIC AWARENESS AND PRESS RELATIONS

While DEA's Public Affairs Section responded to press inquiries in a commendable manner, DEA efforts to educate the public regarding domestic marihuana cultivation and to enlist their support for eradication/suppression programs have been pursued on an ad hoc basis. In 1982, DEA initiated the development of materials that will be made available to DEA offices and State and local authorities for use as public statements or talks to public officials and citizens' groups such as the PTA, fraternal orders, clubs, churches, etc. Among these materials will be a videotape which is now under production by the Headquarters Audiovisual Section. This film, which documents the seriousness of the domestic marihuana problem and highlights law enforcement efforts against it, will significantly support DEA and State/local agencies in their public affairs efforts.

Guidance to the field will be furnished regarding statements to the press in the 1983 campaign.

At the national level, recent statements by the President and the Attorney General that include marihuana trafficking among the Federal priorities for suppression have had a positive effect in the field. Meetings attended by the Program Coordinators at law enforcement conferences (SDEA, LECC etc.) reflect that for the first time the United States Government is viewed as being serious about combatting marihuana. This has caused these groups to respond with equal or greater enthusiasm.

More public statements are needed in the spring to prepare the press and enlist public support for the 1983 campaign. These statements need to come from prominent public figures at all levels of government.

## TECHNOLOGICAL ACTIVITIES

### Aerial Sensing And Photography

During 1982, DEA's Office of Science and Technology experimented with various types of sensing and photographic devices from aerial platforms to discover marihuana fields. To date no efficient cost effective procedure or technique has been found superior to a trained airborne observer. The search continues.

### Marihuana Destruction

To date, destruction by burning is the surest way to destroy marihuana which has been manually harvested. This is a labor consuming effort. The Office of Science and Technology is seeking possible ways to cut down on the effort involved. The use of a shredder has been suggested and tested. If a mobile self contained shredder can be found which will virtually reduce a marihuana plant to an unrecoverable state, it may be possible to destroy the plants at the growing site without ecological danger to the surrounding area. This search also continues.

### Pinpointing Field Location

Accurately plotting a marihuana field on a map in an airplane over remote forbidding terrain is a challenge for even the most experienced pilot or observer. Yet it is essential for purposes of obtaining a search warrant and also for a raid party to subsequently find the field. Two items of equipment are under consideration to alleviate the problem. First is a small radio receiver which uses the LORAN C navigational aid system. This equipment has been tested by the U.S. Forest Service with excellent results. It will be tested by DEA over the winter at the invitation of the Forest Service. This equipment will place the position of the operator in degrees, minutes and seconds of latitude and longitude to within a 60 foot radius. When it is desired to return to the spot, the operator sets the position desired in the equipment. The equipment then directs the operator back to that point.

The second item is a survivable beacon which can be dropped from an aircraft on or near a marihuana field. The beacon then transmits a radio signal which can be detected and homed in on by an aircraft. This unit is currently under development through a contract between the Office of Science and Technology and an electronics firm.

## HERBICIDES

In October 1982, the Florida Department of Law Enforcement (FDLE) destroyed a field of approximately eighty acres of maturing marihuana plants using the herbicide paraquat. This action was taken following an unsuccessful attempt by NORML to enjoin the FDLE in state court and to enjoin DEA in Federal District Court. The DEA Office of the Chief Counsel played a major role in defending the Government's position.

The action taken by FDLE was a courageous, responsible advancement to the domestic eradication effort. It broke the ice and provided an initial signal to foreign source countries that the United States will use paraquat to destroy marihuana.

An herbicide, trade named K-10, was applied to a fifty acre field of marihuana in New Mexico by state authorities. This was done without DEA participation. The herbicide did not prove effective in killing the plants within a few days. State authorities therefore destroyed the field manually.