Agent Orange Thailand Base Perimeter Use

Headquarters Thirteenth Air Force, on 27 June 1968, published a letter approving mandatory Contractual Services by the Director of Procurement, Lt. Col. J.N. Badgett, Jr. In the attachment to this letter, a listing of bases in Thailand approved to let contracts for vegetation control is made:

Extract, 635th Combat Support Group, April through June 1968 (AFHRA Call Number K-GP-SUP-635-HI, Apr-Jun 1968, IRIS Number 444465):

Appendix IV, Base Procurement Office historical input, April-June 1968, Tab L: Letter, Thirteenth Air Force/DMP, Director of Procurement, Lt. Col. J.N. Badgett, Jr., 27 June 1968, Subject: Gold Flow Approval – Mandatory Contractual Services, Exhibit A:

<table>
<thead>
<tr>
<th>Brief Statement Organization &amp; Location</th>
<th>Time Period</th>
<th>Est Total by Contract</th>
<th>Est Cost Using In-Service Personnel</th>
<th>Est Total Gold Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation Control</td>
<td>1 Jul 68-</td>
<td>48,900</td>
<td>85,100</td>
<td>48,900</td>
</tr>
<tr>
<td></td>
<td>30 Jun 69</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>636 CSG, Clark</td>
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<td>48,900</td>
<td>85,100</td>
<td>48,900</td>
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<td>467 CSG, Mactan</td>
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<td>19,000</td>
<td>187,455</td>
<td>19,000</td>
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<tr>
<td>388 CSG, Korat</td>
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<td>38,000</td>
<td>40,000</td>
<td>38,000</td>
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<tr>
<td>631 CSG, Don Muang</td>
<td></td>
<td>26,700</td>
<td>99,856</td>
<td>26,700</td>
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<td>56 CSG, Nakhon Phanom</td>
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<td>13,000</td>
<td>37,950</td>
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<td></td>
<td>4 May 68-</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>3 May 69</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Time Period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6214 ABG, Tainan</td>
<td>17,600</td>
<td>38,400</td>
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</table>

[Note: The above shows that local contractors were responsible for vegetation control for Korat, Don Muang and Nakhon Phanom air bases in 1968. The USAF was not spraying any herbicides at this time on the Perimeter fences in 1968.]

Extract, Thirteenth Air Force 1 July 1968 through 30 June 1969 history, Volume 1 (AFHRA Call Number K750.01, FY 1969, V. 1, IRIS Number 899069):

I-235. Base Defenses:
Shortly after the 26 July 1968 insurgent attack on Udorn Air Base which damaged an F-4D and a C-141 the Deputy Commander 7/13th Air Force appointed a five member ad hoc committee to survey base defense capabilities at the seven major air bases occupied by Thirteenth Air Force. This review from 27 July through 29 August examined eight areas of interest: area defense, command control, base defense command control, equipment, manpower/training, operations/plans, barrier program, tactical support, and defensive measure responsible for external security. According to the findings the overall situation was not good.

Page I-237-238:
Effective base defense operations were handicapped by personnel shortages, marginal physical security facilities, insufficient communications (no dual channel radios), and "...virtually non-existent..." vegetation control around base perimeters. Further, the perimeter fencing was "...totally unsatisfactory..." at all bases.

Page I-244:
Other beneficial steps were constructing physical security aids such as bunkers, gun emplacements, erecting 368,531 linear feet of fixed fortification fencing, and defoliation of perimeter areas.

[NOTE: The supporting document used for the above, located in Volume 4 of the history as #184, notes in paragraph 6d, "Defoliation is underway and in various stages of completion." No hint as to what type of defoliate was used.]

Extract, Project CHECO Southeast Asia Report, Base Defense in Thailand, 18 Feb 73, AFHRA Call Number K717.0414-38:

Page 58:
To further aid in observation, herbicides were employed to assist in the difficult task of vegetation control. Use of these agents was limited by such factors as the ROE and supply problems.

[NOTE: The term "herbicides" is not defined in either of the above documents and does not necessarily mean Agent Orange, but could, in fact, mean any one of the other "Agent" types, or a commercial product, such as 'Roundup' or something similar for the time. There were no sources noted in this report for this passage.]

Starting with Page 68, each base in Thailand is reviewed. The following extracts concern only the control of vegetation for each base:

Base Analysis:

Page 68, Korat RTAFB.
Vegetation control was a serious problem at this base in 1972, especially in the critical RTAF area near the end of the runway. The dense growth offered opportunity for concealment in the area contiguous to the unrevetted KC-135 parking ramp. Further, vegetation was thick in many sectors of the concertina wire on the perimeter. The base had received Embassy permission to use herbicides and had just begun that program in June.

Page 69, Nakhon Phanom RTAFB:
NKP also had the usual rainy season vegetation problems, but heavy use of herbicides kept the growth under control in the fenced areas. Interior vegetation was usually kept closely cut.

Extract, 56th Special Operations Wing, April through June 1972, Volume 3 (AFHRA Call Number K-WG-56-HI, Apr-Jun 1972, V. 3, IRIS Number 902033), Document L, 56th Security Police Squadron history, 1-31 May 1972, page 5, Commander Conclusion, also paginated as DOC L 28:

Vegetation control on the north, east, and west sides of the outside perimeter was accomplished. Civil Engineers employed a disc harrow in order to prevent foliage from growing rapidly during the rainy season.
[NOTE: The above makes no mention of herbicides being used, possible because it is referring to inside the perimeter fence, which is noted in the CHECO report as being “closely cut.”]

Extract, 56th Special Operations Wing, April through June 1972, Volume 3 (AfHRA Call Number K-WG-56-HL, Apr-Jun 1972, V. 3, IRIS Number 902033), Document L, 56th Security Police Squadron history, 1-30 June 1972, page 4, Narrative, also paginated as DOC L 48:

Due to heavy rains, vegetation control has become a daily task around the base perimeter.

Page 5, Commander’s Conclusion:
Vegetation control has become difficult due to the heavy rains that occurred. Bunker detail worked every day they could in trying to keep the foliage from growing on the outer and inner perimeter.

[NOTE: The above makes no mention of herbicide use.]

Extract, 56th Special Operations Wing, July through December 1972, Volume 4 (AfHRA Call Number K-WG-56-HL, Jul-Dec 1972, V. 4, IRIS Number 902037), Document N, 56th Security Police Squadron history, 1-31 July 1972, page 5, Commander’s Conclusion, also paginated as DOC N 6:

Vegetation control on the north, east, and west sides of the outside perimeter was accomplished. Civil Engineers employed a disc harrow in order to prevent foliage from growing rapidly during the rainy season.

[NOTE: The above makes no mention of herbicide use.]

Pages 70-72, Takhli RTAFB:
[No mention of vegetation control is made. Vehicle, communications and lighting take up the security concerns devoted to this installation and therefore leads one to assume that vegetation was not a problem at this base.]
355th Security Police Squadron Historical Data Report, Page 5, Security:
A large shipment of Concertina Wire arrived on base and a mile and a quarter of Triple Strand Concertina Wire was placed on the North and East side of the perimeter before it was discovered that this wire belonged to another unit for a required commitment. Concertina Wire to continue around the base perimeter and restricted areas was ordered on 21 August 1968 and is back ordered in Base Supply. Other physical security safe guards such as fencing around restricted areas and perimeter has been ordered but is awaiting appropriated funds.

[Note: This insinuates that by the end of 1968, there still was no perimeter fence around Takhli.]

Page 8:
Another problem area is the heavy jungle growth over the perimeter and various areas of the installation. A monthly contract by Civil Engineers is in being and approximately forty percent of this growth on the USAF portion of the base has been removed. Recommend that vegetation control be continued in these areas or this problem will occur again in about three months. [Evidently, a commercial Thai contractor cleared the vegetation away from the perimeter areas of the base—not the USAF. No mention of herbicide is made.]

Page 72-73, Ubon RTAFB:
Ubon had undertaken a unique approach to solve one of its problems, that of controlling off-base vegetation. The ROE [rules of engagement] prohibited the use of herbicides outside the perimeter, but Base Civic Action undertook the project of having vegetation cleared 100 meters from the MMS area fence and had additionally contracted with local villagers to clear 150 meters of dense underbrush from around the base perimeter. The project was inexpensive, cleared a wide field for observation, and put money into the local villages, thereby helping to create good will.

Ubon Royal Thai Air Force Base:
Prior to June 1966 there was no base perimeter fence:

Extract, 8th Tactical Fighter Wing January through June 1966 history
(AFHRA Call Number K-WG-8-HI, Jan-Jun 1966, IRIS Number 447606):

Page 30, Security and Law Enforcement:
As during the past reporting period, security presented a major problem at Ubon. One of the primary problems with security was the lack of a perimeter fence and proper security fencing around priority resources. Further problems were with improper security lighting and lack of control to the base proper. Base access remains the responsibility of the Royal Thai Air force and their standards do not meet USAF minimums. A further problem is the location of private property within the boundaries of the base thereby causing further access problems. There was no foreseeable solution to the perimeter security problems at the close of the reporting period.

Page 73, Udorn RTAFB:
Udorn City abutted a large area of the base, creating detection problems. A long section of the perimeter was shared with commercial airlines, specifically, Air America and Continental Airways. The POL area was in a corner of the base next to the town. Several of the fuel storage tanks were less than 100 feet from civilian housing. The MMS areas, both off-base, were very small and venerable to attack.

[No mention of vegetation control is made in the CHECO report, however, the following notation is made in the 432nd Tactical Reconnaissance Wing, the host unit at Udorn RTAFB in 1973:

**Extract, 432nd Tactical Reconnaissance Wing, 1 January through 31 March 1973, Volume 1 (AFHRA Call Number K-WG-432-HI, Jan-Mar 1973, V. 1, IRIS Number 902837):**

Page 83, Base Security:
During the quarter the long awaited vegetation control program was put into effect and completed. This project called for the establishment of a 200-meter vegetation free perimeter around the entire circumference of Udorn RTAFB. The purpose of this clear area was to increase the field of view of the sentries and to deny cover to hostile forces. This project was completed with the help of Civic Actions who, in exchange for the local villagers’ cooperation in the removal of the vegetation from the perimeter area, rewarded them with an unspecified number of electric power poles and their crosspieces.]

Page 74, **U-Tapao RTNAF:**
Unlike Udorn and Ubon, which suffered from too little battle space, U-Tapao defenses were almost engulfed by territory. Such a massive amount of real estate forced dilution of both people and resources committed to the defense effort.

The base had another unusual problem. There was a Thai village located on the base inside the perimeter. This created difficulties, especially in pilferage control.

Vegetation control was all but impossible over the entire reservation. Vegetation control was further hindered by the inability of the base to get herbicides through supply channels during the entire first half of 1972.

APO: 96330

**U-Tapao RTNAF:**

**Extract, 635th Combat Support Group, January through March 1968 (AFHRA Call Number K-GP-SUP-635-HI, Jan-Mar 1968, IRIS Number 444464):**

Page 60, Security:
The northern perimeter of the base, from the village of Kilosip to the main gate of the base (approximately four miles) is protected by intermittent chain link fencing. From the main gate to the Thai Navy access gate to the east of the base there are two rolls of concertina wire with intermittent concertina wire form that point to Kilo 16. On the west side of the base, protection is afforded by a partial fencing of one roll of concertina wire. On the southern side of the base, fencing consists of one roll of concertina wire, broken in several places, form the beach access road to the klong. From the klong to the west gate of the base there is
one roll of concertina wire. This stretch of wire is also broken in several places. On the east, the base is fenced by one roll of concertina wire, broken into 20 section.

[NOTE: No mention in the Civil Engineering or Security Police Squadron historical inputs concerning vegetation control.]

Extract, 635th Combat Support Group, April through June 1968 (AFHRA Call Number K-GP-SUP-635-HI, Apr-Jun 1968, IRIS Number 444465):

Page 37, Entomology:
As the base was located in a marshy land area, insect control was stressed. Nine personnel from within civil engineers were assigned to pest control on a permanent basis. Prevention methods included fogging each day from 6 pm. Until midnight. Also spraying for control of flies and roaches in all facilities on the base and replenishing of permanent and temporary rat bate stations.

Equipment utilized in this preventive control measure included a one and one-half ton truck with a 40 GPM cold fogging machine mounted on its bed and a two sprayer, frame mounted 180 GPM termite treatment machine. Thirty-two knapsack sprayers (hand operated) with 2 gallon capacity and eight manual rotary fan dusters were also available for use.

Chemicals which were used in the pest control program consisted of Malathion, Diazionon 4E, Diasonon Dust, Aerosol 7000 OH and a anticoagulant rat bait. Aircraft aerosol was used for insect control treatment of aircraft departing for the U.S.

Page 47, Security:
The base perimeter fence remained the same as in the previous quarter. This included intermittent chain link fence from Kiosip to the main gate. From the main gate on the northern side of the base, past the Thai Navy gate and the east gate to Kilo 16 there were two rolls of concertina wire with intermittent one roll of concertina.

The west side of the base was partially fenced by one roll of concertina and the one roll of concertina on the east side was separated into twenty sections. The south side had one roll of concertina with intermittent fencing of two rolls. The fencing on the south perimeter was broken in several places.

[NOTE: No mention in the Civil Engineering or Security Police Squadron historical inputs concerning vegetation control.]

Extract, 635th Combat Support Group, July through September 1968 (AFHRA Call Number K-GP-SUP-635-HI, Jul-Sep 1968, IRIS Number 444466):

Page 46, Security:
The need for a perimeter fence around U-Tapao was further discussed in a survey made by a U.S. Army Special Forces Team at the end of September
1968. In its survey of base defense, the team's general findings were that U-
Tapao Airfield was an extremely vulnerable installation for two primary reasons.
First, it did not have any adequate fencing and no foliation control program.
Second, some areas of the base were fenced, but such fencing did not connect
with any other obstacle. As a result, entrance could be gained from an unlimited
number of directions. The team report noted that an attacking force of virtually
any size could enter the base from three directions.

[Note: Supporting Document number 52, Survey of U-Tapao RTN/USAF Base,
26 September 1968, is the report noted in the above paragraph. It states:

Annex B, Internal Security, Paragraph 1 a (3):
The dense vegetation on the north east portion of the base could aid the
infiltration of a battalion size force without any problem. This area leads directly
to the B-52 parking aprons and the MMS area. The MMS area is fenced with a
chain link fence and is well revetted.

Annex B, Paragraph 1 b (2) e:
Fields of fire. With the exception of the areas at each end of the runway, there
are no cleared fields of fire around or on the base. As mentioned earlier, the
excessive amount of foliage around the base could conceal an extremely large
force. The lack of any barrier and fields of fire makes the base a completely
vulnerable entity.

Annex C, Perimeter Barrier, Paragraph 1:
An effort was made to erect a chain link fence in this area (the north western
portion), but gaps were left wherever civilian property indented on the perimeter.
It was considered too costly to fence in each indented area. As a result a great
deal of the fencing has been torn down by local nationals. The remainder of the
base perimeter is denoted by the presence of single and triple roles of concertina
wire. This wire is generally overgrown with vines and grass and serves no other
purpose than to indicate where the perimeter might actually be located.

Annex E, Recommendations, Paragraph 4:
Clear Base of all scrub vegetation to include crops being raised by on-base
squatters. The presence of the vegetation is detrimental to the development of
ay base defense plan.

Paragraph 8 f:
Do not construct any more towers. They are a liability and serve no purpose
during the most critical time of the day 1900 thru 0500. Monies for this project
should be diverted to the clearing of the base foliage.]

Extract, 635th Combat Support Group, October through December 1968,
Volume 1 (AFHRA Call Number K-GP-SUP-635-HI, Oct-Dec 1968, V. 1, IRIS
Number 444468):

Page 43, Security:
One item was approved during the quarter which will probably enhance the
security posture significantly and decrease the incident rates of unidentified
persons on base, pifferage of government supplies and equipment. This was the
authorization to design and construct a perimeter fence and road inside the perimeter. The perimeter fence was to be erected of concertina wire, double apron (triple roll) and accomplished by abase personnel and resources. [NOTE: No mention of any herbicide use or any vegetation control measures being taken.]


Appendix IV, 635th Security Police Squadron Historical Data Report, January through March 1969, Page 4, Air Base Defense: Perimeter clearing of portions on East and South boundaries of the installation was accomplished.

[Note: Unfortunately, it is not recorded how the perimeter was cleared or if herbicides were even used.]

Extract, 635th Combat Support Group, April through June 1969, Volume 1 (AFHRA Call Number K-GP-SUP-635-HI, Apr-Jun 1969, V. 1, IRIS Number 444471):

Page 40, Community Facilities: The only construction cancelled during the quarter was that of the final 3,000 feet of the six-foot chain link boundary fence along the north haul road towards the East Gate. The original scope of the construction was to be 10,000 feet. It was expected that the project would be closed out upon confirmation from the Air Force Regional Civil Engineer.

Appendix IV, 635th Security Police Squadron Historical Data Report, April through June 1969, Page 2, Air Base Defense: The northern area of the B-52 area was re-located and given a permanent boundary. The area now includes the Fire Station and the East Side AGE [aerospace ground equipment] Area. The boundary was constructed by SP and TG [Thai Guard] personnel employing 10,800 linear feet of used concertina wire to make a triple strand perimeter. Another 2,800 linear feet was placed on the south side of the US Navy Ramp. Numerous other repairs were made in the concertina perimeter and approximately 8,000 linear feet of concertina was laid on many unfenced areas.

10-16 feet tall grass inside the MMS [munitions maintenance squadron] Area was cut. This project originally started by hand but the final stages were accomplished by a grader. [Note: It appears that by the end of June 1969 there still wasn't a complete perimeter fence around U-Tapao. No mention of herbicides used for vegetation control appears in this history.]

Extract, 635th Combat Support Group, July through September 1969, Volume 1 (AFHRA Call Number K-GP-SUP-635-HI, Jul-Sep 1969, V. 1, IRIS Number 444473):
Appendix IV, 635th Security Police Squadron Historical Data Report, July through September 1969, Page 2, Air Base Defense:
Two SSgt were assigned to supervise the construction of the Base Perimeter fence. A total of 23,760 feet of concertina fencing has been completed thru 10 Oct 1969. Also, 230 trip flares were set-up in support of the perimeter fencing. In addition to trip flares on the perimeter fence, sixty (60) trip flares were installed around the Redistribution Marketing Section to preclude theft of salvaged AF property.

The base perimeter (West) road previously scheduled for construction by the “Red Horse” organization has been terminated. The project will be picked up by MACTHAI Corps of Engineers Division (US Army). A present bill of materials (BOM) is being consolidated to provide these heavy construction teams an early starting date.

[Note: no mention of any herbicide spraying by either the Civil Engineering or Security Police Squadrons in this history.]


The perimeter security construction package was not progressing satisfactorily. Materials for perimeter fences had been on base since Jun 69; however, with the exception of a small segment of fence installed for demonstration purposes, construction of the fence had not commenced.

Finding:
An aggressive and continuing program of vegetation control was required in the MMS area. (Para 26f, PACAFM 207-25).

[Note: Neither the perimeter fence was completed, nor was there any vegetation control.]

Extract, 635th Combat Support Group, October through December 1969 (AFHRA Call Number K-GP-SUP-635-HI, Oct-Dec 1969, IRIS Number 444475):

[Note: No mention of any vegetation control in this history.]


Page 41, Security:
Two significant projects during this period improved effectiveness of base defense. The 17-mile perimeter road, costing $650,000, was completed on 15 March. Also, to further enhance the security posture, 26 security guard towers were erected along the perimeter road. This project was completed 29 March.
Work began in March to provide lighting along the perimeter road. The project, as reported in a previous history, included the installation of lighting fixtures every 100 feet along the road. It was expected to be completed in August 1970.

[Note: No Security Police or Civil Engineering Squadron histories were included in this particular history—they are in the April through June 1970 635th Combat Support Group history. However, no mention is made of any herbicide spraying or vegetation control in the squadron histories.]


Page 35, Base Security:
When he became the new 635th Security Police Squadron Commander in April 1970, Major Robert W. Osterhaut took steps to improve the general defense of U-Tapao Airfield. These improvements centered in three areas: perimeter fencing, placement of conex bunkers and augmentation of the canine section.

Three strands of concertina barbed wire fencing were strung around the base perimeter, and the project was 99 per cent completed by the end of the quarter. Two small area behind the officers' quarter remained unfenced.

[NOTE: No mention of any herbicide use or any vegetation control measures being taken.]


Appendix IV, Unit Historical Summaries, 635th Security Police Squadron, July-September 1970, dated 14 October 1970, Page 2, paragraph j:
Base Defense was increased during this quarter by constructing several permanent conex bunker emplacements and setting numerous trip flares on the base perimeter. Also several acres of jungle were cleared away allowing better observation for our sentries.

[NOTE: The use of the words “cleared away” suggests a quick removal as in cutting. Herbicides takes weeks to kill trees and vegetation. Although the process of jungle removal is not stated, it does not appear that herbicides was the method used in this particular case.]


Appendix V, Unit Histories, #10, 635SPS Historical Report, 18 Jan 1971:

[NOTE: No mention of any vegetation control around the perimeter fence in this history. Topics are on bunkers and lighting.]
Appendix VII, Unit Histories, #2, 635SPS Historical Report, 13 Apr 1971:

[NOTE: No mention of any vegetation control around the perimeter fence in this history. Topics are on bunkers and fencing.]

Extract, 635th Combat Support Group, April through September 1971, Volume 1 (AFHRA Call Number K-GP-SUP-635-HI, Apr-Sep 1971, V. 1, IRIS Number 901201):

Page 45 Security Police Effectiveness Increased:
Another step was an extensive jungle clearance program which eliminated 72 per cent of the foliage in critical observation areas of the airfield. With foliage down to a bare minimum, the 6356th Security Police Squadron eliminated the dog and handler hunter squads because sentries in the numerous key positioned towers could observe the previously camouflaged areas.

Extract, 635th Combat Support Group, April through September 1971, Volume 2 (AFHRA Call Number K-GP-SUP-635-HI, Apr-Sep 1971, V. 2, IRIS Number 901202):

Appendix VI, 635CSG (SPS), 6 Jul 71, historical report, Document #1:
Page 3:
An extensive jungle clearance program was put into effect which has resulted in approximately 85% of the trees in Delta Sector being cleared and with approximately 60% of the foliage around the POL area being cleared.

Military Dog Section:
Hunter Squad was eliminated due to the fact that sentries in towers could observe a larger area. This was also due to the high jungle grass that hindered the Recon-Patrol Teams which greatly reduced their effectiveness.

[NOTE: No mention of herbicides being used in this jungle clearance program.]

Extract, 635th Combat Support Group, October through December 1971 (AFHRA Call Number K-GP-SUP-635-HI, Oct-Dec 1971, IRIS Number 901203):

Page 46, Security:
Vegetation control adjacent to the fencing was a continual problem, one which the squadron seemed to be fighting a losing battle against. Periodic grading of the areas on both sides of the fencing seemed to stunt the vegetation's growth only temporarily. However, during the quarter the squadron began spraying chemical herbicides on the troublesome plants. The success of the new spraying program remains to be seen, and it will be a topic of discussion in future histories.
[NOTE: This appears to be the first time herbicides were used along the perimeter fence at U-Tapao. Unfortunately, the type of herbicides is not noted.]

Appendix V, Exhibit 40, 635 Security Police Sq, Historical Report:

Paragraph 4h, Air Base Defense:
An aggressive jungle clearance program was initiated, including the use of herbicides spraying and tractors to defoliate the area adjacent to perimeter fencing.

[NOTE: Unfortunately, the type of herbicides is not noted.]