

16. [REDACTED]
VC DISTRESS OVER THE GROWING EFFECT OF THE CHIEU HOI (OPEN ARMS) PROGRAM. IN ADDITION TO CONDUCTING EXTENSIVE PROPAGANDA, THE VC HAVE MORTARED CHIEU HOI AND REFUGEE CAMPS, KILLING AND WOUNDING A NUMBER OF INHABITANTS, AND THEY HAVE ASSASSINATED A NUMBER OF INDIVIDUAL HOI CHANH (RALLIERS). ORGANIZATIONAL CHANGES

17. [REDACTED]
VC MILITARY UNITS BEING BROKEN UP INTO SMALLER GROUPS AND RECEIVING TRAINING IN SAPPER ACTIVITY AND SMALL-UNIT TACTICS. IN II CORPS, VC UNITS HAVE BROKEN INTO SMALLER GROUPS IN ORDER TO EVADE FRIENDLY FORCES, AND OBSERVERS SAY THEY SEEM TO BE ASSUMING A SUPPORT ROLE FOR NVA FORCES. THIS WAS DONE EARLIER IN I CORPS, WHERE IT REPORTEDLY CAUSED VC RESENTMENT AGAINST THE NVA.

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[REDACTED]
CIA FIELD INFORMATION REPORT FILED: 300826Z FINAL SECTION OF 3

18. [REDACTED] "DONG KHOI" (MOVE OUT ALL FORCES) CAMPAIGN DESIGNED TO UNIT ALL VC FORCES UNDER A MILITARY COMMAND SECTION AND MAKE ALL CADRES WORK HARDER FOR THE SUCCESS OF THE FALL-WINTER CAMPAIGN. THE DETAILS OF THIS REPORTED POLICY ARE OBSCURE, BUT IT APPEARS TO INVOLVE AN INCREASED RELIANCE ON MILITARY DISCIPLINE IN PLACE OF POLITICAL MOTIVATION. BINH THUAN PROVINCE REPORTS THAT 62 NVN POLITICAL CADRES, WHO CAME DOWN IN MAY, HAVE BEEN ASSIGNED TO HELP DIRECT ACTIVITIES OF DISTRICT AND VILLAGE COMMITTEES. MANY OF THE BINH THUAN VC ARE LIKELY TO LOOK UPON THEM AS CARPETBAGGERS. THIS PROVINCE HAS ALSO REORGANIZED THREE OF ITS DISTRICTS IN AN EFFORT TO RECOVER FROM THE DISRUPTION CAUSED BY ALLIED MILITARY OPERATIONS.

19. ON 1 JANUARY 1967, THE CENTRAL OFFICE FOR SOUTH VIETNAM (COSVN) ISSUED A DIRECTIVE THAT CADRES FROM VARIOUS LEVELS WOULD BE SENT DOWN TO LOWER LEVELS TO STRENGTHEN THEM

[REDACTED]
DARLAC IS THE MOEU RECENT PROVINCE TO HAVE IMPLEMENTED THE COSVN DIRECTIVE.

20. FIELD DISSEM: STATE USMACV DIR/JUSPAO (MR. ZORTHIAN ONLY) CINCPAC ARPAC PACAF PACFLT.

REPORT CLASS [REDACTED]

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Wrap-up

Farrar
Indications
(12) K

NNNNVV PHF513VV HDW300
RR RUHKA
DE RUHDC 823B 2090750
ZNY SSSSS ZOK JPCCO
R 251219Z JUL 67
FM DOD/PRO
TO RUHKA/CINCPAC ✓
RUHKB/CINCPACFLT
RUHKQ/CINCPACAF
RUHKR/CINCUSARPAC
INFO RUHKM/CGFMFPAC
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SVC ON REQUEST

~~June - WTD ???~~

VC 2714

SECTION 1 OF 2
HQRS INFORMATION REPORT FILED 250808Z

REPORT CLASS [REDACTED]
COUNTRY SOUTH VIETNAM
DOI TO JUNE - 1967
SUBJECT CURRENT VIET CONG PROBLEMS, POLICIES AND SOLUTIONS

ACQ VIETNAM, SAIGON FIELD NO. [REDACTED]
SOURCE [REDACTED]

1. THIS IS A FIELD APPROAISAL OF THE CUPRENT SITUATION. IT IS NOT AN OFFICIAL JUDGMENT 6 5 E AGENCY OR ANY COMPONENT.
2. (SUMMARY: A REVIEW OF INFORMATION AVAILABLE ON VIET

CINCPAC COMMUNICATION CENTER - INCOMING

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CMC	ASST	1/17	C/S	DEP	DEP	IT	PLRS	INT	OPS	LOG	PLN	CRS	REC	COMP	1/16	PR	PROT	REP	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30
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 F 200432Z FEB 67
 FM DOD/PRO
 TO RUHKA/CINCPAC
 RUHKB/INCPACFLT
 RUHKQ/CINCPACAF
 RUHXR/CINCUSARPAC
 INFO RUHKM/CGFMFPAC
 BT

Effects of defoliation
 326
 10
C.H.

FIELD INFORMATION REPORT FILED 192302Z

REPORT CLASS [REDACTED]
 COUNTRY SOUTH VIETNAM
 DOI APRIL 1965 - OCTOBER 1966
 SUBJECT EFFECTS OF DEFOLIATION IN PHU CAT, HOAI AN,
 HOAI NHON AND PHU MY DISTRICTS OF BINH DINH
 PROVINCE

ACQ VIET NAM, SAIGON /13 FEBRUARY 1967/ [REDACTED]

SOURCE [REDACTED]

VN 1051

CINCPAC COMMUNICATION CENTER - INCOMING

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CWO [Signature] CTR 7569/21 TOR 200637Z OPR 78 DTG 200432Z FEB 67

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#309
(C)

SHOULD CONDUCT "SEARCH AND DESTROY" OPERATIONS AGAINST THE VC RATHER THAN DEFOLIATION OPERATIONS WHICH AFFECTED THE CROPS OF THE NON-COMBATANT POPULATION. AS A RESULT OF THE DEFOLIATION OPERATIONS, THE MAJORITY OF THE CIVILIANS MOVED TO GVN-CONTROLLED AREAS - ALTHOUGH THE MAJORITY WHO REMAINED REQUESTED AID FROM THE VC, ONLY A VERY FEW AREAS RECEIVED ANY ASSISTANCE. THE VC'S ATTITUDE WAS THAT THE PEOPLE SHOULD PROVIDE FOR THEMSELVES, BECAUSE THE VC WERE INVOLVED IN MILITARY OPERATIONS AND HAD NO TIME FOR AGRICULTURE. THE CIVILIANS COMPLAINED THAT THEY HAD TO UNDERGO PRIVATION BECAUSE THE VC HARASSED THEM, LIVED OFF THE LOCAL POPULACE WHEN THEY PASSED THROUGH AN AREA, AND WERE INDIRECTLY RESPONSIBLE FOR THE DEFOLIATION BECAUSE THEY HAD "LIBERATED" THE AREA. THOSE CIVILIANS WHO REMAINED IN THE AREA AFTER IT WAS DEFOLIATED HAD TO OBTAIN SEEDS AND FOOD FROM OTHER VILLAGES, BOTH VC AND GVN CONTROLLED, WHICH HAD NOT BEEN AFFECTED BY DEFOLIATION. DEFOLIATED FIELDS HAD TO BE IRRIGATED SEVERAL TIMES TO WASH OFF THE CHEMICALS BEFORE

THEY COULD BE RECULTIVATED - THIS PROCESS TOOK ABOUT ONE MONTH.

TM THE VC MET THE DEFOLIATION SITUATION AND THE RESULTANT FOOD SHORTAGES BY TAKING FOOD FROM OTHER AREAS. THE VC UNIT MESS SECTIONS, COMPRISED OF FOUR PERSONS, WERE RESPONSIBLE TO THE UNIT COMMANDER FOR OBTAINING FOOD SUPPLIES. EIGHT OR NINE SOLDIERS WERE NT OUT TO NEIGHBORING VILLAGES TO OBTAIN RICE AND SALT FROM HOUSES DESIGNATED BY THE NATIONAL FRONT FOR THE LIBERATION OF SOUTH VIETNAM AS STORAGE PLACES FOR VC MILITARY SUPPLIES. SOME VC UNITS HAD FOOD STOCKPILES FOR EMERGENCIES SUCH AS DEFOLIATION. IN GENERAL, THE VC WERE NOT GREATLY IMPEDED BY DEFOLIATION OPERATIONS, AS THE FOOD SHORTAGES WERE MADE UP FOR BY SUPPLIES FROM OTHER AREAS.

6. BEFORE DEFOLIATION OPERATIONS, LEAFLETS WERE DROPPED TO WARN THE PEOPLE TO MOVE AWAY FROM THE AREA. INITIALLY THE VC DID NOT TAKE COUNTER-PROPAGANDA MEASURES AGAINST THE LEAFLETS AS THE PEOPLE DID NOT GIVE ANY CREDENCE TO THEM. WHEN RUMORS OR CONFUSION AROSE CONCERNING THE LEAFLETS, THE VC SAID THAT THEY WERE MERELY THREATS ON THE PART OF THE GVN. AFTER THE DEFOLIATION OCCURRED, HOWEVER, ABOUT 60 PERCENT OF THE LOCAL POPULATION LOST THEIR FAITH IN THE VC. LATER THE VC DEVELOPED THE PROPAGANDA THEME THAT THE GVN HAD FIRST

DROPPED BOMBS TO KILL THE PEOPLE AND WERE NOW SPREADING POWDER TO DESTROY THEIR CROPS AND FORCE THEM TO LIVE IN PRIVATION.

7. FIELD DISSEM -- STATE USAID JUSPAO USMACV USARV NAVFORV

7TH AIR FORCE DIST 50/OSI 525 MIG CINCPAC ARPAC PACAF PACFLT.
REPORT CLASS [REDACTED]

BT

VC 2710
 (11)

NNNNVV PHF599 HDA786

RR RUHKA

DE RUHDC 058B 2250027

ZNY CCCCC ZOK JPCCO

R 302119Z AUG 67

FM DOD/PRO

TO RUHKA/CINCPAC

RUHKB/CINCPACFLT

RUHKQ/CINCPACAF

RUHKR/CINCUSARPAC

INFO RUHKM/CGFMFPAC

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[REDACTED] FIELD INFORMATION REPORT FILED: 300826Z SECTION 1 OF 3

REPORT CLASS [REDACTED]

COUNTRY SOUTH VIETNAM

DOI JULY 1967

SUBJECT SUMMARY OF VIET CONG ACTIVITIES IN SOUTH VIETNAM DURING JULY 1967

ACQ VIETNAM, SAIGON FIELD NO. [REDACTED]

SOURCE THIS IS A VIETNAM SITUATION REPORT PREPARED AS OF 31 JULY 1967 [REDACTED]

[REDACTED]

[REDACTED]

CINCPAC COMMUNICATION CENTER - INCOMING

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CWC NO	EXEC ASST	F/IT	C/S	DEP C/S	DEP L/S	PL	IT SEC	PERS	INT	OPS	LOG	PLN	CSE	SEC	COMP	LEGI	PRG	PROT	MED	LAB	D/S	MC	OPR	MSC	INTC	POST
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[REDACTED]

SUMMARY: THROUGHOUT SOUTH VIETNAM THE VIET CONG (VC) CONTINUE TO FACE SERIOUS PROBLEMS. EVERYWHERE, EXCEPT SOME PARTS OF IV CORPS, FOOD AND MANPOWER ARE IN SERIOUSLY SHORT SUPPLY. TAX COLLECTION IS AN INCREASING PROBLEM IN ALL AREAS. POPULAR SUPPORT CONTINUES TO DECLINE. THIS IS ACCELERATED BY THE VC'S INCREASED USE OF TERROR AND REPRESSION TO FORCE SUPPORT. LOSS OF POPULATION FROM VC CONTROL CONTINUES TO REDUCE THE MANPOWER AVAILABLE FOR TROOPS, SLABOR SUPPORT FOR THE MILITARY, AND TILLERS OF THE FIELDS. DESPITE SUCH EROSION, HOWEVER, THE VC STRUCTURE REMAINS STRONG AND DANGEROUS, WITH FAIR TO GOOD MORALE IN THE UPPER LEVELS. THEY LAUNCHED VERY FEW SIZEABLE MILITARY ACTIONS IN JULY, HOWEVER, FOCUSING THEIR RESOURCES ON ATTACKS ON SMALL OUTPOSTS AND ON HARASSMENT OF REVOLUTIONARY DEVELOPMENT PROGRAMS, CHIEU HOI (OPEN ARMS) AND REFUGEE CENTERS, AND LINES OF COMMUNICATION. THERE APPEARED TO BE AN ELEMENT OF DESPERATION IN THEIR INCREASING RESORT TO INDISCRIMINATE TERRORISM. THE CHIEF NEW DEVELOPMENT IN JULY WAS THE GREATLY INCREASED ATTENTION DEVOTED TO THE APPROACHING NATIONAL ELECTIONS. THIS CONSISTED ALMOST ENTIRELY OF PLANNING, PROPAGANDIZING, AND SPREADING THREATS OF DEATH TO THOSE WHO SUPPORT THE ELECTIONS. SOME MINOR ORGANIZATIONAL CHANGES WERE NOTED DURING THE MONTH.

END SUMMARY.

VC PROBLEMS:

1. FOOD SHORTAGES WERE VERY SERIOUS IN JULY IN ALL BUT IV CORPS, AND EVEN THERE THE VIET CONG (VC) WERE HARD PRESSED IN SOME AREAS TO COLLECT ENOUGH FOOD. IN I AND II CORPS A CONSIDERABLE AMOUNT OF MILITARY MANPOWER HAS BEEN DIVERTED TO AGRICULTURAL PRODUCTION AND

COLLECTION OF FOOD FROM THE PEASANTS; FOR EXAMPLE, ONE BATTALION OF THE 95TH NORTH VIETNAMESE ARMY (NVA) REGIMENT IN PHU YEN PROVINCE HAD 15 PERCENT OF ITS MEN DETAILED TO AGRICULTURAL PRODUCTION. THE FOOD SHGWTAGE HAS CONTRIBUTED TO POOR MORALE AND TO DESERTIONS AND DEFECTIONS. THE FUNDAMENTAL PROBLEM IS AN ABSOLUTE SHORTAGE OF GRAIN CAUSED BY DECREASED PRODUCTION AND INCREASED DEMAND, BUT THIS HAS BEEN COMPOUNDED BY SERIOUS DISLOCATION OF THE VC SUPPLY SYSTEM. ALLIED SWEEPS HAVE BROKEN UP VC SUPPLYSORGANIZATIONS, AND ALLIED UNITS ARE OCCUPYING KEY LOCATIONS ON SOME OF THE

[REDACTED]

ESTABLISHED COMMO-LIAISON ROUTES. IN NINH THUAN A NUMBER OF CADRES WERE REPLACED BECAUSE OF FAILURE TO SECURE SUPPLY ROUTES FROM THE MAIN LOGISTIC SUPPORT AREA TO SECRET OPERATIONAL BASES. MEDICAL SUPPLIES, ESPECIALLY ANTIBIOTICS, ARE SHORT IN ALL AREAS.

2. THE VC ARE SUFFERING FROM A SHORTAGE OF TAX INCOME ALL OVER THE COUNTRY. RAISING TAX LEVELS HAS SERVED TO MAKE COLLECTION ALL THE MORE DIFFICULT, AND LOCAL UNITS ARE INCREASINGLY RESORTING TO TERRORISM TO ENFORCE PAYMENT. IN SEVERAL DIFFERENT PARTS OF THE COUNTRY INDIVIDUALS HAVE BEEN "EXECUTED" FOR NON-PAYMENT OF TAXES.

3. POPULATION CONTROL AND LOSS OF POPULAR SUPPORT ARE GROWING PROBLEMS. ALLIED SUCCESS HAS MADE PEOPLE IN MANY AREAS RELUCTANT TO COOPERATE WITH THE VC. TO ENFORCE COOPERATION, THE VC HAVE FREQUENTLY RESORTED TO TERROR AND INTIMIDATION, WHICH HAVE INCREASED THEIR UNPOPULARITY. THE KHANH HOA PROVINCE COMMITTEE FOUND ITSELF IN AN UNHAPPY DILEMMA: IT DECIDED IT DID NOT HAVE SUFFICIENT TROOPS TO COUNTER ALLIED OPERATIONS AND MAINTAIN CONTROL OVER THE POPULATION AND FOOD PRODUCTION, BUT IT COULD NOT SUPPORT ANY ADDITIONAL TROOPS BECAUSE OF THE UNAVAILABILITY OF FOOD. IN IV CORPS, VC HAVE COMPLAINED OF LACK OF POPULAR SUPPORT BOTH IN CONTESTED AREAS AND VC AREAS.

4. MORALE IN THE LOWER ECHELONS IS POOR NEARLY EVERYWHERE. HIGHER LEVEL CADRES AND MAIN FORCE TROOPS ARE GENERALLY IN BETTER SHAPE AND A FEW INSTANCES OF HIGH MORALE ARE REPORTED. FOOD AND MEDICAL SHORTAGES AND, ESPECIALLY, THE AWESOME POSER OF ALLIED MILITARY FORCES CONTINUE TO DEPRESS MORALE.

5. PERHAPS THE MOST IMMEDIATELY CRITICAL PROBLEM IS THE SHORTAGE OF MANPOWER, WHICH IS TO A LARGE EXTENT AN OUTGROWTH OF THE PROBLEMS ALREADY DISCUSSED. ALTHOUGH DECLINING POPULAR SUPPORT MEANS FEWER VOLUNTEERS, THE PHYSICAL EXODUS OF PEOPLE FROM VC-HELD TERRITORY MEANS AN ABSOLUTE DECREASE IN AVAILABLE MANPOWER FOR ALL PURPOSES--TROOPS, AGRICULTURAL, LABOR, AND MILITARY SUPPORT ACTIVITIES. IN ONE DRAMATIC EXAMPLE, IN TRIEU PHONG DISTRICT OF QUANG TRI PROVINCE, 920 FAMILIES REMOVED THEMSELVES TO A RELATIVELY SAFER RURAL DEVELOPMENT AREA.

6. IT HAS RECENTLY BECOME APPARENT THAT WHILE THE

PEOPLE ARE LEAVING THE VC, THE VC ARE BEING FORCED TO LEAVE THE PEOPLE. ESPECIALLY IN I AND II CORPS, SUSTAINED ALLIED PRESSURE HAS DRIVEN ALARGE PART OF THE VC FORCES FROM THE POPULOUS COASTAL PLAINS TO THE SAFER BUT SPARSELY INHABITED MOUNTAIN JUNGLES. THIS IN TURN COMPLICATES THEIR RECRUITMENT AND FOOD SUPPLY PROBLEMS.

7. THE VC ARE TRYING TO MEET THEIR MANPOWER PROBLEMS BY CALLING ON WOMEN AND CHILDREN. YOUTHS DOWN TO 14 YEARS OF AGE ARE BEING TAKEN INTO THE ARMED FORCES. EVEN NORTH VIETNAM (NVN) HAS RESORTED TO LOWERED AGE STANDARDS FOR THE REPLACEMENTS IT SENDS SOUTH. SEVERAL RECENTLY-INFILTRATED 16-YEAR OLDS HAVE BEEN CAPTURED. RECENTLY SEIZED DOCUMENTS REVEAL THAT IN ONE AREA THE VC HAVE ORDERED THAT 50 PERCENT OF THE GUERRILLAS MUST BE WOMEN. IN ANOTHER AREA THE MINIMUM WAS SET AT 33 PERCENT. SOME PROVINCES REPORT FURTHER CUTS IN ADMINISTRATIVE STAFFS TO RELEASE MORE MEN FOR MILITARY SERVICE.

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[REDACTED]
CIA FIELD INFORMATION REPORT FILED: 300826Z SECTION 2 OF 3
[REDACTED]

8. THE MANPOWER REPLACEMENT PROBLEM WAS REPORTED AS BEING SERIOUS EVERYWHERE IN THE THREE NORTHERN CORPS AREAS EXCEPT IN QUANG TRI PROVINCE. IN QUANG TRI THEY CAN GET INFILTRATORS FROM THE NORTH WITH RELATIVE EASE, BUT REPORTS SAY THAT EVEN THERE THE QUALITY OF THE REPLACEMENTS IS DECLINING. IN POPULOUS IV CORPS, [REDACTED] SERIOUS MANPOWER PROBLEMS. [REDACTED] NO SHORTAGE FOR LOCAL REPLACEMENTS BUT [REDACTED] THE PROVINCE CAN NO LONGER EXPORT MANPOWER AS IT HAS IN THE PAST.

9. HOWEVER, DESPITE THESE CONTINUING AND, IN SOME

[REDACTED]

CASES, GROWING PROBLEMS, THE VC ORGANIZATION IS EFFECTIVE AND THE VC FORCES RETAIN A FORMIDABLE CAPABILITY TO INFLICT DEATH AND DESTRUCTION.

VC ACTIVITIES

10. JULY WAS A RELATIVELY ROUTINE MONTH FOR VC ACTIVITY. THE ANNIVERSARY OF THE GENEVA ACCORDS, 20 JULY, WAS HERALDED BY THE VC PROPAGANDIST AS A GREAT OCCASION TO BE MARKED BY MAJOR MILITARY AND TERRORIST ACTIVITY, BUT IN THE EVENT IT WAS NOT DIFFERENT FROM ANY OTHER DAY. IN BINH THUAN PROVINCE, FOR EXAMPLE, THE VC PROPAGANDIZED THAT THERE WOULD BE FLOWERS AND VC FLAGS EVERYWHERE ON THE 20TH AND THAT THE DAY WOULD BE CELEBRATED WITH "GLORIOUS ACHIEVEMENTS" AGAINST GOVERNMENT OF VIETNAM (GVN) INSTALLATIONS. IN FACT, ONE BULLDOZER WAS DESTROYED AND ONE SMALL, UNSUCCESSFUL ATTACK LAUNCHED, BOTH ON THE 19TH. ON THE 20TH, NOTHING HAPPENED. IN GENERAL, PREVIOUSLY ESTABLISHED TRENDS CONTINUED THROUGH THE MONTH, THE ONLY MAJOR CHANGE BEING THE INCREASING ATTENTION GIVEN TO ANTI-ELECTION PLANNING AND PROPAGANDA AS THE 3 SEPTEMBER ELECTION DATE DREW NEARER.

11. [REDACTED] A GREAT DEAL

OF ANTI-ELECTION ACTIVITY, MOSTLY IN THE FORM OF PROPAGANDA DISPARAGING THE ELECTIONS AS A "FARCE," STRESSING THE FUTILITY OF VOTING, AND SUGGESTING--SOMETIMES BY EXPLICIT THREATS--THAT SUPPORTING THE ELECTION INVOLVED SERIOUS RISK OF BEING KILLED. BIEN HOA PROVINCE REPORTED THERE WERE SOME INSTANCES OF VC SEIZURE OF FAMILY RECORD BOOKS AND IDENTIFICATION CARDS TO PREVENT VOTING. [REDACTED]

[REDACTED] NEARLY ALL VC PLANS AND DIRECTIVES WERE PREFACED BY THE PHASE "FROM NOW UNTIL THE ELECTIONS," INDICATING THE IMPORTANCE ASSIGNED TO THE ELECTIONS BY THE VC LEADERSHIP.

12. MILITARY ACTION BY THE VC/NVA FORCES WAS GENERALLY LIMITED TO SMALL ACTIONS. IN QUANG NAM PROVINCE, HOWEVER, THEY MANAGED TO SCORE TWO "SPECTACULARS" OF THE KIND MOST USEFUL IN BOOSTING THEIR OWN MORALE AND PRESENTING THE WORLD WITH A PICTURE OF ALLIED VULNERABILITY. ON 14 JULY THE VC, UNDER COVER OF A MORTAR ATTACK, SEIZED THE HOI AN JAIL AND RELEASED THE PRISONERS. ABOUT 870 POLITICAL AND ECONOMIC CADRE PRISONERS MADE GOOD THEIR ESCAPE, PROVIDING THE VC A MUCH NEEDED SUPPLY OF TRAINED MANPOWER. ON THE SAME NIGHT, AN NVA ARTILLERY UNIT HIT DANANG AIR BASE WITH 48 122MM

ROCKETS, KILLING EIGHT, WOUNDING 175, AND CAUSING DAMAGE TO AIRCRAFT AND FACILITIES ESTIMATED AS HIGH AS 85 MILLION DOLLARS. IN BINH LONG PROVINCE ON 11 JULY THE ENEMY LAUNCHED AN ILL-CONSIDERED REGIMENTAL SIZED OFFENSIVE AGAINST A BATTALION OF THE ARMY OF THE REPUBLIC OF IVETNAM (ARVN) 5TH DIVISION AND TOOK HEAVY LOSSES. THROUGHOUT THE REST OF THE COUNTRY, THE VC/NVA GUERRILLAS AVOIDED LARGE UNIT CONTACTS AND LIMITED THEIR INITIATIVES TO HIT-AND-RUN MORTAR AND ROCKET ATTACKS, ASSAULTS ON SMALL OUTPOSTS, AND SMALL ATTACKS ON LINES OF COMMUNICATION.

13. TERRORISM INCREASED IN MOST AREAS, POSSIBLY REFLECTING AN INABILITY TO CONDUCT LARGER OPERATIONS. THESE ATTACKS TENDED TO CONTINUE THE INDISCRIMINATE CHARACTER NOTED THE PREVIOUS MONTH: PEOPLE WERE KILLED SEEMINGLY AT RANDOM BY MINES, BOOBY TRAPS AND MORTAR FIRE. THERE WERE A FEW GROUP "EXECUTIONS" OF PEOPLE WHO WERE ACCUSED OF SOME SORT OF ANIT-VC CONNECTIONS. IN NAM HOA DISTRICT OF THUA THIEN PROVINCE, 14 SELECTED PEOPLE, INCLUDING A 4-YEAR OLD CHILD, WERE ASSASSINATED. IN ONE SUCH CASE IN GIA DINH PROVINCE, SIX PEOPLE WHO WERE KILLED FOR INVOLVEMENT WITH GVN INFORMER ACTIVITIES WERE LATER FOUND NOT TO HAVE BEEN INVOLVED.

14.

THE VC ARE STRIVING TO INCREASE THEIR CAPABILITIES AND ACTIVITY IN THE C TIES, BUT THERE WERE FEW SIGNS OF ACHIEVEMENT IN THIS REGARD DURING JULY. FOR THE FIRST TIME IN NEARLY A YEAR, VC-EMPLANTED GRENADES WERE FOUND IN DANANG CITY, BUT BOTH WERE DISARMED BEFORE EXPLODING. KIEN HOA PROVINCE REPORTED THE ORGANIZATION OF A "RESIGNED-TO-DEATH" CLASS FOR GIVING INDOCTRINATION AND TRAINING FOR SUICIDE ATTACKS ON GVN TARGETS.

15. THROUGHOUT THE COUNTRY THE VC CONTINUED TO GIVE HIGH PRIORITY TO COUNTERING GVN PACIFICATION PROGRAMS. AS PREVIOUSLY, THEY LAUNCHED NUMEROUS PHYSICAL ATTACKS ON REVOLUTIONARY DEVELOPMENT (RD) TEAMS, OFTER SELECTING THOSE TEAMS WHOSE PROGRAMS WERE MAKING THE GREATEST PROGRESS.

INCREASED SOPHISTICATION IN THE ANTI-RD PROPAGAND. A NUMBER OF TECHNIQUES, INCLUDING SONG AND POETRY WRITING CONTESTS, ARE SUED IN AN EFFORT TO TURN THE HAMLET-DWELLERS AGAINST THE TEAMS AND TO DEMORALIZE OR SUBVERT THE TEAM MEMBERS.

16. [REDACTED]
VC DISTRESS OVER THE GROWING EFFECT OF THE CHIEU HOI (OPEN ARMS) PROGRAM. IN ADDITION TO CONDUCTING EXTENSIVE PROPAGANDA, THE VC HAVE MORTARED CHIEU HOI AND REFUGEE CAMPS, KILLING AND WOUNDING A NUMBER OF INHABITANTS, AND THEY HAVE ASSASSINATED A NUMBER OF INDIVIDUAL HOI CHANH (RALLIERS). ORGANIZATIONAL CHANGES

17. [REDACTED]
VC MILITARY UNITS BEING BROKEN UP INTO SMALLER GROUPS AND RECEIVING TRAINING IN SAPPER ACTIVITY AND SMALL-UNIT TACTICS. IN II CORPS, VC UNITS HAVE BROKEN INTO SMALLER GROUPS IN ORDER TO EVADE FRIENDLY FORCES, AND OBSERVERS SAY THEY SEEM TO BE ASSUMING A SUPPORT ROLE FOR NVA FORCES. THIS WAS DONE EARLIER IN I CORPS, WHERE IT REPORTEDLY CAUSED VC RESENTMENT AGAINST THE NVA.

BT

8780/02

BT

[REDACTED]
CIA FIELD INFORMATION REPORT FILED: 300826Z FINAL SECTION OF 3

18. [REDACTED] "DONG KHOI" (MOVE OUT ALL FORCES) CAMPAIGN DESIGNED TO UNIT ALL VC FORCES UNDER A MILITARY COMMAND SECTION AND MAKE ALL CADRES WORK HARDER FOR THE SUCCESS OF THE FALL-WINTER CAMPAIGN. THE DETAILS OF THIS REPORTED POLICY ARE OBSCURE, BUT IT APPEARS TO INVOLVE AN INCREASED RELIANCE ON MILITARY DISCIPLINE IN PLACE OF POLITICAL MOTIVATION. BINH THUAN PROVINCE REPORTS THAT 60 NVN POLITICAL CADRES, WHO CAME DOWN IN MAY, HAVE BEEN ASSIGNED TO HELP DIRECT ACTIVITIES OF DISTRICT AND VILLAGE COMMITTEES. MANY OF THE BINH THUAN VC ARE LIKELY TO LOOK UPON THEM AS CARPETBAGGERS. THIS PROVINCE HAS ALSO REORGANIZED THREE OF ITS DISTRICTS IN AN EFFORT TO RECOVER FROM THE DISRUPTION CAUSED BY ALLIED MILITARY OPERATIONS.

19. ON 1 JANUARY 1967, THE CENTRAL OFFICE FOR SOUTH VIETNAM (COSVN) ISSUED A DIRECTIVE THAT CADRES FROM VARIOUS LEVELS WOULD BE SENT DOWN TO LOWER LEVELS TO STRENGTHEN THEM

[REDACTED]
DARLAC IS THE HOEU RECENT PROVINCE TO HAVE IMPLEMENTED THE COSVN DIRECTIVE.

20. FIELD DISSEM: STATE USMACV DIR/JUSPAO (MR. ZORTHIAN ONLY) CINCPAC ARPAC PACAF PACFLT.

REPORT CLASS [REDACTED]

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CONG (VC) ACTIVITIES THROUGHOUT SOUTH VIETNAM DURING RECENT WEEKS WOULD INDICATE THAT VC PROBLEMS IN THE COUNTRYSIDE AND IN THE CITIES ARE SERIOUS AND INCREASING, THAT THEY HAVE HAD TO ADJUST THEIR POLICIES AND PLANNING ACCORDINGLY, AND THAT THE VC WILL CONTINUE TO CARRY OUT THEIR TERRORIST AND OTHER ACTIVITIES TO THE EXTENT POSSIBLE DESPITE VC WEAKENING IN ITS ORGANIZATION AND A LESSENING OF THEIR EFFECTIVENESS. IT CAN BE EXPECTED THAT THERE WILL BE CONTINUED ENEMY SUCCESSES AGAINST THE SOUTH VIETNAMESE AND FREE WORLD FORCES, BUT THESE WILL PROBABLY BE TO AN INCREASING EXTENT THE RESULT OF DIRECT CONTRIBUTION OF CADRES, REGULAR TROOPS AND MATERIEL FROM NORTH VIETNAM AND TO A DECREASING EXTENT ATTRIBUTABLE TO THE VIET CONG THEMSELVES.)

3. VC PROBLEMS IN THE COUNTRYSIDE:

A. MANPOWER PROBLEMS INCREASINGLY PLAGUE THE VC IN NEARLY ALL PARTS OF SOUTH VIETNAM. EVEN IN THE HEAVILY POPULATED DELTA REGION, MOST PROVINCES REPORT SEVERE RECRUITING PROBLEMS AND SERIOUSLY UNDERSTRENGTH UNITS. MANPOWER IS LOST DIRECTLY THROUGH BATTLEFIELD CASUALTIES, DISEASE AND HARSHNESS, DESERTION, AND DEFECTION THROUGH THE CHIEU HOI PRO-

GRAM. THE RESERVE SUPPLY IS REDUCED BY LARGE-SCALE EMIGRATION FROM VC-CONTROLLED AREAS, LEAVING SOME PLACES TOO UNDERPOPULATED TO TEND CROPS ADEQUATELY OR SUPPLY LABOR AND CONSCRIPTS FOR THE VC. REAL AVAILABILITY IS FURTHER REDUCED BY POPULAR RESISTANCE TO RECRUITMENT. AS A RESULT, THE VC ARE INCREASINGLY RESORTING TO THE USE OF WOMEN AND CHILDREN, EVEN IN FIGHTING UNITS.

B. CLOSELY RELATED IS THE LOW STATE OF MORALE. [REDACTED] GENERAL VC MORALE IS BAD AND STILL DECLINING IN THE LOWER RANKS. THERE IS ALSO REPORTING THAT CADRE MORALE REMAINS GOOD, BUT SINCE THE CADRES ARE SUFFERING REPEATED DEFEATS, THE FORCES THEY CONTROL ARE DECLINING, AND THEY ARE BEING PRESSURED FROM ABOVE FOR BETTER RESULTS, IT IS PROBABLY THAT IT IS THEIR DISCIPLINE RATHER THAN THEIR MORALE WHICH IS REFERRED TO. THE DEPRESSED MORALE AND DECLINING DISCIPLINE [REDACTED]

[REDACTED] OF THE RANK AND FILE ARE REFLECTED IN THE RISING RATE OVER THE LAST YEAR OF DESERTION AND RALLYING UNDER THE CHIEU HOI PROGRAM.

C. THE MORALE AND MANPOWER PROBLEMS ARE IN TURN RELATED TO THE LOSS OF POPULAR SUPPORT, WHICH IS REPORTED IN [REDACTED]

ALL CORPS AREAS. DISILLUSIONMENT WITH VC PROMISES AND PROPAGANDA, RESENTMENT AGAINST EVER HIGHER "TAXES" AND THE CONSCRIPTION OF MANPOWER, AND DWINDLING CONFIDENCE IN ULTIMATE VC VICTORY HAVE WORKED TO TURN THE PEOPLE FROM THE VC. REFUGEE AND CHIEU HOI FIGURES SHOW THAT WHERE IT IS FEASIBLE, THE "WATER" IS TRICKLING AWAY AND LEAVING THE "FISH" HIGH AND DRY.

* D. FOOD IS A CRITICAL PROBLEM IN MUCH OF THE FIRST AND SECOND CORPS AND THE UPLAND REGIONS OF THIRD CORPS. WHAT IS MORE REMARKABLE IS THAT EVEN IN SOME PROVINCES IN THE DELTA "RICE BOWL" (E.G., CHUONG THIEN AND AN XUYEN) THE VC FORCES ARE SUFFERING FROM FOOD SHORTAGES.

E. [REDACTED] IN THE EXTREME NORTH, [REDACTED] FRICTION BETWEEN THE NVA AND LOCAL GUERRILLA TROOPS, WITH THE FORMER LOOKING DOWN UPON THE LATTER AND USING THEM FOR MENIAL TASKS. FROM THE OTHER END OF THE COUNTRY, [REDACTED] SERIOUS DISSENSION BETWEEN THE STAY-BEHIND CADRES AND THE MORE RECENTLY ARRIVED "REGROUPEES." SIMILAR FRICTIONS PROBABLY EXIST IN OTHER PROVINCES.

F. REPORTS ON THE UNSETTLING EFFECT OF CONSTANT ALLIED MILITARY PRESSURE ARE WIDESPREAD. IN A NUMBER OF PROVINCES, VC ADMINISTRATIVE CENTERS HAVE HAD TO MOVE INTO

THE HINTERLAND TO AVOID FRIENDLY SWEEPS. [REDACTED]

[REDACTED] THE VC THERE HAVE ALMOST COMPLETELY CEASED OFFENSIVE ACTIVITIES BECAUSE CONTROL AND AREA SECURITY HAVE BEEN DENIED THEM BY THE CONSTANTLY RECURRING SWEEPS OF U.S. UNITS. IN GIA DINH, THE VC INFRASTRUCTURE HAS BEEN BADLY SHAKEN BY UNRELENTING U.S. AND GVN PRESSURE.

4. VC PROBLEMS ARE MUCH GREATER IN THE CITIAS, WHERE ALLIED SECURITY AGAINST VC OPERATIONS AND TERRORISM IS GREATER AND WHERE THE RELATIVE PROSPERITY AND AVAILABILITY OF FOOD AND WORK MAKE THE POPULACE LESS VULNERABLE TO PROSALYTING AND PROPAGANDA.

A. THE PRESSURE BROUGHT TO BEAR ON THE VC BY ALLIED FORCES, THE NATIONAL POLICE AND CAPITAL MILITARY DISTRICT ELEMENTS HAS FORCED VC MILITARY AND INSURGENCY UNITS AND LARGE NUMBERS OF VC CADRES TO ABANDON GIA DINH PROVINCE AS A BASE OF POLITICAL AND TERRORIST OPERATIONS AGAINST THE SAIGON METROPOLITAN AREA. HAVING LOST THIS SAFE HAVEN, THE VC HAVE HAD TO TRANSFER THEIR BASE OF OPERATIONS INTO SAIGON CITY PROPER, WHERE A SIGNIFICANT NUMBER OF VC CADRES HAVE BEEN ARRESTED DURING RECENT MONTHS.

GP-1
BT

[REDACTED] FINAL SECTION OF 2
[REDACTED]

B. BETWEEN 15 SEPTEMBER 1966 AND THE END OF MAY 1967, 265 VC CADRES WERE CAPTURED IN SAIGON. OF THE 160 OF THESE CAPTURED SINCE THE FIRST OF THE YEAR, 120 FELL IN THE

SAPPER-TERRORIST CATEGORY. LARGE-SCALE TERRORIST ACTS IN SAIGON CITY HAVE BEEN INHIBITED TO THE POINT WHERE THE VC ARE RESORTING TO INDISCRIMINATE ASSASSINATION AS A MEANS OF HARASSMENT AND INTIMIDATION.

C. AMONG THE VC CADRES CAPTURED HAVE BEEN THE CHIEF OF THE VC MR IV WORKERS PROSELYTING COMMITTEE, CONCURRENTLY A MEMBER OF THE VC MR IV CURRENT AFFAIRS COMMITTEE WHICH

CAPTURE LED TO THE CAPTURE OF IMPORTANT MEMBERS OF THE LABOR COMMITTEE), A LEADING MEMBER OF THE INTELLECTUAL PROSELYTING COMMITTEE, A LEADER OF THE WOMEN'S PROSELYTING COMMITTEE, SEVERAL FINANCE AND ECONOMY COMMITTEE MEMBERS, INFLUENTIAL FUNCTIONARIES OF THE PROPAGANDA COMMITTEE, AND SEVERAL COMMO-LIAISON AGENTS.

D. SINCE 17,3 1967 THE NUMBER OF VC ACTIVE AGENTS ARRESTED HAS RISEN DRAMATICALLY. DURING THE FIRST THREE WEEKS IN JULY, 15 SAPPER AGENTS HAVE BEEN CAPTURED, INCLUDING AN F-100 BATTALION OFFICER. ONE OF THE SAPPERS ARRESTED LED TO THE CAPTURE OF SEVEN OTHERS.

5. VC POLICIES AND SOLUTIONS.

A. THE VC HAVE REACTED TO THESE PROBLEMS WITH A NUMBER OF NEW POLICIES, GENERALLY IRRATIONAL. IN SOME CASES THE COURSE OF RESPONSE WAS OBVIOUS; IN OTHERS THEY APPEAR TO BE EXPERIMENTING, SEEKING AN EFFECTIVE POLICY.

B. [REDACTED] PRIORITY HAS BEEN GIVEN TO COMBATING THE REVOLUTIONARY DEVELOPMENT (RD), CHIEU HOI, AND OTHER PACIFICATION AND PSYCHOLOGICAL PROGRAMS. IN REACTION TO THE EFFECTIVENESS OF THESE PROGRAMS THE VC ARE

FOCUSING MILITARY, TERRORIST, AND PROPAGANDA CAMPAIGNS AGAINST THEM. A RECENTLY REPORTED SLOGAN IS, "KILLING AN RD WORKER IS AS GOOD AS KILLING AN AMERICAN." THE MOST EFFECTIVE TEAMS ARE PRIME TARGETS FOR ASSASSINATION, AND CENSUS GRIEVANCE WORKERS ARE SPECIFICALLY SOUGHT OUT. RAIDS AND ATTACKS BY FIRE ON CHIEU HOI AND REFUGEE CENTERS ARE INCREASINGLY EMPLOYED TO "PUNISH" THOSE WHO HAVE LEFT THE VC SIDE AND TO FRIGHTEN OTHERS FROM DOING SO.

C. ANOTHER OMINOUS DEVELOPMENT IS AN INCREASE IN INDISCRIMINATE TERROR. INSTEAD OF USING COMMAND CONTROLLED MINES ON THE HIGHWAYS TO DESTROY MILITARY VEHICLES, CONTACT MINES ARE USED, WHICH MOST OFTEN DESTROY BUSES AND LAMBRETTAS FULL OF WOMEN AND CHILDREN, DISTRICT TOWNS ARE SHELLED OR MORTARED MORE OR LESS AT RANDOM, KILLING FAR MORE CIVILIANS THAN MILITARY PERSONNEL OR OFFICIALS. IN ADDITION TO KILLING CADRES AND SOLDIERS, THE VC IN SOME AREAS ARE NOW MAKING A POINT OF KILLING THEIR WIVES AND CHILDREN. IN KONTU PROVINCE THEY HAVE PROCLAIMED A POLICY OF LAUNCHING MORTAR ATTACKS FROM WITHIN VILLAGES SO THAT FRIENDLY FORCES WILL EITHER WITHHOLD COUNTERFIRE OR BE GUILTY OF SLAUGHTERING THE VILLAGERS.

D. ANOTHER TREND IS THE TRANSFORMATION OF COMBAT BATTALIONS TO SAPPER UNITS. THIS HAS OCCURRED MAINLY NEAR THE BIG CITIES: THE SAIGON AREA AND NORTHERN I CORPS. THESE SAPPER UNITS ARE USED FOR TERRORIST ATTACKS AND TO SABOTAGE LINES OF COMMUNICATION. THE LATTER IS DONE FOR PSYCHOLOGICAL AND ECONOMIC AS WELL AS FOR MILITARY PURPOSES.

E. VC EFFORTS TO MEET THEIR SUPPLY AND FINANCING PROBLEMS HAVE LED TO A VARIETY OF NEW TACTICS IN DIFFERENT PARTS OF THE COUNTRY. TAX RATES ARE RISING EVERYWHERE. IN BINH DINH PROVINCE THE VC ARE REPORTEDLY LEVYING IMPOSSIBLY HIGH TAXES IN THE EXPECTATION OF GETTING A MAJOR PORTION OF THE AMOUNT ASSESSED. [REDACTED] OUTRIGHT CONFISCATION OF THE PROPERTY OF FAMILIES WHO WORK FOR THE GVN OR HAVE MEMBERS IN ARVN. LOSS OF THE CONTROL OF SOME ROADS HAS BEEN PARTLY MET BY TAKING GOODS AT THE SOURCE. IN SOME AREAS THE TAX ON CROPS IS KEPT LOW IN PERCENTAGE 75 5 3 ; C ASSESSORS COMPENSATE BY OVERESTIMATING THE UIZE OF THE CROP. [REDACTED] VC INVESTMENT IN SOME LOCAL INDUSTRIES AS A MEANS OF GETTING REVENUE [REDACTED]

F. ASIDE FROM INTENSIFYING THEIR PROPAGANDA, THE VC'S CHIEF PROGRAM TO REPAIR MORALE AT THE LOWER LEVELS HAS BEEN TO SEND DOWN HARD-CORE CADRES FROM PROVINCE TO DISTRICT AND DISTRICT TO VILLAGE AND HAMLET. THESE CADRES ARE SUPPOSED TO TIGHTEN UP THE ORGANIZATION AND IMPROVE THE "EDUCATION" OF THE PEOPLE. IN AN GIANG THIS POLICY HAS PROVED COSTLY; SINCE MARCH, 22 CADRES HAVE 33, (B)3S 94 : -25743S B, 5 3 ;8) - LAGES AND HAMLETS, AND ABOUT A THIRD OF THESE WERE HARD-CORE LEADERS FROM HIGHER ECHELONS.

G. HANOI'S ANSWER TO THE LOSS OF MANPOWER AND THE CONTINUING EROSION OF THE VC STRUCTURE HAS BEEN A GREATLY INCREASED NORTH VIETNAMESE PRESENCE IN THE SOUTH. ALTHOUGH MORE THAN HALF OF THE ARMY MAIN-FORCE MILITARY UNITS CURRENTLY IN SOUTH VIETNAM ARE LISTED AS VC BECAUSE OF THEIR HISTORIC ORIGIN, THE MAJORITY OF THE TROOPS ARE NORTH VIETNAMESE ARMY TROOPS. ALONG WITH THIS, THE DIRECTNESS OF HANOI'S CONTROL HAS INCREASED.

6. THE SOMEWHAT-DIMINISHED EFFECTIVENESS OF THE SOUTH VIETNAMESE VC ORGANIZATION AND ITS AUGMENTATION BY THE INFUSION OF REGROUPEES AND NORTH VIETNAMESE REGULAR TROOPS DO NOT MEAN THAT THERE WILL BE AN DECLINE IN THE FEROCITY OF THE

WAR. WHAT THESE DEVELOPMENTS DO MEAN, HOWEVER, IS THAT THE CHARACTER OF THE WAR IS GRADUALLY CHANGING. WHILE THE ENEMY WILL UNDOUBTEDLY CONTINUE TO REGISTER SUCCESSES AGAINST THE SOUTH VIETNAMESE AND FREE WORLD FORCES, THESE WILL BE TO AN INCREASING EXTENT THE RESULT OF THE DIRECT CONTRIBUTION OF CADRES, REGULAR TROOPS AND MATERIEL FROM NORTH VIETNAM AND TO A DECREASING EXTENT ATTRIBUTABLE TO THE VIET CONG THEMSELVES.

7. FIELD DISSEM: GENERAL TAYLOR MR. CLIFORD STATE USMACV (J-2) CORDS DIR/JUSPAO (MR. WORTHIAN ONLY) CINCPAC ARPAC PACAF PACFLT REPORT CLASS [REDACTED]

AND MILITARY REGION-5 WHICH CONCERNED PREPARATIONS FOR AN AUTUMN CAMPAIGN. AUGUST 19 AND 2 SEPTEMBER ARE THE MOST FREQUENTLY MENTIONED TARGET DATES FOR A NEW OFFENSIVE. IN QUANG NAM PROVINCE, PREPARATIONS WERE BEING MADE DURING EARLY AUGUST FOR ESTABLISHING LIBERATION COMMITTEES AND PEOPLES' REVOLUTIONARY COUNCILS FROM THE HAMLET TO THE PROVINCE LEVEL. IN DANANG, THE YOUTH AND STUDENT LIBERATION ORGANIZATION APPEARED TO BE ONE MORE VC-CONTROLLED GROUP WITH THE MISSION OF GENERATING POPULAR SUPPORT FOR THE VC EFFORT. THE EFFECT OF DEFOLIATION OPERATIONS WAS EVIDENT AS 200 REFUGEES LEFT TIEN PHUOC DISTRICT, QUANG TIN PROVINCE, TO BE RESETTLED IN THE TAM KY AREA. IN TURN, VC FINANCE/ECONOMY CADRES HAVE BEEN DISTRIBUTING LARGE SUMS OF MONEY TO VILLAGE-LEVEL CADRES FOR PURCHASING RICE IN GOVERNMENT OF VIETNAM MARKETS. A [REDACTED] REPORT INDICATED THAT YOUTHS RECRUITED BY THE VC WOULD BE TRAINED IN NORTH VIETNAM. RESETTLEMENT CENTERS AND REFUGEE CAMPS CONTINUE TO BE TARGETS OF VC PROPAGANDA TEAMS WHICH RESORT TO TERRORISM AND HARASSMENT WHEN ENCOUNTERING OPPOSITION. END SUMMARY.

1. [REDACTED]

SOURCES DURING THE PAST WEEK REPORTED SUBSTANTIAL MOVEMENT OF ENEMY FORCES AND MATERIEL AS AN UNEASY QUIET GENERALLY PREVAILED THROUGHOUT I CORPS. OF PARTICULAR SIGNIFICANCE WERE REPORTS OF ENEMY MILITARY PERSONNEL AND LABORERS MOVING WEAPONS AND AMMUNITION TOWARD POPULATION CENTERS AND ALLIED MILITARY BASES AND DISPERSING THESE THROUGHOUT THE NEIGHBORING HAMLETS. SPECIFIC FACTS ABOUT THE ACTIVITY OF THE VIET CONG (VC) INFRASTRUCTURE ARE AS ELUSIVE AS ENEMY UNITS WHILE INCIDENTS OF TERRORISM AND SABOTAGE DURING THE WEEK CONTRASTED WITH REPORTS OF FAIRLY ROUTINE VC OPERATIONS CONCERNING FOOD AND TAX COLLECTION, IMPRESSMENT OF LABORERS, INDOCTRINATION AND PROPAGANDA SESSIONS.

2. REPORTS HAVE BEEN RECEIVED [REDACTED]

[REDACTED] CONCERNING AN IMPORTANT MEETING OF MILITARY AND POLITICAL LEADERS OF THE QUANG DA SPECIAL ZONE. THE REPORTS ARE NOT SUBSTANTIATED AND DIFFER IN SEVERAL RESPECTS. [REDACTED] INDICATED THAT THE MEETING WAS PRESIDED OVER BY A NORTH VIETNAMESE MAJOR GENERAL WHO ANNOUNCED THAT THE CENTRAL OFFICE FOR SOUTH VIETNAM (COSVN) HAD ORDERED A GENERAL ATTACK DURING AUGUST AGAINST DISTRICT AND PROVINCIAL HEADQUARTERS AND AGAINST CITIES AND TOWNS OF THE QUANG DA ZONE. THE ATTACK

BE SUPPORTED BY
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WOULD BE SUPPORTED BY TANKS AND WOULD BE DECISIVE IN DETERMINING THE FUTURE COURSE OF THE WAR. IF THE AUGUST OFFENSIVE FAILS, VC AND NORTH VIETNAMESE ARMY (NVA) FORCES WILL CONDUCT LARGE-SCALE ATTACKS BY FIRE IN ORDER TO IMPRESS UPON THE PEOPLE AND GOVERNMENT HOW INSECURE THEIR SITUATION IS. MILITARY AND CIVILIAN PROSELYTING CAMPAIGNS WILL BE CONDUCTED IN CONJUNCTION WITH THE MILITARY ACTION.

REPORTED THAT THE QUANG DA MEETING WAS HELD AT COSVN'S DIRECTION ON 31 JULY IN THE MOUNTAINS IN DUC DUC DISTRICT. IT WAS PRESIDED OVER BY HO NGHINH, SECRETARY OF THE QUANG DA PROVINCIAL COMMITTEE, AND DUONG BA LOI, COMMANDER OF THE 31/2 REGIMENT. ORDERS WERE GIVEN TO ATTACK AND MORTAR REMOTE OUTPOSTS AND MILITARY BASES, TO LAY MINES AND DESTROY COMMUNICATION ROUTES AND TO DEVELOP GREATER SAPPER CAPABILITY IN URBAN AREAS. POLITICALLY, THE PEOPLE WERE TO BE EXHORTED TO GREATER EFFORTS IN THE STRUGGLE FOR PEACE AND IN PERSUADING DEFECTIONS OF GOVERNMENT OF VIETNAM (GVN) OFFICIALS. CADRES WERE ORDERED TO REMAIN IN ALL AREAS WHERE THE EIGHT-MONTH RICE CROP WILL BE HARVESTED AND TO USE ALL AVAILABLE WOMEN AND CHILDREN TO BUY FOOD SUPPLIES IN GVN AREAS.

3.

[REDACTED] BATTALION [REDACTED] HAD RECEIVED POLITICAL INDOCTRINATION BETWEEN [REDACTED] JULY. IN A BRIEFING CONCERNING THE TRI-THIEN-HUE BATTLEFIELD, THE VC COMMANDERS ACKNOWLEDGED THAT U.S. MILITARY STRENGTH HAD BEEN INCREASED SUBSTANTIALLY, MAKING THE VC/NVA EFFORT MORE DIFFICULT. THE [REDACTED] BATTALION WAS THEN ASSIGNED THE MISSION OF ATTACKING GVN POPULAR FORCES IN TRIEU PHONG AND HAI LANG DISTRICTS AND DESTROYING GVN-CONTROLLED HAMLETS. [REDACTED] MORALE OF HIS UNIT HAD BEEN UNDERMINED SINCE LAST MAY WHEN U.S. FORCES CONDUCTED OPERATIONS IN THE HAI LANG AREA. THE UNIT NOW LACKS CLOTHING AND SUPPLIES AND HAS BEEN FORCED TO MOVE CONTINUALLY IN ORDER TO AVOID ARMY OF THE REPUBLIC OF VIETNAM (ARVN) AND U.S. OPERATIONS. PRIOR TO HIS RALLYING [REDACTED] STATED THAT HIS BATTALION HAD BEEN PREPARING FOR AN OFFENSIVE WHICH ALLEGEDLY WOULD BE SUPPORTED BY SPONTANEOUS UPRISING OF THE PEOPLE.

4.

[REDACTED] DISCUSSION WITH DISTRICT-LEVEL CADRES WHICH CONCERNED A MILITARY REGION-5 (MR-5) JULY MEETING IN THE SON TRUNG AREAS OF QUE SON DISTRICT, QUANG NAM PROVINCE. [REDACTED] THE VC PLAN TO UPGRADE [REDACTED]

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CIA [REDACTED] FIELD INFORMATION REPORT

SECTION 2 OF 3 FVG434

AND IMPROVE

THE ARMAMENTS OF LOCAL FORCES. NEWLY FORMED BATTALIONS WERE TO BE SENT TO PHUONG DONG VILLAGE, HAU DUC DISTRICT, FOR MILITARY TRAINING. THEY WOULD THEN RETURN TO THEIR LOCAL AREAS WHERE THEY WOULD BE REINFORCED BY NVA ELEMENTS BEFORE A THIRD OFFENSIVE ON OR ABOUT 19 AUGUST. A REORGANIZATION OF VC CADRES, NOW IN PROGRESS, WAS ALSO DISCUSSED AT THE MR-5 MEETING. PLANS CALLED FOR SELECTING RELIABLE CADRES TO FORM A VANGUARD COALITION YOUTH ASSOCIATION.

5. RUMORS ORIGINATING FROM VC-CONTROLLED AREAS HAVE BEEN WIDESPREAD IN QUANG NGAI PROVINCE, INDICATING THAT THE VC WILL LAUNCH MAJOR ASSAULTS ON THE TWO FORTHCOMING HOLIDAYS, 19 AUGUST AND 2 SEPTEMBER.

[REDACTED] THESE ASSAULTS ARE TO BRING AN END TO THE WAR. IF THEY FAIL, THE RUMOR CONTINUES THE VC WILL ESTABLISH A COALITION GOVERNMENT MADE UP OF THE NATIONAL LIBERATION FRONT AND THE ALLIANCE OF NATIONAL, DEMOCRATIC AND PEACE FORCES. NEUTRAL BUT PRO-VC RELIGIOUS AND POLITICAL LEADERS WILL BE INVITED TO PARTICIPATE.

6. [REDACTED] ELECTION INSTRUCTION CLASSES ARE BEING HELD IN VC-CONTROLLED AREAS OF QUANG NAM PROVINCE FOR THE PURPOSE OF ELECTING PEOPLES' REVOLUTIONARY COUNCILS AND LIBERATION COMMITTEES AT HAMLET, VILLAGE, DISTRICT AND PROVINCE LEVELS. THESE CLASSES WERE HELD IN HIEU DUC AND DUY XUYEN DISTRICTS. IN THE XUYEN HAI AREA OF THE LATTER DISTRICT, THE CLASSES WERE HELD ON 3, 4 AND 5 AUGUST AND VOTER ROLLS WERE DRAWN UP AS WELL AS LISTS OF CANDIDATES. TWENTY PEOPLE WERE TO BE GROUPED ON ONE NAMELIST AND WERE TO ELECT A REPRESENTATIVE WHO WOULD CAST A SINGLE VOTE FOR THEM. THIS REPRESENTATIVE HAD TO BE A MEMBER OF THE 'VC BAND', POSSIBLY REFERRING TO PEOPLES' REVOLUTIONARY PARTY MEMBERSHIP.

7. [REDACTED] INFORMATION ON THE YOUTH AND STUDENT LIBERATION ORGANIZATION.

[REDACTED] ACCORDING TO INSTRUCTIONS RECEIVED THIS PAST MAY, THE YOUTH AND STUDENT LIBERATION

ED FORCES. NIZATION WAS TO
SUPPORTING ARMED FOR
BEEN DIVIDED INTO
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ZATION WAS TO BE CONVERTED INTO THE 'INTERNAL SUPPORT FORCE'. ITS MISSION WAS TO ASSIST THE DANANG RATING ARMED FORCE BY ATTEMPTING TO OBTAIN THE POPULAR SUPPORT OF THE DANANG CITIZENS. [REDACTED] 65 AGENTS HAVE BEEN DIVIDED INTO TWO ARMED PLATOONS AND ONE PROSELYTING SQUAD.

DURING THE WEEK, SOME 200 REFUGEES ARRIVED IN TAM KY CITY, QUANG TIN PROVINCE, FROM TIEN PHUOC DISTRICT FOLLOWING ARVN/U.S. DEFOLIATION OPERATIONS. INTERVIEWS WITH THESE PEOPLE DISCLOSED THAT SOME HAD TRIED TO LEAVE THE VC AREA ON PREVIOUS OCCASIONS, BUT WERE PREVENTED FROM DOING SO.

*but
30 files
word*

[REDACTED] HAD BEEN FORCED TO JOIN THE VC IN APRIL 1968. AFTER THREE MONTHS WITH LITTLE FOOD AND ENDLESS HOURS OF VC INDOCTRINATION, HE HAD DECIDED TO DEFECT.

[REDACTED] IN QUANG TIN PROVINCE, ESPECIALLY IN KY THINH VILLAGE, REPORTED ON VC DISTRIBUTION OF RELATIVELY LARGE SUMS OF GVN CURRENCY TO VILLAGERS FOR THE PURCHASE OF RICE. THE REPORTS SUGGEST THAT ALLIED RICE DENIAL OPERATIONS ARE HAVING SOME EFFECT.

ON 3 AUGUST THE VC V/12 UNIT ESCORTED TWO PROVINCIAL-LEVEL ECONOMIC CADRES TO KY THINH VILLAGE, TAM KY DISTRICT, WHERE THEY GAVE VN\$350,000 (US\$2,966.08) TO THE VILLAGE ECONOMIC SECTION, AS WELL AS VN\$500,000 (US\$4,237.25) TO THE KY NGHIA VILLAGE ECONOMIC SECTION. (DOLLAR EQUIVALENTS

GIVEN IN THIS REPORT ARE BASED ON THE OFFICIAL EXCHANGE RATE OF VN\$118 TO U.S. \$1.00.) THE MONEY WAS TO BE DISTRIBUTED TO VILLAGERS TO PURCHASE RICE FOR THE AUTUMN-WINTER CAMPAIGN. A FEW DAYS PRIOR TO THIS INCIDENT [REDACTED]

VN\$10,000 (U.S.\$84.75) HAD BEEN ISSUED TO KY THINH AND KY AN VILLAGES FOR THE SAME PURPOSE. ON 31 JULY AN ECONOMIC CADRE OF KY LONG AND KY NGHIA VILLAGES IN TAM KY DISTRICT WAS ESCORTED BY FOUR GUERRILLAS TO KHANH THO DONG HAMLET, KY NGHIA VILLAGE, WHERE HE HELD A MEETING. HE STATED THAT VC UNITS HAVE BEEN REINFORCED AND ARE READY TO LAUNCH THEIR AUTUMN OFFENSIVE. LARGE AMOUNTS OF RICE AND SALT WOULD BE NEEDED FOR THE CAMPAIGN. THE ECONOMIC OFFICER GAVE VN\$60,000 (U.S.\$508.47) TO A VC AUTONOMOUS COMMITTEE CADRE TO PURCHASE RICE. THE VC HAVE ALSO INSTRUCTED CHILDREN, AGES 10 TO 14, TO PURCHASE RICE IN SMALL QUANTITIES IN GVN MARKETS IN ORDER TO AVOID

DETECTION BY THE AUTHORITIES.

10.

[REDACTED] VN\$500,000 (U.S.\$4,237.28) WORTH OF KOREAN RICE IS BEING PURCHASED BY THE VC EACH DAY. THE VC PAY A SUBSTANTIALLY HIGHER PRICE FOR RICE IN COMPARISON TO NORMAL PRICES IN GVN AREAS. THE RICE IS TRANSPORTED IN SMALL AMOUNTS DURING THE DAYTIME BY WOMEN AND IN BULK BY THE MEN AT NIGHT. CANNED GOODS ARE ALSO BEING PURCHASED, ESPECIALLY THOSE VARIETIES WHICH DO NOT NEED TO BE HEATED. THE FLOW OF GOODS IS UNINTERRUPTED FROM GVN TO VC AREAS. OTHER REPORTS INDICATE THAT LARGE AMOUNTS OF AMERICAN DOLLARS ARE BEING USED BY THE VC TO BUY FOODSTUFFS.

11. ALONG WITH CONTINUING INDICATIONS OF VC RECRUITMENT AND IMPRESSMENT OF YOUTHS WAS A [REDACTED] REPORT CONCERNING RECRUITING YOUTHS FOR TRAINING IN NORTH VIETNAM.

[REDACTED] A MEETING TOOK PLACE IN EARLY AUGUST ATTENDED BY RESIDENTS OF HA THUONG AND LAC TAN HAMLETS. VC CADRES EXHORTED THE SOUTH VIETNAMESE TO SEND THEIR CHILDREN, RANGING IN AGE FROM 14 TO 18, TO NORTH VIETNAM

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1608/15

CIA [REDACTED] FIELD INFORMATION REPORT
FINAL SECTION OF 3 [REDACTED]

WHERE THEY WOULD BE EDUCATED. THE SAME APPEAL WAS MADE AT THE XUAN KHANH RESETTLEMENT CENTER AND HA LOC AND AN TRUNG HAMLETS.

12. RESETTLEMENT CAMPS CONTINUED TO BE THE TARGET OF VC PROPAGANDA ACTIVITY IN QUANG NAM PROVINCE. BOTH THE THANH TAY RESETTLEMENT CAMP AND THE CAM THANH CAMP WERE INFILTRATED BY VC PROPAGANDA UNITS. LEAFLETS WERE CIRCULATED WHICH EXPLAINED THE POLICY OF THE LIBERATION FRONT TOWARD GVN OFFICIALS AND SOLDIERS AND WHICH APPEALED FOR THEIR DEFECTION TO THE VC. IN THE THANH TAY RESETTLEMENT CAMP, THE VC RESORTED TO TERRORISM BY BURNING A NEW HOUSING UNIT AND KIDNAPPING TWO 19-YEAR-OLD YOUTHS.

13. TERRORISM CONTINUES TO RISE IN THUA THIEN PROVINCE, PARTICULARLY IN RURAL AREAS. RAPID REACTION BY THE 101ST AIR CAVALRY DIVISION FOILED A VC ATTEMPT TO ABDUCT TEN CIVILIANS FROM NAM HOA DISTRICT EARLY IN THE WEEK. THE VC FLED FREEING THEIR HOSTAGES WHEN THE AIR CAV APPROACHED.

ON 4 AUGUST THE
VC K
ASSASSINATE

1608/15

ON 4 AUGUST THE WIFE OF A POPULAR FORCES SOLDIER WAS ASSASSINATED IN PHU LOC DISTRICT ON THE 6TH, A SQUAD OF VC KIDNAPPED A CIVILIAN CONTACT OF THE HUONG THUY DISTRICT S-2. FOLLOWING A PARTIALLY SUCCESSFUL ATTEMPT TO BLOW UP A BRIDGE IN LUNG XUAN HAMLET OF HUONG THUY DISTRICT ON THE 6TH, THE VC WOUNDED THE HAMLET CHIEF AND TWO CIVILIANS ON THE FOLLOWING NIGHT. [REDACTED]

[REDACTED] THE VC HAVE ORDERED THE ASSASSINATION OF WARD CHIEFS, INTER-FAMILY CHIEFS, CIVILIAN SELF DEFENSE CADRES AND POLITICAL PARTY LEADERS IN HUE.

14. FIELD DISSEM: STATE, USMACV, 7TH AIR FORCE, III MAF, CORDS, CINCPAC, PACAF, ARPAC AND PACFLT.
REPORT CLASS [REDACTED]

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RUHHBRA/CINCPACFLT

RUHHABA/CINCPACAF

RUHHRGA/CINCUSARPAC

INFO RUHHFMA/CGFMFPAC

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CIA FIELD INFORMATION REPORT

REPORT CLASS

COUNTRY SOUTH VIETNAM

DOI EARLY OCTOBER 1968

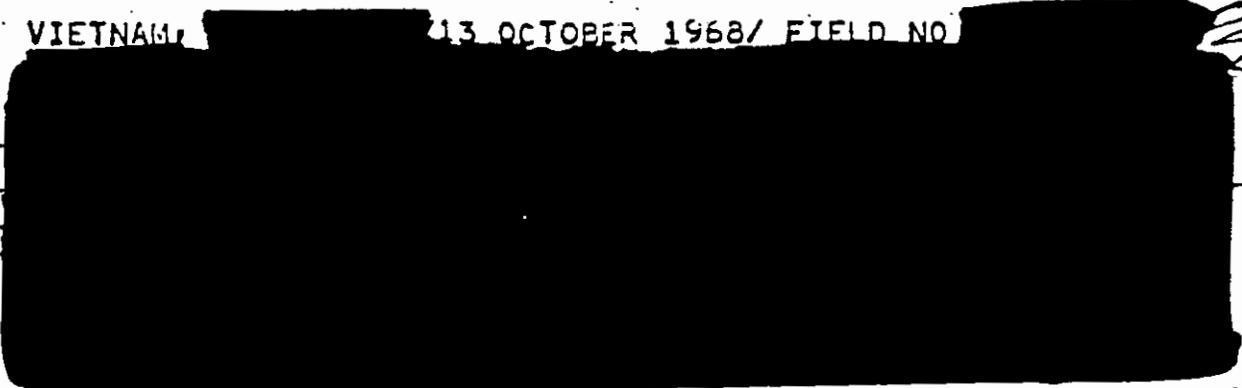
SUBJECT VIET CONG FOOD SHORTAGE IN TUYEN DUC PROVINCE.

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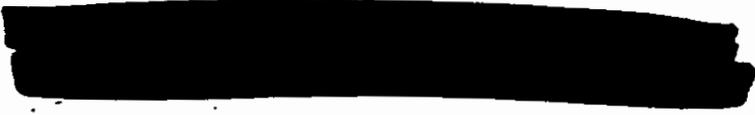
VIETNAM

13 OCTOBER 1968/ FIELD NO

SOURCE



1. AS OF EARLY OCTOBER 1968, THE VIET CONG /VC/ 810TH LOCAL FORCE BATTALION IN TUYEN DUC PROVINCE HAD NOT RECEIVED ANY FOOD



CINCPAC COMMUNICATION CENTER - INCOMING

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DIRC	EXEC	ASST	F/T	C/S	REP	REP	PA	SI	SEC	PERS	INT	OPS	LOG	PLN	CSG	SEC	CC	LECL	FIN	PROG	WED	OP	PLD	OPS	INT	OPR	MSG	INFO	REG	
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VC in line from committee PAGE 1 OF 2
1- VC annual production number
2- Local Force Base
1- ME Form
1- ME Form

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8

FROM VC PRODUCTION UNITS IN TWO MONTHS. ALLIED MILITARY ACTION HAD CAUSED A FOOD SHORTAGE AND THE VC LACKED A SUFFICIENT SUPPLY OF MANPOWER TO CULTIVATE CROPS AND TRANSPORT THEM TO SECURE AREAS. SUBSEQUENTLY, THE BATTALION WAS BROKEN DOWN INTO 25 TO 30 MAN FOOD CONFISCATION UNITS AND WAS ORDERED BY THE TUYEN DUC PROVINCE COMMITTEE TO CONTINUE FOOD COLLECTION EFFORTS FOR THREE MONTHS. IN SOME AREAS, THE VC WERE ISSUING PROMISSORY NOTES IN RETURN FOR RICE WHICH THE VILLAGERS GAVE THEM. RICE WAS AVAILABLE ONLY FOR FRONT LINE TROOPS AND THE SICK AND THEN ONLY IN AMOUNTS GREATLY REDUCED FROM SIX MONTHS AGO. inland
near
D.L.

2. DEFOLIATION OPERATIONS HAD DESTROYED A MAJOR FOOD PRO-

DUCTION AREA IN DON DUONG DISTRICT, ALLIED BOMBING AND ARTILLERY BARRAGES HAD DAMAGED OTHERS, AND ALLIED RAIDS HAD UNCOVERED MANY LARGE FOOD CACHES. GOVERNMENT OF VIETNAM /GVN/ HIGHWAY CONTROL MEASURES AND POLICE CHECK POINTS HAVE MADE DAYTIME TRANSPORTATION OF FOOD VERY DIFFICULT. GVN RICE CONTROLS HAVE REDUCED THE AMOUNT OF RICE TO NEAR SUBSISTENCE LEVEL FOR EVERYONE AND THIS HAS MADE VILLAGERS INCREASINGLY RELUCTANT TO GIVE THEIR SMALL RATION TO THE VC.

3. /FIELD COMMENT--

 VC INCURSIONS INTO DISTRICT HAMLETS FOR THE PURPOSE OF DISSEMINATING PROPAGANDA IN RECENT WEEKS HAVE FREQUENTLY INCLUDED A CALL FOR FOOD. IN DADE MATAT, DON DUONG DISTRICT, THE MF SAID THAT THEIR NEED WAS SO GREAT THAT THE PEOPLE HAVE TO INCREASE THEIR RICE CONTRIBUTION. IN HO AN AND KIM THACH HAMLETS IN DALAT CITY, THE VC SAID THEY NEEDED FOOD BECAUSE THEY WERE PLANNING A SURPRISE ATTACK ON DALAT. IN SUOI THONG DPHAMLET, DON DUONG DISTRICT, THE PEOPLE REFUSED TO SELL THE VC RICE, SAYING THAT RICE IS TOO DIFFICULT TO OBTAIN.

4. FIELD DISSEM-- SOATE, USMACV, USAID, CORDS, DIR/ JUSPAO /MR. NICKEL ONLY/, 7TH AIR FORCE, USARV, NAVFORV, CINCPAC, ARPAC, PACAF, PACFLT 
REPORT CLASS: 

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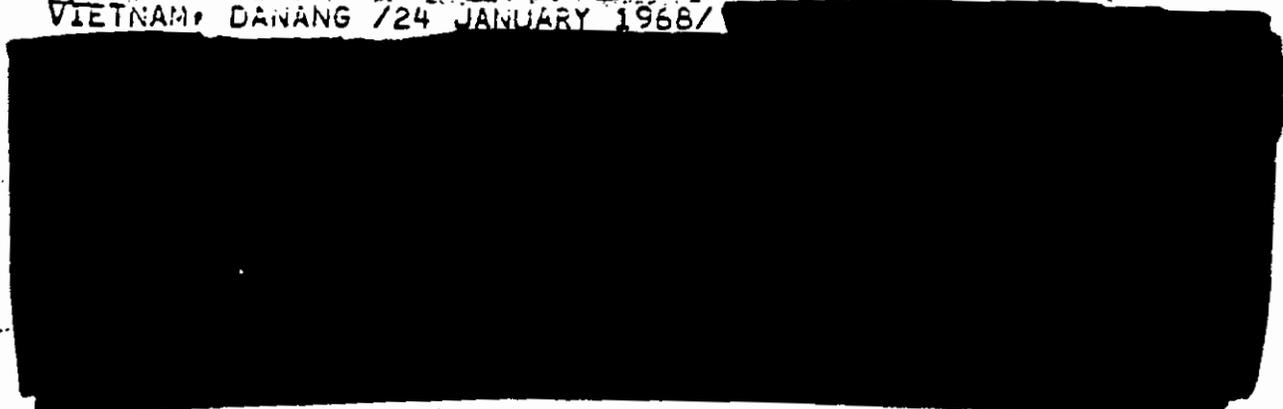
COUNTRY SO TH VIETNAM

DOI AUGUST-NOVEMBER 1967

SUBJECT VIET CONG MEASURES TO SOLVE FOOD AND SUPPLY SHORTAGES
IN QUANG TRI AND THUA THIEN PROVINCES

ACQ VIETNAM DANANG 724 JANUARY 1968/

SOURCE



SUMMARY. BY NOVEMBER THE VIET CONG /VC/ IN QUANG TRI AND THUA THIEN PROVINCES WERE SERIOUSLY CONCERNED ABOUT THEIR CAPABILITY FR PROVIDING FOOD AND MATERIEL TO THEIR TROOPS DURING LATE 1967. THEY PLANNED ATTACKS ON GOVERNMENT OF VIETNAM /GVN!5 0-;8!835 #-.)35 ?3;-73 THESE HAMLETS WERE NO LONGER VC SOURCES OF FOOD AND SUPPLIES. THE

CINCPAC COMMUNICATION CENTER - INCOMING

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CMC 100	EXEC ASST 101	F/ST 102	C/S 103	DEP C/S 104	DEP C/S 105	PA	ST SEC 106	PERS 107	INT 108	DPS 109	LOG 110	PLN 111	CAF 112	PEG 113	COMB 114	LEGL 115	PIO 116	PROT 117	MEB 118	119	EAC	N/S	MC	DPA	MDL	120	121
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VC ALSO PLANNED TO INCREASE CULTIVATION OF CERTAIN VEGETABLES WHICH COULD BE EXCHANGED FOR RICE AND MEAT NEEDED BY VC TROOPS. THEY WERE ALSO ABLE TO OBTAIN PROVISIONS THROUGH A TRADE AGENCY IN QUANG TRI PROVINCE, ALTHOUGH FOREST PRODUCTS FORMERLY OBTAINED IN THE WESTERN HIGHLANDS AND USED AS EXCHANGE COMMODITIES WERE NO LONGER READILY AVAILABLE. IN ADDITION, THE PEOPLE IN THE HIGHLAND AREA WERE SHORT OF FOOD AND SOME HAD DIED FROM MALNUTRITION.
END SUMMARY.

1. IN NOVEMBER 1967 THE VIET CONG /VC/ ACKNOWLEDGED THAT THE

GENERAL SITUATION THROUGHOUT SOUTH VIETNAM HAD BECOME TENSE. IF THE GOVERNMENT OF VIETNAM /GVN/ PACIFICATION PROGRAM SUCCEEDED, THE VC WOULD NOT BE ABLE TO REMAIN CLOSE TO THE PEOPLE NOR WOULD THEY BE ABLE TO BUY OR COLLECT PROVISIONS. THE VC WERE FACED WITH A MILITARY SETUP IN WHICH ALLIED FORCES WERE FIGHTING NORTH VIETNAMESE ARMY TROOPS ON AN OUTER PERIMETER WHILE ARMY OF THE REPUBLIC OF VIETNAM AND REVOLUTIONARY DEVELOPMENT CADES CARRIED OUT PACIFICATION WITHIN THIS PERIMETER. VC OBJECTIVES, THEREFORE, WERE TO ATTACK AND DESTROY HAMLETS UNDER PACIFICATION.

2. THE VC PLACED GREAT EMPHASIS ON THEIR EMERGENCY REQUIREMENTS AND REGARDED PROVISIONS AS 'ESSENTIAL BLOOD VESSELS' TO PROSECUTE THE WAR IN SOUTH VIETNAM, ESPECIALLY THE MONSOON CAMPAIGN GOAL OF LIBERATING QUANG TRI AND THUA THIEN PROVINCES. THE VC EXHORTED PROVINCE AND DISTRICT ECONOMIC SUBSECTIONS TO ATTAIN THEIR COLLECTION AND PRODUCTION GOALS.

3. THE VC DISBANDED SOME LOCAL ECONOMIC SECTIONS ON 1 AUGUST 1967 IN AN ATTEMPT TO IMPROVE DISTRICT AND REGIONAL ORGANIZATIONS IN ORDER TO MEET SUPPLY REQUIREMENTS ON SCHEDULE. IN LATE SEPTEMBER THE VC HELD A SUPPLEMENTARY INDOCTRINATION COURSE ON RESOLUTION 13 IN THE HAI LANG DISTRICT MOUNTAIN AREA, AT THE SOURCE OF THE MY CHANH RIVER, FOR ABOUT 50 DELEGATES OF THE TRI-THIEN-HUE ZONE ECONOMIC SECTIONS /GVN QUANG TRI AND THUA THIEN PROVINCES/. THEY DISCUSSED SUPPLY PROBLEMS OF THE LAST THREE MONTHS OF 1967 AND MEANS OF INCREASING FOOD PRODUCTION, ESPECIALLY CULTIVATION OF EDIBLE GREENS AND POTATOES. IN CASE OF FOOD SHORTAGES, THE VC WILL GIVE THESE VEGETABLES TO THE PEOPLE AND WILL REQUISITION PADDY, RICE, COWS, AND BUFFALOES TO FEED THEIR TROOPS.

4. BY NOVEMBER THE VC WERE INCREASING LAND UNDER CULTIVATION, AS WELL AS PLANTING BANANA TREES AND ONE VARIETY OF POTATO /HUYNH TINH/ THAT CAN WITHSTAND DEFOLIANTS. EACH VC CADRE WAS TO PLANT 50 FURROWS OF AN EDIBLE PLANT /RAU MUONG/ AND 100 FURROWS OF POTATOES /RAU KHOAI/. THE VC WERE PRODDING PEOPLE TO STAGE POLITICAL DEMONSTRATIONS PROTESTING DEFOLIATION OPERATIONS. THEY INSTRUCTED FARMERS TO CONSTRUCT FENCES, TRENCHES, TRAPS AND OTHER OBSTACLES TO KEEP ANIMALS AWAY FROM CROPS AND FORBID THE FARMERS TO SELL DOMESTIC ANIMALS IN GVN-CONTROLLED AREAS.

5. THE VC ALSO OBTAINED SUPPLIES THROUGH A TRADE AGENCY IN QUANG TRI PROVINCE. TRADING AGENTS WOULD SELL OR EXCHANGE FORESTRY PRODUCTS SUCH AS SANDALWOOD, RATTAN, MONKEY BONE MEDICINE /CAO KHI/, STAGHORN, TOBACCO, AND CLOTHES IN RETURN FOR SEASONINGS, SALT,

RICE OFFICE SUPPLIES AND OTHER NECESSITIES. MILK, SUGAR, SOAP, TOWELS, RUBY CIGARETTES AND GLF POST EXCHANGE TOBACCO WERE AVAILABLE IN TRADING SHOPS. THE VC MADE A PROFIT OF ABOUT 50 PERCENT. NRTH VIETNAMESE CLOTHES WERE SOLD TO VC TROOPS FOR VNS350, /US\$2.97/, VNS400 /US\$3.39/, AND VNS500 /US\$4.24/. FIELD COMMENT-- DOLLAR EQUIVALENTS GIVEN IN THIS REPORT ARE BASED ON THE OFFICIAL EXCHANGE RATE OF VNS118 TO US\$1.00./

6. THE WESTERN HIGHLAND AREA WAS SHORT OF PROVISIONS, ESPECIALLY RICE AND SALT. SINCE APRIL 1967, 80 PERCENT OF THE HIGHLANDERS IN THE WESTERN AREA HAVE DIED FROM MALNUTRITION. FOR MANY YEARS THE VC OBTAINED SUPPLIES AND TRADING GOODS IN THE WESTERN HIGHLANDS, BUT IN 1964 U.S. MILITARY DEFOLIATION OPERATIONS FORCED THE HIGHLANDERS TO MOVE TO OTHER AREAS. /FIELD COMMENT-- FOOD SHORTAGES HAVE BEEN REPORTED IN THE PAST, BUT STARVATION ON A LARGE SCALE HAS NOT BEEN CONFIRMED ALTHOUGH THIS CONDITION COULD POSSIBLY EXIST IN ISOLATED VILLAGES AND HAMLETS./ THE VC TRIED TO FORCE THE HIGHLAND NATIVES TO PLANT POTATOES AND MANIOC, BUT THE PEOPLE REFUSED. THE VC CONFISCATED TEN TONS OF RICE, BUT THIS AMOUNT ONLY ALLEVIATED THE FOOD SHORTAGE TEMPORARILY. HIGHLANDERS HAVE OFTEN KILLED VC CADRES FOR FOOD AND, CONSEQUENTLY, CADRES RECEIVED STRICT ORDERS TO HIDE THEIR FOOD SUPPLY. IN JUNE AND JULY 1967, THE VC GATHERED ABOUT 100 HIGHLANDERS AT DOC MIEU TO BUILD RICE AND PADDY DEPOTS AND WITHIN A FEW DAYS TEN OF THE LABORERS DIED OF STARVATION. THE SHORTAGES ARE SPREADING THROUGH VC RANKS AS MINIMUM RATIONS OF SALT, RICE, CLOTHES, SEASONING AND OTHER NECESSITIES ARE BEING PROVIDED TO VC CADRES AND SOLDIERS. THE VC ARE DEPENDENT ON MARKETS IN INSECURE AREAS FOR PROVISIONS.

7. FIELD DISSEM-- STATE USMACV 7TH AIR FORCE USARV COMNAVFORV CORDS USAID CINCPAC PACFLT ARPAC PACAF.

REPORT CLASS [REDACTED]
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PAGE 3 OF 3

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INFO RUHHFMA/CGFMFPAC
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Bill

CIA FIELD INFORMATION REPORT FILED: 161340Z

REPORT CLASS [REDACTED]
COUNTRY SOUTH VIETNAM
DOI 1-30 SEPTEMBER 1967
SUBJECT SUMMARY OF VIET CONG ACTIVITIES IN BINH LONG PROVINCE
DURING SEPTEMBER 1967
ACQ VIETNAM; BIEN HOA /14 OCTOBER 1967/ FIELD NO. [REDACTED]
SOURCE THIS IS A VIETNAM SITUATION REPORT PREPARED AS OF 30
SEPTEMBER 1967 [REDACTED]

1. /SUMMARY-- DURING SEPTEMBER, THE VIET CONG /VC/ IN BINH LONG PROVINCE STOPPED THEIR EFFORTS TO CLOSE HIGHWAY 13 BECAUSE OF THE LOSS OF TAX REVENUES THAT CLOSING THE HIGHWAY ENTAILED. THREATENING TACTICS WERE USED AGAINST VOTERS IN CONNECTION WITH THE 22 OCTOBER LOWER HOUSE ELECTIONS, BUT THESE MAY PROVE AS INEFFECTIVE AS THOSE USED AGAINST THE 3 SEPTEMBER PRESIDENTIAL ELECTIONS, WHEN 86 PERCENT OF THE REGISTERED VOTERS WENT TO THE POLLS. THERE WERE SEVERAL SHIFTS OF PERSONNEL IN VC AN LOC DISTRICT, THE SIGNIFICANCE OF WHICH IS NOT KNOWN. LACK OF POPULAR SUPPORT FOR THE VC AS EVIDENCED BY THE 3 SEPTEMBER VOTER TURNOUT WAS ALSO REFLECTED IN REFUSAL BY RURAL INHABITANTS

CINCPAC COMMUNICATION CENTER - INCOMING 2105

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TO PURCHASE RICE FOR THE VC AND BY RUBBER WORKERS TO STRIKE IN ACCORDANCE WITH VC DEMANDS./
POLICY

2. ALTHOUGH THE VIET CONG /VC/ IN BINH LONG PROVINCE CEASED IN SEPTEMBER THEIR EFFORTS TO CLOSE HIGHWAY 13, OTHER ROADS IN THE PROVINCE CONTINUED TO BE VC MILITARY TARGETS. THIS DECISION TO RELAX SOMEWHAT VC CONTROL OF BINH LONG'S HIGHWAYS ILLUSTRATED THE FLEXIBILITY OF SOME VC POLICIES AS WELL AS CERTAIN VC PROBLEMS; DURING JULY AND AUGUST, THE VC HAD PRACTICALLY CLOSED HIGHWAY 13, CUTTING OFF TRAFFIC IN AND OUT OF THE PROVINCE AND ISOLATING BINH LONG FROM SAIGON. HOWEVER, THIS TACTIC CUT BOTH WAYS, I.E., AS TRAFFIC CEASED, THE VC LOST A MAJOR SOURCE OF REVENUE.
OPERATIONS

3. VC MILITARY TACTICS IN BINH LONG DURING SEPTEMBER SEEMED TO BE ORIENTED TOWARD STRONG ATTACKS AGAINST U.S. AND VIETNAMESE MILITARY UNITS, FOLLOWED BY QUICK WITHDRAWALS. THERE WERE NO MAJOR VC MILITARY BUILD-UPS REPORTED DURING THE MONTH.

4. THE VC CONTINUED THEIR THREATENING TACTICS AGAINST GOVERNMENT OF VIETNAM /GVN/ OFFICIALS SUCH AS VILLAGE AND HAMLET CHIEFS AND AGAINST VOTERS IN CONTESTED AREAS. THE VC ALSO PROPAGANDIZED AGAINST THE 22 OCTOBER LOWER HOUSE ELECTIONS. THE EFFECTIVENESS OF THIS PROPAGANDA CANNOT BE PREDICTED, BUT IT MAY BE NOTED THAT IN THE 3 SEPTEMBER PRESIDENTIAL-SENATORIAL ELECTIONS THE VC SUFFERED A MAJOR PSYCHOLOGICAL DEFEAT WHEN 86 PERCENT OF THE PROVINCE'S REGISTERED VOTERS WENT TO THE POLLS DESPITE VC THREATS.

ORGANIZATION

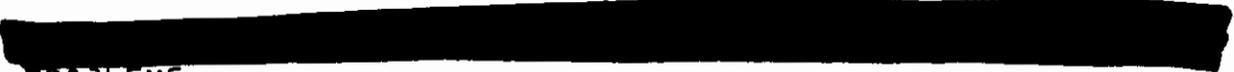
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[REDACTED] UT QUO WAS RECENTLY APPOINTED SECRETARY OF THE AN LOC DISTRICT PEOPLE'S REVOLUTIONARY PARTY /PRP/ COMMITTEE, REPLACING TAM THANH, WHO WAS TRANSFERRED TO ANOTHER AREA. AT THE SAME TIME, TU HUE, LEADER OF THE PLATOON CHARGED WITH PROTECTING THE DISTRICT COMMITTEE, WAS REPLACED BY NAM CHANH. [REDACTED] DID NOT KNOW THE REASON FOR THESE CHANGES.

6. ANOTHER RALLIER, [REDACTED] A NURSE [REDACTED]

[REDACTED] ON 9 SEPTEMBER, REPORTED THAT [REDACTED] HAD BEEN ORGANIZED [REDACTED] AND ATTACHED DIRECTLY TO THE VC BINH LONG PROVINCE COMMITTEE. ACCORDING TO [REDACTED] SERVES AS A SUPPLY COMPANY FOR THE PROVINCIAL PRP COMMITTEE [REDACTED]

[REDACTED] AS PART OF ITS SUPPLY MISSION [REDACTED] COLLECTED MONEY, FOOD AND OTHER SUPPLIES [REDACTED] AND DELIVERED THEM TO THE VC BINH LONG PROVINCE COMMITTEE'S [REDACTED]


PROBLEMS

7. THE COMPLETE FAILURE OF VC EFFORTS TO DISRUPT THE 3 SEPTEMBER ELECTIONS SUGGESTS THAT POPULAR SUPPORT FOR THE VC IN THE PROVINCE MAY BE LIMITED. OTHER INDICATORS OF WIDESPREAD NON-SUPPORT FOR THE VC WERE-- /A/ REFUSAL OF RURAL INHABITANTS IN SOME AREAS TO PURCHASE RICE FOR THE VC EVEN WHEN THE VC PROVIDED MONEY FOR THE RICE PURCHASES; AND JXB/ REFUSAL OF RUBBER PLANTATION WORKERS TO DEMONSTRATE FOR HIGHER WAGES AND BETTER WORKING CONDITIONS; AS THE VC INSISTED THEY DO SHORTLY AFTER THE ELECTIONS. SUCH VC ATTEMPTS TO SPONSOR RUBBER WORKER DEMONSTRATIONS /WHICH HAVE YET TO MATERIALIZE/ ARE BECOMING A MONTHLY EVENT IN BINH LONG PROVINCE.

8. FIELD DISSEM-- STATE USMACV CORDS DIR/JUSPAO /MR. ZORTHIAN ONLY/ CINCPAC PACFLT ARPAC PACAF

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RUHHRGA/CINCUSARPAC
INFO RUHHFMA/CGFMFPAC
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Bill

FIELD INFORMATION REPORT FILED: 160620Z
REPORT CLASS [REDACTED]
COUNTRY SOUTH VIETNAM
DOI 1-30 SEPTEMBER 1967
SUBJECT SUMMARY OF VIET CONG ACTIVITIES IN HAU NGHIA PROVINCE
DURING SEPTEMBER 1967
ACG VIETNAM, BIEN HOA /12 OCTOBER 1967/ FIELD NO [REDACTED]
SOURCE THIS IS A VIETNAM SITUATION REPORT PREPARED AS OF 30
SEPTEMBER [REDACTED]

1. /SUMMARY-- VIET CONG /VC/ MILITARY ACTIVITY IN HAU NGHIA PROVINCE DURING SEPTEMBER INVOLVED ONLY UNITS OF COMPANY SIZE OR SMALLER. THEY CONDUCTED SOME PROPAGANDA ON A MINOR KEY, INCLUDING AN APPEAL TO RESIDENTS OF ONE VILLAGE THAT THEY TRY TO INDUCE RALLIERS TO THE GOVERNMENT TO RETURN TO VC RANKS. VC PROBLEMS ARE DIFFICULTIES IN GATHERING FOOD, COLLECTING TAXES AND, RECRUITING MEN FROM VC RANKS./
OPERATIONS

2. DURING SEPTEMBER, VIET CONG /VC/ MILITARY OPERATIONS IN HAU NGHIA PROVINCE INVOLVED ONLY UNITS OF COMPANY SIZE OR SMALLER. NUMEROUS REPORTS OF SIGHTINGS OF VC BATTALIONS WERE RECEIVED BY

CINCPAC COMMUNICATION CENTER - INCOMING

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CINC NO	EXEC ASST NO1	F/FLT NO2	C/S NO1	DEP C/S NO2	DEP C/S NO3	PA	JT SEC NO4	PERO NO1	INT NO2	OPS NO3	LOG NO4	PLN NO5	CLC NO6	SEC NO7	COMD NO8	LEAD NO9	PIO NO10	POST NO11	MEM NO12	STP NO13	EAD NO14	S/S NO15	MC NO16	OPS NO17	REC NO18	INTC NO19	USC NO20	
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GOVERNMENT OF VIETNAM /GVN/ ALLIED OFFICIALS, BUT REACTION FORCES SENT INTO THE AREAS CONCERNED FAILED TO MAKE SIGNIFICANT CONTACT. EVIDENTLY THE VC ARE CONCENTRATING ON ACTIVITIES BY CELL AND SQUAD SIZE UNITS. THE CUTTING OF HIGHWAY 1 AND PROVINCIAL SECONDARY ROADS SEEMS TO BE HIGH ON THE LIST OF VC MILITARY TARGETS. GVN/ALLIED AUTHORITIES EXPECT FUTURE VC MILITARY ACTIVITY IN THE PROVINCE TO TAKE THE FORM OF ATTEMPTS TO DISRUPT LINES OF COMMUNICATION BY MININGS AND AMBUSHES, SMALL UNIT ATTACKS ON REVOLUTIONARY DEVELOPMENT TEAM SITES, HARASSING ATTACKS ON MILITARY OUTPOSTS, AND ASSASSINATIONS OF GVN OFFICIALS AND CIVIL SERVANTS.

3. VC PROPAGANDA AND PROSELYTING INCIDENTS DURING SEPTEMBER WERE FEW IN NUMBER. AS OF THE END OF THE MONTH, THERE WAS LITTLE EVIDENCE THAT THE VC HAD MADE ANY EXTENSIVE PREPARATIONS TO DISRUPT THE 22 OCTOBER LOWER HOUSE ELECTIONS. DURING THE MONTH, THE VC LECTURED ABOUT 70 RESIDENTS OF AN PHU HAMLET, TRANG BANG DISTRICT, TO ENCOURAGE THEM TO PERSUADE THEIR RELATIVES OR CHILDREN WHO HAVE RALLIED TO THE HAU NGHIA CHIEU HOI /OPEN ARMS/ CENTER TO RETURN TO VC RANKS. THE VC ALSO THREATENED TO ATTACK OR MORTAR THE CHIEU HOI CENTER.

PROBLEMS

4. POPULAR SUPPORT IN THE PROVINCE FOR THE VC IS DECLINING, EVEN IF SLOWLY, AS EVIDENCED BY THE VC'S INCREASED DIFFICULTIES IN GATHERING FOOD, COLLECTING TAXES AND RECRUITING NEW PERSONNEL FOR VC RANKS. ACTS OF TERRORISM SUCH AS ASSASSINATIONS AND KIDNAPPINGS ARE CONTRIBUTING TO VC DIFFICULTIES, SINCE RESIDENTS OF AREAS IN WHICH THE VC HAVE BEEN CONDUCTING SUCH ACTIVITIES HAVE BEGUN TO MIGRATE TO GVN-CONTROLLED POPULATION CENTERS, THUS FURTHER REDUCING THE MANPOWER AND FOODSTUFFS AVAILABLE TO THE VC. COMBINED ALLIED MILITARY POLICE AND VIETNAMESE NATIONAL POLICE MOBILE CHECK POINTS HAVE ALSO HELPED TO STEM THE FLOW OF SUPPLIES TO THE VC.

5. FIELD DISSEM-- STATE USMACV CORDS DIR/JUSPAD /MR. ZORTHIAN ONLY/ CINCPAC PACFLT ARPAC PACAF
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OFFICE OF THE SECRETARY OF DEFENSE

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DEC 20 1965

MEMO FOR Dr. Herzfeld

Charlie:

In 1961, attempts were made to defoliate strips along certain canals and roads in Viet Nam. The operation failed.

In 1962 Brig. Gen. Fred Delmore (Chemical Corps), went to Viet Nam to supervise another attempt. He found that agricultural spray nozzles which delivered only 1/4 the required "dosage" had been used, that altitudes for delivery had been too high, and the wrong metro conditions probably had existed during much of the 1961 attempt. Fred got the correct nozzles, personally made sure conditions were correct and personally flew on every spray run. It worked!

I saw the photos of the strips taken a few weeks later and heard Gen. Delmore's report. The point is a simple one. The job requires that all of a number of parameters be controlled and it takes someone with knowledge and authority to make sure they are controlled.

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[Signature]
Ejnn J. Larsen

11885

THIS DOCUMENT HAS BEEN DOWNGRADED

TO VN Classified

Per Director DARPA/Aah



~~SECRET~~

THE JOINT CHIEFS OF STAFF
WASHINGTON, D. C. 20301

DECLASSIFIED BY OJCS

DATE 22 SEP 1983

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JCSM-862-65

7 December 1965

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: CINCPAC Requirement for a Means of Destroying
Forest/Jungle Growth by Fire (U)

1. (S) In September 1965, CINCPAC requested that the Joint Chiefs of Staff take action to expedite the development of a device capable of destroying large areas of jungle/forest growth by fire.
2. (S) The Chief of Staff, US Air Force, was requested to determine the feasibility of an accelerated research and development effort for the development of a capability to destroy, by fire, large areas of jungle/forest growth in Southeast Asia.
3. (S) Based on consideration of the comments of the Chief of Staff, US Air Force, there does not appear to be a reasonable prospect of developing a conventional type weapon which can provide the heat required to dehydrate and burn jungle/forest growth. It appears, however, that destruction, by fire, may be feasible if the water content of the substance to be burned is reduced to a level of approximately 20 per cent of its dry weight.
4. (S) In view of the mission and the experience of the Air

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should also determine the quantitative reduction in moisture content that can be achieved by defoliation. It is believed that this can be accomplished together with current defoliation efforts in the Republic of Vietnam.

b. Initiate development, on an accelerated basis, of a field operational means for determining specific jungle conditions (i. e., combination of moisture content, wind, relative humidity, etc.) under which there is the greatest probability of destroying jungle/forest growth by fire.

5. (S) The Chief of Staff, US Air Force, is being authorized, in coordination with CINCPAC and other appropriate agencies, to conduct a test in the Republic of Vietnam of the delivery of a fire ignition source.

For the Joint Chiefs of Staff:

SIGNED

L. J. KIRN

Rear Admiral, USN

Deputy Director, Joint Staff

Copies to:
CINCPAC

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DECLASSIFIED BY OJCS
DATE 23 SEP 1983

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TELECON ITEM 233/70, 16 OCTOBER 1970
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TO CINCPAC CMD CENTER
INFO COMUSMACV

BT
SECRET

CINCPAC CMD CENTER PASS TO BATTLE STAFF CHIEF

COMUSMACV CMD CENTER PASS TO BATTLE STAFF CHIEF

THE FOLLOWING MEMORANDUM IS PROVIDED PER TELEPHONE CONFERENCE BETWEEN DDO NMCC AND CINCPAC BATTLE STAFF TEAM CHIEF.

QUOTE

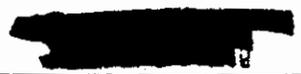
THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

16 OCTOBER 1970

MEMORANDUM FOR CHAIRMAN, JOINTS CHIEFS OF STAFF

ON 15 APRIL 1970 I DIRECTED A TEMPORARY SUSPENSION IN THE USE OF 2, 4, 5-T (ORANGE) IN ALL MILITARY OPERATIONS. ON 15 JUNE 1970 I CONSIDERED THE RECOMMENDATIONS OF JCSM 232-70 AND REAFFIRMED MY EARLIER DECISION BY DIRECTING THAT THE USE OF HERBICIDE ORANGE WAS NOT AUTHORIZED.

THE ASSISTANT SECRETARY OF DEFENSE (PUBLIC AFFAIRS)



CINCPAC COMMUNICATION CENTER - INCOMING

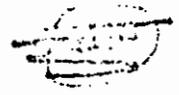
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CWO P. per EAO CTNR 16066/16 TOR 162327Z OPR 119 DTG 162245Z OCT 70

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16666/16

HAS RECEIVED QUERIES FROM TIME MAGAZINE WHICH ALLEGE THAT HERBICIDE ORANGE HAS BEEN USED RECENTLY IN THE AMERICAL DIVISION AREA OF OPERATIONS. WOULD YOU PLEASE INVESTIGATE THIS MATTER PROMPTLY SO THAT WE MAY BE ABLE TO BOTH TAKE ANY ACTION THAT MAY BE APPROPRIATE AND ALSO TO RESPOND FULLY TO THESE QUERIES.

/S/ DAVID PACKARD

UNQUOTE
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PAGE 2 OF 2

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INFO COMUSMACV
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DECLASSIFIED BY OJCS
DATE 23 SEP 1983

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CINCPAC CMD CENTER PASS TO BATTLE STAFF CHIEF
COMUSMACV CMD CENTER PASS TO BATTLE STAFF CHIEF

THE FOLLOWING MEMORANDUM IS PROVIDED PER TELEPHONE CONFERENCE BETWEEN DDO NMCC AND CINCPAC BATTLE STAFF TEAM CHIEF.

QUOTE

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

16 OCTOBER 1970

MEMORANDUM FOR CHAIRMAN, JOINT CHIEFS OF STAFF

ON 15 APRIL 1970 I DIRECTED A TEMPORARY SUSPENSION IN THE USE OF 2, 4, 5-T (ORANGE) IN ALL MILITARY OPERATIONS. ON 15 JUNE 1970 I CONSIDERED THE RECOMMENDATIONS OF JCSM 252-70 AND REAFFIRMED MY EARLIER DECISION BY DIRECTING THAT THE USE OF HERBICIDE ORANGE WAS NOT AUTHORIZED.

THE ASSISTANT SECRETARY OF DEFENSE (PUBLIC AFFAIRS) HAS RECEIVED QUERIES FROM TIME MAGAZINE WHICH ALLEGE THAT HERBICIDE ORANGE HAS BEEN USED RECENTLY IN THE AMERICAN DIVISION AREA OF OPERATIONS. WOULD YOU PLEASE INVESTIGATE THIS MATTER PROMPTLY SO THAT WE MAY BE ABLE TO BOTH TAKE ANY ACTION THAT MAY BE APPROPRIATE AND ALSO TO RESPOND FULLY TO THESE QUERIES.

/S/ DAVID PACKARD

UNQUOTE
GP-3
BT

Received By Telephone 1315

*check with J30s indicates we are not using
Herbicide Orange. Requested MACV to furnish
info to CINCPAC for reply to NMCC ASAP.*

NNNN

W.S. Bohlen

CWO		LR		CHNL		TOD		RTR		DTG													
CINC	ASST	1 LT	C/S	CEP	DEP	ST	SEC	PLNS	OPS	LOG	PLN	CAL	SEC	COMF	LOG	SEC							

ITEM NO. *792111* TOR *11/13/70* DTG *11/13/70*

00006

CLASSIFICATION

INCOMING VOICE/TEXT MESSAGE

DECLASSIFIED BY OJCS

ALL TIMES (W)

DATE 23 SEP 1988

TOR/DIG: START 161310 W COMPLETE 161315W

SECURE/CLEAR

FROM/TO NMCC (Activity) RGEN (Room) MILLER (Name or msg DIG)

RECEIVED/SENT BY: COL COLLINS, CHIEF, CMD CNTR CINCPAC

SUBJECT: ATTACHED MESSAGE RE: USE OF HERBICIDE ORANGE BY AMERICAL DIVISION

TEXT: TELECON REQUESTED WE PROVIDE INFO TO NMCC PRIOR TO 170800R IN RESPONSE TO ATTACHED MESSAGE.

REACTION: J30S WAS QUERIED AND STATED TO OUR KNOWLEDGE WE ARE NOT USING HERBICIDE ORANGE IN VIETNAM. J30S WILL WRITE A FORMAL TASKING MESSAGE TO MACV.

MACV WAS CALLED AT 161348(W) AND REQUESTED TO TAKE ACTION AND PROVIDE ANSWER TO CINCPAC FOR REPLY TO NMCC. THEY WERE TOLD WE WOULD SEND THEM DISPATCH TASKING SAME.

BATTLE STAFF CHIEFS WILL MONITOR AND PROVIDE INFO AS IT BECOMES AVAILABLE TO NMCC.

Time	Notified
	✓ J00
	✓ J001
	✓ J01
	✓ J02
	✓ J3
	✓ J30
	J36
	J31
	J32
	J33
	J34
	J3C
	J3C
	J2
	J4
	J5
	J6
	Briefing
	✓ J74
	J2P
	NMCC
	PACFLT
	ARPAC
	PACAF
	✓ J30S
	✓ RAC

CLASSIFICATION

00009

Left Hand side of folder

J3/Memo/02305-70

5

24 NOV 1970

MEMORANDUM

DECLASSIFIED BY OJCS
DATE 23 SEP 1983

From: J3

To: ~~J02~~

Subj: Herbicide ORANGE (U)

- Ref:
- (a) CINCPAC 210335Z Oct 70
 - (b) COMUSMACV 54822/190731Z Oct 70
 - (c) COMUSMACV 55413/220823Z Oct 70
 - (d) COMUSMACV 61237/211256Z Nov 70
 - (e) NMCC 162245Z Oct 70
 - (f) FONECON - COL Korn, PACDIV, Joint Staff to
Mr. Linsenmeyer, Chief, Scientific Advisory Group,
23 Nov 1970

Encl: (1) Proposed Message

1. Reference (a) requested MACV report of an investigation into alleged violation of ban on use of ORANGE herbicide. Reply was provided in references (b), (c) and (d).
2. Reference (e) contains text of memo from DEP SECDEF to CJCS requesting that this matter be investigated.
3. Per reference (f), two additional items of information are required by JCS to complete a CJCS reply to DEP SECDEF on this matter.
4. Recommend release of enclosure (1) which requests answers to the questions which have not been answered.

Very respectfully,

H. M. Elwood
 H. M. ELWOOD
 MAJ GEN, U.S. Marine Corps

ORIGINATOR: R. F. LINSENMEYER, J30S, 39937
TYPED BY: M. Maruo, Civ. 23 Nov 70

GP-3

00018



DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON 25, D. C.

62-4725
Copy 9

~~THIS DOCUMENT HAS BEEN DOWNGRADED
TO UNCLASSIFIED
Per Director, DARPA/ADM~~

MEMORANDUM FOR THE SECRETARY OF DEFENSE

SUBJECT: Chemical Crops Destruction, South Viet Nam

Reference: JEM 563-62

The Joint Chiefs have requested authorization to implement the proposal of Ambassador Nolting and General Harkins that approximately 2,500 acres of crops in Phu Yen province be destroyed chemically in conjunction with the HAI YEN II operation. I recognize that severe political and operational problems exist. I believe that, if full advantage is taken of the knowledge and experience which can be made available, the technical feasibility of the operation can be assured. On the other hand, there is a substantial probability that the operation will fail, or will appear to fail, unless additional technical inputs are made to its planning and conduct. I therefore recommend that, if the program of crop destruction is approved, you arrange for the temporary assignment of Brigadier General Fred J. Delmore, U. S. Army, together with a small ad hoc staff, to assist General Harkins with the planning and preparation for this operation. General Delmore should also determine whether or not it is feasible to conduct a pilot scale evaluation and rehearsal on controlled territory in Viet Nam or Thailand, and, if feasible, he should carry out such a preparatory trial.

My technical concern arises out of the first-of-its-kind character of the application, to be made as part of a military operation. It may or may not be possible to make, without prohibitive delay, a prior test of the agents, procedures, equipment, and personnel on a realistic target crop in a controlled area. If not, then the least which should be done is to provide General Harkins with the very best technical advice and planning ability which can be obtained. General Delmore has extensive personal experience in the field and demonstrated his ability to stimulate and coordinate a group of civilian specialists and to put forward his views to senior commanders in a responsible and effective manner. By selecting Department of Agriculture and Army personnel with the requisite knowledge of agents and crops and their interaction, and Army or Air Force personnel who actually conducted the recent (July) tests of helicopter dissemination equipment at Eglin Field, General Delmore can pull together the necessary knowledge and skills.

I will be glad to assist General Delmore in organizing his group. The same group could well serve the purpose of providing General Harkins with technical advice and planning in connection with the (separate) proposed mangrove herbicide program.

00014

Harold Brown

cc: ASD (International Security Affairs)



~~SECRET~~

8 Oct 62

**MEMORANDUM FOR THE DIRECTOR OF DEFENSE RESEARCH
AND ENGINEERING**

SUBJECT: Herbicide Project

In the attached memorandum of 28 September the JCS have recommended to the Secretary of Defense that General Harbina be granted authority to conduct herbicide operations in Vietnam, and that the Department of Defense "effect an accelerated research and development project in vegetation control." The attached memorandum which has been prepared for you to send to the Secretary of Defense gives primary attention to the latter recommendation and incorporates information obtained from Mr. Nitze's office with respect to the former.

A

I believe that the memorandum, in which Dr. Gardner has concurred, is self-explanatory.

1. Attachments

- 1. JCS Memo, 28 Sep 62.
- 2. Memo to SecDef.
- 3. Proposed Memo from SecDef to JCS.

**J. P. Ruina
Director**

THIS DOCUMENT HAS BEEN DOWNGRADED

TO Unclassified
Per Director DARPA/Adm

Prepared by Mr. Burns/pa/8 Oct
ARPA/RAC/3K173
57193

RAC 62-9

Copy _____ of _____ copies

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~~SECRET~~

~~SECRET~~

13 Oct 1962

MEMORANDUM FOR THE CHIEF OF STAFF, JOINT CHIEFS OF STAFF

SUBJECT: Barbicide Project

REFERENCE: JCS Memorandum, Ser. JCS-713-42, dated 25 Aug 62, Subj: "Policy and Operational Evaluation of Barbicide."

The recommendations set forth in paragraphs 4b, and 4 of referenced memorandum are approved, except that non-operational field testing and evaluation of Barbicide which are considered the preliminary to Southeast Asia shall be restricted to those areas under the control of the United States Army and Navy in that country. The Office of the Chief of Staff of the Army and the Department of Defense are requested to coordinate and coordinate with the Department of the Army.

B

You will be advised separately of action on the recommendations contained in paragraph 4c. of referenced memorandum.

151
GILPATRICK

THIS DOCUMENT HAS BEEN DOWNGRADED
TO UNCLASSIFIED
Per Director, DARPA/ADM

Prepared by: Mr. Burns/pa/8 Oct
ARPA/EAC/3E173/
57193

00018

~~SECRET~~

~~CONFIDENTIAL~~

(6)

MEMORANDUM

From: MAJ GEN ELWOOD
To: ADM McCAIN
Via: (1) ~~MAJ GEN ADAMS~~ *E*
(2) LT GEN CORCORAN

MESSAGE RELEASED
BY JOO

Subj: Use of Herbicide ORANGE (U)

Ref: (a) COMUSMACV 54822/190731Z Oct 70
(b) COMUSMACV 55413/220823Z Oct 70
(c) COMUSMACV 61237/211256Z Nov 70

21 NOV 1970

Encl: (1) Proposed Message to JCS
(2) Proposed Message to COMUSMACV

1. References (a) and (b) provided interim results of an investigation into the alleged use of herbicide ORANGE by the 23rd Infantry Division, subsequent to the DOD temporary suspension imposed on the use of this material in April 1970. This incident surfaced as a result of a proposed TIME magazine article.

2. MACV's final report on this incident provided in summary form is in reference (c).

3. Recommend release of enclosure (1) which provides the summary findings of this investigation to the JCS, and enclosure (2) which requests MACV provide CINCPAC with a copy of the final report for review for the purpose of ascertaining whether further CINCPAC action is indicated in this matter.

Very respectfully,

ORIGINATOR: R. F. LINSSENMEYER, J30S, 39937
TYPED BY: M. Maruo, Civ. 21 Nov 70

GP-3

GROUP 3

Excluded from automatic downgrading and declassification

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DECLASSIFIED BY OJCS
DATE 23 SEP 1983

3284

OATSZYUW RUEKJCS5409 2901500-SSSS--RUHHHQA.

IMMEDIATE

ZNY SSSSS

O 171458Z OCT 70 ZFF3 ✓

FM JCS

TO RUHHHQA/CINCPAC

INFO RHMSMVA/COMUSMACV

BT

S E C R E T 3757

DJS SENDS

SUBJ: USE OF HERBICIDE ORANGE (U)

REF: TELECON ITEM 233/70/162245Z OCT 70. -5-

1. (S) REF TRANSMITTED DEPSECDEF MEMO REQUESTING INFORMATION CONCERNING ALLEGED USE OF HERBICIDE ORANGE IN AMERICAN DIVISION AREAS OF OPERATION.

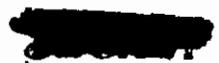
2. (U) INFORMATION REQUIRED NLT 0600 EDT 19 OCT 70.

GP-3

BT

#5409

NNNN#



CINCPAC COMMUNICATION CENTER - INCOMING

14ND-CINCPAC-2100/25 (10-68)

CINC	EXEC	ASST	F/IT	C/S	DEF	REP	IT	PERS	INT	OPS	LOG	PLN	CGE	PEG	COMP	LECL	PIO	PROT	WED	ICP	CAO	D/S	INC	CPR	WDC	ISZC	MSG
300	301	302	101	102	103	PA	104	11	12	13	14	15	16	171	172	173	174	175	176	177	178	179	180	181	182	183	184
X	X		X	X						A	X						X				X	X					
CWO										CTNR	3284/17										OPR	88					DTG 171458Z OCT 70

JCS 3757

00025

A

DECLASSIFIED BY OJCS SEP 1983
DATE _____

(B)

1078

PRIORITY

PATSYUW RUEKJCS5730 2942246-SSSS--RUHHHQA.
ZNY SSSSS
P 212234Z OCT 70
FM JCS

TO RUHHHQA/CINCPAC
INFO RHMSMVA/COMUSMACV

BT

SECRET 4066

J5 SENDS

SUBJ: ANNUAL HERBICIDE PROGRAM REVIEW (U)

1. (S) THE ANNUAL REVIEW OF THE CW, BR, RCA, AND HERBICIDE PROGRAMS IN RESPONSE TO NSDM'S 35, 44, AND 78 IS UNDERWAY. HERBICIDE FIGURES PROVIDED FOR THE REVIEW ARE AS FOLLOWS:

YEAR	DEFOLIATION (ACRES)	CROP (ACRES)
1962	4,940	741
1963	24,700	247
1964	83,486	10,374
1965	155,610	65,949
1966	741,247	103,987
1967	1,486,446	221,312
1968	1,267,110	63,726
1969	1,221,193	65,640
1970 (JAN-FEB)	135,130	5,525

2. (U) REQUEST CONFIRMATION OF THESE FIGURES INSOFAR AS YOUR FILES WILL PERMIT AND PROVISION OF FIGURES FOR CY 1970 TO DATE OR AS AVAILABLE. THE REVIEW WILL NOTE THAT THESE FIGURES ARE NOT ADDITIVE BUT INCLUDE AREAS THAT HAVE BEEN RE-SPRAYED.

3. (C) OFFICE OF SCIENCE AND TECHNOLOGY REPRESENTATIVE HAS ASKED IF THESE FIGURES INCLUDE ACREAGE FOR HELICOPTER SPRAY AND/OR GROUND SPRAY. REQUEST INFORMATION BE PROVIDED IN REPLY TO THIS QUESTION AS SOON AS POSSIBLE. IF FIGURES DO NOT INCLUDE HELICOPTER ACREAGE REQUEST THE BEST AVAILABLE INFORMATION OR ESTIMATE BE PROVIDED FOR INCLUSION IN THE REVIEW.

GP-3

BT

~~SECRET~~

CINCPAC COMMUNICATION CENTER - INCOMING

14ND-CINCPAC-2100/25 (10-68)

300185

CDC	EXEC	F/LT	C/S	DEP	DEP	JI	PERS	INT	OPS	LOG	PLN	CBE	PEG	COMP	LEGL	PIO	PROT	MED	OPR	FAO	R/S	JRC	OPR	MCC	JOIC	MSG	RA
RE	ASST	2502	101	102	103	PA	104	11	12	13	14	15	16	171	172	173	174	175	176	177	178	179	180	181	182	183	184
X	X		X	X	X				A	X	X					X		X		X	X						X

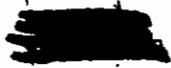
CWO A CTNR 1078/22 TOR 220054Z C R 99 DTG 212234Z OCT 70

JCS 4766

00027

DECLASSIFIED BY OJCS
DATE 23 SEP 1983

9



MEMORANDUM

From: J3
To: J02 *OK/egH*
Subj: PINK ROSE (U)
Ref: (a) SECDEF Message 2024/222038Z Dec 1966
Encl: (1) TAD Orders; request for

1. Dr. William F. Warren, J3A1, has been designated CINCPAC representative for the PINK ROSE program (defoliation/burn operations in RVN). First phase tests are scheduled to be conducted in Vietnam on 18 January, preceded by briefings in Guam and in Vietnam. It is recommended that Dr. Warren be placed on TAD for approximately 14 days in order to participate in these briefings and in monitoring of these first tests.
2. In connection with the TAD Orders request, it is requested that 15 pounds excess baggage be authorized to permit Dr. Warren to take with him necessary reports, data, film, etc., concerning the tests. It is further requested that Dr. Warren's transportation arrangements be made so that he can accompany Lt. Peter Carpenter (OSD/ARPA representative) to Guam and on to Saigon via Pan Am Flight 841. It is realized that there is a MAC flight departing Honolulu for Guam the same day; however, it is desired that Dr. Warren and Lt. Carpenter travel together because of briefings to be held at CINCPAC headquarters the day of departure and also in Guam after arrival.
3. Request visit for Dr. Warren be approved.

Very respectfully,

Johns. Kidd
JOHN B. KIDD
Colonel, USAF
Acting AC/S for Operations

0014

ORIG: J. COE, J3A1, 39-937
TYPED: J. Coe, GS-5, 30 Dec 66
CPRS: None

00039



~~SECRET~~

Operations, including supply of agents, may be extended for herbiciding operations, subject only to the condition that the operation must be approved by the Joint Chiefs of Staff and General Harkins.

28 DEC 1962

MEMORANDUM FOR DR. BROWN

SUBJECT: Anti-crop Activities in Vietnam

INTRODUCTION

I looked into this program in considerable detail, and with as critical an attitude as possible. My over-all conclusion is that, given proper planning, reconnaissance, and supervision, and within important constraints, chemical destruction of Viet Cong crops can make an effective contribution to winning the war in Vietnam. The magnitude of the contribution depends on the target acreage that can be acquired and verified as Viet Cong. As usual in Vietnam, intelligence and target analysis are the limiting problems, rather than technology.

The anti-crop operation of November 21-23 on the eastern edge of Zone D was highly successful from a technical point of view. Further, the identification of the crops destroyed as having been cultivated by and for the Viet Cong was a careful and convincing one. Sufficient food to support one to two thousand men for over a year was estimated to have been destroyed. There was no collateral damage.

RECOMMENDATION

I recommend that the delegation of authority to Ambassador Nolting and General Harkins to undertake defoliation operations be extended to include assistance in anti-crop operations, subject to policy guidance along the following lines:

- In the case of air-delivered attacks, U. S. assistance, including supply of agents, should be extended only for attacks on crops which can be convincingly verified as having been grown by Viet Cong units or bands, and in which the probability of damage to other crops is negligible. This would exclude air-delivered attacks on fields identifiable with hamlets, villages, or families, whatever their suspected affiliation.
- Only Vietnamese aircraft should participate in crop-spraying operations.

THIS DOCUMENT HAS BEEN DOWNGRADED

TO UNCLASSIFIED

~~SECRET~~ Director, DARPA/Ash

00044

Assistance, including supply of agents, may be rendered for hand-spraying operations, subject only to the condition that the operation meet with the approval of Ambassador Nelting and General Harbins.

OPERATION OF 21-23 NOVEMBER

The target area is in Phuoc Long province, 50 kilometers southeast of Nui Bana and approximately 100 kilometers north and a little east of Saigon. The terrain is sharply broken by low hills and is heavily forested. Except for scattered Montagnard hamlets, the area is essentially unpopulated. Extensive VC training, headquarters, and logistics installations were suspected to be present, hidden under the jungle canopy, by ARVN intelligence.

The targets selected were rice fields 10 to 100 acres each, but mostly 20 to 40 acres, bordered by manioc and potato plantings, along the meandering course of the Da Dung River. There was no evidence of human habitation in the immediate vicinity of any of these fields. The nearest Montagnard fields are some kilometers away. The Montagnard hamlets in this region consist of clearings containing less than a dozen contiguous cultivated fields, each with a hut (the family shelter) in the center. The huts are connected by foot paths and the pattern is a characteristic and unmistakable one when viewed from the air. It appears that the VC, in Zone D at least, do not live or grow their crops in close proximity to the Montagnards. A Montagnard leader, whom I met in Nui Bana, told me that the VC try to stay a good distance away from the Montagnard hamlets because they believe (quite accurately) that the Montagnards inform on them to the ARVN. General Delmore had personally reconnoitered the targets by air in company with Lt. Colonel Dien, the Phuoc Long Province Chief and two Montagnards from the area, to confirm that the fields were VC. I later flew over the area with the same group and one of the Montagnards reiterated to me that the crops destroyed were VC.

A strong raid, involving two battalions of the Airborne Brigade and a ranger company, was more or less coordinated with the spray operation. Actually, one parachute battalion was dropped a day early specifically to provide ground cover for the first day's spraying. (Ground cover for air operations is another of the many anomalies of the war in Vietnam.) The airborne people encountered negligible resistance and found only a few huts instead of the extensive installations

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predicted by ARVN intelligence. The area was heavily trapped, however, and Lt. Colonel Triplett, an American advisor, was shaken up and slightly wounded when a VC plastic mine exploded near him.

The spray attack was delivered by VNAF H-34's fitted with HIDAL spraying rigs. The agent employed was cacodylic acid as 25% aqueous solution. Effects on the rice were apparent within hours. Samples of the rice plants attacked were brought back by Major Nulson, USA, who was with the ARVN ranger company in the raid. These showed that the rice was immature so that the VC would be unable to obtain grain by harvesting the dead crop. When I overflow the area a week later, it was perfectly obvious that the crops were dead. The ARVN forces on the ground shot what cattle they found in the vicinity, and made some attempt to uproot or crush out such planted areas as were not sprayed. An estimate of the amount of food denied by this operation was arrived at as follows: the Vietnamese agricultural people estimate the typical rice yield for this area to be 1300 to 2000 pounds per acre; therefore, 1.0 to 1.5 million pounds of rice were destroyed on the 750 acres sprayed; estimating two pounds of rice per person per day, enough rice to feed 1000 to 2000 men for a year was destroyed.

My conclusions derived from analysis of this operation are as follows:

1. Aerial spraying of growing rice with cacodylic acid causes rapid and complete destruction of the crop.
2. The crops attacked were VC and no damage to friendly crops occurred. If the extent and configuration of these fields and their remoteness from friendly or neutral crops is at all typical, it should be possible to do a great deal more.
3. The operation was carefully planned, with adequate consideration of psychological and rehabilitation contingencies.

FURTHER ANTI-CROP PROSPECTS

President Diem made a long and emphatic argument in favor of a massive crop destruction program in our meeting of 3 December. He feels that defeating the Viet Cong in the piedmont, uplands, deep forests and marshes is the central issue of the war, and that very

of telling friend from foe. I explored this point with President Diem and was satisfied as to his intentions.

FURTHER TECHNICAL PROBLEMS

A feasible and effective method of destroying rice is now established. The Vietnamese insist on ground cover for their H-34's during spraying, however, and this is expensive. On the other hand, it does automatically provide for the avoidance of gross error (such as spraying obviously friendly crops) and for the implementation of assistance and rehabilitation plans, if necessary. Suppressive fire might obviate the need for ground cover. Alternatively, it would probably be worth working out a C-47 delivery technique. Fighter-escorted C-47's could probably fly low and slow enough to spray at least the larger fields without undue hazard to the aircraft. C-123's would be better, but the Vietnamese do not have them.

President Diem says that the VC fields farther north are smaller and often are perched on steep hillsides. These might be very difficult to spray with fixed wing aircraft. He has suggested an aimable anti-crop munition, and Delmore is working on this at Fort Detrick. I have serious doubts as to the real cost-effectiveness of such a munition, but the small effort now underway should probably be allowed to continue.

2, 4-D and 2, 4, 5-T formulations ("pink" and "green") now on hand in Vietnam are the agents of choice for manioc and other non-rice crops. It appears that enough is known to permit application of these agents, but Delmore or Minarik should be called in to supervise their first application.

ORGANIZATION

General Delmore has personally seen to it that the recent operations, both defoliation and anticrop, went right and were in accord with U. S. policy. While it is neither desirable nor necessary that he stay on, it is important that he be replaced by a senior colonel with adequate stature and technical competence, and a high sense of general responsibility. Delmore has a list, which he has discussed with me, of qualified officers. We believe that this officer should be assigned to J-3, USMACV. General Harkins told me he had submitted such a recommendation to CINCPAC. If nothing is forthcoming on this within the next few weeks, Mr. McNamara should be advised to send someone out, as he did Delmore.

⁶ This does not seem to inhibit them very much with regard to shelling or aerial bombardment using H. E. or napalm.

~~SECRET~~

Delmore utilized a so-called 202 Committee of Vietnamese to suggest targets, and organized a so-called 203 Committee, including some Vietnamese plus 1-3 USMACV, Embassy, and CDTG people, to review targets. The 203 group has been getting out into the field and doing an excellent and conservative job of target analysis, considering both technical and policy aspects. I would strongly recommend that this system or its equivalent be continued.

(signed) James H. Gardner

James H. Gardner
Deputy Director
(Engineering and Chemistry)

~~SECRET~~

ROUGH DRAFT

gab

~~CONFIDENTIAL~~

Vault
RAC/E

(U) DEFOLIATION-INCIDENTS
CORRELATION STUDY

April 1, 1967

Report Number BAT-171-54

prepared for

ADVANCED RESEARCH PROJECTS AGENCY

PROJECT AGILE

Contract Number SD-171, ARPA Order Number 324

by

THIS DOCUMENT HAS BEEN DOWNGRADED
TO Unclassified
Per Director, DARPA

R. N. Pesut and W. P. Virgin

REMOTE AREA CONFLICT INFORMATION CENTER

Battelle Memorial Institute

Columbus Laboratories

505 King Avenue

Columbus, Ohio 43201

00046

THIS MATERIAL CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE 18, U.S.C. SECTION 793 AND 794 AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW.

GROUP-3
Downgraded at 12 year intervals;
not automatically declassified

ABSTRACT

Defoliation operations have been conducted for the past several years in South Vietnam as a measure to reduce the effectiveness of Viet Cong operations and, at the same time, increase the effectiveness of friendly forces. No extensive look had been taken at possible changes in VC activity resulting from the defoliation. These changes may result in fewer VC incidents, changes in magnitude or types of incidents, or possibly an increase in the number of incidents. The Advanced Research Projects Agency assigned ^{RACIC}~~Battelle Memorial Institute~~ the task of examining the VC activity in these defoliated areas in order to detect possible changes. This report presents the results of that study.

Eight geographic regions in which extensive defoliation has been performed were studied. The region boundaries were chosen so that the defoliation targets within each region are of the same type. The types of regions include coastline, delta, rivers and roads.

Possible effects of defoliation on VC initiated activity are often masked by other factors such as increased presence of friendly troops in the region. In general, no conclusive effects could be assigned to defoliation alone although analysis of some regions suggests decreased VC activity following defoliation.

Recommendations for further action are presented.

~~CONFIDENTIAL~~

ROUGH DRAFT

FOREWORD

This research was supported by the Advanced Research Projects Agency of the Department of Defense and was monitored by ARPA/AGILE under Contract Number SD-171. The ARPA/AGILE monitor was LCDR Frank Boice. For RACIC, the project was under the technical control of Dr. K. L. Nielsen. The study was performed by Mr. R. N. Pesut and Mr. W. P. Virgin.

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~

INTRODUCTION AND SUMMARY

Background

Defoliation operations have been conducted over specific areas of the Republic of South Vietnam for the past several years. The purpose of the defoliation is to remove the cover which exists in an area, reduce the effectiveness of Viet Cong (VC) operations in the area, and increase the effectiveness of friendly forces. Some studies have been conducted on the psychological reactions of VC to defoliation operations and on the attitudes of the Vietnamese villages as they relate to these operations. However, no extensive look had been taken at possible changes in VC activity in the defoliated areas. Such changes might result in fewer total VC incidents, changes in the magnitudes or types of incidents, or even possibly a greater total number of incidents. If an examination of VC activity in an area indicated that a change occurred, then the area could be flagged for further research, to see if defoliation might have been the cause or if other causes could be pinpointed.

The Advanced Research Projects Agency (ARPA) assigned the Remote Area Conflict Information Center at Battelle Memorial Institute (BMI) the task of examining these defoliated areas in order to detect possible changes in VC initiated activity. This report presents the results of that study.

Objective of the Study

The objective of this study was to attempt to correlate VC activity with past aerial defoliation operations in specific areas of South Vietnam to determine the effects, if any, of such operations as they apply to the VC.

~~CONFIDENTIAL~~

If any changes were observed, they were to be reported to ARPA/AGILE who would attempt to gain more information for further research into these changes as they apply to the overall context of the war. It was recommended that techniques used by Mr. Al Schwartz* in his report on locating guerrillas be applied to the problem.

* A Method for Finding Guerrillas (Applied to South Vietnam) (U), Schwartz, A.I., Institute for Defense Analyses, Weapons Systems Evaluation Division, May, 1966, (Secret).

CONFIDENTIAL

Summary

This task was comprised of two major problems, selection of the areas for study and analysis of the incident data.

Data on defoliation and crop destruction missions were supplied to ^{RAIC}~~DM~~ by ARPA/AGILE. Locations of these missions were plotted to aid in the choice of study areas. It was decided to limit the study to about the southern third of the country since this section included most of the defoliated areas and at the same time decreased the amount of incident data needed. Eight geographic regions were then chosen for study. The regions were selected to cover a variety of situations, including areas where defoliation had been performed on roads, rivers, coastline, and around military posts.

Viet Cong initiated incident data covering the selected portion of the country were obtained from the Defense Intelligence Agency. The information was received in the form of magnetic tapes, one for each year, 1963 through 1966. A printout of each tape was also received.

Three computer programs were written to facilitate handling the data tapes. Two of the programs were used to rewrite the tapes in a format for speedier operation and for editing. The third program was used to select, from the tapes, all incidents which fall into specified categories, to count the selected incidents, and to print them. The categories under which selection can be made are: VC action code, VC objective code, geographical area, and date of incident. The programs were used to search the data tapes for all incidents which had occurred within the defined geographic regions. Following printout of the data, it was edited.

The second phase of the study was to analyze the data. For some regions the amount of available data was not sufficient for the application

[REDACTED]

of standard statistical techniques. It was recognized that factors other than defoliation would affect the VC activity in a region so that it seemed appropriate to exhibit the data in such a fashion that changes in the level and type of activity would be visually detected. Consequently, the VC activity data were summarized in monthly intervals, both before and after defoliation. The summarizing was performed in two ways, first according to the type of VC objective and second, according to the type of VC action against the objective. The summarizations by type of action were weighted using a weighting scheme proposed and used by Mr. A. Schwartz.* This scheme is intended to show the level of effort expended by the VC for several classes of action. In addition, several activity measures were defined and calculated for each region.

It was found that the number of VC initiated incidents decreased in the study regions. However, there was little consistency in the changes exhibited against several types of VC objectives. Furthermore, monthly incident counts show seasonal variations with the defoliation dates often coinciding with the months of peak activity. Subsequent declines in VC activity cannot necessarily be attributed to the results of the spraying. Defoliation is also often followed by increased air and ground activity of friendly forces which could account for the decreased VC activity. This study did not attempt to determine the separate effects of aircraft, ground forces, and defoliation.

* Ibid.

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METHOD OF ANALYSIS

There are basically two problems in determining the effect of defoliation on VC activity. The first problem is the selection of the areas of South Vietnam that will be studied. The second problem concerns extracting data on VC activity for the selected areas, and interpreting these data. The manner in which these two problems were handled is described below.

Determination of Study Areas

The areas selected for study were chosen on the basis of the plots of the defoliation data available. Data on defoliation and crop-destruction mission were supplied by ARPA/AGILE. For each mission, the data include: the task type (defoliation or crop destruction), the province name, coordinates of the mission, the area sprayed, the date of spraying, and the type of operation (aircraft or hand spray). The data were put into punched cards for easier sorting and listing.

Many of the data, particularly for the early missions (1963), are not usable because of illegibility of the data sheets (Thermofax) or because of incompleteness of the data; e.g., no coordinates given.

The locations of the defoliation missions were initially plotted on a 1:4,500,000 map as shown in Figure 1. On the basis of this plot, it was decided to study the lower third of the country, since this would include the majority of the defoliated areas and would decrease the amount of incident data requested from the Defense Intelligence Agency data bank.

Each of the defoliation missions was next plotted on overlays for maps in a scale of 1:250,000. Where a single coordinate was given for the

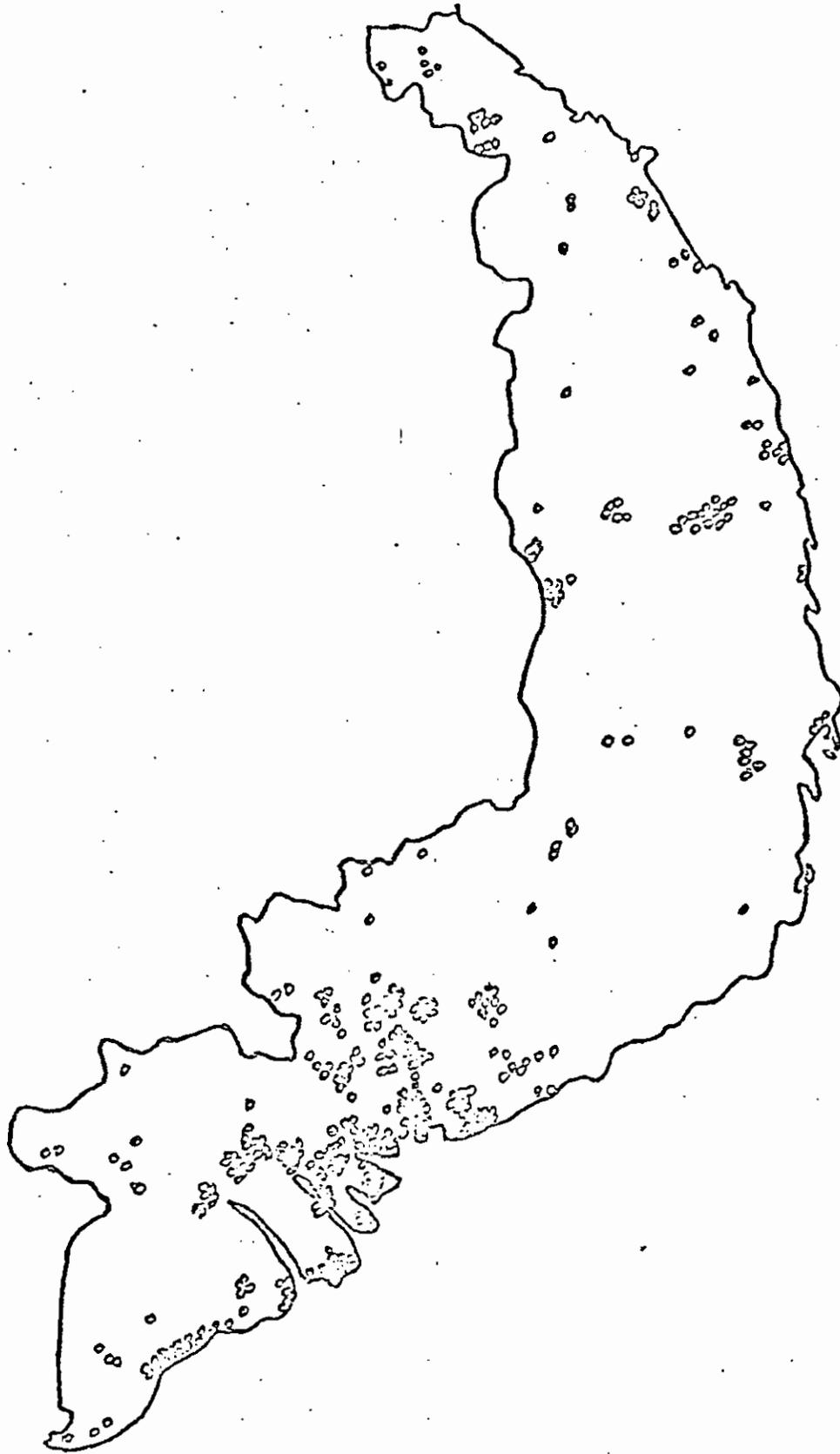


FIGURE 1. LOCATIONS OF DEFOLIATION MISSIONS IN SOUTH VIET NAM.

mission, the point was simply marked on the overlay. Where two or more coordinates were given, it was usually possible to determine the defoliation target by examining the map. For example, if two mission end-points lay on a river, the defoliated path was marked along the river, following its curves, between the given end-points.

As a result of these plots, eight regions in which extensive defoliation had been performed were chosen for study. The regional boundaries were defined so that the defoliation targets within each region are of the same type. The regional types include coastline, rivers, roads, and such man-made features as military posts.

Although the primary purpose of this task was to study aerial spraying, some areas which were hand sprayed were included.

Table I gives the defoliation date, number of hectares sprayed for each selected region, and an indication of the type of region. The general locations of the areas are shown in Figure 2. More detailed maps (scale 1:250,000) for each area are given in the section where each region is discussed.

Determination of Effect

There are three major aspects to the problem of determining the effect of defoliation on the VC initiated activity in a given geographical area:

- (1) The type of VC activity data available for the analysis.
- (2) The handling procedures to prepare the data for the analysis.
- (3) The techniques employed for analyzing the data.

Each of these aspects are considered individually below.

TABLE I. CHARACTERISTICS OF SELECTED DEFOLIATED AREAS.

<u>Region Number</u>	<u>Type</u>	<u>Defoliation Dates</u>	<u>Area Sprayed(ha)</u>
1	Bo De and Cua Lon Rivers	6/63	358
		2/64	1,259
		8/66	1,983
2	Southeast coast	3/65 to 5/65	63,380
		12/65 to 2/66	9,067
		4/66 to 7/66	2,290
3	River	4/65	460
		12/65	4,760
4	Road	10/65	11
		12/65	1,109
5	Posts	2/65 to 4/65	127
		8/65 to 11/65	33
6	River	1/65	315
		9/65	60
		11/65 to 12/65	1,840
7	River, Rung Sat S.Z.	4/64	1,480
		3/65	635
		1/66 to 2/66	7,040
8	Roads	12/65 to 4/66	6,880
		6/66	615
		9/66	155

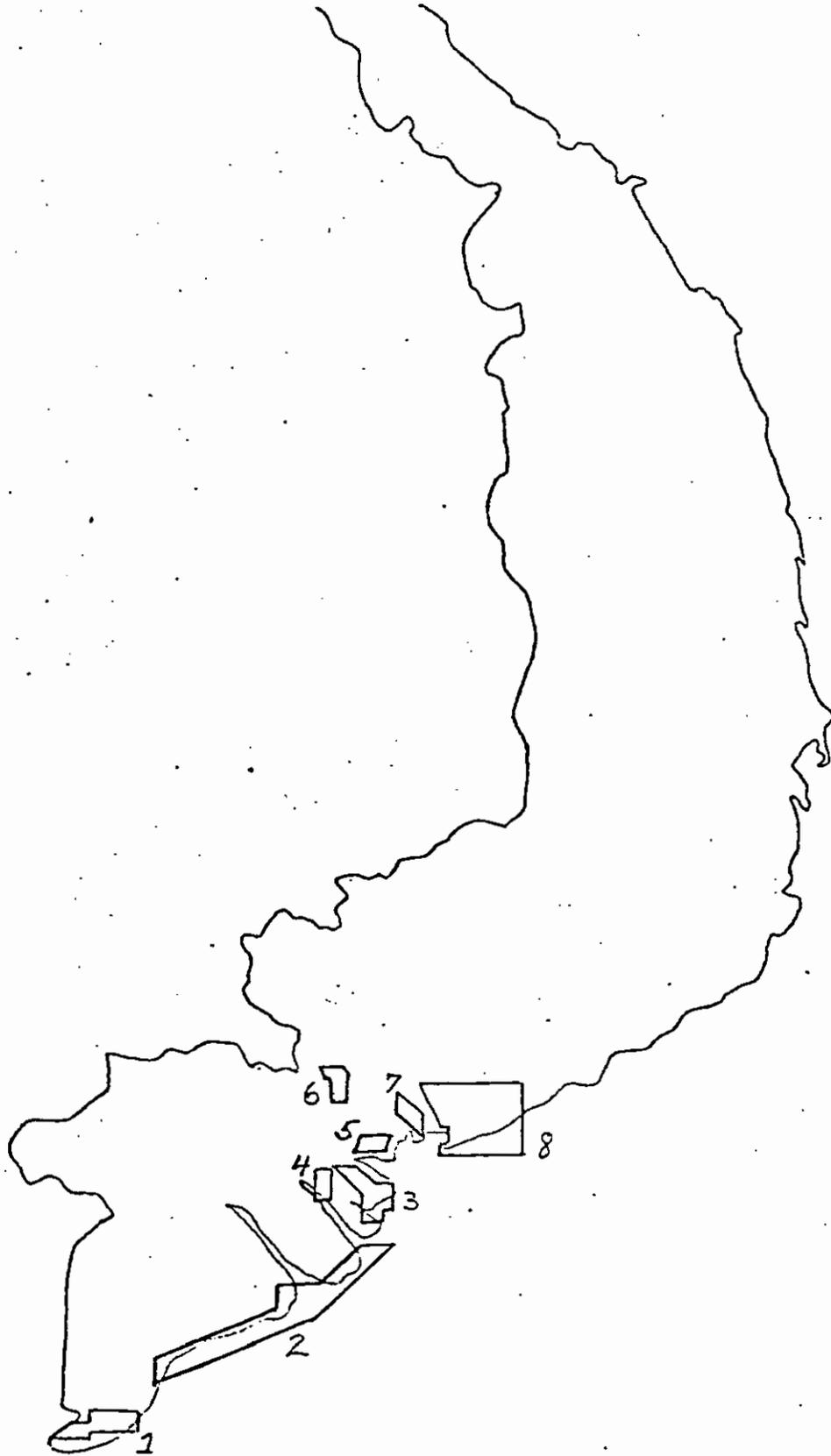


FIGURE 2. LOCATIONS OF SELECTED STUDY REGIONS.

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Data Used in the Analysis

The activity data used in the analysis were obtained from the Viet Cong initiated incidents reported in the Military Assistance Command, Vietnam (MACV), Daily Situation Reports (DSR). A complete listing of each entry in the data file, for the area of SVN described provided the following information about VC initiated incidents:

Coordinates of the Action. Universal Transverse Mercator (UTM) grid coordinates locating the geographic position at which the VC-initiated action occurred.

Start-Stop Date and Time. The year, month, day, and time of day that an incident was started or stopped. (In most reports, the time listed for start and stop were identical.)

Objective Code. Numeric code indicating the person(s) or object(s) comprising the target toward which the incident was directed.

Action Code. Alpha-numeric code indicating the type of incident that occurred.

Unit. Code indicating the friendly forces involved in the incident.

Losses. The number of persons KIA, WIA, and MIA.

Comments. Information that enlarges on the coded information to further identify the incident.

A listing of all entries that occurred in the area to be studied, essentially the lower third of the Republic of South Vietnam, from the

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initiation of the data file in 1963, was requested. This listing consisted of more than 55,000 individual entries.

Data Handling Procedures

The DIA data bank furnished the incident data covering the portion of the country selected for the study in the form of magnetic tapes, one for each year 1963 through 1966. Two copies of each tape were made at Battelle on the Control Data 3600 computer. The copied tapes were compared with the originals, by means of a special program, to ensure correct copying. The original tapes were then returned to the DIA.

Three computer programs were written to handle the magnetic tapes. These programs are described below.

Program JOIN

Tapes received from DIA were written in the ASR format (Appendix A). In this format the data for each incident comprises one record. A file record and an End-of-File mark are at the start of each tape. Program JOIN reads tape in the ASR format and writes a new tape on which the initial file record and the End-of-File mark are eliminated and the incidents are written in groups of 100 incidents to a record. This will be referred to as the BMI format. Having the records grouped in this way speeds up subsequent searches for a particular record or set of records.

Program EDIT

Instances of incomplete records or of multiple records for a single incident occur. Program EDIT can be used to eliminate such records from

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the file. The program can be used with tapes written in either the ASR or BMI format.

Program SELECT

This program is used to read the magnetic tape, to select from it all incidents which fall into specified categories, to print the selected incidents and to count them. The categories under which selection may be made are: VC action code, VC objective code, geographical area, and date of incident. Specific instructions regarding selection in each category are entered into the computer on leader cards. New leader cards may be entered during the course of a run.

The program permits the naming of a group of VC action codes so that an incident having an action code which matches any one of the codes in the group will be selected. In the same way it is possible to select incidents having an objective code which matches any one of a pre-specified group of objective codes. If no action or objective group is specified, all incidents will be selected, subject to selection on the basis of geographical coordinates or of time.

Geographical coordinate selection may be made by specifying no coordinates (take all incidents wherever they occurred), one coordinate (take all incidents occurring at that point), two coordinates (take all incidents on the line between the coordinates), or four coordinates (take all incidents occurring within the parallelogram defined by the four points).

Incident selection on the basis of date of occurrence can be made by naming a date, an interval size, and the number of intervals to be considered. The intervals can be specified to fall before the date, after the date, or on

both sides of the date. Incidents which occurred within the range of the intervals will be selected and a table showing the number of incidents within each interval will be printed. If no date is specified, all incidents will be selected.

The SELECT program has been designed to work with tapes in either the ASR or BMI formats.

After areas were selected for study, the data tapes were searched and all incidents that satisfied the conditions for the selected areas were printed out. At this point, it was necessary to edit or "purge" the data to remove those entries which appeared in duplicate. Rather than scan each of the 55,000 or so entries on the tape, the editing of the data was deferred until listings of incidents were received for each of the selected defoliated areas to be studied. This reduced the amount of editing considerably and since all the incidents for a localized area were printed on a comparably short listing, it was easier to detect duplications of entries. There were several types of duplication that occurred. The most easily detected were those that were identical for each bit of information--same coordinates, same date and time, same objective code, same action code, etc. Other duplications occurred when several reports were submitted by different persons involved in the incident. Sometimes these entries were identical in every respect; at other times, they differed slightly in the coordinate or the time of day. This section type of duplication differing slightly in the coordinate was detected by first noting that the entries agreed in all other respects, calculating the distance between the two difference coordinates listed (where a difference in the last digit in the "X" or "Y" direction is a distance of 100 meters or 328 feet), and considering these entries as duplications if the distance

not too extreme. Another kind of duplication occurred when there were more than one type of action employed in the incident or more than one target of the incident. In these cases, separate entries were often listed, agreeing in every respect except the action codes and/or objective codes. These entries were combined listing all the action codes and/or objective codes as one entry. Later those codes which represented the most serious aspects of the incident were chosen to represent the incident in the analysis. These types of duplications were the only ones that were detected in the editing process, and as much of this duplication was removed as possible. The result of this editing was a separate listing of all incidents that occurred within each defoliated area to be studied for the time period of interest. Once these listings were obtained, the analysis of the data for each area could proceed.

Analysis Techniques

Initially, attempts were made to apply existing statistical techniques in the analysis of the data. Several difficulties became evident almost immediately. The first difficulty was the fact that the analysis would have to apply to very small sample sizes since the number of data points would be small. If data are collected for 12 months before defoliation and 12 months afterward (provided such data exists), and are summarized as monthly totals of incidents, there are at most twenty-four such points. If an attempt is made to pair the "pre-defoliation" data with the "post-defoliation" data in order to work with paired comparisons, there are only twelve data points. Attempts to apply standard statistical tests were unsuccessful for another reason also; namely, the difficulty in removing extraneous factors that could affect the activity in a particular area. These extraneous factors include seasonal

effects, availability of targets, VC plans for the area, etc. Nonparametric tests were not successful since these tests for detecting trends had very low power for the small sample sizes available, where power is measured as the probability of rejecting the hypothesis of no trend when in fact there is some trend. Consequently, rather than attempt to apply statistical methods to detect trends, which might be misleading in light of all the other factors that could affect activity besides defoliation, it was decided instead to display the data in a fashion that would allow the observer to detect "possible" trends by sight, which would then be evaluated along with the other factors. The various methods used to summarize the data are discussed below.

First, it was necessary to determine the length of the time period which would be studied. A time period was selected beginning 12 months before defoliation, and ending 12 months after defoliation. This interval was chosen since it provides, for analysis purposes, one year of data before and after defoliation has taken place.

Originally it was thought that intervals of 15 months on each side of the start of defoliation would be most suitable. This would allow a period of three months for the defoliation to become fully effective, and still have a period of twelve months in which to observe any possible effects as the foliage regrew. As the analysis proceeded it became clear that there were definite seasonal effects on the level of VC activity. Intervals of 15 months before and after defoliation created the possibility of including data from three months of low seasonal activity in one interval and data from three months of high seasonal activity in the other. This tended to obscure effects due to defoliation alone and so it was abandoned in favor of the 12 month intervals.

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The incident data were grouped into monthly intervals to aid in detecting trends in the activity. They were then further grouped in two ways, by the type of objective and by the type of action.

Within each of the eight study regions the defoliation missions were directed toward a specific type of target, roads, river banks, etc. If defoliation were to have direct effects in the defoliated area, then it is reasonable to expect a decline in the number of incidents against objectives associated with the type of defoliation target. In other words, along roads whose margins have been defoliated one might expect a decline in incidents against roads and vehicles, where river banks were defoliated a change in incidents involving watercraft might be found. Consequently, counts were made of the number of incidents in each month for each of the objective groups shown in Figure 3. A complete listing of the codes and their meanings will be found in Appendix ^CD. These counts were also found to be useful in analyzing the general activity in a region, even where the total of all incidents showed no change after defoliation.

A second division of the data, within each month, was made according to the type of action. The action types are grouped into four categories which are shown in Figure 4 which is a worksheet used in the analysis. (Copies of this worksheet for each of the regions analyzed are given in Appendix C.) The action types are grouped into four categories on this worksheet. These four categories are the same grouping as used by Schwartz* in his work on locating guerrillas and inferring their plans. He established the four groups

* Ibid.

<u>Objective Groups</u>	<u>Codes (CINPAC)</u>
Roads, vehicles, bridges, culverts	50,51,52,53,54,56,57,58, 70,71,73,97
Military posts, bases, watchtowers	10,11,12,14,15,16,17,18
Villages, hamlets, civilian facilities	20,21,22,23,30,31,32,33,34, 35,36,37,38,39,9
Military units	85,86,88,89,18,19
Aircraft	40,41,42,43,44,45
Boats, canals	13,60,61,62,63,64,78,79
Civilians	80,81,82,83,84
Materiel (food, firearms, etc.)	90,81,92,93,95,2
Utilities	7,8,76,77,97,96
An area, otherwise unspecified	94
Trains, railroad bridges, tracks	55,72,74,75

FIGURE 3. VC OBJECTIVE CODE GROUPS.

by estimating the amount of VC effort and ordnance expended on the average incident. For example, an action in the first group might ordinarily involve a single VC without a weapon, while an action from the second group could involve several VC acting according to a plan and firing on some target. Figure 5 reproduces Schwartz' table indicating the estimated expenditure of ordnance and effort for each group. A complete listing of the codes and their meanings will be found in Appendix ^CD.

*See Appendix
D
Group 1
Group 2
Group 3
Group 4
Figure 5*

Also, in Figure 5, weights are assigned to each of the four action groups. Again, these weights are the same as those used by Schwartz in his analysis. The weights were chosen to reflect the intensity of the incidents. Attacks or ambushes are weighted much more heavily than the other actions since they require a considerably greater expenditure of effort. Schwartz points out that "although the individual weights are an estimated measure of the effort for the 'average' incident, adding the weights of incidents for a fixed period of time in a fixed area can be used directly as a measure of the effort expended in the area. The total weight can also be interpreted as a measure of the importance of that area to the VC at the time selected. Weighting thus provides a way of comparing the amount of VC effort expended from one area to another, and also permits a comparison of changes in VC effort in a given area through time." The weighted totals for each month in the study period of each area were calculated in the worksheets and displayed in Appendix ^BE. These sheets permit visual inspection of the action-intensity on a monthly basis for a given area and thus provide a means of visually detecting trends in the activity. They also enable the user to see exactly at which point in time (in terms of months) the change occurred, if there is a change, and thus aid in determining if the change might possibly be related to defoliation.

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ACTION GROUPS	CODES (CINCPAC)	ESTIMATED EXPENDITURES		ACTION WEIGHTS
		ORDNANCE	EFFORT	
1. Entered and Propagandized	E ₁ , E ₂ , E ₃ P ₁ Through P ₅	None	Small (Individuals)	1
2. General Harassment	T ₁ Through T ₆ M ₂ Through M ₇ S ₁ , S ₂ , H ₄	None or Little	Large (Individuals or Subunit)	2
3. Harassing Fire	M ₁ , M ₈ , S ₃ H ₁ , H ₂ , H ₃ , H ₅	Little to Large	Larger (Subunit or Unit)	3
4. Attacked and Ambushed	A ₁ , A ₂ , A ₃ , A ₄	Large	Largest (Unit or Units)	10

FIGURE 5. BASIS FOR ESTABLISHMENT OF ACTION GROUPS: WEIGHTS AND CODES

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However, the weighted totals of the action intensity are not sufficient in themselves to indicate all possible changes in activity that could occur. For instance, a decrease in actions with high intensity occurring at the same time as an increase in actions of low intensity might appear in the weighted totals as a relatively constant level of activity, yet in reality, the change is present and may be significant. In order to detect this type of change as well as changes in the weighted total of actions, it was necessary to calculate other measures. Five such measures were defined, and were calculated for each of the two periods, before defoliation and after defoliation, for each area studied. These five measures are:

- (1) The unweighted total number of incidents, "n", for each period.
- (2) The weighted total number of incidents, "W.T." for each period.
- (3) The mean, or average, intensity per incident, " μ_I ", calculated as " $W.T. \div n$ ", for each period.
- (4) The mean intensity per month, " μ_m ", calculated as " $W.T. \div \text{number of months of data}$ ", for each period.
- (5) The average monthly frequency of occurrence of incidents for each period, calculated as " $n \div \text{number of months of data}$ ".

The first two measures, "n" and "W.T.", are meaningful in themselves only when the two data periods, before defoliation and after defoliation, have the same number of months of data available. The third measure, " μ_I ", provides a means for detecting changes in the average type of incident occurring in the

two periods. However, a change among the three lesser groups of action types is hardly detectable, but a change involving one of these three groups and group four, the ambush or attack category, is quite noticeable in terms of " μ_1 ". The fourth and fifth measures usually act in a similar fashion. Of the two, the fifth measure, average frequency "f", was most useful in trying to detect shifts. Considered individually, none of the measures are very meaningful, but when they are considered collectively, in conjunction with graphs of weighted monthly activity, they do provide useful information to detect changes if they are present. The manner in which these analysis techniques can be used to analyze activity in given areas is illustrated below for the eight regions chosen for this study.

Finally, in addition to the above methods for handling the data to determine changes, one other procedure was followed for each area studied. This was to plot the incident data on a grid of the area using the UTM coordinates provided. The reason for this plot was to detect any noticeable shift in the geographic location of incidents after defoliation if such occurs. This was done for each of the regions studied and these plots appear in the section where each region is discussed.

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RESULTS OF THE STUDY

Region 1

Location and Description

Region 1 is located in the extreme south of Viet Nam, in Nam Phan province. The region extends across the peninsula from the Gulf of Siam to the South China Sea and includes the Cua Lon and Bo De Rivers. Figure 6B is a map of the region.

Defoliation

In June of 1963, a total of 1560 hectares were defoliated along the Bo De and Cua Lon Rivers. Coordinates for the defoliated strip are not given but the area corresponds closely to the area of 1600 hectares which were defoliated in 1964 and for which coordinates are given. The coordinates appear to cover the entire length of the rivers and so it can be assumed that the 1963 missions also sprayed all forested areas along the river.

In August of 1966, 460 hectares along the river in the middle of the peninsula were defoliated.

VC Initiated Incidents

Incident data are available for only five months preceding the initial defoliation in June, 1963. During those months, there were fifteen incidents of which seven were directed at boats in the river. On the next nine months (including June, 1963) there were only nine incidents in the region, only two of which were directed at boats. Both of the two occurred more than four months after defoliation. At that time, early February, 1964, the river banks were again defoliated.

In the following twelve months, there was an increase in the number of incidents (from 15 to 21) but none of these were directed against boats. The distribution of the incidents by objective type is given in the tabulation.

	<u>Posts and Military Personnel</u>	<u>Civilian Facilities</u>	<u>Boats</u>
12 Months Before	3	7	5
12 Months After	8	13	0

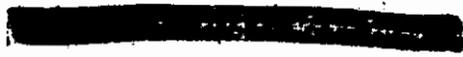
There appears to have been a shift in the type of action, from attacks to harassing fire.

	<u>Attacks</u>	<u>Harassment</u>
12 Months Before	10	3
12 Months After	0	19

Although the number of reported incidents was 53% greater in the period following defoliation, the shift in the type of action resulted in a decrease in the intensity measures, from 113 to 61 for the total intensity and from 7.53 to 2.90 for the mean intensity per incident. This is because of the change in the type of action, from attacks to harassment, noted above.

Summary and Conclusions

The defoliation target in Region 1 was the banks of the Bo De and Cua Lon Rivers. There were five actions against boats in the year before defoliation, none in the year following. VC actions showed a change in the region from attacks to harassment accompanied by a decrease in the mean intensity of the actions.



BEFORE DEFOLIATION

AFTER DEFOLIATION

Periods			Action Groups					Weighted Totals	Periods			Action Groups					Weighted Totals	
Day	Month	Year	A ₁ , A ₂ A ₃ , A ₄	M ₁ , M ₂ S ₃ , H ₂ H ₅	M ₈ , H ₁ H ₃	T ₁ , S ₁ M ₂ , M ₇ H ₄	T ₆ , S ₂ M ₇		E ₁ , E ₃ P ₁ , P ₅	Day	Month	Year	A ₁ , A ₂ A ₃ , A ₄	M ₁ , M ₂ S ₃ , H ₂ H ₅	M ₈ , H ₁ H ₃	T ₁ , S ₁ M ₂ , M ₇ H ₄		T ₆ , S ₂ M ₇
1																		
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Because there were only thirty-six incidents in the two year period, these results should be taken as indications of possible defoliation effects but no firm conclusions can be drawn.

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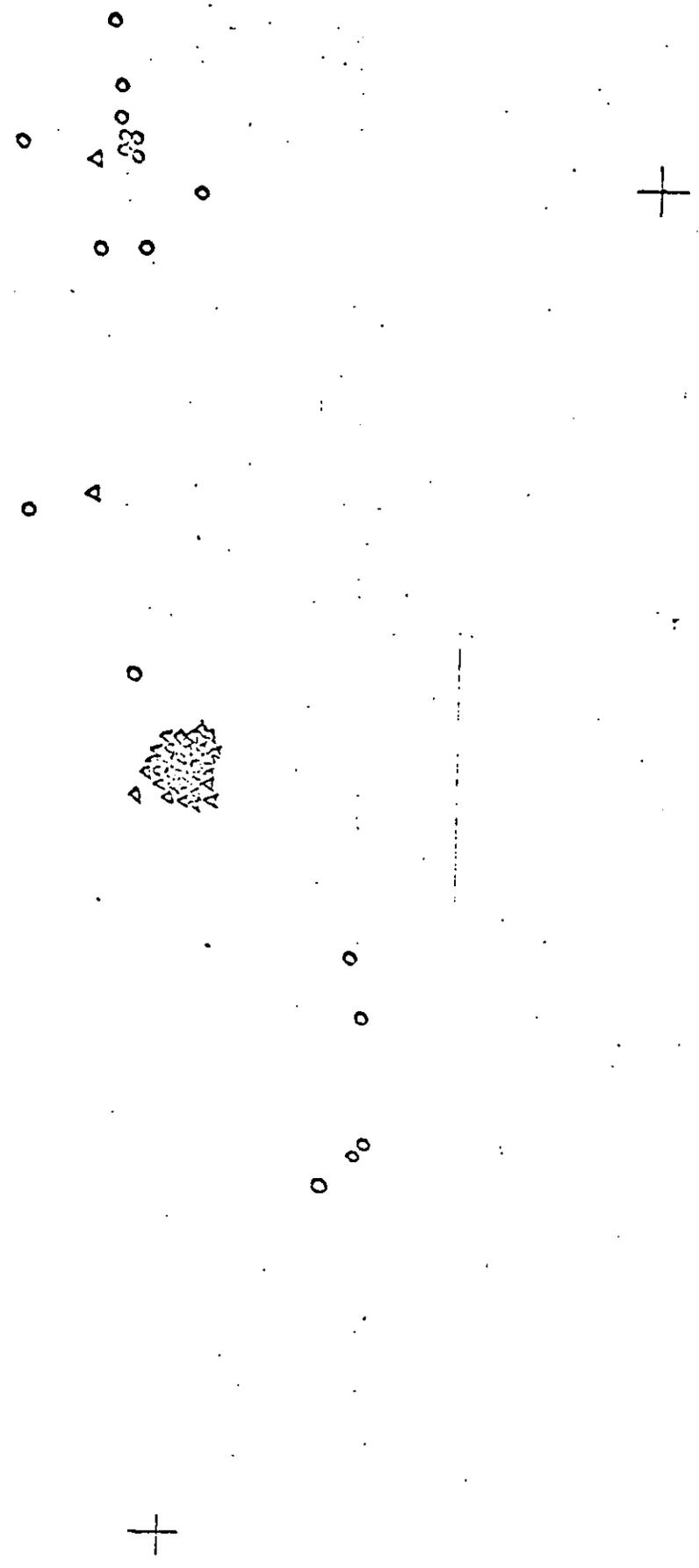


FIGURE A. REGION 1, LOCATION OF VC-INITIATED INCIDENTS

○ Before Defoliation
△ After Defoliation

Region 2Location and Description

Region 2 lies along the southeast coast of Vietnam from about 9°N to 9°45N and includes the mouth of the Bassac River. There are no sizable towns in the region although Binh Loi lies just outside of it. Only small parts of important roads lie in the area. Figure 8B is a map of the region.

Defoliation

The first defoliation missions in the region were carried out in May of 1965 when approximately 45,000 hectares were sprayed, covering nearly the entire length of coastline. In January of 1966, 7400 hectares were sprayed, being mostly respraying of areas covered in 1965. An additional 1200 hectares were sprayed in April, 1966, and 500 hectares in June, 1966.

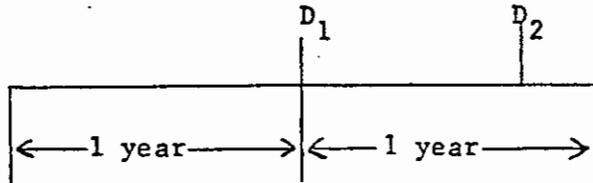
VC Initiated Incidents

The analysis of data for Region 2 is complicated because two major defoliation tasks were performed only eight months apart and because pronounced seasonal effects are evident. They are shown in Figure 7. There are peaks of VC activity in June and December. Since the defoliation programs in this region were carried out in May and January, just before and just after the peaks, a decline in VC activity starting two or three months after these dates would be expected whether there was defoliation or not.

At present, no method for removing the seasonal effects is available and so it seems best to treat the two defoliation sets completely, separately.

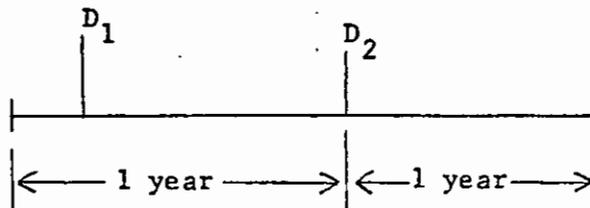
By considering one-year periods before and after defoliation any positive effects should be enhanced in one case and maintained over a longer period in the other.

In the first case, the defoliation will be followed by a second defoliation nine months later.



At that time some regrowth is likely and the second defoliation should aid in keeping any possible effects more constant throughout the one-year period.

In the second case, the initial period contains the aftermath of the first defoliation. It might



be expected therefore that the incident characteristics in the second period would be similar to those in the first.

We begin by examining the effects of the first defoliation and looking at two periods of twelve months each, one on either side of the defoliation date. The objectives of the actions fall into three groups shown in the tabulation.

Number of Incidents, Region 2
First Defoliation

Objective

<u>Group</u>	<u>Before</u>	<u>After</u>
Roads	26	56
Civilians	9	43
	<u>35</u>	<u>99</u>
Civilian Facilities	72	33
Military Units	16	9
Other	16	15
	<u>104</u>	<u>57</u>
Military Facilities	123	118
TOTAL	262	274

In addition to the counts shown there were 32 incidents involving aircraft. These all fell in the last five months of the period after defoliation.

The total number of incidents before and after were nearly identical, 262 and 274 respectively, exclusive of aircraft incidents, but there were significant changes in the counts among the various objective groups. Two of the groups, roads and civilians, increased significantly, the number of incidents involving roads and vehicles doubled and the number involving civilians multiplied by a factor of five. Most of the incidents involving civilians consisted

of entries into villages and hamlets and included a number of kidnappings. The count for the roads group may be misleading. Month-by-month counts show (Figure 7) that the general level of incidents in this group continued at the same rate after defoliation as before with 22 of the total of 56 occurring in a two-month span, December, 1965, and January, 1966. There was probably an increase in the incident rate but not as large as might first be thought. Actions against civilians on the other hand, increased after defoliation and held at a fairly constant level.

Two objective groups decreased in incident count. Military units declined from a total of 16 to 9. Because the totals are not very high, considering that each figure is for a twelve-month period, this may not be too significant. The second group, civilian facilities averaged about six incidents per month before defoliation and only three afterwards, an overall decrease of 55%. The incidents were mainly in the nature of harassing fire, frequently by mortars. As an aside it is interesting to note that if actions against civilians and civilian facilities are combined, then the number of incidents directly involving civilians remained relatively constant, 81 before and 76 after.

The third objective group, military facilities, had nearly the same incident counts before and after, 123 and 118 respectively, with the distributions showing only the expected seasonal effect.

Taken all together the only possible effects of the defoliation appear to have been to cause a shift away from the larger objectives such as hamlets and villages and toward individual civilians and road blocks.

Indicators of the VC activity may have decreased slightly because of changes in the type of attack in spite of an overall increase in the number of

actions. If actions against aircraft are included the decrease was 10% for H_I (2.97 to 2.66) and if actions against aircraft are excluded the decrease was 12% (2.97 to 2.62).

Now consider the second defoliation in January, 1966, again comparing one-year periods before and after defoliation. The period before defoliation includes four months (January - April, 1965) before any defoliation and eight months (May - December, 1965) following the first defoliation. It might be expected, therefore, that any changes in VC objectives which were caused by the first defoliation would be continued by the second. This was found to be generally true.

Number of Incidents, Region 2

Second Defoliation

Objective

<u>Group</u>	<u>Before</u>	<u>After</u>
Roads	45	31
Civilians	34	31
	<u>79</u>	<u>62</u>
Civilian Facilities	53	10
Military Units	8	25
Other	10	16
	<u>71</u>	<u>51</u>
Military Facilities	91	113
TOTAL	241	226

After the first defoliation actions against roads doubled, and actions against civilians increased by a factor of 5; after the second actions against roads decreased 31% (a reversal) and actions against civilians remained nearly constant. After the first defoliation actions against civilian facilities were halved, after the second they decreased even more (by 81%). There may have been some increase in actions against military facilities after the second defoliation but it was not great.

There was very little change in the mean intensity measure, M_I . The change amounted to an increase of only 11% (2.61 to 2.92) when aircraft incidents are included and an increase of 10% (2.65 to 2.91) when they are excluded.

For a final comparison we may look at the incidents in the year before any defoliation against the incidents in the year following the second defoliation.

Number of Incidents, Region 2

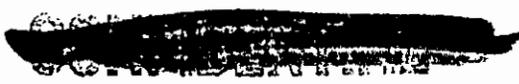
<u>Objective Group</u>	<u>Before First Defoliation</u>	<u>After Second Defoliation</u>
Roads	26	31
Civilians	9	31
Civilian Facilities	72	10
Military Units	16	25
Military Facilities	123	113
Other	16	16
TOTAL	262	226
Aircraft	0	89

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The number of incidents against roads was nearly the same as it was before any defoliation. The upsurge in incidents in that category between sprayings cannot be explained in terms of defoliation effects. There appears to have been an increase in incidents against civilians and there was a very definite decrease in incidents against civilian facilities. The number of incidents against aircraft shows that there was increased air activity in the region following the second defoliation, which may have influenced VC activity more than any defoliation effects. During the same periods there was only a slight increase in the incident intensity as measured by the Schwartz method.

Summary and Conclusions

Region 2 lies along the southeast coast of Vietnam. Extensive spraying of the area was done in May, 1965, and again in January, 1966. Comparison of the one year periods before the first, and after the second, defoliation shows that there was a significant (86%) decrease in actions against civilian facilities. That there was also increased air activity in the region after the second defoliation is shown by the fact that there were 89 incidents involving aircraft after the second defoliation, none before the first. This may have partly accounted for the decreased VC actions against civilian facilities. Incident counts against other VC objectives were essentially unchanged. There were seasonal peaks of VC activity in December and July.



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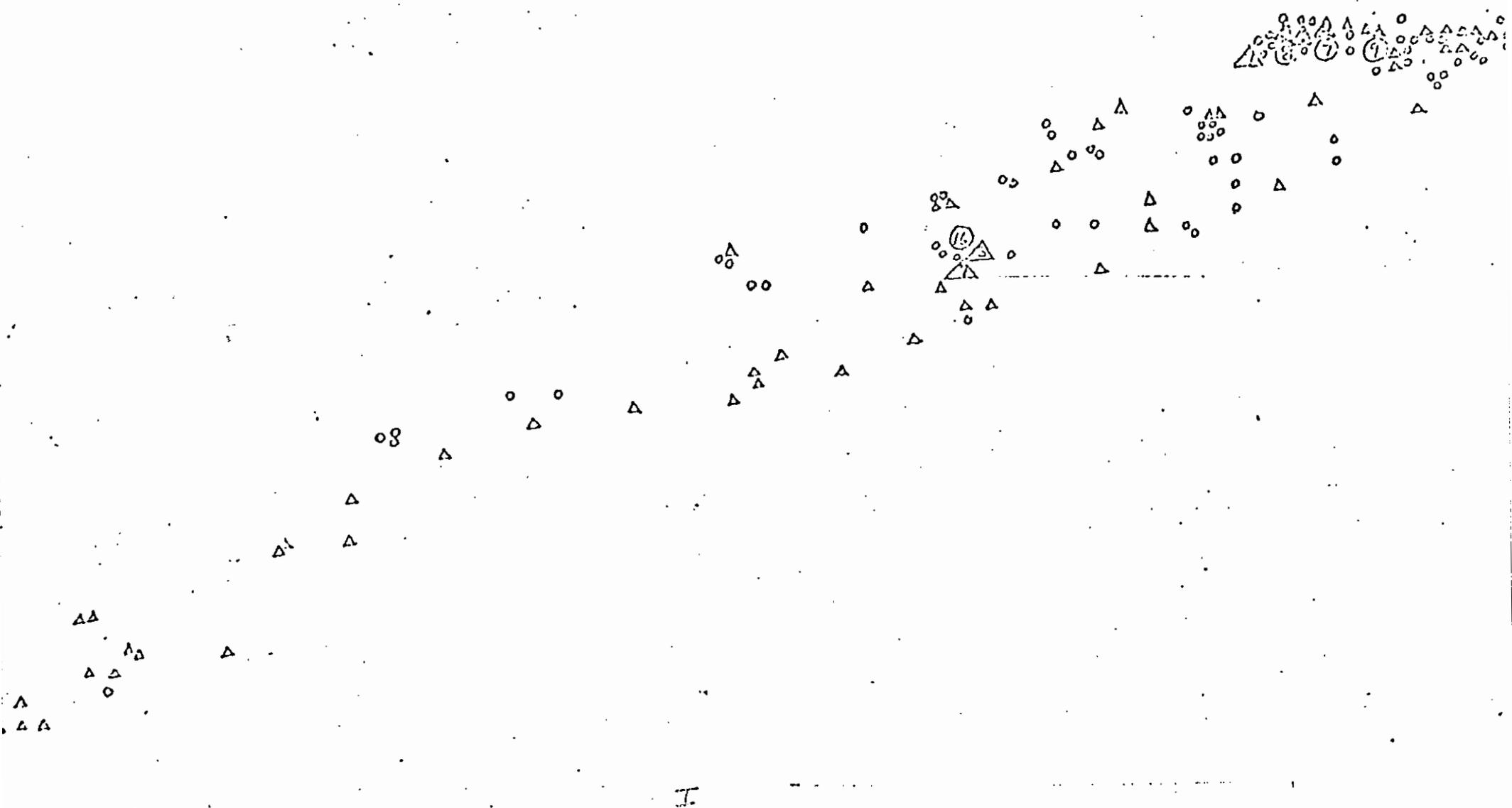
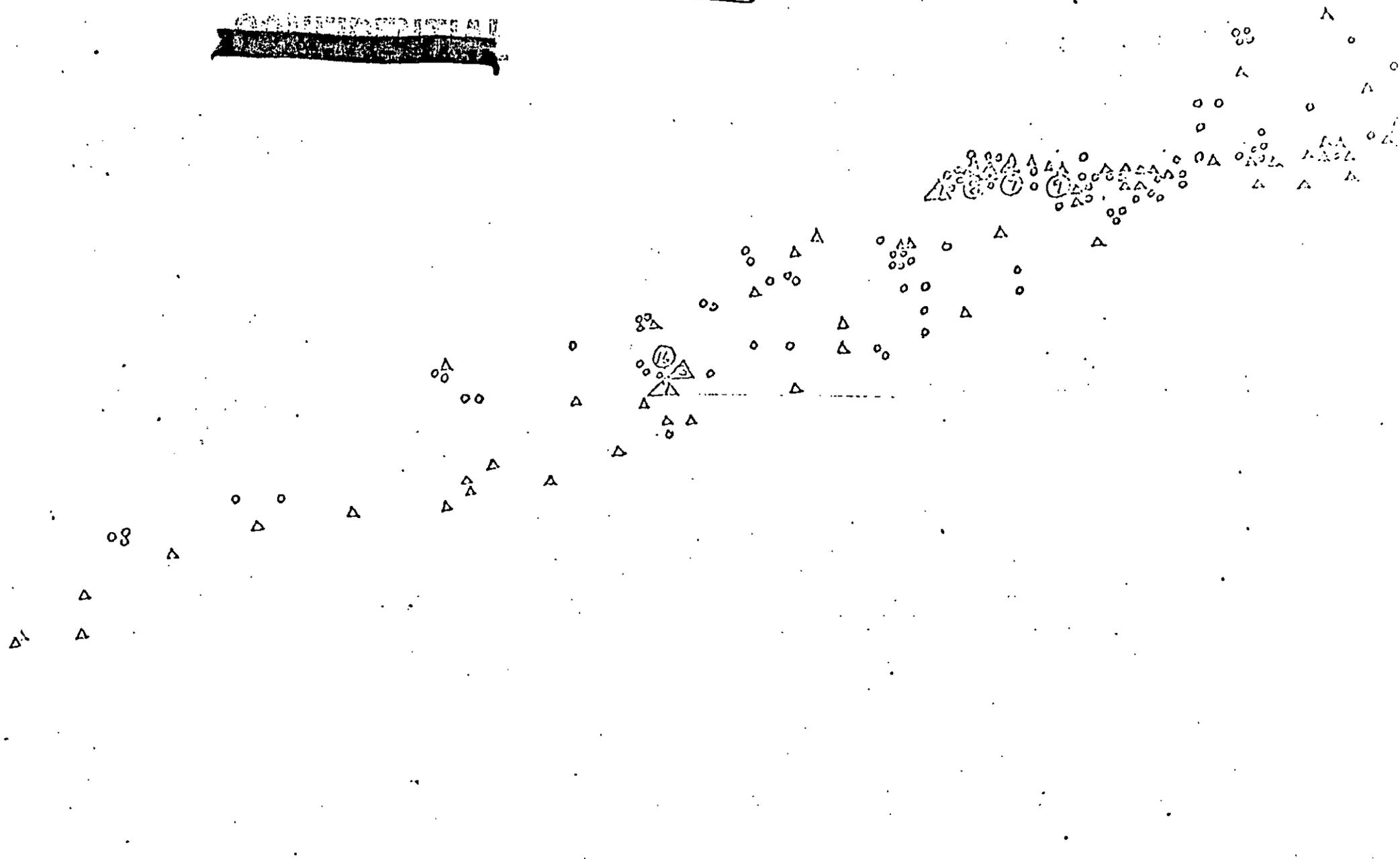


FIGURE 8 A, PART II. REGION 2, LOCATION OF VC-INITIATED INCIDENTS

- O Before Defoliation
- Δ After Defoliation
- Enclosed numbers indicate multiple incidents at the point.

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I
FIGURE 8 A, PART II. REGION 2, LOCATION OF VC-INITIATED INCIDENTS

O Before Defoliation
△ After Defoliation

○ Enclosed numbers indicate multiple incidents at the point.

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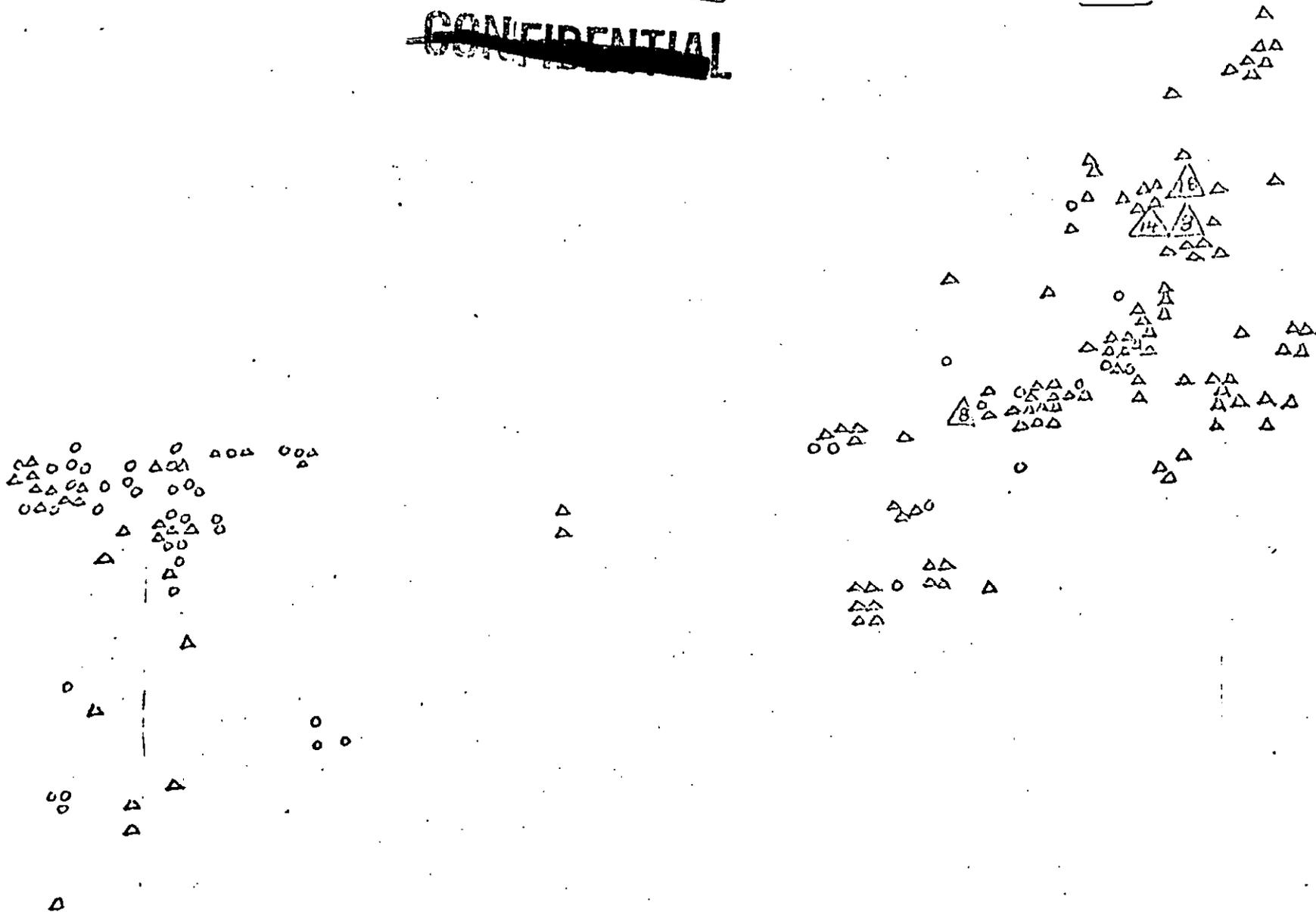


FIGURE 8 A, PART II. REGION 2, LOCATION OF VC-INITIATED INCIDENTS

O Before Defoliation
△ After Defoliation

Enclosed numbers indicate multiple incidents at a point.

Region 3

Location and Description

Region 3 lies in part of the Mekong Delta. The principal features in the region are the Ba Lai River and a wooded area along the coast. No major towns are in the region although My Tho and ^{TRUC} ~~Tunc~~ Giang are just to the west. Figure 9B is a map of the region.

Defoliation

Defoliation missions were first made in the region during December, 1965, when nearly 7,000 hectares were sprayed. The area sprayed extended from coordinate XS635315 southeast along the river to its mouth and then southwest along the coast to the island at YS810030. In June, 1966, a respraying of 155 hectares along the coast was done as part of a program begun in April of that year to defoliate the peninsula lying between the Song Ba Lai and ^{the} Song Cua Dai. In that sequence of missions 1,750 hectares were sprayed.

VC Initiated Incidents

During the twelve months preceding defoliation there were a total of 31 VC initiated incidents in Region 3. They were nearly equally divided between incidents directed toward military installations (13 incidents) and incidents directed toward civilian facilities (11 incidents). The remaining seven incidents were scattered among four objective groups.

After defoliation, the number of incidents against posts remained nearly the same, fifteen incidents as against thirteen before. Two objective groups showed marked changes. The first, where the incident objectives were

civilian installations dropped from eleven to two, each for a twelve month period. On the other hand, incidents involving aircraft jumped from zero to eighteen. Overall, the net change in incidents increased from thirty-one to forty-three. If the incidents involving aircraft are neglected, there was a decrease of 19% in the number of incidents, due almost entirely to the lesser number of incidents against civilian installations.

Both before and after defoliation the majority of incidents were of the harassing fire type so that the weighted totals increased after defoliation due to the increased number of incidents. However, μ_I , the mean intensity per incident decreased from 3.71 to 3.07 (17%) because there were four attacks before and only one attack after defoliation. Attacks carry a weight of 10 in the Schwartz weighting scheme.

Because the spraying which was done in December, 1965, and in June, 1966, covered two different parts of Region 3, it was felt that the first spraying might have caused a shift of incidents from that part of the region into the other. Counts of incidents for each part of the region did not detect any such shift, possibly because the first section had most of the incidents both before and after defoliation (77% of the total) and the count in the second region was too low to be very significant. There were only fifteen incidents in the second region, ten of these coming after the first region was defoliated. All ten involved aircraft.

Summary and Conclusions

Region 3 lies in the Mekong Delta and includes the Ba Lai River. During the year after defoliation there was a decrease (11 vs 2) in incidents involving civilian installations. Incidents against military installations

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-40-

remained nearly constant (13 vs 15) and increased an activity is indicated by the sudden appearance of incidents involving aircraft (0 vs 18). There may have been some effect of defoliation but the total number of incidents is not high and the indications are not conclusive.

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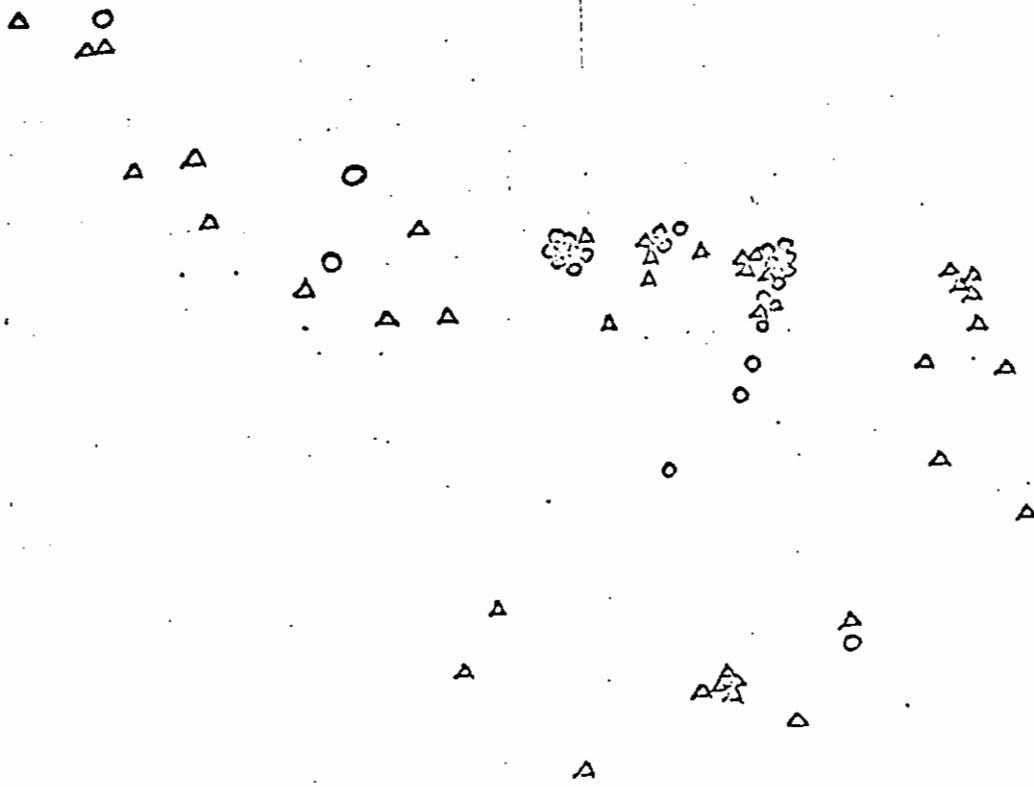


FIGURE 9 A. REGION 3, LOCATION OF VC- INITIATED INCIDENTS

O Before Defoliation
Δ After Defoliation

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Region 4

Location and Description

Region 4 is a rather small region, 14 Km long and 3 Km wide, between the Co Chien and Ham Luong Rivers, which form part of the Mekong Delta. The region includes the town of Ma Cay and its principal feature is the road joining Ma Cay and Tunc Giang. ^{TRUC} Figure 11B is a map of the region.

Defoliation

A few hectares (11) were defoliated by hand spraying in October, 1965, but the majority of the spraying was done in December of that year when twenty more hectares were handsprayed and 789 were sprayed by aircraft. Spraying was carried out along the highway.

VC Initiated Incidents

The distribution of the incident counts within the objective groups which accounted for the majority of incidents are shown in the tabulation below.

	<u>Before</u>		<u>After</u>	
	Mined, Harrassed (1)	Other	Mined, Harrassed	Other
Roads	34	5	6	1
Military facilities	56	5	27	1
Civilian facilities	18	1	0	0
Military units	18	0	3	0
Other	8	0	6	2
	<u>134</u>	<u>11</u>	<u>42</u>	<u>4</u>

(1) Included action codes for: mined, booby trapped, sabotaged with explosives, aggregated harassments, harassing, fire on, bombed, fired on.



It is clear from the tabulation that there was a significant decrease of about 68% in VC initiated incidents following defoliation. Comparisons of the effort directed toward each type of target are more readily made by examination of the percentage of the total incidents directed toward each objective type. These are shown in the second tabulation.

	<u>Before</u>		<u>After</u>	
	<u>Mined, Harrassed</u>	<u>Other</u>	<u>Mined, Harrassed</u>	<u>Other</u>
Roads	23.4%	3.5%	13.0%	2.2%
Military facilities	38.6	3.5	58.7	2.2
Civilian facilities	12.4	0.7	0.0	0.0
Military units	12.4	0.0	6.5	0.0
Other	5.5	0.0	13.0	4.4
	<u>92.3</u>	<u>7.7</u>	<u>91.2</u>	<u>8.8</u>

Both before and after defoliation the general type of VC action consisted of harassing fire, about 92% of all actions. However, there was a definite shift in emphasis toward military facilities (38.6% to 58.7%) and away from roads (23.4% to 13.0%), civilian facilities (12.4% to 0%), and military units (12.4% to 6.5%).

The mean intensity per incident, μ_I , increased slightly (8%) following defoliation but such a small change, coupled with the greatly decreased number of incidents shows that there was a significant decrease in activity.

In order to examine the mining and harassing fire more closely another tabulation was made in which the two types of action, mining and harassing fire, were separated.

	<u>Before</u>		<u>After</u>	
	<u>Mining</u>	<u>Harassing Fire</u>	<u>Mining</u>	<u>Harassing Fire</u>
Roads	23.5%	0.0%	10.8%	2.2%
Military facilities	0.0	38.6	0.0	58.7
Civilian facilities	0.0	12.4	0.0	0.0
Military units	6.2	6.2	2.2	4.4
Other		5.5		13.0

Actions against roads were nearly all in the category of mining and did not decline nearly as much as the general trend in the area, probably because such acts were performed during the hours of darkness when the defoliation, or lack of it, would not make much difference in accessibility of the road.

The principal point of interest in the tabulation is the shift of harassing fire from civilian facilities (NRL hamlets, villages) to military facilities (outposts, watchtowers). A month-by-month listing of the incident data shows that the shift away from civilian facilities and military units was abrupt, following defoliation, Figure 10. It must be noted, however, that the results should be interpreted with caution because of the small number of incidents in these groups.

Summary and Conclusions

Prior to defoliation this region was one of heavy VC initiated activity. Following defoliation there was a decrease of 68% in the number of incidents for the twelve months before to the twelve months following defoliation. During both periods mining of roads and harassing fire on military facilities accounted for 92% of the incidents. After defoliation

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there was an abrupt shift in VC targeting toward military facilities and away from other objectives. The weighted total, W.T., of the incidents decreased from 432 to 150, a decrease of 65%.

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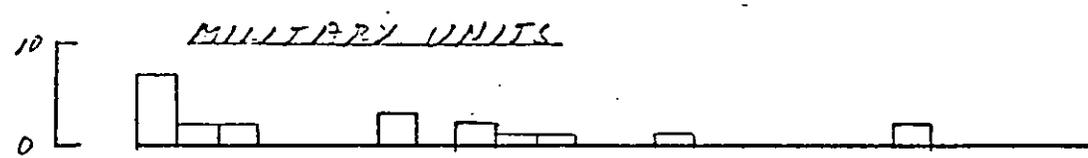
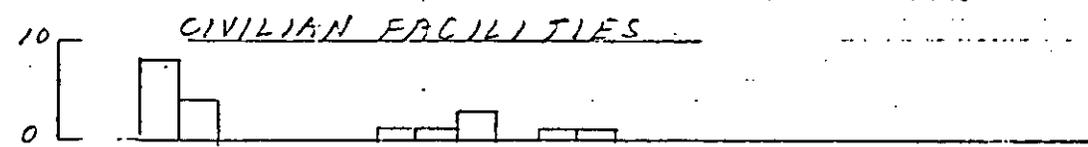
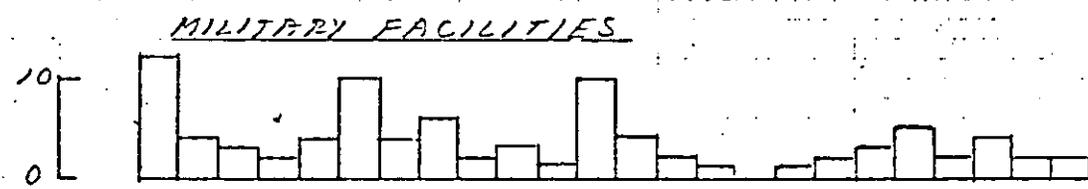
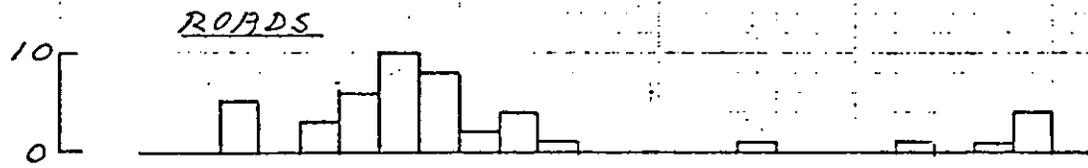
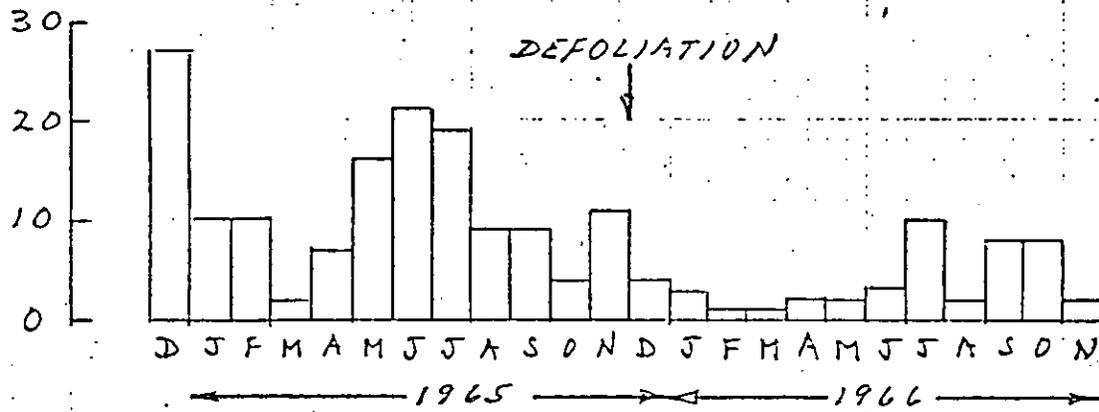


FIGURE 10 . REGION 4 INCIDENT DISTRIBUTION

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FIGURE 11 A. REGION 4, LOCATION OF VC-INITIATED INCIDENTS

O Before Defoliation
△ After Defoliation

Enclosed numbers indicate multiple incidents at the point

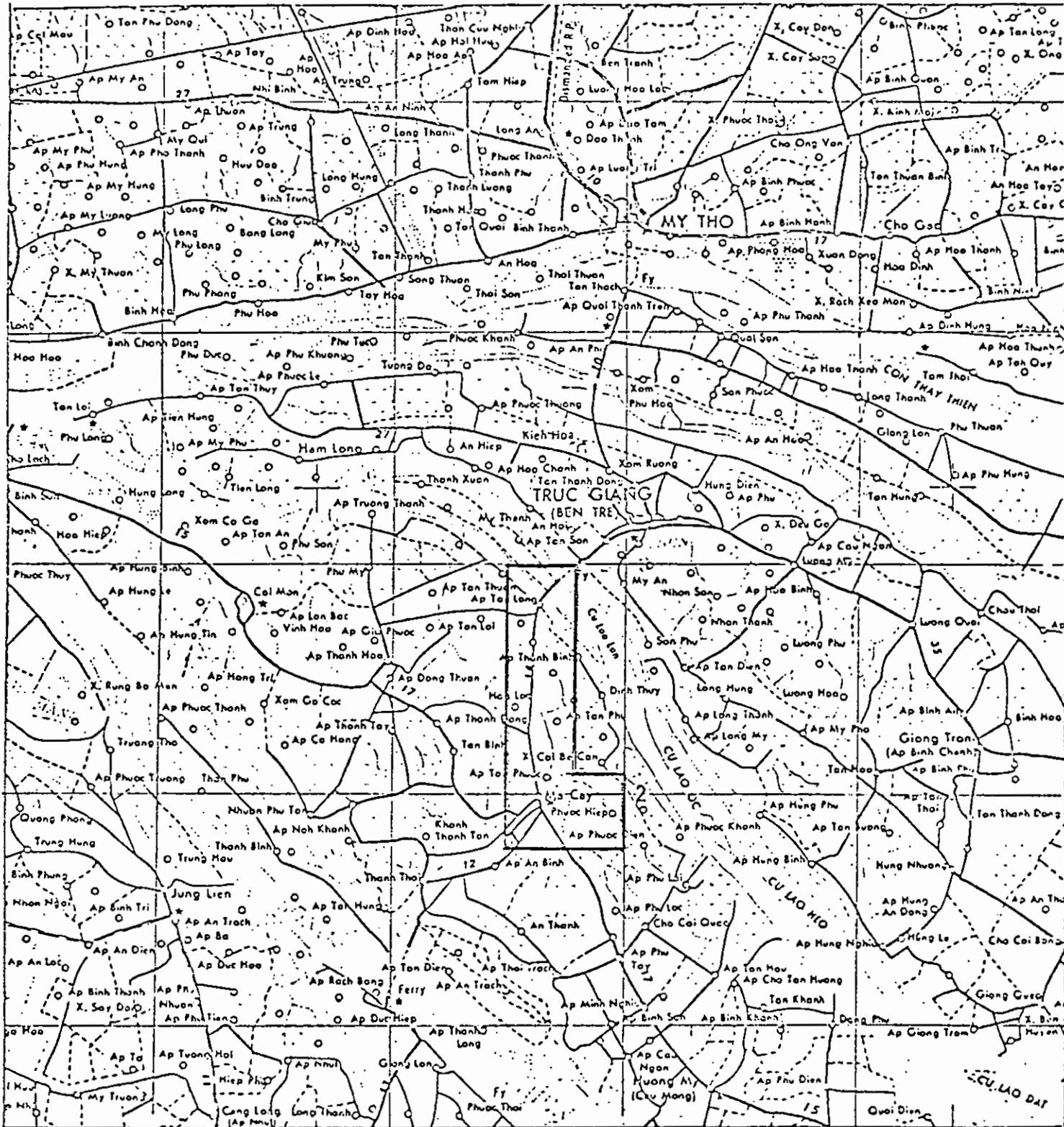


FIGURE 11 B. Region L BOUNDARIES

Region 5

Location and Description

Region 5 is located about 40 Km to the south of Saigon, between the Vaico and Cua Tieu Rivers. The principal town in the region is Go Cong. Highways run from that town north to Saigon and west to My Tho. The region is about 15 x 25 Km in size and had a high level of activity. Figure 14B is a map of the region.

Defoliation

The defoliation tasks in this region were carried out by hand spraying. The areas sprayed ranged in size from one to thirteen hectares. Data for 31 spraying tasks, extending from February to November, 1965, were available.

VC Initiated Incidents

A detailed study was made of Region 5 to determine whether there were any differences in frequency of incidents between similar types of places, some of which had been defoliated and some of which had not.

A listing of all incidents within the area for the years 1963 through June, 1966, was obtained. A diagram of frequency by months is given in Figure 13. The number of incidents per month increased steadily to a peak in September of 1965, after which they began to decline. The decline continued until June of 1966, the last month for which data were available, except for a period of intense activity during December, 1965.

The distribution of incidents with respect to the type of objective and the type of action for the four years is shown in Table II.

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TABLE VI II
DISTRIBUTION OF INCIDENTS IN REGION 5

THE PERIOD 1943 THROUGH 1946

	Attacks	Harrassment	Mining, Stopping, Blocking, Destruction	Sabotage	Terrorism	Entering and Propagan- dizing	Total
Vehicles	1	8	19	--	--	--	28
Roads and Bridges	--	--	45	290	--	1	336
Military Posts	46	288	2	--	--	--	336
Hamlets and Villages	15	51	9	1	--	1	77
Military Personnel	12	45	7	--	19	1	84
Civilians	--	5	1	--	20	1	27
Miscellaneous	--	8	9	2	--	--	19
Totals	74	405	92	293	39	1	907

907

In this area actions against roads and military posts comprised 85% of the total. More than half of the actions against posts were harrassments; most of the actions against roads were in the sabotage category. These consisted principally of blockages of the roads.

By comparison of the comments on the incidents list and on the defoliation data sheets, it was possible to identify eleven posts where defoliation missions had been carried out and five where no defoliation was performed. The locations of these posts are shown in Figure 12. Lettered rectangles show locations where there was no defoliation, numbered rectangles show locations where there was defoliation. In the figure, each dot represents an incident. Where more than one incident was reported at a single coordinate, separate dots were placed on the map to indicate the intensity at the point.

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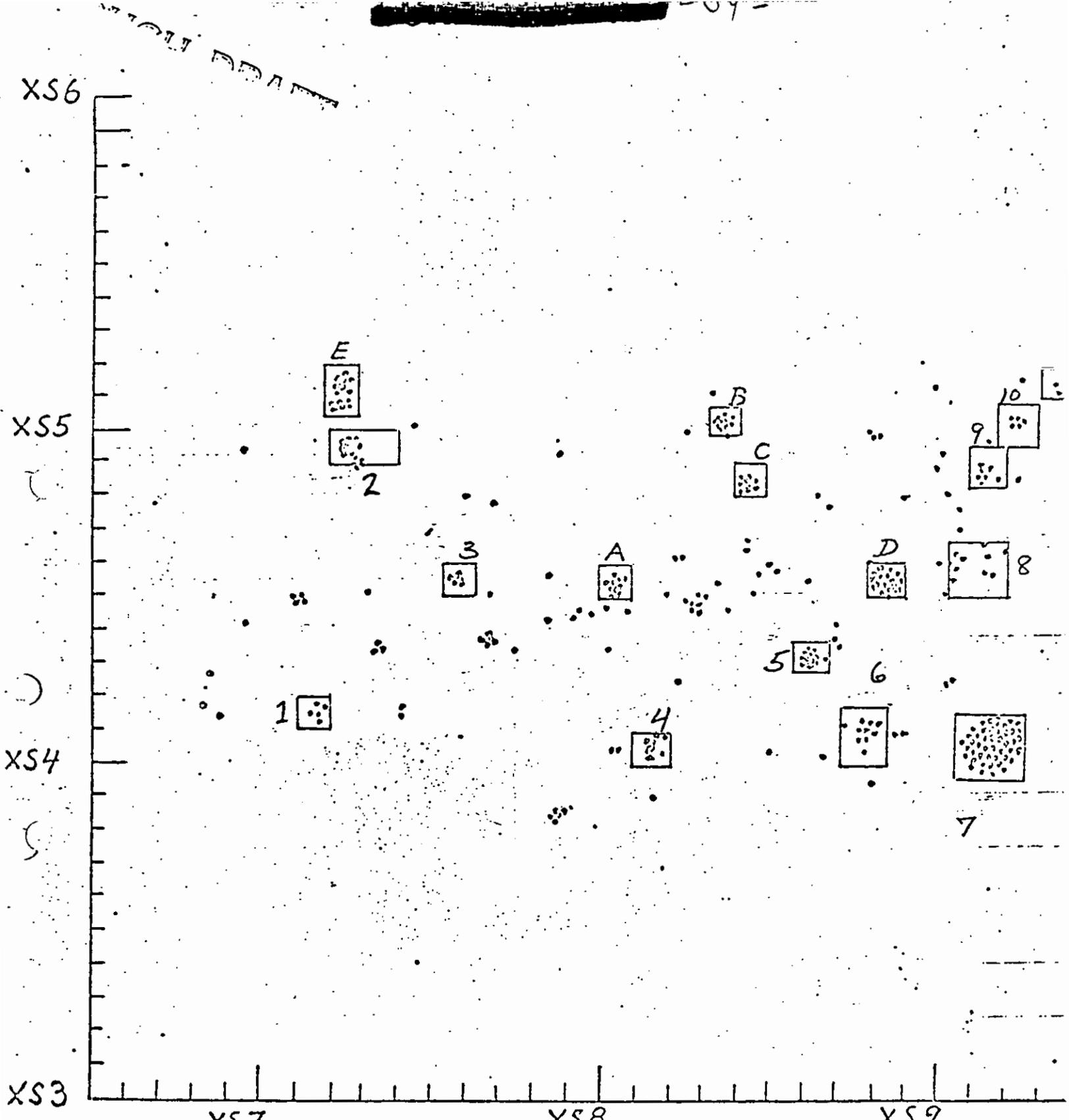


FIGURE 12

LOCATION OF INCIDENTS AT POSTS, OUTPOSTS, BASES, WATCHTOWERS, BLOCKHOUSES, AND MILITARY FACILITIES.

Multiple incidents at a point are plotted adjacent to the point to indicate the intensity.

Lettered rectangles show locations where no defoliation was performed.

Numbered rectangles show locations where defoliation was performed.

Only those actions occurring at one of the identified posts and which are paired with one of the following objective codes were counted; 10, a military post, 11, an outpost, 12, a base, 13, a junk base, 15, a watchtower, 16, a blockhouse, 17, military facilities. The incidents for each type of sub-area were counted month-by-month and the graphs of monthly results are shown in Figure 13. It can be seen that the rate of incidents involving the military posts follows the same pattern as the general pattern, that is, a steady rise to September, 1964, followed by a fairly steady decline. No effect of defoliation on the number of incidents can be seen; the decrease in the number of incidents at the identified defoliated and non-defoliated military facilities were nearly the same as shown in the tabulation.

REGION 5, NUMBER OF INCIDENTS AT MILITARY FACILITIES			
	Before Defoliation 3/64 to 2/65	After Defoliation 3/65 to 2/66	Percent Change
Defoliated Posts	80	32	-80
Non-defoliated Posts	74	14	-81
Unidentified Posts	41	22	-46
	195	68	-65

Summary and Conclusions

On the basis of this analysis, there is no evidence that defoliation in the vicinity of military posts for this area resulted in a decreased number of attacks and harassments against the posts.



FIGURE 14 A. REGION 5, LOCATION OF VC- INITIATED INCIDENTS

O Before Defoliation
 Δ After Defoliation

Enclosed numbers indicate multiple incidents
 at the point.

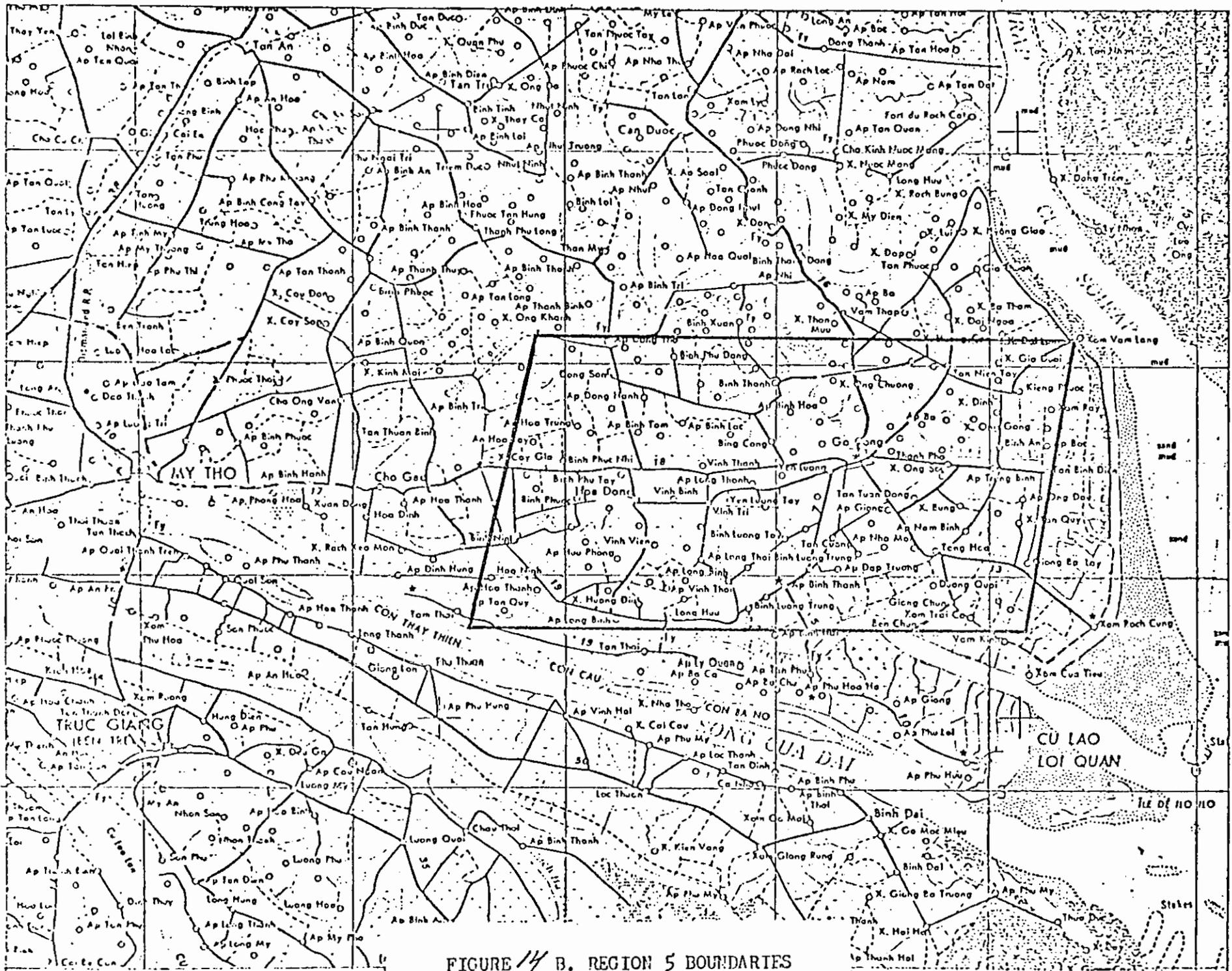


FIGURE 14 B. REGION 5 BOUNDARIES

Region 6

Location and Description

Region 6 is located  about 20 Km to the west of Saigon. The region is approximately 25 Km long on a north-south line and includes a section of the Vaico Oriental River. Figure 15B is a map of the region.

Defoliation

The first defoliation in this region was in January, 1965, when 315 hectares at the northern end of the region were sprayed. Spraying of a larger area was done in November and December, 1965, when the river banks were sprayed between the coordinates XS477982 and XS555798. The Evaluation of Defoliation Operation (Raymond J. Lawler, Captain ACC, to Commander, U.S.M.A.C.V., 28 March 1966) states that the spraying effectively reduced the concealment in most of the target area. Spray operations in the following areas were not considered adequate since visibility was not improved to the desired degree (80-90%);

West bank of river, XS486970 to XS487965

South bank of river, XS493961 to XS501960

West bank of river, XS520962 to XS523958

West bank of river, XS523950 to XS522942

South bank of river, XS527932 to XS531930.

VC Initiated Incidents

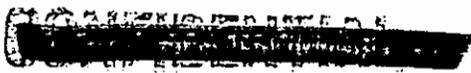
During the twelve months preceding defoliation there were 25 incidents in the region, in the twelve months following, there were 84, an increase of 59 incidents. A breakdown of the incidents by objective type is given in the tabulation.

	<u>Number</u>		<u>Percentage</u>	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
Military facilities	14	9	56.0	10.7
Military units	7	28	28.0	33.3
Aircraft	0	41	0.0	48.8
All other	4	6	16.0	7.2
	<u>25</u>	<u>84</u>	<u>100.0</u>	<u>100.0</u>

It is apparent from examination of the tabulation that either there was increased VC presence or increased friendly forces presence in the region after defoliation, probably the latter. Before defoliation there were no incidents involving aircraft and only seven against military units over the 12-month period. In the year following defoliation, however, there were 41 actions against aircraft and 28 against military units. It is because of the increases in the number of incidents against these two objective types which caused the weighted incident count to rise from 74 to 251, more than a threefold increase, although the mean incident intensity, μ_T , remained constant (2.96 before, 2.99 after).

The only other type of objective with a significant number of incidents is that of military facilities, 14 before and 14 after.

By excluding actions against military personnel and aircraft, two objective groups in which conditions appear to have been changed from before



to after defoliation, we can look for changes in actions against other types of objectives. When these categories were eliminated it was found that the number of incidents before and after were 19 and 15, respectively, with no change in the mean intensity. Because of the low incident counts, it is doubtful if there is much significance to the change.

The defoliation target in this region was the river bank. Since there was only one incident involving boats before defoliation and two afterwards, no possible effect of defoliation on river security can be seen.

Summary and Conclusions

The banks of the Vaico Oriental River were defoliated beginning in November, 1965. The large increase in incidents for the twelve months following defoliation as compared with the twelve months before was due to increased air activity and incidents involving military personnel. Other objective categories remained unchanged. The results contradict the statement in the defoliation evaluation report that "the Viet Cong incident rate has decreased in the defoliation area".

In this region defoliation had no detectable effect on VC activity.

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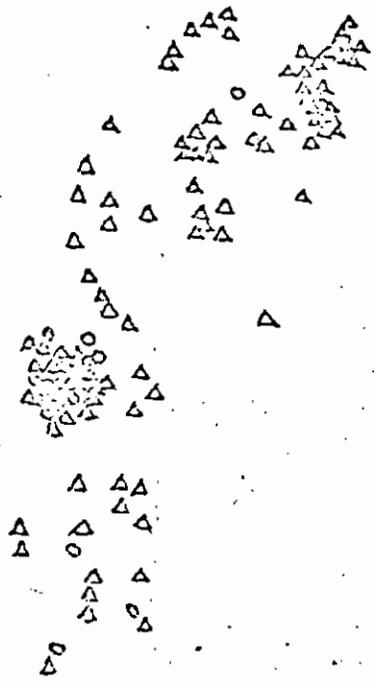


FIGURE 1. REGION & LOCATION OF UNILLUMINATED INCIDENTS

[REDACTED]

of the total population
of the population

[REDACTED]



FIGURE 15 A. REGION 6, LOCATION OF VC-INITIATED INCIDENTS

○ Before Defoliation
△ After Defoliation

[REDACTED]

Region 7

Location and Description

Region 7 is located to the southeast of Saigon in the Rung Sat Special Zone and includes the ship channel to Saigon. Figure 16B is a map of the region.

Defoliation

In April, 1964, 1,480 hectares were sprayed in this region and an additional 480 hectares in March, 1965. The principal spraying took place in January and February, 1966, when a total of 6,665 hectares were sprayed.

VC Initiated Incidents

Region 7 has not been a very active region in terms of the number of incidents, the principal reason for spraying being the importance of the ship channel to Saigon. Only 25 incidents were reported during the year 1965 but of these 16 were actions against boats. The extensive defoliation does not seem to have done anything to reduce the VC activity since there were 32 incidents, exclusive of actions against aircraft, in 1966 and 15 of these were actions against boats. There is, of course, the possibility that there was some holdover in effect of earlier defoliations and the possibility that without the 1966 defoliation the incident rate would have been higher but these are speculative and cannot be proven.

There is evidence of increased friendly forces activity after defoliation as evidenced by the increased actions against aircraft (0 to 12) and military personnel (1 to 9). Even when these two objective groups are

excluded, there was no decrease in number of actions against other objectives (24 vs 22), weighted total intensity (63 vs 63), or mean incident intensity (2.63 vs 2.86).

Summary and Conclusions

Extensive defoliation spraying has been performed in the Rung Sat Special Zone along the ship channel. Incident rates were low in the region both before and after spraying. Defoliation did not reduce the number of actions against boats.

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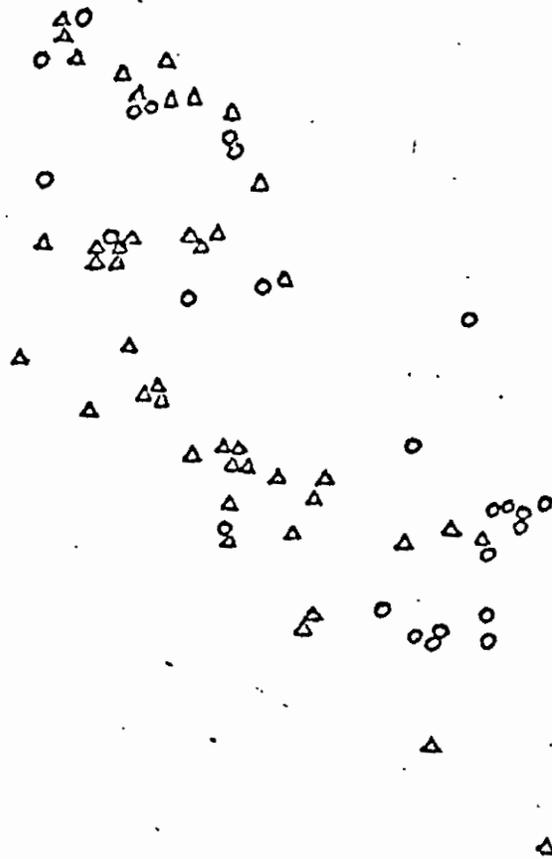


FIGURE 7. A. REGION 7, LOCATION OF VC-INITIATED INCIDENTS

O Before Defoliation
Δ After Defoliation

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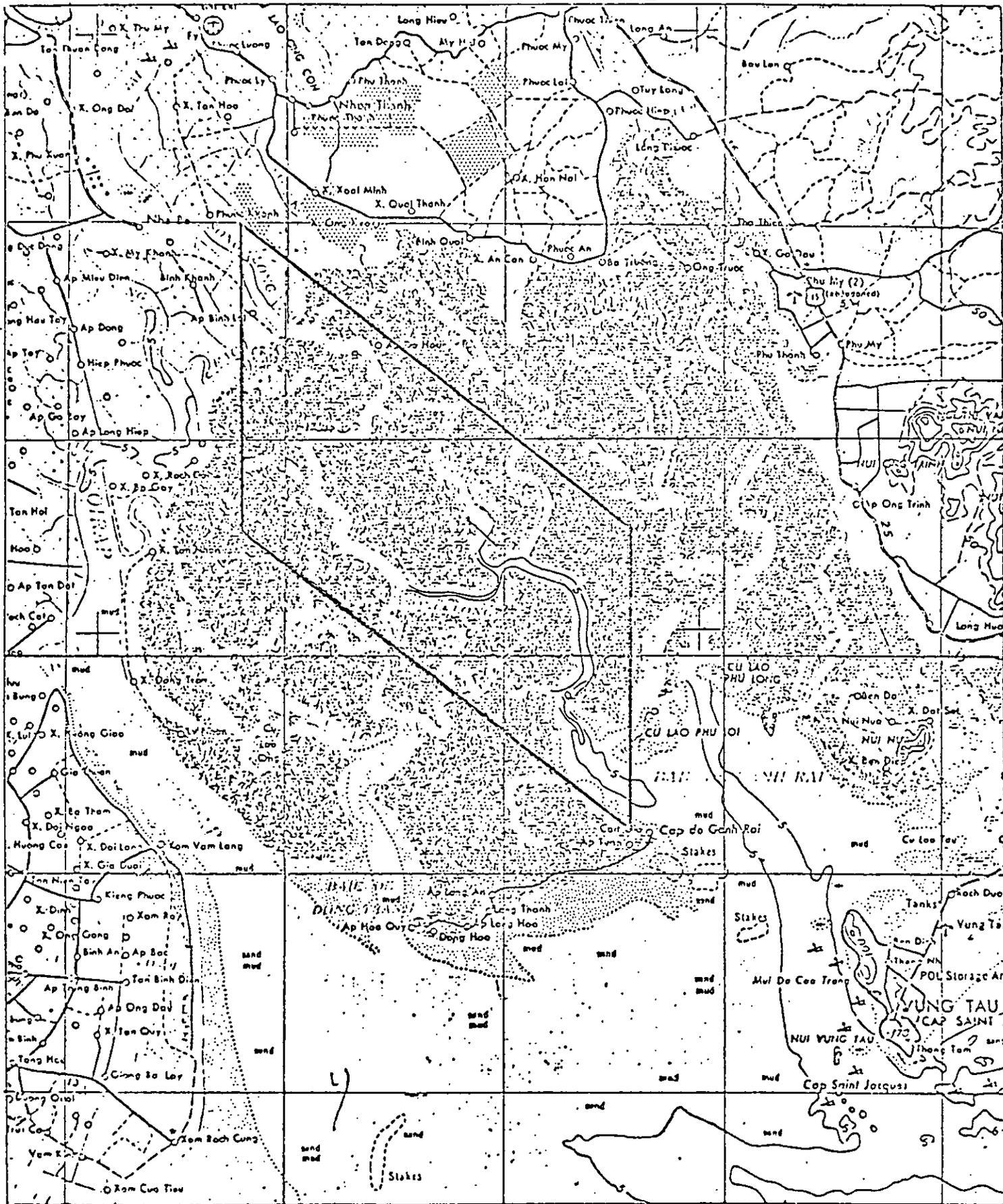


FIGURE B. REGION 7 BOUNDARIES

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Region 8

Location and Description

Region 8 is a large region which begins about 20 Km east of Saigon and extends eastward for 110 Km. Its dimension in the north-south direction is 100 Km. It is bounded on the east by Highway 15, the Y coordinate of the northern boundary is YT000, the X coordinate of the eastern boundary is YS300. The coastline along the South China Sea forms the southern boundary.

A number of highways run through the region and portions of them were focal points for VC activity and for defoliation. The principal towns in the region are Vung Tan, Phnoc Loi, and Binh Gia. Figure 19C is a map of the region.

Defoliation

Defoliation began in December, 1965, and was performed extensively in December and in January, 1966. A total of 5,175 hectares were sprayed during those two months. Some spraying was done in nearly every month from then until July, 1967, for a total of an additional 4,025 hectares. The locations of the defoliation missions are shown in Figure 19A.

VC Initiated Incidents

Region 8 is a region of high VC activity both before and after defoliation and exhibited very definite changes in the VC objectives. However, it will be shown that the changes cannot be attributed to the defoliation but were more likely due to other factors.

Several of the VC objective groups showed dramatic changes in the incident rates when the twelve-month periods before and after defoliation

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are compared. Examination of the monthly listing, Appendix B, reveals that the rate increase or decrease in every classification began in the month of defoliation or in the month following. The distributions of incidents by months are shown in Figure 17 where all objective groups which increased in incident rate are taken together and all objective groups which decreased in incident rate are taken together. The sudden shift in VC objectives is very clear.

More detail is shown in the tabulation, a summary of the incident counts in the region for the twelve-month periods before and after defoliation, by objective group.

Incident Counts in Region 8

<u>Objective Group</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
Roads	169	50	-119
Military facilities	35	38	+ 3
Civilian facilities	77	18	- 59
Military personnel	41	201	+160
Aircraft	0	108	+108
Civilians	23	12	- 11
Other	<u>26</u>	<u>10</u>	<u>- 16</u>
	371	437	+ 66

The objective group "other" includes objectives in the utilities, boats, area, and materiel classifications.

VC actions against roads, civilians, civilian facilities, and the objectives in the "other" group all decreased strongly, by about 70% overall. Actions against military facilities were essentially unchanged at a fairly low level. On the other hand, VC actions against military personnel and

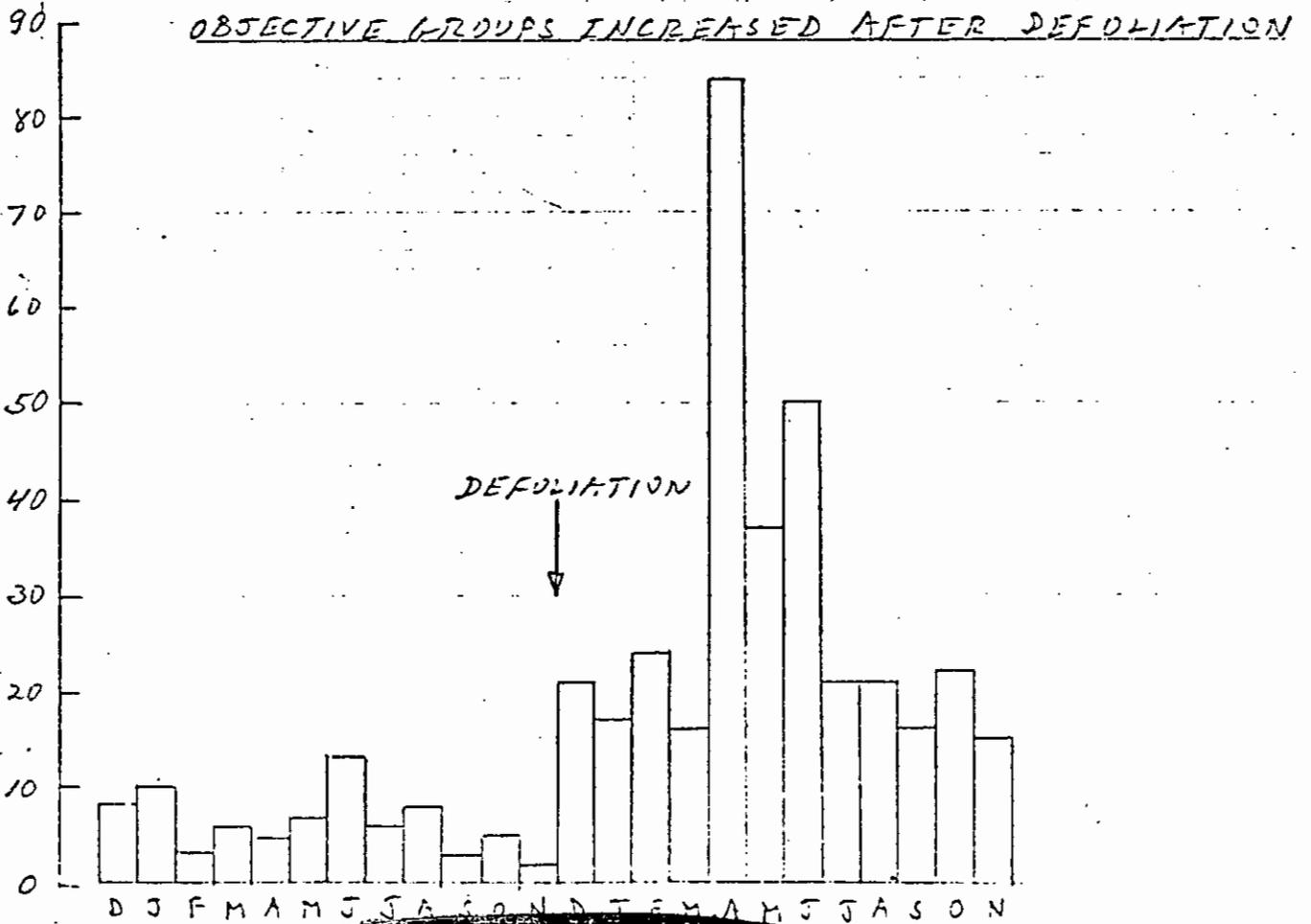
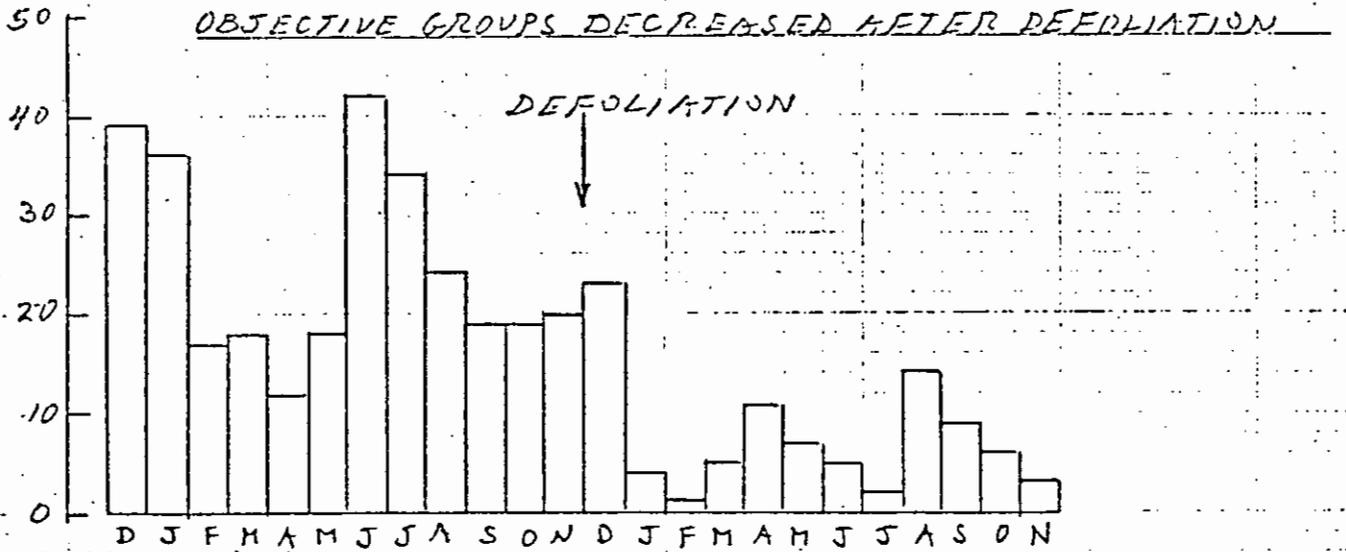


FIGURE 17 ~~CONFIDENTIAL~~

aircraft increased tremendously. Both of these increases began in the month of defoliation. In fact, not a single action against aircraft was reported before defoliation began. The monthly incident distributions for various types of objectives are shown in Figure 18.

It is unlikely that friendly troop presence and air activity were the same both before and after defoliation and that VC objectives suddenly changed coincidentally with defoliation. Instead, it may be inferred from the data that there was greatly increased presence of friendly troops and aircraft, and that defoliation was a prelude to, or a part of, the increased friendly forces activity. If this was the case, then the VC were forced to divert certain of their efforts to these new targets which constituted a threat to them. The diversion of their efforts necessarily created a decline in the number of actions against types of objectives which had formerly received a large measure of their attention. Therefore, it is not possible to ascribe the changes in types of objective, or the decrease in actions against certain types of objectives to the defoliation.

Using the Schwartz weighting scheme as a measure of VC activity, the weighted totals of all incidents increased 41% from 944 to 1,333 and the mean intensity increased 20%, from 2.54 to 3.05. Much of the increase in the weighted total results from the large number of actions against military personnel and aircraft. If the actions in which these two groups were the objective are eliminated, the weighted totals shown a drop of about 50% (821 to 403) but since the number of actions against these other groups decreased 62% (330 to 127) the mean intensity shows an increase of 28% (2.48 to 3.17). In other words, after defoliation, there were fewer actions but they were more intense than before defoliation.

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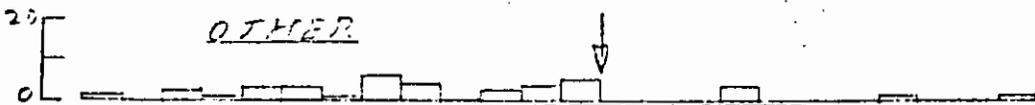
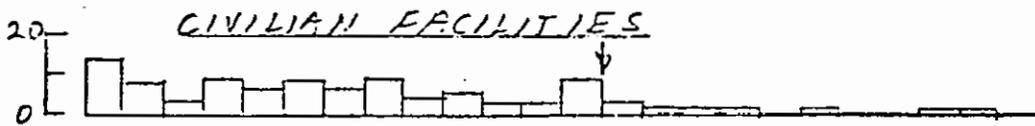
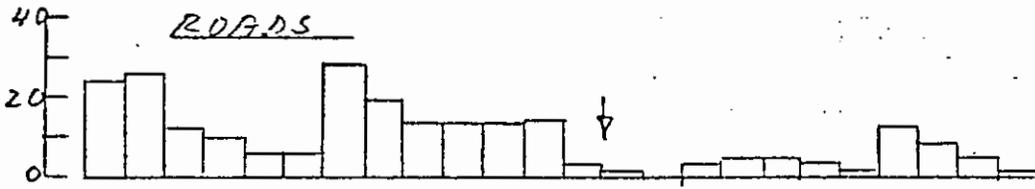
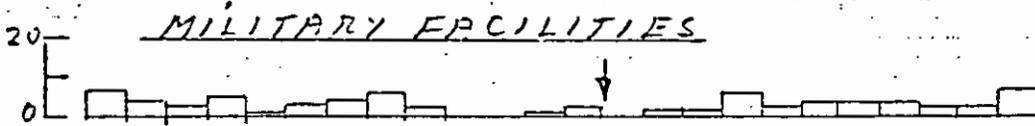
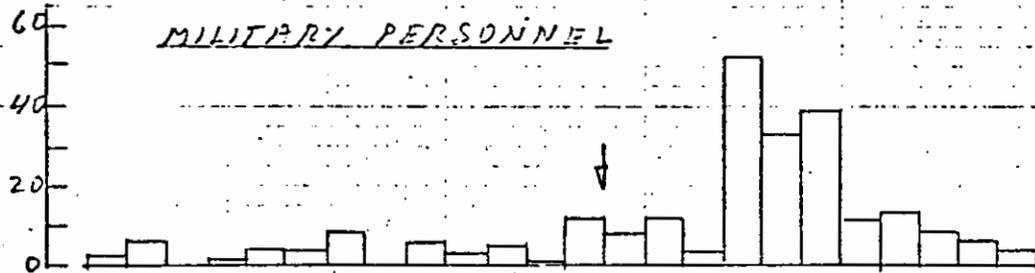
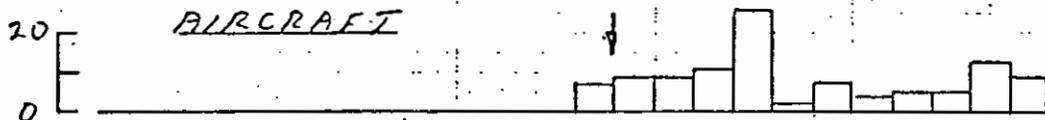
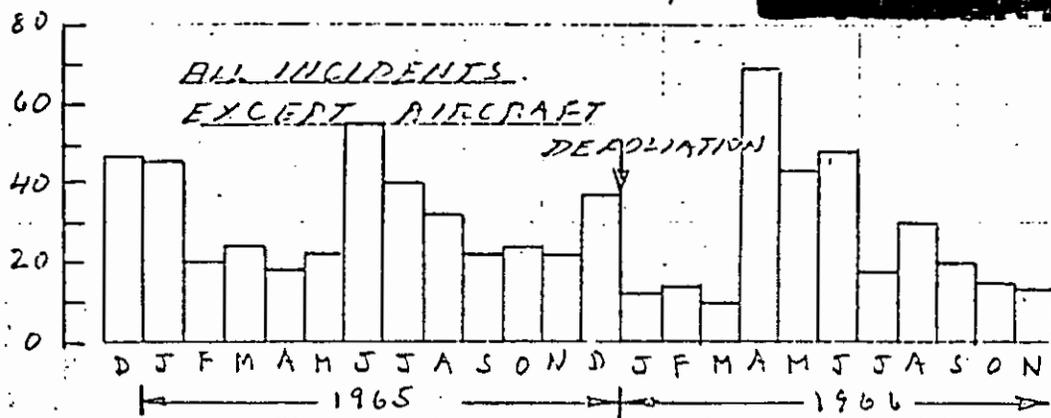


FIGURE 18. MONTHLY DISTRIBUTION OF INCIDENTS

~~CONFIDENTIAL~~

Summary and Conclusions

Region 8 was a region of high VC activity both before and after defoliation. VC actions against roads, civilians, and civilian facilities decreased by 70% when incident counts for a one-year period on each side of the defoliation are compared. However, there were five times as many actions against military personnel after defoliation as there were before (41 to 201) and 108 actions against aircraft after defoliation but none before. All changes in incident rates began during the month of defoliation or the month after.

It is concluded that defoliation was accompanied by a significant increase in friendly forces ground and air activity and that therefore, the changes in VC objectives cannot be ascribed to effects of the defoliation.

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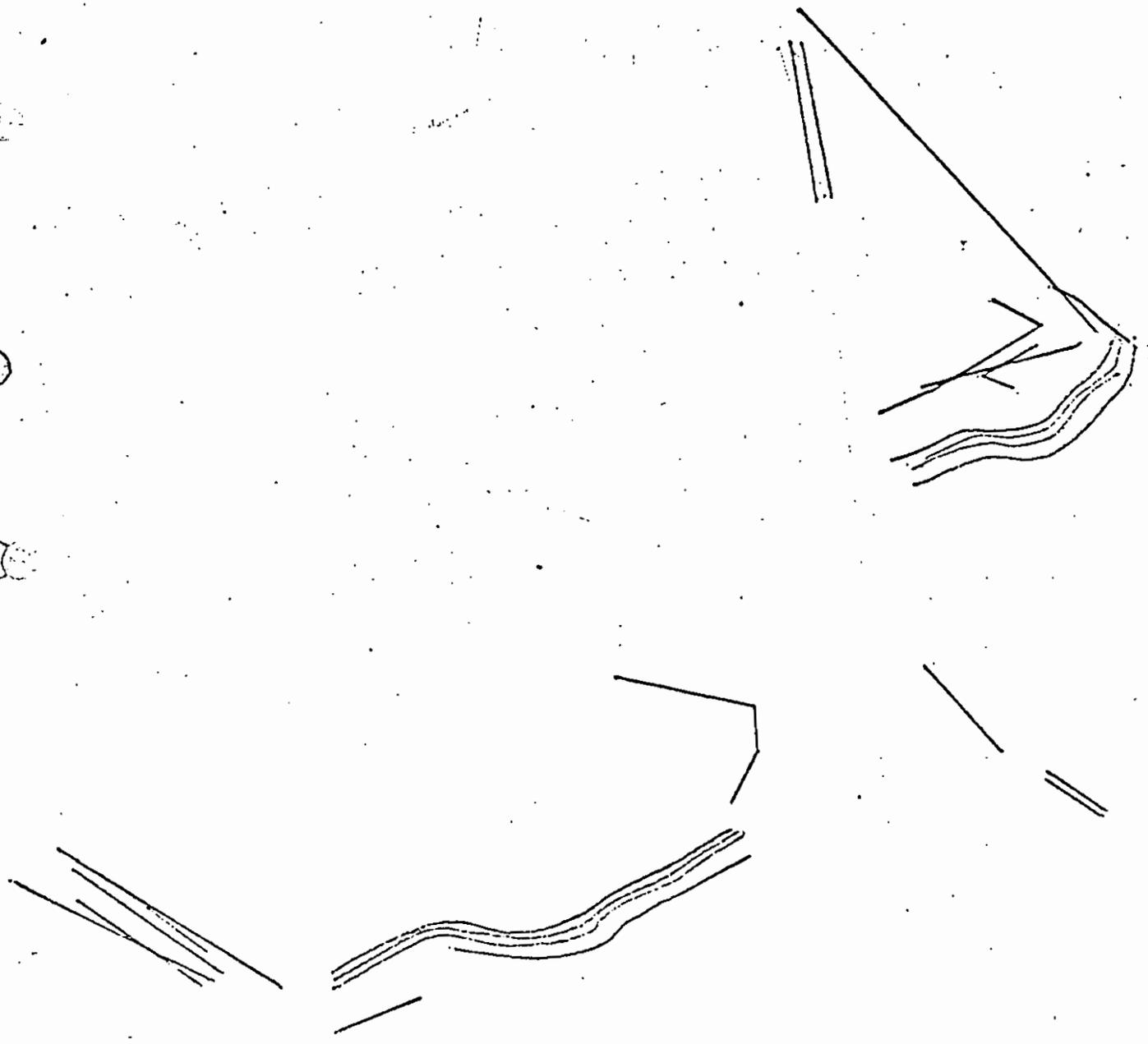


FIGURE 19A. REGION 8, LOCATIONS OF DEFOLIATION MISSIONS

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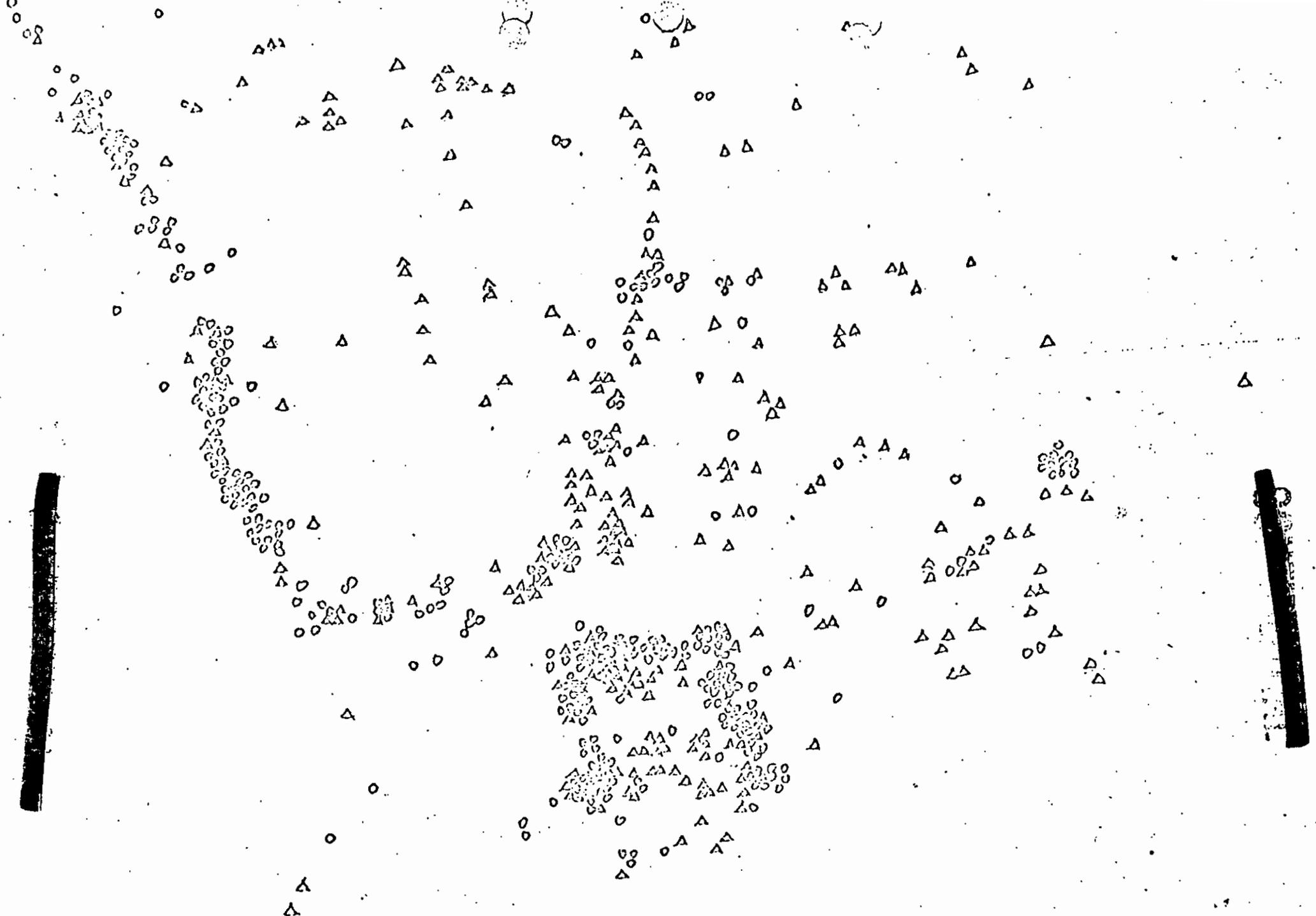


FIGURE 19 B. REGION 8, LOCATION OF VC-INITIATED INCIDENTS

O Before Defoliation
△ After Defoliation

Summary of Findings

Two approaches to the analysis of the incident data were used. In the first, five measures of activity were defined:

- (1) n - the total number of incidents in a data period,
- (2) W.T. - the weighted total of the incidents occurring in a data period,
- (3) μ_I - the average intensity per incident for each period, calculated as $W.T./n$,
- (4) μ_m - the average intensity of incidents per month for each period, calculated as $W.T./\text{number of months of data}$,
- (5) f - the average monthly frequency of occurrence of incidents for each period, calculated as $n/\text{number of months of data}$.

The average intensity, μ_I , was calculated to indicate changes in the level of VC effort in the region. When considered together with n , the number of incidents, the pair of measures indicate a change in the type of VC action. It is necessary to consider the pair of measures since the mean intensity could remain constant if, for example, the action shifted to a higher intensity level and the number of actions decreased. The last two measures, μ_m and f , are closely related and in most cases a change in one appears in the other. Since these measures reduce the data to a "per month" basis, they allow the comparison of two data periods of differing length. They can be considered as standardized versions of the two previous measures, W.T. and n .

After examining the data it was seen that these measures, although useful as indicators of VC activity, are not sufficient to interpret changes in the activity.

This is because other factors, seasonal and military operations effects, which will be discussed presently, are included in the measures and tend to obscure the effects of defoliation, if any.

The second approach to the analysis, then, was to count the incidents not only by time periods but also by the type of VC objective. This type of tabulation made it possible to see whether the specific defoliation target type (road, river bank, etc.) was subject to change in the number of VC actions after the spraying had taken effect.

When this was done the expected seasonal variations in incident counts could be seen, with peaks occurring in June-July and again in December-January. This is shown in the upper histogram of Figure 20, where the counts for all regions have been included. Incidents involving aircraft were excluded since it was found that they are closely related to the defoliation dates.

Because the points in the foliage growth cycle at which spraying will be effective and the seasonal conditions which are most suitable for VC activity correspond, all spraying was done in the month, or just prior to the month, of peak VC activity. Since a decline in activity follows the spraying, one might be led to believe that the spraying had caused the decline in activity, if it were not for the fact that the same decrease can be observed for the corresponding months before defoliation. The first conclusion from a study is therefore, that there is a regular seasonal variation in VC activity and that this can help to mask any effects of defoliation.

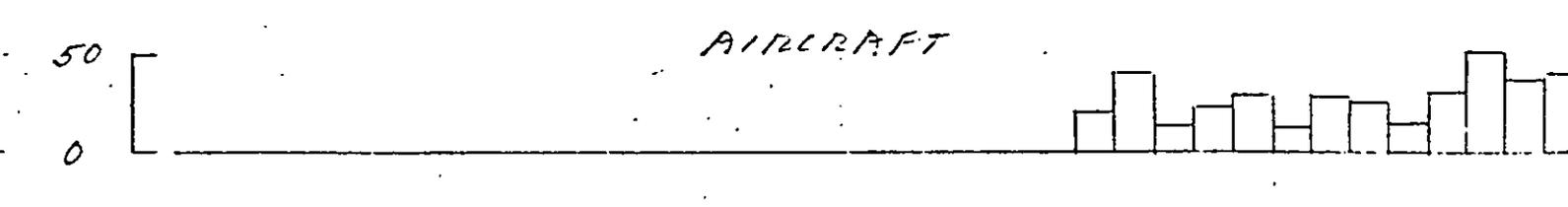
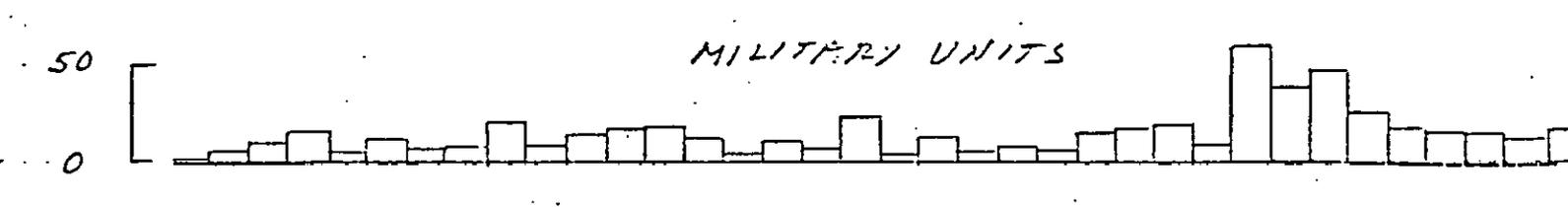
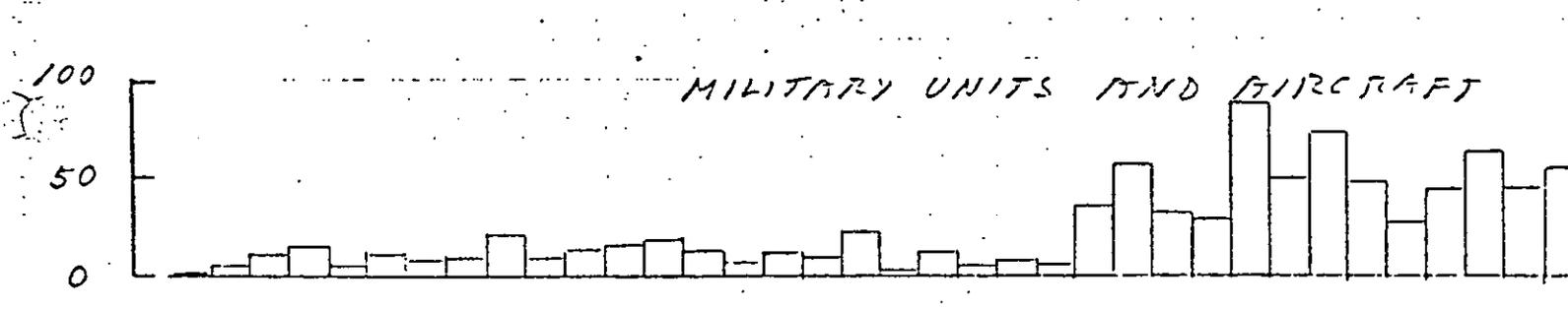
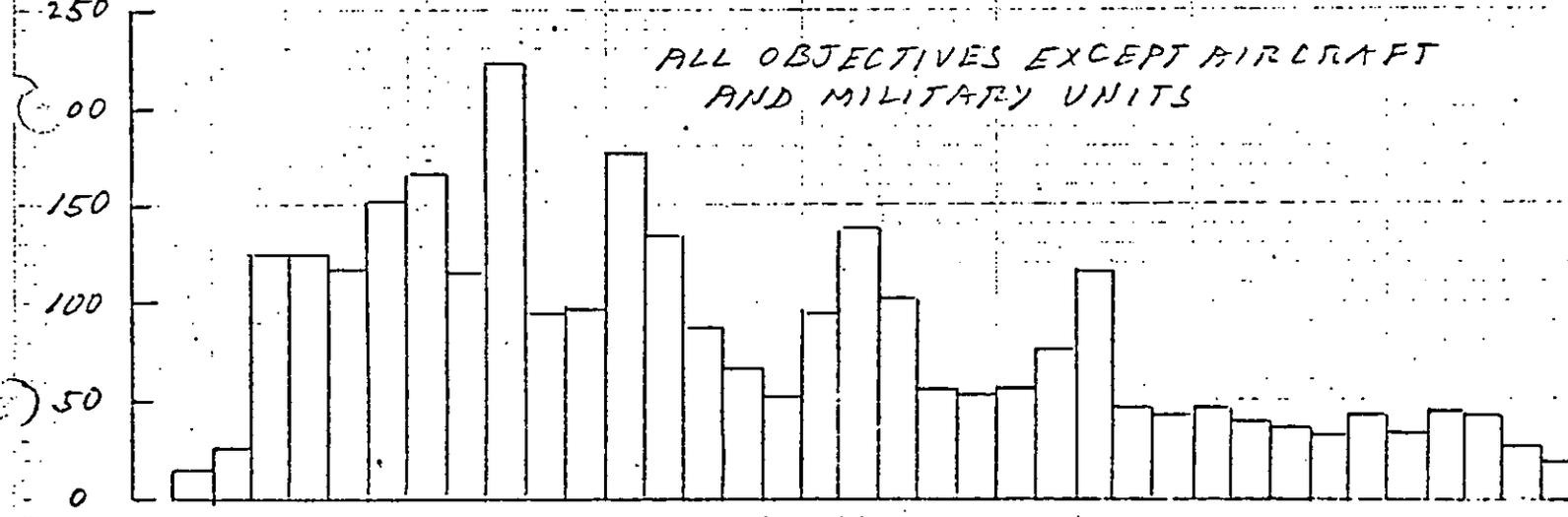
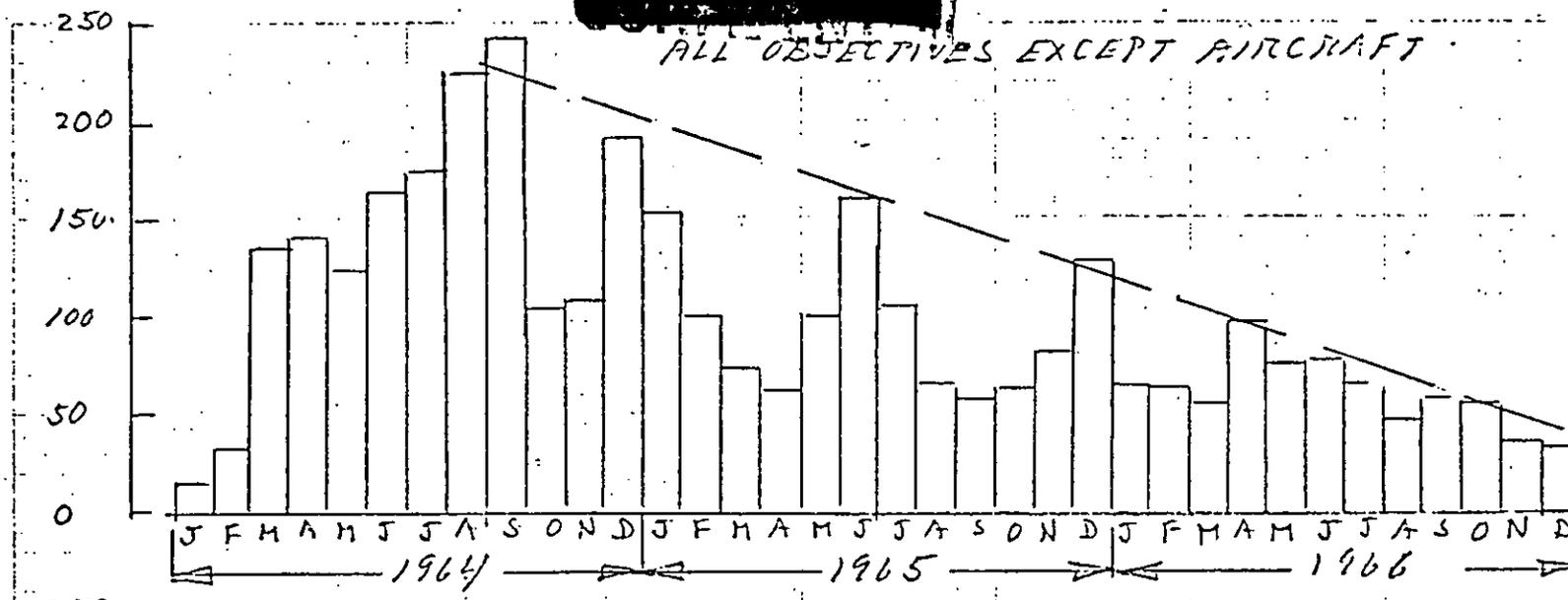


FIGURE 20. DISTRIBUTION OF INCIDENTS IN ALL REGIONS

Again referring to the upper part of Figure 20, there was a regular decline in the amplitude of the peaks, as indicated by the dashed line. This trend extends over the entire three years but since defoliation in six of the eight study regions did not take place until October, November, and December, 1965, the decline cannot be attributed entirely to defoliation. Probably it was due to increased friendly forces operations in the regions.

As noted before, VC actions against aircraft are closely related to defoliation, significantly more occurring after the defoliation. The same thing is true of actions against military personnel. The middle histogram of Figure 20 shows the distribution of all incidents except those against aircraft and military personnel. Below is a histogram for these two objective categories. In January, 1966, there was a significant drop in the number of incidents exclusive of the two special groups. The incident level then stayed fairly constant through the remainder of the year without the usual seasonal peaks. On the other hand, the actions against military personnel and aircraft stayed quite close to a level of ten incidents per month through November, 1965. In December the incidents jumped to an average of 48 per month over the next 13 months. No actions against aircraft were reported prior to December, 1965, but the increase in average level of incidents also reflects an increase in actions against military personnel, two histograms at bottom of Figure 20.

The data for all regions were summarized for the twelve months prior to and twelve months following each defoliation. Much the same indications were found, Figure 21. Prior to the mean defoliation date the average number of monthly incidents was against objectives other than aircraft and military personnel 105, after defoliation it was 56. The military categories

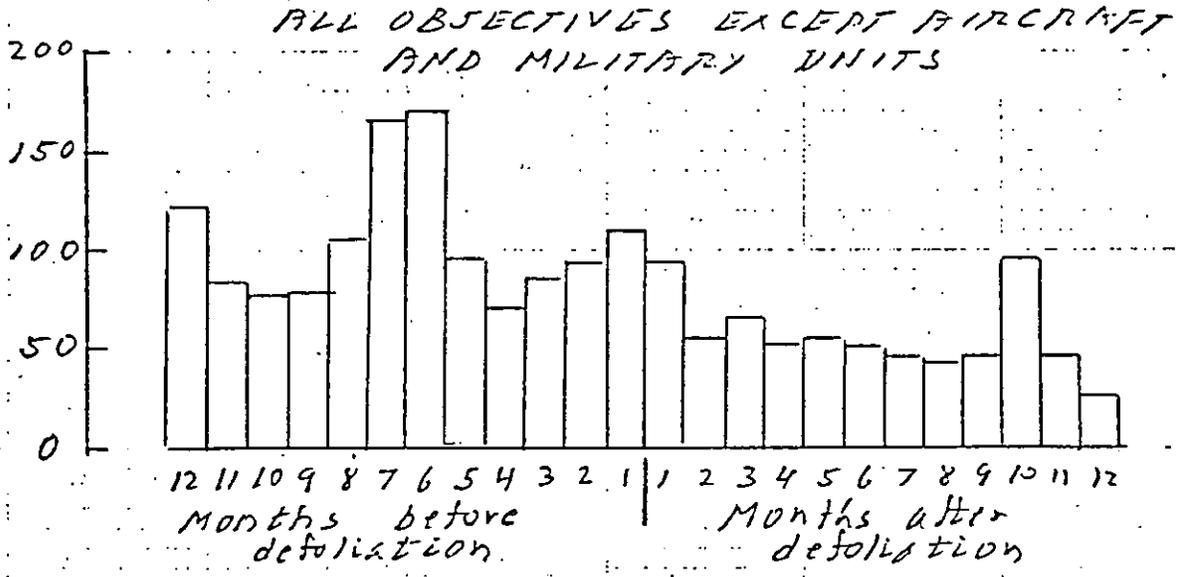


FIGURE 21. DISTRIBUTION OF INCIDENTS BEFORE AND AFTER DEFOLIATION FOR ALL REGIONS.

have figures of 11 and 46 incidents per month, before and after defoliation.

The data show that the number of VC actions against objectives other than aircraft and military personnel decreased after defoliation. They also show that there was increased presence of aircraft and ground forces in the regions after defoliation. It is quite likely that defoliation makes air support more effective by improving target visibility, thus causing the VC to reduce their actions in the defoliated regions. However, the evidence is strong that there was increased presence of friendly forces, and this factor may have been the primary cause of reduced VC activity.

Four of the regions, numbers 1, 3, 6, and 7 had river banks as the principal defoliation targets. All four had low average monthly incident rates, less than seven per month. None had a high rate of incidents against boats, the highest being Region 7 with a rate of 1.3 incidents per month. There were only 43 incidents in the four regions over a twenty-four month period and although these were divided into 24 before and 19 after defoliation, the data are insufficient to make any conclusions. There was some increase in aircraft and military personnel activity in Region 7, otherwise the actions against objectives showed little change.

In the other four regions, numbers 2, 4, 5, and 8, actions against roads and civilian facilities decreased after defoliation. There was no clear consistency in actions against other objectives. In Region 2 actions against military facilities increased somewhat, in Regions 4 and 5 they decreased, while in Region 8 they remained constant in number. The number of incidents against other than aircraft and military unit decreased significantly in Regions 4, 5, and 8 although the number of incidents against the military objectives decreased in Regions 4 and 5 and increased in Region 8. In Region 2 there was an insignificant decrease in incidents although the incidents

against the military categories increased significantly.

The results of this study can be summarized as:

1. VC actions against all objectives were found to decrease following defoliation.
2. Monthly incident counts show a seasonal variation with peaks in June-July and December-January. Defoliation spraying is often performed during these months so that subsequent declines in VC activity cannot necessarily be attributed to the results of the spraying.
3. Defoliation is often followed by increased air and ground activity of friendly forces. While defoliation may increase the effectiveness of air-to-ground targeting, it is not possible at this time to separate the effects of the defoliation-aircraft combination from the effects of increased presence of ground forces.
4. This study should not be interpreted as meaning that defoliation does not have an effect on VC incidents, but that not enough information is available to detect the defoliation effects.

Recommendations

Three recommendations are made as a result of this study.

1. Seasonal variations in VC incident rates tend to obscure possible defoliation effects. The variations can be taken into account somewhat by summarizing the data for twelve months on each side of the defoliation date. Defoliation effects would become more clear, and time periods other than twelve months would be possible, if seasonal effects would be removed from the data. It is recommended that, if further work is done, some investigation into the possibility of removing the seasonal portion of the data variability should be made.
2. Defoliation is often followed by increased air and ground activity. The present study does not reveal the roles of these forces, either separately or in conjunction with defoliation, on VC activity. It is recommended that if further work is done an attempt should be made to determine these effects. As an aid to this effort, some information about the presence of friendly forces should be made available.
3. Reports of spraying missions are not complete enough to identify the defoliation target in all cases. When only the coordinates of the mission end-points are given, it is not always possible to determine whether a straight-line

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path was flown or whether the flight path followed some natural line such as a river. It is recommended that if further work is done, more complete mission reports be supplied as well as all available defoliation evaluation reports.

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OFFICE OF THE DIRECTOR
Advanced Research Project Agency Field Unit, Vietnam
and

Joint Operation and Evaluation Group, Vietnam
APO 143, San Francisco, California

RDFU-V/JOEG-V

MEMORANDUM FOR: ACoFS J-3
MAC-V

SUBJECT: Defoliation and Crop Destruction

THIS DOCUMENT HAS BEEN DOWNGRADED
TO UNCLASSIFIED
Per Director DARPA Adm

Reference a, MACRD/JOEG-V Memo, dtd 11 Dec 62, Subj: Operational Evaluation of Defoliants and Anti-Crop Agents

1. Ref a expresses a need for an operational evaluation of the effectiveness of defoliation and crop destruction and recommends the study be conducted by MAC-V.

2. The attached are forwarded for your use in planning courses of action for the forthcoming season. Review of these documents calls attention to the following points:

a. Evidence, if available, to fully evaluate the effectiveness of the 1962 defoliation program was not collected and would be difficult to obtain now because of the time elapsed since defoliation. The reports which are available do not provide sufficient info to form an evaluation partly because the defoliation effort was limited and partly because direction was lacking in establishing an evaluation program.

b. Sufficient evidence is, in my opinion, presented in the attached to justify further defoliation effort during the 1963 season to further explore its operational value.

c. The time remaining during the dormancy season can be exploited in preparation for a program as prescribed in ref a.

3. On the other hand, sufficient evidence is available to confirm that defoliation and crop destruction are technically feasible in SVN. Further, the experience to-date has provided ample technical background to demonstrate the techniques, materials, and equipment required when minor problems are resolved.

4. Despite the limited effort in SVN in 1962, in the field of crop destruction, consideration of various factors pertaining forms a reasonable basis for a military judgement that this should be a major military weapon in the ARVN arsenal. Therefore, planning and preparation to conduct a crop destruction program in the Spring of 1963 should be initiated now with the view of implementing operational objectives while continuing to analyze results to refine the program.

ARPA Cont. No. 366

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63-96

JOEG-025

SUBJECT: Defoliation and Crop Destruction, 7 Jan 63

5. Of special interest for planning purposes is the outcome reported in the attached of the psychological warfare program in introducing the delivery of chemicals and the additional benefit that we now have experience can be used to prove to the population the program was truthful. These two aspects provide a solid basis for developing a follow-on psywar campaign.

6. Accordingly, the only limiting factors are availability of delivery equipment, funds, availability for purchase of chemicals, and training requirements. It is recommended therefore that (a) Crop destruction be conducted as an operational necessity through approval of Corps recommended targeting requirements and controlled by a priority system. (b) Chemicals be procured to provide maximum utilization of available and programmed equipment. (c) Over-all priority in employment of dual capable equipment be given to crop destruction when simultaneous requirements occur but that sufficient effort be allotted a defoliation program to permit further evaluation. (d) Arrangements be completed to insure all means usable in the evaluation and refinement of both programs are made available at the proper time in a coordinated effort.

7. Request your comments on the above recommendations an outline of approved and proposed planning pertaining, and any suggestions pertinent to accomplishing an evaluation.

ROBERT H. YORK
Brigadier General, U. S. Army

MEMORANDUM FOR RECORD: ARPA

Necessary direction for an evaluation which will on a continuing basis collect data from testing to-date where feasible and future operations will be provided from a joint team from:

JOEG	Project Officer
R&DFU	Project Member
CDTC	Project Member
USOM	Project Member
*MAC J3	Project Member

NOTE: MAC J3 member will not be available until Chemical Corps officers arrive.

Edwards

SMUFD-13-C (19 March 1964)
Mr. T. W. Brundage

PA
RACIC XEROXED

SMUFD-13-C... of effectiveness will be... 19 March 1964
percent defoliation, herbicides...
Mr. T. W. Brundage, Director
OSD/ARPA R&D Field Unit
APO 146
San Francisco, California

THIS DOCUMENT HAS BEEN DOWNGRADED
TO UNCLASSIFIED
Per Director DARPA/ADM

Dear Tom: We are planning to... by selected...
operates. We are now have the computer...
(U) In reference to the questions on bamboo raised in your letter
of 13 February, I was not aware that bamboo has not been responding.

(U) I would like to know just what happens. Do the leaves fall
or do they fall and do the plants regrow? I have asked these same
questions of the Chemical Corps personnel in Saigon and am awaiting a
reply.

(C) I have learned that our present test areas in Thailand do not
have much bamboo, so I am asking Bob Darrow to see if he can find another
test area where this type of plant occurs. There are many genera of
bamboo and it would be highly desirable to have the right ones in our
test program.

(C) Bamboo is included in our stateside screening program, but only
the most promising candidates are sprayed on it and thus far nothing has
turned up that would replace the herbicides now in use. Testing has not
been completed on the new candidates. Work reported in the literature
indicates that a chemical on location in Thailand is effective, at high
rates, on bamboo.

(C) With respect to the spray program at Pramburi, the objective is
to determine the minimal effective dose of purple and to evaluate other
chemicals or mixtures of chemicals for their effectiveness in defoliating
and/or killing tropical vegetation. It is a chemical screening program.
(U) Assessment of effectiveness will be measured by percentage of
defoliation that has occurred as compared with adjacent untreated areas.
Inasmuch as certain doses of purple completely defoliate most of the
vegetation, comparisons will also be made with that material as a
standard.

(U) Assessment of effectiveness will be measured by percentage of
defoliation that has occurred as compared with adjacent untreated areas.
Inasmuch as certain doses of purple completely defoliate most of the
vegetation, comparisons will also be made with that material as a
standard.

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defoliation that has occurred as compared with adjacent untreated areas.
Inasmuch as certain doses of purple completely defoliate most of the
vegetation, comparisons will also be made with that material as a
standard.

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GROUP 3
Downgraded at 12 year intervals
Not automatically declassified.

Copy 3 of 4 Copies

2625
ARPA Cont. No. 2625
RAC 64-471

SMUFD-13-C (19 March 1964)

Mr. T. W. Brundage

(U) The measurement of effectiveness will be an educated estimate of percent defoliation, desiccation and/or kill at predetermined intervals after spraying. Examination will also be made to determine which species, if any, are resistant to the chemical treatment and at a later date determination of regrowth will be made. Estimate of improvement in both vertical and horizontal visibility will be made.

(U) Along with the evaluation of the biological activity of the candidate chemicals, it would appear to be a good idea to collect as much additional data as possible. Determination of improvement of both vertical and horizontal visibility before and after our spray treatments would be worthwhile. We were planning to do this, but only by educated estimates. We do not have the manpower and equipment to make extensive, precise measurements, nor does our ARPA order specifically authorize us to do so. I would like to suggest that Lt. Colonel Scheibel and his group conduct the visibility measurements in Bob Darrow's plots in cooperation with Bob in the manner in which they were doing this when Wax and Robinson were there. I do not believe that Bob can contribute manpower (other than Thais), but I am sure that he will be only too happy to cooperate in any other way that he can. Inclusion of precise horizontal and vertical visibility improvement data in our herbicide evaluation report would strengthen it, I am sure.

(U) With respect to aerial photos, Bob Darrow's test plan calls for aerial photography before and after, and I had presumed that he was making arrangements for them. He would be the best qualified to indicate what our photo requirements are and when we need photo support. I expect that he will be contacting you soon in this regard.

(U) The response of mangrove to purple has been fairly rapid and satisfactory as far as I am aware. Therefore, no testing will be done on mangrove except to check out any herbicides that are found to be superior to purple or orange in Dr. Darrow's current field evaluation program.

(U) I was not aware that rubber was considered target vegetation. However, it is readily killed by 2,4,5-T at low dosages. No further testing on this crop is required.

(U) Judging from Colonel Sutton's letter, he obviously was not aware of the objective of the defoliation program, which is to compare the ability of various chemicals to kill or defoliate forest vegetation. Evaluation of effectiveness of the chemicals must be done in the manner discussed earlier.

(U) Improvement in visibility would not necessarily give us the information on biological activity that we are seeking.

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(9) 136
Mr. T. W. Brundage
SMDFD-13-C (19 Mar 1964)

(U) Where vegetation was not dense, 50% defoliation might improve visibility greatly, but if the same chemical were used in dense vegetation, 50% defoliation might not yield as much improvement in visibility or vice versa. Such data would not give us a measure of the effectiveness of the chemical for defoliating or killing trees.

(U) In addition, one could measure improvement in visibility as 50% and miss completely the possibility that in some cases all of the trees might be defoliated 50%, while in others 50% of the trees might be defoliated 100%.

(U) We are primarily interested in plant responses. We shall examine representatives of all species in each plot to record their responses to the various chemicals or mixtures. Identification of resistant species is essential to permit concentration of screening effort on such species.

(U) I appreciate that the objective of the military use of defoliants and herbicides is to improve visibility. However, our principal objective in these R&D tests is to evaluate the biological effectiveness of candidate chemicals and improvement in visibility would be useful information, but of secondary importance. If Lt. Colonel Scheibel's group can aid in obtaining this information, we shall be happy to cooperate with him in any way that we can; otherwise, we will merely make educated guesses.

Kindest regards.

Very truly yours,

C. E. MINARIK
Chief, Crops Division

Copy furnished:
Mr. Fred I. Edwards
ARPA, Washington
Dr. Robert A. Darrow

STATUS OF HERBICIDE - SVN
(All figures in thousands of gallons)

DECLASSIFIED BY USDP 1983

(16)

<u>DATE</u>	<u>A PLANNED USAGE</u>	<u>DATE</u> <u>EXCESS (A-B)</u>	<u>B CONSUMPTION</u>	<u>ON HAND 1ST OF MONTH</u>
Jan 67	470	-8	478	357
Feb 67	470	53	417	409
Mar 67	470	141	329	398
Apr 67	470	92	378	281
May 67	708	252	456	270
Jun 67	708	185	523	402
Jul 67	738	223	515	608
Aug 67	738	371	367	617
Sep 67	738	255	483	918
Oct 67	738	162	576	1515
Nov 67	738	0	738	1612
Dec 67	738	223	515	1662
Jan 68	632	41	591	2081
Feb 68	632	571	61	2427
Mar 68	632	412	220	2390
Apr 68	632	-63	695	2876
May 68	632	-60	692	3381
Jun 68	632	138	494	3620
Jul 68	685	270	415	3652
Aug 68	685	305	380	3537
Sep 68	685	379	306	3407
Oct 68	685			3297

NOTE: Extracted from J4 point paper on Herbicides, and CINCPAC J4 message updates.

CONFIDENTIAL

MEMORANDUM

JOO
For info
very resp
66H

J3/Memo/02557-68

9 OCT 1968

(17)

From: MAJ GEN ELWOOD
To: LT GEN HUTCHIN
Via: MAJ GEN ALLISON

WAG

JOO
JOOI

DECLASSIFIED BY OJCS
DATE 23 SEP 1983

Subj: Results of US/GVN Resources Denial Program (U)

Ref: (a) CAS Field Information Report FVS 17, 840
DTG 230407Z Oct 68

1. Ref (a) shows results of the US/GVN Resources Denial Program as taken from debriefing of six recent Viet Cong defectors in Tuyen Duc Province. These defectors reported as follows:

- a. Defoliation operations destroyed a major enemy food production area in Don Duong District; and allied bombing and artillery damaged others.
- b. Friendly Ground Operations uncovered many large food caches.
- c. Highway Control measures and Police Check Points have made daytime transportation of food very difficult.
- d. Rice Controls have reduced the amount of rice to near subsistence level for everyone and this has made villagers increasingly reluctant to give their small ration to the VC.

2. As a result of enemy food shortages, one of the two Viet Cong battalions involved in the area (the 810th Local Force Battalion) had to be disbanded into 25-30 man units with orders to continue food collection efforts for three months. Thus the enemy has essentially lost a battalion for at least three months with the men in small groups spending their time hunting for food. In effect, the enemy has lost at least 90 battalion days. This is considered a highly significant example of how the Resources Denial Program is affecting the course of the war.

Very respectfully,

HME

H. M. ELWOOD

Maj Gen, II S. Marine Corps

GROUP 1
Excluded from automatic
downgrading and declassification.

ORIGINATOR: W. F. WARREN, J3A12, 39876
TYPED: M. ANDERSON, GS-5

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TAKEN AS
60 days of 1974
in time from storage
STORAGE
OBJECTIVE

STATES OF THE UNITED STATES
(All figures in thousands)
DECLASSIFIED BY OJCS 23 SEP 1983
DATE

18

MONTH	PLANNED USAGE	STATUS	CONSUMPTION	ALLOCATION	OF YEAR
Jan 67	470-8		478 -	529	357
Feb 67	470	53	417	380	401
Mar 67	470	141	329	196	301
Apr 67	470	92	373	363	301
May 67	708	252	456	598	270
Jun 67	708	185	523	729	402
Jul 67	738	223	515	524	301
Aug 67	738	371	367	666	617
Sep 67	738	255	483	1082	916
Oct 67	738	162	576	544	1515
Nov 67	738	0	738 -	1091	1612
Dec 67	738	223	515	1238	1662
1269 Jan 68	632	41	591	937	1201
Feb 68	632	571	61	24	2427
Mar 68	632	412	220	706	2310
Apr 68	632-63		695 -	901	2816
May 68	632-60		692 -	211	3311
Jun 68	632	138	494	62	3612
1370 Jul 68	685	270	415	312	3652
1370 Aug 68	685	305	380	0	3537
1370 Sep 68	685	379	306	0	3407
1370 Oct 68	685			0	3297

total of month

PACOM Monthly Report
24 07442 005 62

Enclosure (1)

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DECLASSIFIED BY OJCS
DATE 23 SEP 1983

J3A1/Memo/00242-68
12 September 1968

MEMORANDUM

From: J3A1
To: J30
Via: J3A(A)

Subj: Correction to Herbicide Sortie Requirements

Ref: (a) COMUSMACV 25535/301045Z AUG 68
(b) CINCPAC 110225Z SEP 68

Encl: (1) Proposed message

1. Ref (a) reported a total FY 70 UC-123 herbicide sortie requirement of 6971 sorties (blue tab). This total is not consistent with the breakdown of missions by type, the sum of which is 5971.
2. In ref (b), we also submitted a FY 70 sortie requirement of 6971 sorties.
3. We have checked with MACV to determine whether he made an error in sortie breakdown by target, or in determining total sortie requirement. It was determined that the error is in the total, which should have been 5971.
4. Recommend release of enclosure (1) to set the record straight at JCS.

Very respectfully,



R. F. LINSENMAYER

00070

DECLASSIFIED BY OJCS
DATE 23 SEP 1983

(20)
J3/Memo/201391-68
14 JUN 1968

From: BGEN Hutchinson
To: LTGEN Hutchin
Via: MGEN Allison

J3A12

Subj: Herbicide Operations for Calendar Year 1968 (U)

Ref: (a) J01 Note No. 00214-68 dtd 11 Jun 68

J3A1

Encl: (1) Draft msg dtd 1 Jun 68

J3A

1. In answer to reference (a), recommend that enclosure (1) not be sent, in light of MGen Kerwin's message 111107Z JUN 68.

J30

J3B2

2. Nothing can be done about the crop destruction operations which were not done during the first six months of this year; and it is noted that crop destruction operations are to be resumed in late June or early July 1968. Hopefully this resumption of operations will be on a scale adequate to produce a resources denial program for third and fourth quarter 1968 which is as well balanced as it has been in the past.

3. The Operations Division will continue to monitor the weight of effort given to this important part of the resources denial program in South Vietnam.

Very respectfully,

J3

H. G. HUTCHINSON, JR.
Brigadier General, U.S. Marine Corps

ORIG: W. F. WARREN, J3A12, 39667
ETPED: K. E. ST. CLAIR, GS-7

00073

22



WORKING PAPER

DECLASSIFIED BY OJCS
DATE 23 SEP 1999

The RAND Corporation studies address only limited aspects of the crop destruction program. Specifically the effectiveness of crop spraying in South Vietnam in terms of its impact on Viet Cong rice consumption as seen from a regional level and the impact of chemical crop destruction on the Viet Cong food supply and on the attitude of the Vietnamese peasant toward the United States and the Government of Vietnam. The studies are methodologically sound, however, their limited scope, basic assumptions, and small data sample do not present a sufficiently broad basis for decisions as to the overall effectiveness of the crop destruction program or future crop spraying operations in South Vietnam.

WORKING PAPER



00078

WORKING PAPER

DRAFT

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Review of Herbicide, Crop Destruction, Operations in South Vietnam (U)

1. (C) Reference is made to your memorandum dated 21 November 1967, which requested: A review of two RAND Corporation studies and the chemical crop destruction program; a report on whether the objectives of the crop destruction program are being met; and, if they are not being met in an optimum way, what changes should be made in the program.

2. (C) The Joint Chiefs of Staff have reviewed "A Statistical Analysis of the U. S. Crop Spraying Program in South Vietnam," RM-5450-ISA/ARPA, October 1967, and "An Evaluation of Chemical Crop Destruction in Vietnam," RM-5446-ISA/ARPA, October 1967. The studies provide an insight into the Viet Cong rice requirements and remarkably close relationship ^{between} ~~with~~ regional economic variables. The understanding of ~~the~~ ^{that} hostility engendered in the non-Viet Cong by such operations can provide useful inputs to future food denial operations and psychological warfare programs. In addition, the Joint Chiefs of Staff note that:

a. The studies are limited in scope in that:

(1) Rice is the only crop considered in analyzing the effectiveness of the crop destruction program.

corn, sweet potatoes, cassava and other broad-leaf crops are also part of the crop spraying targets, especially in the highlands.

and corn, sweet potatoes, cassava

Enclosure

WORKING PAPER

(2) The interview program to sample Vietnamese attitude considered only one side of the operation - Viet Cong prisoners and defectors and Chieu Hoi returnees. The attitudes of the Military and Government of South Vietnam were not considered.

b. Basic Assumptions implicit in the analysis are questionable. For example:

(1) That the effectiveness of the crop destruction program can be evaluated by considering only changes in rice rations and the hostility engendered in the rural population.

(2) That Viet Cong prisoners and defectors and Chieu Hoi returnees are valid, reliable data sources.

c. The sample size is small. Two hundred and six

interviews during 1965 and 1966 may be biased both in time and area covered. The RAND studies would have been conducted at irregular intervals over the two year period in a region of province of the interior with no direct relation to the crop destruction operations.

In view of the foregoing, the Joint Chiefs of Staff consider that the RAND Corporation studies are not sufficient, in themselves, to provide the basis for evaluating crop destruction operations in South Vietnam. The findings of the studies can provide useful input into an overall evaluation of such operations.

3. (U) Evaluation of whether the objectives of the crop destruction program are being met will be completed after receipt of CINCPAC/MACV input.

4. (U) Changes in the program, if any, will be completed after receipt of CINCPAC/MACV input.

WORKING PAPER



~~CONFIDENTIAL~~
THE JOINT CHIEFS OF STAFF
WASHINGTON 25, D.C.

PA _____
PACIFIC REBOXED

SM-6-64
-2 JAN 1964

*Thai test at
red marks*

MEMORANDUM FOR THE DIRECTOR, ADVANCED RESEARCH
PROJECTS AGENCY

Subject: Monthly Letter Report, CDTC, Thailand,
1 - 31 July 1963 (U)

1. Reference is made to a letter by the Director, Advanced Research
Projects Agency Research and Development Field Unit, dated 5 August
1963, subject as above, together with its Inclosure.

2. Attached hereto are the following:

a. A 1st Indorsement by the Chief, Joint US Military Advisory
Group to Thailand, undated, subject as above.

b. A 2d Indorsement by the Commander, US Military Assistance
Command, Vietnam, Serial 01257, dated 14 November 1963, subject
as above.

c. A Third Endorsement by the Commander in Chief, Pacific,
Serial 0833, dated 11 December 1963, subject as above.

3. Your attention is invited to:

a. The nonconcurrence by Chief, JUSMAG, contained in
subparagraph 1 a of the 1st Indorsement, on the need for a study
on Environmental Effects on Aircraft Reliability. This nonconcurrence
is supported by COMUSMACV in paragraph 2 of the 2d Indorsement,
and by CINCPAC in paragraph 2 of the Third Endorsement.

*See Para
- I A*

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TO UNclassified
Per Director DARPA/Adm

~~CONFIDENTIAL~~

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ADPA Cont. No. _____

00082

File - Defol - Thai Test

~~CONFIDENTIAL~~

b. The recommendation by COMUSMACV, in paragraph 3 of the 2d Indorsement, concerning the defoliation project. This recommendation is concurred in by CINCPAC in paragraph 3 of the Third Endorsement.

See
Para
VI B & VII

4. Without attachments, this memorandum is UNCLASSIFIED.

For the Joint Chiefs of Staff:

M. J. Ingelido
M. J. INGELIDO
Brig Gen, USAF
Secretary

Attachments

~~CONFIDENTIAL~~

CINCPAC
3900
Ser: 0833
1: DEC 1963

~~CONFIDENTIAL~~ - Unclassified upon removal from basic letter

THIRD ENDORSEMENT on OSD/ARPA R&D FU ltr of 9 Aug 63

From: Commander in Chief Pacific
To: Advanced Research Projects Agency, Office of Secretary of Defense
Washington 25, D. C.
Inf: Joint Chiefs of Staff

Subj: Monthly Letter Report, COTC (Thailand) 1-31 July 1963 (U)

1. Readdressed and forwarded for information and necessary action,
2. CINCPAC concurs with JUSMAG that there is no need for the study reported in paragraph IIA of subject report, Environmental Effects on Aircraft Reliability.
3. Concur in paragraph 3 of second endorsement.

Copy to:
CINCUSARPAC
CINCPACFLT
CINCPACAF
COMUSMACV
CHJUSMAG Thailand
CHMAG Vietnam
Director OSD/ARPA R&D FU Saigon

Verdi B. Barnes
VERDI B. BARNES
Chief of Staff

~~CONFIDENTIAL~~

3900
Sent 01257
14 JUL 63

00000 (5 Aug 63)

2nd Xnl

1. Subject: Monthly Letter Report, GILC (Thailand) 1-31 July 1963

Headquarters, U. S. Military Assistance Command, Vietnam, APO H&C, GPO 14, San Francisco, California

ATTN: Col. Andrew-John-Clark, Pacific, AFM 14 352, c/o Fleet Post Office, San Francisco, California

TO: Advanced Research Projects Agency, Office of Secretary of Defense, Washington 25, D.C.

1. Forwarded for information and necessary action.
2. Concur with para 1a of last memorandum.

3. Reference item VI B., it is recommended that a high priority in the defoliation project be given to determining the concentration per acre of "PURPLE" chemical spray needed to kill bamboo at the mature stage of growth. Operational W defoliation experience shows that 2 1/2 lbs per acre of "PURPLE" in the standard spray concentration of 3 gallons per acre.

PAUL D. HARRIS
General, United States Army
Commander

03002

(5 Aug 63)

1st Ind

SUBJECT: monthly letter report, CDTC (Thailand) 1-31 July 1963

HEADQUARTERS, JOINT UNITED STATES MILITARY ADVISORY GROUP TO THAILAND,
APO 148, San Francisco, California

SUBJ: Commander, United States Military Assistance Command, Vietnam
APO 143 U.S. Forces

To: Commander-in-Chief, Pacific
ATTN: J52
c/o Fleet Post Office, San Francisco, California

1. The following comments on the July CDTC-T Report are submitted:

a. Paragraph IIA, Environmental Effects on Aircraft Reliability. JUSMAG has reviewed the proposed plan and indicated by separate action that it does not concur with CDTC-T on the need for this study.

b. Paragraph III B2, Flexwing. The contractor personnel associated with this project departed during the first week in August. All equipment has been returned to COMUS

Several of the tasks are reported on in more than one section of the report (e.g. Defoliation VIB and VII).

FOR THE CHIEF:

1 Incl
nc

RICHARD G. CARY
Captain, AGC
Adjutant

04' 87

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~~CONFIDENTIAL (S)~~

COMBAT DEVELOPMENT & TEST CENTER

V I E T N A M



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TO VNC/Classified
Per Director DARPA/ADM

SPECIAL REPORT



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~~CONFIDENTIAL~~

CRPA Cont. No. 10063

COMBAT DEVELOPMENT & TEST CENTER

REPUBLIC OF VIETNAM

ARMED FORCES

SPECIAL REPORT

THE EMPLOYMENT OF HELICOPTERS
IN DEFOLIATION OPERATIONS IN THE
REPUBLIC OF VIETNAM

**SPECIAL REPORT
ON THE EMPLOYMENT OF HELICOPTERS
IN DEFOLIATION OPERATIONS IN THE REPUBLIC
OF VIETNAM**

**BAO CAO DAC BIET
KHAI QUANG BANG PHI-
CO TRUC THANG TAI VN
-*****-**

by

**LT.COL. STANLEY FAIR, USA
and
CAPT NGUYEN THE TOAN, ARVN**

1. INTRODUCTION.

a. The Vietnamese Air Force (VNAF) has five HIDAL (Helicopter Insecticide Dispersal Apparatus, Liquid) spray systems which have been used on H-34 aircraft in crop destruction operations. The HIDAL has not been used previously for defoliation operations because of the limited capacity of its tank (200 gallons) and the inability of the HIDAL motor to pump for more than a few minutes the viscous chemical herbicide "Purple" used in defoliation. In addition, the H-34 is vulnerable to ground fire because of its slow flying speed and low spray altitude. This latter disadvantage is minimized by ground security forces and air cover used in herbicide operations.

b. This Special Report has been prepared to record for research and development agencies the unique aspects of this initial employment of helicopters in defoliation operations and to inform operational personnel of this additional capability for conducting defoliation attacks.

2. SELECTION OF EQUIPMENT.

a. At a meeting on 4 June 1963 to discuss the RVNAF plans for the defoliation of the Da Nhim power line (Target 20-10), it was decided that the target areas in Bien Hoa Province would be attacked by RVNAF and that target areas in Long Khanh and Lam Dong Province would be sprayed by USAF aircraft.

CDTC-V Monthly Report
Annex 4

1. LOI NOI DAU .

a. Không Quân V.N. hiện có năm (5) bộ máy phun hóa chất (HIDAL) trang bị cho Phi cơ Trục thăng H-34 để sử dụng trong công tác phá hoại mùa màng của VC. Từ trước đến giờ máy phun HIDAL chưa được sử dụng trong công tác khai quang vì chỉ chứa được 800 lít và máy bơm yêu chỉ bơm được trong vài phút hóa chất đất loại TIM dùng trong công tác khai quang. Ngoài ra vì phi cơ trục thăng phun hóa chất phải bay chậm và thấp nên dễ bị hỏa lực địch từ dưới đất bắn lên - Trờ ngại này có thể giảm thiểu nhờ lực lượng an ninh dưới đất và lực lượng Không Yem.

b. Bản báo đặc biệt này được soạn thảo để lưu chiểu cho các cơ quan nghiên cứu và phát-triển sự sử dụng đầu tiên các phi cơ trục-thăng trong công tác khai quang và để cho các nhân viên phụ trách khai quang biết khả năng của nó trong công tác này.

2. CHON LUA DUNG CU.

a. Trong buổi họp ngày 4-6-63 để bàn cái kế hoạch khai quang đường điện Cao-The DANHIM, các mục tiêu trong phạm vi Tỉnh Bien-Hoa được giao cho Không-Quân VN và các mục tiêu trong các Tỉnh Long Khanh và Lam Dong sẽ do Không Quân Hoa-Kỳ đảm trách.

b. All defoliation operations prior to the attack of Target 20-10 have been conducted with USAF C-123 aircraft equipped with the MC-1, Hourglass, spray system. The MC-1 tank holds 1000 gallons of herbicide and the spray system can deliver a dose of about $1\frac{1}{2}$ gallons per acre over a swath 100 yards wide and 12 miles long in one pass of the aircraft.

c. The three target areas in Bien Hoa Province were not suitable for attack with the C-123 aircraft because of the proximity of friendly crops and rubber trees to the target areas. Drift of the defoliant onto these cultivated areas would result in unwanted damage. The hazard of herbicide drift is a function of weather conditions, altitude of spray, and altitude of the aircraft. Drift is minimized under inversion conditions, no wind, and level flight at low altitudes. The C-123 sprays at an air speed of approximately 150 knots and at an altitude of about 150 feet. These planes have produced drift of varying proportions on previous operations, but these occasions have proved to be of no consequence economically or politically.

d. The equipment available to RVNAF to spray the three target areas were the HIDAL system, the Buffalo Turbine Sprayer, and three-gallon back-carry hand sprayers. The coverage of the hand sprayers is too limited for use in any defoliation operation except the attack of small trees and brush for local security purposes. The Buffalo Turbine is a ground-operated spray rig that can be towed behind a vehicle or mounted in the bed of a truck, and is commonly used in the United States for orchard spraying. This device was judged to be unsuitable for defoliation along the power line because of its coverage limitations and the unfavorable terrain.

e. The selection of the HIDAL system for attack of the three target

b. Tất cả những công tác khai-quang tu trước đến giờ đều do phi cơ C.123 của Không Lực Hoa-Kỳ trang-bị, với máy phun MC-1 HOURGLASS đảm trách. Thùng chứa của máy phun MC-1 chứa được 4000 lít hóa chất và phun được 6 lít hóa chất mỗi mẫu Anh trên một đường bay rộng gần 100 thước dài lối 19 cây số.

c. 3 mục tiêu trên Tỉnh Bien-Hoa không phù hợp với khả năng của C.123 vì vị trí nằm sát hoa màu và số cao-su của dân chúng. Hóa chất có thể bay theo gió và gây thiệt hại - Độ giật của hóa chất tùy theo thời-tiết, cao độ phun và cao độ của phi-cơ và có thể giảm thiểu khi trời không gió và khi phi cơ bay thấp - Phi cơ C.123 phun hóa chất với tốc độ lối 150 gút và cao độ lối 150 bộ, dễ tung tạc nhiều trường hợp hóa chất bay giật, nhưng không có ảnh hưởng kinh tế hay chánh trị trong những dịp đó.

d. Những dụng cụ hiện hữu của QDVNCH khả dĩ sử-dụng được cho 3 mục-tiêu gồm có máy phun HIDAL, máy phun đất trên móc hậu (Buffalo turbine) và bình xịt tay. - Bình xịt tay (Hand sprayer) chỉ sử dụng được cho những công tác khai quang hạn chế gồm có bụi nhỏ, cây con hay cỏ - Máy phun Buffalo Turbine là máy phun đất trên móc hậu hay trên xe GMC, phun từ dưới đất phun lên, chỉ dùng trong những mục-tiêu nhỏ có đường xe chạy. Các dụng cụ này không thích hợp cho việc khai quang dọc theo đường điện vì tầm phun hạn-chế và địa thế khó-khăn.

e. Việc lựa chọn máy HIDAL để phun hóa chất tại 3 mục tiêu Bien Hoa

areas was not entirely a process of elimination. The sizes of the target areas and the characteristics of the spray systems indicated an ideal situation to demonstrate the capability of the HIDAL for defoliation operations. The E-34 spray at a speed of about 55 knots and at an altitude of approximately 50 to 75 feet. The report of calibration tests on the HIDAL conducted at Eglin Air Force Base, Florida, in July 1962 states:

"Because of the lower altitudes and speeds of these aircraft (compared to fixed wing aircraft), and perhaps of the air blast of the main rotor downward, a better control of aimability of spray may be experienced. It appears that the main rotor influence is sufficient to overcome to a degree the influence of gentle and variable winds." *

f. These same calibration tests showed that the H-34 would deliver approximately one gallon per acre of Purple over a swath width of about 70 yards. The length of the swath depends on the time the HIDAL motor can be run without excessive heat, and not on the capacity of the tank. Tests in Vietnam in October 1962 indicated that three minutes is the upper limit when Purple is being dispersed. ** At a flying speed of 55 knots, the swath length for three minutes would be about three miles, approximately the length of the largest of the three target areas assigned to RVNAF. Thus, the areas were within the capabilities of the HIDAL system and the H-34 promised more accuracy of spray than the C-123 aircraft.

3. DESCRIPTION OF TARGET AREAS.

a. The three areas of Target 20-10

* Spray Test Calibration of the HIDAL (HUS-1 or E-34), J.W. Brown, U.S.A. Cml C, July 1962.

** Message, MACRD 4488, DTG, 291030Z October 1962.

không phải hoàn toàn do phương pháp loại bỏ mà vì đây là một dịp tốt để chúng ta khả năng khai thác của máy phun HIDAL đối với những mục tiêu lớn và đối với các đặc tính của nó. Phi-cơ trực thăng H-34 phun với tốc độ 55 gút và cao độ từ 50 đến 75 bo - Báo cáo thực-nghiệm đo lường sức phun của máy HIDAL tại căn-cu Không-Quân EGLLN (FLORIDA) tháng 7 năm 1962 cho biết :

" Vì tốc-độ kém và cao độ thấp của phi cơ trực thăng (so với phi cơ có cánh) và cỡ lệ vĩ cánh quạt chính cuốn gió thẳng xuống nên phun hoa chat có thể chính xác hơn - ảnh hưởng của quạt chính dù để loại mất ảnh hưởng của gió nhẹ.(1)

f. Cuộc thực-nghiệm đo cho biết phi cơ trực thăng H-34 phun loại 4 lít hoa chat TIM một mẫu Anh trên một đường bay rộng loại 65 thước. Bề dài của đường bay tùy thuộc thời-gian và máy bơm có thể hoạt động mà không đến đời nóng qua mức cho không phải tùy thuộc ở sức chứa của thùng - Cuộc thực-nghiệm tại VN hồi tháng lo năm 1962 cho biết 3 phút là thời gian tối đa trong khi xử dụng hóa chat TIM (1). Với tốc độ bay 55 gút bề dài của đường phun trong 3 phút có thể là 4 cây số 800, tương đương với mục tiêu do QĐVNCH đảm nhận. Vì thế các mục tiêu ấy đều nằm trong tầm khả-năng của máy phun HIDAL và phi cơ trực-thăng H-34 sẽ hoạt động chính xác hơn phi-cơ C-123.

3. MÔ TẢ CÁC MỤC TIÊU.

a. Các mục tiêu do Không-Quân VN

(1)-Bản báo cáo "Thực-nghiệm khả năng phun của máy HIDAL" (HUS-I hay H-34) J.W.BROWN Nha Hoá Học Hoa Kỳ tháng 8-1962.

assigned for attack to VNAF are within Bien Hoa Province and were designated Areas 10A, 10B, and 10C. A sketch map of these areas is at Annex A.

(1) Area 10A is 5200 meters long and 300 meters wide on each side of the Da Nhim power line. Coordinates YT 085087 to YT 135100.

(2) Area 10B is 2400 meters long and 300 meters wide on the north side of the Da Nhim power line. Coordinates YT 172122 to YT 194127.

(3) Area 10C is 3500 meters long and 300 meters wide on the north side of the Da Nhim power line. Coordinates YT 222129 to YT 257121.

b. Area 10A was covered by tropical scrub, about 5% being bamboo, and clumps of tall trees. Areas 10B and 10C are more uniformly covered with trees and dense under brush. There were no cultivated areas near Area 10A but rubber trees were growing on the opposite side of the power line from Areas 10B and 10C and friendly crops were at each end of Area 10C. A photograph of area 10A is at Annex B.

4. OPERATIONS.

a. Operations were conducted by the officers and men of the 211th Helicopter Squadron, VNAF. Two H-34 helicopters (tail numbers 028 and 025) were used for spraying and one helicopter flew the missions as rescue plane. Air cover was provided by two AD-6 fighter aircraft from Bien Hoa Air Base and ground security consisted of two companies of the 1st Battalion, 2nd Regiment, 1st Infantry Division, ARVN (on a reinforcing mission with the 5th Infantry Division, ARVN). Personnel from CDTC-V provided operational support as well as technical advice and assistance.

b. The HIDAL spray systems were

dảm nhận trong phạm vi Tỉnh Biên-Hòa được chỉ danh là BH-1, BH-2 và BH-3 (xem bản đồ ở Phụ-Ban A).

(1) Mục tiêu BH-1 dài 5200 thước rộng 300 mỗi bên đường điện cao thế, từ tọa độ YT-085087 đến YT 135100

(2) Mục tiêu BH-2 dài 2400 thước rộng 300 thước về phía Bắc. đường điện từ tọa độ YT-172122 đến YT-194127.

(3) Mục-tiêu BH-3 dài 3500 thước rộng 300 thước về phía Bắc đường điện từ tọa độ YT-222129 đến YT-257121.

b. Cả ba mục tiêu đều ra rừng chồi nhiệt đới rải rác có nhiều cây cao từ 12 đến 20 thước và có những lùm tre rậm nhứt là ở BH-2 và BH-3. Không có vườn tuộc ruộng nương dân-chúng ở gần mục tiêu BH-1. Trại lái mục tiêu BH-2 nằm cạnh với sở cao su Trang-Bom có nhiều cao su còn có 2,3 tuổi rất đẹp bị ảnh hưởng hoá-chat - Hơn nửa mục-tiêu BH-3 ngoài vườn cao su về phía Nam lại còn có hoa màu của dân chúng nằm ở hai đầu Đông và Tây. Xem Phụ Ban B - ảnh của mục tiêu BH-1.

4. THỰC HIỆN CÔNG TÁC

a. Công-tác phun hoá chất do Sĩ-quan và nhân viên phi-hành của Phi-Đoàn 211 - 2 Phi cơ trực-thăng H-34 (028 và 025) được trang bị máy phun và 1 phi-cơ trực-thăng H-34 được sử dụng trong công tác cứu cấp. Hai phi cơ khu trục AD-6 của Căn cứ 2 Không quân hoạt động trên không và 2 Đại-Đội Bộ Binh thuộc Tiểu Đoàn 1/2 tăng cường cho Sư-Đoàn 5 BB đảm nhận an-ninh dưới đất. Nhân viên Trung-Tâm Thực Nghiệm và Phát Triển Khoa Năng Tác chiến đảm nhận mọi vấn-đề yem-trò kỹ-thuật.

b. Ngày 13-7-63, nhân viên kỹ-

installed on the two H-34 aircraft at Tan Son Nhut Air Base, Saigon, on 13 July by CDTC-V personnel and the electrical systems checked. The series of photographs at Annex B depict these preparations and the chemical storage area at the Go Vap FOL Depot, the filling of the HIDAL tank, and the testing of the spray system on the ground. These preparations took place on 14 July.

c. The attack of Target Area 10A required three days for completion. One helicopter was assigned to spray each side of the power line with a total of four passes to obtain a coverage of about one gallon per acre per day. The spray planes were to take off from Tan Son Nhut with HIDAL tanks full, make two passes over the target, land at Bien Hoa Air Base, reload, and make the second two passes.

d. The CDTC-V support personnel briefed the pilots on the targets in the afternoons preceding the spraying and filled the HIDAL tanks at Tan Son Nhut. On the mornings of spraying, CDTC-V personnel travelled to Bien Hoa Air Base by truck and refilled the HIDAL tanks.

e. At 0610 hours 15 July the H-34's took off from Tan Son Nhut and sprayed Area 10A, landed at Bien Hoa, had the HIDAL tanks refilled, and sprayed again. The only difficulty encountered during this first day of operations was with the pump used to transfer Purple from the drums to the HIDAL tanks. The pump was repaired that afternoon but it was decided that an additional means for transfer of the chemical was required.

f. The only other transfer pump available was in use for the C-123 aircraft which were spraying the northern areas of Target 20-10. Moreover the nozzle of this latter pump was too large for the HIDAL tank and a reducer would have to be fabricated. The CDTC-V

thuật TTTN/PTKNTC lắp 2 máy phun HIDAL lên 2 chiếc phi-cô trực-thang H-34 và kiểm soát lại các hệ-thống điện. Một loạt hình ảnh ở phụ-bản B cho thấy các chuẩn bị này và sự tập-tru hoá chất ở Căn cứ 30 Ton tru nhiên liệu (Gõ Váp). Việc bơm hoá-chất lên phi-cô và thu hệ-thống phun ngày 14-7-63.

c. Thực hiện công-tác tại mục-tiêu BH-1 cần 3 ngày. Hàng ngày mỗi phi-cô trực thang đảm nhận 1 bên đường điện và phun lối 4 lit hoá chất mỗi màu Anh mỗi ngày.

Cát canh tại Tan Son Nhut với đầy đủ hoá-chất các phi-cô phun 2 lượt tại mục tiêu rồi đáp xuống tại căn-cứ 2 KQ Biên-Hóa để nạp hoá-chất lại.

d. Mọi buổi chiều nhân-viên TTTN/PTKNTC thuyết-trình cho các phi-hành đoàn biết các du-kien kỹ-thuật và các đặc-tính mục-tiêu, đồng thời cho nạp hoá-chất lên phi-cô.

Sáng hôm sau các nhân viên này túc trực tại phi-trưởng Bien Hoa đã nạp hoá chất lại cho chuyến bay thu hai trong ngày.

e. 1506100 phi-cô cát canh tại TSN đi phun tại mục tiêu BH-1, đáp tại căn cứ 2 Không Quân để nạp hoá-chất lại và phun lượt 2. Một khó khăn nhỏ của ngày thu nhất là máy bơm nạp hoá chất bị trục trặc. Máy đã được sửa chữa ngay chiều hôm ấy, nhưng cần phải tìm thêm một phương pháp nạp hoá chất nữa.

f. Một bơm khác khả dĩ dùng được đang bán để nạp hoá-chất lên phi cô C-123, và dầu sao ống cũng qua to không xử dụng được cho máy HIDAL. Nhân viên TTTN/PTKNTC quyết định xử dụng máy phun HARDIE để nạp hoá chất lên phi-cô. Máy phun HARDIE cũng một loại

personnel decided to try the Hardie Sprayer as a transfer pump. The Hardie is a ground-operated rig which, like the Buffalo Turbine, can be towed behind a vehicle, and is used normally for spraying of crops. Purple was poured from the drums into the 200-gallon tank of the Hardie and then was pumped into the HIDAL tank. Photographs in Annex B show this novel use of the Hardie Sprayer.

g. The 16th and 17th of July were repeats of the first day of operations in order to obtain a total dose on Area 10A of about three gallons per acre. The two transfer pumps functioned without incident; however, trouble developed on the second day (16 July) with helicopter 028. The circuit breaker cut off the HIDAL system on the third pass, and even though the crew chief reconnected the system, it continued to cut off. Helicopter 028 made repeated passes over the target until the tank was empty and, upon return to Tan Son Nhut, the HIDAL motor was replaced. The teflon vanes of the HIDAL pump were broken, indicating that the motor was operated at an excessive speed.

h. On 18 July Target Area 10B was sprayed. One helicopter was in the lead, following the power line as a guide. The second helicopter was to the side and rear of the first and guiding on the first helicopter. The aircraft made two passes over the target, landed at Bien Hoa, had the tanks half-filled, and made a third pass to get about three gallons per acre on target. Helicopter 028 developed trouble again on the second pass and when the planes landed at Bien Hoa, the HIDAL pump was broken. During that afternoon the electrical system of helicopter 028 was checked thoroughly. The electrician reported that the voltage regulator had malfunctioned, driving the HIDAL motor too fast and resulting in the broken pump vanes.

nếu máy phun Buffalo-Trubine do xe kéo và để xu dung phun có hay hoa màu. Hóa-chất TIM được đổ vào thùng chứa 800 lít của máy HARDIE rồi từ đó bơm lên phi cơ. Hình ảnh ở phụ bản B cho thấy việc xu dung mới này.

g. Ngày 16 và 17-7-63 công-tác giống như ngày thứ nhất để phun tất cả trên mục tiêu BH-1 là 3 gallons (12 lít) mỗi mẫu Anh tức là 30 lít mỗi Hectare. Các bơm nạp hóa chất đều hoạt-dong đều đặn. Ngày thứ 2 (16-7) bộ phận cắt điện trên phi cơ 028 cu nhay ra luôn nên phi-cơ phải vật ya bay đi bay lại để phun hết hóa chất. Về đến TSN máy bơm trên phi cơ được chuyên viên thay ngay - Valve bằng chất Teflon trong máy bơm bị bể chùng tổ Moteur đã quay mau quá sức của máy bơm.

h. Ngày 18-7-63 mục-tiêu BH-2 được phun hóa-chất - Một trực thăng bay trước dẫn đường phun một lượt một trực thăng theo sau phun lượt thứ 2 - Sau khi đáp tại Biên-Hòa đổ nạp hóa-chất lại phi-cơ 028 được kiểm soát thay Valve lại bị bể nửa nên chuyên-viên cho thay bơm của máy HIDAL ngay. Chiều hôm ấy chuyên viên điện kiểm-soát lại toàn thể hệ-thống và báo cáo là bộ-phần điều-chỉnh điện (Voltage regulator) hỏng nên motor chạy quá mau đánh vỡ valve của máy bơm.

i. The spraying of Target Area 10C on 19 July was executed without incident. The helicopters used the same formation as over Area 10B but made four passes over the target to obtain the desired dosage.

j. Ground security forces moved from Area 10A to 10B to 10C as these areas were sprayed. These troops also provided psychological warfare support for this operation by distributing leaflets which explained the reasons for spraying. The leaflet used appears at Annex C.

5. EVALUATION OF DEFOLIATION.

It is planned to inspect Target Areas 10A, 10B, and 10C for the effectiveness of the herbicide at approximately 15, 30, and 60 days after the operation. The results of these inspections will be included in the appropriate monthly reports of the Combat Development and Test Center, Vietnam.

6. DISCUSSION.

a. In this operation, two helicopters sprayed defoliant chemical over approximately 830 acres during five days. With five HIDAL systems, a capability now exists to attack about 400 acres per day by helicopter. This is a significant contribution to the total area which can be sprayed by the combined efforts of VNAF and USAF.

b. In addition to this demonstrated capability to disseminate "Purple", the HIDAL should be able to spray "Pink", the herbicide used in crop destruction operations to attack root crops such as manioc and sweet potatoes. Heretofore, hand sprayers have been used in this role, and helicopters sprayed only "Blue" for the attack of rice. (Note: this versatility in types of color-coded chemicals which can be used in the HIDAL system has led the VNAF crews to call themselves "The Rainbow Team").

i. Ngày 19-7-63 phun hóa chất tại mục-tiêu BH-3 theo dõi hình củ xử dụng tại mục tiêu BH-2 và bay 4 lượt trên mục tiêu.

j. Lực-lượng an-ninh dưới dạt di-chuyển tại BH-1 lên BH-2 và BH-3 theo lịch-trình hoạt-dong của phi-có và các toán Chiến tranh Tam lý giải-thích cho dân-chúng biết sự ích lợi của công tác khai quang - rải truyền đơn dính theo Phụ-bản C.

5. QUAN SÁT KẾT QUẢ .

Đã dự-dinh quan sát các mục-tiêu BH-1 BH-2 và BH-3 để đánh giá kết quả 15, 30 và 60 ngày sau khi phun hóa-chất. Kết quả sẽ được báo sau theo báo-cáo hàng tháng của TTTN/PTKNTC.

6. THẢO LUẬN.

a. Trong cuộc hành quân này 2 phi-có trực-thang đã khai-quang 830 mẫu Anh (lối 375 hectares) trong vòng 5 ngày. Không quân Việt-Nam có 5 bộ HIDAL có khả năng hoạt-dong lối 400 mẫu Anh (160 hectares). Đây là sự đóng góp đáng kể cho chương trình khai-quang hiện đang do Không Lực Hoa-Kỳ đảm nhận.

b. Ngoài ra, khả năng phun hóa-chất TIM chung to máy HIDAL có khả năng phun hóa chất HUONG loại dùng để diệt trừ hoa màu có củ như mì, khoai v.v... Cho đến nay hóa chất HUONG chỉ được bình xịt tay xử-dụng và phi-có trực-thang chỉ phun hóa-chất "XANH ĐUÔNG" để diệt lúa. Vì những mẫu sắc ảnh-hiệu của hóa-chất dùng cho máy phun HIDAL nên các chuyên viên và phi hành đoàn phun hóa chất này được gọi là "Toàn mong trời" (Rainbow Team).

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c. The only trouble of any significance during this operation occurred with the electrical system of one H-34. The fact that the other helicopter was trouble free throughout the operation and that both performed without difficulty on three of the five days is indicative that the HIDAL system should be a dependable addition to the defoliation effort.

7. CONCLUSIONS.

a. The dissemination of the chemical defoliant Purple over approximately 830 acres by two helicopters equipped with the HIDAL spray system was performed without major difficulty.

b. The five HIDAL sprayers of VNAF can offer a significant contribution to defoliation operations.

8. RECOMMENDATIONS. It is recommended that:

a. Research and development agencies note this report.

b. Operational personnel consider the use of helicopter in future defoliation operations.

c. Khó khăn duy nhất của cuộc hành quân này là hệ thống điện của một trong 2 phi cơ. Một phi cơ đã hoạt-dong toàn hảo phi cơ còn lại chỉ trục trặc 2 lần trong vòng 5 ngày chung tỏ máy phun HIDAL phải được xử dụng đúng mức trong các nỗ lực khai-quang.

7. KẾT LUẬN.

a. Không có gì khó-khăn đặc-biệt cho máy HIDAL xử dụng trên 2 phi cơ trục thạng H-34 để phun hoá-chất TIM trên 830 mẫu Anh rừng.

b. 5 bộ máy phun HIDAL có thể giúp ích rất nhiều cho công tác khai quang.

8. ĐỀ NGHỊ . Chúng-tôi xin trân-trong đề nghị :

a. Các cơ quan nghiên cứu và phát triển lưu-y ban báo cáo này.

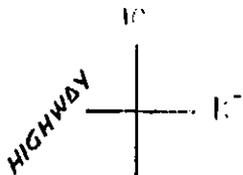
b. Nhân viên điều hành công-tác 202 lưu-y sự xử dụng trục-thạng trong các công-tác khai quang trong tương lai.

ANNEX A
MAP OF TARGET
(AREAS 10A, 10B, and 10C)

PHU BAN A
BẢN ĐỒ MỤC-TIÊU
(MỤC-TIÊU BH-1, BH-2 VÀ BH-3)

MAP of VIETNAM
SCALE 1:100,000
SHEET # 221 EAST

SAM HÒA VIET-NAM
TỶ LỆ 1:100,000
TỜ BẢN 221 ĐÔNG



74

SAIGON BIÊN-HÒA
X 15

G. L. I
HIGHWAY NO. 1

20-10B / BH-2

20-10C / BH-3

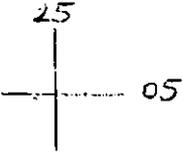
20-10A / BH-1

TRANG-BON

Power Line

C. L. 15

BIÊN-HÒA
DONG-KHINH



ANNEX B
PHOTOGRAPHS

PHỤ BẢN B
HÌNH ẢNH

Ảnh số 19 mục-tiểu Biên-Hoa trước khi phun hoa chất

Ảnh số 20 Lắp máy phun HIDAL. Đang lắp ống dẫn hoa chất ở phía trái trong khi một trong 2 thùng chứa hoa chất HIDAL được đưa vào phi-cò.

Ảnh số 21 Sân tồn trữ hoa chất diệt cây cỏ tại Căn Cứ 30 Tôn Trú Nhiên Liêu (Gò Vấp)

Ảnh số 22 Lắp hoa chất Tim lên thùng chứa HIDAL

Ảnh số 23 Thủ máy phun hoa chất HIDAL trước khi bay

Ảnh số 24 Đổ hoa chất Tim vào máy bơm HARDIE

Ảnh số 25 Bơm hoa chất Tim từ máy HARDIE lên phi cò

Ảnh số 26 Phun hoa chất bằng phi cò trực thăng trên đường Điện Cao Thế Đa-Nhim.

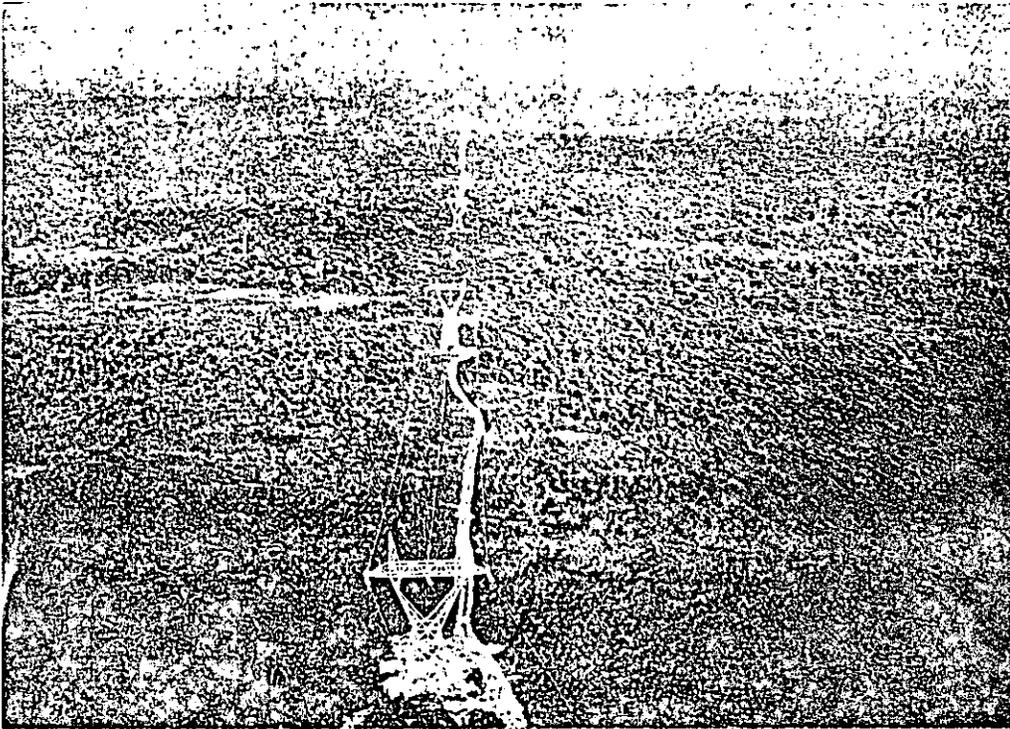


PHOTO 19 - A view of defoliation Target 20-10 prior to spraying operations.

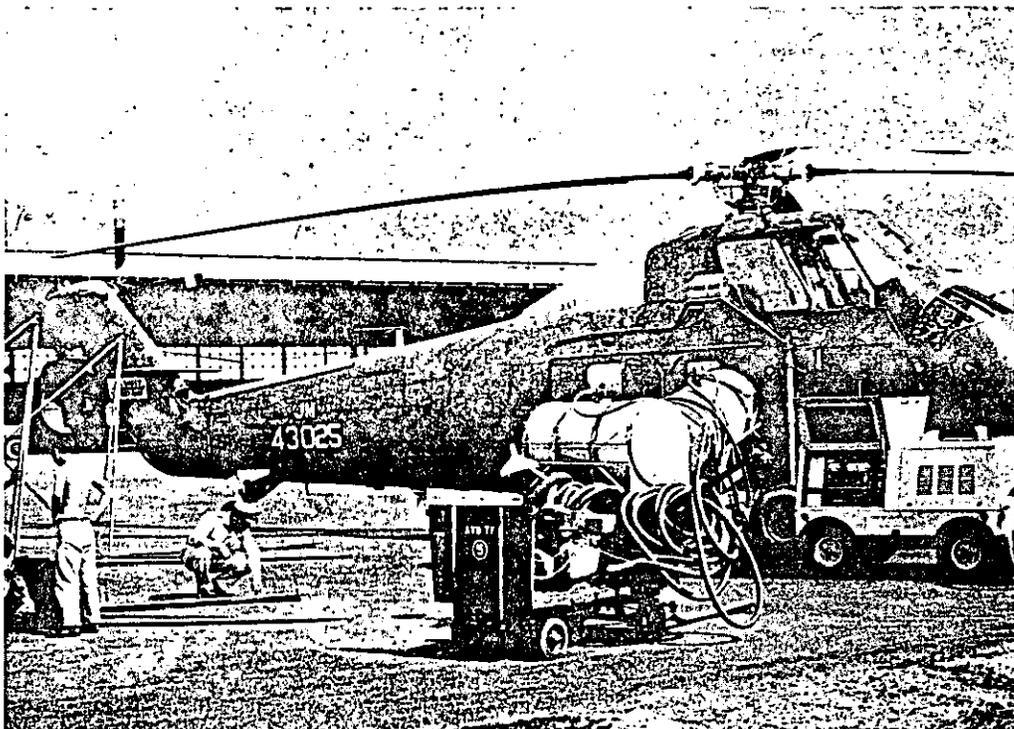


PHOTO 20 - Installation of the HIDAL system. Booms are being assembled on the left while one of the two HIDAL tanks is placed inside the helicopter.

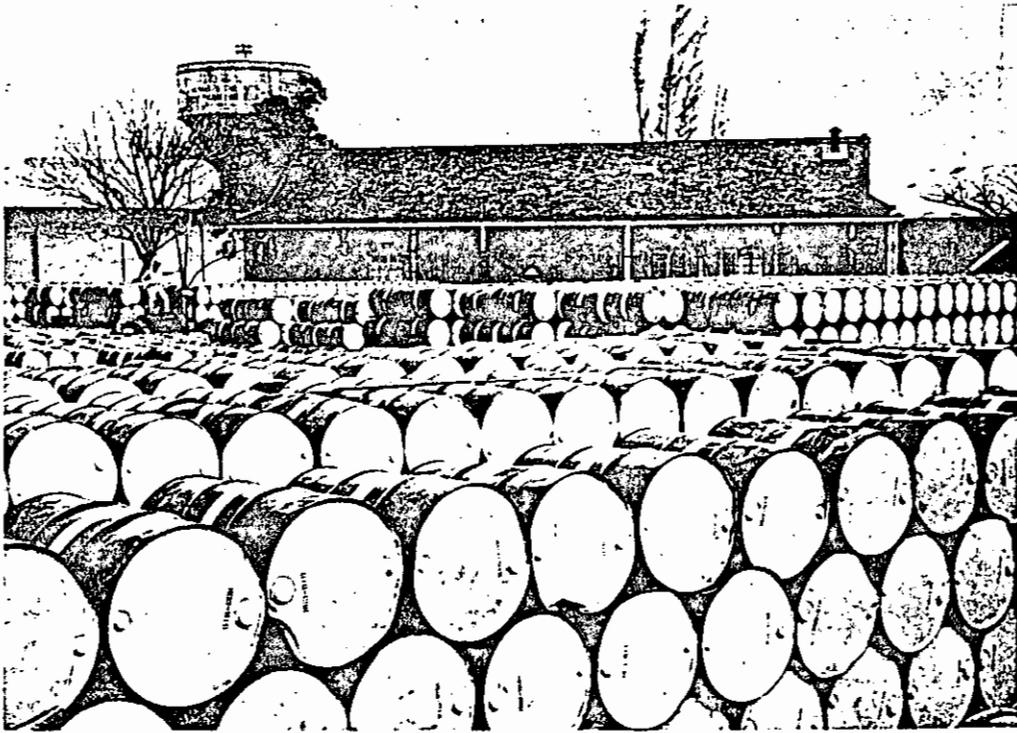


PHOTO 21 - Storage area for chemical herbicides at Go Vap POL Depot on edge of Saigon.

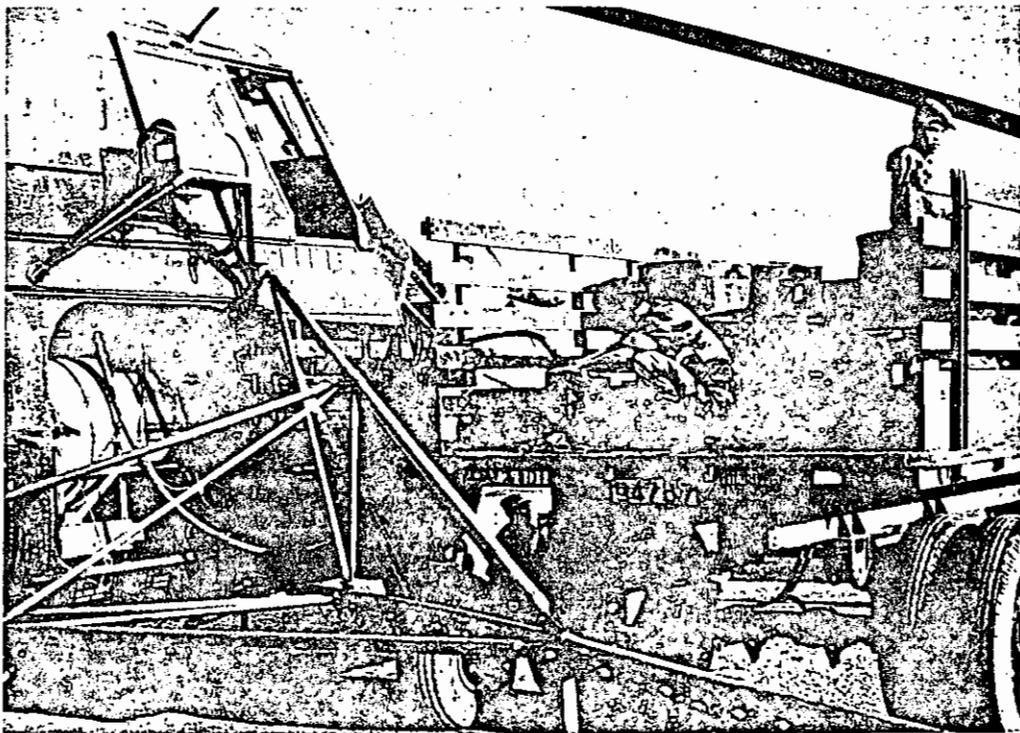


PHOTO 22 - Filling the HIDAL tank with herbicide "Purple".



PHOTO 23 - Test of the HIDAL system on the ground.



PHOTO 24 - Filling the Hardie Sprayer with herbicide "Purple".

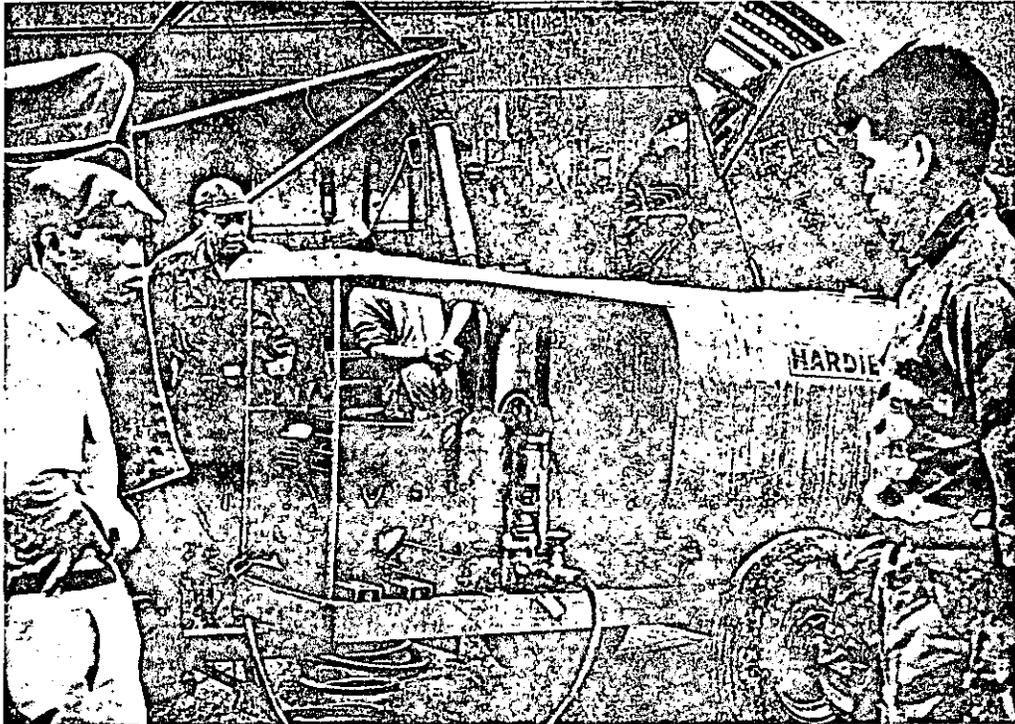


PHOTO 25 - Transfer of the "Purple" from the Hardie Sprayer to the HIDAL tank.



PHOTO 26 - Spraying the Da Nhim power line with helicopters.

ANNEX C
PSYCHOLOGICAL WARFARE

PHU BAN C
CHIEN TRANH TAM-LY



Cây cối, lùm bụi rậm rạp là nơi Việt Cộng thường ẩn núp để cướp bóc, ám sát dân chúng và phá-hoại công trình kiến-thiết xứ sở của nhân dân ta.

Thuốc khai quang làm héo cây rừng lá khiến cho Việt Cộng hết chỗ ẩn núp đồng thời giúp cho Quân-Đội dễ dàng trong công-tác bảo vệ tính mạng và tài-sản của nhân-dân.

Đồng bào thân mến,

Chính-Phủ vừa dùng thuốc để khai-quang đường điện Cao-thế. Thuốc khai-quang làm rụng cây héo lá để dễ thực hiện và bảo-vệ đường điện Cao-thế.

Thuốc khai-quang không phải là thuốc độc và không gây ảnh hưởng đến người, súc vật, nước uống và đất đai của đồng bào.

Đường điện Cao-thế được thiết-lập sẽ giúp cho việc kỹ-nghệ hóa xứ sở và nâng cao đời sống của dân chúng.

Đường điện Cao-thế DA-NHIM là tài sản chung của nhân dân ta, chúng ta ai cũng có bổn phận tích cực bảo-vệ.

Đồng bào hãy bình tĩnh và đề phòng âm-mưu tuyên-truyền xuyên-tạc của Việt-Cộng.

Trường hợp thuốc khai-quang chẳng may gây thiệt cho hoa màu của đồng bào, đồng bào hãy liên-lạc với giới chức Hành chánh Địa phương để yêu cầu bồi-thường.

Ủ Lang bol Kõn gobol

Kuàng bỏ tau ráp pa ngui sanóm rasih tan-chót chi tam tiah gung gós chi đồng-janhêa.

Banóm rasih lan chót chi, jruh nha, gën tở buôn rami sin gung dà tam tiah đang janhêa.

Sanóm rơ sin da, ở đi lah sanóm khih mớ ở đi lah sanóm chót joi kan banús, ở đi lah tón chót joi pẻn jong mớ kung ở lan khih dà ia lang bol hùc.

Gung lết tiah janhêa nẻh gós, gẻn ráp dóng tam brẻa dà lagẻr mớ brẻa lẻn rai kớ bói đi.

Gung jong anang ẻs đẻng dà-nhim lah brẻa lang bol hẻ dờ ngui bal, gẻn bol hẻ cau loi kuẻng racẻng sin gẻr bal.

Lang bol pal sin ngẻc dẻ bẻ kờ nin kớrhia rẻnhỏt gós jẻnau công-sẻn ania parlẻm.

Ngỏt đi gẻlẻp rasih sanóm tam phẻn lang bol, bẻ hử gẻnklẻng bol đi gẻlẻp jẻnau hử gẻn pal yẻt mớ kuẻng ala mẻt tam tiah hẻ đi tở đẻn cau tẻm hẻ in phẻn hử wẻl

~~CONFIDENTIAL~~

OFFICE OF THE DIRECTOR
JOINT RESEARCH AND TEST ACTIVITY
APO 143, San Francisco, California

24 June 1964

Mr. S. J. Daitchman
Special Assistant (Counterinsurgency)
Office of the Director of Defense Research and Engineering
Washington, D. C. 20301

Dear Sy:

In response to your message request of 28 May 1964 for information concerning the effectiveness of defoliation, I have had collected for you the data found on the attached page.

I realize that this is not as complete or detailed as you requested. During the screening of records, it soon became apparent that our sources for such information are limited, primarily because there has been no systematic effort made to isolate and record these facts in the past.

For this reason, the information I am forwarding to you reflects only our experience data for the defoliation accomplished along the railroad network. It represents the most complete, valid and usable information available on the subject, and, I trust, will be of value to you. I should point out that no differentiation was made between spraying methods used, i.e. aerial or ground.

Sincerely,

J. K. Boles, Jr.

JOHN K. BOLES, JR.
Brigadier General, USA
Director

THIS DOCUMENT HAS BEEN DOWNGRADED
TO Unclassified
Per Director, DARPA/ADM
1 Incl
as

*Sy - I am also enclosing a little pamphlet I received today from the G. I. N. It was sent to me thru the mail -
Jack*

001-01

UPON REMOVAL OF ATTACHMENTS THIS DOCUMENT BECOMES UNCLASSIFIED

~~CONFIDENTIAL~~

ARPE Cont. No. 6191

DEFOLIATION INFORMATION

NOTE: Only data on Defoliation of the National Railroad (Southern Portion - Xuan Loc to Nha Trang) is considered sufficiently accurate to permit detailed analysis. Detailed VC incident data in other defoliated areas has not been compiled yet.

1. Linear distance defoliated along railroads: 140.6 kilometers
2. Traffic (all types) before and after defoliation: Rail traffic is considered equal for both periods.
3. VC initiated incidents before and after defoliation:

Before Defoliation (1 Jan - 3 Dec 63)

70 (includes 5 major attacks)

After Defoliation (4 Dec 63 - 21 May 64)

12 (includes no attacks; all were simple sabotage)

24 (extrapolation figure for equivalent before/after comparison)

4. VC incidents along the entire railroad during the comparative period:

4 Dec 62 - 21 May 63: 101

4 Dec 63 - 21 May 64: 131

5. Fraction of ambushes/attacks successfully anticipated or defeated: None have occurred since defoliation.

6. Using the extrapolated comparative data, incidents in the defoliated areas have decreased by 65.7%. This reduction is particularly significant since the overall incident trend shows an increase of 29.7% over a like period in 1962-63.

IA&L #1