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HISTORY

OF

12th SPECIAL OPERATIONS SQUADRON

1 JANUARY - 31 MARCH 1970

Assigned to:

315th Tactical Airlift Wing

834th Air Division, 7th Air Force, Pacific Air Forces

Stationed at:

Bien Hoa Air Base, Republic of Vietnam

Prepared by:

Hillard C. Hunter, Jr.
HILLARD C. HUNTER, JR.
1Lt, USAF
Historian

CATALOGED

Approved by:

Ben V. Walker
BEN V. WALKER
Lt Col, USAF
Commander

GROUP 4
Downgraded at 3 year
intervals; declassified
after 12 years

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Appendix C to
K-WG-315-H1
Jan - Mar 1970

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INTRODUCTION

(U)The 12th Special Operations Squadron, code-named "Ranch Hands", has a unique mission in South Viet Nam. That mission calls for the Ranch Hands to fly approximately 100 feet above the ground to disperse defoliant chemicals over the jungle. They are often subjected to ground fire from hostile forces; but, so far casualties have been exceptionally light.

(U)These missions are flown out of Bien Hoa Air Base, RVN, in support of the II, III, and IV Corps areas. The squadron has a detachment at Da Nang Air Base, RVN, which flies targets in I Corps and northern II Corps.

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CHAPTER I

MISSION AND RESOURCES

Mission¹

(C)The primary mission of the 12th Special Operations Squadron, code named RANCH HANDS, is to defoliate enemy safe havens, base camps, storage and supply areas, and lines of communications (roads, trails and waterways). The RANCH also has the mission of conducting defoliation missions around friendly lines of communications and areas around Special Forces base camps. The enemy is thus denied coverage for probable ambush attacks, and the areas are opened up for improved ground and aerial observation.

(C)As a part of the primary mission, the RANCH conducts the mission of resources control, or crop destruction. This mission is flown for the purpose of destroying much of the enemy's food supply. The enemy must then divert more of his fighting force to the task of replenishing his food stock. He has also used this tactic to his advantage, claiming that the Americans are destroying the land and that the spray is the cause of many physical defects, such as deformed babies and sterility in men. Personnel who load the spray tanks with the herbicides have been doing this for years. They have often had the chemicals splashed on their skins and have not shown any signs of illness². Due to the controversy of the use of chemical warfare, information related to this mission is not as openly discussed as the defoliation missions.

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(C)A secondary mission of the RANCH is that of conducting airlift operations as directed by higher authority. This is accomplished by removing the spray tank and spray booms from the aircraft and installing conveyors and other necessary equipment for airlift operations. This conversion can be done within a matter of hours.

MACV Malaria Control Team

(U)The RANCH has two airplanes which operate under the control of the MACV Command Surgeon. These two aircraft are equipped for spraying Malathion only, an insecticide which kills mosquitoes. The team operates out of Cam Ranh Bay and Da Nang as forward operating bases, and Bien Hoa, the home station. Presently, there are fourteen targets that are sprayed for the purpose of malaria control. These areas are military bases and parts of the adjacent cities.

(U)The malathion is supplied to the team through the support of the 20th Preventive Medical Unit at Long Binh, for targets in the Bien Hoa area, and the 105th Medical Detachment at Cam Ranh Bay for that area. The Navy formerly provided support at Da Nang; but, this operation was recently given to the Army's 172th Preventive Medical Unit.

Organization and Personnel

(U)The 12th Special Operations Squadron is assigned to the 315th Tactical Airlift Wing, Phan Rang AB, RVN. The squadron operates

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out of Bien Hoa AB, where the 3rd Tactical Fighter Wing assumes host wing responsibilities. The squadron has a detachment operating at Da Nang. This detachment flies defoliation missions throughout I Corps, and northern II Corps. It is presently programmed for movement to Bien Hoa in the next quarter.

(U)The squadron received a new commander at the beginning of the quarter. Lt Col Keith W. West arrived in December and assumed command on 12 January. Lt Col Fisher, the former commander, was transferred to the Da Nang detachment to assume command. Major Jack E. Anderson was relieved of the detachment commander position and was made the detachment's operations officer.

(C)The squadron had been without an intelligence officer since the departure of Lt Dennis Fisher in December. This vacancy was filled by Capt Douglas Reed in January when he came to the RANCH. Lt John Belvin was the acting intelligence officer for the squadron until he was transferred to Nakhon Phanom, Thailand, to participate in flare-drop missions.

(U)Lt Col Charles F. Renner, Chief of Stan/Eval, DEROSed in February. Major Burton T. Holaday then filled the job until his DEROS in April. Major Roger C. Horrigan was upgraded to Stan/Eval flight examiner in March so he could take over upon Major Holaday's departure.

(U)Major Rodney A. Saunders left the RANCH in February, and the Insecticide Flight operations was turned over to Major Gene B. Basden. Major Bradfield F. Eliot, commander of "B" flight, was

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transferred to the Da Nang detachment in January. Then in February he was sent to 7th Air Force at Tan Son Nhut. "B" flight is now commanded by Capt James Downs, who arrived on 28 February.

(C) During the period of 1 January through 31 March, the total number of air crew personnel assigned to the squadron fell from 64 officers and 39 flight engineers, to 52 officers and 30 flight engineers³. Although there was a decrease in personnel, the squadron was able to maintain a rating of C-1, except for a brief period in February. The squadron had a rating of C-2 from 22 through 27 February, as a result of pilots who had DEROSed. The squadron returned to the C-1 on 28 February when two aircraft commanders and three co-pilots reported for duty⁴.

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CHAPTER II

OPERATIONS AND TRAINING

Tactics

(C)The 12th Special Operations Squadron flies its missions in the UC-123K Provider, equipped with one J85-GE-17 jet engine attached under each wing, a one thousand gallon tank stored in the cargo compartment which the herbicide is carried in, and is dispensed through pipes having nozzles on them. These pipes are located under each wing, and one is located aft of the cargo door. For optimum effectiveness from the spray, the RANCH flies approximately 100 feet above the terrain at approximately 140 knots. This gives an effective swath width of 300 feet. To insure that the spray will settle where it is intended, the temperature must be below 85 degrees Fahrenheit and the wind must not exceed ten knots. If the spray is to be effective, there must not be any precipitation in the area within two hours after spraying.

(C)The planes are flown on target in three to six-ship echelon formation, making a spray run lasting approximately four minutes. Occasionally, the pilots will fly a plumb-tree or a race track series on a large target. The plumb-tree is done by making a 90-270 degree turn at the end of a run to align the formation for a run parallel to, but in the opposite direction of the first run⁵. The race track is done by making multiple spray runs parallel to each

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other, beginning at the same end of the target. If someone in the formation reports ground fire during a run on a target that requires multiple passes, no additional passes will be made.

(S)Crop target tactics are probably the most dangerous, since the planes are on target from five to fifteen minutes. A three-ship formation is most desirable. The flight approaches the target in staggered-V formation, and spray on and off as they see crop. Lead aircraft is responsible for the crop down the center portion of the target, while he directs his wingmen to spray crops on either side of him. Lead also serves as the crop spotter and directs his wingmen to proper spray positions. The FAC provides an additional source of information on crop location for he is flying higher and can oversee the general area.

(S)When someone takes ground fire, he notifies Lead his position in the formation and from which side of the aircraft the ground fire is coming. He throws out a smoke grenade to mark the spot, the smoke grenade landing approximately 300 meters long. Fighter planes are released to the FAC after the RANCH planes have reached a safe altitude of 2500 feet AGL. During the spraying, the fighters normally orbit to keep the spray planes in sight.

(S)If intense ground fire is expected, heavy suppression tactics are used. Shortly before the formation reaches the spray-on point, a flight of fighters will precede the spray planes, deploying cluster bomblet units (CBU), and other anti-personnel type weapons. As the RANCH sprays, another flight of fighters will pass along each side

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of the spray planes, straffing the area with 20 millimeter cannon fire and more CBU's.

(S)The CBU's used are CBU-24 and CBU-46 fragmentary bomblets. The CBU is dropped 15 to 30 seconds ahead of the spray planes on target, and should be dropped no sooner than two minutes ahead of the planes. The CBU explodes and spreads over the target area, suppressing the enemy forces and deterring ground fire. The RANCH pilots prefer the use of CBU-24 because of the larger coverage afforded, compared to CBU-46.

(S)CBU-30, a tear gas, was used early in the quarter in combination with CBU-24. The CBU-30 was deployed on target no earlier than ten minutes ahead of the spray planes. As the planes began spraying, the fighters would deploy the CBU-24 10 to 15 seconds ahead of the formation. The use of CBU-30 on RANCH missions has been discontinued⁶.

(U)Heavy suppression tactics require precise timing and coordination with all persons involved if the mission is to be executed properly so the spray planes will incur minimum ground fire.

Herbicides⁷

(U)The RANCH has been using three types of herbicides commonly called Orange, White, and Blue. A description of these chemicals is as follows:

Orange: An oil-based, volatile butyl-ester form of 2-4D acid and 2-4-5T acid. It is non-corrosive and is used mostly on broad leafed plants. Its maximum effect is seen in four to six weeks.

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White: A water-base solution of the amine form of Dow chemical's tardon and 2-4D. It is non-volatile and non-corrosive. It is most effective against broad-leaf vegetation. It is slower acting than Orange, requiring six to eight weeks to see maximum effectiveness.

Blue: A water-base solution of cacodylic acid and solium salt. It is a desiccant which kills by drying out the plant. It is slightly corrosive and is used primarily on grass-type targets. It is the fastest acting of the three. Effects of its use have been seen within 24 hours after spraying.

(U)The enemy has often used the defoliation program as a tool for propaganda, stating that the chemicals are poisonous and are the causes of birth deformities and sterility in men. RVN personnel who service the herbicide tanks have often had the chemicals splashed on them, and have shown no side effects from the exposure.

(C)All three chemicals are subject to the same meteorological limitations. The winds must be below ten knots to reduce undesirable drift. If the temperature exceeds 85 degrees Fahrenheit, the spray would hang in the air and probably be carried away. Should there be precipitation within two hours after spraying, the rain would wash the chemicals from the leaves of the foliage. The chemical must come into direct contact with the plants to be effective.

Malathion

(U)Malathion is used by the Insecticide Flight for the control of malaria. It has the same weather limitations as the herbicides; and, it is only effective if it comes into direct contact with the mosquitoes. The best time for spraying it is just after sunrise and just prior to sunset, because the insects fly in greater numbers at

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these times. Morning is the preferred time for spraying so the rest of the day can be spent preparing for the next days flight. The spray time lasts for one and a half hours after sunrise.

Combat Operations

(S) Due to the temporary 24-hour cease-fire, ending at 1800 1 January, the RANCH didn't fly on that day because fighter support was not available. For the quarter, the RANCH flew 753 combat sorties dispensing 622,526 gallons of herbicides and 24,855 gallons of malathion. In accomplishing these missions, RANCH aircraft received 144 hits from enemy ground fire⁸.

(C) During the quarter, the RANCH continued to make use of the turn-around facilities at Phu Cat. These facilities are used for refueling and re-herbiciding the spray planes, thus increasing the squadron's range of target selections in the II Corps area.

Target Selection and Coordination⁹

(U) Target selection for herbicide missions remain the same as in the past. Once the targets have been approved, they are assigned a priority number by MACV.

(S) The RANCH is notified that a new area is being considered for defoliation. A survey flight is then made over the proposed area to determine the type of foliage, best defoliant to be used, and check points for navigation, so that when the area is cleared it can be sprayed as soon as possible. A priority one target can be sprayed approximately eight days after it is cleared.

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(S) The approved area is called a target "box". The RANCH targeting section will select specific areas within the "box" to be sprayed and when they are to be sprayed. They submit a fragmentary request, or "frag", to TACC approximately eleven days prior to the date of spraying. If the target is in a high-threat area where heavy suppression tactics will be used, the frag is submitted 14 days in advance because of extra coordination for the mission.

(C) Quite often, a target can not be sprayed because of bad weather, or for some reason it was not cleared to be sprayed on the date requested. If the target was not sprayed, the frag is re-submitted, requesting to spray the area eleven days later. It is difficult to request an earlier spray date because of coordination meetings required to get clearance to spray the area on the date requested.¹⁰

(U) The selection of insecticide targets originate at the local level. The request is sent to the MACV Command Surgeon for approval, who then forwards necessary information to TACC for approval. The approved target is forwarded to the Insecticide Flight Commander to schedule a date for spraying. A priority ONE target can be sprayed within 24 hours after the flight commander is notified.

Training

(U) Lt Col Charles F. Renner, Chief of Stan/Eval, completed his tour of duty here early in March. Major Burton H. Holaday, Flight Examiner, took over the position vacated by Lt Col Renner. Major Holaday had a DEROS of 9 April, so Major Roger C. Horrigan was upgraded to Flight Examiner on 24 March, and became the new

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Stan-Eval chief at the end of March.

(U) The Stan/Eval section administered 81 checks during the quarter. Along with Major Horrigan's upgrade, MSgt Jimmy Nolan received his flight examiner's upgrade 5 January. He administers check rides to the flight engineers. A third flight examiner upgrade was received by 1st Lt John Barhaugh, Navigator, in April.

(U) As of 30 March, the squadron had the following number of flying personnel in the listed positions:¹¹

Flight Examiners-----	3
Instructor Pilots-----	9
Aircraft Commanders-----	12
Co-Pilots-----	19
Instructor Navigators-----	6
Navigators-----	5
Instructor Flight Engineers-----	5
Flight Engineers-----	24

(U) For a complete listing of check rides administered by the squadron for the quarter, see Appendix 5.

Battle Damage¹²

(U) RANCH aircraft received a total of 144 hits for the quarter, bring to a total of 4,622 hits to the RANCH as of 1 April 1970. Of the hits received this quarter, no one was injured and no aircraft were lost.

(C) On 19 January, Capt Leonard Bochicchio lead a flight of five aircraft on a defoliation mission in the U-Minh Forest in IV Corps. After spraying had begun, the formation began to take heavy ground fire from the enemy. The spray run was successful, but the RANCH took 14 hits.

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(C) Six days later, the RANCH returned to spray in the IV Corps area. On 25 January, the RANCH's target was a defoliation mission along a canal. Led by Major Nicholas Firda, the flight encountered heavy ground fire. Major Firda's plane took nine hits. Capt Peter Ragaller, in the number two position, took eight hits. One of the bullets struck Capt Ragaller's rudder pedal. Lt Jack Alton's plane had the least number of hits, three, but one of his engines had to be shutdown due to battle damage. He landed at Binh Thuy. No one was injured on the flight.

(U) Several days during the quarter, RANCH aircraft received hits from enemy fire but 21 February was the day the RANCH was hit the heaviest.

(C) The target was in IV corps, a defoliation mission along a canal. Just as the formation began to spray, they began taking ground fire. Ground fire was reported through three-fourths of the four minute run. When the RANCH pulled off target, they had taken 31 hits, but on only three aircraft. Major Richard Thorndike was the flight leader and took two hits. Major Firda flew the number four position, getting 13 hits. The damage to the two aircraft was skin damage only. Major Merlyn D. Fratt was in the number three position. His aircraft received 16 hits. These hits resulted in his losing his complete electrical system. Major Fratt was able to maintain control of his aircraft and return to Bien Hoa with the rest of the formation.

(C) On 31 March, the RANCH flew a three-ship formation on a crop target in central II Corps. The formation received a total

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of 21 hits. Major Richard W. Claxton, leader of the flight, picked up two hits. Lt Timothy Hedemark also received two hits. Major Edwin Anderson took 17 hits on his aircraft, and had a hole shot in his left main tire. All the aircraft returned to Bien Hoa without injuries.

(U) These were not the only days the RANCH received enemy fire. On several other missions, RANCH aircraft took hits, but they totaled less than ten hits on any one mission.

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FOOTNOTES

1. 315th Special Operations Wing Regulation 23-5.
2. Seventh Air Force Pamphlet 55-1, chapter 8, page 108.
3. 12th Special Operations Squadron's FORSTAT Report, 31 March 1970.
4. Ibid., 22 February through 28 February 1970.
5. IV DASC Mission Flimsy 6, 28 July 1969, paragraph 1, page 2.
6. Interview, Lt Hillard C. Hunter, Jr., Historian, with Major Merlyn D. Fratt, Assistance Operations Officer, 12th SOS.
7. MACV Directive 525-1, 12 August 1969.
8. 12th Special Operations Squadron's V-5 Report, 31 March 1970.
9. IV DASC Mission Flimsy 6, 28 July 1969, Procedures.
10. Interview, Lt Hillard C. Hunter, Jr., Historian, with Major Edwin M. Anderson, 12th SOS Targeting Officer.
11. 12th Special Operations Squadron's Stan/Eval Checkrides Summary File.
12. 12th Special Operations Squadron Joint Services Antiaircraft Fire Incident and Damage Reports, 1 January through 31 March 1970.
and
Interview, Lt Hillard C. Hunter, Jr., Historian, with Major Richard E. Thorndike, 12th SOS Operations Officer.
13. All maintenance information was supplied by Captain Alexander Norcross, 12th SOS Maintenance Officer.

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HISTORY

OF THE

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1 APRIL - 30 JUNE 1970

Assigned To

315th Tactical Airlift Wing

834th Air Division, Seventh Air Force, Pacific Air Forces

Stationed At

Bien Hoa Air Base, Republic of Vietnam

Prepared By:

Hillard C. Hunter, Jr.

HILLARD C. HUNTER, Jr.
1Lt, USAF
Historian

Approved By:

Warren P. Fisher

WARREN P. FISHER
1Lt Colonel, USAF
Commander

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Appendix 6

in K-WG-315-H1

Apr - Jun 1970

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12TH SPECIAL OPERATIONS SQUADRON

1 APRIL 1970 -- 30 JUNE 1970

<u>Date</u>	<u>Classification</u>	<u>Significant Event</u>
April 1	(U)	Lt Col Ben V. Walker assumes Command of 12th SOS, Vice Lt Col Keith W. West.
5	(U)	Initiated taxiing spare crew to reduce number of aborts.
6	(S)	Message from TACC requesting 3 ships to DaNang for mission.
9	(S)	Three ships to DaNang for mission.
10	(C)	Seven ship formation flown, received 37 hits. Heaviest hits this year.
19	(C)	Suspended use of "Orange"
May 9	(C)	Last defoliation mission flown by 12th SOS.
9	(S)	Message from 7th AF TACC for Ranch to convert to flare/Pay Ops operations.
11	(S)	Crew to NKP for flare training.
11	(C)	First leaflet mission flown
16	(S)	First flare mission flown
21	(C)	First hit received on Pay Ops mission.
22	(C)	Insecticide spray aircraft received 7 hits.

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<u>Date</u>	<u>Classification</u>	<u>Significant Event</u>
May 29	(C)	Insecticide spray aircraft received 4 hits.
June 11	(S)	One flare ship sent to operate out of Pleiku.
29	(S)	Flare ship terminated operations from Pleiku.

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INTRODUCTION

The defoliation mission code named Ranch Hand began in January 1962. Three aircraft flew the initial test operations from Tan Son Nhut AB, Republic of Vietnam. Since then, the operation has grown into a fully operational squadron, designated the 12th Special Operations Squadron.

The squadron has the unique mission of flying defoliation missions conducted throughout South Vietnam. Because of the herbicide delivery techniques required and the hostile areas the planes must fly over, the squadron has become one of the most shot at squadrons in the Republic of Vietnam. Over, 4,600 hits have been taken by the squadron's aircraft from enemy ground fire.

This quarter, the squadron had a change in its aerial mission. This report relates those changes to the Ranch's operation.

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CHAPTER III

OPERATIONS AND TRAINING

Defoliation

(C) The 12th Special Operations Squadron terminated its mission of defoliation on 9 May.¹ This marked the first time since Feb 68 that all herbicide missions were suspended in order that the squadron perform other missions.²

(C) Tactics on defoliation remained the same this quarter.³ There were some changes made to increase the probability of accomplishing scheduled sorties on target. This procedure, initiated on 5 April, was to have a spare aircraft and crew taxi with the formation out to the runway. If one of the scheduled aircraft had to abort, the spare aircraft could continue with the formation, thus preventing or reducing late take-offs and reducing sortie losses. As a result of the "taxiing" spare, the abort rate on herbicide missions dropped considerably. In March there were 31 maintenance aborts and 11 sympathetic aborts out of 305 fragged sorties, compared to April when only six maintenance aborts out of 166 fragged sorties occurred. The month of May had no herbicide aborts.⁴ Sympathetic aborts occur when there are less than two aircraft remaining in a formation, or when a lead crew is unable to get airborne or on target due to maintenance difficulties.

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(C) For the quarter, the Ranch flew 159 productive sorties, dispensing 149,900 gallons of herbicide.⁵ In accomplishing these missions, the planes received 54 hits from enemy fire.⁶ There were no injuries.

(C) On 6 April, the Ranch received a message from Seventh Air Force TACC directing that three aircraft be deployed to DaNang for herbicide operations scheduled for 10-11 April.⁷ On 9 April, three UC-123K aircraft departed for DaNang to participate in an operation that proved to be one of the Ranch's most challenging. It was a seven ship spray formation, with four F-100 fighters, six "Huey" gunships and ten Cobra gunships for support. The mission was led by Lt Colonel Warren P. Fisher, DaNang detachment commander. The target was enemy crops in the Song Re Valley in Quang Khai Province in I Corps. Almost immediately after the spray run began, the aircraft received intense and continuous small arms and automatic weapons fire. Midway through the run, Colonel Fisher had his number two recip engine shot out. He dumped his remaining herbicide, pulled off target and made an emergency landing at Chu Lai. The rest of the formation continued the spray run and when they pulled off target, all planes received hits from enemy fire. The formation took a total of 37 hits. Colonel Fisher's aircraft had 12 hits. For a listing of the damage to all aircraft, see Appendix 4. Fortunately, no one was injured on the mission. The aircraft that landed at Chu Lai was returned the following day to DaNang. The 37 hits

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was the greatest number of hits for any mission this year.

(C) The Ranch flew a mission on 16 April in which they received 15 hits on three aircraft.⁸ The target was corps in central II Corps. All three aircraft received five hits. One aircraft, piloted by First Lieutenant Lawrence W. Hanfland, received hits which resulted in the loss of hydraulic power. The aircraft landed at Bien Hoa without further incident.

(C) On 19 April, the Ranch received a message from Seventh Air Force TACC restricting the use of the herbicide, 2-4-5T "Orange."⁹ Since then, all targets that had been scheduled for "Orange" herbicides were rescheduled for herbicide 2-4D "White".

(C) Shortly after the use of "Orange" was suspended, the squadron began to foresee problems in the targeting section. There were only a limited number of targets to be sprayed with "Blue" herbicide (cacadylic acid). The supply of "White" herbicide diminished to the point of exhaustion in early May.¹⁰ When all "White" at Bien Hoa was used, the Ranch began making use of the Phu Cat AB facilities for reherbicideing the aircraft. The route of flight was to take-off from Bien Hoa, spray the target, reherbicide and refuel at Phu Cat and return to Bien Hoa the same day.

(C) The Ranch used the last of the "White" herbicide at Phu Cat on 8 May. A flight of three spray planes departed Bien Hoa, sprayed a target in northern III Corps and recovered at Phu Cat. There they picked up the last of the "White" herbicide and returned to Bien Hoa. On 9 May, two flights were flown from Bien Hoa; the last flight of the Ranch sprayed near Bunard Airfield, dispensing 2500

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gallons. The remaining "Blue" herbicide was not used on the corresponding targets. These were crop targets, but the crop had not matured to the point where it would be advantageous to spray them.

Flare Operations

(S) On 9 May, the squadron received a message from Seventh Air Force TACC which stated the possibility of using Ranch aircraft for Psy Ops missions of leaflet drops as directed by MACV and for night flare drops in support of the Cambodian operations.¹² Upon receipt of the message, the squadron began to reconfigure the spray planes for a projected flare capability on 16 May.¹³ Seventh Air Force had expected the conversion would take 17 days, but it was completed in six days.

(C) On 11 May, the squadron sent three pilots, two copilots, one navigator, two flight engineers, one intelligence officer, and six maintenance personnel TDY to Nakhon Phanom, Thailand, to study flare operations with the 605th Special Operations Squadron. Upon their return, they participated in several briefings and helped establish some basic operational procedures for the flare mission.

(U) Mark-24 flares were used during the operation. They have a capability of $2\frac{1}{4}$ million candle power and an illumination period of three minutes. Also used were the Mark-16 white phosphorous marking flare. It was used as a navigational aid in positioning the flares over the desired area.

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(S) The squadron had no loadmasters to handle flares and no dispensers. The 56th Special Operations Wing at Nakhon Phanom was able to send one flare dispenser to the 315th TAW to be used as a model for reproduction. Since the flare mission required the use of a loadmaster and "kickers" the squadron solved this deficiency by requesting the 315th TAW to loan seven loadmasters to the squadron.¹⁴ Five loadmasters were sent to the squadron on 15 May. The squadron commander requested that 29 airmen in the squadron be added to the hazardous duty pay list to serve as "kickers." The "kickers" assist the loadmasters in dropping flares. A total of 50 enlisted men were approved to be kickers and 32 were able to pass the physical examinations to qualify.

(C) The first flare mission was flown on 16 May in northeastern IV Corps, where 27 flares were dropped.¹⁵ The second mission was flown over Cambodia where 96 flares were dropped.

(C) The flare operations began with the scheduling of three flare missions.¹⁶ Two aircraft were usually launched before midnight, and the third was on alert with a twenty minute launch capability from midnight to 0600 hours. Operations continued in this manner until 11 June. The squadron received a fragmentary order directing one of the flare aircraft to be relocated at Pleiku on the afternoon of 11 June, to operate there on a five day basis. At the end of the five day period, another crew arrived to replace the earlier crew.

(C) Operations out of Pleiku continued until 29 June when the crew was directed to return to Bien Hoa.¹⁸

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(C) As stated earlier, the primary purpose of the flare missions was in support of the Cambodian operations. With the withdrawal of U.S. forces in Cambodia by 30 June, Ranch flare missions decreased. On 30 June, the squadron received a fragmentary order which required only one flare ship.¹⁹

Psychological Operations

(S) Upon receipt of the request for the squadron to convert from spray operations to flare and Psy Ops,²⁰ the squadron began to reorganize for those operations. The Ranch was assigned to accomplish leaflet drop missions under direct control of the 9th SOS. Because the 9th SOS and the Ranch were located on the same base, the few problems that arose were quickly and easily solved.

(U) On 10 May Major Merlyn D. Fratt, Captain Robert C. Schaller, First Lieutenant John G. Morgan and TSgt Donald G. Baldry attended a meeting held at the 9th SOS. The purpose of the meeting was to develop techniques and procedures for the 12th SOS to use in the role of leaflet drop. The shape and size of the target, and the winds determine what type of pattern would be flown for drop. Many of the target boxes were rectangularly shaped; and on these S-shaped patterns were preferred.

(U) The squadron flew its first Psy Ops mission on 11 May 70, in III corps. Major D.B. Groves, navigator of the 9th SOS flew on this mission and on others until the Ranch had enough navigators checked out in leaflet missions.

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(U) For approximately the first 15 days of the Psy Ops operations, the squadron was scheduled two Psy Ops missions a day. Then on 25 May the squadron began flying only one leaflet sortie per day.

(U) A majority of the Psy Ops missions were flown into Cambodia. The others were dispersed throughout II, III, and IV corps.

(C) On 21 May the Ranch received its first hit since its conversion to flare/Psy Ops. Lieutenant John M. Morgan and Lieutenant John W. Conway were flying a Psy Ops mission in Cambodia west of Tay Ninh, RVN. While on target flying at approximately 3,000 feet, their aircraft received a 50 caliber round through the nose section. The round resulted in skin damage only. The aircraft pulled off target immediately and returned to Bien Hoa without further incident.

(U) See appendix 4 for a statistical breakdown of the squadron's Psy Ops activities.

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Insecticide

- (U) The insecticide operation is commanded by Major Gene B. Basden. The mission uses two spray aircraft specially configured for the dispensing of malathion. The targets, fourteen of them, are located throughout South Vietnam, and consist of military bases and their adjacent cities. These areas are to be sprayed every nine days to achieve maximum effectiveness of the spray in keeping the number of mosquitoes down. Because of adverse weather conditions and occasional maintenance problems, the nine day cycle cannot always be met.
- (C) During the month of May the commander of the insecticide operation and Seventh Air Force TACC conducted telephone conversations concerning the possibility of spraying two high threat targets. The targets, LZ Baldy and FSB Ross, are located approximately 20 miles south of DaNang. On 19 May the squadron received the message from Seventh Air Force TACC directing the insecticide flight to plan a mission to spray LZ Baldy on 22 May, with fighter support from the 1st Marine Air Wing.²¹
- (U) The two "Bug Birds" arrived at DaNang AB on 20 May for final preparations to fly the mission. One of the planes flew a survey flight over LZ Baldy on the morning of 21 May. After the survey flight, the insecticide flight attended a face-to-face briefing with the fighter and psy-war pilots. This meeting was held to discuss mission details and tactics to be used on the mission.

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(C) On 22 May the mission was flown by the two spray planes flying in formation. Shortly after the spraying began, the number two spray plane began receiving intense ground fire. The mission was immediately terminated and the two planes returned to DaNang. The damaged aircraft received 7 hits which resulted in skin and structure damage only.

(C) On the same day, the squadron received a message directing the insecticide flight to plan for an aerial spray of the other high threat area-FSB Ross.²² This target was scheduled to be sprayed on 29 May 70. This mission was planned in the same manner as was LZ Baldy, and was flown on 29 May. The number two airplane in the formation received four hits while under intense enemy ground fire. Again, damage was light skin and structural damage. This was the last hit received by the Ranch.

(C) For the quarter, the insecticide flight flew 110 productive sorties, sprayed 32,740 gallons of malathion and received the last 11 hits of the quarter.²³

Training

(U) The Stan/Eval Section of the 12th SOS has been commanded by Major Roger C. Horrigan since 1 April. Since then he has administered 20 check rides to pilots and three engine run-up checkouts to maintenance personnel. MSgt Jimmy Nolan, who has been a flight examiner since January, administered 12 check rides to the flight engineers in the squadron. One of these check rides was a flight examiner upgrade check to TSgt Charles Price on 6 May. TSgt Price will replace MSgt Nolan when he leaves in July.

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7. Msg (C), 061245Z Apr 70, 7AF TACC to 12SOS.
8. Rpt (U), "Joint Services Antiaircraft Fire Incident and Damage Reports", 12SOS, Apr-Jun 70.
9. Msg (C), O 190405Z Apr 70, 7AF TACC.
10. Msg (C), P 070920Z May 70, 7AF TACC.
11. Interview, Lt H.C. Hunter, Historian, with Maj R.W. Claxton, 12SOS Targeting Officer, 15 Jul 70.
12. Msg (S) 091205Z May 70, 7AF TACC.
13. Msg (S), 111030Z May 70, 315TAW
14. Ltr (S), 12SOS (C) to 315TAW, Subj: Manning Requirements 15 May 70.
15. Msg (C), Z 15030Z May, 7AF TACC.
16. Msg (C), 160845Z May 70, 7AF TACC.
17. Msgs (C), 110230Z Jun 70 and 10245Z Jun 70, 7AF TACC
18. Msg (C), 291120Z Jun 70, 7AF TACC.
19. Msg (C), 300945Z Jun 70, 7AF TACC.
20. Msg (S), 091205Z May 70, 7AF TACC.
21. Msg (C), 190815Z May 70, 7AF TACC.
22. Msg (S), 220815Z May 70, 7AF TACC.
23. Rpt (C), "Monthly V-5 Reports", 12SOS, Apr, May, Jun 70.

Chapter IV

1. Interview, Lt H. C. Hunter, Historian, with Capt R. L. Borchert, Maintenance Officer, 21 Jul 70.

FOOTNOTESChapter I

1. 834th ADR 23-1, "Mission and Organization" 315TAW, 24 Jan 70.
2. Interview, Lt H.C. Hunter, Historian, with Capt R.C. Schaller, Administrative Officer, 3 Jul 70.
3. 12SOS SO-14, 1 Apr 70.
4. Interview, Lt H.C. Hunter, Historian, with Lt Col W.P. Fisher, 12SOS Operations Officer.
5. Interview, Hunter with Schaller, 3 Jul 70.

Chapter II

1. Msg (S), 091205Z May 70, 7AF TACC to 315TAW, Flare/Psy Ops Requirements.
2. Ltr (S), 12SOS (C) to 315TAW, Subj: Manning Requirements, 15 May 70
3. Msg (S), P110400Z Apr 70, 315TAW to 12SOS.
4. See Footnote 2, Ch 2.
5. Interview, Lt H.C. Hunter, Historian, with Maj E.J. Snyder, 315TAW, Reports Officer, 15 Jul 70.
6. Msg (C), 281005Z May 70, 834AD to 315TAW.

Chapter III

1. Msg (C), 090545Z May 70, 7AF TACC to 12SOS, Fragmentary Order
2. Hist (S), 12SOS, Jan-Mar 68, P 9.
3. Hist (S), 12SOS, Jan-Mar 70, Ch 2.
4. Rpt (C), "Monthly V-5 Report", 12SOS, Apr and May 70.
5. Same as Footnote 4.
6. Rpt (U), "Joint Services Antiaircraft Fire Incident and Damage Reports", 12SOS, Apr-Jun 70.

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BATTLE DAMAGE

<u>DATE</u>	<u>AIRCRAFT COMMANDER</u>	<u>HITS</u>	<u>DAMAGE</u>
10 Apr 70	L/C Fisher	12 30-Cal	#2 Recip, Jet crossfeed, line ruptured, pilot's instrument panel, interphone
10 Apr 70	Capt Mucho	7 30-Cal	interphone, skin damage
10 Apr 70	1Lt Hanfland	3 30-Cal	skin
10 Apr 70	Maj Horrigan	1 30-Cal	hydraulics
10 Apr 70	Maj J. Anderson	4 30-Cal	#1 recip, elevator cable
10 Apr 70	Maj Claxton	3 30-Cal	skin
10 Apr 70	Maj E. Anderson	7 30-Cal	UHF radio cables, skin
16 Apr 70	Maj Thorndike	5 "small arms"	skin
16 Apr 70	1Lt Hanfland	5 "small arms"	hydraulics
16 Apr 70	Maj E. Anderson	5 "small arms"	skin
24 Apr 70	1Lt Hanfland	2 30-Cal	skin
21 May 70	1Lt Morgan	1 50-Cal	skin
22 May 70	Capt Green	7 "small arms"	skin
29 May 70	Capt Atkinson	4 "small arms"	skin

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