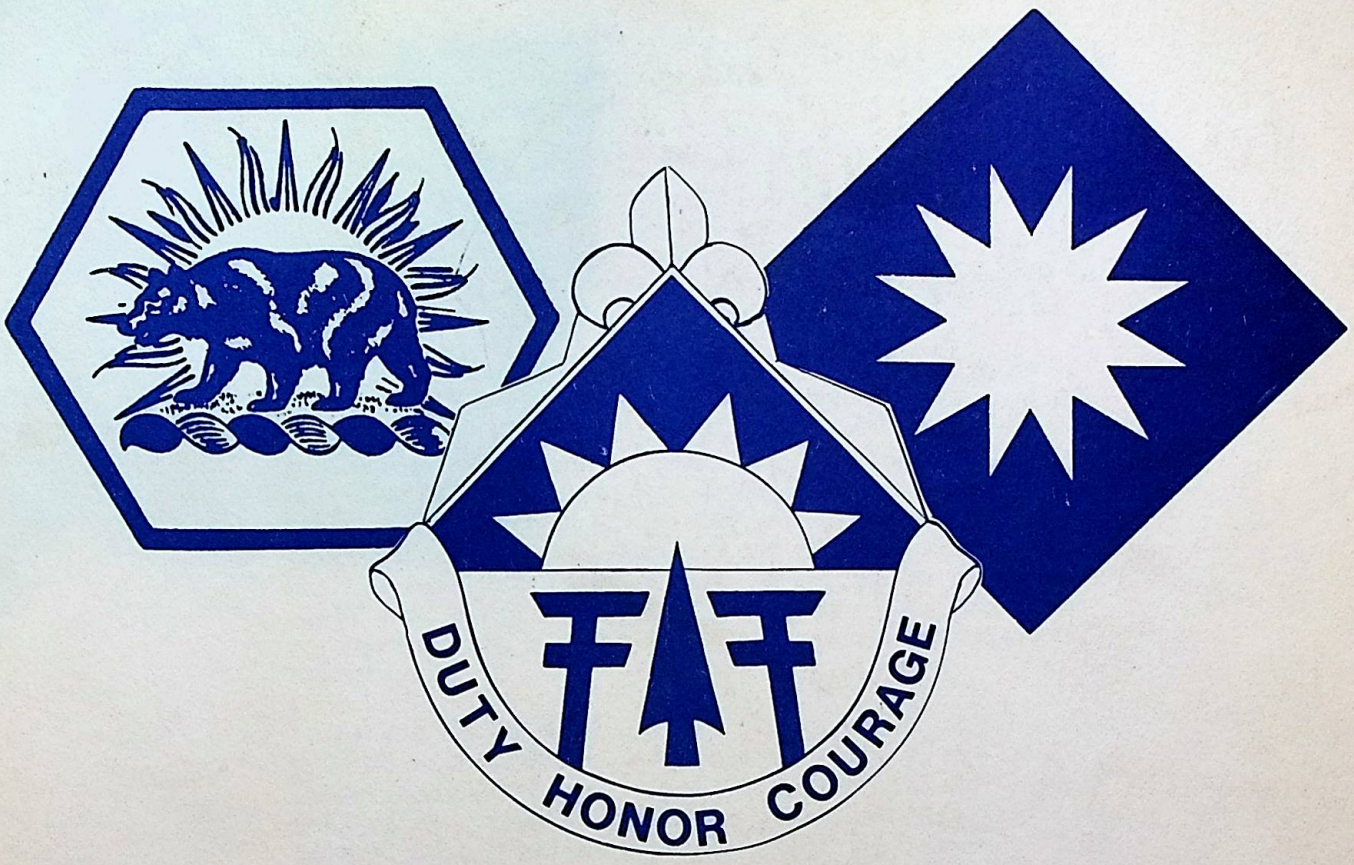
2nd BRIGADE
40th DIVISION (M)



2 185

4 160

3 185

COLONEL DONALD E. HUNT
COMMANDING

To Our Visitors:

Welcome to the Second Brigade.....a Major subordinate headquarters of California's "Own".....the famous, "Fighting" 40th Infantry Division.

We are genuinely pleased to have this opportunity to demonstrate to you, both our capabilities as well as our readiness posture. In addition, it is with great pride that we afford you an opportunity to meet the dedicated men and women, that comprise this outstanding organization.

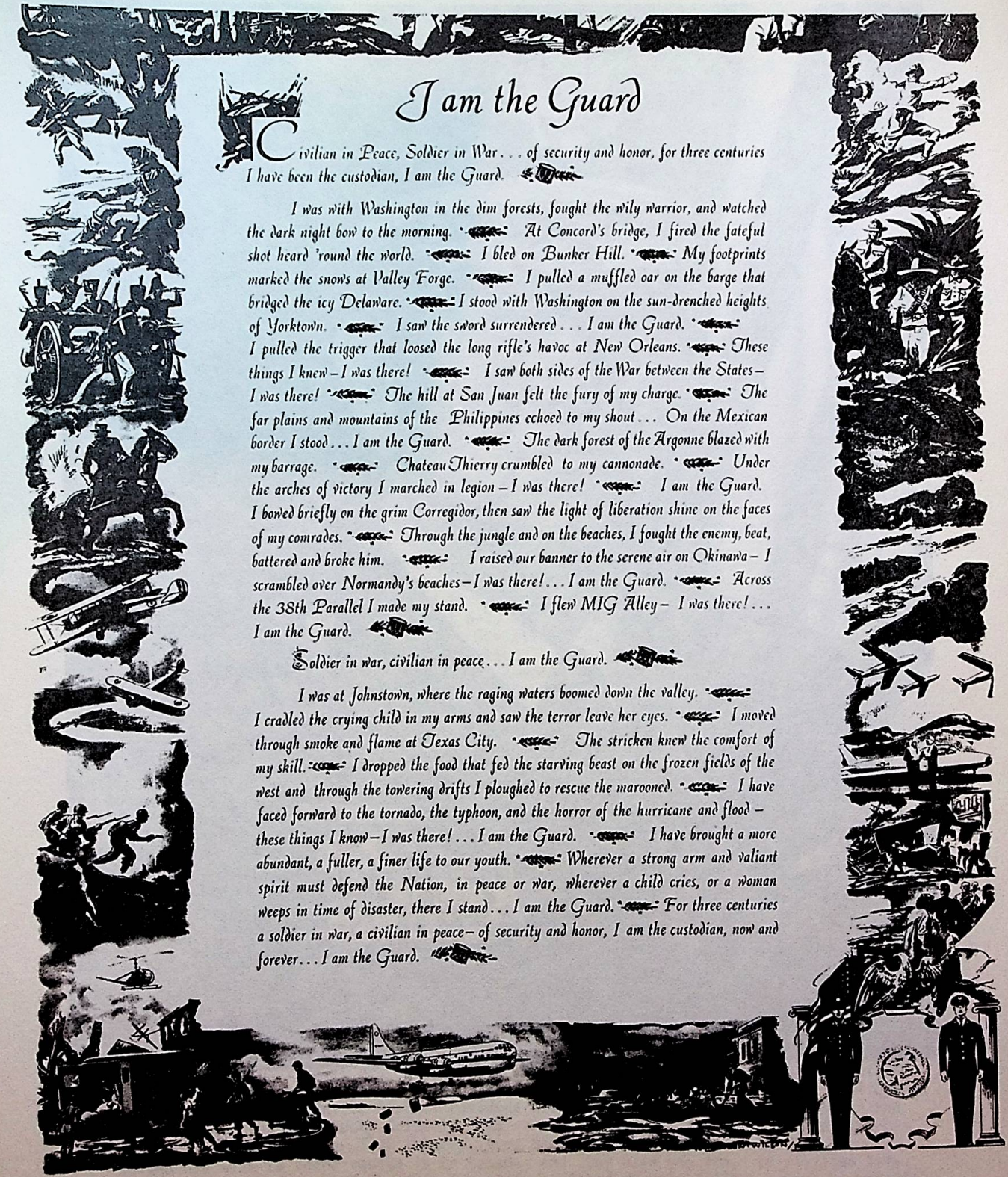
You will find upon examination, you are visiting an element that has established a reputation for innovative, exciting, and realistic training. This Brigade follows a training philosophy of achieving a readiness posture, allowing for near immediate deployment if needed. To enhance this objective, we have planned a combined arms, river crossing, field training exercise....something that has not been attempted at this level, by any California Guard unit since World War II. We hope your schedule will permit you witnessing this exciting and realistic exercise.

It is our desire that you enjoy your visit, and I assure you, we will take every measure possible to see that it is an informative one. Hopefully, you will avail yourself of the opportunity to ask questions of both the officers and the enlisted personnel of the command. I am sure, you will find their response both professional and enthusiastic.

I am confident, your visitation will leave you with the same pride and trust that I have come to hold in the elements of the second Brigade, 40th Infantry Division.

Donald E. Hunt

DONALD E. HUNT
COLONEL, Armor
Commander



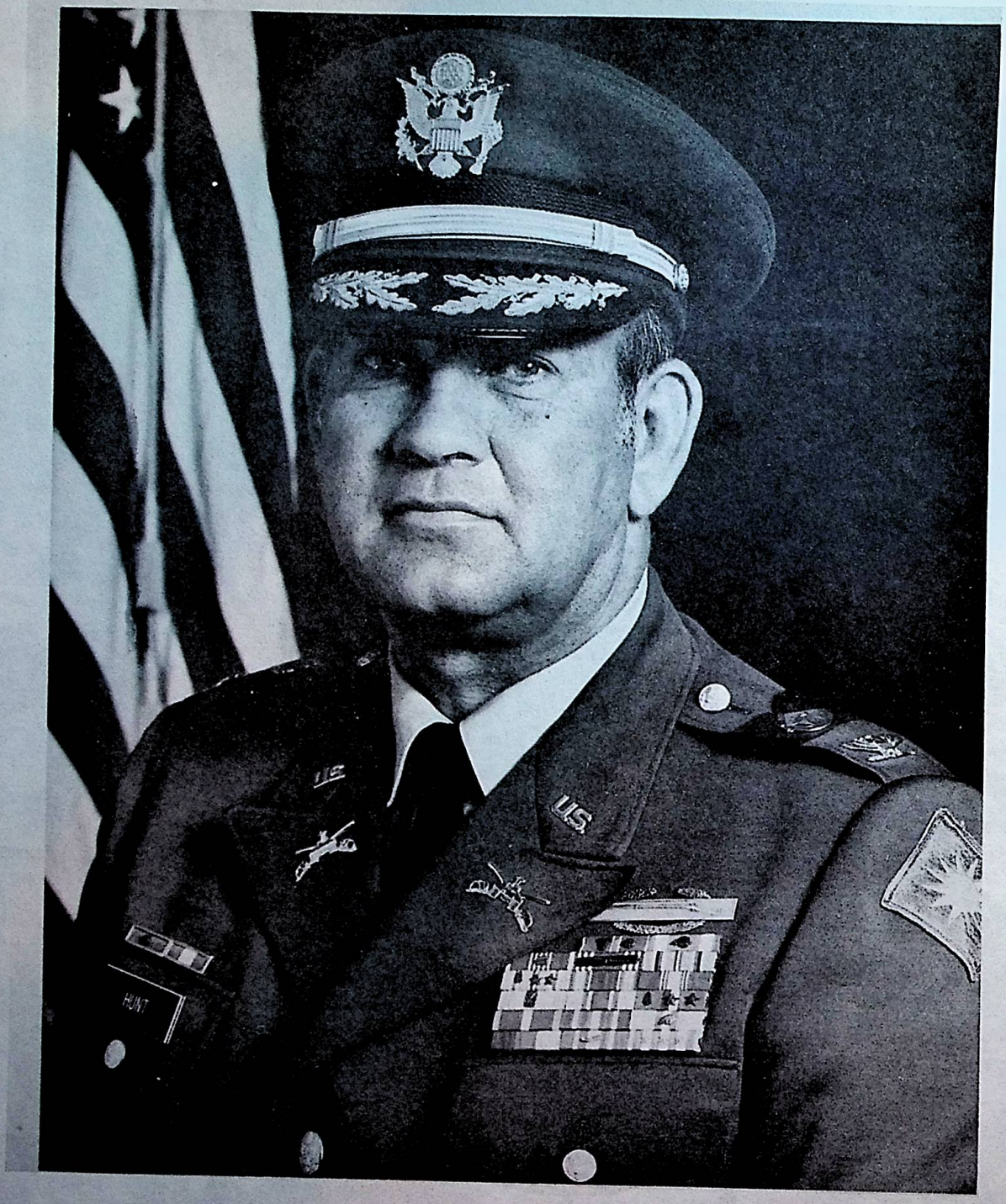
I am the Guard

Civilian in Peace, Soldier in War . . . of security and honor, for three centuries I have been the custodian, I am the Guard.

I was with Washington in the dim forests, fought the wily warrior, and watched the dark night bow to the morning. At Concord's bridge, I fired the fateful shot heard 'round the world. I bled on Bunker Hill. My footprints marked the snows at Valley Forge. I pulled a muffled oar on the barge that bridged the icy Delaware. I stood with Washington on the sun-drenched heights of Yorktown. I saw the sword surrendered . . . I am the Guard. I pulled the trigger that loosed the long rifle's havoc at New Orleans. These things I knew—I was there! I saw both sides of the War between the States—I was there! The hill at San Juan felt the fury of my charge. The far plains and mountains of the Philippines echoed to my shout . . . On the Mexican border I stood . . . I am the Guard. The dark forest of the Argonne blazed with my barrage. Chateau Thierry crumbled to my cannonade. Under the arches of victory I marched in legion—I was there! I am the Guard. I bowed briefly on the grim Corregidor, then saw the light of liberation shine on the faces of my comrades. Through the jungle and on the beaches, I fought the enemy, beat, battered and broke him. I raised our banner to the serene air on Okinawa—I scrambled over Normandy's beaches—I was there! . . . I am the Guard. Across the 38th Parallel I made my stand. I flew MIG Alley—I was there! . . . I am the Guard.

Soldier in war, civilian in peace . . . I am the Guard.

I was at Johnstown, where the raging waters boomed down the valley. I cradled the crying child in my arms and saw the terror leave her eyes. I moved through smoke and flame at Texas City. The stricken knew the comfort of my skill. I dropped the food that fed the starving beast on the frozen fields of the west and through the towering drifts I ploughed to rescue the marooned. I have faced forward to the tornado, the typhoon, and the horror of the hurricane and flood—these things I know—I was there! . . . I am the Guard. I have brought a more abundant, a fuller, a finer life to our youth. Wherever a strong arm and valiant spirit must defend the Nation, in peace or war, wherever a child cries, or a woman weeps in time of disaster, there I stand . . . I am the Guard. For three centuries a soldier in war, a civilian in peace—of security and honor, I am the custodian, now and forever . . . I am the Guard.


U.S.
U.S.
HUNT

BORN: Los Angeles, California
27 January 1925

BS, University of California at Los Angeles (UCLA) 1950; MA, California State University, Los Angeles, 1973
Infantry School, Basic, 1956; Armor School, Advanced, 1958; Armor School, Major Level. 1964; Armor School, Career Course, 1967; Command and General Staff College, 1969; Industrial College of the Armed Forces, 1972; and various Armor and Infantry Staff Officer Refresher Courses.

BIOGRAPHY OF COLONEL DONALD E. HUNT
COMMANDER, 2ND BRIGADE 40TH INFANTRY DIVISION (M)
CALIFORNIA ARMY NATIONAL GUARD

Colonel Hunt entered active duty with the US Army on 8 July 1942, as a private, Infantry. During World War II, he served in combat with the 164th Infantry Regiment of the famed Americal Division, as well as with the 32d Infantry Division. He was seperated from Federal service on 28 March 1946.

Colonel Hunt was commissioned in the California National Guard, November 1952, as a second Lieutenant, Infantry. His initial assignment was a six year tour as Division Headquarters Company Commander. He then was assigned to command of a tank company for three years.

Colonel Hunt then served as Assistant G-3, followed by assignments as Division Commandant, Executive Officer of an Infantry Battalion, Assistant G-2, and G-4, then assumed command of the 1st Battalion, 185th Armor for a four year period.

His next assignment was as the S-3 of the Armored Brigade, and upon reorganization of the 40th Infantry Division (Mech) in January 1974, Colonel Hunt served in the following positions: Executive Officer 1st Brigade 40th Infantry Division; G-3, 40th Infantry Division; Brigade Commander, 1st Brigade 40th Infantry Division; and Detachment Commander, ARNG Training Site, Camp San Luis Obispo.

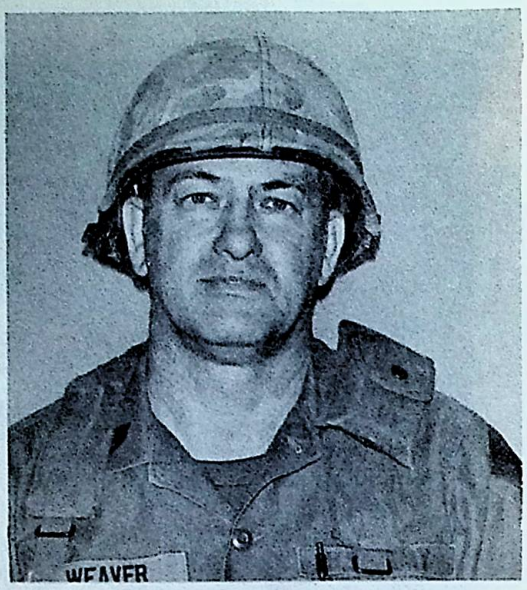
Colonel Hunt returned to the 1st Brigade 40th Infantry Division, as its Commander, in December 1977. After 13 months as its Commander, he was transfered to duty as Commander of the 2nd Brigade 40th Infantry Division on 15 January 1979.

Colonel Hunt has a Bachelor of Science degree in Physical Education from UCLA and a Masters degree in Health and Safety Studies from the California State University, Los Angeles. He is a graduate of the Infantry School Basic, Armor School Advanced and Career, Command and General Staff College (Honor Graduate), Industrial College of the Armed Forces, and various refresher courses.

His decorations and awards are the Combat Infantry Badge; Bronze Star Medal with "V" Device and Oak Leaf Cluster; Army Meritorious Service Medal with one Oak Leaf Cluster; Army Commendation Medal with one Oak Leaf Cluster; Good Conduct Medal; National Defense Medal; Reserve Components Achievement Medal; the American Theatre and Southwest Pacific Campaign with Bronze Arrowhead and two Battle Stars; World War II Victory Medal; Philippine Liberation with Bronze Arrowhead and two Battle Stars; and the Philippine Liberation Ribbon. Additionally, he wears the Presidential Unit Citation with Oak Leaf Cluster, as well as the Philippine Presidential Citation. Colonel Hunt has also received the California Medal of Merit twice, California Commendation Medal twice, and the California Service Medal with two Clusters.

Colonel Hunt is active in professional and civic affiliations to include: Association of the United States Army; National Guard Associations of the United States and of California; College Professors of the United States; Pasadena City College Faculty Association; and the Association of Honorable Kentucky Colonels, and at present is serving as Chairman of the National Executive Committee for Tank Gunnery, Army National Guard.

He and his wife La Verne reside in La Canada, and they have one son. In civilian life, he is an Associate Professor of Physical Education at Pasadena City College, where he has also served as a highly successful Head Football Coach for seven years.



BRIGADE COMMAND SERGEANT MAJOR
Mark R. Weaver

CSM Weaver was born in Lebanon, Pennsylvania on 20 February 1933, where he spent his childhood and completed his secondary school education.

CSM Weaver served for 11 years in the Pennsylvania ARNG as section chief on a Duster, in a Triple-A unit. While with the Pennsylvania Guard, He fired championship scores in rifle and pistol competitions at the National Rifle and Pistol Matches.

Moving to California in 1960, he was a member of another AAA unit until it was reorganized (1961) to an artillery TOE. He was appointed First Sergeant of an Artillery Battery shortly after this time.

The years 1961-1969 found him serving in several positions, including that of Operations Sergeant at the Brigade level, and achieved the rank of Sergeant Major while serving as the Brigade's Operations Sergeant.

CSM Weaver became the 1st Brigade's Command Sergeant Major in 1975, where he remained until April 1979, when he was transfered to 2nd Brigade, 40th Infantry Division, replacing CSM Foures upon his retirement.

He has had military schooling in demolition, aerial observation, and tactics, with additional training for senior NCOs in the area of Command and Staff. He has represented the state of California in a number of rifle and pistol matches, just as he had done in Pennsylvania. Of particular interest...he has at this time, a patent pending on a new blank firing device for the M16 rifle.

In Civilian life, he is a construction supervisor for the Los Angeles County, and is married, has one grown daughter, and lives in Lakewood, California.

KEY PERSONNEL

2D BRIGADE

Brigade Commander	COL Donald E. Hunt
CSM	SMG Mark R. Weaver
Executive Officer	LTC William P. Hennelly, Jr.
S-1	MAJ Thomas M. Plell
PNCO	SFC Kent B. Allan
S-2	MAJ James R. Howe
TAC Intel Officer	CPT James E. French
Intel Sgt	SFC Gilbert J. Baca
S-3	MAJ Gary L. MacNamara
Asst S-3	CPT Clovis Jones
Asst S-3 Air	1LT Terrance J. Spoon
CE Officer	MAJ Ernest R. Amador
Operations Sgt	SGM Janis Bernstein
S-4	MAJ Fredrick Humes
Asst S-4	CPT Curtis N. Dossett, Jr.
Brigade Supply Sgt	MSG Harvey T. Sampson
Food Service Technician	CWO Louis V. LaChusa
Food Service Sgt	SFC Barry A. Messer
Chaplain	CPT Vilas Mazemke
Chaplain	CPT Gerald Hoemann
Chaplain	1LT William J. Meyer
HHC Commander	2LT Harold A. Poyner
1SG	1SG William H. McMahan
Advisor	LTC William Lozano
Advisor	MSG Philiberto Rodriguez
Advisor	SFC James E. Gilmore

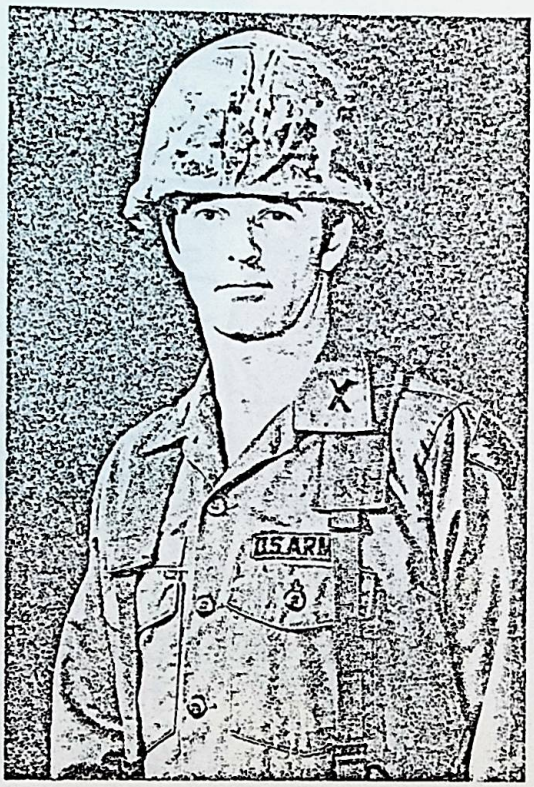
ANNUAL TRAINING 1980

TASK ORGANIZATION

2D BRIGADE

HHC 2D BDE 40TH INF DIV (M)
- 4-160TH INF BN
- 2-185TH AR BN
- 3-185TH AR BN (Ft Carson)
- 3-144TH FA BN (DS)
- 132D EN BN (-)
  - C 151ST EN (ALARNG)
- Co C 40TH MED BN
- Co C 540TH MAINT BN

4TH BATTALION 160TH INFANTRY (MECHANIZED)



HEADQUARTERS & HEADQUARTERS COMPANY
1LT Phillip G. Girten — Santa Ana

COMPANY A
1LT Walter M. Foultz II — Corona

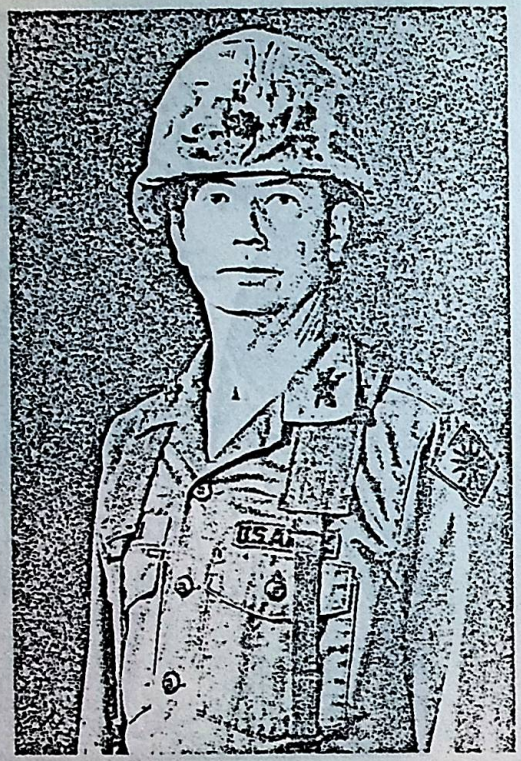
COMPANY B
1LT Danial J. Demara — Orange

COMPANY C
1LT James T. Trimble — Riverside

COMBAT SUPPORT COMPANY
CPT Wilbert J. Schwinn — Fullerton

MAJOR GARLAND DREW, Commanding

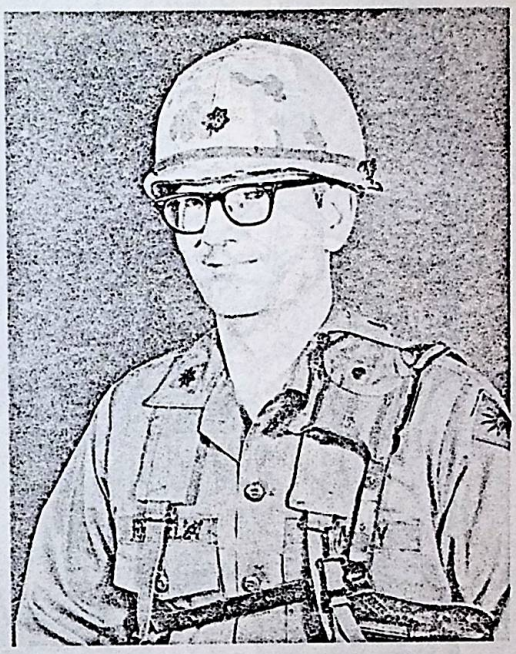
2D BATTALION 185TH ARMOR



HEADQUARTERS & HEADQUARTERS COMPANY	
1LT James P. O'Niel	National City
COMPANY A	
1LT Albert Johnson III	Calexico
COMPANY B	
CPT Gary W. Gleason	Vista
COMPANY C	
CPT Larry R. Staley	Escondido
COMBAT SUPPORT COMPANY	
CPT Robert J. Dinoir	El Centro

LIEUTENANT COLONEL DON W MAYHUE JR, Commanding

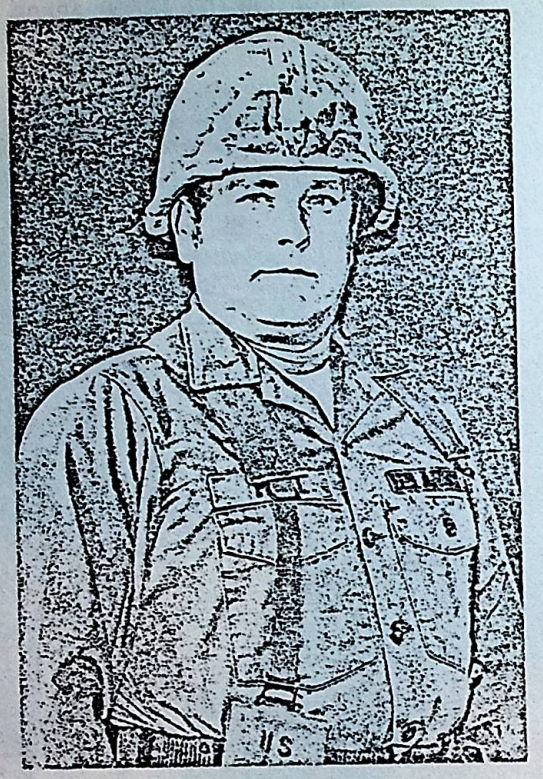
3D BATTALION 185TH ARMOR



HEADQUARTERS & HEADQUARTERS COMPANY	
CPT Ralph E. Lauer	San Diego
COMPANY A	
CPT James W. Coldren	San Diego
COMPANY B	
1LT Kenneth E. Peterson	San Diego
COMPANY C	
1LT Steven D. Thompson	San Diego
COMBAT SUPPORT COMPANY	
2LT Albert E. Franke III	San Diego

MAJOR JOHN J. FERREIRA, Commanding

3RD BATTALLION 144TH ARTILLARY



HEADQUARTERS & HEADQUARTERS BATTERY
CPT Otis W. Watkins — Van Nuys

BATTERY A
CPT Ward W. Ward — Culver City

BATTERY B
CPT Joseph M. Maun — Culver City

BATTERY C
CPT Edwin P. Ramsey, Jr. — Sylmar

SERVICE BATTERY
CPT Robert I. Norton — Van Nuys

MAJOR EDGAR B. MORRISON, Commanding

132d Engineer Battalion

HEADQUARTERS & HEADQUARTERS COMPANY
CPT Jack Evans — Sacramento

COMPANY A
CPT George B. West — Susanville

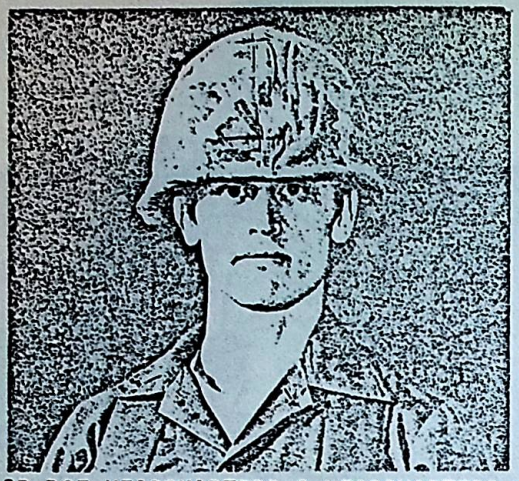
COMPANY B
CPT Gregory C. Peck — Manhattan Beach

COMPANY C
CPT Sid F. Caldwell — Yuba City

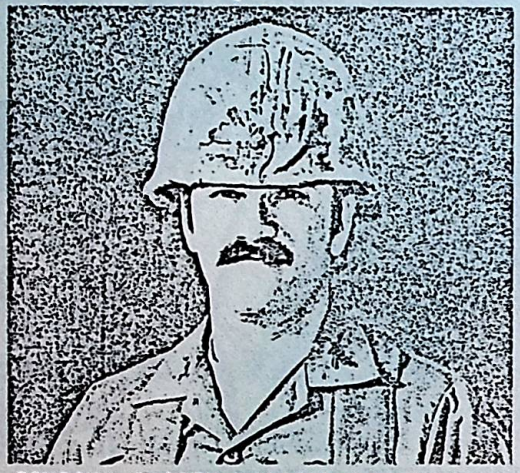
COMPANY D
CPT Milton H. Wingert — Mount Shasta

COMPANY E
CPT Richard B. Mace — Redding

LIEUTENANT COLONEL CURWOOD REYNOLDS, Commanding



2D BGE HEADQUARTERS & HEADQUARTERS COMPANY
2LT Harold A. Poyner



COMPANY C 40TH MEDICAL BATTALION
MAJ James Potillo

COMPANY C 540TH MAINTENANCE BATTALION
CPT Phillip Knight

2d Brigade Advisor

LTC WILLIAM "Lou" LOZANO

ACSAT COMMANDER
3d Bn 32d Infantry 7th Division

LTC CLANCY MATSUDA

HISTORICAL NOTES

It was in 1628, that the first militia unit-(the oldest military organization in this nation)- was formed in Virginia. The purpose of this, and similar units, was to defend communities within the colonies from indians and other marauders. Nearly 150 years later, (in 1775) militiamen proved their mettle against a much stronger foe at such places as, Concord, Bunker Hill, The Cowpens, Trenton, Saratoga, and Freemans Farm.

As such, throughout this Nations' history, the citizen-soldier has answered the call in time of need....providing such men as George Washington, Andrew Jackson, Abraham Lincoln, Teddy Roosevelt, Harry Truman, as well as eleven other presidents of this Nation.

The 40th Infantry Division was formed on 18 July 1917 at Camp Kearney, California, (now known as Miramar Naval Air Station) for participation in World War I, in France. Units were from California, Arizona, Colorado, New Mexico and Utah, all with heritages dating back to 1874. 40th Division elements proudly display battle credits from such historicaly important names as the Argonne and St. Mihiel.

Again, on 3 March 1941, the Division was called to the colors to participate in a great war. Service this time in the South Pacific area, and included an initial beach-head landing at Lingayen Gulf as well as throughout Las Negros Island. Evidence of the 40th Division's keen reputation was demonstrated by their selection as a spearhead-unit during the planning for the final invasion of Japan's home islands, relief of which came only with the final suurender of the Japaneese Government, August 1945.

The year 1950 proved to be another test of the citizen soldier, in that the Division, deemed capable of performing it's mission, was called to active duty once more, this time to serve in Korea...one of the two National Guard units to serve in a combat role. Battle participation included, Heartbreak Ridge, Sandbag Castle, as well as the Punch Bowl.

The 40th Infantry Division was reorganized from an Infantry Division, into the 40th Armored Division in 1954...and then again reorganized into seperate Brigades in 1968. Finally, 12 January 1974, saw the return of the "grizzly" Division...and formed into its present configuration, a Mechanized Infantry Division.

The Second Brigade, was formed from organizations of the 111th Area Headquarters... the 40th Infantry Brigade (Seperate)...and the 40th Armored Brigade (Seperate), and became a subordinate Organization of the 40th Infantry Division (Mech), on 13 January 1974.

The present task organization of the Brigade is: one Infantry Battalion (4-160th)... and two Tank Battalions (2-185th and 3-185th)...all controlled by the Brigade Head-Quarters.

The Second Brigade conducts it's weekend training at Fort Irwin, Camp Roberts, Camp Pendleton, and Camp Elliot. The two-week annual training period is spent at either Camp Roberts or Fort Irwin. (There are exceptions by individual units) In 1978, one tank company from the Brigade performed it's annual training period in Germany, while one of the tank battalions is scheduled to attend annual training '80 at Camp Carson Colorado.

Currently, The Second Brigade is considered by the Department of Defense to be capable of performing a Brigade wartime mission.

DEPARTMENT OF THE ARMY

Lineage and Honors

HEADQUARTERS AND HEADQUARTERS COMPANY
2ND BRIGADE 40TH INFANTRY DIVISION

Parent unit organized 12 October 1881 in the California National Guard as the San Diego City Guard, at San Diego

Reorganized and redesignated 22 July 1885 as Company B, 7th Infantry Battalion

Reorganized and redesignated 5 May 1888 as Company B, 7th Infantry Regiment

Reorganized and redesignated 8 February 1890 as Company B, 9th Infantry Regiment; concurrently, the San Diego Rifles (organized 7 September 1889) reorganized and redesignated as Company A, 9th Infantry Regiment

Companies A and B, 9th Infantry Regiment consolidated, reorganized, and redesignated 7 December 1895 as Company B, 7th Infantry Regiment

Mustered into Federal service 9 May 1898 at the Presidio of San Francisco, California, as Company B, 7th California Volunteer Infantry, mustered out 2 December 1898 at Los Angeles

Reorganized and redesignated 29 June 1909 as the 5th Company, 1st Coast Defense Command, Coast Artillery Corps, at San Diego

Called into Federal service 12 April 1917; drafted into Federal service 5 August 1917

Reorganized and redesignated 31 August 1917 as the 5th Company, Coast Defenses of San Diego

Reorganized and redesignated 15 January 1918 as Company B, 2d Antiaircraft Battalion

Demobilized 15 January 1919 at Camp Dix, New Jersey

Former 5th Company and 8th Company (see ANNEX 1), 1st Coast Defense Command, Coast Artillery Corps reconstituted in the California National Guard, expanded, and reorganized 10 February - 20 April 1921 at San Diego as the 5th, 6th, 7th, and 8th Companies, 1st Coast Defense Command, Coast Artillery Corps

HEADQUARTERS AND HEADQUARTERS COMPANY
2ND BRIGADE 40TH INFANTRY DIVISION

Reorganized and expanded 9 January 1922 as the San Diego Fort Command, 1st Coast Defense Comma Coast Artillery Corps, with the 463d, 464th, 465th, and 466th Companies assigned

Reorganized and redesignated 6 October 1923 as the 2d Battalion, 250th Coast Artillery

Consolidated 1 November 1924 with Batteries I and K, 250th Coast Artillery (see ANNEXES 2 and expanded, reorganized, and redesignated as the 251st Coast Artillery, with Headquarters at San Dieg

Inducted into Federal service 16 September 1940 at San Diego

Regiment broken up 1 March 1944 and its elements reorganized and redesignated as follows:

Headquarters Battery as Headquarters and Headquarters Battery, 251st Antiaircraft Artillery Group

1st Battalion as the 746th Antiaircraft Artillery Gun Battalion

Band as the 288th Army Band

(Regimental Headquarters and 2d Battalion as the 951st Antiaircraft Artillery Automatic Weapons Battalion - hereafter separate lineage)

After 1 March 1944 the above units underwent changes as follows:

Headquarters and Headquarters Battery, 251st Antiaircraft Artillery Group inactivated 29 December 1945 at Camp Stoneman, California

Reorganized and Federally recognized 24 February 1947 at San Diego as Headquarters and Headquarters Battery, 114th Antiaircraft Artillery Brigade

746th Antiaircraft Artillery Gun Battalion inactivated 15 January 1946 at Camp Stoneman, California. Reorganized in the California National Guard as follows:

Headquarters and Headquarters Battery reorganized and Federally recognized 24 February 1947 at San Diego as Headquarters and Headquarters Battery, 251st Anti-aircraft Artillery Group

(Batteries A and C consolidated, reorganized, and Federally recognized 25 April 1947 as Headquarters and Headquarters Battery, 730th Antiaircraft Artillery Battalion; Batteries B and D consolidated, reorganized, and Federally recognized 24 February 1947 as Headquarters and Headquarters Battery, 746th Antiaircraft Artillery Battalion - hereafter separate lineages)

288th Army Band reorganized and redesignated 1 June 1944 as the 288th Army Ground Forces Band

Inactivated 25 January 1946 on Luzon, Philippine Islands

Reorganized and Federally recognized 14 November 1947 at San Diego as the 93d Army Band

Ordered into active Federal service 15 October 1950 at San Diego

(93d Army Band (NGUS) organized and Federally recognized 26 January 1953 at San Diego)

HEADQUARTERS AND HEADQUARTERS COMPANY
2ND BRIGADE 40TH INFANTRY DIVISION

Released from active Federal service 24 February 1955 and reverted to state control; Federal recognition concurrently withdrawn from the 93d Army Band (NGUS)

Headquarters and Headquarters Battery, 114th Antiaircraft Artillery Brigade; Headquarters and Headquarters Battery, 251st Antiaircraft Artillery Group; 93d Army Band; and the 183d Antiaircraft Artillery Detachment (organized and Federally recognized 12 April 1956 at San Diego) consolidated, reorganized, and redesignated 1 October 1959 as Headquarters and Headquarters Battery, 114th Artillery Brigade

Converted, reorganized, and redesignated 1 March 1963 as Headquarters and Headquarters Company, 3d Brigade, 40th Armored Division

Reorganized and redesignated 29 January 1968 as Headquarters and Headquarters Company, 111th Armor Group; concurrently, relieved from assignment to the 40th Armored Division

Reorganized and redesignated 1 November 1971 as the 111th Area Headquarters

Reorganized and redesignated 1 April 1972 as Headquarters and Headquarters Detachment, 111th Area Headquarters

Reorganized and redesignated 13 January 1974 as Headquarters and Headquarters Company, 2d Brigade, 40th Infantry Division; location concurrently changed to Los Alamitos

* * *

ANNEX 1

Organized 11 May 1910 in the California National Guard as the 8th Company, 1st Coast Defense Command, Coast Artillery Corps at San Diego

Called into Federal service 12 April 1917; drafted into Federal service 5 August 1917

Redesignated 31 August 1917 as the 6th Company, Coast Defenses of San Diego

Redesignated 1 January 1918 as Battery B, 65th Artillery (Coast Artillery Corps)

Demobilized 28 February 1919 at Camp Lewis, Washington

ANNEX 2

Organized 6 October 1916 in the California National Guard as the 23d Company, 2d Coast Defense Command, Coast Artillery Corps, at Long Beach

Drafted into Federal service 5 August 1917

Redesignated 4 September 1917 as the 11th Company, Los Angeles Coast Defense Corps

Redesignated 1 February 1918 as the 14th Company, Coast Defenses of Los Angeles

HEADQUARTERS AND HEADQUARTERS COMPANY
2ND BRIGADE 40TH INFANTRY DIVISION

Redesignated 25 June 1918 as the 11th Company, Coast Defenses of Los Angeles

Redesignated 20 October 1918 as Battery A, 19th Artillery (Coast Artillery Corps)

Demobilized 24 December 1918 at Fort MacArthur, California

Reconstituted in the California National Guard and reorganized 28 November 1921 at Long Beach as the 9th Company, Coast Artillery Corps

Redesignated 9 January 1922 as the 467th Company, Coast Artillery Corps

Redesignated 6 October 1923 as Battery I, 250th Coast Artillery

ANNEX 3

Organized 24 September 1916 in the California National Guard as the 16th Company, 2d Coast Defense Command, Coast Artillery Corps, at San Pedro

Drafted into Federal service 5 August 1917

Redesignated 4 September 1917 as the 5th Company, Los Angeles Coast Defense Corps

Redesignated 20 January 1918 as Battery D, 2d Antiaircraft Battalion

Demobilized 19 January 1919 at Camp Dix, New Jersey

Reconstituted in the California National Guard and reorganized 6 April 1922 as the 468th Company, Coast Artillery Corps, at San Pedro

Redesignated 6 October 1923 as Battery K, 250th Coast Artillery

* * *

HOME STATION: Los Alamitos

CAMPAIGN PARTICIPATION CREDIT

World War I

St. Mihiel
Meuse-Argonne

World War II

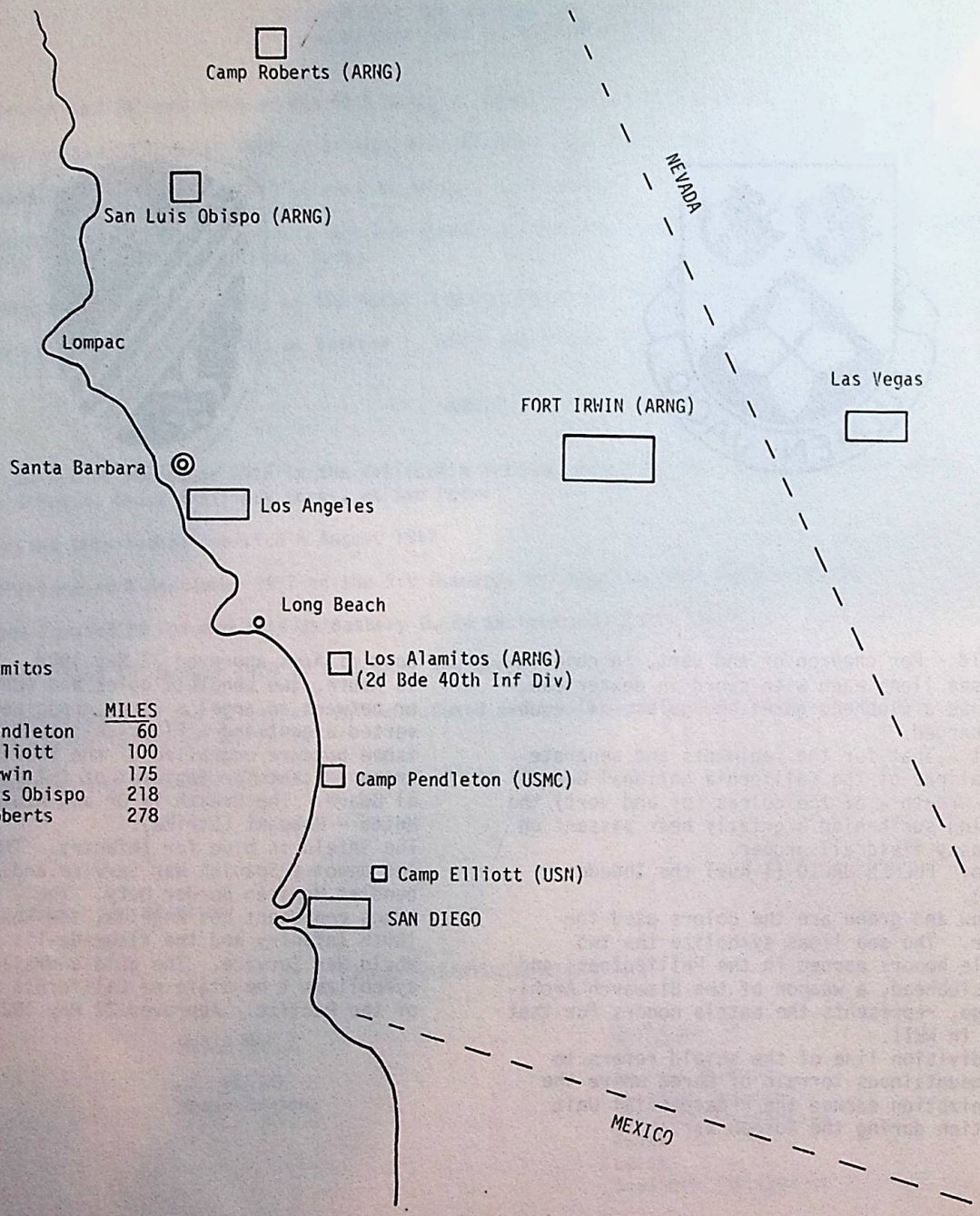
Central Pacific
Northern Solomons
Bismarck Archipelago
Leyte
Luzon
Southern Philippines

ORGANIZATIONAL CREST
(185th Armor)

Shield - Per chevron or and vert, in chief two sea lions each with sword in dexter paw, in base a clubhead garnished gules, all counterchanged.
Crest - That for the regiments and separate battalions of the California National Guard: On a wreath - of the colors (or and vert) the setting sun behind a grizzly bear passant on a grassy field all proper.
Motto: FULMEN JACIO (I hurl the Thunderbolt).
Yellow and green are the colors used for Armor. The sea lions symbolize the two battle honors earned in the Philippines, and the clubhead, a weapon of the Bismarch Archipelago, represents the battle honors for that area in WWII.
The division line of the shield refers to the mountainous terrain of Korea where the organization earned the Presidential Unit Citation during the Korean War.

ORGANIZATIONAL CREST
(160 Infantry)

Coat of Arms approved 23 May 1928. The Shield is Azure, two bendlets gules and vert fimiated or between an angel's wings conjoined and inverted argent and a Fleur-de-lis, within a dimished bordure engrailed of the fourth. The Crest is that for Regiment of California National Guard. The Wreath is Or and Azure. The Motto - Habeant (Strike).
The Shield is blue for Infantry. The red bendlet denotes Spanish War Service and the green bendlet Mexican Border Duty. The - Angel's - wings represent Los Angeles, the Headquarters of 160th Infantry and the fleur-de-lis symbolized World War Service. The gold engrailed border symbolizes t he State of California on the shores of the Pacific. Approved 22 May 1928.



FROM	
Los Alamitos	
TO	**MILES**
Camp Pendleton	60
Camp Elliott	100
Fort Irwin	175
San Luis Obispo	218
Camp Roberts	278

TRAINING SUMMARY

EQUIPMENT

tion
as
as 1978
and
results
der level.

The Brigade Training Philosophy for training year 1980 was established at the end of our last Annual Training period. Commanders were tasked to utilize the 1R evaluation data as a basis for training needs identification. ANALYSE...PREPARE...CONDUCT... EVALUATE...were the milestones for each seperate and collective training effort. To continue the viable training trend it was evident that command emphasis was required in the following major areas:

1. Means of evaluating subordinates and subordinate elements at a multi-echelon level.

2. Non Commissioned Officer/Junior Leadership Development.

3. Improvement of home station training facilities.

The planning began for the Brigade multi-level training program utilizing all of the elements of Combined Arms Operations; Infantry, Armor, Artillery, Engineer and Combat Service Support.

The Brigade will serve as the overall training umbrella that will exercise staff, tactical and support elements, platoons, squads sections and the individual under one scenario in a field environment. The report card of this exercise will identify this organizations' ability to perform as a tactical Brigade in the event of war.

1. The Brigade has inserted a Multi Level In House Training Evaluation under a Brigade multi-echelon training program that is intended to further identify training shortfall at all levels. This In House Evaluation will be utilized as the basis for the training year programs of Remedial Training for the remainder of this training year and more importantly as a basis for the Company and Battalion training year programs for training year 1981, which begin on the first of October.

2. This Brigade has long been the leader in establishing and developing the Junior Leadership programs. Early identification of Junior Leadership shortfall at the squad leader level has focused command emphasis upon this deficiency. As early as 1978 NCO Leadership Programs and Schools have been conducted and protected in order to continue the excellent training results and the marked improvement at section, squad and leader level.

3. The 2d Brigade, has also been a leader in the development of home station training facilities and is continually recognized, nationally as an "inovator of outstanding home station training." An excellent example is the San Diego Training Facility, home of one of the Brigade's leading tank organizations, the 3rd Battalion, 185th Armor.

Home station training facilities often lact a realistic setting for the extensive training needed, but under the guidance of COL Donald E. Hunt, Brigade Commander, the 3rd Battalion is currently providing several inovative training activities to permit effective tank gunnery and tactical training.

The development of both indoor and outdoor training activities have proved extremely helpful in home station training. The indoor tank gunnery training facility, "Bismarck Range", enables the tankers to fire Tank Tables using M55 laser devises. They are confronted with a variety of scale model targets of both NATO and Threat tanks and armored fighting vehicles. Scaled buildings and terrain features enhance the realism of this indoor range, which can be configured to present tank crews with terrain and target array situations representing either a European or Central Asian scenario.

The outdoor tank training facility, "Punchbowl Range", was constructed to fire Tank Tables using a .22 caliber in-bore device. The Tankers devised illumination techniques that permit realistic simulation of both flare and searchlight illumination.

Another training activity developed was the battle simulation center, "Thunderbolt Hall". Built around a Dunn-Kempf tactical simulation, Thunderbolt Hall is used to teach and practice terrain appreciation, fire support planning and procedures, unit SOPs, logistics planning considerations, Threat operational principles and platoon and company team tactics. This training is reinforced during actual terrain walks and rides and tactical exercises without troops (TEWTS).

Other facilities available for home station training at San Diego include an indoor rifle and pistol range, and a mortar platoon firing course which features use of pneumatic training devices. A multi-purpose tank driving course is being developed which will additionally permit firing of Tank Table V using M55 lasers. This course will also serve as the primary support facility for an anti-armor training course which will be used by the 4th Battalion, 160th Infantry (Mech) from Santa Ana, as well as the two tank battalions in the San Diego area.

The Brigade works closely with other reserve forces to maximize use of these training facilities. Recently, Guardsman joined the 4th Tank Battalion, 4th Marine Division in operating M60A1 main battle tanks in a two day field training exercise conducted at the Mir-Mar Naval Air facility. The Marine tankers plan, in turn, to use the tank gunnery range facilities in the future to satisfy their tank gunnery requirements.

Future plans for development of home station training facilities include establishment of a unit training equipment site with M48A5 tanks for use by 2d Brigade elements. A recommendation for construction of a half scale Tank Table VIIC range at nearby Camp Elliott, using .50 caliber in-bore devices for simulation of main gun firing, has also been forwarded through command channels.

The 2d Brigade carries on the proud tradition of the militia and leads the way in development of innovative training techniques that will prepare reserve forces units to meet the challenges of the future. The 2d Brigade has received the Sixth Army Outstanding Award for its consolidated Scout Training efforts. It's reputation is that of "Inovator of excellent home station training", which results in outstanding rating during combined arms, field training and CAMMS exercises. It's training is not only recognized as inovative, but also as timely and daring. We are proud to declare, "We are second to none, We <u>are</u> number one."

4TH BN 160TH INF (M)

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	19 Apr	0630	Formation, Preparation for Movement, Safety Briefings	Armories
		0900	Movement	Enroute
		1700	Arrival, Establish Unit Areas and CP's, Maintenance	Camp Roberts
Bn	20 Apr	0600	Formation, PT, Draw Equipment	Co Area
Selected in Div		0830	Mine Dectector Training	TBA
			Repelling	R
		1700	Retreat Parade	Grinder
		1900	Maintenance	Motor Pool
Bn	21 Apr	0630	Formation, PT	Co Area
		0800	Move to 6A	Enroute
		0830	Slide for Life, Confidence Course, Fording, Tents	6A L & Y
		1400	Move to Establish TOC & BSA	GC 028553
B & C		1530	Establish Bivouac Sites	T & U
A			Occupy Defensive Position	Y
Staff NCO's			Staff Ex	TOC
		1900	Recon Patrols	TBA
		2100	S-2 Debriefing	TBA
A		2200	Area Defense	Y

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	22 Apr	0800	Preparation for Training	TBA
B		1000	Assembly Area Procedures, Defense and Security	T
A			Concept of LARP, Defense	Y
C		1500	Prepare for Recon Patrol	U
A			Prepare for Retrograde OPN	
Bn		1800	Move to Cantonement Areas	Enroute
HHC & CSC		1900	Escape & Evasion	E & E CRS
B		2000	At Ambush	Classroom
A			Critique	
Bn	23 Apr	0630	Formation, PT	Co Areas
B		0900	At Ambush	T
Select in Div			Law-Fam Firing	RN 38
A		1000	Movement to Contact Hasty Attack	Y
C		1400	Orienteering, Occupy Defensive Position, Prep for Night Retrograde	U
B		1900	Night Movement to Contact	T
B&C			Retrograde to Cantonment	
		2130	Maintenance	
Bn	24 Apr	0630	Formation, PT	
Staff NCO's		0900	Staff Ex	Bn HQ
B			Platoon Assault	RN 33
C			Movement to Contact	U

UNIT	DATE	HOURS	ACTIVITY	LOCATION
B		1300	Land Navigation	TBA
A			Platoon Assault	RN 33
B		1900	Hand Grenades	Classroom
A&B			Leadership	Classroom
C			Escape & Evasion	E&E CRS
Bn	25 Apr	0630	Muster	
		0645	4 Mile Walk/Run	
Select in Div		0930	Hand Grenade Training	RN 41
Select in Div			EIB-Prep	
		1500	Maintenance	
		1700	End of Scheduled Training	
Bn	27 Apr	2000	Command Muster	Co Area
Bn	28 Apr	0630	Formation, PT	Co Area
		1000	Brigade Exercise-Begin	Area Y
Bn	30 Apr	1200	Brigade Exercise-End	Cantonment
		1300	Maintenance	
	May			
Bn	1 May	0630	Formation, PT	Co Area
Select in Div			4 Mile Walk/Run Make-Up	
Select in Div		0830	EIB-Test	RN 41
Bn			Maintenance	Motor Pool
Bn	2 May	0630	Formation, PT	Co Area
		0900	EIB-Test (Continued)	RN 41
		1000	Maintenance, Admin Activities	Co Area

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	3 May	0500	Move to Home Station	Enroute
		1500	Arrival at HS	Unit Armories
		1700	Last Formation	

2ND BATTALION 185TH ARMOR

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	19 Apr	0630	Initial Formation & Movement to Bakersfield Armory	Unit Armory & Enroute
Bn	20 Apr	TBA	Initial Formation & Movement to Camp Roberts	Enroute to Camp Roberts
Bn		TBA	Arrival	Tank Park
Bn		1700	Bde Retreat Parade	Grinder
Bn	21 Apr	0715	Initial Formation	Bn Area
Bn(-)		0730	Officer's Call, Tanker's Call	Bn Area
Bn(-)		0830	Preparation & Conduct of Tactical Movement to Ranges & Training Areas	Enroute
Co A		1000	Preparation & Conduct Tank Table VI A (Modified)	Range 17
Co B			Preparation & Conduct Tank Table V P	Range 15
Co C			Conduct Co/Plt Offensive Tactical Training	Areas X, Y
Co C		1800	Conduct Co/Plt Defensive Training	Areas X, Y
Co A		1830	Conduct Tactical Road March to	Enroute Range 16
Co B			Conduct Tactical Road March to Range 17	Enroute
Co C			Conduct Night Tactical Road March to Range 15	Enroute
Bn(-)	22 Apr	0715	Initial Formation	Bn Area
Bn(-)		0730	Officer's Call, Tanker Call	Bn Area
Bn(-)		0830	Preparation & Conduct of Road March to Ranges & Training Areas	Enroute

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Co A		1000	Preparation & Conduct Tank Table VII C	Range 16
Co B			Preparation & Conduct Tank Table VI A (Modified)	Range 17
Co C			Preparation & Conduct Tank Table V P	Range 15
Co B		1800	Conduct Tactical Road March to Range 16	Enroute
Co C			Conduct Tactical Road March to Range 17	Enroute
Co A	23 Apr	0100	Conduct Night Tactical Road March to Range 15	Enroute
Bn(-)		0715	Initial Formation	Bn Area
Bn(-)		0730	Officer's Call, Tanker's Call	Bn Area
Bn(-)		0830	Preparation & Conduct of Road March to Ranges & Training	Enroute
Co A		1000	Preparation & Conduct Tank Table V P	Range 15
Co B			Preparation & Conduct Tank Table VII C	Range 16
Co C			Preparation & Conduct Tank Table VI A (Modified)	Range 17
Co A		1800	Conduct Night Tactical Road March to Tank Park	Enroute
Co C			Conduct Night Tactical Road March to Range 16	Enroute
Co B	24 Apr	0100	Conduct Night Tactical Road March to Tank Park	Enroute
Bn(-)		0715	Initial Formation	Bn Area
Bn(-)		0730	Officer's Call, Tanker's Call	Bn Area
Bn(-)		0830	Preparation & Conduct of Road March to Ranges & Training Areas	Enroute

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Co A & B	24 Apr	1000	Conduct Offensive Opns	Area H & I Area X & Y
Co C			TT VII C	Range 16
Co A & B		1800	Conduct Defense	Area H & I Area X & Y
Co C	25 Apr	0730	Tac Road March	Area H & Y
Co A & B			Conduct Offensive Opns	Area H & I Area X & Y
Bn(-)		1430	Maintenance	Tank Park
Bn	28 Apr	0730	Preparation for CA	
	30 Apr	1300	Tac Move to Tank Park, Maintenance	
Bn(-)	1 May	0730	Officer/Tanker Call	
		0830	Maintenance	Tank Park
		1000	Make-up TT VII C	Range 16
	2 May	0600	4 mile walk	
		0930	Maintenance, Pay, Turn-in	
	3 May	0600	Make-up 4 mile walk	
		0900	Maintenance, Turn-in	Tank Park
		TBA	Move to Home Station	
	4 May	TBA	Arrival at Home Station, Inventory of equipment	Armories

3D BN 144TH FIELD ARTILLERY

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	19 Apr	0500	Formation, Safety Briefing	Armories
		0630	Movement to Camp Roberts	Enroute
		1300	Arrival, set up Contonment area	
Bn	20 Apr	0700	Safety Orientation, PT	
		0900	Maintenance, Establish Internal Communications	
A			RSOP	
B			Low Angle Precision Registration (Day)	
C			RSOP, Service Practice Day	
Svc			Maintenance	
Bn	21 Apr	0700	Maintenance	
B		0700	Move to Field	
A		0900	Misfire Procedures	
C			RSOP	
Bn	22 Apr	0900	Maintenance	
A			RSOP	
B			Field Training	
C			RSOP	
Bn	23 Apr	0900	Maintenance	
A			RSOP	
B			Field Training	
C			RSOP	
HHB		1800	RECON, Preparation of Area, Displacement	

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn	24 Apr	0700	Maintenance, PT	
A			RSOP	
B			Hip Shoot	
C			RSOP	
Bn	25 Apr	0700	PT	
HHB & C			Move to Direct Fire Range	
A & B			Maintenance, FDC	
Bn	28 Apr	0730	Move to Bn Assembly Area to Conduct BDE/BN	
	1 May	1200	Move to Motor Park Maintenance	
	2 May	0700	4 Mile Walk Maintenance & Turn in	
	3 May	0800	Convoy to Home Station	
		1300	Maintenance, 100% Inventory	

132D Eng Bn

UNIT	DATE	HOURS	ACTIVITY	LOCATION
Bn (-)	19 Apr	0600	Movement to Camp Roberts	Enroute
		1500	Arrival, Establish Cantonment Area, Maintenance	
Bn (-)	20 Apr	0800	AT 80 Orientation	Bn Area
Selected in Div		1030	Track Driving, RTD Procedures Operation of Generators	Motor Park
B			Conduct River Recon	965585
C			Conduct Recon of ETC	027656
Bn			Maintenance	
Bn	21 Apr	0800	48 Hr -Begin	Area 0
Bn	24 Apr	1700	48 Hr -End	
Bn	25 Apr	0800	Squad Station Training 1 OPSEC 2 COMMO 3 PAC 4 DEMO 5 TARGET FOLDER 6 ANTI ARMOR 7 CITC 8 SQT HOC/WC	
Bn	28 Apr	0800	Support 2D Bde CA	
	May			
Bn	1 May	1200	End of 2D Bde CA	
Bn	2 May	0800	Maintenance, Turn-in	Motor Park
Bn	3 May	0700	Move to Home Station	Enroute
		1700	Last Formation	Unit Armories

CO C 540TH MAINT

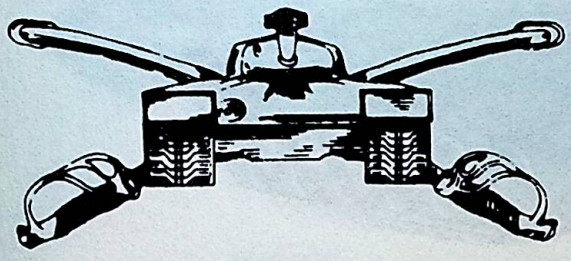
DATE	HOURS	ACTIVITY	LOCATION
19 Apr	0630	Formation, Roll Call, Admin. Announcements, Safety Briefing	Armory
	0830	Motor March Vivouac Bakersfield	Enroute
20 Apr	1200	Arrival	Camp Roberts
	1400	Establish Co. Area	Bldg 5326
21 Apr	0600	PT	
	0800	Work call, Support of 2D Bde, ARTEP Tasks	

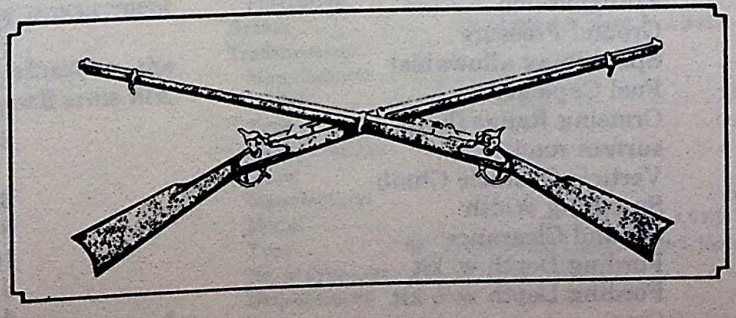
(21 Apr thru 3 May - Repeat of Activity)

4 May	0700	Motor March to El Cajon	Enroute
	1200	Maintenance, inspection of vehicles and equipment	Armory

EQUIPMENT

TRAINING SUMMARY



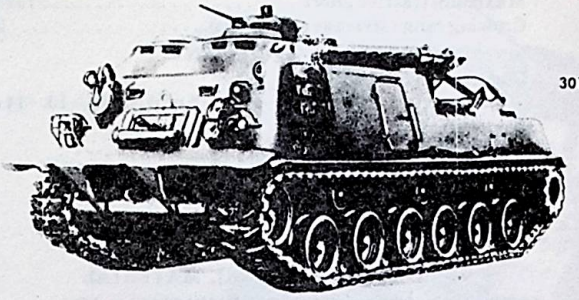


CHARACTERISTICS

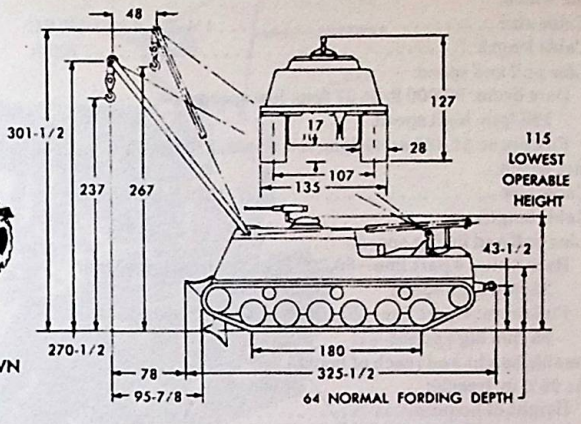
	M48A5
Weight (combat loaded)	54 tons
Width	11 ft, 11 in
Length (gun in travel position)	26 ft, 5 in
Height	10 ft, 10 in (M1 cupola)
Armaments—Main Gun	105-mm
Coax	7.62-mm
TC	.50 cal
Loader	7.62-mm
Engine	1790-2A (M48A3 conversion) AVDS 1790-2D (M48A1 conversion)
Horsepower	750 @2400 rpm
Transmission	CD 850-6A
Ground Pressure	11.8 psi
Speed (max allowable)	30 mph
Fuel Capacity	375 gal
Cruising Range (hard surface road)	310 miles
Verticle Obstacle Climb	36 in
Spanning Width	8 ft, 6 in
Ground Clearance	16-1/2 in
Fording Depth w/kit	8 ft
Fording Depth w/o kit	4 ft
Crew	4

Tank, combat, full-tracked 105-mm gun M48A5 —

RECOVERY VEHICLE, FULL TRACKED: MEDIUM, M88, W/E



ORD E4103



NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES

Model	*Major item* Line item No.	National stock No.
M88	R50680	2350-00-678-5772

General

a. Recovery vehicle, full tracked: medium, M88, w/e, is a full-track-laying armored vehicle used to perform the rescue and recovery roles for vehicles in the medium and light tank class. The vehicle is powered by a 12-cylinder, 90° V, air-cooled, fuel injection engine. Power is transmitted to the final drives through a cross-drive transmission. This vehicle can be identified by its longer and lower silhouette than that of the other vehicles in this category.

b. The vehicle is supported by a torsion bar suspension system similar to the new procurement vehicle.

c. The vehicle hull is inclosed, affording the operating crew full protection from small arms fire, mortar fire, and land mines.

Differences among Models

Data Plate Location

Classification: Standard A

CHARACTERISTICS

Crew 4
Length, overall ..... 325½ in
Width, overall ..... 135 in
Height, overall ..... 127 in
Armament:
  Carbine, caliber .30: M2 1
  Launcher, rocket: 3.5-inch, M20 1
  Machine gun, caliber .50: Browning, M2 1
  Submachine gun, caliber .45: M3A1 1
Tracks:
  Width ..... 28 in
Tread (center-to-center-of-tracks) ..... 107 in
Outside-to-outside-of-tracks ..... 135 in
Angle of approach .....
Angel of departure .....
Type of fuel .....
Center of gravity above ground .....
Weight of vehicle:
  Crew and equipment ..... 112,000 lb
  Empty .....
Length of track on ground .....
Ground clearance ..... 18 in
Ground contact area -0 inch penetration .....
Ground pressure ..... 10.5 psi
Pintle height, loaded ..... 43½ in
Electrical system 24-V
  Number of batteries 4
  Type of batteries 6TN
Fuel octane rating 83-91
Capacities:
  Fuel total ..... 445 gal
  Crankcase, refill (without cooler, cores, and lines) ..... 64 qt
  Final drive .....
Brakes ..... multiple wet plate, foot pedal operated
Transmission:
  Manufacturer .....
  Model ..... XT 1410-2
  Type ..... cross-drive
  Final reduction 4.63:1
Engine:
  Manufacturer ..... Continental
  Model AVSI-1790-6A
  Type ..... 90° V, air-cooled, supercharged, fuel injection
  No. of cylinders 12
  Displacement ..... 1,791 in³
  Bore ..... 5.746 in
  Stroke ..... 5.750 in
  Compression ratio 5.5:1
  Maximum governed speed (full load) ..... 2,800 rpm
  Brake horsepower, gross
    (max w/std accessories) ..... 980 at 2,800 rpm
  Torque, gross (max w/std accessores) . 1,940 ft-lb at 2,800 rpm
  Type of ignition ..... magneto
Boom and Winch Data:
  Boom capacity:
    Spade up-4 part line ..... 6 tons
    Spade down-4 part line ..... 25 tons

Boom maximum lift height:
- At 8 ft reach ..... 19 ft
- At 4 ft reach ..... 25 ft

Main winch:
- Cable size ..... 1¼ dia. 6 x 31 1WRC
- Cable length ..... 200 ft
- Line pull and speed:
  - Bare drum: 90,000 lb at 27 fpm, low speed; 108 fpm, high speed
  - Full drum: 51,400 at 42 fpm, low speed; 170 fpm, high speed

Hoist winch:
- Cable size ..... ⅝ dia, 6 x 19 fibercore
- Cable length ..... 400 ft
- Line pull and lifting speed:
  - Bare drum: 4 part line—50,000 lb at 8½ fpm, low speed; 35 fpm high speed
  - Full drum: 4 part line—30,000 lb at 16 fpm, low speed; 65 fpm high speed

Operable height and reach of boom:
- At 95⅞ in. (reach):
  - Height of boom ..... 270½ in
  - Height of lifting hook ..... 237 in
- At 78 in. (reach):
  - Height of boom ..... 301 in
  - Height of lifting hook ..... 267 in
- Lowest operable height ..... 115 in

AMMUNITION

Cal. .50 ..... 1,500 rd
Cal. .30 ..... 180 rd
Cal. .45 ..... 180 rd
Rockets 10

PERFORMANCE

Maximum grade ability 60%
Turning radius ..... pivots
Fording depth:
- w/o deep-water fording kit ..... 64 in
- w/deep-water fording kit .....

Maximum vertical obstacle vehicle can climb ..... 42 in
Maximum width of ditch vehicle can cross ..... 103 in
Fuel comsumption (average conditions) ..... 0.5 mpg
Allowable speed, recommended ..... 30 mph
Maximum drawbar pull ..... 81,000 lb
Maximum tractive effort ..... 152,000 lb
Cruising range (average conditions) ..... 222 mi

EQUIPMENT

Communications:
- Radio set ..... AN/GRC-4 and -8 or AN/VRC-13, -14 or -15

Sighting and Fire Control:
- Binocular: (1R) M18
- Periscope: M17
- Periscope: M19
- Periscope: M24

Basic issue items:

INSTRUCTIONAL MATERIAL

STORAGE AND SHIPMENT DATA

Within Continental United States

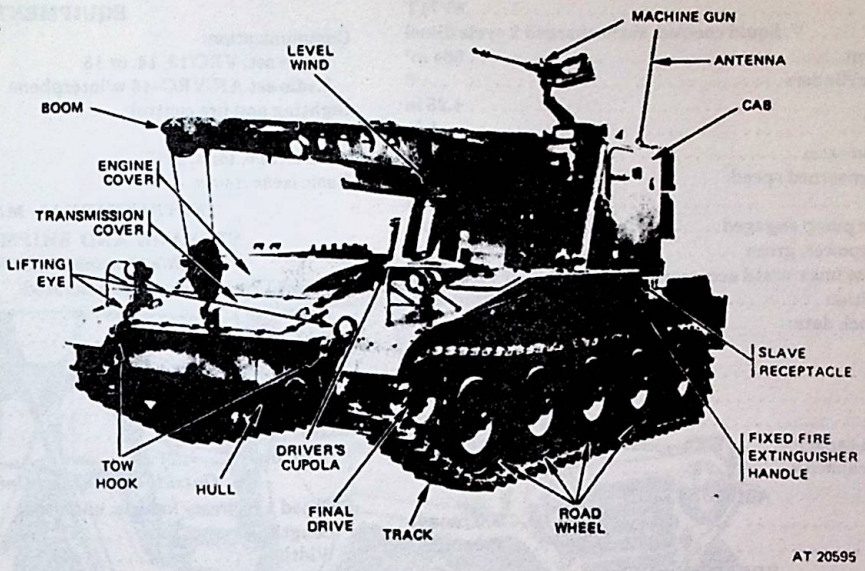
Shipped:
- Length ..... 325½ in
- Width ..... 135 in
- Height ..... 127 in
- Volume ..... 3,231 ft³
- Area ..... 305 ft²
- Gross weight .....
- Ship tons 80.78

Outside Continental United States

Shipped:
- Length .....
- Width .....
- Height .....
- Volume .....
- Area .....
- Gross weight .....
- Ship tons .....

References: TM 9-2350-242-20, -20P.

RECOVERY VEHICLE, FULL TRACKED: LIGHT, ARMORED, M578



Model	Major item Line item No.	National stock No.
M578	R50543	2350-00-439-6242

General

Recovery vehicle, full tracked: light, armored, M578 (T120E1) is a low, all-welded steel hulled, full tracked vehicle with an armored, independently operated cab and crane mounted on the hull near the rear of the vehicle. The hull, power plant, and running gear are similar to those of howitzer, heavy, self-propelled: 8-inch, M110. It is used to recover mechanized equipment which has been bogged down, turned over, or become so disabled it cannot be towed readily. The vehicle can also be used as a wrecker to tow disabled vehicles or as a crane at a repair base.

Differences among Models

Data Plate Location

Classificiation A

CHARACTERISTICS

Crew	3
Length, overall (crane in travel position)	250¼ in
Length of vehicle	219 in
Width, overall	124 in
Height, overall (crane in travel position)	130½ in
Height (to top of cupola)	115 in
Height of lifting hook	
Height of boom	97½ in
Armament:	
Machine gun, caliber 50: M2 or M85	1
Rifle, 7.62 millimeter: M14	3
Tracks:	
Width	18 in
Tread (center to center of track)	106 in
Outside to outside of track	124 in
Wheelbase	148¼ in
Angle of approach	70°
Angle of departure	30°
Type of fuel	(VV-F-800) diesel
Center of gravity above ground	40 in
Weight of vehicle:	
w/crew and equipment	54,000 lb
Air transport	47,000 lb
Length of track on ground	148¼ in
Ground contact area -0-inch penetration	
Ground clearance	17.38 in
Ground pressure	10.1 psi
Pintle height	27.13 in
Electrical system	24 V
Number of batteries	4
Type of ground	negative
Generator (Jack and Heintz, Model 30010-000)	300 amp
Fuel cetane rating (minimum)	40
Capacities:	
Hydraulic system	165 gal
Fuel	320 gal
Cooling system	22 gal
Crankcase, refill (w/o cooler, cores, and lines)	26 qt
Transmission, differential, and final drives, refill (w/o cooler, cores, and lines)	
Brakes (service and parking) wet friction disk, mechanical	
Transmission:	
Manufacturer	Allison Div (GMC)
Model	XTG-411-2A
Type	cross drive
Number of ranges:	
Forward	4
Reverse	2
Ratio from torque converter output shaft to final drive flange:	
High range	0.78:1
Low range	4.68:1
Reverse range	R-1-5.59:1
	R-2-3.78:1

Final drive gear ratio 5.35:1

Engine:

Manufacturer ..... General Motors Detroit Diesel
Model 8V71T
Type ..... V, liquid coooled, turbocharged 2 cycle diesel
Displacement ..... 564 in³
Number of cylinders 8
Bore ..... 4.25 in
Stroke ..... 5 in
Compression ratio 17:1
Maximum governed speed:
No load ..... 2,450 rpm
Hydraulic pump engaged ..... 1,250 rpm
Brake horsepower, gross ..... 425 @ 2,300 rpm
Torque, gross (max w/std accessories) ... 950 lb/ft @ 1,700 rpm
Type of ignition ..... compression

Boom and winch data:

Boom:
Type ..... tapered box construction
Capacity ..... 15 ton
Traverse ..... 360°
Hoist winch capacity ..... 30,000 lb
Tow winch capacity ..... 60,000 lb

AMMUNITION

Cal. .50 ..... 500 rounds
7.62-mm ..... 450 rounds

PERFORMANCE

Maximum grade ability 60%
Turning radius (minimum) ..... 15 ft
Fording depth (including low wave) ..... 42 in
Maximum vertical obstacle vehicle can climb ..... 3 ft, 4 in
Maximum width of ditch vehicle can cross ..... 7 ft, 9 in
Fuel consumption (average conditions) ..... 1.5 mpg
Allowable speed, recommended ..... 37 mph
Maximum allowable towed load, gross ..... 60,000 lb
Cruising range (average conditions) ..... 450 mi

EQUIPMENT

Communication:
Radio set, VRC/13, 14, or 15
Radio set AN/VRC-46 w/interphone

Sighting and fire control:
Binocular: M17A1
Periscope, tank: M17

Basic issue items:

INSTRUCTIONAL MATERIAL

STORAGE AND SHIPMENT DATA

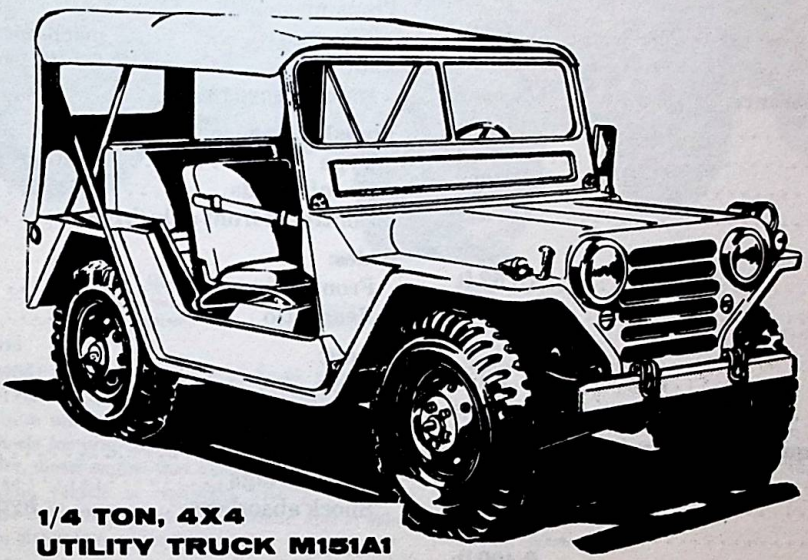
Within Continental United States

Shipped 1 recovery vehicle, uncrated:
Length ..... 250.25 in
Width ..... 124.0 in
Height ..... 115.0 in
Volume ..... 2,070 ft³
Area ..... 216 ft²
Gross weight ..... 54,000 lb
Ship tons 51.75

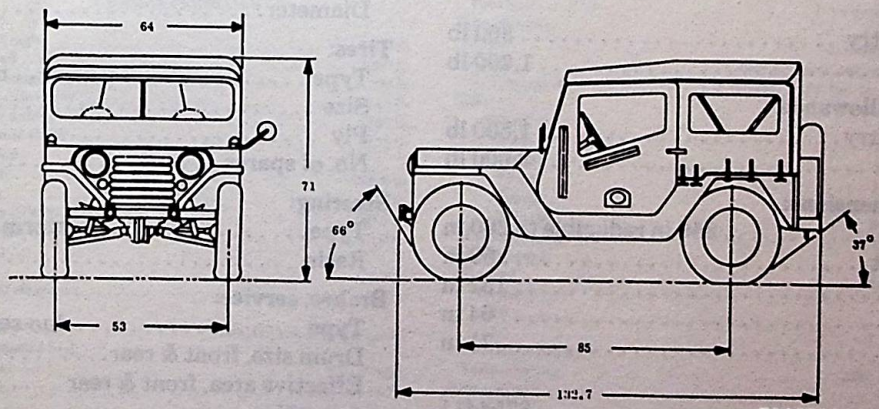
Outside Continental United States

Shipped 1 recovery vehicle, uncrated:
Length ..... 250.25 in
Width ..... 124.0 in
Height ..... 115.0 in
Volume ..... 2,070 ft³
Area ..... 216 ft²
Gross weight ..... 54,000 lb
Ship tons 51.75

References: TM 9-2350-238-10



1/4 TON, 4X4
UTILITY TRUCK M151A1



TA067945

M151A1 CHARACTERISTICS

Performance:
- Miles per gallon ..... 19.1 mpg
- Cruising range (highway) ..... 300 mi
- Grade ability:
  - Direct 8.5%
  - Low 60%
- Maximum speed ..... 65 mph

Tread:
- Front ..... 53 in
- Rear ..... 53 in

Minimum ground clearance:	**wo/w**	**w/w**
Under axle		11.4 in
Under chassis		8.8 in

Angle of approach ..... 66°
Angle of departure ..... 37°

Min. turning radius:
- Left ..... 18.52 ft
- Right ..... 18.52 ft

Fording depth:
- With kit ..... 60 in
- Less kit ..... 21 in

Curb weight, fully equipped less payload & personnel:
- Front axle ..... 1,340 lb
- Rear axle 1,060
- Total ..... 2,400 lb

Payload:
- Cross-country ..... 800 lb
- Highway ..... 1,200 lb

Towed load allowance:
- Cross-country ..... 1,500 lb
- Highway ..... 2,000 lb

Shipping dimensions:
- Cubic feet ..... 350 in reducible to 260 in
- Square feet ..... 59 in

Length ..... 132 in
Width ..... 64 in
Height ..... 71 in

Engine:
- Model 8754411
- Type ..... 4-cyl, liquid cooled
- Displacement ..... 145 in^3
- Bore & stroke ..... 3.875 x 3.000 in
- Compression ratio 7.5:1
- Fuel ..... 83 octane
- Horsepower ..... 71 @ 3,900 rpm
- Torque ..... 128 lb/ft @ 1,800 rpm
- Crankcase capacity ..... 5 qt
- Cooling system cap ..... 8 qt

Fuel system:
- Carburetor ..... Holley
- Fuel Pump ..... AC
- Total fuel capacity ..... 17.7 gal

Clutch:
- Type ..... single, dry disc
- Diameter ..... 8.5 in

Transmission:
- Type ..... mechanical, 4-fwd, 1 rvse
- Ratios ..... 5.712, 3.179, 1.674, & rvse 7.497
- Input torque rating ..... 120 lb/ft

Transfer case:
- Type ..... integral w/transmission
- No. of speeds ..... 1 fwd, 1 rvse
- Control of front axle drive ..... spring loaded

Axles:
- Front ratio 5.17
- Rear ratio 5.17

Frame:
- Type ..... unit body frame

Suspension:
- Front springs ..... 4-in-dia. coil
- Rear springs ..... 3.86-in-dia. coil
- Shock absorbers ..... hydraulic telescopic

Wheels:
- Type ..... drop center
- Diameter 16.50

Tires:
- Type ..... military standard
- Size ..... 7.00 x 16
- Ply 6-ply
- No. of spares 1

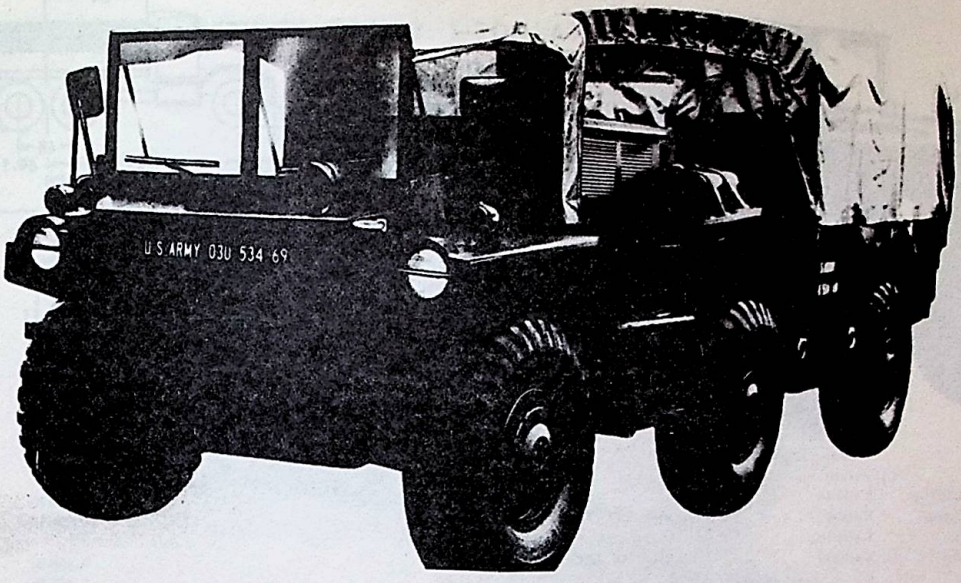
Steering:
- Type ..... worm and double roller
- Ratio 16.4:1

Brakes, service:
- Type ..... duo-servo single anchor
- Drum size, front & rear ..... 9.125 x 2 in
- Effective area, front & rear ..... 115 in^2
- Actuation ..... hydraulic

Brakes, parking:
- Type ..... external contracting
- Drum size ..... 6 x 1 in
- Effective area ..... 15.6 in^2

Electrical system:
- Type ..... 24 V
- Waterproofed ..... yes
- Radio suppressed ..... yes

TRUCK, CARGO: 1¼-TON, 6 X 6, M561



Model	Major item Line item No.	National stock No.
M561	X39940	2320-00-873-5407

General

The M561 cargo truck is a dual-body, articulated, six-wheel vehicle. The vehicle is lightweight, of aluminum unitized construction and swims, using its wheels for propulsion. It is powered by a three-cylinder, diesel engine that uses diesel, jet, or CITE fuel. The vehicle is equipped with a two-speed transfer case, four-speed transmission and is selective for either two- or six-wheel drive.

Classification: A

CHARACTERISTICS

Weights:
- Curb weight ..... 7300 lb
- Payload ..... 2900 lb
- Gross weight ..... 10,200 lb
- Front axle GVW ..... 2745 lb
- Center axle GVW ..... 3900 lb
- Rear axle GVW ..... 3555 lb

Dimensions:
- Length ..... 226.6 in
- Width ..... 84.0 in
- Height (GVW) ..... 90.8 in
- Reducible height ..... 65.0 in
- (GVW) .....
- Tread ..... 72.0 in
- Ground clearance ..... 15.0 in

Fuel:
- Capacity ..... 40 gal (2 tanks, 20 gal/tank)

Recommended fuel:
- Diesel VV-F-800
- Jet MIL-J-5624
- Cite MIL-F-45121A

Lubricant capacity:
- Front ..... 4 pt
- Center ..... 12 pt
- Rear ..... 4 pt

Brakes:
- Type ..... hydraulic, internal expanding, sealed drum. Single master cylinder. Dual chambers and dual pistons operating in tandem.
- Air pressurization ..... 5 psi

Tires:
- Type ..... shredded wire, tubeless, nondirectional cross-country
- Size ..... 11:00 x 18, 6-ply

Pressure:
- Highway ..... 22 psi
- Cross-country ..... 18 psi
- Snow ..... 12 psi

Electrical system:
- Voltage ..... 24 V dc
- Batteries ..... 2 each, 12, type 6 TN
- Alternator ..... 24 V ac, 60 amp

Engine:
- Make ..... Detroit diesel
- Series 3-53
- Type ..... liquid cooled, vertical, in-line 2-cycle, 3-cylinder diesel
- Displacement ..... 159.3 in³
- Horsepower, gross ..... 103 hp at 2800 rpm
- Torque, gross ..... 217 lb/ft at 1500 rpm

Fan belt:
- V-belt 11601646 ..... matched pairs

Cooling system:
- Capacity ..... 19 qt
- Normal operating temperature ..... 160°-200°F
- Pressure ..... 7-14 psi (max.)

Transmission:
- Type ..... manual shift
- Speeds ..... four forward, one reverse
- Synchromesh ..... second, third, fourth gears

Shift:
- Ratios:
  - First 7.06:1
  - Second 3.58:1
  - Third 1.71:1
  - Fourth 1.00:1
  - Reverse 6.78:1
- Lubricant capacity ..... 5.5 pt

Transfer case:
- Ranges ..... hi, low
- Ratios:
  - Hi 1:1
  - Lo 1.79:1
- Lubricant capacity ..... 4.5 pt
- Torque rating ..... 2500 lb/ft

Differentials:
- Type ..... dual pack
- Ratio ..... limited slip

PERFORMANCE

Steering:
- Steering ratio 24:1
- Turning radius ..... 29 ft

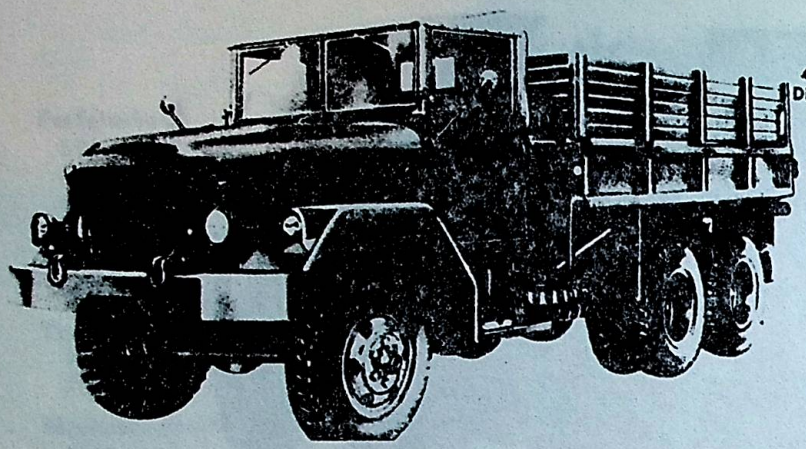
Articulation:	Front	Axle Center	Rear
Roll	Ref	15°	30°
Pitch	Ref	0°	40°
Yaw	Ref	0°	0°

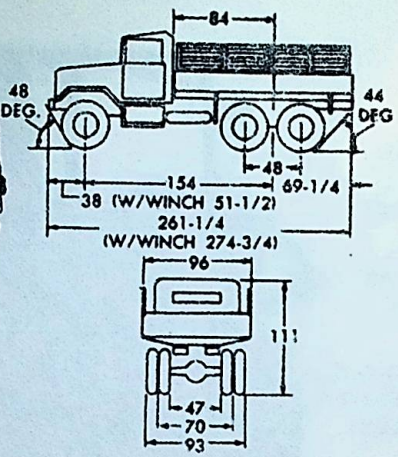
- Wall climb (Vertical) ..... 18 in
- Angle of approach ..... 62° without winch
- Angle of departure ..... 45°

EQUIPMENT

Basic issue items: TM 9-2320-242-10

References: TM 9-2320-242-10, -20, -34





Major item

Model	*Line item No.*	*National stock No.*
M35, w/wn, soft top	X40146	2320-00-835-8464
M35, w/o, soft top	X40009	2320-00-835-8463
M35A1, w/wn	X40146	2320-00-542-5634
M35A1, w/o wn	X40009	2320-00-542-5633

General

Truck, cargo: 2½-ton, 6 x 6 M35 and M35A1, is a vehicle used to transport general cargo or personnel. The truck has troop seats for 14 passengers whom it can carry in lieu of cargo. It is dual-tired on the rear wheels. The body is a 12-foot steel flat-bed type. Sides and tarpaulin frames are removable

Differences among Models

The M35 cargo truck has a spark plug ignition engine. The M35A1 has a multifuel, compression ignition engine.

Data Plate Location

Classifications:

M35 ..... Standard-B
M35A1 ... Standard-B

CHARACTERISTICS

Crew 2
Passengers 14
Length, overall:
  W/winch ..... 276 in
  W/o winch ..... 262 in
Width overall ..... 96 in
Height (as supplied to travel) ..... 112 in
Weight net:
  M35:
    W/o Winch ..... 12,465 lb
    W/Winch ..... 12,880 lb
  M35A1:
    W/o Winch ..... 13,443 lb
    W/Winch ..... 13,860 lb
Cruising range ..... 350 mi
Allowable speed (governed) ..... 58 mph
Fording depth:
  W/fording kit ..... 72 in
  W/o fording kit .....

EQUIPMENT

Basic issue items: TM 9-2320-209-10

INSTRUCTIONAL MATERIAL

STORAGE AND SHIPMENT DATA

Within Continental United States

Shipped uncrated, w/winch:
  Length ..... 275¼ in
  Width ..... 88 in
  Height ..... 103 in

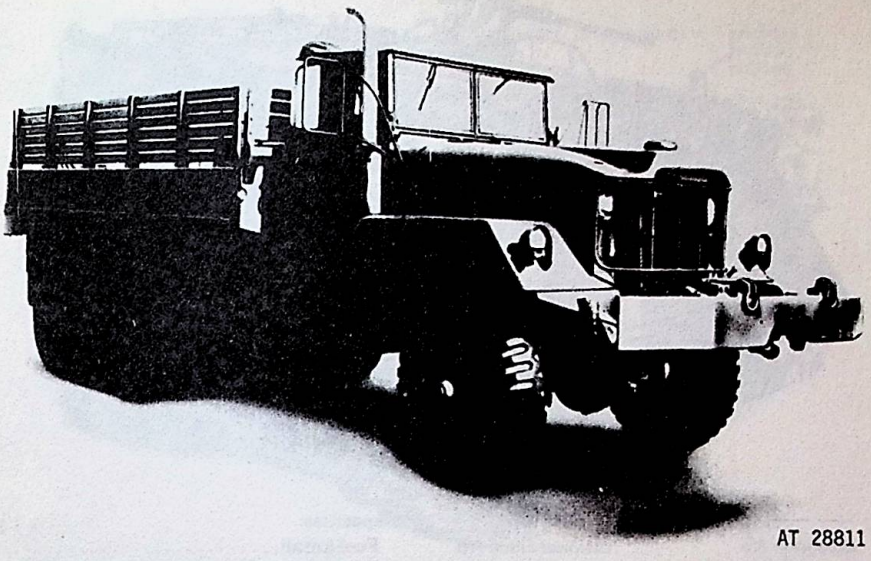
Payload:
  Highway:
    M35 ..... 10,350 lb
    M35A1 ..... 10,000 lb
  Cross-country:
    M35 .....
    M35A1 ..... 5,350 lb
Rear axle gear ratio:
  M35 ..... 6.72:1
  M35A1 ..... 6.72:1
Axle load:
  Empty:
    Front:
      M35 ..... 5,810 lb
      M35A1 .....
    Rear:
      M35 ..... 5,535 lb
      M35A1 .....
  Loaded:
    Front:
      M35 ..... 6,700 lb
      M35A1 .....
    Rear:
      M35 ..... 8,340 lb
      M35A1 .....
Tires:
  Ply 10
  Size ..... 9.00 x 20
  Pressure:
    Highway:
      Front ..... 70 psi
      Rear ..... 45 psi
    Cross-country:
      Rear ..... 35 psi
      Front ..... 45 psi
      Sand ..... 15 psi
  Trend, center-to-center, front ..... 67" in
Electrical system:
  Number of batteries (12 volts each) 2
  Voltage 24
  Ground ..... Negative
  Area ..... 169 sq ft
  Volume ..... 1150 cu ft
  Gross weight .....
  Ship tons .....

Outside Continental United States

Shipped uncrated, w/winch:
  Length .....
  Width .....
  Height .....
  Area .....
  Volume .....
  Gross weight .....
  Ship tons .....

References: TM 9-2320-209-20P, TM 9-1823A, TM 9-2647, TM 9-2320-[illegible]-34, TM 9-8015, TM 9-8014.

TRUCK, CARGO: 5-TON, 6 X 6, M813



AT 28811

Model	Major item Line item No.	National stock No.
M813 wo/w	X40831	2320-00-050-8902
M813 w/w	X40964	2320-00-050-8890

General

The body provides 550 cubic feet of cargo space and is of flatbed type, steel welded construction with removable side racks, troop seats, tarpaulin and end flaps.

Classification: A

CHARACTERISTICS

- Crew 2
- Curb weight:
  - Wo/w ..... 21,461 lb
  - W/w ..... 22,126 lb
- Payload:
  - Cross-country ..... 10,000 lb
  - Highway ..... 20,000 lb
- Gross weight:
  - Wo/w ..... 41,861 lb
  - W/w ..... 42,526 lb
- Dimensions:
  - Length:
    - Wo/w ..... 304 in
    - W/w ..... 317 in
  - Width ..... 98 in
  - Height:
    - Overall ..... 116 in
    - Lowest ..... 85.5 in
  - Ground clearance ..... 10.5 in
  - Turning circle:
    - Wo/w ..... 83 ft 8 in
    - W/w ..... 84 ft 8 in
- Fuel:
  - Capacity ..... 78 gal
  - Grade ..... diesel
- Capacities:
  - Cooling system ..... 42 qt
  - Crankcase ..... 25 qt
  - Differentials (each) ..... 12 qt
  - Transfer case ..... 5¼ qt
  - Steering ..... 5 qt
- Tire inflation:
  - Highway:
    - Front ..... 80 psi
    - Rear ..... 50 psi
  - Cross-country:
    - Front ..... 60 psi
    - Rear ..... 30 psi
  - Mud, sand, and snow ..... 25 psi

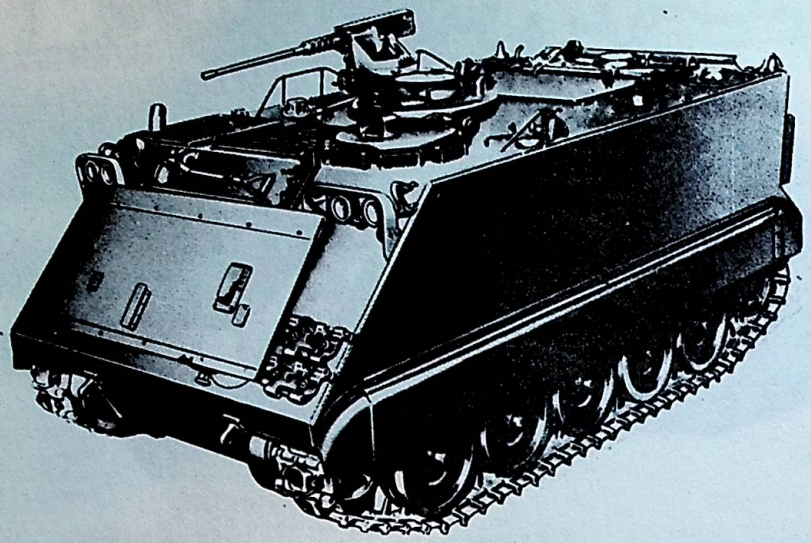
PERFORMANCE

- Maximum speed ..... 54 mph
- Fording depth
  - W/kit ..... 78 in
  - Wo/kit ..... 30 in
- Cruising range ..... 310 mi

EQUIPMENT

Basic issue items list: TM 9-2350-260-10

CARRIER, PERSONNEL, FULL TRACKED: ARMORED, M113



Model	Major item Line item No.	National stock No.
M113	D12086	2350-00-629-1294

General

Carrier, personnel, full tracked: armored, M113w/e, is a lightweight, low-silhouette vehicle designed to transport personnel and cargo. The vehicle is capable of amphibious operation on inland lakes and streams, of extended cross-country travel over rough terrain, and of high speed operation on improved roads and highways. Movement of the tracks propels and steers the vehicle on both land and water. The low net weight of the carrier M113 enables it to be transported by cargo aircraft and parachute-dropped to using forces. The vehicle accommodates a driver, troop commander, and 11 passengers. An open-type cupola with a pintle mount for a .50 caliber flexible machine gun capable of 360° rotation is located at the commander's station.

Differences among Models

Data plate Location

The identification plate is located above the engine compartment door which is to the right of the driver.

Classification: Standard—B

CHARACTERISTICS

Crew (Driver) 1
Weight:
- Combat loaded . . . . . 22,615 lb
- Air drop . . . . . 18,200 lb
- Less crew, stowage, and fuel . . . . . 19,755 lb

Ground pressure . . . . . 7.3 psi
Ground clearance . . . . . 16 1/8 in
Pintle height (loaded) . . . . . 30 in
Capacities:
- Fuel (total) . . . . . 80 gal
- Crankcase, refill (w/o cooler, cores, and lines) . . . . . 10 qt
- Transmission, cross-drive, nominal refill . . . . . 16 qt
- Final drive (each side) . . . . . 3 pt

Electrical system . . . . . 24 volts
- Number of batteries 2
- Type of batteries . . . . . (12 volt) 6TN
- Generator . . . . . 100 amps

Fuel octane rating 80
Engine:
- Manufacturer . . . . . Chrysler
- Model 75M
- Types . . . . . OHV—90°—V8
- Number of cylinders 8
- Displacement . . . . . 361 in³
- Bore . . . . . 4.125 in
- Stroke . . . . . 3.375 in
- Compression ratio 7.8:1
- Maximim governed speed (full load) . . . . . 3,900 rpm
- Brake horsepower, gross (max w/std accessories) . . . . . 215 @ 4,000 rpm
- Torque, gross (max w/std accessories) . . . 332 lb-ft @ 2,800 rpm
- Type of ignition . . . . . battery

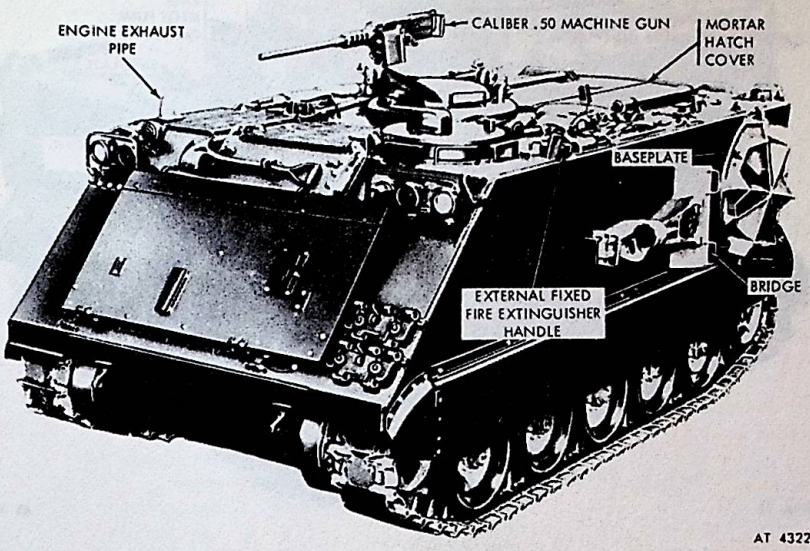
Transmission:
- Manufacturer . . . . . General Motors Corp (Allison Div)
- Model TX200-X
- Type . . . . . single stage—multiphase
- Brakes . . . . . differential band and disk
- Ratio from torque converter output shaft to final drive flange:
  - High range 5.031
  - Low range 26.64:1
  - Reverse range 30.34:1

Armament: Gun, machine, cal. .50, M2, flexible.
Communications system . . . . . radio and interphone

PERFORMANCE

Maximum grade ability 60%
Turning radius . . . . . 12 ft, 7 in
Maximum vertical obstacle vehicle can climb . . . . . 24 in
Maximum width of ditch vehicle can cross . . . . . 66 in
Allowable speed, recommended . . . . . 40 mph
Maximum allowable towed load, gross . . . . . 24,000 lb

CARRIER, MORTAR, 107-MM, SELF-PROPELLED M106 AND M106A1



Model	Major item Line item No.	National stock No.
M106	D11620	2350-00-987-8900
M106A1	D10740	2350-00-076-9002

General

The M106 and M106A1 4.2 inch (107-mm) self-propelled mortar carrier is designed to transport and support the 4.2 inch (107-mm) mortar cannon M30 during on-carrier and off-carrier tactical operations. The carrier is air transportable and air droppable. The mortar is fired to the carriers rear with the mortar hatch cover open.

Classification:

M106—B
M106A1—A

CHARACTERISTICS

Weights:
- Combat weight:
  - M106 ..... 23,700 lb
  - M106A1 ..... 26,147 lb
- Net Weight:
  - M106 ..... 24,260 lb
  - M106A1 ..... 24,707 lb
- Air drop weight:
  - M106 ..... 19,380 lb
  - M106A1 ..... 19,853 lb

Dimensions:
- Length ..... 194 in
- Width:
  - M106 ..... 119.2 in
  - M106A1 ..... 112 3/4 in
- Height ..... 86 1/2 in

Crew:
- Driver and personnel 6

Capacities:
- Fuel:
  - M106 ..... 85 gal
  - M106A1 ..... 95 gal

PERFORMANCE

Max. side slope:
- M106 ..... 30%
- M106A1 ..... 60%

Turning radius ..... 12.8 ft

Cruising range:
- M106 ..... 212 mi
- M106A1 ..... 300 mi

Fuel Consumption:
- M106 ..... 2.5 mpg
- M106A1 ..... 3.2 mpg

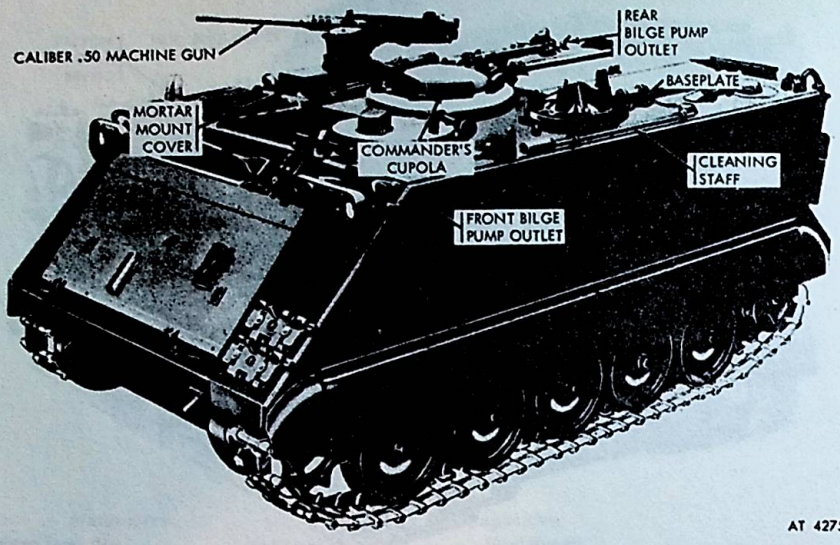
Fording depth ..... unlimited

EQUIPMENT

Basic issue item: M106-TM 9-2320-224-10; M106A1-TM 9-2300-257-10

References: TM 9-2300-257-10 and TM 9-2300-224-10

CARRIER, MORTAR, 81-MM SELF-PROPELLED M125A1



Model	*Major item Line item No.*	*National stock No.*
M125A1	D10725	2350-00-071-0732

General

The M125A1 is designed to transport and support the 81-mm Mortar Cannon during on carrier and off carrier tactical operations. The vehicle is air transportable and air droppable. The mortar can be fired in any direction with the mortar hatch open.

Classification: A

CHARACTERISTICS

Crew:
- Driver and personnel 6

Weight:
- Combat weight ..... 24,527 lb
- Net weight ..... 23,087 lb
- Air crop weight ..... 19,968 lb
- Air transported weight ..... 19,968 lb

Dimensions:
- Length ..... 191½ in
- Width ..... 106 in
- Height ..... 86½ in

Capacities:
- Fuel tank ..... 95 gal
- Cooling system ..... 10 gal
- Oil system ..... 22 qt
- Differential ..... 24 qt

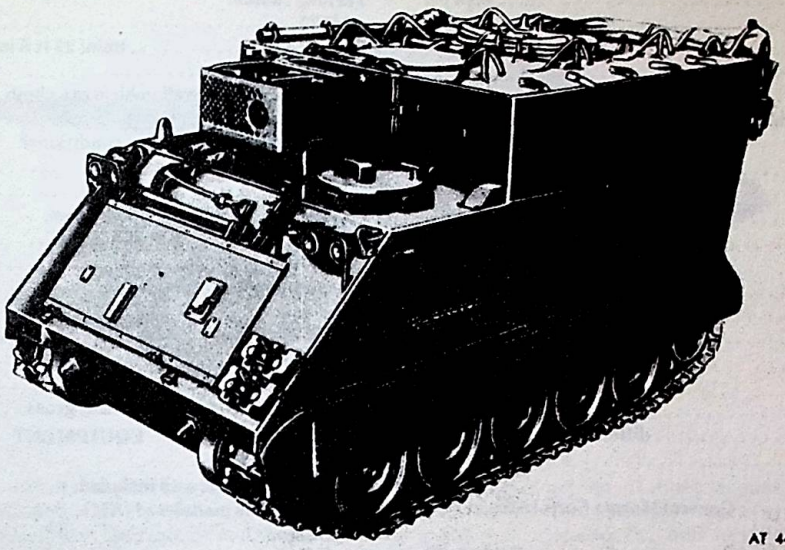
Max side slope 30%
Turning radius ..... 12.8 ft
Cruising range ..... 300 mi
Fuel consumption ..... 3.2 mpg
Fording depth ..... unlimited

EQUIPMENT

Basic Issue Items: TM 9-2300-257-10

References: TM 9-2300-257-10;-20-20P;-35; and -35P

CARRIER, COMMAND POST: LIGHT TRACKED, M577 AND M577A1



AT 4416

Line item No.	*National stock No.*
D11538	2350-00-856-6624
D11538	2350-00-056-6808

ommand post: light tracked, M577 and is a light, lightly armored, self-propelled, ehicle providing approximately 47 square oor space resembling the size and shape, the chassis of the carrier personnel, full armored M113A1 This mobile command cle for use at division or lower levels may used as a fire direction center, com- ns vehicle, or as a mobile medical treat- lity. To the extent feasible it will replace tentage used for these purposes. The amphibious, has superior cross-country and is adaptable to multiple functions ne application of kits.

es among Models

rence between the M577 and M577A1 is es and transmissions. The M577A1 is with a diesel engine instead of a gasoline in the M577.

e Location

es are located above the engine com- door to the right of the driver, and on the of the driver's compartment.

tion:

andard B
-Standard A

CHARACTERISTICS

	5
all	191 1/2 in
Width, overall	105 3/4 in
Height, overall	101 in
Track size and model:	
Tread (center to center of tracks)	84 in
Angle of approach	70°
Angle of departure	40°
Type of fuel:	
M577	gasoline
M577A1	diesel
Fuel rating:	
M577	Octane 83 to 91
M577A1	Cetane 40 (uses grade DF-1, DF2, DF-A, and LITE (MIL- F-46005)
Center of gravity above ground (loaded):	
M577	43.8 in
M577A1	45.0 in
Weight:	
Gross (combat loaded):	
M577	23,900 lb
M577A1	24,390 lb
Net:	
M577	22,800 lb
M577A1	23,060 lb
Air transported:	
M577	22,150 lb
M577A1	21,930 lb
Length of track on ground	105 in
Ground contact area—0-inch penetration:	
M577	7.4 psi
M577A1	7.7 psi
Ground clearance	16 1/8 in
Ground pressure:	
Combat loaded weight:	
M577	7.59 psi
M577A1	7.70 psi
Net weight:	
M577	7.24 psi
M577A1	7.32 psi

Air transported weight:
M577 ..... 7.05 psi
M577A1 ..... 6.96 psi
Pintle height (loaded) ..... 26.5 in
Electrical system ..... 24 V
Number of batteries 2
Type of ground ..... negative
Communication system ..... radio and interphone
Capacities:
Fuel (2 tanks) ..... 120 gal
Cooling system:
M577 ..... (approx) 9½ gal
M577A1 ..... (approx) 9 gal
Crankcase:
M577 ..... (approx) 12 qt
M577A1 ..... (approx) 18 qt
Transmission ..... (approx) 12 qt
Brakes:
Type:
M577 ..... differential band
M577A1 ..... differential band and disc
Operation ..... mechanical
Transmission:
Manufacturer ..... General Motors Corp. (Allison Div)
Model:
M577 ..... TX200-2B
M577A1 ..... TX100-1
Type ..... single stage—multiphase
Number of ranges:
Forward:
M577 6
M577A1 4
Reverse 1
Final reduction 3.93:1
Hull construction ..... aluminum armor
Engine:
Manufacturer:
M577 ..... Chrysler Corp.
M577A1 ..... Detroit Diesel Engine Div.—GMC
Model:
M577 ..... 75M
M577A1 5063-5290
Type:
M577 ..... overhead valve 90°V-8
M577A1 ..... two-cycle diesel, V-6
Displacement:
M577 ..... 361 cu in.
M577A1 ..... 318.6 in³
Bore:
M577 ..... 4.125 in
M577A1 ..... 3.875 in
Stroke:
M577 ..... 3.375 in.
M577A1 ..... 4.5 in
Compression ratio:
M577 ..... 7.8:1
M577A1 ..... 21:1
Governed speed (full load):
M577 ..... 3,900 rpm
M577A1 ..... 2,800 rpm
Brake horsepower (min w/std accessories):
M577 ..... 215 @ 4,000 rpm
M577A1 ..... 210 @ 2,800 rpm
Torque, goss (max w/std accessories):
M577 ..... 302 lb-ft @ 2,800 rpm
M577A1 ..... 425 lb-ft @ 2,800 rpm
Type of ignition:
M577 ..... battery
M577A1 ..... compression ignition

PERFORMANCE

Maximum grade ability 60%
Turning radius:
M577 ..... (min) 22 ft, 8 in
M577A1 ..... (min) 22 ft 8 in w/pivot steer 12 ft, 8 in
Fording depth ..... amphibious
Maximum vertical wall vehicle can climb ..... 2 ft
Maximum trench vehicle can cross ..... 5 ft, 6 in
Fuel consumption (average conditions):
M577 ..... (approx) 2.5 mpg
M577A1 ..... (approx) 3.4 mpg
Cruising range (average conditions):
M577 ..... 200 miles
M577A1 ..... 300 miles
Allowable speed recommended:
On land:
M577 ..... 35 mph
M577A1 ..... 3.6 mph
In water ..... 3 mph
Maximum allowable towed load, gross ..... 14,500 lb

EQUIPMENT

Communications:
Radio sets, basic sets included:
Amplitude modulated (AM) sets ..... AN/GRC-19, AN/VRC-24, AN/GRR-5, and AN/VRC-29
Old series of frequency modulated (FM) sets ..... AN/GRC-through 8, AN/VRC-8 to 10, AN/VRC-13 to 15, AN/VRC-20 to 22, AN/VRQ-1 to 3, and intercommunication set AN/UIC-1.
New transistorized series of (FM) sets ..... AN/VRC-46, AN/VRC-47, AN/VRC-29, and intercommunication set AN/VIC-1 (V).
Basic issue items: see TM 9-2300-224-10

INSTRUCTIONAL MATERIAL

STORAGE AND SHIPMENT DATA

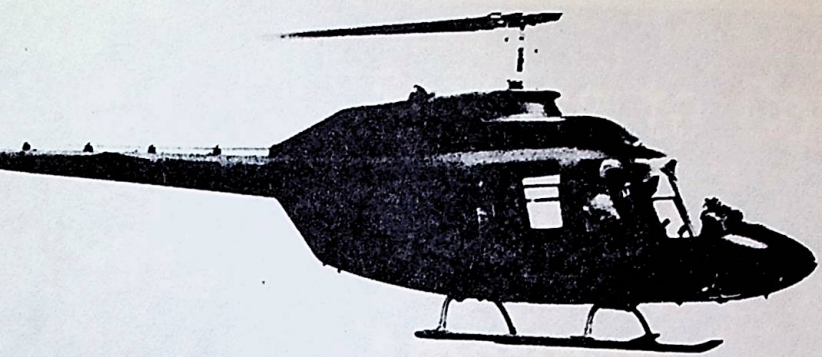
Within Continental United States

Shipped 1 carrier, uncrated.
Length ..... 191.50 in
Width ..... 105.75 in
Height ..... 105.50 in
Volume ..... 1,238 ft³
Area ..... 141 ft²
Gross weight:
M577 ..... 22,150 lb
M577A1 ..... 21,766 lb
Ship tons 30.95

Outside Continental United States

Shipped:
Length ..... 190 in
Width ..... 100 in
Height ..... 101 in
Volume ..... 1,100 ft³
Area ..... 132 ft²
Gross weight:
M577 ..... 22,150 lb
M577A1 ..... 21,766 lb
Ship tons 27,50

References: M577—TM 9-2300-224-10, -20, -34, -34P; M577A1—TM 9-2300-257-10, -20P, -35, -35P



HELICOPTER OH-58A

for which the OH-58A are employed are visual observation, target acquisition, recon-
nd command and control. Normal operation is limited to day and night visual flight con-
e helicopter can carry a pilot, co-pilot, and two passengers, and has no external load
The OH-58A has an average cruise speed of 100 knots and a fuel endurance time of approx-
hours.

HELICOPTER UH-1H

the UH-1H include transportation of personnel, equipment, and supplies; medical evac-
very of protective fire by attachment of appropriate weapons. These missions may be
instrument conditions and day or night visual flight conditions. The UH-1H has an
rnal load capability of 1920 pounds on a standard day at sea level with full fuel.
an average cruise speed of 100 knots and a fuel endurance time of approximately 2.5

REDEYE

Redeye is a man portable, shoulder-fired infrared seeking guided missile system designed to provide air defense against low-altitude hostile aircraft. The weapon is composed of two basic elements: the missile and the launcher. The missile, sealed in the launcher, is not removed except by firing. It has a solid-propellant motor and high-explosive warhead which detonates on impact with the target. The missile homes on the target by locking on the heat emissions produced by the aircraft's engines. Once fired, the missile requires no guidance from the ground. Thus, it is a "fire and forget" weapon. The missile/launcher combination weighs approximately 29 pounds and can be fired by one man. After the missile is fired, the launcher is discarded as it cannot be reloaded. Redeye is a simple weapon to maintain, requiring only go/no-go checks. Redeye is essentially a tail chase system and has engaged targets at speeds greater than 400 knots, slant range in excess to 2700 meters, and at altitudes greater than 2700 meters.

T O W

TOW is a Tube launched, Optically-tracked, Wire-command link (TOW) guided missile. It is a vehicle mounted or crew-portable, heavy anti-tank assault weapon that can be effectively employed in all weather conditions provided the gunner can see the target through the optical sight. The TOW has a maximum effective range of 3000 meters, fires the HEAT round, and is capable of defeating any known vehicle on the battlefield.

TOW antitank missile launcher fitted with the AN/TAS-4 infrared night sight.


"Service to Country
is a great
American
Tradition"
W. C. Westmoreland
General, US Army
Chief of St
WE OF THE CALIFORNIA NATIONAL GUARD
SUPPORT THIS PHILOSOPHY.

OBJECTIVES OF CALIFORNIA NATIONAL GUARD

1. TRAIN VIGOROUSLY EVERY INDIVIDUAL AND EVERY UNIT
2. MAINTAIN 100% - PLUS STRENGTH
3. MINIMIZE ADMINISTRATIVE REQUIREMENTS
4. ENCOURAGE INITIATIVE AND INSPIRE PERFORMANCE
5. RECOGNIZE EFFORT AND REWARD EXCELLENCE
6. IDENTIFY WITH THE COMMUNITY
7. ORGANIZE, MAINTAIN AND PROTECT ASSETS
8. CONSERVE MATERIAL AND RESOURCES
9. ANTICIPATE
10. BE MISSION-READY

Frank J. Schober Jr.

MAJOR GENERAL
COMMANDING