1956

HISTORY OF THE 20th HELICOPTER SQUADRON



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History of the 20 Helicopter
Squadron (Support)

Numbered Air Force: 18th

Location: Sewart AFB, TN.

Wing: 314th Troop Carrier Wing

Type Aircraft: H-21

Hours : 1290

Sorties: UNK Combat Sorties: 0 Ammo: rds. Bomb Tonage:

Commander: Major Gregg D. Hartley

Senior Enlisted: MSgt Thomas L. Savage

Personnel Strength (Min/Max): /41 Officers /124 Enlisted

Commentary: The 20th Helicopter Squadron was activated on 9 July 1956 at Sewart AFB, Tn. The mission was aeromedical evacuation, airlift support, and retrograde operations. They were tasked with numerous additional duties and operations to include range support at Wendover, Utah, rescue support at Ardmore AFB, Ok., and numerous cannibalizations to support their sister squadrons the 23rd and 24th Helicopter Squadrons.

Significant Missions: Operation "Pine Cone" during the summer of 1956 was a mass casualty exercise. Operation "Hi-Water" was another mass casualty exercise conducted in conjunction with Civil Air Patrol in Allentown, Pa.
On 6 November 1956, one H-21B aircraft and crew deployed to Ream Naval Air Station, Ca. for a highly classified mission. The mission involved a series of tests to determine the H-21's ability to take a vessel at sea under tow. Special equipment was installed and a number of vessels were taken under tow, culminating in a mission where the H-21 took a Navy LST displacing 3000 tons under tow. The 20th flew a total of 54 hours in support of this test.

Significant Awards: UNKNOWN

MEMORANDUM

Date: 27 Dec 94

From: 20 SOS/CCX

To: WHOM IT MAY CONCERN

Subject: DOCUMENT CLASSIFICATION

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1. The documents contained herein are portions of the 1ST/16TH SOW histories for the dates shown on each document. The SOW histories as a whole are classified for the most part.

2. The documents in this binder are a compilation of materials from varied sources and have all been declassified if necessary. Sheets showing declassification are all posted in the last document protector for each respective binder.

3. Any materials you feel may be of questionable classification you are encouraged to bring to my attention and I will endeavor to alleviate your apprehensions.

SQUADRON HISTORIAN

I ORGANIZATION AND ADMINISTRATION

The 20th Helicopter Squadron was activated as the 20th Helicopter Squadron (Support), 9 July 1956, at Sewart Air Force Base, Tennessee, assigned to the Eighteenth Air Force, attached to the 314th Troop Carrier Wing, Medium, for operational control, logistical and administrative support, including assignment and promotion of personnel. The authority for this action was Part II, General Orders # 39,[1] 1 June 1956, Headquarters Eighteenth Air Force, as amended by Part II, paragraph 1, General Orders # 41,[2] 20 June 1956, Headquarters Eighteenth Air Force, and Part II, General Orders # 50,[3] 28 July 1956, Headquarters Eighteenth Air Force. Unit structure was 1xPart II, T10 1-1363, 1 June 1955. Authorized strength of the unit was 38 officers and 93 airmen.

Effective 6 August 1956, the unit was reorganized under O/T 1875, 30 June 1956, paragraph 1 and 2a, Part 1 (Part IIA), with an authorized strength of 38 officers and 91 airmen. The parenthetical designation of "(Support)" was also rescinded. The authority for this action was Part II, General Orders # 53,[4] 6 August 1956, Headquarters Eighteenth Air Force. This organizational concept consisted of a squadron of 16 aircraft.

Effective 12 December 1956, the unit was reorganized under O/T 1875, 30 June 1956, paragraph 1, 2B, 2C, of Part I, and 1xPart IIB, 3xPart IIC, with an authorized strength of 41 officers and 124 airmen. The authority for this action was General Orders # 76,[5] 10 December 1956, Headquarters Eighteenth Air Force. This organizational concept provided for a Squadron Headquarters and four detachments, three of which may be dispersed.

The squadron orderly room and operations section is located in building # 537. The squadron consists of the following major sections:

COMMAND

PERSONNEL OPERATIONS MAINTENANCE COMMUNICATIONS SUPPLY

1 General Orders # 39, 1 June 1956

2 General Orders # 41, 20 June 1956

3 General Orders # 50, 28 July 1956

4 General Orders # 53, 6 August 1956

5 General Orders # 76, 10 December 1956

6 Special Order # 171, 6 July 1956

7 Gains and losses of officers and airmen

8 Shortages and overages by officer and airmen career field

9 On the job training by career field

II MISSION

The mission of this squadron is twofold: the first of these is: to train personnel to perform the following tasks: provide aero-medical evacuation from forward combat zones; provide air evacuation within the theater of operations; provide airlift support of assault or retrograde operations by airlanded delivery of units and/or equipment into or from areas in forward combat zones; provide air evacuation and specialized airlifting in support of combat operations as directed by the Tactical Air Commander. The second of these missions is to perform special tasks (which include a variety of miscellaneous missions).

III PERSONNEL

At the beginning of this period, Major James F. Fowler was squadron commander. When he was assigned to the 516th Troop Carrier Group, Major Gregg D. Hartley assumed command on 28 August 1956.

Assigned strength of the squadron as of 9 July 1956 was 37 officers and 88 airmen.[6] Assigned strength as of 31 December 1956 was 29 officers and 108 airmen. During this period the following gains and losses of officers and airmen was realized by the squadron.[7]

The following chart shows the shortages and overages (by officer and airmen career fields) at the beginning and ending of the period.[8]

During this period the squadron has discharged 18 airmen, 4 of when reenlisted, giving the squadron a reenlistment rate of 22%. The following named airmen reenlisted for period of six years:

S/Sgt	Charles D. Severns	A/1C	Ray C. Houze
A/1C	Gene D. Harper	A/2C	John T. Lavana

On the Job Training in the squadron has increased from 14 to 40 airmen during the period.[9] Six airmen completed their training that was started in July. The other eight are still in training or have been transferred to other units.

The promotion of officers and airmen during the reporting period were as follows:

To 1st Lt.	William C. Bartley	John W. Sennett
	Joseph M. Beglen Jr.	David W. Thomas
	Gerald E. Bond	Beryl E. Warden Jr.
To S/Sgt	James R. Debenham	John Lengel Jr.
	Billy D. Giddens	Charles D. Severns
	Kenneth L. Heine	
To A/1C	Robert J. Blanchette	Edmund A. McCance
	David J. Blazic	John G. Regan Jr.
	John J. Brandon	Billy J. Rich
	Gene D. Harper	Lloyd E. Riley
	Ray C. Houze	James E. White

To A/2c Jerry L. Barnard
Robert M. Brown
Billy G. Brumett
Joe E. Mallonee
Jerry D. McDonald
Horace A. Schmidt
Thomas A. Womack Jr.
Edward M. Vozar

To A/3c Eloy R. Perez

A recommendation was submitted to revise O/T 1875, dated 30 June 1956. Recommended additions to the current O/T provide for squadron headquarters and eight aircraft at one location, and for one detachment with eight aircraft at a separate location. This new revision will require 25 less spaces than the spaces which were allocated to the 20th Helicopter Squadron upon reorganization in December 1956. At the present time we have not received a new unit manning document subsequent to the reorganization of the unit on 12 December 1956.

The following is a roster of key personnel as of 31 December 1956:

Major Gregg D. Hartley	Commander
Major Thomas H. Kemp	Operations Officer
Capt. Albert F. Paquette	Maintenance Officer
1st Lt. Fred M. Liebert	Asst. Maint. Officer
1st Lt. Joseph M. Beglen	Personnel Officer
Capt. Harry B. Rhoades Jr.	Adjutant
Capt. William L. Garner	Supply Officer
1st Lt. Huey D. Rogers	Asst. Supply Officer
1st Lt. John J. Lavin	Communications Officer
M/Sgt Thomas L. Savage	Line Chief
S/Sgt Rossie M. Goodman	First Sergeant
M/Sgt Prentis C. Brigman	Supply Sergeant

Morale in the squadron has improved after a relative low period early in the reporting period. There was a considerable turn over of personnel prior to and during the first month of this period. Another morale factor is we are not performing our mission and are called upon for all types of miscellaneous missions. There is an uncertainity as to when the squadron is moving and what the new mission or missions will be.

During the period there were four cases of AWOL. One airman was AWOL during the time of his transfer to this squadron. Two cases of AWOL were committed by transferees from a squadron deploying overseas. These airmen, considered undesirable for overseas shipment, were transferred to this organization and continued to display undesirable traits. Two airmen were punished under Article 15. There was one deserter at the end of the period.

During the holiday season the squadron met for two parties. The first was at the golf course club house. Nothing in the way of entertainment was planned. It was a gathering for recalling occurrences over a can or two of beer.

At the second party the wives of the officers and NCO's contributed home baked goods and candies. A table was put up in one of the airmens quarters and the feast was made ready. For those unable to be home for the holidays, it surely was fine.

IV OPERATIONS

Major Gregg D. Hartley supervised the Operations section until 28 August 1956. Major Thomas H. Kemp was then assigned as Operations Officer and Major Hartley assumed the Squadron Commander's position. S/Sgt Elbert L. Kelley continued in charge of the Form 5 Section. A total of 17 line pilots and 5 staff pilots were assigned at the end of the reporting period. At the beginning of the period 100% of the authorized line pilots were assigned; this has decreased to 41% at the end of the period.

Many missions were accomplished by this squadron during the period as evidenced by the following exemplary accounts:

Two crews and aircraft remained at Wendover Air Force Base, Utah, from July to 12 August for the purpose of supporting the gunnery range. The support consisted of stand-by rescue and the transportation of personnel and equipment to and from the gunnery range. Three rescue missions were flown during that time. The first was a civilan rescue in the mountains. The second was a pick-up at the gunnery range. An F-84 pilot bailed out due to a flame-out. The third was a pick up of a pilot of a crashed F-84. A mercy mission was also accomplished. A snake-bitten patient was flown to Hill Air Force Utah, for treatment. No serum was on hand at Wendover.

The squadron continued to supply two aircraft and crews to Ardmore Air Force Base, Oklahoma, for rescue purposes until 28 November when they returned to Sewart.

Operation "Pine Cone" was completed 24 August 1956. Eight helicopters and crews were used in this operation. No difficulties

were encountered other than air to ground communication with "Apple Crab" control located at Nijmegin Drop Zone. On all pre-positioning at drop zones and hospital areas, ground support by both army and air force personnel was excellent. No problems in the field were encountered. The majority of aircrews presently assigned had not engaged in such an operation; therefore, considerable experience was gained in evacuation of actual casualties. Supporting data of operation "Pine Cone" is as follows:

In commission rate	100%
Time flown	122 hours
Fuel used	9,900 gallons
Cargo flown	1,975 pounds
Passengers airlifted	218
Litter patients airlifted	14
Ambulatory patients airlifted	17

During this period aircraft were ferried for Military Air Transport Service. The destinations included Goose Air Base, Labrador; Elmendorf Air Force Base, Alaska; and Ladd Air Force Base, Alaska.

Operation "Hi-Water" was completed 14 October 1956. Two aircraft and crews were used on the operation at Allentown, Pa. The mission consisted of airlifting CAP Ranger Teams from Allentown to the forward hospital areas and to evacuate casualties from these areas back to the main hospital point at Allentown. A better understanding of the problems involved and of the CAP was realized.

California tow project (Classified). (Under separate cover).

Staff visits were flown to Foster Air Force Base, Texas, and Shaw Air Force Base, South Carolina, to visit the two wings for the purpose of discussing the movement of the 20th Helicopter Squadron to those bases. This was in accordance with paragraph 7, Air Force Regulation 75-20. The movement of the squadron was cancelled in November.

SUMMARY OF MISSIONS

	FERRY	CLASSIFIED	IRAN	STATIC DISPLAY	STAFF VISIT	OTHER
July	4 a/c		1	4	1	5
August	6 a/c		1	2	1	1
September	5 a/c		1	3	2	7
October	4 a/c	2				7
November	0	1	1			8
December	0					4
Nr/hrs	685	112	47	21	50	325

Up until November very little transition flying was accomplished because of considerable TDY being performed by the assigned pilots. Seven pilots were assigned to the squadron the latter part of October for the sole purpose of being checked out as co-pilots. This was completed in December and next month they will proceed to their overseas bases. Much of the squadron IP's time was spent in checking these pilots out in the helicopter.

A roster of pilots who remained in the squadron during the reporting period showing total time, total helicopter time, H-21 time, time for the six months, and the average per month is included in this report.

SUMMARY OF UP-GRADE TRAINING

	Student co-pilot to co-pilot	Co-pilot to first pilot	First pilot to tactical first pilot	Tactical first pilot to IP
July	0	1	0	0
August	0	3	3	1
September	0	0	5	0
October	0	0	0	2
November	2	0	1	1
December	7	0	1	0

By the end of December the pilot crew status was as follows:

Instructor Pilots	6
Tactical First Pilots	12
First Pilots	0
Co-Pilots	9
Student Co-Pilots	0

Four instructor pilots, Major Hartley, Major Kemp, Captain Paquette, and Captain Rhoades hold staff positions; therefore, the instructor pilot situation remains critical. Below is a chart showing the breakdown of the average flying time for staff and line pilots, and the squadron average for the reporting period.

	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Staff	18:15	15:05	34:36	30:00	17:20	13:48
Line	33:40	18:45	42:08	37:33	16:30	16:09
Sqdn. Average	31:00	18:00	40:21	35:52	16:35	15:34

The squadron H-21B standardization and training manual was issued to all the squadron pilots in July. Manuals were sent to Air Rescue Service Headquarters and to 18th Air Force. Manuals were requested

by two other helicopter squadrons and copies were sent to them. One revision has been published at this time. A new revised manual will be issued in the near future.

The combat crew training has been accomplished with everyone meeting their requirements. Other training accomplished was as follows:

General Military Training	1,208 hours
Link Training	90 hours
Instrument School	200 hours
School of Military Principles	40 hours

Captain Forrest G. Thompson was the Squadron Flying Safety Officer during the period. Much was accomplished in flying safety during this period. Meetings were held each month except October. Minutes and a roster of personnel present and absent are filed and each individual is required to read the minutes and initial his name if he was absent. No meeting was held in October due to the extreme number of personnel on TDY. Some of the more important accomplishments were crash grid maps installed in each of the aircraft and all navigational kits revised and brought up to date. A projects to get mae wests for each pilot has been started and an extensive indoctrination of the squadron standardization manual started.

The ground safety program for the past six months has consisted of a monthly meeting of the Squadron Ground Safety Council, films and lectures at Ground Training periods on the importance of safety, and a monthly inspection of the squadron area by the Ground Safety Officer, Lt. John J. Lavin.

During this period only one disabling injury occurred. This was an off duty accident to S/Sgt Elbert L. Kelley in which he fractured his right ankle during a scheduled basketball game. Due to this accident, ten days were lost at a total cost of $300.00. The non-disabling injuries (cuts, bruises, etc.) came to a total of five and a total cost of $35.00 and no days lost.

The majority of the officers in the squadron perform additional duties. A book has been prepared for each additional duty listing the appropriate AFR's, AFM's, TAC Reg's, TAC Sup's, and any other pertinent information pertaining to this duty. The details of the duty are listed on the first page of the book so any new officer taking over this duty will know what he is expected to do.

V MAINTENANCE

Captain Albert F. Paquette remained as the Squadron Maintenance Officer during this period. 1st Lt. Henry B. Alberg Jr. was the assistant maintenance officer until September when he was replaced by 1st Lt. Fred M. Liebert.

During the report period several systems for performance of maintenance operations have been initiated or changed. At the beginning of the period, the number of qualified supervisory personnel assigned was very low. This necessitated placing a "Dock Crew" system into effect to accomplish periodic inspections and scheduled maintenance. This permitted keeping the quality of maintenance at a higher level and provided supervised training of the lower skill level mechanics.

The section has continued to operate in a very limited working area. This is a result of sharing hanger 608 with the 62nd Base Flight Squadron and transient maintenance sections. Hanger space is available for only one helicopter. This helicopter must be moved out of the hanger each time the base flight aircraft are moved. Space is not available for use by the Squadron Specialist Sections. As a result tools and equipment used by specialists are stored in the tool room, making this activity crowded.

A need arose to fabricate a second set of "dollies" as a result of transferring one set to a squadron deploying overseas. These dollies are used when breaking down the fuselage of the H-21 into two sections for shipment in C-124 aircraft. An H-21 was provided to Base Shops for use as a pattern in making certain design changes to existing dolly drawings. In July one set of dollies

was loaned to NEAC by directive from Headquarters TAC through the depot at Olmstead AFB. Headquarters 18th Air Force then directed that both sets of dollies be loaned to the 21st Helicopter Squadron at Donaldson AFB. In October one set of dollies was returned to Sewart AFB for use on two classified missions. Within six hours after being alerted to prepare the first H-21 for shipment, a 12 man crew had the aircraft separated and mounted on dollies. A five man crew deployed with the helicopter in the C-124, accomplished the reassembly and returned to Sewart AFB with the dollies. A second helicopter was then broken down and transported to another destination in a similar manner. Upon completion of these missions the set of dollies were returned to Donaldson AFB on loan. At the end of the report period both sets of dollies remain on loan.

On 6 July 1956, TO 1H-21-562 was received, which revised the "time change" requirement for transmissions from 250 hours to 150 hours. Thw work involved to change nine transmissions effected by this TO carried over into this reporting period. Six transmissions were changed at Sewart AFB. A four man crew with two transmissions was dispatched to Ardmore AFB to accomplish time change requirements on unit aircraft TDY at that station. A two man crew with one transmission was dispatched to Wendover AFB for similar reasons.

In July, 12 airmen were furnished to the two squadrons deploying overseas to assist them in preparing their aircraft for flight to POE's.

In early August this section was directed to give unlimited support to squadrons deploying overseas. As a result, one aircraft

was grounded and cannibalized to provide the following parts immediately to the units indicated:

Nose wheel strut assembly	24th Helron
Fan and hub assembly	24th Helron
Rain shield	23rd Helron
Airspeed indicator	23rd Helron
Fuel pressure gage	23rd Helron
Cargo door	23rd Helron
Pilots window and track assembly	23rd Helron

Additional support was given by providing eight flight engineers for ferrying aircraft to POE in California. One of the 24th Helron aircraft being ferried to POE had an in-flight engine failure. A crew of two men and all necessary equipment was dispatched from this section to repair the aircraft.

On August 17th, 18th, and 19th, a concentrated effort was made to prepare eight aircraft for participation in operation "Pine Cone". A total of 122 aircraft hours were flown on this mission during a period of six days with a 100% in commission rate.

In August H-19B 51-3913 was turned over to the section after being in Base Shops approximately one year. A two man crew was assigned to this aircraft to accomplish rigging, installation of parts, and preparation for transfer.

In September H-21 52-8678 was modified in Base Shops in preparation for participating in a tow test mission for the USN. All "time change" components on this aircraft had to be changed ahead of time to allow the aircraft to accomplish the mission without interruptions due to scheduled maintenance. Modification and maintenance of 52-8678 was completed on 27 October; however, actual departure was delayed three days due to lack of weight and balance

data concerning the modification. This information was finally obtained from VERTOL Aircraft Corporation after several messages and phone calls had been made. A maintenance team of three men in addition to the flight engineers was provided to support this mission in California.

In November H-21 52-8688 was placed on loan to Otis AFB for a period of 60days for use in resupply of the "Texas Tower". No squadron personnel were involved except for preparing all records on 52-8688 for transfer to the receiving organization.

Information was received from the organization's VERTOL field representative that H-21 52-8693, presently in IRAN, would be delayed due to an engine failure in flight.

Also in November all aircraft were grounded for inspection of hopper oil tanks. This inspection revealed 13 out of 15 hopper tanks had extensive cracks around the base fittings. A fix was obtained after three days of grounding. This delay was due to the 21st HELRON, from Donaldson AFB, being given priority in getting their hopper tanks fixed in Base Shops at Sewart AFB. These cracks occurred in a location on the aircraft that is not visible unless certain equipment is removed; therefore, they were not discovered during routine maintenance and inspection.

Several experienced helicopter maintenance technicans reported into the squadron during September, October, and November. Many of these personnel came to the Air Force from the other Services and were unfamilar with Air Force maintenance records and inspection procedures. Each of these men was given a thorough indoctrination

over a 30 day period, then assigned as Crew Chief, Flight Chief or in the inspection section. This increase in the experience level allowed the section to terminate the "Dock System" and return the scheduled maintenance activity to individual aircraft maintenance crews. Each of the four flights now have an experienced Flight Chief. Only three aircraft Crew Chiefs are fully qualified seven level personnel.

The "Dock System" proved to be unsatisfactory, although it did help during the three to four month period when the experience level was so low. Lack of hanger space was a big reason for failure of the "Dock System". Discontinuity in the overall responsibility for maintenance of a particular aircraft is another draw back to the system.

Special courses of instruction were conducted in November including four hours of class room training on TO 00-20-A, and a two day course in general familiarization (H-21). The latter instruction was given to new members of the squadron reporting in from Sheppard AFB and from other units not possessing H-21's.

In December a drive was started to strengthen several "weak link" conditions in the section. Numerous meetings of all personnel were held to discuss safety of flight and improving the quality of maintenance. The overall system for accomplishing component changes has been refined, in order to reduce the time required to complete periodic inspections. These changes include more accurate forecasting of component requirements and better control on ordering the parts to insure that the new component is available at the aircraft

at the right time.

An agreement between this Section and Operations has permitted a staggered scheduling of aircraft. This allows the maintenance crews more time to perform thorough post-flights and pre-flights.

The value of using specified torques on various components have been stressed as there have been indications of increasing laxity in not using torque wrenches to obtain proper torque. Special classes on this subject and several other area which need improvement were in the planning stages at the end of the report period.

A monthly maintenance statistice summary is included in this report.

T/Sgt James G. Windsor remained in charge of the Inspection Section throughout the period. Four inspectors were assigned to the section and a heavy work load was accomplished due to the number of Technical Order Compliances received and in maintaining a high quality inspection record. During the period seven Unsatisfactory Reports were processed and eighteen normal Technical Order Compliances were accomplished.

At the start of the period, Mr Frank Garberty was the VERTOL Technical Representative. In September he was assigned to a European station. In October two new representatives were sent to the squadron, Mr. Bill Hladky and Mr. "Chuck" Millwood. In November Mr. Millwood left for another assignment leaving Mr. Hladky as the lone representative.

These representatives have aided the squadron by their knowledge of the H-21 and their willingness to do the job.

10 Roster of pilots and flying time during the period

11 Maintenance Statistics Summary

12 Unsatisfactory Reports

13 Technical Order Compliances

VI COMMUNICATIONS

The Air Electronics Section offered continous direct support to the aircraft maintenance program. The greatest problem facing this section is receiving replacement parts for authorized equipment and in receiving authorized test equipment. There are five spaces authorized in the section, at present only three are filled. The section supported and completed a test program on a new set of communications equipment proposed for use in the H-21B helicopter. The results of the test indicated this equipment is unsatisfactory for installation in the H-21B helicopter.

VII SUPPLY

During this report period the Organizational Supply Section was faced with abnormal problems. There was a complete turn over of personnel. At no time was the section up to authorized strength. This squadron is authorized a non-rated officer for full time duties as the Responsible Officer in charge of the Organizational Supply Activity. The Wing Personnel Section has been unable to provide a qualified officer for this position and it has been necessary to assign rated personnel additional duties involved with this vital function. Captain Virgina Rhoads was the Supply Officer from the beginning of this report period to 13 September. Lst. Lt. Keith Droegemeier was his assistant until August. Captain William L. Garner, presently assigned, replaced Captain Rhoads. 1st. Lt. Andrew Krainiak was assigned additional duty as officer in charge of the Maintenance Tool Crib on 12 September. 1st. Lt. Huey D. Rogers was assigned as assistant Supply Officer on 8 December.

The Airmen assigned were not fully qualified and required almost constant and immediate supervision and training in order to properly accomplish their assignments. The authorized strength for the supply activity was eight airmen including six supply and two personal equipment personnel. With the reorganization of the squadron on 12 December, the authorization was increased to eight supply airmen and four personal equipment personnel. The positions for the personal equipment section have remained unfilled during the entire report period and the unit supply personnel (six assigned, eight authorized) were required to carry the additional burden of

their duties.

Squadron mission assignments involving participation in special projects such as "Operation Pine Cone", "Operation Hi-Water", "Operation Dew Line", and Ferry Missions to California, Pennsylvania, Canada, Labrador, and Alaska, given on short notice, required maximum attention in order to insure the early receipt of supplies essential for the success of the missions. During those efforts it was necessary to neglect normal work functions, permitting them to develop or increase into greater backlogs, to be accomplished at a later time. It would be impossible to accurately account for the man hours expended, including time worked nights and week ends to accomplish those special assignments and to keep abreast of the daily responsibilities.

The squadron was reorganized twice and each time with a change in authorized personnel strength and equipment allowances. Each time it was necessary for personnel to spend hours researching the Tables of Allowances, Equipment Component Lists, the Master Equipment Allowance Lists, etc, and to change postings on the Air Force Form 1120 reflecting the various authorization allowances. Each time requisitions for new and additional authorizations were prepared and submitted to the Base Accountable Officer, and each time equipment no longer authorized was turned in. Normally the squadron is allowed to turn in organizational property on Wednesday mornings. Frequently it has taken over three weeks to effect turn in of property due to the allocated turn in day falling on a holiday, or the warehouse being closed for inventory, remodeling,

or relocation.

Captain Virgina Rhoads, who was the Organizational Supply Officer, was transferred and was replaced by Captain William L. Garner, who accepted the account on 13 September. The two officers conducted a joint inventory which started on 14 August. The inventory was prolonged considerably due to the many accounting discrepancies found in the records reflecting quantities and locations of properties charged to the account. This was due to the fact that the Supply Officer had additional duties and assignments which required him to be away from the account for long periods of time. In June he was on an assigned mission to ferry a helicopter to Wendover AFB, Utah, which took 21 days. He was the only available officer, qualified for assignment as the 516th Troop Carrier Group Project Officer , to supervise and co-ordinate all related activities of the 23rd and 24th Helicopter Squadrons in preparation for overseas movement. This task required his full attention during the months of June, July, August, and September. During his tour as the Supply Officer the section had never been up to authorized strength. The assigned personnel had not been very well qualified or aggressive.

At the time of the inventory, the standards of warehousing and housekeeping were found to be far below those acceptable. Reparable items were scattered about with no apparent system of location, identification, or processing. Suspense copies for parts requests were found to have been on file for excessive periods of time. Personnel were unable to tell specifically who

ordered various items and in most instances there were no record copies of Aircraft Parts Requests. Unauthorized equipment, such as maintenance stands, expensive special tools, and test equipment, had been on hand for months. Property in excess of authorized allowances was on hand, locations of property as posted on Air Force Form 1120 were frequently erroneous, substitute items were not properly cross referenced, and references to Tables of Allowances and Equipment Component Lists as posted to the 1120 cards as basic authorization allowances were in error. Properties identified by Federal Stock Number were often difficult to locate because custody receipts and tags on the property still carried the Air Force Stock Number. There was no record of all weapons by serial numbers and manufacturer.

All stored equipment has been reorganized to be more readily accessible for inventory and utilization. Bins have been painted, all equipment properly tagged, and all sharp tool edges have been covered for protection from damage to the tools or injury to personnel. All the discrepancies on Air Force Forms 538, found and listed during the inventory, were corrected except for the issue of seven field jackets which are on order. A roster of all fire arms, reflecting the serial number and manufacturer of each weapon, has been prepared and will be kept current. A records jacket has been prepared and is being maintained for all assigned personnel. All personnel not authorized to have watches, flight clothing, barracks bags, etc, have been required to turn the property in.

When necessary, custody receipts have been reaccomplished to identify Unit Mission Equipment or Unit Support Equipment and stock numbers have been listed in numerical sequence. Individuals found to have equipment, such as bedding, lockers, etc, in their possession and not listed on their custody receipts have been required to sign new receipts. Considerable delay has been experienced in the completion of this task due to the unavailability of personnel who have been away on detached duty for extended periods of time.

Since August, numerous and serious errors have been found in the postings of the control register, back order suspense file, and 1120 cards and have been corrected. The majority of these mistakes are believed to have been made by an airman, with a record of excessive alcoholism. Vouchers had been placed in the completed documents file without the applicable posting to the 1120 cards and thus it appeared that the item was still due in. Vouchers for the previous fiscal year were mixed with those of the current fiscal year with similar control numbers. Cancelled Vouchers had not been properly certified. 1120 cards reflected receipt of equipment in the "ON HAND INVENTORY" column, yet the control number on the "DUE IN RECORD" column still indicated the property as having not been received. Many Tables of Allowances and Equipment Component Lists were posted in error as basic authorizations. More frequently the addition of authorization totals were in error. To correct these errors all the active vouchers were screened against the control register, back order

suspense file, and the 1120 cards. All T/A's and ECL's were screened against the 1120 cards to insure correctness of posting, and all authorization totals were recomputed to insure correctness. This project required approximately 51 man hours to accomplish.

In coordination with the personnel of the Engineering Section a drive was conducted to turn in all aircraft parts found lying around the various maintenance working areas near the flight line. Much of this property, found and turned in as condemned, reparable, found on base, etc, apparently was abandoned by the two squadrons recently transferred to overseas locations.

1st. Lt. Andrew Krainiak, a flying officer, was assigned additional duty as the officer in charge of the Maintenance Tool Crib on 12 September. The crib, valued at $47,486.55 is stocked with equipment authorized by 12 Equipment Component Lists. Over 108 active accounts are maintained in addition to the daily issue of tools. There have been no airmen available for permanent assignment to perform duties in the tool crib. Since September 13 different airmen have been assigned to work in the crib. Normally, two airmen have been assigned for periods of approximately one month. The majority of those airmen have been unsatisfied with the arrangement, disinterested in their tasks, and have proven to be generally careless and unreliable when not under close and immediate supervision. On occasion, the tool crib officer has found it necessary to perform many of the functions normally expected of an airmen in order to keep the

crib in a satisfactory condition and to provide the service of daily issue of tools to the engineering personnel. Each week it has been necessary to expend an average of five man hours of labor at times other than that considered normal duty hours in order to keep abreast of the work commitments. During September and October, the tool kits were inventoried, requiring approximately 67 man hours. It takes approximately five man hours to inventory and issue one Equipment Component List tool kit. Storage bins have been reorganized to utilize space to more advantage and preparations are being made for the proposed future dual locations of the squadron. All locator cards, of which there are 1100, have been reaccomplished for neatness and more effective utilization. In December, all the custody receipts were screened against the basic Unit Property Records for accuracy. All stored items have been tagged for proper identification and accountability.

On 5 December a TAC Supply Difficulty Report was submitted to advise of this squadron's difficulty in obtaining flying helmets for air crew members. Twenty helments have been on order by this organization since March 1955 on voucher 60640. There are not enough helmets on hand in this squadron to fully equip all personnel on flying status. On 12 December, another Difficulty Report was submitted advising that this squadron is without a tester necessary to test tubes used in the assigned aircraft communications sets. Two sets have been on order (voucher number 104227) since March 1955. On 5 December the substitute tester,

which has been in use since March 1956, became inoperative and was turned in. At the present time the squadron testing requirements are being accomplished by the Base Field Maintenance Shops. As yet there has been no reply as to any action being taken to alleviate these difficulties.

During this period eight Unit Authorization List Change Requests have been submitted. Change number one was a recommendation to delete four maintenance stands not adaptable for utilization with H-21 type aircraft. Change number two was a recommendation for the authorization of sufficeint Dolly Assemblies for support and safe transportation of H-21B type fuselages during disassembly and air-lift procedures in C-124 type aircraft. Change number three was a recommendation that equipment be authorized for the purpose of tracking helicopter blades in accordance with the current TO 1H-21(Y)-2. It is interesting to note that there is no authorization for this type of equipment although the requirement has existed since helicopters have been in use. Change number four was a recommendation for the authorization of rotor transmission stands for organizations equipped with H-21 type aircraft for transportation and support of rotor transmissions while undergoing minor organizational maintenance. Change number five was a recommendation for authorization of a special wrench (9BPH-22E5809) required in accordance with the current TO 1H-21(Y)-6-P for organizational maintenance of rotor heads. Change number six was a recommendation for authorization of a torque wrench (9BPH-22E5868) required to remove, install, and torque H-21B helicopter engine

fan hub nuts. Change number seven was a recommendation to increase the quantity authorization of hydreulic jacks required during assembly and disassembly of H-21 type aircraft in preparation for transportation in C-124 aircraft. Change number eight was a recommendation to increase the authorization for lubrication guns to insure that at least one is available for each aircraft at all times. This equipment is needed for required daily lubrication of rotor moving parts. At the present time this organization is not authorized sufficient guns for all the aircraft should they be flown to different locations.

The organizational supply records for fiscal year 1955 were inspected by the 314th Wing Inspection Team on 22 August 1956 and were placed in storage for one year prior to destruction upon offical approval.

Representatives from the Wing Director of Material inspected the supply section in October and in their report cited six major deficiences. The deficiences listed were obtained primarily from records prepared during the joint inventory conducted by Captain Rhoads and Captain Garner prior to the latter officer's acceptance of the account on 13 September. All the cited irregularites were corrected prior to 1 December. A/3C Willie Vaughn was assigned to the supply section in September, to fill the authorized position as apprentice clerk. He held an entry level AFSC of 70210 and has required additional training in his field along with having to become familar with basic supply administrative procedures. He attended a typing school for two hours a day from 24 April to

4 June 1956. During the month of November, personnel at Squadron Headquarters gave him five hours of additional clerical typing. He has reorganized the correspondence files to comply with the provision of Air Force Manual 181-4. He types all reports, change requests, correspondence, etc, and is learning to maintain the supply publication files. During this period, after having attained sufficient training and knowledge to successfully pass a written examination, he was upgraded to a three level in his career field.

A/1c Joseph R. Morris and A/1c Charles H. Darnell have been assigned primary duties in the Technical Supply Section. Standard Operating Procedures were established to insure a uniform procedure for ordering equipment, taking follow up action on items ordered; and insuring that records reflect the aircraft for which the property is ordered. During this report period the Technical Supply personnel have processed a total of 9,783 aircraft spare parts. The unit supply section submitted 15 one time reports and 31 recurring reports. One thousand sixty five entries were logged in the control register; reflecting 42 inventory adjustment vouchers, 232 property turn-ins and 741 requisitions. No reports of survey were submitted.

The Annual Statement of Authorized Equipment and in-use Inventory was prepared and submitted in compliance with TAC Headquarters letter, dated 16 August 1956, subject, same as the report title. In order to meet the established suspense date it was necessary to expend 56 man hours during periods other than those considered normal duty hours. A complete inventory of all property was

made. Over 1220 1120 cards were screened against the prelisted UAL, MEAL, T/A, and 25 ECL's for validity of postings reflecting locations and basic authorizations. When the 20th Helicopter Squadron was reorganized under O/T 1875, dated 30 June 1956, an increase of 36 personnel was gained. On 6 December the new UAL 1341, Part I and Part II, dated 16 November, was received by this section. This new document authorized unit quanity increases in Unit Mission Equipment for 634 line items. About 1/3 of these requisitions have been prepared and the rest are being prepared as rapidly as time will permit. These requisitions are being held in suspense until further notice pending acceptance by the Base Accountable Officer. The base accountable office is now in the process of converting from manual to machine accounting procedures. It is anticipated that this conversion will be completed early in March 1957.

After thoroughly screening the new Unit Authorization List, it was determined that 18 prelisted items were not authorized for use by this organization and action has been taken to have the authorization deleted. Forty-one line items required by this squadron were omitted from the UAL. Thirty-one of those omitted were prelisted in the former UAL 1341 dated 21 August 1956. The supply account will be valued at $231,096.07 when all authorized equipment is on hand. Of the 17,285 units of Unit Mission Equipment authorized, 80.5% are on hand. Considerable difficulty in processing the new document has been experienced due to 72 items, prelisted in Air Force Stock Numbers, having been converted to Federal Numbers subsequent to the effective date of the UAL.

The conversion program from Air Force to Federal listing entails the maintenance of the applicable supply catalog , posting and reaccomplishment of the 1120 card, reaccomplishment of the custody receipts, re-stencilling and re-tagging equipment, advising the individual to whom it is issued of the change, and obtaining his signature on the reaccomplished custody receipt. It takes approximately 10 man hours to convert 20 Air Force Stock Numbers to the Federal listing.

The primary effort to date has been to bring all the records up to the prescribed standards of accuracy, establish and maintain standard procedures of operation, and to train all personnel to more effectively perform their duties. These goals, primarily due to the adverse conditions previously cited, were not fully attained during this period. The assignment of qualified personnel to fill the existing vacancies would expidite reaching these goals. Further it would alleviate the necessity of the assigned personnel working overtime to keep abreast of current work assignments. The aggressive action expended thus far has resulted in improvement through out all phases of the supply activity. This improvement can particularly be noted in the general housekeeping and the increased capability of the assigned personnel to perform their daily assignments efficiently.

The squadron changed command on 28 August and a concentrated effort was started to revise and bring the squadron mobility plan up to date. It was discovered by the squadron commander that many discrepiences existed in the old plan. These consisted of

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equipment changes and errors in weight and cube. It is felt these errors came about by using the weight and cubs as given in TAC Manual 400-1. By spot checking weight and cube on like items. many deficiencies were found.

Major Hartley personally supervised the weighing and cubing of equipment and appointed Captain Forrest G. Thompson as the Squadron Mobility Officer. Captain Thompson took over weighing and cubing of all squadron UME including all equipment and records that would be moved. This information was recorded and all authorized ECL's broken down and weighed.

Major Hartley requested thru channels to 18th Air Force that the squadron be given time to prepare the monthly Mobility Requirement Airlift Report RCS TAC-U20. The squadron was given until 5 January 1957 to submit seven copies of the plan.

When the squadron was reorganized 12 December 1956, additional personnel and equipment were authorized thus making our mobility plan obsolete again. In accordance with paragraph 3b, TAC Reg 400-1, dated 20 May 1955, the squadron was authorized three months from the reorganization date to complete the mobility plan.

At this time there are current UAL's and Manning Documents available to complete this plan. Some have not been approved thru higher headquarters, but work in proceeding and the plan should be completed by 1 March 1957.

HEADQUARTERS EIGHTEENTH AIR FORCE (TAC)
Donaldson Air Force Base
South Carolina

(GENERAL ORDERS)
NUMBER 39)

1 June 1956

INACTIVATION OF THE 516TH TROOP CARRIER GROUP, ASSAULT, ROTARY WING AND CERTAIN OTHER USAF UNITS - I
ACTIVATION OF THE 20TH, 21ST, 23D AND 24TH HELICOPTER SQUADRONS, SUPPORT - - II
ACTIVATION OF HEADQUARTERS 419TH TROOP CARRIER GROUP, ASSAULT, FIXED WING AND THE 339TH, 340TH AND 341ST TROOP CARRIER SQUADRONS, ASSAULT FIXED WING - III

I. INACTIVATION OF THE 516TH TROOP CARRIER GROUP, ASSAULT, ROTARY WING AND CERTAIN OTHER USAF UNITS. - 1. The following units will be inactivated as indicated:

UNIT	INACTIVATION STATION	EFFECTIVE
Headquarters, 516th Troop Carrier Group, Assault, Rotary Wing	Sewart Air Force Base, Tennessee	9 July 1956
Troop Carrier Squadrons, Assault, Rotary Wing, 345, 346, 347	Sewart Air Force Base, Tennessee	9 July 1956
309th Troop Carrier Squadron, Assault, Rotary Wing	Donaldson Air Force Base, South Carolina	9 July 1956
310th Troop Carrier Squadron, Assault, Rotary Wing	Pope Air Force Base, North Carolina	7 September 1956

2. Concurrently with inactivation these units will revert to the control of the Department of the Air Force.

3. Disposition of personnel rendered surplus by these actions will be in accordance with special instructions of the Commander, Eighteenth Air Force.

4. Supplies and equipment will be disposed of in accordance with current directives and special instructions of the Commander, Eighteenth Air Force. Unit allowance list numbers are voided on dates of inactivation.

5. Organizational records will be disposed of in accordance with Air Force Manual 181-5.

6. Funds will be disposed of and final reports will be submitted in accordance with current regulations.

7. Authority: AFOMO Letter 956J, Subject: Inactivation of the Headquarters 456th Troop Carrier Wing, Medium and Certain Other USAF Units: Activation of the 20th Helicopter Squadron, Support and Certain Other USAF Units and First Indorsement, Headquarters Tactical Air Command, MO, 5 March 1956, Subject: same as AFOMO Letter and Air Force Regulation 20-27.

II. ACTIVATION OF THE 20TH, 21ST, 23D AND 24TH HELICOPTER, SQUADRONS, SUPT. - 1. The following units having been constituted and assigned to Tactical Air Command with further assignment to Eighteenth Air Force will be activated 9 July 1956:

UNIT	T/O Composition	Officers	Airmen	Station of Activation
Helicopter Squadrons, Support, 20, 23, 24	1-1363, 1 June 1955	38	93	Sewart Air Force Base, Smyrna, Tennessee
21				Donaldson Air Force Base, South Carolina

2. The above are Category B units and are authorized Unit Essential, Base Support and Field Support Equipment as listed in the MEAL.

3. Upon activation, the 20th, 23d and 24th Helicopter Squadrons, Support, are attached to the 314th Troop Carrier Wing, Medium and the 21st Helicopter Squadron, Support, is attached to the 63d Troop Carrier Wing, Heavy. The units are attached for operational control, logistical and administrative support, including assignment and promotion of personnel

4. Authority: AFOMO Letter 956J, 24 February 1956, Subject: Inactivation of the Headquarters 456th Troop Carrier Wing, Medium and Certain Other USAF Units; Activation of the 20th Helicopter Squadron, Support and Certain Other USAF Units, Tactical Air Command General Order 13, 1956 and Air Force Regulation 20-27.

III. ACTIVATION OF THE 419TH TROOP CARRIER GROUP, ASSAULT, FIXED WING AND THE 339TH, 340TH AND 341ST TROOP CARRIER SQUADRONS, ASSAULT FIXED WING. - 1. The following units having been redesignated as indicated and assigned to Tactical Air Command with further assignment to Eighteenth Air Force will be activated at Ardmore Air Force Base, Ardmore, Oklahoma, effective 9 July 1956:

Old Designation	New Designation	Tables of Organization Composition
Headquarters, 419th Troop Carrier Group, Medium	Headquarters, 419th Troop Carrier Group, Assault, Fixed Wing	1-1362P, 1 June 1955 1 x Part II, 11 Officers 29 Airmen
Troop Carrier Squadron, Medium, 339, 340, 341	Troop Carrier Squadron, Assault, Fixed Wing, 339, 340, 341	1-1533, 1 June 1955 1 x Part II, 43 Officers 141 Airmen

2. The above are Category B Units and are authorized Unit Essential, Base Support and Fiedl Support Equipment as listed in the MEAL.

3. Upon activation of the Headquarters 419th Troop Carrier Group, Assault, Fixed Wing the 339th and 341st Troop Carrier Squadrons, Assault, Fixed Wing are assigned to the 419th Troop Carrier Group, Assault, Fixed Wing.

4. Concurrent with the above, the 419th Troop Carrier Group, Assault, Fixed Wing, is attached to the 463d Troop Carrier Wing, Medium, for operational control, logistical and administrative support, including assignment and promotion of personnel.

5. Authority: AFOMO Letter 956J, 24 February 1956, Subject: Inactivation of the Headquarters 456th Troop Carrier Wing, Medium and Certain Other USAF Units; Activation of the 20th Helciopter Squadron, Support and Certain Other USAF Units, Tactical Air Command General Order 13, 1956 and Air Force Regulation 20-27.

BY ORDER OF THE COMMANDER:

OFFICIAL:

HARRY S BISHOP
Colonel, USAF
Chief of Staff

ANDREW DI ANTONIO
Lieutenant Colonel, USAF
Adjutant

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10 - Comdr, 309TH TRPCARON, ASLT, ROTWG, Donaldson AFB, SC
10 - Comdr, 310TH TRPCARON, ASLT, ROTWG, Pope AFB, NC
10 - Comdr, 20th Helicopter SQ, SUPPORT, C/O Comdr, Sewart AFB, Tenn
10 - Comdr, 21st Helicopter SQ, SUPPORT, C/O Comdr, Donaldson AFB, SC
10 - Comdr, 23d Helicopter SQ, SUPPORT, C/O Comdr, Sewart AFB, Tenn
10 - Comdr, 24th Helicopter SQ, SUPPORT, C/O Comdr, Sewart AFB, Tenn
20 - Comdr, HQ 419TH TRPCARGRU, ASLT, FW, C/O Comdr, Ardmore AFB, Okla

HEADQUARTERS EIGHTEENTH AIR FORCE (TAC)
Donaldson Air Force Base
South Carolina

20 June 1956

GENERAL ORDERS)
NUMBER 41)

INACTIVATION OF THE 456TH TROOP CARRIER WING, MEDIUM - - - - - - - - - - - - - - - I
AMENDMENT OF GENERAL ORDERS - II
DISCONTINUANCE OF DETACHMENT 1, 63D HEADQUARTERS AIR BASE GROUP - - - - - - - III

I. INACTIVATION OF THE 456TH TROOP CARRIER WING, MEDIUM. - 1. Headquarters 456th Troop Carrier Wing, Medium and the 744th, 745th and 746th Troop Carrier Squadron, Medium and detachments thereto, will be inactivated at Ardmore Air Force Base, effective 9 July 1956.

2. Concurrently with inactivation these units will revert to the control of the Department of the Air Force.

3. Disposition of personnel rendered surplus by these actions will be in accordance with special instructions of the Commander, Eighteenth Air Force.

4. Supplies and equipment will be disposed of in accordance with current directives and special instructions of the Commander, Eighteenth Air Force. Unit allowance list numbers are voided on dates of inactivation.

5. Organizational records will be disposed of in accordance with Air Force Manual 181-5.

6. Unit welfare funds and property will be disposed of as provided by paragraph 24, Air Force Regulation 176-2, 24 February 1954, as amended.

7. Authority: Air Force Regulation 20-27 and Letter Department of the Air Force AFOMO 107k, dated 6 June 1956, Subject: Inactivation of the Headquarters 456th Troop Carrier Wing, Medium and Certain Other USAF Units; Activation of the 20th Helicopter Squadron, Support and Certain Other USAF Units and Headquarters Tactical Air Command 1st Indorsement, 18 June 1956.

II. AMENDMENT OF GENERAL ORDERS. - 1. General Orders 39, this Headquarters, Current Series, is amended as follows: a. So much of Part II, paragraph 1, as relates to the T/O Composition of the 20TH, 21ST and 24TH Helicopter Squadrons, as reads: "1-1363, 1 June 1955" is amended to read: "1-1363, 1 June 1955 and 1 x Part II."

b. Part III, paragraph 3, is amended to read: "Upon activation or the Headquarters 419TH Troop Carrier Group, Assault, Fixed Wing the 339TH, 340TH and 341ST Troop Carrier Squadrons, Assault, Fixed Wing are assigned to the 419TH Troop Carrier Group, Assault, Fixed Wing."

III. DISCONTINUANCE OF DETACHMENT. - 1. Detachment 1, Headquarters 63D Air Base Group, North Air Force Auxiliary Field, South Carolina, is discontinued, effective 1 July 1956.

2. Authority: Air Force Regulation 20-27 and Headquarters Tactical Air Command General Orders 36, 31 May 1956.

THIS PAGE FOR SIGNATURE AND AUTHENTICATION ONLY:

BY ORDER OF THE COMMANDER:

OFFICIAL:

HARRY S BISHOP
Colonel, USAF
Chief of Staff

ANDREW DI ANTONIO
Lieutenant Colonel, USAF
Adjutant

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10 - Comdr, 20th Helicopter SQ, SUPPORT, C/O Comdr, Sewart AFB, Tenn
10 - Comdr, 21st Helicopter SQ, SUPPORT, C/O Comdr, Donaldson AFB, SC
10 - Comdr, 24th Helicopter SQ, SUPPORT, C/O Comdr, Sewart AFB, Tenn
20 - Comdr, HQ 419TH TRPCARGRU, ASLT, FW, C/O Comdr, Ardmore AFB, Okla
10 - Comdr, Det 1, 63D ABGRU, North Air Force Auxiliary Field, SC

HEADQUARTERS EIGHTEENTH AIR FORCE (TAC)
Donaldson Air Force Base
South Carolina

GENERAL ORDERS)
NUMBER 50)

28 July 1956

REVOCATION OF GENERAL ORDERS - I
AMENDMENT OF GENERAL ORDERS - II

I. General Order 48, this Headquarters, Current Series, relating to amendment of Part II, General Orders 39, this Headquarters, Current Series, is hereby revoked.

II. AMENDMENT OF GENERAL ORDERS - So much of Part II, General Order 39, this Headquarters, Current Series, relating to the activation of the 20TH, 21ST, 23D and 24TH Helicopter Squadrons as reads: "Helicopter Squadrons, Support," is amended to read: "Helicopter Squadrons (Support)."

BY ORDER OF THE COMMANDER:

OFFICIAL:

HARRY S BISHOP
Colonel, USAF
Chief of Staff

C. S. PUGLIESE
Major, USAF
Assistant Adjutant

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HEADQUARTERS
EIGHTEENTH AIR FORCE (TAC)
United States Air Force
Donaldson Air Force Base, South Carolina

GENERAL ORDERS)
NUMBER 53)

6 August 1956

ORGANIZATION OF DETACHMENT - I
REORGANIZATION OF THE 20TH AND CERTAIN OTHER HELICOPTER SQUADRONS - - - - - - - - II
AMENDMENT OF GENERAL ORDERS - III

I. ORGANIZATION OF DETACHMENT. - 1. Detachment 1 of the 14th Troop Carrier Squadron, Heavy will be organized at Donaldson Air Force Base, South Carolina, effective 6 August 1956.

2. Authority: AFR 20-27 and Message Headquarters Tactical Air Command, TOMOA 8-0179, 2 August 1956.

II. REORGANIZATION OF THE 20TH AND CERTAIN OTHER HELICOPTER SQUADRONS. - 1. The following units will be reorganized under appropriate unit manning documents, effective 11 August 1956:

UNIT	O/T Composition	OFF	AMN
* Helicopter Squadrons 20, 21, 24	1875, 30 June 1956, para 1 and 2a, Part I (Part IIA)	38 (each)	91
23	1875, 30 June 1956, para 1, 2b, 2c, Part I (1 x Part IIB, 3 x Part IIC)	41	124

*The parenthetical designation "Support" which was a part of the unit nomenclature "Helicopter Squadron (Support)", paragraph 3, DAF letter AFOMO 956j, dated 24 February 1956, was rescinded by AFOMO 148k, 24 July 1956.

2. The above are category B units and are authorized unit essential, Base Support and Field Support Equipment as listed in the MEAL O/T Supplement, with a basis of issue relating to the above composition. These units are authorized additional equipment in the USE column of the UAL in conformance with paragraph 8d, AFR 5-25 and the Unit Manning Document.

3. Authority: AFOMO letter 148k, 24 July 1956, Subject: Reorganization of the 20TH and Certain Other Helicopter Squadrons.

III. AMENDMENT OF GENERAL ORDERS - So much of paragraph 2, General Orders 40, this Headquarters, Current Series, relating to the award of the First Oak Leaf Cluster to the Commendation Ribbon as reads: "CAPTAIN HARRY E KEMPE, A01904005, 7 March 1953 to 25 April 1956" is amended to read: "CAPTAIN HARRY E KEMPE, A01904005, 7 March 1954 to 25 April 1956."

THIS PAGE FOR SIGNATURE AND AUTHENTICATION ONLY:

BY ORDER OF THE COMMANDER:

OFFICIAL:

HARRY S BISHOP
Colonel, USAF
Chief of Staff

ANDREW DI ANTONIO
Lieutenant Colonel, USAF
Adjutant

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HEADQUARTERS
EIGHTEENTH AIR FORCE (TAC)
United States Air Force
Donaldson Air Force Base, South Carolina

GENERAL ORDERS)
NUMBER 76)

10 December 1956

REORGANIZATION OF THE 20TH HELICOPTER SQUADRON. - 1. The following unit will be reorganized at Sewart Air Force Base, Tennessee, under appropriate Unit Manning Document, effective 12 December 1956:

UNIT	COMPOSITION	OFF	AMN
20th Helicopter Squadron	O/T 1875, 30 June 1956, paragraphs 1, 2B, 2C, Part I, (Part IIB, 3 X Part IIC)	41	134

2. The above is a Category B unit and is authorized Unit Essential Base Support, and Field Support Equipment as listed in the MEAL O/T Supplement with a basis relating to the above composition. This unit is authorized additional equipment in the USE column of the UAL in conformance with paragraph 8d, AFR 5-25, and the Unit Manning Document.

3. Authority: Department of the Air Force Letter, AFOMO 25lkm Subject: Reorganization of the 20th Helicopter Squadron, 6 November 1956, and Headquarters Tactical Air Command 1st Indorsement, 20 November 1956 and AFR 20-27.

BY ORDER OF THE COMMANDER:

OFFICIAL:

HARRY S BISHOP
Colonel, USAF
Chief of Staff

ANDREW DI ANTONIO
Lieutenant Colonel, USAF
Adjutant

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HEADQUARTERS
314TH TROOP CARRIER WING (MEDIUM)(TAC)
SEWART AIR FORCE BASE
Tennessee

SPECIAL ORDERS)
NUMBER 171)

E X T R A C T

6 July 1956

1. Ea of the FNOA, are rel from asg with the 345TH TRPCARONASLT ROTWG; 516TH TRPCARGRUASLT ROTWG (TAC) this STA, asg: 20TH Helicopter Squadron, Support, (TAC) this STA, Reporting NLT 9 JUL 56, EDCSA: 9 JUL 56. WP PCA NTI. *Indicates personnel on TDY who will report upon completion of said TDY. ** Indicates personnel on leave who will report upon completion of said leave.

RANK	NAME	AFSN	RANK	NAME	AFSN
MAJ	FOWLER, JAMES F	13483A	MSG	BOWDEN, ALVIN G	AF15237124
MAJ	HARTLEY, GREGG D	A0820011	MSG	BRIGMAN, PRENTIS C	AF14035555
MAJ	KEMP, THOMAS H	A0812277	MSG	BROCK, EVERETT J	AF6282713
MAJ	MILLS, LOREN W	A0740873	MSG	BURNS, JAMES P	AF14030501
MAJ	SANDBLOM, WILLIAM A	A0805683	MSG	QUAILS, MONROE M	AF6639321
*CPT	BUCKLEY, WILFRED E	A0841904	MSG	SAVAGE, THOMAS L	AF6783261
CPT	GARNER, WILLIAM L	A0934419	MSG	WEST, BILLY E	AF14267303
*CPT	GERDAU, RICHARD V	24598A	TSG	BUCHAN, JAMES T	AF14237899
CPT	PAQUETTE, ALBERT F	A0781036	TSG	FLINN, CHARLES E JR	AF33729443
CPT	RHOADES, HARRY B JR	A0786627	TSG	WINDSOR, JAMES G	AF14273365
CPT	RHOADS, VIRGINIA E	A02070126	TSG	WOOD, STANOPE JR	AF14264321
CPT	ROY, ROBERT L	A0718764	SSG	BRADLEY, GILBERT A	AF15223164
CPT	THOMPSON, FORREST G	A0759115	SSG	CARROLL, EDWARD M	AF14298542
1LT	ALBERG, HENRY B JR	A03026074	SSG	FORBES, KENNETH F	AF15378745
1LT	ARTHURS, JOHN D	A03005164	SSG	GOODMAN, ROSSIE M	AF34453930
1LT	CLAYTON, DONALD W	A03034001	SSG	KELLEY, ELBERT L JR	AF19460791
1LT	CIRIELLO, VINCENT	A03037025	SSG	MCCANN, GEORGE A	AF18427556
1LT	FORTNEY, JAMES B	A03036995	SSG	RUSHING, JAMES L	AF34727177
1LT	GRONWOLDT, WILLIAM JR	A03036997	SSG	TECKLENBURG, RICHARD L	AF15484852
1LT	INGELS, BERT F	A03010251	SSG	WELLS, PAUL R	AF15452653
*1LT	JOHNSON, EDWIN C	A03015339	SSG	WOOD, JOSEPH W	AF24891567
1LT	KRAINIAK, ANDREW JR	A02217592	A1C	AUSMAN, KEITH E	AF16441531
*1LT	KRUCKEBERG, ROBERT F	A03004358	A1C	BAKER, DONALD J	AF12446598
1LT	LAVIN, JOHN J	A03011837	A1C	BERTRAM, DONALD W	AF16434774
1LT	LIEBERT, FRED M	A02245184	*A1C	BOND, ROY G	AF18441358
1LT	LONG, KENNETH D	A03023229	A1C	BRYSON, ROY G	AF14419284
*1LT	MADISON, RICHARD K	A03010941	A1C	CLINGAN, FRANK A	AF17379191
1LT	MENTZER, JOHN E	A03010565	A1C	DARNELL, CHARLES H	AF16437818
*1LT	MCALLISTER, CHARLES N	A02246557	A1C	DAVIS, RONALD E	AF17379329
1LT	RHODES, DONALD J	A0785885	A1C	DEBENHAM, JAMES R	AF17375465
*1LT	ROGERS, HUEY D	A03016646	A1C	DECKER, JOHN W	AF16429694
*1LT	SANCTON, RAYMOND P JR	A03034043	A1C	DODD, JOSEPH H JR	AF13454544
*1LT	SIMMONS, BOBBY D	A03025813	A1C	FENTERS, LOUIS H	AF14509364
1LT	SMITH, DAVID L	A02226248	A1C	FOORE, DONALD H	AF15507345
*1LT	WALLACE, CLARK C	A03034055	*A1C	GAYDOS, FRANK JR	AF13473946
2LT	BEGLEN, JOSEPH M JR	A03031992	*A1C	GIDDENS, BILLY D	AF18430764
2LT	HYATT, FRANCIS L	A03057867	A1C	HADDOX, JIMMIE R	AF25636928

Para 1 SO 171 , HQ 314TH TRPCARWGM, SAFB, TENN, DTD 6 JUL 56 , (CONT'D)

RANK	NAME	AFSN
A1C	HANNON, HOWARD E	AF26335634
A1C	HARRIS, JACK L	AF15506813
A1C	HEINE, KENNETH L	AF17380879
A1C	HENSLEY, CHARLES F	AF19470862
*A1C	HERR, ROBERT L	AF17385938
A1C	JANSON, JOHN E	AF14489025
A1C	JOE, DAVID JR	AF14494569
A1C	KELLER, LYLE J	AF17252661
A1C	LENGEL, JOHN JR	AF13451383
A1C	LOUGHRY, BERNARD D	AF12415672
A1C	FRANK, RICHARD H	AF16443232
A1C	MORRIS, JOSEPH R	AF15475352
A1C	NELSON, LLOYD I JR	AF26794467
A1C	OVERSON, CLARENCE A	AF19441866
A1C	PHILLIPS, HOBERT C	AF16448467
*A1C	ROBASON, GENE A	AF18331453
*A1C	ROOKARD, ROBERT L	AF19475257
*A1C	SEVERNS, CHARLES D	AF19453330
A1C	SOBR, WILLIAM J JR	AF16423770
*A1C	SPRAGUE, HARRY L	AF17379565
A1C	THOMPSON, DAVID A	AF17389503
A2C	BLANCHETTE, ROBERT J	AF11265289
A2C	BLAZIC, DAVID J	AF16452488
A3C	VAUGHN, DONALD L	AF12476612
A2C	BRANDON, JOHN J	AF11279964
A2C	BURRESON, GENE T	AF18453456
A2C	DWYER, ROBERT T	AF17384267
*A2C	GOOCH, DAVID L	AF16474510
A2C	HARPER, GENE D.	AF28033819
A2C	HOUZE, RAY C	AF18454224
*A2C	HOPE, JOHN A	AF16473091
A2C	LAYFIELD, MANLEY H	AF14503450
A2C	LAVANA, JOHN T	AF11268778
A2C	MCCANCE, EDMUND A	AF13466948
A2C	NICHOLAS, JAMES	AF14464963
A2C	NOEL, RICHARD E	AF15509824
A2C	RILEY, LLOYD E	AF14184164
A2C	ALBERT, JOSEPH W	AF15534750
A2C	SMITH, JAMES W	AF18450427
A2C	UHLIAN, DONALD C	AF16450344
A2C	WASSERMAN, DALE J	AF14531026
A2C	WEST, WILTON E	AF16489486
A2C	WHITE, JAMES E	AF14518905
A3C	BARGE, ROSCOE C	AF16520218
A3C	GREEN, CLYDE	AF14573299
A3C	LAWSON, HECTOR E	AF18453399
A3C	MALLONEE, JOE E	AF34013142
A3C	VAUGHN, WILLIE	AF14573302
A3C	WOMACK, THOMAS A JR	AF13501288
A/B	PEREZ, ELOY R	AF16515857

BY ORDER OF THE COMMANDER:

HARRY B BROWN JR
Captain, USAF
Adjutant

OFFICIAL:

HARRY B BROWN JR
Captain, USAF
Adjutant

DISTRIBUTION: "D"
Plus
5 - Indiv Concerned
3 - Orgn Concerned

GAINS OF OFFICERS AND AIRMEN BY MONTH

JULY

OFFICER	2/Lt William C. Bartley	2/Lt Bobby R. Pilkinton
AIRMEN	A/2C Francis B. Flores	A/2C Charles A. Kuhn
	A/2C William R. Grahm	A/2C Ernesto Cortes-Laguana

AUGUST

OFFICER	2/Lt Donald G. Dair	2/Lt Gerald E. Bond
	2/Lt John W. Sennett	2/Lt Beryl E. Warden Jr
	2/Lt David W. Thomas	
AIRMEN	T/Sgt Clyde Coleman	A/2C Rodney L. Pickett
	T/Sgt Johnny Tindal Jr	A/2C William Smith
	S/Sgt Armend R. Jelineau	A/2C Matthew C. Vause
	S/Sgt Franklin E. Stursa	A/2C Billy J. Rich
	S/Sgt John G. Lemon	A/2C Charles H. Daniels
	A/1C Crosby R. Smith	A/2C Stanley E. Wilkins
	A/1C Kelly R. Hughes	A/2C Jerry M. Seegers
	A/1C Howard G. Engleman	A/2C Kenneth R. Miller
	A/2C Franklin D. Bothwick	A/2C John G. Regan Jr
	A/2C Joseph Lewkowitz Jr	

SEPTEMBER

OFFICER	1/Lt Clark C. Wallace	
AIRMEN	T/Sgt Laurence N. Cowles	A/3C Robert M. Brown
	A/1C Raleigh H. Arrowood	A/3C Donald T. Gaston
	A/2C Carl R. Black	A/3C Alva W. Krebs
	A/2C Ernest S. Blanton	A/3C Waine R. Mahanke
	A/2C Robert P. Crowder	A/3C Jerry D. McDonald
	A/2C Frank Smith Jr	A/3C Horrace A. Schmidt
	A/3C Gerry L. Barnard	A/3C Melvin H. Schneiderman
	A/3C Thomas N. Barry Jr	A/3C Edward M. Vozar
	A/3C Allen E. Bennett	A/B Donald C. Hicks

OCTOBER

OFFICER	1/Lt Jerome R. Luttinger	
AIRMEN	T/Sgt John E. Renfrow	A/3C Robert J. Foster
	T/Sgt John J. Kelly	A/3C Dean R. Locke
	A/1C John E. Bailey	A/B Joseph Barford III
	A/2C Victor E. Miraglia	

GAINS OF OFFICERS AND AIRMEN CONTINUED

NOVEMBER

OFFICER None

AIRMEN T/Sgt Talmadge L. Gunter
A/1C Roy O. Williams Jr
T/Sgt Robert T. Hanke

DECEMBER

OFFICER None

AIRMEN T/Sgt Francis M. Rosson Jr
A/2C George R. Jackson
A/3C Earnest Bridges
A/3C Carl J. Gabel Jr
A/3C Raymond A. Gaylor
A/3C Melvin L. Hope Jr
A/3C Richard T. McMahan
A/B Donald K. Tudhope

LOSSES OF OFFICERS AND AIRMEN BY MONTH

JULY

	DISCHARGE		ANOTHER UNIT	
OFFICER	None		1/Lt	John D. Arthurs
AIRMEN	M/Sgt	Billie E. West	A/1C	Jimmie R. Haddox
	S/Sgt	George A. McCann	A/2C	John A. Hope

AUGUST

OFFICER	Major	William A. Sandblom	Capt	Robert L. Roy
			1/Lt	Donald W. Clayton
			1/Lt	Clark C. Wallace
			1/Lt	Donald J. Rhoades
AIRMEN	S/Sgt	Edward M. Carroll	M/Sgt	Everett J. Brock
	A/2C	Lloyd L. Nelson	T/Sgt	Charles E. Flinn Jr
	A/2C	James Nicholas	S/Sgt	Gilbert A. Bradley
	A/2C	Dale J. Wasserman	A/1C	Howard E. Harmon
			A/1C	Hobert C. Phillips
			A/1C	Louis H. Fenters
			A/2C	Ernesto Cortes-Laguna
			A/2C	Walton E. West
			A/2C	Gene T. Burreson
			A/2C	Robert C. Dwyer
			A/2C	Charles A. Kuhn
			A/2C	Manley H. Layfield
			A/2C	James W. Smith
			A/3C	Ector E. Lawson

2/Lt Francis L. Hyatt was transferred overseas during this month.

SEPTEMBER

OFFICER	1/Lt	Bert F. Ingels	Major	James F. Fowler
	1/Lt	Robert F. Kruckeberg	Capt	Richard V. Gerdau
	1/Lt	John E. Mentzer	Capt	Virginia E. Rhoades
AIRMEN	S/Sgt	Richard L. Tecklenburg	T/Sgt	James T. Beechan
	A/1C	John W. Decker	S/Sgt	David C. Watkins
	A/1C	Roscoe V. Barge	A/2C	Franklin D. Bothwick
	A/1C	William J. Sober Jr	A/2C	Francis D. Flores
			A/3C	Waine R. Mahanke

LOSSES OF OFFICERS AND AIRMEN CONTINUED

DISCHARGE		OCTOBER	ANOTHER UNIT
OFFICER	1/Lt	Edwin C. Johnson	Major Loren W. Mills 1/Lt Raymond P. Sancton
AIRMEN	A/1C	Bernard D. Loughry	None
	A/3C	Allan E. Bennett	
	A/3C	Donald T. Gaston	
		NOVEMBER	
OFFICER	None		None
AIRMEN	A/1C	Clarence A. Overson	
	A/1C	Gene A. Robason	None
		DECEMBER	
OFFICER	1/Lt	Kenneth D. Long	None
AIRMEN	S/Sgt	Billy D. Giddens	None
	S/Sgt	John Lengel Jr	

SHORTAGES AND OVERAGES (BY OFFICER AND AIRMEN CAREER FIELD)

AT BEGINNING OF REPORTING PERIOD

	CAREER FIELD	AUTH	ASSIGNED	% OVER	% SHORT
OFFICER	0066A	1	0	-	100
	1024B	32	34	6	-
	1435	1	1	-	-
	3054	1	0	-	100
	4344	1	0	-	100
	6424	1	0	-	100
	7324	1	0	-	100
	TOTAL	38	35		

	CAREER FIELD	AUTH	ASSIGNED	% OVER	% SHORT
AIRMEN	27	1	1	-	-
	30	5	4	-	20
	42	4	2	-	50
	43	62	63	2	-
	47	2	1	-	50
	53	3	1	-	67
	64	5	6	20	-
	70	5	3	-	40
	73	4	4	-	-
	92	2	0	-	100
	TOTAL	93	85		

AT ENDING OF REPORTING PERIOD

	CAREER FIELD	AUTH	ASSIGNED	% OVER	% SHORT
OFFICER	0066A	1	0	-	100
	1024B	32	20	-	38
	1435	4	0	-	100
	3054	1	0	-	100
	4344	1	0	-	100
	6424	1	0	-	100
	7324	1	0	-	100
	TOTAL	41	20		

	CAREER FIELD	AUTH	ASSIGNED	% OVER	% SHORT
AIRMEN	27	4	1	-	75
	30	8	1	-	88
	42	12	1	-	83
	43	69	72	4	0
	47	44	1	-	75
	53	4	1	-	75
	64	8	3	-	63
	70	5	1	-	20
	73	6	4	-	33
	92	4	0	-	100
	TOTAL	124	85		

SQUADRON OJT STATUS AT BEGINNING OF REPORTING PERIOD

CAREER FIELD	3 LEVEL	5 LEVEL	7 LEVEL
271-0	0	0	1
301-0	0	1	0
421-2	0	1	0
431-0	0	6	1
432-1	0	1	0
532-0	1	0	0
641-1	0	1	0
702-0	1	0	0
TOTAL	2	10	2

SQUADRON OJT STATUS AT ENDING OF REPORTING PERIOD

CAREER FIELD	3 LEVEL	5 LEVEL	7 LEVEL
271-0	0	0	1
301-0	0	2	0
431-0	0	23	5
432-1	0	1	0
472-0	1	0	0
532-0	1	0	0
534-0	0	1	0
641-1	0	1	0
641-3	0	0	1
702-0	1	1	0
732-1	0	1	0
TOTAL	3	30	7

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and carrier aircraft equipment was also repaired. The IMF provided facilities for missile/launcher integrated tests and missile/pylon integrated tests. Other operations in the IMF included the loading and unloading of missiles from the launcher and pylon, exchange of payload section, installing or removing the launcher from the launcher loading frame, and positioning and pick-up of pylons. [6]

Storage Igloos

(U) The third project was to construct eight (8) weapons storage igloos. The existing igloos were not sized to house mission ready ALCM pylons and there were not sufficient igloos to store any additional weapons even if they were properly sized. Also, the existing roads, ramps and bridges surrounding the WSA were not built for the 85,000 pound gross loading of the ALCM system. Each igloo would be 121 feet long, 47 feet wide, earth-covered, reinforced concrete arches, floors and access aprons, with a distance of 40 feet between each igloo. Upon completion of this ALCM project, Barksdale AFB will render a positive effect to the overall national security program. [7]

Dormitory Improvements

(U) During this quarter, work began on vacating four dormitories to be renovated under the MCP and O & M upgrade programs. The project involved total renovation of three buildings (4386 for OMS, 4377 for AMS and 4368 for SPS troops), to include reconfiguration from central hallways and central latrines to room-bath-room configuration with private exterior entrances to rooms. [8]

Military Family Housing

(U) For those military personnel who chose to live in family housing on Barksdale, there were 1,030 units available. The three types of quarters available were appropriated fund; 105 for officers and 124 for airmen, wherry; 41 for officers and 559 for airmen and Capehart; 19 for officers and 181 for airmen. Quarters were assigned by rank and date of application, size and composition of family. [9]

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6. Source: BAFB Program Data Sheet, Programmed Maintenance Facilities, Map 81, Report, Subj: Military Construction Data [illegible]

7. Source: BAFB Project Data Sheet, Subj: Project Number [illegible] Military Construction Program Data [illegible]

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ROSTER OF PILOTS WHO REMAINED IN THE SQUADRON DURING THE REPORTING PERIOD SHOWING TOTAL TIME, TOTAL HELICOPTER TIME, H-21 TIME, TIME FOR THE 6 MONTHS AND THE AVERAGE PER MONTH

	Total Time		Total Hel Time		H-21 Time		Total	Av
	1 July	31 Dec	1 Jul	31 Dec	1 Jul	31 Dec	6 Mo	Mo
Maj Gregg D. Hartley	3535:05	3609:20	440:50	515:05	300:40	366:10	74:15	12:25
Maj Thomas H. Kemp	3795:20	3861:15	1455:30	1521:25	125:45	189:40	65:55	10:55
Capt Wilfred E. Buckley	4083:35	4254:20	788:45	959:30	184:00	341:45	170:45	28:25
Capt William L. Garner	1221:05	1393:30	268:30	440:55	186:20	356:45	172:25	28:45
Capt Albert F. Paquette	1727:45	1888:00	819:00	797:15	223:15	383:30	160:15	26:45
Capt Harry B. Rhoades Jr	1713:10	1861:35	594:45	743:10	110:50	257:15	148:25	24:45
Capt Forrest G. Thompson	4590:20	4789:15	230:00	428:55	129:00	347:55	198:55	33:09
1/Lt Henry B. Alberg	862:40	1051:10	599:55	784:40	353:10	550:40	188:30	31:22
1/Lt Vincent Cirello	773:25	951:40	464:55	640:40	298:55	464:35	178:15	29:40
1/Lt James B. Fortney	906:15	1140:35	588:10	821:20	325:05	559:30	234:20	39:03
1/Lt William Gronwoldt	870:30	1098:45	538:20	764:35	341:25	560:05	228:15	38:03
1/Lt Andrew Krainiak	851:10	1009:35	384:10	542:35	266:35	431:40	158:00	26:20
1/Lt John J. Lavin	1005:00	1130:10	698:55	820:15	196:00	399:25	125:10	20:51
1/Lt Fred M. Liebert	884:50	1037:00	397:40	551:45	322:20	429:10	152:10	25:22
1/Lt Richard K. Madison	802:50	954:40	540:35	665:30	231:05	296:45	151:50	25:18
1/Lt Charles N. McAllister	970:15	1079:05	437:10	531:20	322:50	407:25	108:50	18:08
1/Lt Huey D. Rogers	839:40	1016:25	560:40	736:25	126:25	261:10	176:45	29:52
1/Lt Bobby D. Simmons	1085:40	1366:10	741:25	950:25	429:25	609:55	280:30	46:45
1/Lt David L. Smith	600:50	745:45	301:30	435:35	2:00	136:10	144:55	24:09
1/Lt Clark C. Wallace	868:25	1029:55	566:05	727:35	300:15	450:05	161:30	28:35
TOTALS	31,987:50	35,268:10	11,416:50	14,560:55	4,775:20	7,799:35	3,279:55	548:37
SQUADRON AVERAGE	1599:23	1763:25	570:52	728:03	238:46	389:29	164:00	27:28

MAINTENANCE STATISTICS SUMMARY

	NO ACFT AUTH	NO ACFT ASGD	NO ACFT POSS	IN COMM RATE %	AOCP RATE %	TOC RATE %	ANFE	AOCM SCH %	AOCM UNSCH %	AV NR ACFT IN COMM	ACFT HRS FLOWN	NR HRS PER ACFT	ACFT UTIL RATE %
Jul	16	16*	15	48.3	5.1	36.8	0	5.4	3.7	7	213	14.2	5.2
Aug	16	15	12	43.1	6.5	19.2	0	7.4	21.9	7	306	21.9	8.0
Sep	16	15	15	48.0	16.0	7.0	0	24.0	28.0	7	209	13.9	2.0
Oct	16	15	14	43.3	19.6	2.7	0	17.9	9.4	7	208	15.0	4.2
Nov	16	15	13	35.0	13.3	18.0	0	22.3	7.6	5	198	15.2	6.0
Dec	16	15	12	50.5	11.3	0	0	26.1	10.2	6	106	13.3	3.5
AVERAGE	16	15	13	44.6	12.0	13.7	0	17	13.5	6.5	215.7	15.5	4.8

* H-21 52-8694 transferred to 23rd Helicopter Squadron to bring them up to overseas deployment strength.

SUMMARY OF UNSATISFACTORY REPORTS

DATE TURNED IN	UR NUMBER	ITEM
6 Sep 56	56-507	Excessive looseness in the forward and aft upper controls. No action.
12 Sep 56	56-543	Magneto; screw (PN SC 1494) broken and resting against primary condenser wire. Action taken: New and improved screws to be installed at time of magneto overhaul.
20 Sep 56	56-593	Excessive looseness in the forward and aft upper controls.
27 Sep 56	56-615	Engine; metal particles were found to be exceeding the normal limits in the engine oil strainer. No action.
5 Oct 56	56-647	Control cable pully support; crack found in upper flight control pully support. No action
22 Oct 56	56-735	Clutch assembly; one clutch plate was found to be broken in nine pieces. No action.
12 Dec 56	56-875	Carburetor; engine would run only by priming contiously. No action.

SUMMARY OF T.O. COMPLIANCES

DATE RECEIVED	T.O.C. NR	REQUIREMENTS AND RESULTS
22 Jul 55	12R2-2ARC-27-505	Modification of dynamotors in RT178/ARC-27-10 eliminate shock hazard in AN/ARC-27. Routine modification C/W on all aircraft.
3 Oct 55	1H-21-530	Replacement of limited life flight control system components with unlimited life components. C/W on all aircraft in conjunction with T.O. 1H-21-556 and 1H-21-566.
15 Apr 56	1H-21-526	Installation of starter cut-out overspeed switch. Routine modification C/W on all aircraft.
18 May 56	1H-21-556	Inspection of quadrant assem. P/N 4261256-1. T.O. 1H-21-530 was C/W before receiving T.O. 1H-21556 and all new parts installed. When new parts were inspected upon receipt of 1H-21556 none were found loose on any aircraft.
23 May 56	1H-21-550	Relocation of carburetor air temperature bulb. Routine modification C/W on all aircraft.
22 May 56	12R2-2ARC-27-502	Replacement of vibration isolator mountings on MT-822/ARC-27. Routine modification C/W on all aircraft.
5 Jul 56	H-21-561	Replacement of upper flight control differential link bolts P/N NAS 464-4. Routine modification on all aircraft.
6 Jul 56	T.O. 1H-21562	Received time change requirement on transmissions from 250 to 150 hours. Nine transmissions were effected.
27 Jul 56	1H-21559	Re-routing of D.C. generator field wire to reduce the possibility of D.C. generator field circrit wire breakage at "A" terminal on generator. Routine modification C/W on all aircraft.

SUMMARY OF T.O. COMPLIANCES CONTINUED

DATE RECEIVED	T.O.C NR	REQUIREMENTS AND RESULTS
9 Aug 56	T.O. 1H-21-565	Inspection of all drive shaft balance weights prior to ungrounding and each 10 hours flying time there after. No loose balance weights were found on initial inspection. Aircraft were grounded from 3 - 11 August pending investigation of drive shaft failure of 21st Helicopter Squadron aircraft.
27 Aug 56	1H-21-566	Inspection of fwd and aft upper control taper pins for loosness. Taper pins were found loose in the following aircraft: 52-8677 at 165:50 30 Aug 52-8678 at 217:40 30 Aug 52-8679 at 224:30 9 Sep 52-8681 at 234:45 30 Aug 52-8686 at 225:30 30 Aug 52-8696 at 191:55 15 Sep 52-8706 at 168:25 30 Aug Taper pin holes were reamed and the next larger taper pins A/N AN386-4-23A were installed. This has not been entirely satisfactory and a U.R. has been submitted.
31 Aug 56	1H-21560	Reinforcement of fuselage frame at central transmition. C/W on 52-8695 23 Nov 56, 52-8687 20 Nov 56, 52-8688 14 Aug 56, 52-8687 27 Sep 56 and 52-8696 15 Nov 56. The remaining aircraft awaiting compliance at Base Maintenance.

SUMMARY OF T.O. COMPLIANCES CONTINUED

DATE RECEIVED	T.O.C. NR	REQUIREMENTS AND RESULTS
25 Oct 56	1H-21-570	Inspection of engine oil hopper tank for cracks. T.O. was C/W on all aircraft and the following were found cracked: 52-8678, 52-8691, 52-8697, 52-8696, 52-8681, 52-8706. All aircraft were repaired IAW 1H-21-572.
26 Oct 56	1H-21571	Replacement of engine driven fuel pump, to provide increase fuel pressure. Routine modification C/W on all aircraft.
26 Oct 56	1H-21-569	Inspection of carburetor vapor vent system, to determine if carburetor is venting properly. All aircraft were tested by Wright Tech Rep and found OK.
1 Nov 56	1H-21534	Modification of magnetic stand-by compass support to prevent erratic operation of compass and eliminate failure of shock mounts. Routine modification on all aircraft.
23 Nov 56	1H-21572	Modification of engine oil hopper tank C/W on the following: 77 - 28 Nov 97 - 27 Nov 52-8693 is at IRAN. 95 - 3 Dec 96 - 27 Nov 52-8678 Awaiting PE to complete 79 - 14 Nov 06 - 29 Nov T.O. compliance 81 - 14 Nov 89 - 21 Nov 86 - 9 Nov 91 - 13 Nov 87 - 30 Nov 92 - 13 Nov 86 - 6 Nov
17 Dec 56	1H-21-573	Inspection of rotor blade taper pins for proper fit routine inspection C/W on all aircraft. All taper pins fit properly.

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NARRATIVE MISSION REPORT (CALIFORNIA TOW PROJECT)

P.R.C.

1. GENERAL DESCRIPTION OF MISSION: On 1 November 1956, the 20th Helicopter Squadron deployed one (1) specially equipped H-21B type helicopter to Ream Naval Air Station, California to participate in towing and salvage tests conducted by the United States Navy.

2. ORGANIZATION OF FORCES: Not applicable.

3. NARRATIVE SUMMARY OF MISSION:

a. H-21B helicopter, number 52-8678, arrived at Ream Naval Air Station, California, on 4 November 1956, and the crew was billeted at U.S. Naval Amphibious Training Base, Coronado, California.

b. On 6 November 1956, the installation of additional equipment on the aircraft was begun. Equipment used for the test consisted of an electrically operated two speed winch installed in the forward section of the engine compartment, three hundred (300) feet of 7/16 inch wire rope, an explosive cable cutter, a normal release mechanism, and an inclinometer to indicate approximate tow tension.

ORDER 11652

c. On 14 November 1956, the pilot indoctrination phase of the program was begun. This phase consisted of a minimum of five hours of towing as required by TAC Message TOOT-TC 8-2051, 20 August 1956. During this period an LCM, displacing approximately thirty five tons, was used as the towed vehicle. A static tow test was also performed to check the amount of tension the helicopter was able to exert. A tensiometer was placed between the airplane and a D-8 Caterpillar tractor and a maximum tension of 5000 pounds was exerted at an angle of 25 degrees inclination. No wind and a temperature of 87 degrees F. were the reasons for this relatively low figure.

d. After completion of the indoctrination program the actual towing and salvage tests were begun. The first test involved passing a tow line from a salvage LCM to a beached LCM to demonstrate the speed with which this operation could be performed by helicopter. An elapsed time of two and one half minutes was recorded for this operation which takes up to two hours using presently employed procedures. A DUKW and an LVT were towed off the beach into the water, towed through the water and back onto the beach to demonstrate the capability of the aircraft to salvage and tow these assault vehicles. An LCVP was retracted from the beach and towed at a speed of 25 knots. An LCM was retracted and towed in excess of 12 knots. An LCU with an 80 ton deck load (315 tons total displacement) was towed and beached at a speed of 9 knots. This speed, incidentally, is faster than the vessel can go under its own

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power in no load and no wind conditions. A two section pontoon causeway was towed to the beach and the stern anchors positioned in less than ten minutes, an operation that normally requires up to two hours. In the final test the helicopter was landed aboard an LST and the hook-up made. The aircraft then took off and proceeded to tow and maneuver the ship at a speed of four and one-half knots. At the time of tow the LST was displacing 3000 tons, and the aircraft was exerting a tension of approximately 5600 pounds at an angle of 28 degrees.

4. ANALYSIS OF DIFFICULTIES ENCOUNTERED:

a. After approximately seven (7) hours of towing, a crack was discovered in the aft rotor bungee mounting bracket. The bracket was repaired by sheet metal workers at Ream NAS.

b. Loose taper pins were found on the bell crank mounts of both heads. These controls were replaced with parts flown from Sewart AFB, Tennessee.

c. The electric winch malfunctioned on two occasions due to the tow wire becoming fouled in the drive gears, however the tests were continued with the winch inoperative.

d. The normal release, consisting of an eighteen pound circular plate that was drilled so as to slide down the tow wire and strike a release lever on the hook, was not acceptable during the earlier part of the test. The weight would bind on small kinks in the wire and take an exceptionally long time to reach the hook. This situation was remedied by enlarging the hole in the weight.

5. OVERALL CRITICAL EVALUATION OF THE OPERATION FROM THE STANDPOINT OF ECONOMY AND VALUE OF TRAINING RECEIVED: As the crew assigned to this mission had no previous experience in towing, this operation was extremely interesting; however, as the United States Air Force has no requirement for towing experience its future usefulness is doubtful.

6. SPECIFIC RECOMMENDATIONS FOR THE ALLEVIATION OF DETRIMENTAL EFFECTS AND IMPROVEMENTS OF FUTURE OPERATIONS OF A SIMILIAR NATURE:

a. A winch and/or method must be devised to transfer the tow cable from the drum and get it outside the aircraft. When operating the winch in high gear (one hundred eighty feet per minute) the wire comes off the drum faster than it will run through the explosive cutter and fairing which results in an extremely hazardous condition. The wire piles up in the engine compartment and could very easily become fouled in the engine cooling fan, or, as happened in one instance, the engine drive shaft. Operating the winch in low gear (forty five feet per minute) requires hovering over a vessel for six and one half (6½) minutes to effect a hook-up.

NARRATIVE MISSION REPORT (CALIFORNIA TOW PROJECT) CONTINUED

b. It would be desirable to have a tensiometer installed in the tow system to enable the pilot to directly determine tow tension and prevent the possibility of exceeding design limitations. The inclinometer used was acceptable; however, reference to numerous charts and graphs must be made to transpose inclination angle to tow tension as this changes with aircraft gross weight, relative wind direction and velocity.

c. A cable angle indicator should be developed that will indicate the angle of a slack wire. The installed indicator was adequate when actually towing; however, the most critical point in the operation is just before the tow wire becomes taunt. An angle of more than ten (10) degrees either side of the longitudinal axis of the aircraft is extremely hazardous at this point as the helicopter could roll over due to lack of lateral control.

d. Convex mirrors should give greater visibility than the flat type used. The flat mirrors provided adequate rearward visibility while towing, but were useless when hovering or taking up slack in the tow wire.

7. SUPPORTING DATA:

Time Flown - - 53:50 hours
Fuel used - - 6750 gallons
In Commission Rate: 95.7%