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THE DESERT TRAINING CENTER AND C-AMA

Study No. 15

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Historical Section . Army Ground Forces

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The Army Ground Forces

THE DESERT TRAINING CENTER AND C-AMA
Study No. 15

By
Sgt. Sidney L. Meller

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HEADQUARTERS ARMY GROUND FORCES

WASHINGTON 25, D. C.

314.7(1 Sept 1946)GNHIS 1 September 1945

SUBJECT: Studies in the History of Army Ground Forces

TO: All Interested Agencies

1. The history of the Army Ground Forces as a command was prepared during the course of the war and completed immediately thereafter. The studies prepared in Headquarters Army Ground Forces, were written by professional historians, three of whom served as commissioned officers, and one as a civilian. The histories of the subordinate commands were prepared by historical officers, who except in Second Army, acted as such in addition to other duties.

2. From the first, the history was designed primarily for the Army. Its object is to give an account of what was done from the point of view of the command preparing the history, including a candid, and factual account of difficulties, mistakes recognized as such, the means by which, in the opinion of those concerned, they might have been avoided, the measures used to overcome them, and the effectiveness of such measures. The history is not intended to be laudatory.

3. The history of the Army Ground Forces is composed of monographs on the subjects selected, and of two volumes in which an overall history is presented. A separate volume is devoted to the activities of each of the major subordinate commands.

4. In order that the studies may be made available to interested agencies at the earliest possible date, they are being reproduced and distributed in manuscript form. As such they must be regarded as drafts subject to final editing and revision. Persons finding errors of fact or important omissions are encouraged to communicate with the Commanding General, Army Ground Forces, Attention: Historical Section, in order that corrections may be made prior to publication in printed form by the War Department.

BY COMMAND OF GENERAL DEVERS:

J. L. Tarr

J. L. TARR
Colonel, AGD
Acting Ground Adj General

1 Incl:
Historical Study

PREFATORY NOTE

Shortly after the United States entered the Second World War, the War Plans Division of the War Department General Staff foresaw that our Army might have to fight in the deserts of Africa. The Desert Training Center was instituted under the Army Ground Forces for the special purposes of training mechanized units to live and fight in the desert, to test and develop suitable equipment, and to develop tactical doctrines, technique, and training methods. Maj. Gen. George S. Patton, Jr., first DTC Commanding General, selected the site of the Desert Training Center in March 1942. In April, the I Armored Corps and other units, whose total strength was less than a division, arrived and trained under Spartan conditions. General Patton evolved tactics he later used in campaigns overseas.

General Patton and the I Armored Corps were withdrawn suddenly. Their successors, Maj. Gen. Alvan C. Gillem, Jr., and the II Armored Corps, encountered confused condition because of this hasty withdrawal, and because no link held administrative matters together between commands. The maneuvers under the II Armored Corps proved the value of the area. But even in maneuvers certain unrealistic conditions obtained.

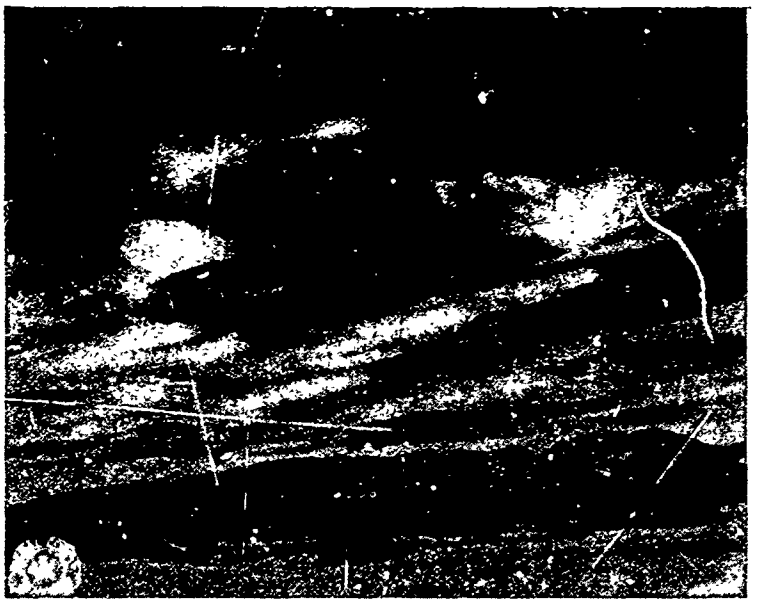
To oversome these difficulties and to train all types of units, combat and service, under combat conditions, the concept of the Center was broadened. The Center was established as a simulated theater of operations, the first in the United States. Its communications zone was to serve as a link between commands. Under Maj. Gen. H. Walker as Commanding General of the Center, and Col. J. B. Sweet as commanding officer of the communications zone, the theater began to function in early 1943.

Maj. Gen. Charles H. White and the IX Corps succeeded to command of the Center, whose population swelled to 190,000. He and his staff directed much attention to the communications zone and to administration of the theater, but not as much to training as Army Ground Forces desired. Army Ground Forces also felt that Spartan conditions had been relaxed. It therefore issued a directive on 16 July 1943 which among other provisions required more realistic conditions and a reduction in overhead, and faced the attention of the staff toward the combat zone.

The succeeding commanding generals, Maj. Gen. Wade H. Haislip, Maj. Gen. Alexander M. Patch, Jr., and Maj. Gen. Jonathan W. Anderson, as well as Brigadier General Sweet and his successor, Col. James B. Edmunds, carried out the terms of this directive. General McNair and others considered combat training in the area to be the best in the United States. To remove any question whether the Desert Training Center was still intended for only desert training, its name was changed to California-Arizona Maneuver Area on 20 October 1943.

The Army Air Forces and the Army Service Forces were critical of the fact that the DTC-C-AMA commanding general commanded both theater and combat zone. Air felt that the air commander should be co-equal with the ground commander in the combat zone. Air was made co-equal. A more serious problem, the lack of service units, became increasingly more difficult with the shipment overseas of service units which could not be replaced. In December 1943 General McNair recommended to the War Department that the C-AMA be closed. This recommendation was accepted by the War Department not only because of the lack of service units but also because fewer and fewer divisions and air units would be remaining in the United States.

At midnight of 30 April - 1 May 1944, General Anderson turned over responsibility for the C AMA to the Army Service Forces.



Desert

THE DESERT TRAINING CENTER AND CAMA

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PART ONE. TRAINING IN DESERT WARFARE
CHAPTER I
THE BEGINNINGS

Proposals, Plans and Explorations

On 29 January 1942 the Germans recaptured the port of Bengasi, and in a week rumbled one hundred miles Egyptward. If they continued and if the Japanese pierced through India, the Axis powers might join forces in Persia and supplement each other in supplies. They would be in a position to attack Russia from east, west, and south.

The War Plans Division of the War Department General Staff believed that the campaigns in North Africa, like those which had taken place in Norway, Albania, and Crete, had proved conclusively the necessity for troops specially organized, trained, and equipped to operate on difficult terrain. The lack of such troops had proved disastrous. The War Plans Division therefore recommended that troops be trained in desert warfare. [1] On 5 February 1942, Lt. Gen Lesley J. McNair, Chief of Staff, General Headquarters, gave his concurrence. [2]

What type of units and how many of them should be desert-trained was not clear at this early stage. Suggestions were various. The War Plans Division recommended training a corps consisting of two armored divisions and one motorized division. General McNair spoke of armored and motorized units, but did not specify how many units or how long a period of training. G-3 of the War Department General Staff proposed selecting a site large enough for the training of any type of division and also suitable for combined training with Air. [3]

By the end of February 1942 GHQ had decided on an armored combat team as the initial force and informed G-3 of the War Department, the Chief of the Armored Force, and the Commanding Generals of the Second and Third Armies what type of units it desired from them to form or support such a team. (See Appendix "A") By this time GHQ contemplated that, after the preparatory and development period, divisions and other units would be moved to the desert for a six-weeks' period of intensive training and maneuver. [4]

Suggestions concerning equipment, site, etc. arrived at the War Department from interested sources. The War Department letter to General McNair on 6 March 1942 condified what it had found acceptable. The purpose was reaffirmed: training in desert warfare. Equipment was to be tested, tactical doctrine applied, and the technique and methods of training developed. No more housing would be provided than necessary for the minimum requirements of health, sanitation, and the safeguarding of government property. If possible, tactical medical units would perform hospitalization. The War Department asked for a site recommendation, detailing how much of the site was government-owned, estimating the cost for maneuver and trespass rights on any privately-owned land in the area and the personnel required from Corps Area Service Command for necessary supply and administrative functions. [5]

GHQ has already designated the Commanding General of the I Armored Corps, Maj. Gen. George S. Patton, Jr., as Commanding General of the Desert Training Center. It had ordered General Patton to reconnoiter southeastern California and western Arizona for a suitable site.

Accompanied by Col. John M. Devine, Col. Hugh Gaffey, Col. Hobard R. Gay and Lt. Col. Walter J. Muller of the I Armored Corps, and Lt. Col. Riley F. Ennis and Maj. Carl Smith, GHQ respresentatives, General Patton arrived by airplane at March Field, California. From the 4th through the 7th of March the party reconnoitered from air and ground.

General Patton concentrated chiefly on two parcels of land: "A" which extended from the California bank of the Colorado River in the east to Desert Center in the west, from Searchlight (Nevada) in the north to Yuma (Arizona) in the south; and "B" which lay east of the sourther portion of "A". He quickly favored parcel "A". It possessed greater water supply. More of its area was government-owned, 79.3 percent being under the jurisdiction of the Department of the Interior. Patented land (privately-owned) comprised but 1.5 percent and could be avoided because it consisted as far as could be determined of mining claims in country unsuitable for maneuver. Costs for trespass right probably would be negligible. "A" was larger than "B", comprising some 10,000 square miles with a usable width of 90 miles and length of 180 miles. It was served by the Union Pacific Railroad in the north, the Santa Fe Railroad in the center, and the Santa Fe and Southern Pacific Railroads in the south.

General Patton and his party did more than look over the land. They ascertained what facilities would be available to a training center in the desert. A conference was held at the Metropolitian Water District Office in Los Angeles. General Patton dominated it. When a civilian proposed that soldiers build storage for water, General Patton replied that troops had no time to build anything. They had to learn how to fight. He told officials of the Water District that they would be given a week's notice before water would be needed. [8]

On 9 March 1942, General Patton attended a conference exploring railroad possibilities with representatives of the Southern Pacific Company and of the U. S. District Engineers at Los Angeles. He asked specific questions about trackages between Indio and Yuma. He found that no trackage existed for the exclusive use of the Army, but the Southern Pacific promised to cooperate to the fullest degree possible. [9]

General Patton conferred with Col. Donald B. Sanger, Assistant Signal Officer of the Ninth Corps Area. [10] General Patton wanted a repair shop established at the Desert Training Center for the general repair of signal equipment, particularly organizational radio equipment. None of his tactical personnel was to be considered available for the operation of post signal activities or the fixed communication system; instead, a post signal officer and a post signal property officer and a detachment of service company personnel sufficient to operate the post signal activities should be established at the Desert Training Center without delay.

The next signal conference included Mr. Ed Dawson of the Southern California Telephone Company and Col. Hardy P. Browning of the Office of the Chief Signal Officer. The commercial telephone program decided upon would have taken several weeks before facilities could be used by troops. Arrangements were therefore made to provide before 15 April three circuits into Indio through the locally-owned Coachella Valley Home Telephone Company board at Thermal, near Indio. These three circuits provided one talking circuit to the railhead at Indio, one talking circuit to the rear echelon at Indio, and one circuit to the Thermal board. [11] Since General Patton wanted no female telephone operators at any of the camps, the Southern California Telephone Company planned on a private branch exchange which would be controlled at Whitewater, some 60 miles from the base camp. [12]

After his energetic reconnaissance of the area, General Patton informed General McNair of his findings. He stated the reasons for his preference of parcel "A" -- its size, an adequate supply of water and adequate rail facilities. Electric current could be furnished from the power lines of the Metropolitan Water District of Southern California which ran adjacent

to its aqueduct. Telephone wire lines existed within reasonable distances of the base camp and each division camp site.

For his base camp he chose a location slightly over twenty miles by automobile east of Indio. In addition, sites for divisional camps lay in the vicinity of Desert Center, Iron Mountain, and Needles, over which he wanted jurisdiction, though he did not contemplate construction at that time. Because of the desolateness of the terrain -- during his four-day reconnaissance over it he had encountered no inhabitants -- he did not believe it advisable for the War Department to take over this land by executive order except for the sites he indicated.

General Patton was unstinting in his praise of the area. He foresaw that the numerous mountain chains, the varied nature of the soil, and the presence of considerable vegetation in some sections rendered the area suitable not only for armored combat service but also for practically all forms of combat exercises. Possessed for a summer climate suitable for hardening troops for desert warfare, it also had a winter climate which was "probably the most salubrious in the world." He declared this to be "probably the largest and best training ground in the United States." [13]

The Site

What was it like, the site of this new training area? In the popular mind the desert is composed of endless stretches of sand, wavering before the eye because of heat convection, where little or no rain falls.

This image is incomplete. The site of the training area did have sandy stretches, but it had much else. There were regions of rocks and crags. There were dry salt lake beds. There were many mountains, most of them running in a north-south direction and most of them springing precipitously from the floor of the desert. Some of the mountains attained a height of more than 7,000 feet. Many of the valleys were wide and flat. Only one over-all generalization can be made concerning the terrain: it was varied.

The desert was hot. Temperatures climbed as high as 130° in the shade, and the dwarfish sparse growth of the desert -- the usage brush and mesquite and cactus --provided little shade. The heat bore down less harshly on man and machine than another attribute not commonly associated with desert -- shifts in temperature. During the winter the temperature might bound from freezing in the early morning to 100° at mid-day. On the average the daily range in temperature was greater in summer than in winter. Sudden changes in weather were frequent. A rise or fall in temperature, a cloudburst, a wind and sandstorm might occur with little warning.

The average yearly rainfall was less than 5 inches. July, August, and September were the rainy months, though peak rainfall for any of these months was seldom over .37 inches, and that amount might be received at one time. Danger therefore lurked for the novice who might take a nap in a draw or wash because a cloudburst might cause a wall of water to batter down upon him.

The region, then, was arid. The only large stream, the Colorado River, ran along the eastern boundary of the training area. An aqueduct had been brought through the center of the area. Other sources of water were merely local, such as wells. The vegetation of this arid region? -- "All of the desert plants are the world's most thorny objects."

Such an area naturally supported no centers of great population. On the fringes of the training area several communities of a few thousand people were located, such as Needles, Blythe, and Yuma along the Colorado River, with populations in 1940 of 5,000, 2,340 and 5,325 respectively. Indio, the largest town at the western edge of the tra[redacted] had a population of 1,600. The

Desert Terrain--4 miles east of Thermal, Calif.
(From files of Engineer Board, Yuma Test Branch)

Desert Terrain--rocky terrain north of Ogilby, Calif.
(From files of Engineer Board, Yuma Test Branch)

fact that General Patton had gone through the region for four days without meeting an inhabitant indicates the sparsity of population. On maps of the region even a service station is sometimes indicated.

It must not be thought that this experience with desert country was the Army's first. Troops had long before fought Indians in the desert. In early 1942 a number of installations existed or were being activated in the general region -- a Field Artillery Training Area south of Indio, an Ordnance Section at Camp Seeley, an Engineer Board Desert Test Section at Yuma and later at Thermal, an Army Air Base at Victorville, the San Bernardino Air Depot at San Bernardino, Camp Haan at Riverside, an Army Air Base at March Field, Camp Irwin at Barstow, a Holding and Reconsignment Depot at Yermo, and an Army Air Base at Las Vegas.[14]

Blueprint Stage -- The Roles of Services of Supply, The Army Air Forces, and The Army Ground Forces.

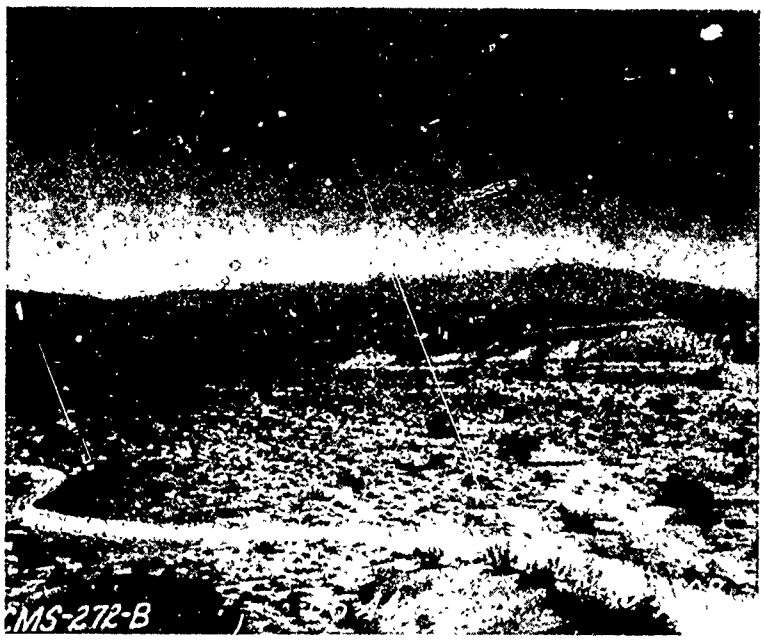
Headquarters, Army Ground Forces -- successor to GHQ -- was made responsible for the Desert Training Center. Headquarters, Services of Supply, was assigned a supporting role; and Headquarters, Army Air Forces, that of providing certain types of air units.

Headquarters, Services of Supply, and its subordinate agency, the U. S. District Engineers at Los Angeles, secured for the Desert Training Center the right to use lands in the desert. They had no voice in deciding what lands were necessary; that was the domain of the Army Ground Forces.[15] Subordinate commands of Services of Supply were to supply the Desert Training Center. The Commanding General of the Ninth Corps Area was ordered to send from personnel available to him the necessary commissioned and enlisted personnel for the operation and maintenance of the fixed camp installations in the desert. These included a finance department, base camp, a detachment of military police, a quartermaster detachment base camp, and a utilities detachment.[16]

The part Air would play was decided at a conference between Col. George L. King of the Armored Force, Ground-Support Section, and Col. Nelson M. Walker and Lt. Col. Riley F. Ennis, representing Headquarters, Army Ground Forces. A composite consisting of not less than one squadron of combat aviation, one medium observation squadron, and an air ambulance were to be associated with and under the operational control of the Desert Force commander. Later the War Department added an entire bombardment group. Other combat aviation units might be attached for shorter periods to gain experience and conditioning prior to their departure with task forces. But no air operations would be independent; all would be under the Desert Force commander. Insofar as possible the permanently associated Desert Force aviation was to be based on and operate from desert-constructed air fields and landing strips, not from established bases and airdromes.[17]

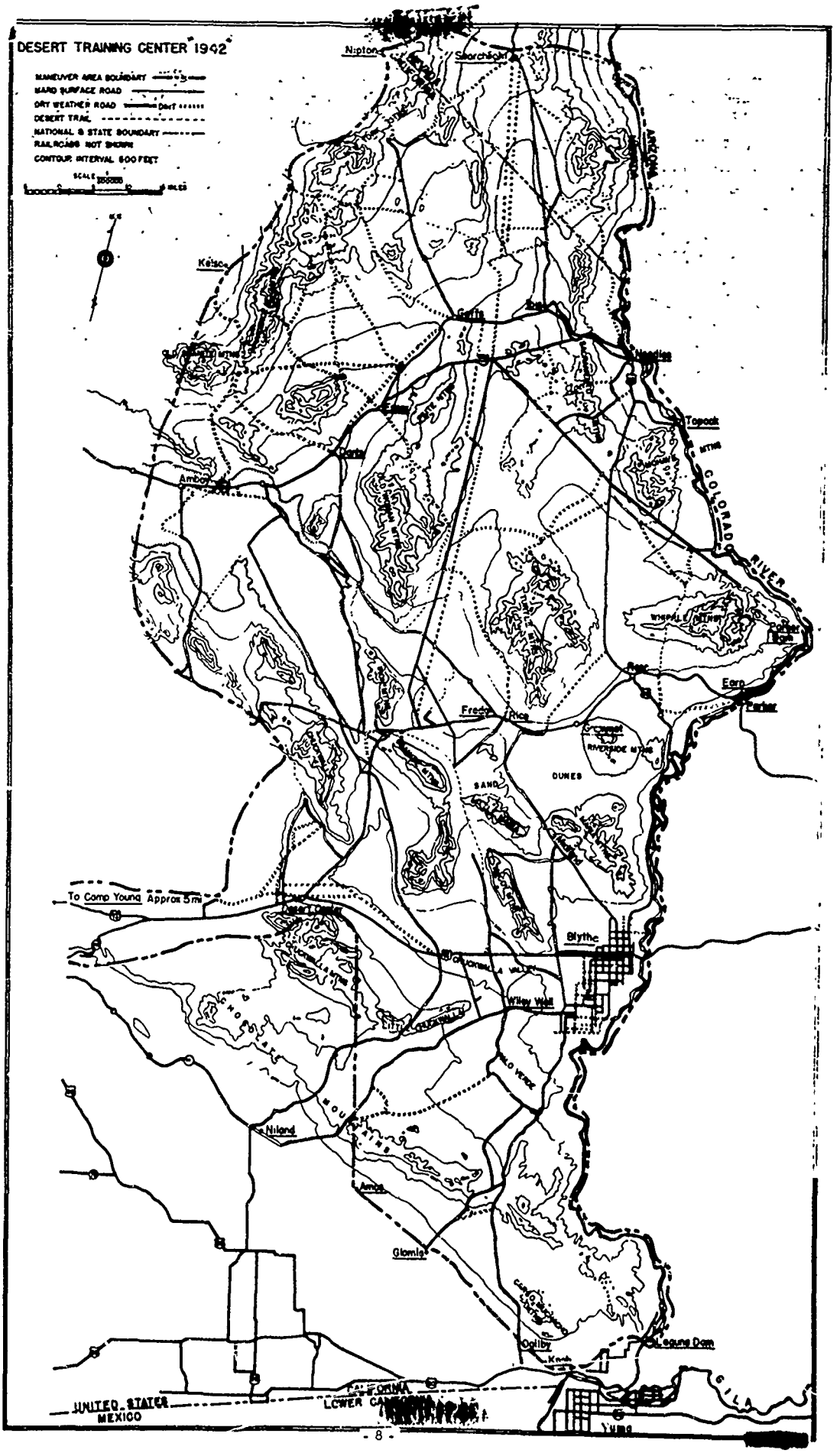
To the Army Ground Forces was intrusted responsibility for the operation of the Desert Training Center.[18] When the Army Ground Forces heard that an AAF establishment would open at Blythe, Calif. and that an enemy alien detention camp was being built in the vicinity of Parker Dam, it pointed out to the War Department the possibility of increasing the size of the Desert Training Center. It listed the advantages for training purposes of the area east of the Colorado River: variety of terrain, government ownership of most of the land, mildness of climate, for the greater part of the year, and availability of the Colorado River for river-crossing exercises. It secured assurance from the War Department that no installation would be authorized in the DTC area or in the proposed enlargement that would interfere with Ground Force use without previous consideration by the Commanding General of the Army Ground Forces.[19]

Desert Terrain--sand dunes NW of Yuma, Arizona.
(From files of Engineer Board, Yuma Test Branch)



Desert Terrain--east of Thermal, Calif., looking towards San Jacinto Mountains. There is a flat-top camouflage net one inch above bottom, center, of photograph. (From files of Engineer Board, Yuma Test Branch)

From units under its command, the Army Ground Forces assigned the great bulk of the troops that went to the Desert Training Center. 20 (See Appendices "A" and "B".) It instructed General Patton to develop appropriate tactical doctrine, technique, and training methods; to test the suitability of current equipment and supplies and to develop necessary items; and to determine the nature of any necessary changes in tables of organization and tables of basic allowances. It outlined the type of training to be undertaken. Training was to emphasize operations with restricted water supply; sustained operations, remote from railheads, in dispersed combat groups, during which constant threat of hostile air and mechanized attack would be simulated; speed in combat supply, particularly in refueling and ammunition supply; supply under cover of darkness; desert navigation for all personnel; laying and removal of mine fields by all units; maintenance and evacuation of motor vehicles; special features of hygiene, sanitation, and first aid; and combined training with the Army Air Forces. 21


DESERT TRAINING CENTER 1942
MANEUVER AREA BOUNDARY
HARD SURFACE ROAD
DRY WEATHER ROAD
DESERT TRAIL
NATIONAL & STATE BOUNDARY
RAILROADS NOT SHOWN
CONTOUR INTERVAL 500 FEET
Nipton
Searchlight
Keiser
Needles
Topock
Ambos
COLORADO RIVER
Earp
Parker
Freda
Rice
DUNES
SAND
To Camp Young Approx 5mi
Blythe
Wiley Well
Niland
Amos
Glamis
Ogilby
Laguna Dam
Yuma
UNITED STATES
MEXICO
LOWER CALIFORNIA

CHAPTER II

PLANS BECOME REALITIES

Advance Party

On 21 March General Patton ordered an advance party of officers from the I Armored Corps to the desert. They proceeded to Indio and set up headquarters at the Indio Hotel. Col. John F. Conklin, Engineer for the I Armored Corps and thereby for the Desert Training Center, established and maintained contact with the U. S. District Engineers. He supervised engineering activities, arranged for water in the temporary and permanent camp site, and laid out the temporary camp for the initial force. He arranged for the establishment of units in their temporary areas. He investigated power and telephone resources to facilities establishment of the necessary lines. Lt. Col. Walter J. Muller prepared for the reception of troops at Indio and for the supply and evacuation of troops. Col. Hobard R. Gay worked out the details for securing adequate railhead facilities and made sure that sufficient supplies were available for troops upon arrival. [1]

In order to avoid construction on land not owned by the Government from which the Army could be put off after having been given 30-days' notice, the site chosen by General Patton for the permanent base camp had to be changed during his absence. Colonel Conklin chose a site on government-owned land which had additional advantage of being by the aqueduct of the Metropolitan Water District, from which water could easily be obtained. It had the disadvantage, however, of being hemmed in between the aqueduct and Highway No. 60, across which troops must go in order to reach land where freedom of action was possible.

The site chosen, the engineers planned the layout for the permanent base camp. [2] Meanwhile troops were being readied to proceed to the temporary camp.

Temporary Camp to Permanent Camp

On the first of April 1942, while General Patton was busy in the east, troops of the I Armored Corps began leaving Ft. Benning, Ga., by train, headed for the desert.[3] Other troops traveled by motor. The commanding officers of the first increments to arrive by motor reported for further instructions to the advance message center at the Indio Hotel; succeeding increments proceeded directly to the temporary camp site. Units brought three days' rations with them as well as a number of other supplies, including extra five-gallon containers, based on an allowance of one gallon of water per individual per day for three days.[4] This was the desert.

It was impossible to tell how big this project was going to become or where the stresses would be felt. When Capt. R. W. Smith arrived, he reported to headquarters at the Indio Hotel. Captain Smith had been the Transportation Officer at Camp Lewis, and the officer who interviewed him, ruling that there was no need for such an officer in the Desert Training Center, placed him in command of the Quartermaster Provisional Battalion --a catch-all unit. Within a week the need for a transportation officer became apparent, and a second lieutenant without experience in transportation was appointed; his one enlisted man working in the Southern Pacific Depot at Indio knew little more than he did. So there were difficulties until a former railroad man, Lt. L. A. Moore, was appointed Transportation Officer. [5]

Training

Exercises and Conclusions

A necessary first step toward the training of units to fight a modern war in the desert was the assembling of data on means of existence under desert conditions, the testing of equipment, and the development of tactical doctrine and technique. [14]

General Patton drew on available resources for information. To Dr. Roy Chapman Andrews who had conducted expeditions into the Gobi Desert he wrote, "While I have played polo and navigated ships across the Pacific, I have a limited amount of knowledge about the desert, so do not hesitate to give me the most trivial details which, from your experience, you might consider superfluous." [15] Later on he did not need to ask for such information. So-called experts -- bearded and unbearded, natty and matted and tattered -- attached themselves to General Patton and the base camp, all of them blessed with one attribute in common -- a mouth that kept talking.

It being wartime, the Army could not wait until the background material was gathered and evaluated. To a great extent, learning and training has to be carried on together. While General Patton was himself in the east, he made his policies felt in his first training memorandum. The necessity to get a number of things done quickly did not divert him from the primary purpose of the Desert Training Center. No administrative duties were to be performed within tactical units during training hours. He wanted his men conditioned physically to operate for protracted periods in the desert with a minimum of food and water without a material decrease in combat efficiency.

Lt Gen McNair, Major Gen Patton study a map
July 1942.

For his command, which consisted of less than ten thousand officers and enlisted men,[16] General Patton worked out a training program. It was not to exceed six weeks from 20 April. In the first of its four phases emphasis was to be placed on the individual driver, the crew, squad, section and platoon; in the second, on company and battery ; in the third, on the battalion; and in the fourth, on the combat team. He desired to develop teamwork not only between armored members but also between air and ground units.

For the end of the training period he planned a combined field exercises for several days during which there would be a movement of approximately 300 miles through the desert. Advanced supply bases would be established along the axis of advance, tactical movements would be carried out under cover of darkness, and tactical bivouacs would be established in the presence of hostile air and mechanized threats. During an operation against a simulated enemy, service ammunition would be fired and combat aviation would drop live bombs. [17]

Time was not wasted. In the middle of April a fleet of modern self-propelled field artillery units, mounting 75's, disembarked from flat cars; on the following morning they were trundled out for their first desert exercise.[18] The Desert Warfare Board was formed to test equipment and supplies and to develop necessary items. After the arrival of Col. Donald B. Sanger, who became President of the Board, things began to move. (For an account of the Desert Warfare Board see Appendix "H".)

General Patton returned from the east and was taken immediately to the Indio Hotel. One of the many officers told him that he regretted being able to offer nothing better than the best room in the hotel. General Patton said he was not going to stay there but would be with his men. By nightfall only one officer remained in the hotel. According to the story, that officer was ill. Actually an officer remained in Indio for liaison purposes. [19]

General Patton required that all men, within a month after arrival, should be in condition to run a mile in ten minutes, carrying full packs and rifles. In a month all the men were able to do it.[20]

Within a few days after the Commanding General's arrival, training has so far progressed that a second desert march was completed.[21] By the 29th of April a task force of about 225 vehicles took to the fields. It consisted of a reconnaissance troop reinforced by a reconnaissance tank platoon, a tank battalion, a battery of towed 105-mm howitzers, two tank destroyer companies, a company of infantry and a detachment of engineers, with the necessary supply vehicles for a four-day operation.

After the first day's march of 50 miles, which terminated in a protected bivouac, the Commanding General made certain observations. The drill movements of forming a group column from camp had to be perfected. Definite phase or report lines were necessary so that a periodic intervals the force could halt and realign itself. Lateral communication during the march had to be done by tanks, which possessed greater speed than any other mode of transportation in the hard desert. Large signal flags on long poles used by the force leader and the leaders of the several columns were important, and necessitated the leaders' leading. The radio worked too well, so that when the Commanding General put in a radio intercept on the enemy side, he could always determine the exact location of the command.

Weaknesses were disclosed. Although vehicles were able to negotiate some of the most difficult terrain General Patton had ever seen, the expenditure of gasoline ran up enormously. Even such as elementary matter as the technique of driving had to be suited to the terrain. To make a rapid change of direction, especially with the half-track, was fatal. In marching over sand dunes with tanks, the obstacle had to be taken at right angles to the slope: if taken diagonally, the tracks were thrown.

The need for improved design in equipment became apparent. The 105-mm howitzers, towed by 21/2-ton trucks, lacked sufficient speed and maneuverability to operate successfully with an armored force; full-track mounts seemed to be indicated.

On the second day the task force marched to battle and attacked an outlined enemy presumed to be an armored force. The operation went well, and the second protected bivouac greatly improved upon the first. On the third and last day the task force formed march column from defended bivouac and forced a defile by the use of infantry and artillery.

In the report sent to Headquarters, Army Ground Forces, on the activities of this task force, General Patton included not only the recital of events, but also a digest of what had been learned concerning techniques, weaknesses in equipment, and dangers. He even pointed out that the sharp dead twigs of desert vegetation punctured tires. He included information similar to that given in the paragraphs above, and he went into detail concerning a device for cooking, which consisted of a small can filled with gravel soaked in gasoline. Requiring no extra equipment tires made a good hot fire that was not extinguished by wind.[22]

A party from the Ground-Air Support Directorate of the Army Air Forces observed from the air, on the 29th of April, the special formations and part of the practice march phase of the exercise. Two of the party were trained observers, though without experience over desert terrain. In spite of the rate atmosphere and resultant long vision, only when the vehicles were in motion -- and then only by dust clouds -- could the formation be picked up by the eye at eight, six, and four thousand feet elevations.

The party believed the Desert Training Center was off to a good start. If the Desert Force were supplemented by enough aviation of the right kind, many valuable lessons concerning aviation in support of ground forces could be gained.[23]

After the troops moved into the permanent camp, most of the exercises were held on the other side of Highway 60.[24] By 5 July the men were sufficiently trained to permit the carrying out of a seven-day operation. As in all other training, General Patton noted carefully what occurred. He was pleased by the skillful handling of the defending force by Lieutenant Colonel Bender. Instead of immediately placing all his antitank guns in position. Colonel Bender kept half of them mobile, backed up the other half with all his tanks, and put up an excellent defense against superior numbers. General Patton noted what had proved successful. Thus, red paints on the turrets of the defending tanks and the windshields of the half-tracks enabled men for the first time to distinguish friend from foe after the fight got under way. The Commanding General enunciated elementary lessons which still had to be learned. The light tanks, traversing the desert with greater facility than the scout cars of the reconnaissance squadron had to learn not to close on the squadron. The squadron needed time and space in which to do its work. The General passed on his recommendations to Headquarters, Army Ground Forces. Armored infantry, cooperating with an armored division, should be in half-tracks or all-tracked armored vehicles because, in order to arrive in time, they moved deployed in their vehicles to well within range of machine guns.

General Patton worked out the role air could assume in the desert. The light liaison plane he found invaluable. From a light plane well back of the front line and at a height of only 300 feet above the ground the contour of the front of the dust cloud was clearly visible and an exact determination of the enemy distance

and formation could be secured. Above 1,000 yards the contour of the front of the dust cloud was not clear. For desert operations in which ground targets could not be definitely located, the Commanding General worked out a method for achieving the best results. Prior to the main battle the air should attack critical points in the hostile supply and communications net. For the critical battle the ground troops should be supplied with a smoke bomb or shell of a peculiar color. When the air was to come in, this smoke should be sent out along the whole line and the air told to bomb a zone just beyond the smoke to a depth not to exceed 1,500 yards. 25

From observations such as these General Patton wrote his "Notes on Tactics and Technique of Desert Warfare (Provisional)," long issued to troops at the Desert Training Center. It was crammed with concrete detail. The half-track being slower than the tank in the desert, it was desireable that the company maintenance vehicle be a full-track, so that after having halted to make repairs it would have the capacity to catch up. Marching was a science and susceptible to more or less dogmatic treatment. The function of the air arm was explicitly defined.

The mimeographed brochure is imbued with aggressive spirit. Statements such as the following bristle from its pages:

> Formation and material are of very secondary importance compared to discipline, the ability to shoot rapidly and accurately with the proper weapon at the proper target and the irresistible desire to close with the enemy with the purpose of killing and destroying him.
>
> It is my opinion that the force commander can exercise command from the air in a liaison plane by the use of two-way radio. He should remain in the plane until contact is gained, after which one of his staff officers should be in the plane and he himself on the ground to lead the attack.
>
> Sitting on a tank watching the show is fatuous -- killing wins wars.

Believing that battle was an art and that "he who tries to define it closely is a fool," is roughly blocked out the successive phases and movements which may be paraphrased as follows: 26

> Air and reconnaissance, the first to function, locate the enemy. While the march flows smoothly and without halting into battle formation -- a transition that must be completed while the enemy is still some 3,000 yards away -- our air must be attacking the enemy, especially his artillery, anti-tank guns, and close in trains. In these attacks, the air acts on its own, picking those targets which it can use. It is also learning the terrain. During this phase the ground reconnaissance and advance guard clear the front and act as ordered by higher command, always remembering not to lose a chance to hurt the enemy.
>
> Four-ninths of the tanks move into firing position, engage the ememy from a staggered line formation. Under cover of this fire, probably opened at 2,000 yards, the artillery moves up and enters the fire fight. The leading elements of tank destroyer units, from their positions on the flank, also engage in the fire fight. The targets for artillery and tank destroyers should be the enemy's artillery and anti-tank guns. Progress is made in rushes. Whether artillery displaces forward with each rush made by the tanks depends on the observation they can secure. But certainly as the battle nears its climax, the artillery must be in line with the tanks.

As the fight progresses and the dust clouds prevent further observations, the reserve tank unit moves out to encircle the enemy. When in position to attack him from the rear, it signals the force commander so that a synchronized assault be executed.

Prior to this time the air has been attacking the enemy. It should be notified of the probable time of the final attack sufficiently in advance to enable it to load with the proper type of bombs and be ready to take off. A few minutes before the planes are over our force, they notify the force commander by radio. On receipt of this message, the fronts of the main assault and encircling forces are outlined by clouds of specially colored smoke produced either by grenades or artillery. The smoke gives air a datum line and enables it with safety to attack the narrow zone of the enemy front between two lines of smoke.

The King's Throne [27]

No study of training during this period would be complete without a brief examination of the precedent set by the first Commanding General. The air officers who had visited the Desert Training Center in the latter part of April had commented on the high enthusiasm evident among the men in spite of the new, unusual, and rugged field service conditions. They attributed this spirit to the rare brand of leadership, "uncompromising but understanding," exhibited by the Commanding General, who participated fully in every exercise, activity, and training task. [28]

The Commanding General was "uncompromising." First, he was not easy on his men. When they did not drill, they policed. And he made sure they drilled and policed properly. He was a driver, a disciplinarian. He stated that the greatest difficulty in the Army was the lack of initiative and sense of responsibility among the younger officers. Within two weeks after his arrival at the Desert Training Center two officers were under arrest awaiting investigation for failure to perform obvious duties.[29]

Second, he was uncompromising with himself. Demanding that his men be "in uniform" despite heat and sand, he himself wore his uniform in a military manner. He did not live in Indio but at camp. He was with his men in whatever they did. He would be in the first of the tanks, tearing up the ground; from his cub plane or from his hill he would study his troops in a march; he supervised them, he exhorted them, he taught, he pleases. His men and officers never knew what vehicle -- jeep, Packard sedan, tank or half-track, cub plane or tractor -- might suddenly erupt him.[30]

His hill, called by some of his men "The King's Throne," deserves mention. It was a lone elevation between the Crocopia and the Chuckwalla Mountains and separated from both. The General used to sit or stand up there, scrutinizing critically the line of march of tanks and motorized units below him. He would watch tanks line up in the manner of two football teams, with their support, slightly different on either side, behind them like backfields, charge together while the backfield of one swerved and made an end-run. Detecting a mistake or a way to improve, he would shout instructions into his radio. [31]

In the third place, he was uncompromising in steering towards his destination. At the very beginning he informed General Devers, "Unless you wish otherwise I propose to hold the housekeeping arrangements here to the minimum, that is, to spend just as little time as possible on 'prettying up and as much time as possible on tactical and technical instruction." [32]

Consequently, as will be shown in the two succeeding chapters, administration was not balanced and supply channels were confused. General Patton concentrated on teaching men to kill efficiently, instinctively. He once introduced a speaker with these words: "Men, I want to introduce to you the noblest work of God -- a killer!" [33]

The air officers spoke of his understanding. He understood machines. He would "bawl hell out of a man" for getting his tank stuck so that he couldn't pull it out, and then the General would proceed to pull it out himself. [34] He knew how to get things done. One day the slowness with which men were unloading tanks at the Indio railroad yard made General Patton impatient -- he always demanded speed. He told the sergeant behind him, the famous wrestler, Man Mountain Dean, to hurry the work along. When the sergeant ranted at the men, the men stopped work to gape at the source of the noise. General Patton went to the men and showed them how to place the timbers, and after that the tanks rolled down smoothly. [35]

He had understanding and solicitude for men. He wanted his base camp situated as closely as possible to Indio so that the men could get into town. When he saw the deplorable situation that arose when so many troops were foisted on the miniscule desert communities (a situation described in the next chapter), he wrote to General McNair requesting a qualified special services officer of field grade. [36] Those who served under him, and those who observed what occurred, have said that he would not ask a man to do anything he would not do. [37] Frequently he closed a "bawling out" of troops with this remark, "I'm doing this for your own good. If you'd done out there what you did here, you'd be killed." [38] In an accident a soldier was riddled by bullets. General Patton was not to be seen at his headquarters, but remained by the man in his hospital tent until the man died. [39] He once remarked, "I'm a hell of a guy. I'm giving them /the troops/ hell one minute and crying over them the next." [40] Such an understanding inevitably added up to high morale among the troops. Coming down in his cub plane, General Patton narrlowly missed the telephone poles leading to his headquarters. Troops, without orders, took down the poles and buried the copper wire under the ground, a blasphemy to a representative of the Southern California Telephone Company, but it worked because of the dryness of the desert. The boys said they did not want their General killed. [41]

When General Patton left, many of the troops who remained said they wished they could have gone with him, whatever his destination. [42]

Interruptions in Training

Training did not proceed without interruption. Three chiefs of staff, Colonels Devine, Pickering, and Gaffey, promoted to the rank of general officers, were lost to the Desert Training Center. Experienced and capable officers were at a premium in the hectic expansion of 1942. [43] A serious epedemic of yellow jaundice in July filled hospitals, and convalescents had to be tried out before they were capable of returning to duty. [44]

A crisis, indicative of the state of tension in the spring of 1942, was caused when a Japanese task force prowled in the Pacific. Since it was believed to be capable of attacking the West Coast of the United States, that Coast was placed under a "yellow alert."

Acting under orders of the Western Defense Command, General Patton's staff prepared for any eventuality,, checking strategic areas in Southern California. [45] On 31 May all units in the Desert Training Center were placed on a continuous alert, and all caliber..50 guns were mounted and manned during the night, and those not

necessary for drill were mounted and manned during the day. Those used in drill were kept ready for action. Ammunition was on hand, and a plan of deployment was formulated. Combat units were to proceed with General Patton's organization to wherever they might be needed. Military police, a colored truck outfit, and miscellaneous service troops were to be left at Camp Young. In the absence of General Patton, Col. Donald B. Sanger was to command these troops and the area. Defense of Camp Young was based on the personnel available and the necessity of holding the aqueduct, only source of water. No dry run was held; the precautions were taken secretly and did not alarm the countryside. After the Battle of Midway, 7 June 1942, the scare was over.[46]

Preparation for the Maneuvers -- Exit

Early in the career of the Desert Training Center, General Patton was empowered, as director of maneuvers, to form such provisional forces as he deemed desirable from the units in the desert and from the VII Army Corps.[47] Two staff officers from the VII Army Corps came to the Desert Training Center, and preliminary coordination was begun.[48] The geographical disposition of incoming units had to be planned. The 3d Armored Division, for example, was to have the area at Iron Mountain, near the recently-opened railhead at Freda, Calif.; the 5th Armored Division would camp in the vicinity of Needles.[49]

General Patton planned maneuvers involving quick movement. He directed the VII Corps to base its supply and gasoline estimates on 50 miles a day, 7 days a week, for the duration of the maneuvers.[50] But difficulties intervened. All of the Divisions, and many other units, scheduled to be in the maneuvers had not yet come to the Desert Training Center and were not yet under General Patton's command. Logistics had to be planned with great meticulousness because of lack of supplies and facilities -- problems that will be treated in the next chapter. Such difficulties led to the postponement of the maneuver period from 13 July - 6 September to 24 August - 18 October.

Headquarters, Desert Training Center, continued to make the necessary preparations. Engineers were sent out to inspect water facilities and camp sites. The difficulties continued. Units, learning of the postponement, delayed submitting estimates for the maneuvers,[51] and the supply picture did not improve. General Patton even sought to make over his command into an armored division in the hope of securing supplies, but this expedient was not carried out.[52] Though General Patton prepared for the first DTC maneuvers, he was not to command them. He was called to Washington. The troops which he had recommended be formed into the nucleus for a new armored division went from the Desert Training Center. He and his troops were needed to attend to business more urgent than maneuvers -- business with the Axis in North Africa.

CHAPTER III

TRIALS AND TRIBULATIONS

Cause

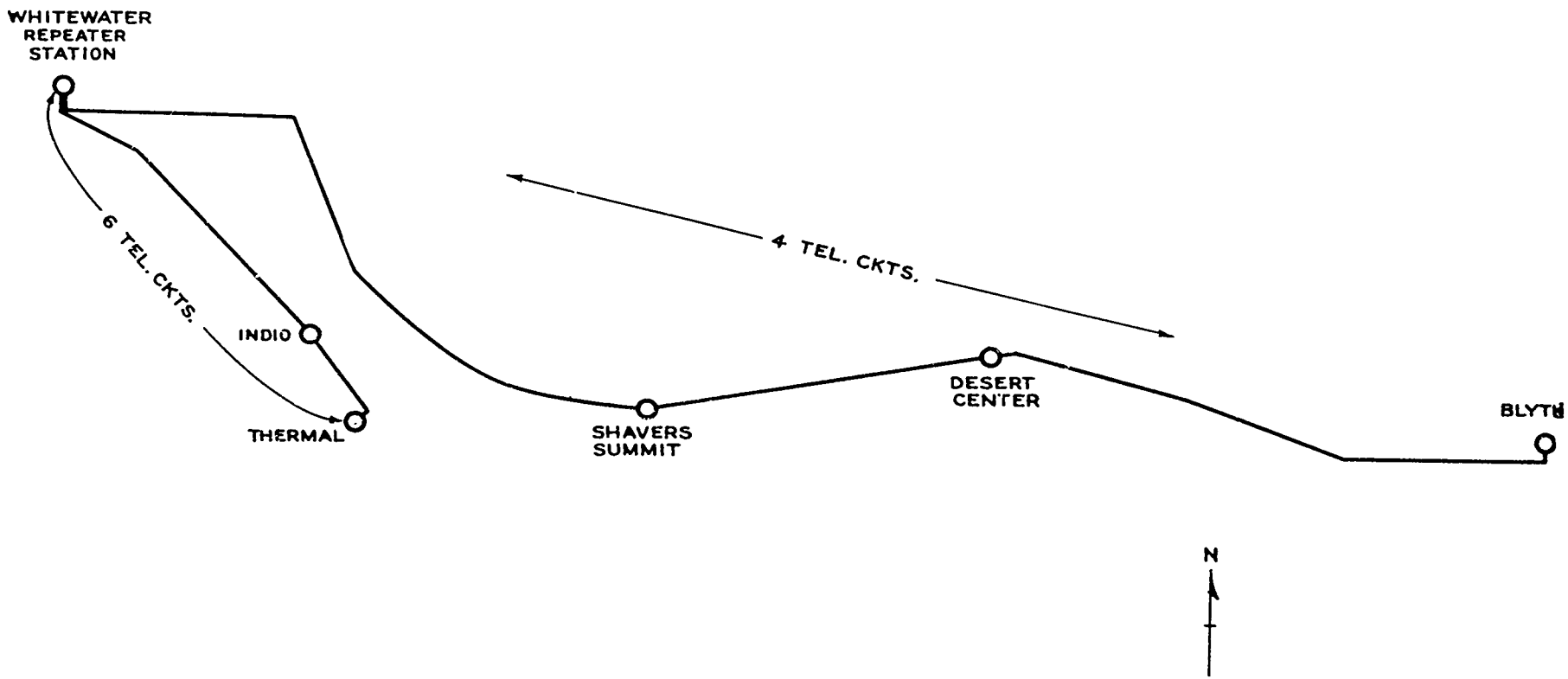
The main trials and tribulations which beset the Center throughout its existence derived from three factors.

To begin with, the Center was an innovation, on several counts. It was the first large installation in the area. It was our first experiment in desert warfare training and, later, the first experiment with a simulated theater of operations. Not intended simply for maneuvers, it was an area for pre- and post-maneuver training, an area for the testing of materiel, tactics and techniques, and it promised from its inception to be more than a temporary expedient. Before the I Armored Corps left the Center and was succeeded by the II Armored Corps, Headquarters, Army Ground Forces, was planning construction for three divisional camps.[1] The prospective continuity of the Center stirred up procedural problems, such as those pertaining to administration and channels of supply, which would not have beset an organization temporarily occupying an area for maneuvers.

Second, the Center was a war baby. Instead of precisely planning the Center, the Army had to act swiftly, modifying what had been done after experience indicated the desirability of change: War brought shortages in various items of supply, a factor which diminished in importance as the country increased its rate of production and learned to substitute materials for those unobtainable, or for which the demand exceeded our means of production. Shortages occurred in certain types of service personnel and units, a factor which grew more and more critical as service units proceeded overseas.

Third, the area itself was a thorn to the spirit with its isolation, abrasive dust, and extreme shifts in temperature. Men had to become acclimated. The 5th Armored Division was warned to come ten days before the maneuvers, the 3d Armored Division having suffered some heat prostration.[2] Occasionally commanders did not properly inform themselves. In July and August of 1942 some troops arrived wearing woolen uniforms. At Camp Young some units set up containers with icewater and, as a result, men were attacked by cramps. One commander believed his men could not work in the heat, so his men enjoyed a siesta after lunch until three. This unit suffered a higher percentage of heat prostrations than a neighboring unit which worked all day.[3] The surgeon under General Patton warned the command that danger lurked in reaching for an object on the ground unless one was assured that a rattlesnake was not coiled in the immediate vicinity. He advised men to drink liquids frequently and slowly, in small amounts, and to avoid over-exposure in the sun. Salt, lost in perspiration, was to be replenished by the taking of 3 ten-grain salt tablets daily. He cautioned men, when driving over plants in open cars, to be careful lest flying spines injure their eyes.[4] With experience, a pattern for gradually increasing the work-load was devised for men coming into the region. It was learned how much water a man required while performing various duties in the desert.

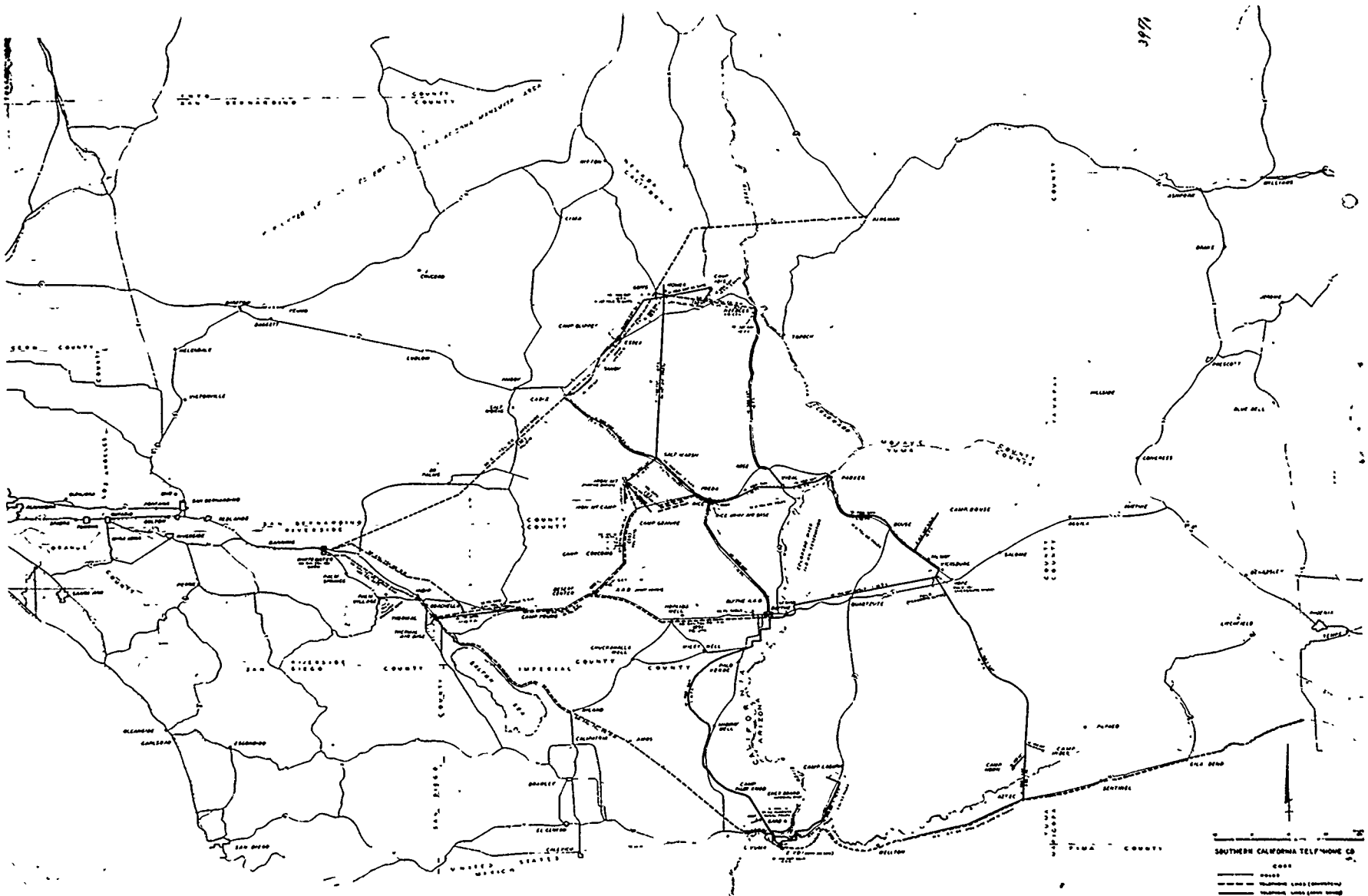
Some problems could not be solved by assembling data based on experience. Thus, because of the demands thrust on them by war, railroads and telephone facilities in the area were critically inadequate. The only possible solution lay in increasing the facilities.



SOUTHERN CALIFORNIA TELEPHONE CO.

TELEPHONE LINES (COMMERCIAL)

MARCH 1942



JANUARY 1944

Main Trials and Tribulations

Communications and Transportation

Signal* In early 1942 almost no wire facilities were available in Southern California for so large an enterprise as the Desert Training Center. Telephone equipment being at a high priority, the Southern California Telephone Company had to use what equipment it could get in order to provide telephone connections with Camp Young. When maneuvers were about to start in late August, traffic increased until the equipment could not carry it. Important calls were lost and delayed, and the situation became serious. A division staff officer complained that the telephone service "is terrible -- we just can't get through to the outside world at all."[5]

Before the start of the maneuvers, as an emergency measure, the Southern California Telephone company sent a mobile switchboard to Camp Young. Army personnel were taught to operate it by two women traffic supervisors, the first women to enter the camp. General Gillem, who succeeded General Patton as Commanding General of the Center, placed his personal quarters at their disposal.[6] In late October the Whitewater toll office was completed and it initiated a technique for the transmission of telephone messages.**

To gain an understanding of the tremendous increase in wire facilities in the area - from almost nothing to a fairly complete coverage -- compare the two telephone maps on the opposite page showing what was available at the opening of the Center and what was eventually provided.

Railroad* The Southern Pacific Company, which carried the main burden of men, equipment, and supplies to the Center, proved to be inadequately equipped in both manpower and facilities to handle the tremendous shipments arriving at Indio.[7] On 9 October 1942 the columnist in the Weekly Indio News was mourning, "Poor old Southern Pacific. How they must wish, now, that they had followed the urgings of The Indio News and its readers and given themselves and this area a present of an adequate depot."[8]

The situation at Indio became deplorable. Trains were late.[9] Little was done to improve service beyond enlarging the local freight platform at Indio and putting in a few spurs.[10] The Army furnished men to unload military freight. At first three or four helped; the number increased to twenty; then the Army came to handle all Army movements, figuring the cubic feet that equipment would require and making our car orders.[11] In January 1943 a roundhouse built to care for nine or ten engines handled thirty or more. Indio became a bottleneck.[12] When, in early 1943, the Daily Ration Train was put into operation from Colton to the Center, it added to the problem of routing. Army hospital trains had the right of way and naturally held up traffic, there being a single track from Colton to Yuma.[13]

Ironically enough, the Southern Pacific evidently concluded that the Desert Training Center was in to stay just a few months before the War Department decided that the Center would close shop. Before 7 December 1941, the total of tracks in the train yard at Indio was 36,890 feet. In October 1943, the Southern Pacific more than doubled its trackage, placing an additional 41,288 feet in operation. It

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* Details of difficulties in establishing telephone system for DTC in Appendix "C."

** More detail on the Whitewater toll office is contained in Appendix "D."

*** Further details in Appendix "E." For railroad network, see Map No. 5.

added other facilities and enlarged its yard force. At approximately the same time it increased facilities at Yuma where bottleneck conditions also had arisen. It increased its trackage at Yuma by 360 percent. To provide space it cut away part of the hill and a wall of the old Territorial Prison, one of the landmarks of the West.[14]

Vehicles. The need for vehicles in the Center was great since Indio, the railhead for Camp Young, was over 25 miles away. More than a 50-mile round-trip was required to truck in supplies. Mileages into the Center from Camp Young were extensive, and the only means of transportation -- and often of communication -- to various points was by vehicle.

From the very beginning there was a vehicle shortage. Signal men building a lead from Camp Young to the Thermal office of the home-owned Coachella Valley Home Telephone Company, so as to provide the first telephone connections, were grievously handicapped by a shortage of twelve construction trucks.[15] Moreover, the Third Army was unable to secure adequate rail transportation in time to dispatch two truck companies to Indio, and these did not arrive until later than had been planned, and by then the need had become cumulatively worse. The situation looked dark when the Armored Force ordered the I Armored Corps to turn over six $1\frac{1}{2}$-ton cargo trucks to Camp Polk because the Armored Force, about to lose everything over the table of basic allowances, wanted to place the six trucks where there were shortages. When it was explained that the Desert Training Center was substituting those six trucks for a shortage of twenty-seven $1\frac{1}{2}$-ton vehicles, the Armored Force consented to kill the transfer of the trucks.[16] General Patton requested fifty 750-gallon trucks, but only fourteen were available, and only ten could be sent to the Center.[17]

Maintenance of Men and Material

Lack of Supplies. Water and rations were arranged for satisfactorily. Water was easily procurable at the base camp, the aqueduct being immediately above it. Before any move was made, the provision of water was arranged for. Rations were transported without too great difficulty from Camp Haan and stored in a small orange packing house at Coachella. It was a modified "B" ration, with fresh milk and frozen beef added to the products of the cans.[18]

Critical shortages occurred in equipment. It was, for example, virtually impossible to get self-propelled mounts or any full-track vehicles or half-track vehicles for the 62d Field Artillery. General Patton could not secure antiaircraft equipment because all such equipment was being sent out of the country.[19] The 807th, 815th, and 816th Tank Destroyer Battalions, counted on for the maneuvers, had no equipment.[20] General Patton asked that certain supplies be made available before 15 August, but such were the overall requirements at the time that only a fraction were met by the Services of Supply.[21] The situation moved General Patton to exclaim, "We haven't got a piece of new equipment."[22]

The lack of spare parts was especially critical. The railroad situation and the slowness of the system of supply in the Desert Training Center did not help matters. As needed items failed to arrive, repeat requisitions were submitted. As the need grew more acute, units did what they could to get parts, making runs directly to Camp Haan and Pomona. With time, the parts arrived, not only on the original requisitions but also on the repeat requisitions. Organizations instructed to turn in their excess spare parts failed to comply for fear of being caught short. One unit had almost double the number of spare parts, machine guns, and other paraphernalia to which it was entitled. Meanwhile other units lacked parts.[23]

During the maneuvers under the II Armored Corps the supply situation remained critical. The 5th Armored Division, activated one year before, had only approximately 60 percent of its equipment.[24] The mechanized regiment of the VII Corps Cavalry had only six 37-mm antitank guns, instead of about 96 which should have been assigned. Engineer supplies were inadequate.[25] One shortage sometimes adversely affected another. Thus, communication was limited in the 5th Armored Division because of inadequate numbers of radio sets. When 175 were received, the Division was slow to install them because the shortage of vehicles made this impossible, except during periods between exercises.[26] The good record of few deadlined vehicles during the maneuvers could not go to the credit of the supply system but to this unauthorized hoarding of spare parts by the units themselves.[27]

Service Units. A crack appeared in the early Desert Training Center that was ultimately to bring down the entire structure: certain types of service units and personnel could not be obtained. Colonel Pierce was asked whether the 60th Signal Company of the IX Corps was wanted at the Center. It was much under strength -- the construction unit, for example, having only 55 men poorly equipped instead of 150 men properly equipped. Colonel Pierce replied in the affirmative: "We are using engineers who have had no signal training to put in control lines," and this despite the fact that the Center was short on engineer units.[28]

During the maneuvers, shortages existed not only in signal and engineer personnel, but also in ordnance. The latter shortage adversely affected ordnance supply and maintenance. Moreover, during the maneuvers ordnance troops were to have supplied the types of actual ammunition to be used. Because of the extremely small number of ammunition personnel assigned, the play of ammunition was included only to a limited extent.[29] The Quartermaster Section of Headquarters, Army Ground Forces, having observed the serious shortage of service units, recommended that certain units be assigned to the Center and that as other service units became available, additional units of all types be assigned to alleviate the shortage.[30]

Improvisations were resorted to. Lt. Gen. Joseph T. McNarney, the Deputy Chief of Staff of the U.S. Army, observed that General Gillem had been forced to improvise a railhead company out of a refrigeration company and had used a laundry company without equipment to operate his observers' camp.[31] Railhead troops were also improvised from Quartermaster pack train and Quartermaster graves registration companies.[32] A provisional truck company was organized with personnel from Quartermaster laundry and bakery companies.[33]

Maintenance of Materiel. Sharp fluctuations in temperatures, abrasive dust, and sandstorms made maintenance trying. It is moreover not in the nature of man to enjoy toiling under the sun when the temperature in the shade is 125°. To make things more difficult, maintenance of vehicles was carried on in a manner simulating conditions in a combat theater. It was done outdoors or in the crudest of shelters.[34]

Vehicles had to traverse rough country. General Patton tested equipment under any conditions it might encounter during combat, no matter how severe. He wanted a road built as fast as the tanks went so that trucks could bring up supplies. The blades of bulldozers lost their cut when the vehicle went faster than 160 feet a minute. General Patton tried putting blades on the front of tanks. He made other experiments which were not easy on equipment. When it appeared desirable to learn the effect of unfavorable terrain on tires and vehicles, he arranged a test over a 5-mile course with a limited number of various types of vehicles, and at most favorable practicable speeds. The results being evaluated and the desired information obtained, he ruled terrain of that type off limits for any future operation.[35]

During the maneuvers under the II Armored Corps, many of the tactical units went cross-country. In one exercise all units were forbidden to use roads in the region.[36] Excellent training for personnel, all this was hard on equipment.

To the severity of climatic conditions and the hard usage given equipment must be added factors which have previously been considered, the shortage of spare parts and the lack of properly-trained ordnance personnel. Another factor was administrative. Col. James B. Edmunds, Chief of the Maintenance Division and later of the Supply and Transportation Division of the G-4 Section of Headquarters, Army Ground Forces, stated that under General Patton maintenance activities lacked coordination. General Patton seemed to hold tactics to be all-important, maintenance secondary.[37] He did issue a memorandum expressing his dissatisfaction with existing maintenance standards, and directives stressing command supervision of maintenance standards, and directives stressing command supervision of maintenance, organizing driver instruction and mechanics' schools and providing for the punishment of speeders. Nevertheless, Mr. Charles A. Early, who had been assigned to a provisional maintenance battalion during the period of the I Armored Corps, related that during that period units did not know where to go for maintenance, and the medium maintenance company sent out inspection teams to acquaint them with the provisional battalion.

When the I Armored Corps departed from the desert, they left about 230 tanks and armored vehicles and about 270 general-purpose vehicles disabled. General Gillem, after a period when vehicles had received hard usage in maneuvers, left about 1,200 disabled vehicles.[38]

Administration. At installations such as an infantry replacement training center, the conventional set-up had been to have two commanders, one responsible for the physical post, the other for the training of the men, each under the higher direction respectively of the Commanding General of Services of Supply and the Commanding General of the Army Ground Forces.

At first, General Patton evidently intended to be conventional. Before opening the Desert Training Center he informed Colonel Sanger that he wanted personnel sent in to operate post signal activities: his tactical personnel was not to be burdened with that responsibility.[39] Personnel was sent from the Ninth Corps Area to establish a post administration, and Corps Area Service Command Unit 1925 was activated 16 May 1942.[40]

The tendency toward Zone-of-Interior military administration halted abruptly, the personnel from the Ninth Corps Area being absorbed into the Desert Training Center staff and sections.[41] When Major Cecil E. Kemper arrived in June of 1942, General Patton operated both Camp Young and the Center. General Patton stated to Major Kemper that he had built the camp and could get along without the services of a situation complement.[42] General Patton considered the camp as a field base, and treated matters like supply as a phase of organizational training under combat conditions. During the entire regime of the I Armored Corps, the housekeeping arrangements at Camp Young and the Center were directed by Headquarters, Desert Training Center.

In its relation to higher echelons, the Center was subordinate to Headquarters, Army Ground Forces, which was orthodox in its insistence on the unencumbered and direct chain of command. Units at the Center were released from the Armored Force and other parent organizations, and assigned to the Center under the Army Ground Forces.[44] An early decision placed all air operations in the Center not under the Army Air Forces but under the Commanding General of the Desert Training Center, and therefore under the Commanding General of the Army Ground Forces.[45]

The relationship with the Ninth Corps Area, and through it with Headquarters, Services of Supply, deviated from this pattern. Units sent from Ninth Corps Area for the operation and maintenance of the fixed camp installations were not permanently assigned to the Center. The War Department had stated that these units might be withdrawn from time to time and replaced by other units of the same type at the discretion of local commanders.[46] That the War Department had expected Camp Young to be run in the usual camp, post, or station manner may be surmised from its gift to the camp of a name, a gift not received favorably at the Center.[47]

The Armored Force was interested in the Desert Training Center. When Capt. Carl T. Isham, 1st Lt. Edward T. Clark, Jr., and 2d Lt. Lester R. Kleinberg were transferred from the Armored Board to the Center as a permanent change of station, the Armored Board was unpleasantly surprised. It had expected these officers to remain assigned to the Board with the duty of supervising Board tests under field conditions. The Armored Force Board desired direct relations with the Desert Warfare Board.[48]

The Army Ground Forces desired coordination between the two Boards, but it insisted on coordination being obtained through its headquarters. The Desert Warfare Board was an organization distinct and independent of Armored Force Headquarters.[49]

This system of administration, which deviated from the usual dichotomous structure, left the Ninth Corps Area personnel in the Center in an anomalous position. They were not only under the Commanding General of the Desert Training Center but also under the Commanding General of the Ninth Corps Area who had power in reassigning them. There was a flaw in the system. A second flaw became apparent when, after the hasty withdrawal of the I Armored Corps, the II Armored Corps took command of the Center. The ensuing confusion will be considered in the chapter on the II Armored Corps.

Maintenance of Morale. Men underwent hardship while living and training in the desert. They needed relaxation when off duty. But Indio, the closest town, was over 25 miles from camp, and at first no bus ran between the two points. Later a bus line was formed but the busses could not accommodate the peak loads. Moreover, tiny Indio was not equipped to entertain thousands of recreation seekers. Like the other desert communities, it may have needed some morale building itself after the onslaught of so many soldiers.

What did the Army do for the troops? It occasionally ran caravans to towns other than Indio, taking some of the troops as far as Los Angeles. It provided amusement at camp. A night baseball league was organized; by 22 May 1942 fifteen ball teams were enrolled at Camp Young.[50] Eventually the Center had Post Exchanges and rather stark dayrooms. Entertainment was given at camp. The first show was tremendous -- singers, comedians, actors, concert musicians. Leopold Stokowski conducted 100 musicians in the Shostakovich Leningrad Symphony, the work being introduced in a short talk by Edward G. Robinson. Mme. Litvinoff, grey-haired wife of the Russian Ambassador, spoke. Among other entertainers, Jane Winterly sang and Victor Borge brought laughter with his "phonetic punctuation." [51]

Impact on Desert Communities[52]

Squatting on the desert floor where the highway, descending from the mountains, forks out south and east, is Indio. In early 1942 the town boasted of little more than 1,500 people, conservative in politics, who depended for their livelihood on tourists and on the small irrigated farms in the neighborhood. Theirs was not an

expanding economy. They got along, and wondered whether the war would reduce tourist travel enough to pinch appreciably. The tallest building was a hotel, about the size of a third-or fourth-rate hotel in a large city. Homes were generally small and simple; they were owned, not rented, and there was neither a housing shortage nor a superfluity. An Indian knew nineteen out of twenty persons he saw on the street. "Downtown" consisted of little more than both sides of one block -- a single theater, a few restaurants, a newspaper that appeared weekly, a tiny so-called department store and the like. Young people complained that nothing ever happened in Indio.

Something happened. Almost overnight nine thousand soldiers rushed to Indio looking for recreation. They stormed the restaurants, the bars, the theater, the railroad station. On some Saturday nights no space remained on the downtown sidewalk and people had to walk along the curb. The Mayor of Indio who also manages the "Tall" hotel once counted seven hundred on one side of one block, not including those crowded into restaurants and the theater.

It is necessary to understand the situation that arose in order to estimate the impact of war. A town of the size of Indio or of the other desert communities simply could not manage the swarm of troops and of camp-following wives. Indioans had to change their habits. They could not expect to gain admission into the theater the queue was usually too long. They could not expect to eat in a restaurant at night. At times soldiers stood eight deep, demanding service. As one man put it, "In the drugstores you start up to the counter wanting a coke and by the time you get there you are so starved you want a seven-course dinner." Civilians could not expect to get on the train or bus. If was usual enough for 150 soldiers on furlough to be informed that a train which had pulled into the station had space for only one soldier out of six. The telephone system broke down, and all of the telephone personnel were on edge. Sometimes tension caused girls at the switchboard to cry. People would get in their cars and drive miles rather than wait for a connection. The increased demand sometimes deprived civilians of certain foods. While mess officers bought meat and vegetables in Indio, the Indioans had to subsist on that much less. In Yuma for a period of two months after that corner of the Center was opened, no eggs could be obtained and beef was scarce. Moreover, the Army would sometimes buy out the supply of a necessary article. In Indio it bought out padlocks. It took up all warehouse space, a critical problem at certain times, as during the date season.

Indio could not accommodate all servicemen, and some servicemen went to other communities. For example, five hundred went one week end into the mountains to Banning, 43 miles from Indio, which had a population of less than four thousand. This was at the beginning of the Center's operation, and no facilities had been prepared for the men. Even later, as during one hot week end in August, 1942, when the Army brought up fifteen hundred men from the Center, facilities were not adequate. Some soldiers sat up all night on curbs, they occupied porch swings and sun chairs, lay on lawns, on window seats, under tables, wherever space existed for a human body.

Yuma has an unfortunate introduction to its role as entertainer of troops. A town of slightly over five thousand, situated by the Colorado River in the southeastern corner of the Center, it was undisturbed until the latter part of 1942 when one Saturday night three thousand soldiers of the 6th Division came to town. From trucks in a continuous train on Main Street, soldiers jumped out, and the soldiers on the sidewalk formed a mass of slowly-moving humanity. They cleaned out the restaurants. The newsstand where a passerby could help himself to magazines, paying at the cigar counter, was defoliated; some of the boys paid, some did not. There was no -- or almost no -- military police to control the men. That was a wild night when the 6th Division came to Yuma.

The soldiers were followed by their womenfolk, and the most common query concerned housing. In at least one of the hotels in Indio, servicemen's wives were permitted to stay no more than three nights. Women lived in trailers, one-room cabins, shacks, garages, tents. Two or three families shared a home. In some cases a bed served three occupants in eight-hour shifts. Suffering was inevitable. Wives came and found no place to stay, but more pitiful was the plight of mothers and their children who spent nights on park benches or in the railway station. The baggage agent at Indio many a time made up a bed of barrack bags for a child.

How did the natives react to this invasion? By and large, their first reaction was shock. They were stunned by this avalanche of eating, house-hunting, theater-going strangers.

The reaction thereafter was diverse. Let us follow what happened in Indio. There the attitude often approached resentment. Half a year after the Center began, some Indio residents were reported to have requested Army authorities to keep servicemen out of the city. The municipal government of Indio felt called upon to send a letter to the Headquarters of the Center expressing appreciation for the increased business which had resulted from the establishment of Camp Young.

The majority of the people were friendly. In the beginning they acted as individuals or as members of a church or club. Thus, one woman who saw how aimlessly the men wandered about set up a makeshift ping-pong table in her yard under an electric light, and the boys constantly played there. Churchgoers began giving a church official information on how many boys they could entertain at their homes. The Community Methodist Church opened its social hall and appealed for furnishings, radios, games, late numbers of magazines. Picnics were arranged, private swimming pools were opened to servicemen at specified times. The Veterans of Foreign Wars opened its doors to servicemen, the Elks Club did likewise, churches offered hospitality and coffee. The Lions Club invited soldiers to share coffee and doughnuts on meeting nights. The Exchange Club and Chamber of Commerce tried to find homes for families of soldiers. The Auxiliary of the Veterans of Foreign Wars supplied articles needed by servicemen's children.

Consolidation followed. The Home Hospitality Committee was organized to handle contact between the Army and families desiring to entertain soldiers for dinner. Three weeks later the Coachella Valley Recreation Council was formed to serve as a clearing house for all recreational activities, arranged locally for the troops. A week later the Coachella Valley U. S. O. took over, establishing itself in the clubhouse of the Women's Club and adding a number of showers, a darkroom for photographic enthusiasts, and so on.

"The desert is very short on girls," Mrs. Margaret Deneed, director of the Coachella Valley U. S. O., put the brutal truth. When U. S. O. had its first big Saturday night party, only twenty girls presented themselves to dance with more than two hundred servicemen. Indioans set to work to provide the rare article. A "Girls' Service Organization" was formed in the Coachella Valley itself. Another group, "The Sun and Sand Caravan," hailed from the Alhambra district. A "Desert Battalion" was formed in Beverly Hills and Hollywood in which Mrs. Edward G. Robinson was active; these girls paid their way to the Coachella Valley, after the dances they slept on cots and returned by chartered bus on Sunday.

More girls came to parties and dances. But the Center was growing, and more troops thronged to Indio for entertainment. The open house at the U. S. O. on 27 June attracted over eighty young women and over seven hundred servicemen. Age limits for girls to act as junior hostesses at the U. S. O. were dropped until 14-year old girls were admitted if accompanied by their mothers.

Finally three U. S. O. clubhouses ran full-blast in the Coachella Valley -- the one at Indio already mentioned, an inadequate U. S. O. clubhouse at Indio for colored servicemen, and a U. S. O. which took over the vacant Trading Post at Coachella.

Commercial entertainment expanded. Bars, pool halls, a hot dog stand, date shops sprang into active life. A garage was transformed into a cafe and bar. A penny arcade and outdoor skating rink were opened. Unfortunately it rained immediately after the opening of the rink, and the boards warped.

Authorities discouraged women of questionable morals by sentencing them to jail or suspending sentence on condition that they left town. During the period of the I Armored Corps these women took advantage of an unusual situation. Some wives had taken trailers out into the desert in order to live closer to their husbands. Other women did the same in order to do business. Military Police and civilian law enforcement agencies cooperated, coming down from north and east and combing both wives and other women out of the desert.

Strangely enough, the wives of servicemen saved the day for the desert towns. If it had not been for them, stores, restaurants and offices would not have been able to keep going. The invading women became the waitresses, salesgirls, typists and so on who handled the tremendous business boom that the Center brought with it. This resource had one defect: when the husbands were in town, the wives did not report to work; when the husbands left the area, the wives often left.

The Desert Training Center did bring a tremendous boom. Merchants rid themselves of all their dead stock and could not get enough stock to put on their shelves. Stores had difficulty in closing; after blinds were drawn, soldiers rapped on the window desiring to buy. It was "like putting out a fire to wait on people." One restaurant owner and his wife found themselves working so hard that, though they were making a lot of money, they sold out. Revenue leaped all the way to 100 percent. Typical was the case of the Valley Cafe in Yuma which, during the period of the Center, increased its restaurant business 60 percent, the business over its bar 800 percent.

Some businessmen gouged the soldiers. One civilian stated that some businessmen had one price for townspeople and one for servicemen. An Army officer stated that food prices in Indio and Yuma doubled. The skating rink at Yuma set up a partition behind which cot was set almost against cot, and servicemen paid a dollar for the privilege of sleeping there overnight; on week-ends the cots were always fully occupied.

Indio was more hospitable than Yuma. This was undoubtedly due in part to the shock Yuma sustained when the 6th Division first came to town. Some who knew both communities say that an essential difference exists in their temperaments. It has been pointed out that Indio is a town of small conservative

businessmen gaining a livelihood from small farmers and tourists. Yuma is a border town. To it come men like the lettuce barons, and Yuman jewelers do more business than butchers. Men make big money and throw it away on a gamble or in luxuries. The Yumans, according to this theory, did not react to the soldiers as soldiers but as they would have reacted to any newcomers.

Some of the friendliness of Indioans may have been the result of the tact of the first Commanding General of the Center. He and Mrs. Patton visited people in their homes. He made speeches for clubs; he delivered the principal address on Memorial Day. An incident illustrates his relationship with the town. When the Indio Women's Club protested that servicemen were whistling at women, General Patton asked permission to address the Club. He mentioned the fact that the women had brothers and sons in the Army, and they differed not at all from the servicemen in Indio. The men suffered many restrictions, and if the women wanted him to, he would add a restriction against whistling. "But," he said, "if I were you women I wouldn't worry if they whistled at me. If I went into the street and they didn't whistle at me, then I'd worry." The incident was dropped.

No serious trouble was created by servicemen on pass except for one incident. Negro troops rioted in an Indio cafe and injured a police officer; some of the Negroes went to Camp Young secured arms and ammunition, and while returning to Indio for revenge, were luckily stopped by the Military Police. At least three factors contributed to the Negro problem. The first was having white Military Police handle Negro troops. When colored Military Police were substituted, the Negro troops behaved much better. A second cause was the setting aside of a restaurant for them. The colored servicemen resented this; they wanted to feel free to go wherever they desired. A third cause was the inadequate Negro U. S. O. whose development and improvement was delayed until practically the close of the Center.

Aside from this incident, soldier violations of the peace were minor, arrests being mainly for drunkenness. But because of the congestion created by the throngs of servicemen on pass, law enforcement agencies were ready for trouble. In Indio, for example, the Indio police force cooperated closely with the sheriff's office and the California Highway Patrol, their radios being on the same frequency. When the Military Police needed assistance, they called the sheriff's office which called the police. The police never made an arrest but that the Military Police backed them up.

What happened to desert communities points out a lesson: if the Army should again open a large installation near small communities, plans and arrangements should be made beforehand to relieve pressure on those communities.

CHAPTER IV

GENERAL GILLEM AND THE II ARMORED CORPS

For half a week after General Patton relinquished command of the Desert Training Center, Maj. Gen. Walton H. Walker assumed command. When General Gillem and, at first only nominally, the II Armored Corps took over the Center from him on 2 August 1942,[1] they inherited a confused situation. The II Armored Corps itself was engaged in the Carolina maneuvers until 15 August, and many of General Gillem's staff officers were with the Corps.[2] General Patton and the I Armored Corps had not expected to leave and they had not had time to put the Center affairs in order. They carried with them many of the desert records. Almost a month after General Gillem took over, an officer from G-4, AGF, reported that the II Armored Corps was attempting to obtain such elementals as a correct station list, vehicle list, weekly disability report.[3]

General Gillem did not know but that his appointment might be a stop-gap. Two days after he assumed command, his Chief of Staff, Col. John L. Pierce, asked Col. Riley Ennis of Headquarters, Army Ground Forces, whether General Gillem would be at the Center for some time. When Colonel Ennis assured him he would, Colonel Pierce answered, "That's fine. You see, we didn't know just what to plan on -- just what the set-up was, but now I'll advise him [General Gillem] that he can go ahead and consider this his."[4]

The problem of shortages in supplies and in service personnel, considered in the previous chapter, remained acute. Personnel shortages existed among combat units also. For example, the 46th Armored Infantry of the 5th Armored Division had about 40% of its authorized officer strength.[5] The VII Corps Cavalry Reconnaissance was short 50% of its authorized strength.[6]

Having taken over the Center primarily in order to conduct the imminent maneuvers, General Gillem faced a situation which must have been nerve-racking. With the troops scheduled to move into the field on 22 August, the maneuvers to start two days later, General Gillem found officers and units being plucked from him to make up the Task Force for General Patton.[7] On one occasion Colonel Pierce protested, "If we pull these outfits out of the maneuvers, it will leave us only one motorized division and one armored division," and Headquarters, Army Ground Forces, replied that it was trying to find outfits to replace those taken.[8]

Individuals in Washington telephoned directly to units and issued instructions. Sometimes Headquarters, Desert Training Center, did not know whether orders were official or personal, well-founded prediction or rumor.[9] Thus, on 10 August, Colonel Gay informed Colonel Pierce by telephone, "Here's a tip. It may be that the 3d Armored Division will not be available for the maneuvers. I am sure that it is true, but there is no order on it yet."[10] What to do? Drop the 3d Armored Division from plans for the maneuvers? Plans had to be made well in advance so that supplies could be at hand. It turned out that the 3d Armored Division stayed for the maneuvers, but the effect of such "tips" can readily be imagined.

The Center had to make almost daily changes in its troop list and equipment requirements. The attention of Operations and Planning Division was called to the anomaly of orders to the Center being issued both by Task Force "A" and G-3, AGF.[11] Operations and Planning Division requested that in the future violations of the policy by which Operations and Planning Division channeled such orders for ground troops through G-3, AGF, be brought to its attention so that appropriate remedial action might be taken.[12]

The personnel situation at the Center was complicated even more by officer candidates and cadres being plucked not only from units in training but from alerted units also. They had to be replaced by Headquarters, Desert Training Center. Colonel Pierce protested to Headquarters, Army Ground Forces, against an alerted organization's being called upon to furnish cadre and officer candidates. But Headquarters, Army Ground Forces, could not stop the practice; there simply were great shortages of officers and men.[13]

Some of the troops were not adequately trained. Lt. Col. W. N. Taylor AGF G-3-Training Branch, believed the 5th Armored Division to be unready to share in large-scale maneuvers; it needed at least two weeks and preferably four weeks for crew, section, platoon and company training. The division lacked this training because of the cadres it had furnished and because it had obtained most of its personnel directly from induction centers.[14]

Another source of confusion that confronted General Gillem concerned command. Some officers of the VII Corps, having heard that Maj. Gen. Robert C. Richardson, Jr., would come down with that Corps, assumed that because of his seniority he would direct the manuevers. That misconception was removed.

The Armored Force still coveted the Center. Col. E. K. Wright, G-3 of the Armored Force Headquarters, believed that the whole Center should be placed under the Armored Force. He explained that the project was too important and valuable to be harassed by the conflicting and repetitive orders of several headquarters.[16] The Armored Force asked to establish and run a Desert Navigation School at the Center. Major Truman of the Army Ground Forces asked the Chief of Staff of the Center who should run the school, and Colonel Pierce replied that anything coming into the Center should be under General Gillem.[17]

Taking command as it had, after the hasty withdrawal of the I Armored Corps, the II Armored Corps saw the need for administrative machinery that would function between commands. General Gillem proposed that the Corps Area Service Command unit which had been activated under General Patton should become operative, and Headquarters, Army Ground Forces, consented.[18] General Gillem ordered that Corps Area Service Command Unit 1925 be organized and this was done on 8 August 1942.[19] It was intended to function as a supply agency for troops stationed at Camp Young and to carry on the functions of administration and maintenance of post property. General Gillem obtained further Corps Area Service Command Quartermaster, Medical and some Military Police troops and officers and employed them where most needed, hoping in the end to have enough personnel to put a real service command organization into effect.[20]

A directive of the Ninth Service Command, 28 September 1942, extended the area of Camp Young to include the entire Center and placed Camp Young under the jurisdiction of the Commanding Officer, Camp Haan, California, for all matters pertaining to the Ninth Service Command.[21]

This attempt to provide a service command unit for the entire Center proved to be unsuccessful, the tradition having already been established that tactical units would provide supply and maintenance. Ordnance furnished an example. The Post Ordnance Office always remained under the Ordnance Officer of the Center and did not achieve a separate existence. The parts played by the Director of Supply at Camp Young and the Camp Ordnance Officer were chiefly those of clearing requisitions and double-checking matters of supply to alerted units. The actual handling of supplies and keeping of records were accomplished by tactical units. It took a minimum of about a thousand men to operate all of the existing functions, which included the maintenance of shops, depots and warehouses. With the limited personnel of some dozen-and-a-half enlisted

men and four officers it was impossible for the Post Ordnance complement to take over these functions from tactical units.

This system of power without name, and name without power, contributed to misunderstanding and to error. Items and sometimes whole carloads of merchandise were diverted to a railhead and were picked up by using units located in that vicinity, and no signatures were turned in to Post Ordnance for receipt of the items. Maj. Frederick Mason Price, Camp Ordnance Officer, said that practically every officer was confused about lines of demarkation between the Corps, the Center, and the Service Command Unit. T/Sgt. Harry L. Hartzell, who was with both the Service Command Unit and Headquarters Desert Training Center, during this period, summarized the situation in this wise: "There was just a Post Ordnance Officer and a Corps Ordnance Officer and they seemed mixed up or overlapping like a lot of the things around here were, and nobody knew just exactly what they could do, or what they couldn't do, and there was quite a bit of confusion around here."[22]

Administration had to be stabilized. As will be shown in Part III of this history, General Gillem and others submitted recommendations to Headquarters, Army Ground Forces, where the problem was being studied. The result was a complete overhaul of the organization of the Desert Training Center.

Maneuvers

Maneuvers held under the II Armored Corps from 31 August until 18 October 1942 consisted of eight exercises. (For narrative of these exercises, see the first section of Appendix "K.") The tactical pattern was set by the fact that all units were either armored or motorized. Though the difficulty of the terrain reduced the speed of cross-country movement to a fraction of the speeds attainable on hard-surfaced roads, the mobility of the units led to long thrusts and wide manuevers.[23]

Among the observers of the manuevers were not only officers from Headquarters, Army Ground Forces, including the Commanding General and his Chief of Staff, but also officers from Services of Supply, The Army Air Forces, and the War Department. The great majority of them praised the training area. It was noted that railroad tracks and the aqueduct were the only artificial restrictions. Men were in excellent physical condition.

The observers pointed out deficiencies. Some of them were beyond the scope of Headquarters, Desert Training Center, or Headquarters, Army Ground Forces, to correct, such as those occasioned by shortages in supplies, in personnel, and in air. Other deficiencies sprang from traits in American character which were hard to redirect. For example, men would not prepare for a possible simulated air attack as if their lives depended on it.

Other deficiencies indicated that the training program was not exploiting to the full the advantages of the area. For example, as regards tactical training, units below the size of a division needed more attention. Again, the shortness of time between the exercises in the maneuvers as well as the brevity of each exercise made it necessary for forces to be close together when hostilities began. This curtailed the use of reconnaissance. Having fewer and longer exercises and putting distance between Red and Blue at the beginning of hostilities would not only make reconnaissance essential but would also test the ability of units to carry on supply and maintenance.[24]

A third instance which needed correction was pointed out by Lt. General McNarney who suggested that in future desert manuevers it might be well to require, in at least one or two problems, that troops fight for their supply lines and water resources, instead of keeping them out of the tactical situation. General McNair replied that

General McNarney's suggestions would be covered in a new directive being prepared for the Center.[25] The entire system of supply had proved to be artificial; the supply base was located between the opposing forces at one railhead (Freda) and the line of supply came through their front lines.[26]

These conditions, plus the administrative difficulties previously considered, led to major changes in the Desert Training Center.

PART TWO. THE THEATER OF OPERATIONS

CHAPTER I

INTRODUCING THE THEATER OF OPERATIONS

During the period that has been surveyed, the declared mission of the Desert Training Center had been to teach officers and men to live and fight under desert conditions. Some officers had cited its potentialities for training combat units other than those intended for desert fighting. Thus, General Patton had proclaimed the Center as "probably the largest and best training ground in the United States." In the fall of 1942 Headquarters, Army Ground Forces, had a broader vision. It invited suggestions for advancing the Center into an area simulating as closely as possible an overseas theater of operations.[1]

Brig. Gen. Edward S. Ott of the Operations Division, AGF, went to the Center to study the possibilities. Although he regretted the geographical location of the Center, he believed that, as the necessary quantity of land could not be secured in the east, realism should take precedence over convenience and cost. He advocated securing a strip about 20 miles deep across the Colorado River just south of Needles to permit operations on a river line. The additional land should be extensive enough for uncontrolled maneuver by a division, or perhaps by two.

He further recommended that all basic, all small unit and some large unit training be completed prior to arrival in this simulated theater, and units should remain no longer than three months. A unit, whether combat or service, should perform the job for which it was intended in war. There should be no elaborate installations: "units to take and play it as they find it -- in the rough." Bases for units should be confined to the perimeter near rail lines; Camp Young should be retained as a base for miscellaneous units and as a fixed hospital area. The Theater Director, operating directly under the Army Ground Forces, was to run the show.[2]

General Gillem's plan, similar to General Ott's, proposed in addition that a line of demarcation be drawn organizationally so that tactical units sent to the Center would function as such, AGF service units at the Center would support tactical units, and the "SOS set-up," the communications zone, would execute all administrative functions. The normal assignments of service units functioning with tactical units would constitute their advanced training. General Gillem appended a list of required service units[3] which elicited General McNair's dry comment that the choice depended, of course, on what was available. General McNair also held that the communications zone, including the railheads, should be operated theater-wise by service units in training.[4]

Maj. Gen. Jacob L. Devers, Chief of the Armored Force, saw in the proposed theater an opportunity for a mobile training army to receive continuous combined training. He requested from Headquarters, Army Ground Forces, complete administrative command responsibility over this area since he anticipated that initially the bulk of the troops would be armored. His plan did not contemplate the establishment of a communications zone inside the Center. General Devers intended, if he became the commanding general of the combat zone, to establish a relationship with the Ninth Service Command analogous to the relationship between an army in an overseas theater of operations and the commanding general, zone of communications.[5] In other words, the area was to be supplied and serviced by installations and troops in the zone of interior. In practice such a theater of operations would probably have differed to no great extent from the organization that already existed in the Center and that had been found wanting.

The haziness over the future of the Center may be seen in the indorsement drafter at Headquarters, Army Ground Forces, for the plan submitted by General Devers; it was a disapproval based on the premise that units whose use in the desert theaters could not be foreseen were not to be trained at the Center. Brig. Gen. James C. Christiansen questioned the aptness of this indorsement and it was modified to inform General Devers that a number of his concepts would be incorporated in the AGF plan.[6]

A minority at Headquarters, Army Ground Forces, opposed the theater plan. G-3 opposed it because he deplored any expansion of the Center. He suggested that new camps be grouped in the Freda-Rice-Iron Mountain area as close together as practicable under one post commander and a single supply and service agency. A type "B" headquarters should be installed and corps headquarters should be rotated as the training agency.

While concurring in the need for one or more large training areas, the AGF Plans Section believed the Center should be assigned a minor role because rail transportation could not be secured to send the mass of troops there. He wanted to investigate securing another large area in southwest Texas which would be a thousand miles closer to the center of camps in the nation and would avoid the railroad bottleneck to the West Coast.[7]

The first positive statement concerning the new Desert Training Center appeared in late 1942. In March of that year the War Department had stated: "The purpose of this establishment is to provide a desert warfare area." Eight months later, on 1 November, the Army Ground Forces listed as the first of five purposes for the Center the training, maintenance and supply of troops realistically as in a theater of operations. Only two of the purposes stated by Headquarters, Army Ground Forces, were confined to a desert framework: developing tactics, technique and training methods suitable for desert warfare and conducting fire under desert conditions. The remaining two purposes were general: to harden troops physically; to test and develop equipment and supplies.

The Center was to be composed of Headquarters, Desert Training Center; one or more infantry corps or armored corps headquarters; corps troops; one or more infantry, motorized or armored divisions; an appropriate proportion of non-divisional tactical units; necessary service units; and the Desert Warfare Board.

The Commanding General of the Center was to continue to be designated by Headquarters, Army Ground Forces, an indirect reply to General Devers concerning command. His organic headquarters would be reinforced as necessary in order to operate Headquarters, Desert Training Center, in addition to the corps headquarters of which he would also be commander.

This blueprint differed fundamentally from the plan proposed by General Devers in the provision made by the Army Ground Forces for service units in training under the Commanding General of the Center to supply the Center. Railhead or truckhead distribution would be used with normal supply distances.

This AGF blueprint still did not realize the theater concept to its ultimate. The Ninth Service Command retained a hand. The camp commander, under the Service Command, was to care for the permanent establishment and facilities as distinguished from those which would accompany the troops.[9]

Headquarters, Services of Supply, showed enthusiasm over finding a place in which to train service personnel. Two officers of the Planning Branch of Services of Supply visited G-4, AGF, and let him know they were eager to get started at the Center. The Army Ground Forces and Services of Supply agreed that the theater would operate under the Commanding General of the Army Ground Forces.[10]

General McNair informed the War Department that the Army Ground Forces and Services of Supply had informally agreed in a desire to have the Center operated as a theater of operations for training purposes. He recommended the issue of a pertinent directive, effective 1 December 1942, permitting the Center to be operated under the name of the Desert Theater of Operations. It was to continue under the Commanding General, Army Ground Forces, who would designate the Commanding General of the Center and who would request the Commanding General of Services of Supply to designate the commander to be in charge of the communications zone. The latter would provide troop units to support activities in the Center. The size of the staff and installation of the communications zone were to be held to the minimum, and final approval of such items would rest with the Commanding General, Army Ground Forces, subject to the announced policies of the War Department.[11]

On 25 November 1942 the War Department issued the first of three communications which provided for the skeletal structure of the Center as a theater of operations, the essentials of the three deriving from recommendations of the Army Ground Forces. In the War Department memorandum the recommendations of the Army Ground Forces, mentioned in the preceding paragraph, were directed to be carried out. This ended any question about command or division of authority: The Army Ground Forces was in command. The War Department added two reservations: regulations and directives pertaining to property accountability in a theater of operations were held inapplicable to this training center. Because "Theater of Operations" and "Theater Commander" were extensively used to identify actual theaters in various official communications, the probability of confusion precluded any official designation of this training center containing the words "theater" or "operations"; such terminology was authorized for employment within the DTC command only.[12]

Early in December, with the informal concurrence of Headquarters, Army Ground Forces, Col. J. B. Sweet was designated commander of the communications zone.[13] He and Maj. Gen. Walton H. Walker, then Commanding General of the Center, and representatives of Headquarters, Army Ground Forces, Services of Supply, and the Army Air Forces attended a conference at Headquarters, Army Ground Forces. General Walker wished to fix command responsibilities, and the War Department was requested to place all units in the combat zone, including AAF units, under the command of the Commanding General of the Center. Since the area of the proposed communications zone included zone of interior installations and units, Headquarters, Army Ground Forces, stated that only those specifically designated by it as belonging to the communications zone would be under the Commanding General of the Center. In the interest of combined training the Army Air Forces agreed to maintain an air support command or an air support subcommand in the Center.[14]

The War Department thereupon issued the second of three determinative communications. This memorandum confined itself to the air arm in the Center, AGF control of ground and service units having been posited in the War Department memorandum of 25 November.[15] The Air Support Command -- including combat and service units -- and the facilities, installations and airdromes assigned for its use, which included Desert Center Airfield, Rice Army Airfield and Shavers Summit Airfield, were to be under the Commanding General of the Desert Training Center. The Commanding General of the Army Air Forces with the concurrence of the Commanding General of the Army Ground Forces might assign additional training missions to AAF units to the extent permitted by the primary mission of air support of DTC operations. Matters that could not be settled by mutual agreement between the major commands concerned would be referred to the War Department.[16]

The third determinative War Department communication was its letter of 14 January 1943. It enlarged the Center to include SOS installations existing, or under construction, at or near Needles, Camp Young, Indio, Pomona, San Bernardino, all in

California, and Yuma, in Arizona.[17] It declared that the primary purpose of assimilating the Center to a theater of operations was to afford maximum training of combat troops, service units and staffs under conditions similar to those which might be encountered overseas.

This War Department letter concerned itself chiefly with supply. For all classes (except gasoline and ammunition) the level of supply was fifteen days minimum plus the necessary operating level, the level of supply to be based on zone of interior maintenance factors. Gasoline was to be purchased locally as required, and ammunition was allotted by the Army Ground Forces. The Training Division of Headquarters, Services of Supply, in collaboration with Headquarters, Army Ground Forces, was to work up a plan to rotate service units and individuals through the Center, permitting an overlap of units engaged in supply activities so that the supply functions would continue to operate smoothly.[18]

CHAPTER II

NARRATIVE OF EVENTS*

Since the chapters that follow will deal topically with the history of the Center as a theater of operations, it is necessary for the purpose of integration, as well as to secure points of references, to sketch in the general background.

IV Armored Corps (8 November 1942 - 29 March 1943

Maj. Gen. Walton H. Walker and the IV Armored Corps on 8 November 1942 took over command of the Center from General Gillem and the II Armored Corps. To General Walker and Col. J. B. Sweet (commanding officer of the communications zone) fell the burden of transforming the area into a simulated theater of operations. It required a great deal of planning and of action. Agreements were reached with civilian agencies, as with the railraods, concerning a daily ration train. Sites for the installations of the communications zone were selected, construction completed, the installations organized and staffed. The flow of supplies was realistically regulated. Troops and installations were moved from the interior of the combat zone to its perimeter in order to permit free movement within the combat zone.

The Center became a unit operating like an overseas theater. It was divided into two zones. The combat zone consisted roughly of the original Center. The communications zone enveloped the combat zone, a thin skin to the east and a long arm to the west.

The capstone of the organization was the Commanding General of the Desert Training Center. Under him were the two zones. He directly commanded the combat zone. The communications zone he commanded through the commanding officer of that zone, the first such commanding officer being Col. Joseph B. Sweet. (See chart opposite page 41.)

The maneuvers directed by General Walker took place 18 February - 6 March 1943. The major units engaged were the 4th and 6th Armored Divisions, the 6th Motorized Division, the 3d Tank Group, the 4th Mechanized Cavalry, the 606th and 704th Tank Destroyer Battalions and the 440th Coast Artillery Battalion (Antiaircraft).[1]

The Center was growing in population and installations. During General Walker's tour of duty its population rose to 90,000, exceeding that of Schenectady, New York**. The elements of this population were not stable. The 6th Armored Division was already in the Center when General Walker took control. Early in his tour of duty the 4th Armored Division and the 6th Motorized Division arrived and were installed in camps. Non-divisional combat units and service troops arrived and departed almost constantly during the period. After the IV Armored Corps maneuvers the 6th Armored Division and 6th Motorized Division departed and were replaced by the 7th Armored Division and the 8th Motorized Division. Information was received concerning the arrival dates ot the 33d and 77th Infantry Divisions and the 76th Field Artillery Brigade, and necessary preparations for their reception were initiated.

This growth in population as well as the institution of the theater of operating made necessary a vast amount of building, much of which was done by engineer troops in

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* See Appendix "I," Table of Major Units in DTC-CAMA and Campaign in Which Each Gained Combat Experience.

** For assigned strength of DTC-CAMA on last day of each month throughout its existence, see Appendix "I".

Col. Donald B. Sanger, President of Desert Warfare Board, showing Major General Walton H. Walker a 40-mm shell.

training. Hospitals and railhead facilities were being built. Camp Young was enlarged. Three camps were being constructed: Ibis, Laguna and Coxcomb.[2]

When General Walker and the IV Armored Corps turned over command of the Center, the theater of operations was a going concern. After a visit to the Center, General McNair wrote General Walker:

> I want to express my appreciation of all you have done out there, of the fine morale and spirit which pervades the place, and of course, above all, training progress achieved. I feel that the Center which you are leaving is really an organized affair, as contrasted with the improvised, Topsy-like array which you found on your arrival. I say this, of course, without criticism of Patton, who was the pioneer and who made a fine start.[3]

Directive of 6 April 1943

The AGF letter of 6 April 1943 did not alter the organization of the Center but served to emphasize the theater and tough realistic training as against mere desert training. The letter's greatest importance was its use as a training directive throughout the remainder of the existence of the Desert Training Center.* Other directives established the basis for specialized training; as for example the Army Service Forces prescribed the Mobilization Training Programs for ordnance maintenance companies, ordnance ammunition companies and ordnance depot companies.[4]

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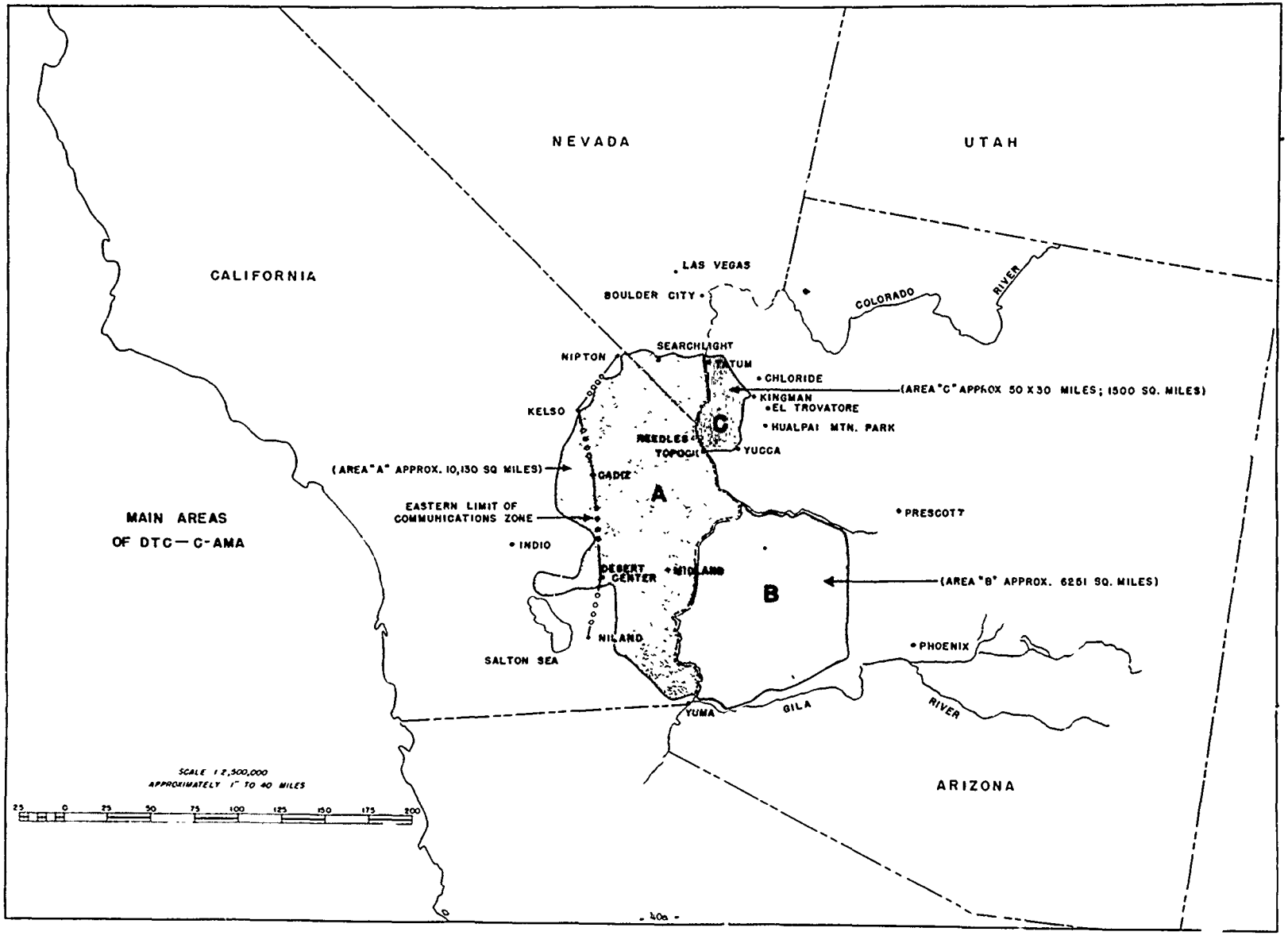
* See Section "The Training Cycle."


NEVADA
UTAH
CALIFORNIA
ARIZONA
LAS VEGAS
BOULDER CITY
COLORADO
RIVER
SEARCHLIGHT
NIPTON
TATUM
CHLORIDE
(AREA "C" APPROX 50 X 30 MILES; 1500 SQ. MILES)
KINGMAN
EL TROVATORE
HUALPAI MTN. PARK
KELSO
C
NEEDLES
TOPOCK
YUCCA
(AREA "A" APPROX. 10,130 SQ MILES)
CADIZ
A
EASTERN LIMIT OF
COMMUNICATIONS ZONE
PRESCOTT
MAIN AREAS
OF DTC—C-AMA
INDIO
DESERT
CENTER
MIDLAND
B
(AREA "B" APPROX. 6261 SQ. MILES)
NILAND
PHOENIX
SALTON SEA
YUMA
GILA
RIVER
SCALE 1:2,500,000
APPROXIMATELY 1" TO 40 MILES
25 0 25 50 75 100 125 150 175 200

IX Corps (29 March - 23 July 1943)

Under Maj. Gen. Charles H. White the area of the Center was enlarged. (See Areas "B" and "C" in map opposite.) It was broadened into a rough oval, approximately 350 miles wide from Pomona, California, eastward to Phoenix, Arizona (which was considered part of the communications zone); and 250 miles deep from Yuma, Arizona, northward to Boulder City, Nevada (which also was considered part of the communications zone). The military population of the Center soared until it reached almost 190,000, the elements of which were scattered through an area exceeding in size the state of Pennsylvania.

These elements had to be provided with division camps. In June of 1943 the 4th Armored Division moved out of Camp Ibis and the 9th Armored Division simultaneously moved in. The 8th Division and the 3d and 6th Tank Groups occupied Camp Laguna. The 7th Armored Division was at Camp Coxcomb. Other camps were being built by engineer units during the period of General White and the IX Corps. There were two camps in the area of Camp Clipper. The one occupied by the 33d Division was temporary. The permanent camp, completed in the latter part of June, was occupied by the 93d Division. The temporary camp was retained for use as a transition camp, so that if a condition should arise when one division was moving out and one moving in, as in the case of the 33d and 93d, they could both be accommodated. The 76th Field Artillery Brigade was at Camp Granite although the permanent camp was not yet completed. The 85th Infantry Division was at Camp Pilot Knob. The 77th Division was at Camp Hyder. Camp Horn was to be ready for occupancy about 1 August.

Other constructions were necessary. Roads were always being built or repaired. Hospitals were badly needed. In June of 1943, although but 90% complete, the general hospital at Spadra, California, was occupied by over a thousand patients. After engineer troops had completed projects of higher priority, such as hospitals, they built open-air theaters of simple design at Base General Depot and Pomona.[5]

Movement in and out of the Center by the large numbers of units and the load the railroads had to bear in supplying them led Mr. Eastman of the Office of Defense Transportation to request the Under Secretary of War to have activities in the Center decreased. The greatest rail congestion in the country existed in this western region. The War Department wished the Western railraods to improve and increase their facilities in preparation for the war effort in the Pacific, but it believed that the point had been reached, especially on the Santa Fe, when an interval for recovery had to be allowed.

Since curtailment of the Center would have had to be counterbalanced by acquisition of equal facilities in another locality, the Army Ground Forces met the problem in three ways. In the first place, it did not further expand the Center. In the second place, movement of large units was arranged so as to cause the least possible interference with other activities by the railraods. Wherever possible the rolling stock bringing in a unit was used to carry a similar unit from the Center. In the third place, equipment was exchanged. With the exception of the armored division which left the Center in August, exchange of equipment was made in all cases. A vehicle pool was introduced. In general, after a unit arrived at the Center it borrowed equipment and vehicles from pools in the Center; before it left, it returned equipment and vehicles to the pools.[6]

The major units involved in the maneuvers under the IX Corps, from 27 June until 15 July 1943, were the 7th Armored Division, the 8th and 77th Infantry Divisions and the 76th Field Artillery Brigade. In the maneuvers were also the 114th Coast Artillery (Antiaircraft), the 4th Mechanized Cavalry, the 5th and 6th Tank Destroyer Groups, the 144th Field Artillery Group, the 8th Reconnaissance Squadron, and the 6th Tank Group composed of its headquarters and the 742d Tank Battalion (Light) and the 743d Tank Battalion (Medium).[7]

Under General White the stafffof Headquarters, Desert Training Center, took to supervising the communications zone, and this made for better administration. On the other hand, General White and his staff seemed to have relaxed the effort to attain realism. They seemed to have taken attention from training and placed it on administration.[8] This was not looked on with favor by Headquarters, Army Ground Forces. As the Army Ground Forces later expressed it, "Training for combat has priority, with administration secondary."[9]

At Headquarters, Army Ground Forces, it was decided to reverse this process, and the directive of 16 July 1943 was issued.

Directive of 16 July 1943.

The AGF letter of 16 July 1943 did not seek to revolutionize but to refine the structure of the Center. The system of administering the communications zone which had originated with General Walker was incorporated into the directive. Large changes came about not as an alteration in the purpose or plan of the Center, but rather as a better means of the fulfilment of that plan. Thus the communications zone was given a boundary, and no longer surrounded the combat zone.[10] (See Map opposite page

XV Corps (23 July - 13 November 1943)

On 23 July 1943, one week after the AGF directive was issued, Maj. Gen. Wade H. Haislip, Commanding General of the XV Corps, assumed command of the Center. To him and his staff fell the responsibility for realizing the provisions of the directive. Administration was simplified for Headquarters, the Desert Training Center, realism was enchanced, attention was again focused on training.[11]

General Haislip inherited several vexing problems. One was the allotment of personnel for overhead. General Sweet submitted a request for an increased allotment for Headquarters, Communications Zone, and for the Base General Depot. A lesser increase than he had asked for was granted by Headquarters, Army Ground Forces.*

Another problem was the lack of service units. A staff study was made under the direction of the G-4, DTC, and General Haislip sent a plan to Headquarters, Army Ground Forces, for reorganizing certain phases of the Center. The major element in the plan was a listing of the number and types of service units needed for the operation of the Center and which were thereafter to be assigned to it. This feature of the plan was not approved by Headquarters, Army Ground Forces, which was itself considering the problem. General McNair felt strongly that an effort had to be made to stabilize the service units at the Center and other maneuver areas. He believed the "Ideal system would be one where the necessary operating service units would be established as an element of the troops basis -- in the same manner as school troops." Then the service units destined for overseas could flow through the Center without affecting operations. But the over-all requirements of the U.S. Army here and abroad did not permit the assignment of an adequate number of service units to the Desert Training Center-California-Arizona Maneuver Area.[12]

The maneuvers under the XV Corps were held from 25 October until 13 November 1943. The major units involved were the 81st and 79th Infantry Divisions, the 15th Cavalry (Mechanized), the 182d and 119th Field Artillery Groups, each group including 52 155-mm howitzer battalions and one 155-mm gun battalion, the 3d Field Artillery Observation Battalion, the 185th Tank Destroyer Battalion and two antiaircraft groups, one with two battalions and one with three.

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* See Section 2, "Overhead," in Chap IV.

During this period, on 22 September 1943, General Sweet was replaced by Col. James B. Edmunds as commander of the communications zone.[13]

The name of the Center was changed. Not a precursor of things to come, this was rather a public acknowledgement of the modification in purpose that had taken place in late 1942 and early 1943. The name of the Desert Training Center had aroused the question of why training in a desert should be continued when no further prospect of using our army in desert terrain remained. The question missed the real issue, since the Army Ground Forces wished to continue operations in the desert because of its desirability as a general training area. The Desert Training Center, by an order effective 20 October 1943, became the California-Arizona Maneuver Area.[14]

IV Corps (13 November 1943 - 17 January 1944)

On 13 November 1943, five days before the maneuvers, Maj. Gen. Alexander M. Patch and the IV Corps took command of the California-Arizona Maneuver Area. The maneuvers, from 20 November 1943 until 11 December 1943, involved the 90th and 93d Infantry Divisions, the 11th Cavalry Group, the 22d and 33d Antiaircraft Groups, the 12th Tank Destroyer Group and the 711th Tank Battalion.[15]

The process towards greater realism continued except in one particular, and that was air. The unity of command within the CAMA was broken when the War Department assigned the III TacticalAir Division (previously the IV Air Support Command), including supporting service units and airdromes, to the Third Air Force. The Commanding General of the Third Air Force was made responsible for providing the units required for air-ground training in the CAMA.[16]

More serious was the deteriorating situation involving service units. Towards the end of 1943 shipments of service units overseas were increasing, and the situation looked hopeless. General McNair therefore recommended to the War Department that the CAMA be closed.[17]

X Corps (17 January - 30 April 1944)

On 17 January 1944, in the midst of maneuvers between the 11th Armored Division and the 104th Infantry Division, Maj. Gen. Jonathan W. Anderson and the X Corps took command of the CAMA. On 21 January, Headquarters, Army Ground Forces, phoned that the CAMA would be discontinued as soon as practicable after 15 April 1944. The message was later elaborated: the CAMA was to be discontinued as a maneuver area as of 15 April 1944, to cease internal operations as a training theater as of 1 May 1944.[18]

From 15 February to 3 March 1944, the X Corps directed the last maneuvers held in the CAMA. The major units participating were the 80th and 104th Infantry Divisions, the 15th Tank Destroyer Group, two tank destroyer battalions and two antiaircraft artillery battalions.[19]

The major concern of the X Corps was the evacuation and disposition of the CAMA. Administration underwent no major changes. At midnight 30 April - 1 May 1944, General Anderson turned over the installations and a modicum of personnel to the Ninth Service Command, representing the Army Ground Forces, and the Desert Training Center - California-Arizona Maneuver Area was at an end.[20]

CHAPTER III

TRAINING

"Our Best Training Agency"

Even as he recommended the closing of the California-Arizona Maneuver Area, General McNair called it "our best training agency for both combat and service units."

What were its special attributes?

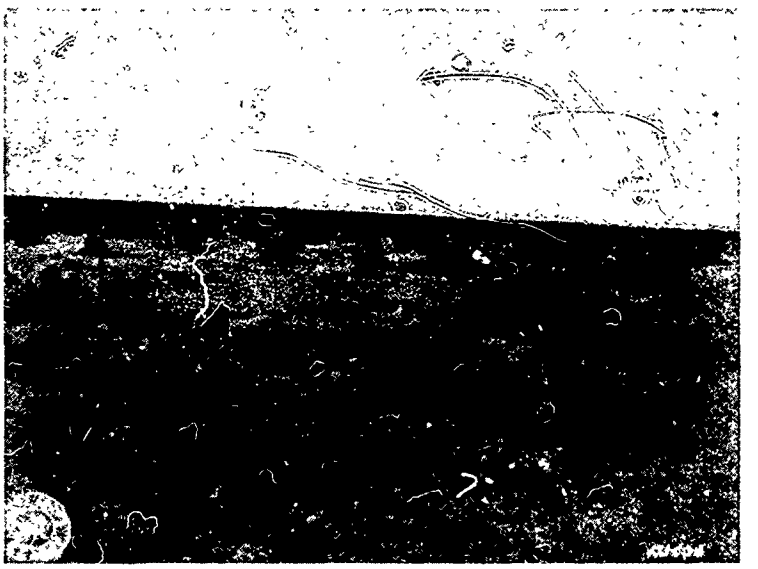
The value for its commanding general and staff was incalculable. With little or no time to observe complex machinery of the DTC-CAMA, they had to take it over and make it run, and top-grade officers were required to keep the wheels running smoothly. General Anderson declared that he could think of no experience more valuable in welding his staff together and fitting it for its function overseas.[1] Officers from the Army Ground Forces observed how the command functioned and judged its caliber. The Army Ground Forces considered this so important that it devoted its principal effort to the evaluation of the quality of command being exercised by theater commanders and their subordinate commanders.[2] Of the seven commanding generals of the DTC-CAMA, two were later assigned the command of armies and four of corps in the European Theater -- General Patton commanding the Third Army, General Patch the Seventh, General Gillem the XIII Corps, General Walker the XX Corps, General Haislip the XV Corps, General Anderson the III Corps. General White, who, as noted, was regarded as less successful by the Army Ground Forces in carrying out its mission for the Desert Training Center, was assigned command of the Infantry Replacement Training Center at Camp Joseph T. Robinson, Arkansas.[3]

General Walker, returning from his experience in Germany as Commander of the XX Corps, stated that higher commanders and their staffs and all officers and troops had benefited from their training in the Center, but that the top command had benefited most, gaining confidence and perspective from the direction of large operations in the desert. He had found no doubt in the minds of those who had been through the Center, generals or privates, that their training there was the best they had received, and that the desert was the best place ever found for the training of the Army. He had once heard General Patton say that his experience in the desert was, with the exception of his combat experience in the First World War, the most valuable he had ever had as a commander. General Walker, for himself, would not except even his previous war experience.[4]

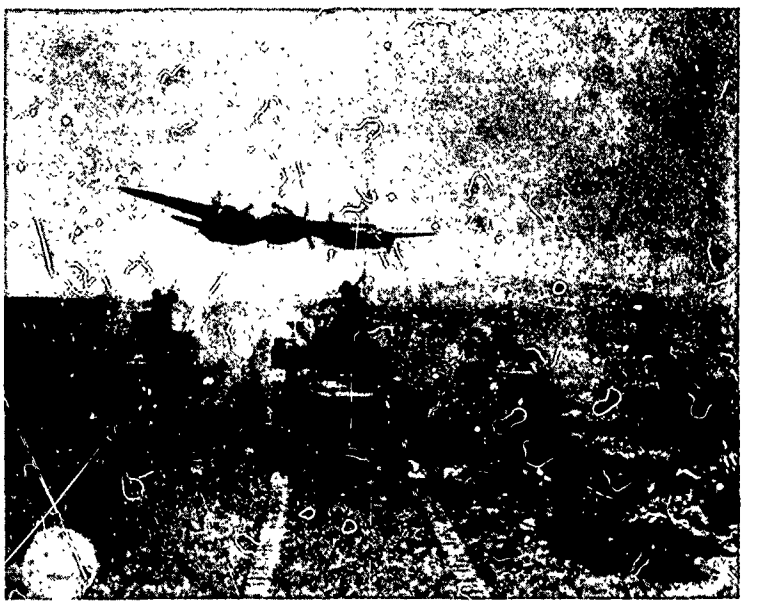
A second great advantage of the DTC-CAMA was its continuity. Though a shift occurred in the theater command, training and supply and administration went on without interruption. When the IV Corps left while maneuvers were in progress, the maneuvers continued under its successor, the X Corps. Likewise, units in their pre-maneuver training went on with their schedule.

Continuity saved time. Thus the first maneuvers did not begin until approximately five months after the opening of the Center, the second almost half a year later, the third after another four months. The last three maneuvers began respectively on 22 November 1943, and 10 January and 13 February 1944. This indicates more than maneuvers alone because after 1942 units underwent a training schedule before the maneuvers.

Continuity permitted improvement in administration, the system of supply, realism and training. The rapid alternation of exercises in the maneuvers under



Training routine of an antiaircraft regiment. Note men in foxholes.



Tank Commanders man antiaircraft guns while planes drop sacks of flour-simulating bombs.

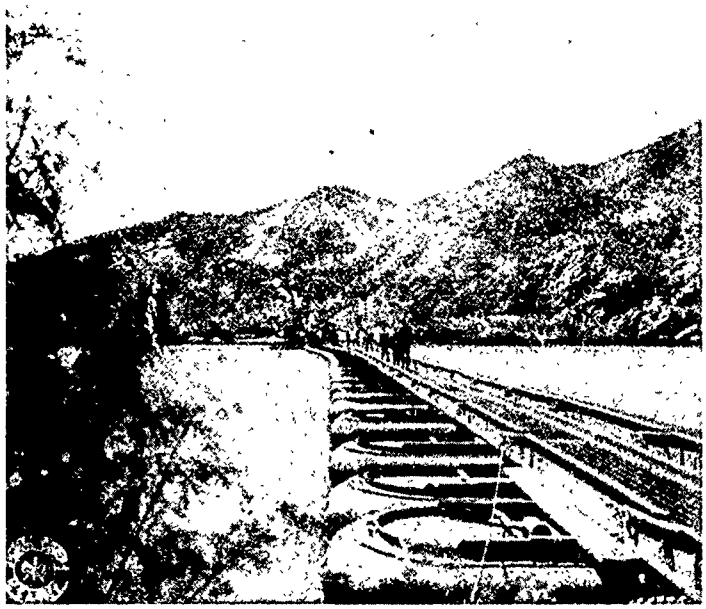
Command Post installation, taking full advantage of ironwood tree. (From files of Engineer Board, Yuma Test Branch)

the II Armored Corps, which inhibited the use of reconnaissance, did not permit a testing of the ability of a unit to keep supplied, and to keep its vehicles rolling. To take better advantage of the situation, the number of exercises was cut to three in the three-week maneuvers under the IV Armored Corps, and General Walker recommended lengthening exercises even further to permit a more realistic play of supply and maintenance as well as to test the endurance of troops and equipment.[5] In April 1943 the schedule was altered and the number of exercises reduced to two in the three-week maneuvers.[6] Continuity also permitted improvements of the training area. Thus, a defensive position was built up at Palen Pass successively by units passing through the DTC-CAMA.

Since this installation was going at all times, whenever overseas-experienced officers came to this country they could stop off and watch and perhaps offer suggestions which could be tested at once. During the period of the XV Corps, Lt. General Bucker and Maj. General Bonesteel spent several days at the Center. Brig. F. A. B. Copland-Griffiths of the British Army delivered an instructive talk to the Commanding General and the staff of the Center on his experiences as an armored brigade commander in North Africa. Lt. Col. MacAlpin Blackwatch, a leader in British Commando training and operations, strongly impressed by the training being conducted in the desert, was liberal with comments and suggestions.[7]

A concomitant benefit existed in always having on hand troops, operating under theater conditions, to test materiel. At a period when only a small proportion of our troops were committed to actual combat, this testing was of vital importance.

A third attribute of the DTC-CAMA was its spacious and varied terrain. The size of the area and the lack of civilian population permitted exercises to be conducted over wide expanses. At the beginning of Exercise "A" of the maneuvers under the IV Armored



Ponton bridge erected across Colorado River

Four-man coupling crews at work putting in a portable pipe line. This pipe line went over a rise and down to water storage tanks of the Santa Fe Railroad, a distance of seven miles. (From the files of the Engineer Board, Yuma Test Branch)

Corps, the main forces of Blue and Red were 175 miles apart. Commanders had to move their units over such distances as they had later to cover in the campaign of France and beyond the Rhine.[8] The breadth of the area permitted some units to be going through maneuvers while other units undertook pre- or post-maneuver training in other areas. Antiaircraft artillery units and units equipped with antiaircraft weapons could fire at towed targets, restricted only by the limited number of tow-target missions that were provided. Signal units erected telephone lines. Flame throwers were used against pillboxes. The varied terrain permitted varied training, and almost no obstacles interfered with freedom of maneuvers. Maneuvers in Tennessee and Louisiana were subject to artificial restrictions. The DTC-CAMA was not in the neighborhood of a large city, was not in a region of farms; units went freely cross-country, climbed and defenced and attacked positions in mountains. Firing could be carried on without fear of interlopers being harmed. Highways were placed off limits for tactical movements, except as defiles. Blackout driving was practiced at night.[9] Commanders faced all the logistical responsibilities they would encounter in actual warfare.[10]

A fourth major advantage of the DTC-CAMA was in permitting the imposition on it of an organization simulating that of an active theater. Its spaces permitted locating installations in approximately the positions they would occupy in a theater. Again, since realism made it necessary for the troops to live the Spartan life, they became hardened. Numerous observers attested to this. For example, Lt. Gen. Ben Lear, watching an attack by an infantry company of the 8th Infantry Division in the desert, commented on the splendid physical condition of the men.[11] AGF and AAF officers praised the physical condition of men in the 79th Infantry Division.[12] General Anderson wrote that the accomplishments of the Center "in hardening the individual and acclimating the individual and the unit to honest field operations, more than justified the natural hardship upon materiel and equipment incident to the character of the operations therein."[13] General Walker, on his return from the war in Germany in 1945, believed that the experience had given the men who had it an invaluable confidence in finding they could conquer and survive the hardships imposed by nature which remained their great foe even in a war with a human foe.[14] By merely going through one's duties in the DTC-CAMA an officer or enlisted man was being trained to function as he would function overseas in an active theater. That was the supreme contribution to training made by theater framework and the imposition of realistic conditions.

A fifth benefit was the varied training that could be carried on. Some notion of the variety has already been given. The subjects for training of units listed in the AGF directive of 6 April 1943 will indicate this in more detail:

Movement across country; navigation

Reconnaissance, combat intelligence, counterintelligence and liaison

Exerciess which were to be realistic and complete in all details

Dispersion of vehicles during the march, halts and in bivouac

Aggressive action by dismounted individuals and small units against armored vehicles.

Laying and removel of mine fields

Antiaircraft defenses with both organic and task weapons and units. Each vehicle authorized an antiaircraft gun was to carry it or a dummy machine gun, mounted and ready for action during the daylight hours of each tactical exercise. A gunner or antiaircraft sentry was to be on the alert at gun at all times. Other vehicles, carrying more than two soldiers, including the driver,

Column of M-3 tanks

Night firing at aerial targets with automatic weapons

were to have an antiaircraft sentry on the alert. Planes were to make simulated attacks to test antiaircraft personnel. Fire of all available and suitable weapons was to be delivered against hostile planes when concealment was not essential or obviously did not exist.

Rapid close-in air support of ground units, on call

Artillery observation by liaison planes

Camouflage

Night operations

Use of identification panels

Adherence to tables of equipment

Battlefield recovery and evacuation of armored vehicles and other heavy equipment

Day-by-day maintenance of motor vehicles

Driver training with emphasis on night driving and driver maintenance; aggressive supervision of driving and maintenance by all command echelons

Realistic supply of all classes, including ammunition, with actual tonnage, expecially at night

Special features of hygiene, sanitation, and first aid peculiar to desert

Cooking by individuals and small groups

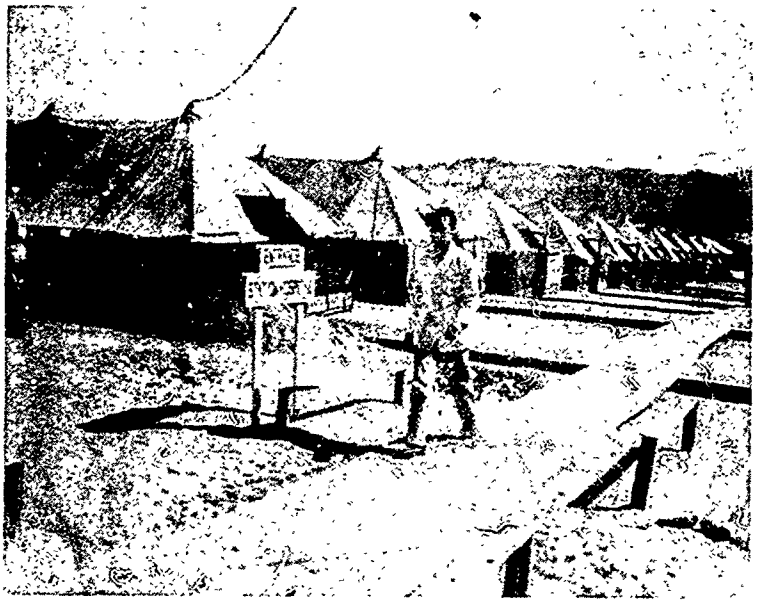
Supply by air[15]

"Tough and Realistic Conditions"

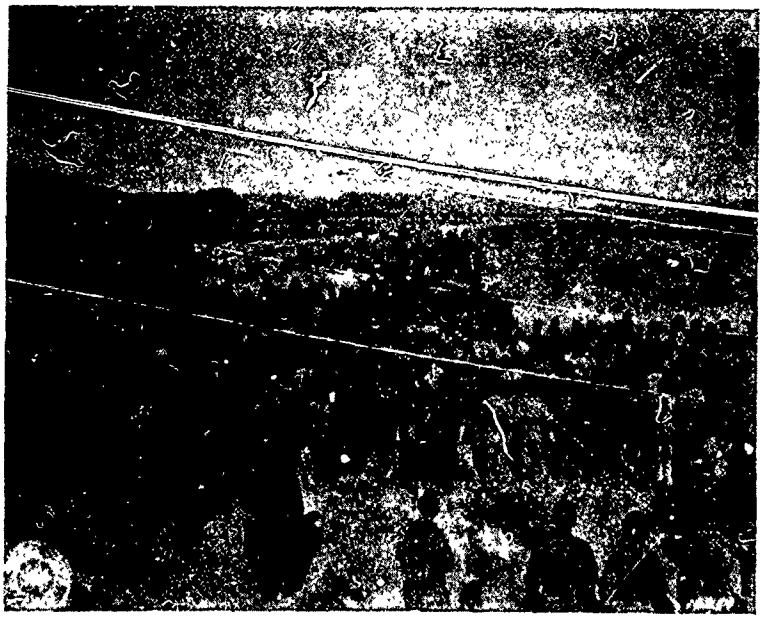
Realism was not an isolated compartment in the DTC-CAMA, like a gas chamber, into which personnel from a unit were introduced for a lecture and a spray. Realism was an atmosphere in which troops ate and worked and slept for at least three months and usually longer. It pervaded all departments of the DTC-CAMA. Men learned not only how to fight other men but nature also. As soon as they had defeated nature a few times -- as by enduring some thirst, getting lost and finding themselves, fixing up a car that had broken down on a desert trail -- they gained confidence in themselves, and that spirit remained with them.[18]

It was not a simple process. General Walker and Colonel Sweet set the theater going in the spirit desired by Headquarters, Army Ground Forces. When officers from Headquarters, Army Ground Forces, observed lapses in realism, these were brought to the attention of the Commanding General of the Center.

General White and the IX Corps took over and because they concentrated on administration, the emphasis on realism decreased. An officer of Headquarters, Army Ground Forces, reported that the camp of the 76th Field Artillery Brigade showed devotion to cleanliness and order; stones flanked gravel foot paths and rock borders protected bushes. On the other hand, the field exercises of the Brigade had been reduced to those which could be accomplished within a four-day period, including movement to the maneuver area and return to the base camp. Too many men were being authorized a



Exterior view of wards at station hospital



Field Chapel Service

three-day pass weekly.[17] After General McNair and other AGF officers observed the maneuvers under the IX Corps, a critical letter was sent to Headquarters, Desert Training Center: Many units were not hardened physically. Group cooking was not being practiced even in units such as the reconnaissance battalion of the 7th Armored Division. Mines laid on top of the ground by the division defending Palen Pass contributed practically no obstacle to the enemy. At the 8th Division headquarters, umbrellas shielded military policemen from the sun. From 11:30 until mid-afternoon of each day infantrymen on the defensive position pitched shelter tents to afford themselves shade, and the tents were visible for a considerable distance. No infantry work progressed during this period; men slept. The letter from Army Ground Forces, signed by General McNair, concluded with this paragraph:

> There has been a noticeable tendency at the Center as a whole to drift away from the original and proper conception of tough and realistic conditions toward the luxurious and artifical conditions of other camps and posts throughout the United States. Training at the Center is enormously expensive, due to railroad transportation. Operation of such an establishment is justified only when the training is conducted on a Spartan basis which will result in superior physical condition and a more realistic setting than any obtainable elsewhere. Some officers and enlisted men have reached the wishful conclusion that the termination of the African campaign has rendered desert training unnecessary. Desert Training is merely an incident; the main objective is tough, realistic general training. Troops must be made to understand the above objectives.[18]

General White defended his course. He maintained, for example, that group cooking was done in the maneuvers by groups as occasion demanded. The only addition to construction had been to screen kitchens and latrines, recommended by the DTC Surgeon and justified by the almost complete disappearance of dysentery from the Center, a disease which had been of high incidence in 1942.[19]

General McNair sketched his policies towards the Center, and his notes were circulated among members of his staff at Headquarters, Army Ground Forces, in preparation for a conference to be concerned with the formulation of a new directive. He mainly concerned himself with the problems of administration as with the lack of realism in having the combat zone completely inclosed within the communications zone. He wanted all construction and equipment restricted to what could be expected reasonably in an active theater. At the conference it was decided that, unless the Ground Surgeon could show cause for their retention, perishables would be dropped from the menu and ice boxes and screened kitchens would be eliminated.

The Ground Surgeon did not object to the use of the "B" ration, considering the vitamin content adequate if the ration was fully utilized. He warned of the need to plan menus carefully in order to forestall monotony; spam or sardines should not grace every meal. The fly menance was variable and seasonable in the Center. Studies by the medical laboratory had afforded proof that flies were responsible for a near epidemic of dysentery. If kitchens in the base camp were to be patronized only a few days out of the entire time a unit spent in the Center, screening was not necessary. Many units, particularly service units, had to remain in certain areas for long periods; for them screening was advised because of the potential danger of fly-borne disease.[20]

The AGF directive issued on 16 July 1943 brought back the emphasis on realism and toughening of personnel. Many of its provisions concerned the application of realism to matters of administration and supply and will be considered in appropriate sections. The ration was changed. Except for patients in the station and the general hospitals, the ration to be supplied and units in the Center would contain no perishable items requiring refrigeration or ice. The above policy would become effective not later than

15 August 1943. Existing screening of kitchens would not be removed, but it was not to be maintained or renewed.[21]

A week after this directive was issued, General Haislip and the XV Corps took over the Center and carried out the provisions of the directive. The 85th Division, previously authorized screening for kitchens, did not secure the screening.[22] The Engineer of the 81st Division, who was considering installing concrete floors for the shower units, was assured by the Engineer Office at the Center that the request would be disapproved.[23] As of 2400 (midnight) of 14 August 1943 delivery of ice was stopped and the Center went on "B" rations.[24] Units were not permitted to become permanently attached to a base camp, and Headquarters, Army Ground Forces, considered this commendable; much of the prescribed training could be conducted profitably with units divorced from a base camp, particularly at that time of the year.[25]

From this time until the end of the year Headquarters, Army Ground Forces, was content merely to point out minor departures from realism and the process of toughening personnel. When General McNair visited the CAMA in December of 1943, he observed that Post Exchanges and the Officers' Club at Camp Young were serving fresh milk and sandwiches.[26] Headquarters, Army Ground Forces, ordered that steps be taken without delay to insure that all troops in the CAMA subsist on field ration "B," exception being made for patients in station and general hospitals, later broadened to include patients in evacuation hospitals.[27] This was soon modified so that in no case would any personnel be kept on the "B" ration for periods in excess of two months without a break of several days in which the "A" ration was fed.[28] The entire policy was shortly dropped, since the CAMA was in the process of being closed, and all units in the CAMA were fed the "A" ration.[29]

The emphasis on realism and toughening of personnel led to some questioning both within and without the Army. It was by War Department direction that the policy regarding field rations was relaxed. Much earlier, in June 1943, Lt. Gen. Ben Lear protested that cover for adequate eating space should be provided for divisional, regimental and smaller unit base camps within the Center. Such cover had generally been provided for organizations at Camp Young, but not for the organizations in the vicinity of Yuma or Camp Laguna. General Lear believed the maneuvers should provide ample opportunity for hardening the men under realistic combat conditions and that certain comforts should be provided the men while at base camps.[30]

The "B" ration aroused some dissatisfaction among the men. Since only ten different menus were used in the Center, whenever substitution became necessary the food soon lacked variety and provoked numerous complaints about its monotony.[31] An enlisted man who purported to speak for his battery charged that officers still secured ice.[32]

There was some public protest over conditions existing generally in the Center. Mr. James H. Gordon, in charge of the Weather Bureau at Yuma, Arizona, asserted that "training has passed beyond constructive into destructive stage. Reported deaths and prostrations staggering." Dr. E. Payne Palmer, head of the Southwest Clinic, Phoenix, Arizona, whom Senator Carl Hayden in a letter to the Surgeon General characterized as one of the most noted physicians and surgeons in western and southwestern United States, called attention to an incident when three men died, and he hoped for an investigation of methods.[33]

In that incident the errors in judgment by those in command were not of a nature to have brought a conviction if the officers had been tried for negligence. The carrying out of a field problem caused a change in the route of an infantry platoon. No time being available for a detailed reconnaissance, the platoon was assigned a route not previously used. When the vehicles became stuck on a ledge the platoon continued on its march, inasmuch as the umpire had on a prior occasion instructed the platoon

commander to continue the march and not concern himself with the unmore vehicles, which carried water and rations, as they were certain to be at the destination. The platoon arrived at a spot which they mistook for their destination, and found no water or rations. The platoon commander returned on foot to secure water and rations for his men, but water was not available at the water point which compelled him to take a long trip to secure it. The men were without food for about twenty-four hours and had about one-half canteen of water per man for about twelve hours, and during this time were exposed to extremely hot weather. Pvt. James H. Nash died. Sgt. Robert Powers and Cpl. Julius Ortega, both of whom were in better physical condition than the other members of the platoon, went for aid against the advice of S/Sgt. Joseph P. Morrison, acting platoon commander in the absence of the commissioned officer. The two lost their bearings and their bodies were later found by a searching party. If they had remained with their platoon their deaths probably would not have occurred. When medical aid and vehicles were requested for the platoon, these were immediately dispatched.[34]

The few protests from the general public did not move Headquarters, Army Ground Forces, from its faith in the value and necessity of the training at the Desert Training Center. War is not a genteel tea party. Men were supposed to be prepared, when they arrived, for the rigouous life in the Center which was in no measure more severe than would be encountered in combat and was considered a necessary prelude to overseas action. The Army Ground Forces produced figures which showed the sickness rate of the Center to be considerably below that of the general average for the country.[35] Of course, it must be admitted that the soldiers were healthy young men in the prime of life, a selected group, whereas the general average included 4F's, aged people, maternity cases, and so on.

General McNair asked General Haislip about neuropsychiatric cases. General Haislip had a report submitted by the six divisions then in the desert covering their personnel, including those in hospitals and carried "absent sick." The results showed:

Those with psychoses (definite signs of being insane)	139
Those with psychotic trends (having initial signs of insanity)	288
Mentally deficient cases (below normal intelligence)	454
Emotionally unstable (unable to adjust to rigors of full duty)	259
Total	1130

The DTC Surgeon stated that this total for six divisions appeared to be average. He did not feel that the desert had been responsible for any unusual amount of mental trouble.[36]

The AGF policy of providing realistic and toughening conditions in the DTC-CAMA could not always be fulfilled. Four causes contributed to dimish the realism desired.

First, no Germans or Japanese sniped, bombed or threw grenades. The men in the DTC-CAMA knew that the enemy forces facing them were either imaginary or their brothers-in-arms. Officers warned that this training was a prelude and a preparation for things to come, but some men later felt that they knew how to act when under fire and did not take things seriously.

A second factor leading to unrealistic conditions was voluntarily assumed: the search for improvement over realistic conditions. The DTC-CAMA was used as a gigantic laboratory, in part. This will be dwelt upon in the chapter "Mirror to the Army Ground Forces."

A third cause resulted from the fact that the DTC-CAMA, though situated in a sparsely settled area of the United States, was still in the zone of interior. Some of the officers' and some of the enlisted men's wives came to live in the surrounding communities. On pass officers and men could go to town and sleep on soft mattresses -- when they could get a room at a hotel -- and they could eat foods not itemized in the "B" ration.

Most serious departure from strict realism arose from the shortages which confronted the DTC-CAMA in every phase of its existence. Divisions, such as the 104th Infantry Division, were short enlisted personnel because the Army Ground Forces had found it necessary to cannibalize from them in order to meet overseas calls.[37] There was a lack of service units, and some of the units supplied had been inadequately trained. Some service units had to be substituted for units of other types, which could not be procured. In February 1944, for example, sales and laundry companies were substituting for depot companies.[38] Such substitutions, mentioned in the section on service in the chapter on "Service and Supply," were not in keeping with the striving for realism.

Lack of equipment also affected realism adversely. Sometimes men handling a 37-mm gun were pretending to handle a 105-mm howitzer. Again, the concept of the CAMA as a theater of operations would have been made more realistic from a supply standpoint if the vicinity of Los Angeles had been regarded as a port of debarkation and gasoline transported from it to using units by military personnel, instead of civilian agnecies. In order to do this Headquarters, CAMA, requested sixty tractor-drawn gasoline tankers and trailers. But the shortage of Quartermaster personnel available for even normal operation of the CAMA, added to the fact that all tank trailers of the type requested were critical -- being made for the Army Air Forces and for special overseas requirements -- combined to defeat the proposal.[39]

It bears iteration that, despite handicaps, the DTC-CAMA was the most realistic training area that it was possible to have during the period of its existence. The remarks of observers substantiate the fact that personnel were hardened and made ready for conditions they would encounter overseas.[40]

Special Training Opportunities for ASF and AGF Officers.

The DTC-CAMA trained officers for Headquarters, Services of Supply (later the Army Service Forces). On one occasion the Quartermaster General requested authority to detail nine hundred second lieutenants to units in the communications zone to provide field training before overseas shipment, and Headquarters, The Army Ground Forces, granted permission. Hundreds of officers functioned with their service units in the DTC-CAMA or on the staff of the communications zone headquarters. To spread the benefit of functioning with the communications zone headquarters, Headquarters, Army Ground Forces, fixed the maximum tour of duty for all, excepting general officers, at twelve months, unless a cogent reason existed for retention after that period. Approximately 8 percent of officers subject to rotation were to be relieved monthly. In December of 1943 Headquarters, CAMA, submitted a list of the first group of officers to be relieved in conformity with this policy.[42]

Another means of training SOS-ASF officers was an SOS Overseas Officers' Replacement Pool (later renamed the ASF Overseas Officers' Replacement Pool and abbreviated ASFOOP). Headquarters, Services of Supply, turned over to the Center communications zone the operation of the pool under general instructions: the Services of Supply was to be informed of quotas of officers that the pool could take; the pool was to be maintained at a strength of about two hundred; authority was granted the commanding officer of the communications zone to make such transfers as he might deem advisable between officers of his permanent staff and the pool; he was also granted

authority to assign the best qualified officers for overseas duty. Colonel Sweet requested that only those officers who successfully completed the course at Command and General Staff School be ordered to the pool.[43]

The pool started to operate in the middle of March 1943, when approximately 140 graduates of the Services of Supply course at the Command and General Staff School were assigned to it. The officers were rotated in their duties so that they would receive training in all phases of Services of Supply operations under conditions similar to those which might be encountered overseas. Thereafter they could be trained in the specific duties for which they might have shown the greatest aptitude.[44]

By May the rate of loss for overseas assignment from the pool exceeded one officer a day. Headquarters, Communications Zone, requested the Army Service Forces to raise the assignment of officers from graduates of the ASF class at Command and General Staff School to 168.[45]

In July 1943, Headquarters, Army Ground Forces, to determine overhead requirements of the communications zone, forbade the augementation of staff sections with officers from ASFOOP. The Army Service Forces paid no attention to positions available and assigned officers of all ranks, arms, and services. These two factors led to most of the officers being placed in units in the Center for duty as surplus with no possibility of promotion, and so their morale was low.[46]

Officers selected for assignment for overseas duty by the Army Service Forces had been required to have an efficiency rating of excellent or better. Since many of the officers assigned to the pool had lower ratings, no opportunity occurred to assign them to an overseas vacancy. Headquarters, communications zone, at the end of October 1943, recommended that fewer officers having a general efficiency rating of at least excellent should be assigned to ASFOOP.

Headquarters, Army Ground Forces, instructed the Commanding General of the CAMA to report the officers then assigned to the pool who in his opinion were not qualified for overseas service. Appropriate steps were taken to bring about the transfer of such officers from ASFOOP. A representative of the Commanding General, Army Service Forces, stated informally that the quality of officers assigned to the pool would be improved.[47]

In order to provide additional training for the more senior and better qualified officers of the Army Ground Forces and the Army Service Forces not on duty at the Center, Headquarters, Army Ground Forces, in its directive of 16 July provided that certain numbers of such officers were to be ordered temporarily to vacancies in the communications zone, and upon completion of such duty were to be returned to their regular assignments.[48] To implement this provision, the Army Ground Forces directed the Commanding General of the Center to create one vacancy in each of the four general staff sections of the communications' zone headquarters. These would be filled by officers to be assigned from the War Department and from units under the Army Ground Forces and the Army Service Forces for a period of one to three months.[49]

Headquarters, Desert Training Center, protested that it took about a month to break in an officer, and he would become useful to the communications zone at about the time when he was relieved. The communications zone, on the other hand, would be happy to work in here and there officers sent on temporary duty.

Headquarters, Army Service Forces, reported that it had no officer available from its operating personnel and advised that a qualified officer be sent from the Staff Officers Pool, DTC, to receive the training.

Even staff sections at Headquarters, Army Ground Forces, shied off, and it was decided that they did not have to send officers. The communications zone of the Center was authorized to utilize pool officers on a temporary basis to fill vacancies not filled by the Army Ground Forces and the Army Service Forces. The advantages offered for training eligible officers in the staff sections at the communications zone were never fully realized.[50] But this was the only special program for the training of officers that did not reach as complete a fruition as could realistically have been hoped for.

"Combined Air-Combined training is...necessaruly a joint responsibility."

The reaction of Headquarters, Army Ground Forces, toward air-ground training accomplished in the desert may be summed up succintly: air support in the desert was less than was needed. What there was did well, and more support could have helped both ground and air.

In January 1943, the War Department assigned certain AAF units to the Center.[51] Later the DTC Air Forces Service Command was constituted for the Center, assigned to the IV Air Support Command whose commander at Thermal, California, activated it on 15 April 1943.[52]

Headquarters, Army Ground Forces, let it be known that it desired commanders and designated staff officers of combat units down to and including regiments and separate battalions to be given instruction in the employment of aviation in support of ground troops at a special school to be conducted by maneuver directors in the maneuver area immediately before scheduled maneuvers. The schools were to provide a minimum of sixteen hours of instruction over a period of two consecutive days. Direct air support of front-line combat units would be emphasized.[53]

Supplies being dropped by planes to ground units. Note signal panel in foreground.

In the first maneuvers under the theater of operations organization, 15 February - 6 March 1943, the IV Air Support Command exercised command over all air units and acted as Air Director Headquarters. Air support parties were furnished to all divisions and in some instances down to and including combat commands and combat teams. But there was not enough air. Available aviation included one observation group and one dive bombardment group, both at reduced strength.

That more training in air support was needed and could have greatly helped units is obvious from the report of the Chief Umpire for the maneuvers. In the first of the three exercises air-grounded cooperation was not satisfactory; it was better in the second exercise; in the third it showed marked improvement. In the first exercise full use was not made of air potentialities until the later phases of the exercise. Air bombardment requested by Blue resulted in the bombing of Blue troops. In the third exercise, on the other hand, Red obtained superior results. Planes were in the air the maximum number of hours available.

General Walker recommended that during large-scale maneuvers air units normally assigned to the Center should be reinforced by air force units to approximately the amount of aviation that should be available for similar operations in battle, in order to produce a more realistic situation.[54] The Army Ground Forces concurred and sent the recommendation on to Headquarters, Army Air Forces. The Army Air Forces agreed that reinforcement was desirable, but stated that commitments and operational training requirements made it impracticable.[55]

Headquarters, Army Ground Forces, went on trying to improve airground training.[56] Its letter of 6 April 1943 directed group troops to designate targets to planes in the air during maneuvers. Air units and the Air Service Command, under the IV Air Support Command, were to conduct operations from improvised bases, airdromes, and landing fields, rapidly evacuate and move ground echelons between bases, camouflage ground installations and aircraft, and defend bases, airdromes and landing fields from hostile attacks by parachute, airborne, armored and mechanized forces, and by ground troops.[57]

For the maneuvers under the IX Corps, the IV Air Support Command could contribute only one dive bombardment group and one reconnaissance group, both considerably understrength in ships and pilots. These did their utmost. The 22 liaison-type planes and 70 combat-type planes flew a total of 2,600 hours on 460 tactical missions. But only 92 planes were supporting more than 100,000 troops.[58]

The report of Headquarters, IV Air Support Command, indicated lack of progress in air-ground cooperation. During the maneuvers, for example, Blue in the main used air reconnaissance quite satisfactorily, but certain ground commanders insisted on too detailed information. In other words, ground commanders needed more experience in order to learn the capabilities and limitations of air. Attack aviation was employed more as an air force in a theater of operations than primarily in close support of ground troops. This training helped air, not ground, and did not advance close air-ground cooperation. Again, since an underlying purpose of the maneuvers was to test sustained supply difficulties, many attack missions were ordered against railheads, supply dumps and columns. But aviation being limited, its employment against such targets and attempts to knock out enemy airdromes prevented at times the acceptance of air party requests from divisions for combat support. Again, throughout the maneuvers a lack of adequate airground identification procedure was apparent. The outlining of forward positions by panel display was not well coordinated, even when specifically arranged.[59]

Such problems could have been solved by giving ground and air more practice together. For this, more aircraft would have been required, and more aircraft were not

forthcoming. In the IV Corps maneuvers all tactical aviation was made available to either Red or Blue as requested, depending upon the priority of the request and the suitability of targets. All aircraft were considered hostile to troops on the ground. This was considered desirable because of the impetus given to camouflage and concealment. But the same desirable result could have been obtained realistically if more planes had been availalbe, and their presence would have also provided practice in recognizing types of airplanes.

Officers from the Air Support Branch of G-3, Headquarters, Army Ground Forces, observing the maneuvers under the IV Corps, were not satisfied. They felt that while the colonel commanding the III Tactical Air Division (which had replaced the IV Air Support Command)[60] was cooperative and commanded participating air units in an excellent manner, the CAMA offered great possibilities for air training which were not being realized. They recommended an increase of air units which should be commanded by a brigadier general of the air corps.[61]

Of the approximate total strength of 160,000 in the CAMA in late 1943, only about 4,000 were from the Army Air Forces.[62] The future held no promise of improvement. As the Army Air Forces approached its authorized strength in units, the training of replacement crews was to receive greater emphasis, and fewer units would be in training or available for combined air-ground training. The War Department advised pooling these units to permit the participation of large air force elements in the combined training of ground force units and maneuvers in the priorities established by the Commanding General of the Army Ground Forces.

At midnight 30 November - 1 December 1943, through the efforts of the Army Air Forces, air force units and installations in the CAMA reverted to the control of the Commanding General of the Army Air Forces.[63] The III Tactical Air Division, including supporting service units and airdromes, was assigned to the Third Air Force, whose Commanding General was made responsible for providing the necessary air force units to accomplish the required air-ground training in the CAMA.[64] The situation did not improve. In the last maneuvers held in the CAMA, Brig. Gen. Leo Donovan, G-3, AGF, commented that air support was practically non-existent.[65]

In general, Headquarters, Army Air Forces, did not by its acts indicate any great interest in the air-ground training being conducted at the DTC-CAMA. The scarcity of planes and air force personnel has been pointed out. But indifference was manifested in other ways. The situation of the Air Supply Officer is a case in point. When the Commanding General of the Air Service Command at the Thermal Air Base was no longer designated as the channel for Air Force Supply, the Signal Officer of the CAMA had to act as Air Supply Officer. With a strength in the CAMA on 15 October 1943 of 174,277 he could not satisfactorily carry out his dual function. Headquarters, Army Ground Forces, in October 1943, requested that one AAF officer and one AAF non-commissioned officer, familiar with the supply of AAF equipment, be assigned to the control of the Commanding General of the CAMA for the purpose of establishing an adequate Air Supply office at the earliest practicable date. Not until 15 March 1944 were orders issued by Headquarters, Army Air Forces, transferring one officer and three sergeants for this duty. By that time, because of the break-up of the CAMA, the AAF personnel were no longer required.[66]

It is a commentary on air-ground support training in general that despite its inadequacy in the DTC-CAMA, G-3 of the Army Ground Forces declared that from the standpoint of the Army Ground Forces the air-ground training being given in CAMA was by far the most satisfactory training being received by AGF units in the United States.[67]

The War Department, early in 1943, had pointed out the crux of the matter. "Combined air-ground training is...necessarily a joint responsibility of the Commanding General, Army Air Forces, and the Commanding General, Army Ground Forces, which requires close coordination and cooperation."[68]

The difference between the Army Air Forces and the Army Ground Forces concerning air-ground cooperation in the CAMA represented a difference of emphasis and direction. General McNair was intent on thorough all-around training of his troops before they entered combat. The eyes of the Army Air Forces, on the other hand, were fixed on "strategic" air war and its immediate potentialities. The Air Forces, in 1943 and early 1944, were still carrying the burden of the offensive against Germans and, to some extent, the Japanese. General Arnold declared that the Air Forces found it increasingly difficult to justify to theater commanders, to the public, and even to themselves, the great number of airplanes in this country in comparison with the number in theaters. Airplanes earmarked for test and development work had to be used to the maximum, loaded down with numerous devices being tested or developed. General Arnold put it this way in his letter to the Commanding General of the I Troop Carrier Command: "Every airplane in the United States which can be made capable of combat operations must pay its way."[69]

The 13-Week Training Cycle.*

The DTC-CAMA training cycle began with four weeks of individual and small unit training, special attention being devoted to junior leadership and battle conditioning. Individual training was of an advanced type. Individual weapons were used, but under combat conditions. The war having showed the necessity for units to operate under all conditions of terrain and weather at night, night operations were made habitual for infantry. Mines were laid by all personnel of combat branches, and all personnel engaged in detection and removal of mines. Exact performance was demanded in duties affecting the security of the command. Men were instructed to dig in, even if stopped momentarily. Individual and field sanitation were carried on and food was prepared by individual and group cooking.

In order to toughen officers and men mentally and physically and to imbue them with the desire to close with the enemy and to destroy him, training included rough-and-tumble fighting, games and exercises involving physical combat, normal exertion over long periods, extreme exertion over short periods, battle conditioning exercises to accustom the men to the sound of bursting shells in their immediate vicinity and to the crack of small arms bullets passing near them.

Not only during the first four weeks but also throughout the entire training cycle, as might be feasible, effort was directed to teaching junior leaders to accept responsibility, to be self-reliant and to operate effectively "on their own." It was attempted to have every non-commissioned officer able successfully to lead a patrol over extended distances, unknown terrain, at night, and to infiltrate into the hostile positions and return with specific information. Night patrol problems were conducted over difficult terrain, with groups pitted against one another. Each platoon participated in a platoon leadership course.

The utmost realism was introduced. In at least one 24-hour exercise personnel were given no opportunity to snatch any sleep, had only limited quantities of food and water, and operated over difficult terrain at night. Measures such as these helped

* Except where otherwise noted, this section is based on the AGF letter 320.2/46(Desert)GNGCT, 6 Apr 43, subject: "Organization and Training." In 320.2/80(CAMA).

weed out officers and men who could not stand the pace. From 23 July until the middle of September, Headquarters, Desert Training Center, processed seventy-one new cases of officers found to be unsatisfactory. As General Haislip phrased it, "There is no doubt that the desert soon separates the men from the boys."[70]

The free spaces in the DTC-CAMA made certain precautions necessary. Thus, instructions were issued by the 90th Infantry Division headquarters that platoon leaders were to be instructed to halt their platoon in place when it became apparent that they were lost. During daylight hours, red and yellow panels were to be displayed to form a cross in order to identify the unit to searching aircraft. During darkness, ground signals would be fired.[71]

AAF officers watched the training of various organizations at the Center. Some of their observations were relayed to Headquarters, Desert Training Center, for whatever use it desired to make of them. Headquarters, Desert Training Center, brought these observations to the attention of the organizations concerned. To paraphrase some of these observations contained in one AGF letter:

79th Infantry Division:

> 1st Battalion of the 315th Infantry conducted carbine transition firing - excellent results; there was some confusion on the firing line.
>
> The instruction given to Company "K" of the 313th Infantry on weapon emplacements (previously prepared) would have been more effective if actual weapons had been installed in the emplacements.

5th Tank Destroyer Group:

> Reconnaissance Company of the 643d Tank Destroyer Battalion was conducting field training in a method of dead reckoning utilizing sketches to scale and the speedometers of the vehicles - the men appeared to know how to prepare and use the sketches; the company commander could not account for all of his men.

81st Infantry Division:

> The training of Company "B" of the 323d Infantry in scouting and patrolling -- although ample training facilities appeared available, the training was conducted in an area in and adjacent to the camp; this restricted area caused the distances and intervals between members of the patrols to be too close and was causing patrols to interfere with each other.

During the fifth week attention shifted to the battalion. Combat firing exercises were held, in at least one of which the complete battalion with all weapons participated with coordinated fire. Targets represented the enemy as realistically as possible. The problems were conducted so as to require action by reconnaissance and intelligence agencies to locate the targets.

The firing exercise of Company "I" of the 315th Infantry, 79th Infantry Division, observed by officers of the Army Ground Forces, illustrates this phase of training. The enemy was represented by soldiers on the objective who exposed targets and shot blanks from deep foxholes; this provided realism for the attacking company and superb battle indoctrination for the soldiers occupying the foxholes. The only control exercised over the company was that imposed by the battalion order, orders of the company commander and enemy action. The progress of the attack was slowed down to battlefield speed by enemy action. The initial orders for the attack by the company commander were

voluminous and covered unessential details, and left insufficient time for subordinate commanders to issue orders. By energetic leadership the company managed to be only four minutes late in jumping off to the attack. The use of cover, effectiveness and control of fire, and fire and movement throughout the exercise were excellent. Orders for the forward displacement of heavy machine guns in support of the attack were late. Officers from the Army Ground Forces did not notice any provision for contact with adjacent units.[73]

In the sixth week battalion combat firing was carried on, and units supporting or attached to the battalion were now included.

The seventh week raised training to the level of the combat team or command. The combat team together with supporting combat and service units engaged in a field exercise lasting about four days and three nights.

During the eighth week one exercise was held against a represented or complete hostile force. In June 1943, for example, Combat Command "B" of the 7th Armored Division engaged in the combat command firing exercises. The command was composed of its headquarters, an armored regiment (which included a reconnaissance company), an armored field artillery battalion, a battalion of armored infantry regiment, an armored reconnaissance battalion, an engineer company, a medical company, a maintenance company and detachment trains as required. The trains were subject to mechanized attacks which they drove off with organic antitank guns. Twelve dive bombers and one reconnaissance plane provided air support.

The reconnaissance battalion and the reconnaissance company aggressively developed the hostile position by probing and reconnaissance by fire. Many of the vehicles made excellent use of cover and defilade, and in general they withdrew satisfactorily.

Infantry and engineers, under cover of air attack, artillery fire, and smoke, breached the mine fields. A "snake" was pushed forward by a tank and successfully breached a gap. Otherwise tanks remained out of range of light field artillery fire. The commanding general of the combat command directed that two passages be opened through the mine field, although in North Africa it was the practice to provide a minimum of three per battalion front. Tanks moved through these gaps in the mine field, supported by air attack, artillery fire, and smoke. The infantry followed.[74]

During the ninth week the division received attention. A field exercise of about four days and three nights was held by the division for the purpose of perfecting performance, step by step, of both combat and service functions, and developing standard operating procedure.

During the tenth week the division held a field exercise of about four days and three nights during which it engaged in a retirement that involved a defense in depth on a narrow front; a defense on a broad front, with combat teams abreast; a defense by the division across open, flat terrain; a defense through parallel corridors and defiles by semi-independent columns retiring on a common objective. Here full use was made of the desert's varied terrain.

Maneuvers

In the eleventh and twelfth and thirteenth weeks the cycle of training culminated in maneuvers. In the first of the two exercises composing the maneuvers a defending force, usually a reinforced division, selected and organized a position in detail for the purpose of protecting a vital area or installation. The fortifications included tank ditches and traps, road blocks and demolitions, mine fields and other obstacles.

Since the construction of a complete position by a particular unit would have taken more time than was availalbe, the position was built up successively by units as they passed through the DTC-CAMA, each unit involved constructing typical fortifications. The operations of the attacker were as complete and detailed as time permitted, including a rehearsal in the rear area of operations against simulated portions of the position before the actual attack was launched.

The second exercise consisted in a series of field maneuvers simulating a campaign of approximately eleven days and ten nights which tested the endurance of units and their ability to fight, and which tested the capability of administrative echelons to resupply units over great distances and to provide day-by-day maintenance, battlefield recovery, and evacuation of combat vehicles. Supply was played in all details. (An extended account of both exercises is contained in the second section of Appendix "K".)

Officers from Headquarters, Army Ground Forces, observed part of each maneuver and evaluated what they observed. Of the six visits of General McNair to the DTC-CAMA, four were during maneuvers. At times AGF officers were joined by observers from other headquarters, such as the Army Air Forces, the Army Service Forces, and the War Department.

Units often arrived before the cycle of training was scheduled to begin, others remained after its completion. The former concentrated on individual and small unit training and reduced to a minimum the existing deficiencies in basic training, marksmanship qualification and familiarization firing. Divisions completed the "Special Battle Course." Units remaining after maneuvers put weapons and equipment in good order and corrected deficiencies disclosed during the training cycle. To illustrate, the 77th Division's leadership, physical and disciplinary standards as observed during the maneuvers under the IX Corps, were considered unsatisfactory by the Army Ground Forces, and the division remained at the Center until the deficiencies were corrected.[76] On the other hand, the standard of training of the 33d Division warranted its early departure for a combat theater. It did not complete the 13-week cycle, but left in June before the maneuvers.[77]

CHAPTER IV

ADMINISTRATION

Organization of the DTC-CAMA

Two concepts, firmly supported by Headquarters, Army Ground Forces, determined the organization of the Desert Training Center. The dominant one was the attempt to make the conditions of training as realistic as possible. The other was a desire to improve on existing realities, as in the theater structure and the AGF advocacy of a lean headquarters.

A War Department directive asserted that effective 1 December 1942 the Center would be operated internally as a theater of operations, but it was not until 26 January 1943 that the DTC General Order instituting the simulated theater was issued. The facilities of the Ninth Service Command affecting the Center began to be taken over by the communications zone on 8 February. By the appointed hour of 2400 (midnight) 14 February all facilities were absorbed with three main exceptions, two of them being of short duration: assistance from the Second Army Exchange Supervisory Service, and the furnishing by Camp Haan of laundry, shoe repair and salvage facilities, and hospital bed credits. Of longer duration was the continuance by the Los Angeles District Engineer of his services in the acquisition of land and in the supply of construction materials.[1]

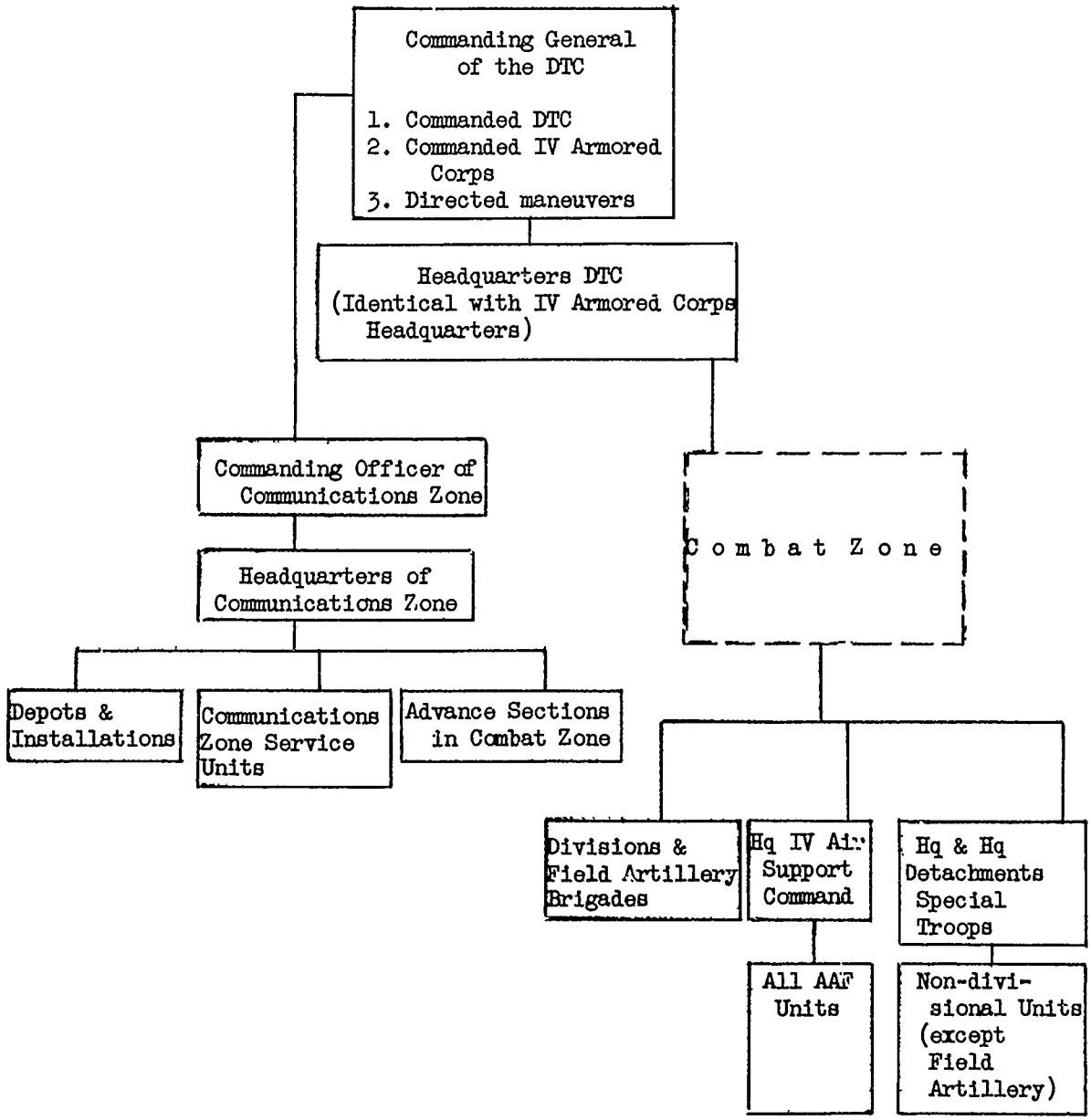
The Commanding General in the desert not only commanded the Center but was commanding general of the corps which administered it and, thirdly, the director of maneuvers. The headquarters of the Center was that of the corps then assigned to it. This corps headquarters was aided by a small unauthorized augmentation. Command of the Center shifted without intermission from the commander of one corps to the commander of the corps relieving him.

Under the Commanding General, Desert Training Center, were two zones: a combat zone inclosed within a communication zone. (See chart opposite.) The Commanding General and his staff directly controlled the combat zone in which all tactical units, Headquarters of the IV Air Support Command, AAF units, and service units immediately supporting air and ground units, were located. The 1st Headquarters and Headquarters Detachment, Special Troops, and soon the 2d, 3d and 4th such detachments, acted as intermediate headquarters for all non-divisional units except field artillery. They supervised the tactical and administrative instruction and training of their component units.[2]

The Commanding General, Desert Training Center, commanded the communications zone through the commanding officer of the communications zone. The headquarters of this zone had officers and enlisted men allotted to it, and they were not affected by a shift in command of the Center. Under the headquarters of the communications zone were the installations and units of that zone, service units, supply depots, general hospitals, station hospitals, and so on. Under it also were the advance sections of the communications zone situated in the combat zone, and charged with supervision of communications zone units within that area and the major maintenance of utilities.[3] Since the advance sections were located in Indio, Needles and Yuma, where headquarters and headquarters detachments, special troops, were located, some overlapping of activities occurred. In matters of sanitation and basic training, the advance section headquarters came under the supervision of the headquarters, special troops, in its area.

This organization differred in one important respect from the normal organization of a theater of operations. In the Center, one commander and headquarters were responsible for both the theater and the combat zone. There was no separate theater commander and headquarters.

Organization of the DTC under Gen Walker



The question of a separate theater headquarters recurred several times during the existence of the theater. In January 1943, Services of Supply suggested such a headquarters as one of two alternative modifications,[4] and proponents of the separate theater headquarters were not absent from Headquarters, Army Ground Forces, itself, among them being the G-4, Brig. Gen. William G. Walker.[5] But General McNair considered that he had an adequate theater headquarters in the Center as organized. He believed that a theater could be run by a small headquarters and desired to show in the desert how this could be done.[6]

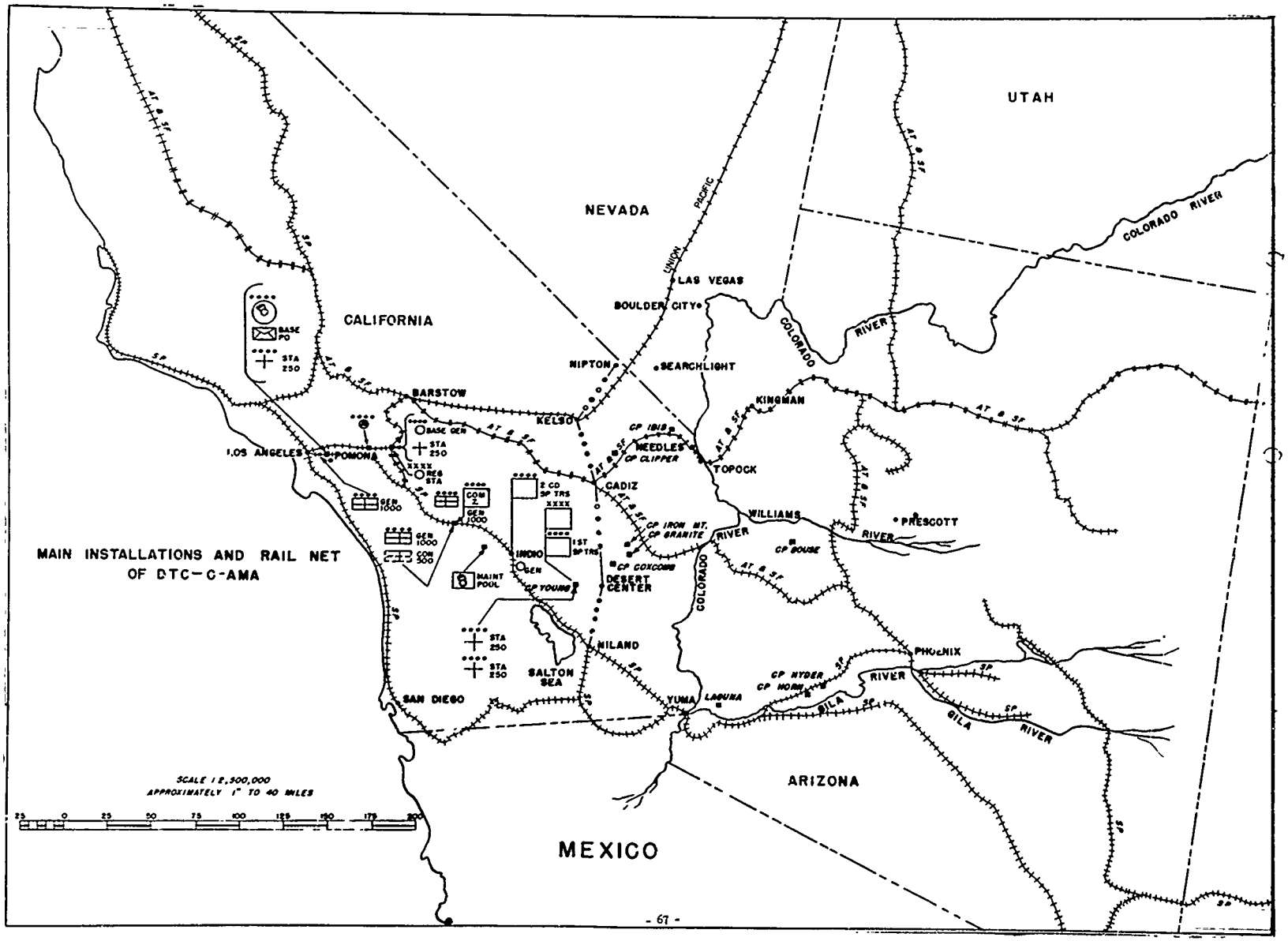
During the period of the IV Armored Corps there was a feeling in the communications zone that the corps staff in the combat zone did not understand how to operate the theater properly. The communications zone welcomed the opportunity presented to them when the IX Corps, under Major General White, succeeded to the command of the Center. The communications zone staff considered themselves to be old timers and the IX Corps the newcomers, and they believed they would be able to influence the operations of the theater to a greater extent.[7]

They were disappointed. Headquarters, IX Corps, became absorbed in administration to an extent displeasing to Headquarters, Army Ground Forces.[8] General White and his staff did not get along well with the communications zone staff. Under General Walker, the communications zone had been responsible directly to the Commanding General of the Center, but during the period of the IX Corps the communications zone was submerged under the entire IX Corps staff.[9] This change was not viewed with favor at Headquarters, Army Ground Forces. General White defended his course of action: "After due patience and experience it was shown that the CZ (communications zone) could not do the job. As I told you there are small men in big jobs. At the same time, I had fine, experienced officers on my staff."[10]

This direct supervision by the theater staff led to friction. Thus, during the maneuvers, the Surgeon of the communications zone unburdened himself to an umpire to the effect that many of his contemplated projects and recommendations were continually being disapproved by the DTC Surgeon. The Medical Officer of Headquarters, Army Ground Forces, believed that both the DTC Surgeon and the Surgeon of the communications zone were trying to do their jobs in a conscientious manner; some of their differences arose from disagreement about the use of medical means available to the Center such as the medical laboratory and medical regiment. Headquarters, Army Ground Forces, settled the immediate problem by ordering the Surgeon of the communications zone to the AGF Replacement Depot at Fort George G Meade.[11]

The AGF directive of 16 July 1943 dug at the root of the difficulty. It stated that in general the failure of the communications zone to function properly called for action by the theater commander through the commanding general of the communications zone, rather than direct action by the theater staff whose sphere lay properly in the combat zone. Liaison officers from the communications zone would be made available to the theater headquarters as they were needed to enable the theater commander to exercise appropriate command of the communications zone. Administrative functions were taken from headquarters of the special troops. The role of these headquarters and headquarters detachments was confined to training; the corps headquarters would administer the combat zone.

This directive also served to correct the violations of realism in having the communications zone surround the combat zone. The communications zone was now delimited as that portion of the theater west of a boundary extending from Niland through Desert Center and Cadiz. (See Map No. 5) The remainder of the theater constituted the combat zone.[12] This decision was not simply an expression of theory; it required corrective action. Advance sections of the communications zone now in the combat zone were


MAIN INSTALLATIONS AND RAIL NET
OF DTC-C-AMA
CALIFORNIA
NEVADA
UTAH
ARIZONA
MEXICO
LOS ANGELES
POMONA
BARSTOW
KELSO
NIPTON
SEARCHLIGHT
BOULDER CITY
LAS VEGAS
KINGMAN
NEEDLES
CP CLIPPER
CP IBIS
TOPOCK
GADIZ
CP IRON MT.
CP GRANITE
CP COXCOMB
DESERT CENTER
WILLIAMS
PRESCOTT
CP BOUSE
PHOENIX
CP HYDER
CP HORN
YUMA
LAGUNA
NILAND
SALTON SEA
CP YOUNG
IMPERIAL
SAN DIEGO
COLORADO RIVER
GILA RIVER
UNION PACIFIC
AT & SF
SP
BASE PO
STA 250
BASE GER
REG STA
GER 1000
COM 2
COM 500
MAINT POOL
2 CO SP TRS
1ST SP TRS
SCALE 1:2,500,000
APPROXIMATELY 1" TO 40 MILES
25 0 25 50 75 100 125 150 175 200

closed. Station Hospital units remained until sufficient hospital units could be obtained for the combat zone, and until station and general hospitals in the vicinity of Banning, Beaumont and Pomona were completed.[13]

The organization of the Center, as modified by the AGF directive of 16 July 1943, continued substantially the same for the remainder of the existence of the simulated theater. For a time it looked as though a further reorganization were in prospect. In the fall of 1943, General McNair determined to place the Fourth Army in control of the Center in order to give the Fourth Army more to do. He did not intend the complete headquarters of the Army to move to the desert and to establish a theater headquarters; its primary mission there was to be inspections and a determination of what was needed to run the theater. What might have developed from this, whether or not the Fourth Army might eventually have set up a theater headquarters, cannot be known because the Army Ground Forces was suddenly called upon to ship an army overseas. It decided to send the Third Army and to move the Fourth Army to San Antonio to replace the Third, in conformity with the general policy of withdrawing Ground Forces from the West Coast. The Fourth now had its hands full with a big task in the Louisiana area. Its headquarters, moreover, was too remote from the desert to exercise control. No change was made in the structure of the DTC-Cama.[14]

A summation of the problems presented by the administration of the simulated theater can be found in the observations of Maj. Gen. J. W. Anderson, the last Commanding General of the CAMA. They can be paraphrased as follows:

> A faulty relationship existed between the combat zone and the communications zone which resulted in a failure to balance tactical and logistical problems within the theater. The principal weakness in the single headquarters at Camp Young appeared to be its difficulty in realizing that it was in fact two headquarters, responsible for the coordination of the actions of the combat zone, which it commanded directly, and the communications zone, which it commanded through that agency's commander. "The most important single change necessary in the CAMA situation was the creation of a closer tie together of the functions, activities and interests of the combat zone and the communications zone through close control of and greater direct interest in the latter by the theater commander."

It had taken General Anderson almost a month after his arrival to find out by personal contact what was in the desert, and for a considerably longer period he and his staff ran into startling surprises in the form of individuals, units, installations and conditions. A permanent theater commander would have eliminated the need for this orientation under pressure and would probably have given a greater continuity to policy within the theater. On the other hand, such an organization would have removed the opportunity for valuable training afforded every corps headquarters on taking over the command. "I can't think of an experience," General Anderson wrote, "that has been more valuable to me or to my staff than our period of service in the Desert in welding that staff together and fitting us -- that is, the staff -- for what may be its function in the not distant future."[15]

Overhead

The DTC-CAMA overhead may be subdivided, for clarity, into overhead for the theater and overhead for the communications zone.

No augmentation was granted the IV Armored Corps or the IX Corps for the headquarters of the Center, but both corps found officers and men in headquarters when they arrived and they kept on using an unauthorized augmentation. Thus, the assigned and attached strength of Headquarters Company, IX Corps, was 138 officers and 406 men, whereas the table of organization called for a strength of only 97 officers and 279 men.[16] General McNair wanted as lean a headquarters as possible. He felt that

the corps headquarters might need some augmentation in personnel in order to function as the theater headquarters also, but not to the extent of that which the IX Corps had gathered to itself.

The 16 July 1943 directive of the Army Ground Forces stressed the importance of reducing overhead and service troops to the minimum required for effective operation of a theater in order that the experience thus gained might be available as a yardstick in connection with overseas theaters. The directive stipulated that the so-called "augmented theater staff" would be disbanded. The strength of the corps headquarters would be tabular, plus training and administrative increments to be published by Headquarters, Army Ground Forces.[17]

Thereafter, the corps headquarters was allotted increments. The IV Corps had a training augmentation of 15 officers and 19 enlisted men, an administrative augmentation of 16 officers and 35 enlisted men.[18] The X Corps, having a smaller population to train but needing the strength necessary to close the CAMA, had a training augmentation of only 7 officers and 8 enlisted men, and administrative augmentation of 16 officers and 35 enlisted men.[19]

The DTC-CAMA theater headquarters, therefore, did succeed in getting along with a lean headquarters compared with those of the theaters overseas.

The communications zone overhead presented a more difficult problem. With the theater headquarters, the Army Ground Forces had corps and army experience to go on. But experience in theaters, subjected to the highly technical demands of modern warfare, was still meager and in process of being accumulated. The Army Ground Forces started by permitting the headquarters of the communications zone an allotment of 56 officers (except general officers), soon supplemented by a second allotment for 4 warrant officers and 224 enlisted men. The allotment grew in several months to 66 officers, 12 warrant officers and 322 enlisted men. Base General Depot had an allotment of 61 officers, 6 warrant officers, 309 enlisted men.

The communications zone did not restrict itself to the number of officers established by Headquarters, Army Ground Forces. It expanded, using officers from the ASF Officers' Overseas Replacement Pool* and any other officers at hand to swell staff sections.* The commanding general of the communications zone explained that the zone could not be operated by the number authorized. Headquarters, Army Ground Forces, on the other hand, held that while a "grossly excessive" overhead continued to be used no specific data could be acquired as to the inadequacy of the authorized allotment because it had not been tried.

The 16 July 1943 directive forbade using pool officers for staff duty, except to fill vacancies. The commanding general of the communications zone submitted a request for an increase in the allotment of officers to headquarters and headquarters company to the communications zone from 66 officers to 96 officers, but refrained from asking for an increase in enlisted men. He asked for an increase in the allotment of officers and enlisted men for the Base General Depot.

General Haislip, the Commanding General of the Center, cut down the number of officers requested for headquarters of the communications zone. General McNair held "no particular brief" for the authorized allotment but at the same time he did not feel too much confidence in the allowances proposed by the communications zone. He felt that

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* See Chap III Sec III, "Special Training Opportunities for ASF and AGF Officers."

Headquarters, Army Ground Forces, would have to determine arbitrarily what allowances were reasonable. He wanted careful distinction made between the need for staff officers and the needs which could and should be met by additional service units. In principle, staff was to be restricted to a minimum, the maximum demands being met by tabular service units.

The staff sections at Headquarters, Army Ground Forces, reviewed the specific requests for staff sections at communications zone and at Base General Depot. As a rule the staff section at Headquarters, Army Ground Forces, believed that the corresponding section should have what had been requested and tried to skimp on personnel in other sections. Thus, for the Signal Section at communications zone, the commanding general of the communications zone had asked for 7 officers, General Haislip had reduced this to 6, Ground Signal believed 7 was reasonable, G-1 and G-4, AGF, said 5 would do, G-3 proposed 4. Where the allotment requested for headquarters of the communication zone had been 96 officers, General Haislip had reduced this to 84; G-1, AGF, advised 80, G-3 65, and G-4, 74.[20]

From the consideration of needs of the communications zone and the Base General Depot was evolved the revised allotment of personnel for the CAMA: for headquarters of the communications zone, 79 officers. Warrant officers remained at their strength of 12, enlisted men at 322. The allotment for Base General Depot increased from 61 officers to 94; from 6 warrant officers to 9; from 309 enlisted men to 480.[21]

Requests for increases in strength for the communications zone as well as for corps increments continued to arrive at the Army Ground Forces. The Commanding General, Army Ground Forces, in December 1943 had all correspondence returned to the Commanding General of the CAMA for restudy and further recommendations. He wanted CAMA to request increase only if essential, and he did not desire to revise allotments for corps augmentation.

The commanding officer of the communications zone replied that he considered the authorized strength of headquarters of the communications zone to be satisfactory. In fact, a slight reduction was requested.[22]

The strength needed for overhead at the communications zone of the DTC-CAMA was never settled on a basis considered satisfactory at Headquarters, Army Ground Forces. It was believed in the Overhead Allotments Division of G-3, AGF, that the simulated theater had never made a satisfactory effort to rid itself of excess personnel.[23] But compared with headquarters built up overseas, the headquarters of the communications zone was remarkably small.

The War Department and the Three Major Commands.

In its relationship with the Services of Supply (later the Army Service Forces), and the Army Air Forces concerning the simulated theater of operations, the Army Ground Forces insisted on adherence to the chain of command -- from the War Department to the Commanding General of the Army Ground Forces to the Commanding General of the DTC-CAMA. For more than half a year this seemed to concern the Army Ground Forces very little. Headquarters, Army Air Forces, evinced small interest in the simulated theater.

On the other hand, the Services of Supply was enthusiastic during the planning stage and looked forward to the introduction of the simulated theater as a training ground for service personnel. The Services of Supply agreed that the theater would be under the Army Ground Forces, but when the theater began to function the Services of Supply wanted to enter into the operation of the communications zone. It suggested that the heavy responsibilities of the DTC Commanding General be lightened by the adoption of either of two modifications of the DTC organization. Establishment of a

theater headquarters separate from field force headquarters would release the corps commander to concentrate on training the field forces. In this case the Commanding General, Services of Supply, should be permitted to supervise through the theater commander the training of the communications zone personnel. This solution would have the advantage of retaining unity of command over the entire theater, the disadvantage of dividing responsibility for the training of service personnel. Tha alternative modification suggested by the Services of Supply was to place the entire operation of the communications zone under direct control of the Commanding General, Services of Supply. In this case the commanding officer of the communications zone would function as an agency of the Commanding General, Services of Supply, and would be directed to operate in conformity with the desires of the field force commander.[25]

The Army Ground Forces kept command undivided. The Commanding General of the Center would train service units assigned to the Center for the operation of the simulated theater.[26] It went further and rejected a proposal by the Services of Supply that training status reports be sent by the commanding officer of the communications zone to the Director of Training, SOS. The Army Ground Forces held that since the training of units at the Center was in the domain of the Commanding General of the Center, a responsible commander, his time and efforts must not be taken up with the submission of unnecessary reports. "The training status of units will be observed in the field as a result of inspections and not from a study of reports." To ease the burden of taking care of visiting inspectors from the Services of Supply, the Army Ground Forces suggested that the Commanding General of the Services of Supply prescribe inspections of the technical training of service units by members of his staff and by the chiefs and staffs of appropriate branches. Arrangements for such inspections would be made through the Commanding General, Army Ground Forces.[27]

The Army Ground Forces made sure that the chain of command was respected. When the commanding officer of the communications zone dealt directly with the Services of Supply in approving the SOS Officers' Overseas Replacement Pool, he was informed that the Commanding General of the Center should have approved.[28]

The AGF directive of 16 July 1943 explicitly stated that the Army Service Forces had no authority to prescribe the strength, equipment, constructions or operation of any part or element of the theater, including the communications zone. In the event that instructions of any kind were received directly from the Army Service Forces without concurrence of the Army Ground Forces, the instructions were to be reported to the Army Ground Forces and otherwise disregarded for the time being.[29]

The Army Ground Forces and the Desert Training Center approved all requests from the Army Service Forces for visits to service units in the desert. But on several occasions the Army Service Forces was informally reminded that the Center was under the Army Ground Forces and that directives covering its operations would be issued by the Army Ground Forces.[30]

In the fall of 1943 complaints were lodged by the Army Air Forces and by G-4 of the War Department. The Army Air Forces maintained that the assignment of an Army Air Forces unit to the Center prevented it from being integrated with the operational training of the Army Air Forces as a whole. A group transferred to the desert might, after six months, differ from other AAF groups, having attained a higher level and its losses not having been replaced because of the lack of pooling facilities in the III Tactical Air Division. The Army Air Forces wanted to control air units in the desert for administrative purposes, allowing them to remain at the Center for the use of the DTC Commanding General for tactical purposes.[31]

Headquarters, Army Ground Forces, opposed this division in command. It was willing to have individuals and crews rotated, provided units were maintained at existent or greater strength in personnel and equipment.[32]

G-4 of the War Department, objecting to the severe conditions of the desert which shortened the life of mechanical equipment, recommended transferring the theater to another locality. He also contended that the Center should be under the three major commands on an equal basis. The Army Air Forces had since established its own training theater of operations at its Tactical Center in Florida, but realistic conditions had not been obtained because of the absence of ground combat troops and a complete communications zone organization. He recommended investing jurisdiction of the theater in G-3 of the War Department.[33]

On 8 November 1943, G-3 of the War Department held a conference at which representatives of the Army Air Forces, the Army Service Forces and the Army Ground Forces presented their views.[34] G-3, AGF, represented his headquarters. He defended the site by emphasizing its value for conditioning troops mentally and physically and for realism in firing. The adverse desert conditions had contributed greatly in determination of the capabilities of mechanical equipment. The only comparable area, the Big Bend Maneuver Area in Oregon, was subject to rigorous winters and a mountain fever period in spring which limited its use to summer and fall. Moreover, its railroad facilities could not be compared with those available in CAMA.

Air Force Officers at the conference insisted on the establishment of a separate theater headquarters. The Army Ground Forces replied that conditions in the CAMA were as realistic as possible, and they certainly could be made more so without adding the huge additional overhead necessary to create a theater headquarters.

The Air Force officers held that the theater commander and staff should be rotated as individuals to provide greater continuity of policy at the CAMA. G-3, AGF, denied that rotation of corps and corps commanders introduced changes in policy; to avoid this danger, the Army Ground Forces had issued explicit instructions for the operation of the desert theater.

G-3, AGF, asserted that combined training of air and ground units at the CAMA was by far the most satisfactory being received by AGF units in this country, but the trend appeared to be for the Army Air Forces to decrease rather than increase the strength and number of units at the CAMA. The figures he laid on the conference table showed how predominantly the CAMA was an AGF problem. Of the approximate total strength of 160,000 men then in the CAMA, only about 7,000 were from the Army Service Forces and about 4,000 from the Army Air Forces. To transfer almost 150,000 AGF personnel to War Department control in order to provide a different channel of command for some 11,000 ASF and AAF personnel would launch the War Department into the retail business and add a fourth major component to the Army within the United States, an action that seemed hardly economical.[35]

A week and a half after the conference the War Department issued a memorandum which explained that as the Army Air Forces approached its authorized strength in units, greater emphasis would be placed upon the training of replacement crews and fewer units would be in training. The continuation of the combined air-ground training program required the most efficient employment of the available air force units. Pooling them would permit the participation of large air force elements in the combined training of ground force units and in maneuvers in turn. The War Department assigned the III Tactical Air Division, including the supporting service units and airdromes, to the Third Air Force, and the Commanding General of the Third Air Force was made responsible for providing the necessary air force units to accomplish the required air-ground training in the CAMA.

The Commanding General of the Army Air Forces delegated the responsibility for air support training within the Army Air Forces to the Commanding General of the Third Air

Forces at McDill Field, Florida. All air support units (except troop carrier units) were assigned to the Third Air Force during the period of their availability for combined air-ground training.[36]

Thus air became equal to ground in the CAMA, a state similar to that in a theater except that no theater commander existed above to coordinate their decisions. As we have seen in the section on air-ground training in the preceding chapter, the change in command for air units in the CAMA did not result in participation of larger air force elements in air-ground training or maneuvers.

The change in command came in November 1943, and thereafter relations between the three major branches in the War Department continued without untoward incident. Meanwhile the problem of insufficient service units in the CAMA was becoming more serious.

CHAPTER V

SUPPLY AND SERVICE

Difficulties in Supply

Many factors combined to make supply of Desert Training Center-California-Arizona Maneuver Area very difficult.

In the first place, the strain on the railroads occasioned delays in the arrival of supplies. For example, rail shipments from the Ordnance Base to army depots or supply points involved four to seven days for approximately a 250-mile trip. This tied up not only the materiel being shipped, such as parts, but also the materiel in the field which required parts. A truck shuttle from the Ordnance Base forward was inaugurated, and for available items a 36-hour service was established on deadlined requisitions, a 72-hour service for stock requisitions. But this service was a drain on trucks and men.[1] A second ameliorative action was the introduction of a vehicle pool, which invluded a replacement of 3.5 per cent of the total vehicles authorized to units assigned to the Center. In general, units did not bring their vehicles to the desert but drew from the pool. This brought about a tremendous economy in rail transportation but, as will be seen, complicated the maintenance problem.[2]

In the second place, the tremendous population expressed vast and diverse needs. An inkling of the volume required may be gained from the order by the Center of 1,1,500,000 Type "B" 5-in-1 rations and 750,000 Type "C" rations for the summer maneuvers in 1943.[3] Between 1 February 1943 and 15 February 1944, the Ordnance Base shipped 45,000,000 pounds of supplies to using units and received 28,000,000 pounds for reclamation.

Driving truck on tarpaulin preparatory to floating truck across river.

Third, the locale, with its great distances between supply points and using units plus the adverse conditions of the desert, induced wear and tear quickly and thoroughly.

Fourth, the effects of the desert were aggravated by the necessity of practicing realism. General Anderson wrote that equipment in the desert suffered to a greater extent than anywhere else in the United States, and probably even more than in many a theater of war, but it was a wise precaution to go one better than the theater in which the troops would operate.[5]

Realism also took up time. G-4, AGF, believed that the supply system for small parts in the Center should be simplified. The system briefly was this: The Center requisitioned on Pomona; Pomona extracted on Benecia (or Stockton); Benecia extracted on the Chief of Ordnance. Supply followed the reverse channel. (For description of supply system within DTC-CAMA see Appendix "L", "Flow of Supply.") G-4 suggested that the Center be permitted to requisition on the Deputy Chief of Staff for all items which Pomona did not have immediately available; the supplies would then go direct from the shipping point instead of from Pomona. Ground Ordnance recommended no change because it felt the proposal attempted to solve the problems of the moment at the expense of improving the system and of gaining factual data.[6]

Outside agencies, not knowing how the DTC-CAMA was organized, occasionally consigned supplies to various addresses in the 60,000 square miles of the simulated theater. Time was lost in reshipping to the Base General Depot or Pomona Ordnance Base. Thus, the Quartermaster General directed the California Quartermaster Depot at Oakland to ship certain items of equipment for a unit to the Quartermaster at Camp Young -- a correct method had Camp Young been a post in the zone of interior. Informed of the proper channels, the Quartermaster General took action to ensure that supplies for units at the Center be shipped to Base General Depot. Despite the fact that, as in this case, the attention of the consignors was called to the correct address, shipments continued to come to other points.[7]

Besides these difficulties, there was an out-and-out lack of supplies for units in the United States. The reply to an officer of the Center asking for supplies was, "Yes but remember Eisenhower in Africa has preference over you."[8] In order to improve the supply situation Headquarters, Army Ground Forces, considered asking the War Department to raise units at the Center to an A-5b priority for issue of controlled items of equipment. Up to this time the units assigned to the communications zone had been on an A-7d priority. But there was a drawback. To increase considerably the number of AGF units receiving in the neighborhood of 100 per cent of equipment would result in the reduction of equipment available for "B" and "C" priority training units. This would not have mattered greatly in the case of non-divisional units which, in general, either remained at the Center or were soon placed in A-2, A-3 or A-4 priority for shipment overseas; but in the case of divisions which returned to stations in continental United States for further long training periods, large amounts of equipment not required by divisions after they left the Center would have been tied up.[9]

In August 1943 the situation was improved following AGF recommendation and War Department action which placed all non-divisional service units assigned to the Center in Priority A-5b for issue of controlled items of equipment unless a unit were already in a higher priority.

The difficulties in supply cannot be considered apart from shortages of equipment. Because of lacks, some materiel was used more often or subjected to employments for which it was not intended; desert conditions served to make its service stern; realism added relentlessness. Equipment broke down, the railroads could not deliver parts or other equipment quickly, the distances within the combat zone made delivery even slower. The large population added its weight to any stress.

To indicate the nature of scarcities, these will be given for the period under the IX Corps. Notes for scarcities during other periods are contained in footnote 11.

Early in January 1943 when the communications zone was being organized, the Chief of Ordnance had authorized for the Center a 60-day level of supply for the proper equipment of two armored divisions, one motorized division and one infantry division. By 5 April 1943 the Ordnance Base at the Center had received 18 per cent of the spare parts to be furnished automatically, none of the major items.[12]

In the Red Forces in the maneuvers held under the IX Corps, approximately one-half of the 23 units for which statistics are available had from 90 per cent to 100 per cent of their authorized vehicles. The others ranged from 10 per cent to 85 per cent. For 22 of the Red units the percentage of organizational arms is given. Only 7 of the units had 90 per cent to 100 per cent of their arms. Two organizations had none, one had 2 per cent, another 6 per cent.[13]

Besides the shortages already mentioned, for the June 1943 maneuvers shortages included field jackets, parts for field jackets, parts for field ranges, steel helmets, sulfa drugs, glucose in normal saline, bismuth salts, cassettes and identifying screens, firing devices, lumber (all dimensions), detonating cords, camouflage paints, posts screw and drive type (all sizes), radio mast sections, telephone and radio batteries, telephone loading coils, spare radio parts, diaphragm gas masks, decontamination equipment and shoe impregnite.[14]

A critical shortage of shoes and coveralls existed in many units during much of 1943. In many instances men wore khaki because they had no coveralls. The 7th Armored Division had a shortage of over 6,000 pairs of shoes, and some of the men were forced to wear civilian shoes.[15]

Here is an extreme case: Crystals for radios were requested on 18 May 1943, and a tracer was sent to Headquarters, Army Service Forces, on 21 September 1943. The reply from the Army Service Forces, received 10 November 1943, declared that it was too late to take action. Headquarters, Army Ground Forces, commented that this might account in part for so many "unserviceable" radios having been turned in when a unit had been inspected.[16]

Besides the factors mentioned above which made supply in the DTC-CAMA difficult, -- the railroad situation, the vast and diverse needs, the locale, the practice of realism, the lack of certain supplies in the United States -- one final factor remained: there was an inadequate number of service units. This factor will be considered in the section that follows.

Service*

The inadequate number of service units that could be provided for the DTC-CAMA proved to be its Achilles heel. Although service units in the communications zone were intended to be ASF-type units, the Army Service Forces was unable to furnish a number of them, how many cannot be accurately determined. Availability was often reported in informal conversations of which no record was preserved. Occasionally when the Army Service Forces did not have a unit for assignment to the desert, the Army Ground Forces supplies a unit of its own such as the Ordnance Depot Company stationed in the Communications zone in the summer of 1943.[17] But it could not supply all of the needed ASF-type or all of its own type of service units.

* For list of service units estimated as necessary for the operation of the Center, Appendix "F".

In May of 1943 the ration of communications zone personnel to combat personnel was only 15 per cent. Shortages consisted of two railhead companies; five depot companies; at least one refrigeration company; two salvage repair companies; four Ordnance medium maintenance companies; one Engineer medium maintenance company; one dump truck company; and a number of Signal units. This list was compiled by officers from Headquarters, Army Ground Forces.[18] General White compiled a much more extensive list.[19]

When in July, Headquarters, Army Service Forces, notified Headquarters, Army Ground Forces, of an unfavorable situation in Ordnance base shop installations in the Center and recommended that additional maintenance and supply organizations be provided for their operation, Headquarters, Army Ground Forces, rejoined that it had previously requested the Army Service Forces to assign additional service and supply units to the base shops in the Center. The Army Service Forces had replied that further increase of such personnel had been limited by the availability of trained organizations.[20]

In October 1943 these were some of the units reported by the Center as lacking: Engineers: one depot company, one parts supply detachment, one construction battalion, two depot companies, one message center and messenger platoon, one telephone operation platoon, one telegraph operation platoon; Quartermaster: one truck regiment, four depot supply companies, four gas supply companies, four railhead companies, one regulating station.[21]

In December 1943, General McNair enumerated for the Chief of Staff of the U.S. Army the extensive shortages of ASF-type service units.* He stated the number of such units requested, the number furnished and not furnished. Engineer units represented an extreme case: twenty had been requested, none had been furnished. Fifty-three Quartermaster units had been requested, twenty-nine furnished.[22]

The effects of the shortages were far from salutary. In the first place, certain work could not be performed. The shortage of Ordnance service units in the CAMA forced the establishment of priorities. Seven classes were established:

POM inspection teams
IGD inspection teams
Maintenance work for alerted units on small arms and artillery
Detachments for maneuver forces
Depot personnel to accept equipment being turned in
Maintenance work for units in the desert
Preparation of equipment for re-issue

By the beginning of 1944 no work was being done in the last two categories. Even shipments out of the area of surplus and obsolete materiel were delayed because of lack of personnel to handle them. The number of vehicles in pools had risen from 9,000 on 15 November 1943 to 11,120 in the early part of January 1944.[33]

Shortages of the personnel in depot companies contributed to difficulties in supply.[24] Shortages of the personnel in maintenance units reduced the level of quantity of maintenance. In September 1943 no Signal depot company had been available at the Base General Depot for five-and-one-half months out of the previous eight months, and repair activities had been accomplished "by improvisation." Lack of test equipment rendered such improvisations inefficient, for the tool and test equipment was to have been provided by the depot company. Out of the remaining two-and-one-half months when a Signal depot company had been stationed at the Base, its equipment had not been available for one month because of unpacking it at the first and packing and shipping it at the last.[25]

On 13 December 1943, the Base General Depot Signal Section had on hand 802 radio sets or separate transmitters and receivers turned in by orgranizations in the CMA.

* See Appendix "G."

Ninety per cent of these sets were not complete and ready for issue by the 21st. Here the shortage in personnel was complicated by the shortage in supplies, Base General Depot being unable to obtain about 30 per cent of repair items that had been requisitioned.[26]

Because of the shortage in Ordnance personnel, the usual procedure came to be the transferring of vehicles from a departing to an arriving unit without first putting the vehicles through Ordnance shops for inspection and repair. The eventual result was the accumulation, to an extent beyond the capacity of Ordnance Base, of vehicles requiring fourth and fifth echelon repair. Units would state they had received their vehicles in very bad condition and had not had the time to repair them properly.[27]

The situation was made worse by officers being placed on detached service and so on. In a Quartermaster service company with a strength of 3 officers and 216 enlisted men, one officer was on detached service to a higher headquarters, a second spent much of his time in school, and only the company commander remained to check daily details, to carry on company administration, to supervise and train his company which went out on an average of thirty separate details daily.[28]

A second result of the shortages in service units was the unfortunate effect on training. Conditions arose such as attended the taking over of tanks and other vehicles by the 11th Armored Division from the 9th Armored Division. Apparently these had not received proper day-by-day maintenance in the 9th Armored Division, and responsible Ordnance officers had not taken steps to prepare them properly for re-issue. The beginning of the 13-week training cycle of the 11th Armored Division was consequently delayed several weeks by the condition of tanks and other vehicles.[29]

Moreover, the military and specialist training of the service units themselves was inhibited. Although the Army Ground Forces insisted that unit training for service units be completed,[30] this could not always be done; sometimes service personnel of a certain type were so scarce that they could not take time away from their specialties. Ten months after activation, Company "C" of the 65th Quartermaster Laundry was still in its basic training phase.[31] Companies "A", "B," and "C" of the 133d Ordnance Maintenance Battalion had such a heavy maintenance load that they could not engage in military training.[32]

Sometimes units were diverted from the mission for which they were organized and trained. Sales units performed supply depot functions, service companies operated railheads, depots and supply points for all classes of supply, bakery units performed the labor duties of service companies.[33] A port organization took charge of the regulating station at Colton.[34] Ironically enough, the very attempt to gain realism in July 1943 by ruling station hospitals from the combat zone resulted in an unrealistic condition. Since proper medical units could not always be had, improvisations had to be accepted -- a clearing company operating a general dispensary at Camp Young, another clearing company conducting a convalescent camp.[35] Shifting men into work for which they had not been trained could not have raised their morale, at least not at first. Moreover, in many cases the substituted unit's strength was excessive for the job assigned.[36]

Third, compromises had to be made with realism. We have already seen several such compromises, as in a clearing company operating a general dispensary. Army depots in the combat zone were not always stocked because of the lack of depot companies and service companies to operate them. As a consequence, the supply system in the CAMA could not altogether follow a pattern of an overseas theater. The Base General Depot was often a retail agency where it should have been exclusively a wholesale one. It filled requisitions from front line units -- in June 1943 at the rate of 175 to 250 requisitions daily.[37]

A fourth effect was a deterioration in the quality of personnel. Since most service units proceeded from the CAMA directly to a port of embarkation, units preparing to leave dropped unfit personnel and cannibalized other units for replacements. The unfit thus remained in the DTC-CAMA, sometimes a number accumulating in one unit. [38]

A fifth effect was that Headquarters, Army Ground Forces, could not reap some of the data it had hoped to obtain. It was hoped by the operation of the DTC-CAMA to learn the necessary overhead in service units and to test the ability of service units to support an active theater under an orthodox field system.[39] But the shortage of service units precluded a conclusive test. The list in Appendix "F" of service units estimated as necessary for the operation of the simulated theater remained an estimate.

Naturally, the DTC-CAMA and Headquarters, Army Ground Forces, sought to obtain more service units. Both Generals White and Haislip sent Headquarters, Army Ground Forces, a list of service units they believed essential for the operation of the Center.[40] Headquarters, Army Ground Forces, sought continually to secure ASF-type service units. After Col. Floyd Devenbeck of Headquarters, Army Service Forces, recommended to the Commanding General, Army Service Forces, that service troops in the desert theater be increased, Headquarters, Army Ground Forces, concurred and presented a list of shortages. But a great many requirements could not be filled. [41] Later, Headquarters, Army Ground Forces, brought an excerpt from the Quarterly Report of the Inspector General to the attention of Headquarters, Army Service Forces:

> It has been noted that most of the service units of the Army Ground Forces have subsequent to their training period participated in maneuvers. In certain instances units have has the advantage of two or more maneuvers prior to departure for overseas. On the contrary, as a rule, only those service units of the Army Service Forces that have been attached to the DTC have received this combined training under combat conditions. It is believed that consideration may well be given to attaching service units of the Army Service Forces to the Army Ground Forces for periods of maneuvers. [42]

At about this time, November 1943, G-3, AGF, has come to believe that the current number of servuce units apparently approached the maximum that the Army Service Forces could furnish. [43]

To counterbalance the inadequacy of servuce units, the DTC-CAMA fell back on stop-gaps to keep the simulated theater going. When a critically needed service unit left and could not be replaced in orthodox fashion, it sometimes was replaced in unorthodox fashion: bakery companies operating as collecting companies, fumigation and bath units as railhead companies and so on.[44] Or a provisional unit might be formed. When the Center could not get a section of a medical supply depot for maneuvers, it organized a provisional medical supply depot section from medical battalions under its control.[45] When Headquarters and Headquarters Company of the 11th Replacement Depot departed without replacement, CAMA established a provisional detachment to handle replacements. Officers were placed on special duty and enlisted men were used whose discharges were pending under WD Circular 161.[46]

Another expedient was the employment of civilians, as at the Salvage Depot, Base General Depot, A rare expedient was the borrowing of strength. Thus, the Pomona Ordnance Base had been set up to operate as a maintenance establishment for units in CAMA. By the beginning of 1944 it was attempting to operate as a staging area depot, a function for which it had neither personnel nor stock. Its personnel was augmented by one hundred enlisted men borrowed from ASF units at Camp Santa Anita.[47] Similarly,

when a Quartermaster shoe repair unit was withdrawn without replacement, shoes in need of repair accumulated and the Center had to call on Camp Haan, a Ninth Service Command installation, for assistance.[48]

The men and officers did the best they could under difficult circumstances and made the simulated theater work. Frequent observations noted the spirit of men and units. Officers from Headquarters, Army Ground Forces, while pointing out that inappropriate and insufficient non-divisional signal units had been assigned to the Center for its operation as a theater, considered more worthy of note the initiative manifested in providing signal service in spite of the obvious difficulties.[49] On one occasion a division and thirty separate units turned in all small arms and a considerable portion of their artillery about a month before departure; the base armament battalion at Pomona Ordnance Base worked 12 to 14 hours a day, seven days a week, on this material alone.[50]

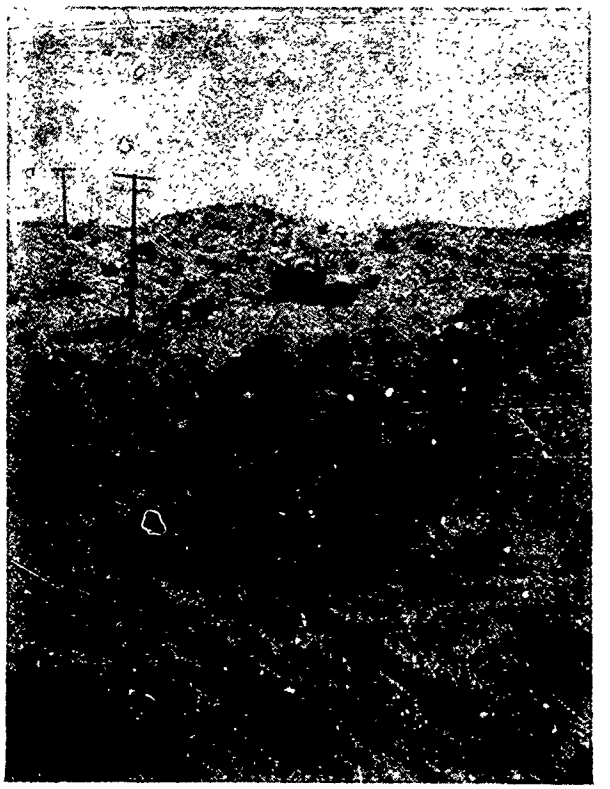
Inevitably the supply and service situation brought about certain unfortunate repercussions. Upon their departure, the 7th Armored Division, the 33d Infantry Division, and various other units had turned over large surpluses of spare parts to their supporting maintenance units, usually -- since the units were getting ready to leave -- in an unsatisfactory state, being mixed and unidentified as to new or used condition. Even as these surpluses existed, there were shortages in rear installations. General Haislip ordered the evacuation of parts surpluses to the Pomona Ordnance Base, presumably with the idea of sorting, reclaiming and processing the material back into supply channels. But since there was no surplus of service units to handle the material, the evacuation was disorderly, further increasing the confused and unclassified condition of the material as to reach Pomona.[51]

The problem faced at the DTC-CAMA are illustrated by one section of the service picture, the Ordnance maintenance situation. It was frequently found to be unsatisfactory.[52] Undoubtedly, first and second echelon maintenance work was not being carried on adequately at all times by the responsible personnel. But many factors entered into the situation, which were beyond the control of Headquarters, Desert Training Center, or Headquarters, Army Ground Forces. These were:

Desert conditions

Realism. Little or no protection was given maintenance units as an offset to the condition imposed by the desert. Realism made cross-country driving necessary. Although excellent training, this was hard on vehicles. Ordnance maintenance battalions, moving during maneuvers in accordance with the tactical situation, could not devote all their time to maintenance.

Lack of supplies, both in maintenance equipment and in small parts, which necessitated the deadlining of vehicles. Throughout the history of the DTC-CAMA, supplies such as the following were not made available in sufficient quantities: springs (for half-tracks and certain other vehicles), bearings and grease seals, certain types of exhaust manifolds, accessory units for all types of vehicle makes (as generators, fuel pumps, starters, instruments panel gauges), distributor parts and repair kits for carburetors, generators, starters, fuel pumps, water pumps. hydraulic brake wheel and master cylinder. Major units not available at various times consisted of engines, transmission clutch and transfer units.[53] Vehicles which should have been deadlined continued to be subjected to wear and tear because the using organizations did not want to risk having their vehicles impounded for a long time by maintenance units waiting for parts.



Recovering Medium Tank from Dry Wash

The inadequate number of Ordnance troops. While the number and type of Ordnance units were not too far below the theoretical requirements of the theater based on troop density, they were far too few from a practical standpoint considering the factors mentioned above. Lack of tools especially hampered production. Tools were made where practicable but were generally inadequate. Moreover, the state of proficiency of many units in their specialties left much to be desired. Training of alerted Ordnance units for POM also hampered production and service, although the units were still charged against the CAMA on paper. Time was taken from supply and maintenance work to permit the troops to be trained as soldiers. Also, service troops would frequently be pulled out with no overlap between units. Since the heavy weight of work often precluded the keeping of proper records in supply installations and in maintenance units, a new unit on arrival would find not only a tremendous burden of work awaiting it but would often also have insufficient records to go on. Deadlined vehicles would have to be inspected to find out what was wrong with them, at a great loss of time.

Two other factors must be borne in mind in evaluating criticisms of maintenance in the desert. In the first place, observers usually noted the state of maintenance and the number of deadlined vehicles during or immediately after maneuvers when these were at their worst. Second, it is probable that the disability figure of 3.5 per cent set for the Center was too low. In general, figures had been set too low for

combat, and combat experience eventually necessitated raising them. As Lt. Col. F. W. Rodman of the Ground Ordnance Section pointed out, the British at El Alamein were permitted 300 per cent of their table of equipment because of the long supply lines, difficulties in terrain, enemy action and so on. Unfriendly terrain and long supply lines existed in the simulated theater. Moreover, the 3.5 per cent disability figure included the necessary administrative motor vehicles, such as were required for umpires, inspectors and visitors.[54] The disability figure did not take into account the fact that equipment was not always new when it arrived in the desert, and certainly was not new as the Center grew older. In Colonel Rodman's opinion, the equipment often received more severe usage than it would have received under normal conditions in an actual theater of operations.[55]

From 25 November until 18 December 1943, a maintenance inspection of automotive and armament activities in the CAMA was conducted by Lt. Col. Allen G. Raynor for The Inspector General. Maneuvers took place 20 November to 11 December 1943, so that the inspection began five days after the start of the maneuvers and lasted eight days after the completion of the maneuvers, a period during which maintenance units would be strained to their utmost and maintenance in the field would look its sorriest. Colonel Raynor noted that the number of maintenance units was insufficient; moreover, the personnel had to perform military duties as well as maintenance. He stated that General Patch personally directed some corrective measures, and evidence of other improvements came to the attention of the inspecting officers. Nevertheless, Colonel Raynor considered conditions to be very unsatisfactory and of such nature as to be viewed with alarm. He found drivers adequately trained and capable in general, but spot checks of more than four hundred vehicles used in the maneuvers, plus observation of vehicles which had been evacuated to the supporting maintenance showed abuse of vehicles and neglect of first echelon maintenance. Vehicles in need of higher echelon maintenance were continued in service. Drivers operated vehicles over rough terrain at speeds in excess of that which could be classed as necessary or reasonable. Vehicles were often overloaded. In second echelon maintenance, work was accomplished to restore vehicles to service after failure, but only a very limited number of organizations attempted to accomplish systematically scheduled preventive maintenance service.[56]

Removing final drive in a light tank to repair an oil leak.

It was pointed out by G-4, AGF, that the report was full of generalities and failed to present a clear picture which took into account the shortage of transportation and railroad rolling stock, the backlog now existing in all service commands, and the difficulty of securing permission to further evacuate them. G-4 took up points in the report and sought to refute them. But General McNair insisted on vigorous action. Thereafter, it became the practice of the Army Ground Forces to keep a maintenance inspection team out in the field.[57] The Army Ground Forces also sent a copy of The Inspector General's memorandum to CAMA and asked for a report of corrective actions taken.[58] Among such actions, CAMA organized an Ordnance maintenance check team to operate directly under Headquarters, CAMA, for the purpose of checking maintenance, parts supply, mechanics' training and so on.[59]

Because of Colonel Raynor's unfavorable report, the Deputy Chief of Staff of the United States Army directed The Inspector General to determine whether any individuals were responsible for improper supervision of equipment maintenance in units in the CAMA. His investigation found that the handling of equipment and maintenance produced a recurrent pattern under each commanding general of the DTC-CAMA. First a commanding general became acquainted with the problem which, after the period of the I Armored Corps, included an unsatisfactory condition already existing. Toward the end of the first month, the publications of each commander mentioned the deterioration in maintenance, lack of driver discipline and of adequate supervision. More attention was given and conditions gradually improved. But during maneuvers, maintenance became secondary to tactical considerations and was generally neglected.

After reviewing a great deal of evidence, the investigators concluded that AGF policies for CAMA, together with certain attending conditions, placed limitations of authority and opportunity on all CAMA commanders in maintenance matters. The report classified the causes for unsatisfactory maintenance under seven heads:

Abruptness in the change of command.

The investigators observed that the substitution of one command for another without the overlap, created a situation which a commander and his staff would have to meet in opening an active theater. The investigators believed it quite possible that this test had permitted the selection of superior commanders for combat assignments with benefits sufficient to offset the reduced effectiveness in maintenance.

The triple role of each commander of the DTC-CAMA.

The absence of a permanent theater headquarters.

The investigation overlooked the fact that the communications zone headquarters was intended to provide the continuity considered necessary.

Emphasis upon realism and severity of training; tactical requirements fulfilled at the expense of maintenance.

On this point the report stated, "It is probable that units trained in CAMA have met the enemy better prepared for the final test of battle than any other units of our army in any way. It is understood that recent reports from the Italian Theater bear out this estimate." Continuing inadequacy in the number, state of training, and tenure of duty without overlap, of maintenance and other service units, coupled with inadequate training.

Against this must be borne in mind that the quota of ordnance units in the CAMA, including maintenance, was at all times considerably higher than in the Army Ground Forces at large.[60] Moreover, the Army Ground Forces had been unable to obtain ASF-type service units from the Army Service Forces for the CAMA: of nineteen Ordnance units requested, almost half had not been furnished.[61]

Rotation of used equipment from unit to unit.

The severity of the desert terrain, soil, wind.

The Inspector General concluded that the policies imposed by Headquarters, Army Ground Forces, had been calculated to insure to units and commanders such a high state of tactical proficiency as to achieve victory in "battle without the excessive loss of life that has characterized our previous military efforts." Whether this served in the best interests of the nation would be demonstrated, if ever, by future events. He recommended that the matter be considered closed.[62]

Lt. Gen. Joseph T. McNarney, Deputy Chief of Staff, approved. He stated, "The stress placed primarily on factors calculated to produce superiority in leadership and in combat efficiency of units has had and will continue to have War Department support."[63]

CHAPTER VI

MIRROR TO ARMY GROUND FORCES

By the beginning of 1943, the Army Ground Forces had fully evolved its principles and methods for training of tactical units. The policies usually were not explicitly defined as such but rather were implicit in the decisions characteristically made. The Desert Training Center-California-Arizona Maneuver Area, developing into a simulated theater of operations, mirrored these policies and methods.

DTC-CAMA naturally used the training devices which the Army Ground Forces had found to be worthwhile:

The Ladder

Army Ground Forces favored the system of proceeding from the simple to the complex, from advanced individual training to advanced small unit training, to combined training, and finally to large unit maneuvers. This system was the basis of the DTC-CAMA 13-week training cycle.

Tests

The DTC-CAMA supervised many tests, such as the Field Artillery Battalion Test, the AGF Combat Intelligence Test, the Air-Ground Communication Test, the AGF Physical Fitness Test, and so on. Other tests were permitted, such as the Proficiency Test for Tank Crews which the Fourth Armored Division had formulated.

Critiques

Critiques followed not only each exercise in the maneuvers, but even the rehearsal for the attack at Palen Pass.

Reviews

In the main, the 13-week cycle of training in the DTC-CAMA contained elements previously taught to individual and unit and now used in practice, elements such as firing, map reading, patrolling, and so on. Units profited from time available before or after the training cycle by making up training or by concentration on elements in which weaknesses had been discovered.

Discipline

Discipline was a fundamental process. It had to be inculcated in the civilians who had donned uniforms before they could be considered to have been transformed into soldiers. AGF observers carefully noted evidence of discipline or lack of it, saluting, the number of AWOL's, and so on. The desert, a trying place, was as good a spot as any to test basic discipline.

Realism

In the DTC-CAMA the consistent emphasis of the Army Ground Forces on realism as an essential of training was intensified.

Theater of Operations

By merely functioning in the DTC-CAMA, units learned how to conduct themselves overseas. They learned by doing, the method which the Army Ground Forces consistently

believed to be the best form of training. No training installation in the continental limits of the United States was comparable to it in giving scope to the application of this principle.

The Team

Headquarters, Army Ground Forces, consistently opposed the training to any considerable extent of units with their own kind, that is, engineers with engineers, infantry with infantry. General McNair believed in matching together, as early as possible, the elements which typically would function together as a team under combat conditions. In this way, a unit, whether combat or service, learned what was expected of it by what it could expect from nearby units of another branch or arm of service. The statement in the Quarterly Report of The Inspector General may well be repeated:

> "Only those service units of the Army Service Forces that have been attached to the DTC have received this combined training under combat conditions."

Headquarters, Army Ground Forces, believed in the efficiency of free maneuvers, and (as has been pointed out), almost no man-made barriers obstructed free maneuvers in the DTC-CAMA. Troops outflanked a position by climbing mountains impassable to all but infantry. They set up new railheads, and, leaving, destroyed them. They dynamited sections of a pass in order to delay pursuing troops. Moreover, any exercise, not maneuvers alone, could be as free as was desired. For example, the platoon leadership exercises were carried out over a wide and free area.

Unity of Command

Here, as elsewhere, the Army Ground Forces insisted that the chain of command be respected. After the period of the IX Corps, during which the communications zone was supervised by the Corps staff, the Army Ground Forces reorganized command to proceed from the Commanding General of the Center through the commanding officer of the communications zone.

The Strenuous Life

The DTC-CAMA permitted a maximum of physical and psychological toughening. The DTC-CAMA served as more than a simulated theater; it was also a gigantic laboratory. Few U. S. troops had been committed to combat when the Center began, and the great offensives in Europe were yet to come when the DTC-CAMA closed. Officers and men in the desert learned when and how to use new weapons, high command planned how best to combine old and new units and weapons into team.

The system of supply was carefully studied by the War Department. From experience gained in the desert as well as from observations which were beginning to be assembled from overseas, FM 100-10 was revised and published 15 November 1943.[1] (For "Flow of Supplies," see Appendix "L.")

General McNair's belief that military decisions were won by the men who directly confronted and outfought the enemy led to his insistence on retaining the minimum of personnel in non-combat rear areas and headquarters. Although comparison is impossible since theaters in different parts of the world faced varied conditions, it can be said that the communications zone of the simulated theater in relationship to the combat zone was many times smaller than in overseas theaters. In December 1943, despite the fact that a number of the units were provisional units formed to meet emergencies and presumably not operating with the efficiency of a table of

organization unit, the strength of the communications was only 15 per cent of the strength of the theater. It was not because this percentage was too small that General McNair urged the closing of the CAMA, but because shipments of service units overseas made it impracticable to maintain this strength efficiently.

General McNair also insisted on a lean headquarters for the entire theater. The conviction that an army could be operated effectively with such a headquarters stuck with the only Commanding General of the desert area after it became a simulated theater who became an overseas army commander, General Patch.

Some of the influences exerted by the DTC-CAMA in matters such as doctrine and equipment have been indicated in this history. General Patton and General Walker used infantry and armor in Europe as they had used it in the desert. Armor slashed along, by-passing resistance areas which the infantry then took over. In the DTC, General Patton had worked out his plan of action in his "Notes on Tactics and Technique of Desert Warfare (Provisional)." [2]

Test by Desert Warfare Board: Mack #4 Lifting and Swinging Wrecked P-38.

Other influences of the DTC-CAMA have been previously indicated, such as its use by the Army Ground Forces to test the caliber of commanders and the greater emphasis placed on maintenance after The Inspector General's unfavorable report. The role of the desert in testing and developing equipment is considered in Appendix "H".

Almost anything done in the DTC-CAMA could have been duplicated in part or in whole elsewhere. The same training devices were used by other training agencies. Maneuvers relatively as free as those in the DTC-CAMA could have been held elsewhere, although not on so large a scale nor throughout the year. The unique value of the DTC-CAMA lay in this: beyond any other area it offered diversified training, the elements of which were not scattered about as fragments. The jigsaw elements which made up training, administration, supply, service, and experimentation were brought together into an articulated whole by means of the theater concept.

CHAPTER VII

THE CLOSE

Decision

When shipments of service units overseas were increasing towards the end of 1943, conditions in the California-Arizona Maneuver Area became correspondingly worse with no promise of improvement. In December 1943, the need for service units was such that Operations and Planning Division considered the possibility of detaching them from divisions in training in the United States for immediate shipment overseas. General McNair therefore recommended to the War Department that the CAMA be closed. The 80th Division, the last of four divisions to complete its training in CAMA, would have done so by approximately the first of April 1944. Allowing for the necessary delay in movements, General McNair believed it possible to close the theater on or about 1 May 1944.[1]

The War Department was receptive to the proposal for additional reasons also. The number of divisions remaining in the United States would progressively decline. Moreover, the anticipated commitment of tactical aviation would leave at a maximum only enough to support air-ground training in two maneuver areas concurrently. Of the two maneuver areas, one might possibly be a training theater of operations. The War Department called for a representative of the Commanding General of the Army Ground Forces, the Army Service Forces, and the Army Air Forces to confer on 12 January 1944 and to agree on the controlling elements of a general plan.[2]

The conference accepted the recommendation of Headquarters, Army Ground Forces. The CAMA was to be closed as rapidly as possible after 15 April 1944, and no theater of operations training area would be maintained thereafter. The Tennessee Maneuver Area would be discontinued as a manuever area after March 1944. The West Virginia Maneuver Area would be discontinued after June 1944, except for one training assignment. The Louisiana Maneuver Area was to be continued, and the Carolina Maneuver Area was to be used in airborne training.[3]

The War Department formally announced to the Commanding General of the Army Ground Forces, the Army Air Forces, and the Army Service Forces that the CAMA was to be discontinued as a maneuver area on 15 April 1944 and was to cease internal operations as a training theater as of 1 May 1944. A relatively small number of troops was to be maintained in the CAMA to preserve its status as an army training area pending later decision as to its future utilization or disposition.[4]

Execution

In the latter part of January 1944, Headquarters, Army Ground Forces, communicated the decision of the War Department to the Commanding General of the CAMA.[5] Conferences were held between officers from the Army Ground Forces and the Army Service Forces, and AGF officers attended conferences at the CAMA.[6] What should be done, for example, about vehicles? About 27,000 vehicles were scattered throughout the area on 17 January 1944.[7] Brig. Gen. J. W. Barnett of the War Department estimated about 12,000 of these to be in pools. About half of the pooled vehicles needed only first and second echelon maintenance; of the remaining 6,000, about 600 were beyond economical repair. So approximately 5,400 would require third or higher echelon maintenance. The limited space at the Pomona Ordnance Base permitted the storage of only about 5,500 vehicles, and about 4,500 vehicles were already there.[8]

The Commanding General of the Army Ground Forces was made responsible for the rehabilitation and evacuation of equipment in the CAMA. For fear of too greatly

restricting the Commanding General of the CAMA, Headquarters, Army Ground Forces, instructed him only in general terms to repair, overhaul, and evacuate equipment in excess of that required. The Pomona Ordnance Base Depot and the Base General Depot would be turned over to the Commanding General of the Army Service Forces with such personnel as was stationed there and such stocks as might be on hand at the time agreed upon by the Commanding Generals of the Army Ground Forces and the Army Service Forces.[9]

The War Department's indecision over the possible future utilization of the desert area hampered Headquarters, CAMA. On 23 February, General Anderson asked the Chief of Staff of the Army Ground Forces for instructions as to the utilities he should take out of the camps being abandoned. General Walker, G-4, AGF, informed General Christiansen that the Commanding General of the Army Service Forces had stated he favored cleaning out the CAMA lock, stock and barrel. By tearing down buildings, except those at hospitals and at bases such as Pomona and Base General Depot, General Somervell estimated that the Army Service Forces would be able to retrieve approximately 35,000,000 feet of lumber needed for the boxing and crating of equipment going overseas. But the Army Service Forces could do nothing until the War Department reached a decision.[10]

Early in March 1944, G-3, War Department, expressed himself to be willing to have no camp sites retained. The closing was to be coordinated with the Army Service Forces, without whose advice General Anderson was to do nothing. This decision by the War Department permitted General Anderson, who was in touch with the Army Service Forces, to proceed more effectively.[11]

He took steps and secured coordination with the Army Air Forces. Four army air fields were located within the CAMA, at Thermal, Rice, Shavers Summit, and Desert Center. Abandoning of AAF activities at these fields was not contemplated in the near future, and utility service to those fields was to be continued. Liaison was maintained with agents of the Army Air Forces until full control of the area was returned to the Army Service Forces.[12]

Headquarters, CAMA, drew up a plan which involved the following:

Personnel. Combat troops were to move from the area on completion of the 13-week training cycle. Service troops not on an alert status or more urgently required elsewhere were to remain in the area until no longer required. Units in an alert status were to be processed in the area and moved to a port until 1 April. Those with later dates were to be moved domestically after 1 March and were to be processed elsewhere. Details of the transfer of units and personnel to the Army Service Forces were to be coordinated with the Army Service Forces.

Materiel. As the troop strength diminished, depots in the combat zone were to be closed and stocks shipped to Base General Depot, Pomona Ordnance Base, or out of the area.

Installations. Camps were to be closed, tentage, stoves, and similarly movable items being shipped to the base depot. No steps were to be taken to dismantle permanent structures but camps were to be policed and placed in condition for subsequent occupation if the need arose. Pole lines were to be removed.

General Police. The entire area was to be policed for the purpose of recovery and disposition of any abandoned equipment and supplies, and for general clean-up purposes. This procedure was to devolve principally upon combat troops.

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Location and Disposal of Unexploded Shells. Consideration was to be given to the location and disposal of unexploded shells. It was recognized that practically the entire maneuver area had been used for firing during a period of approximately one-and-a-half years. In a majority of cases no record were available detailing areas in which firing had actually been conducted. The training requirements and preparations for movement of troops prevented any extensive use of troops to search for duds. Headquarters and Headquarters Battery of the X Corps Artillery was to police the Iron Mountain Range.

Fortified Area, Palen Pass. The task of restoring this area to its original condition exceeded the capabilities of the troops available, so it was to be left as it was and marked by appropriate signs. Materials of various types which had not been incorporated into the position were to be collected and disposed of.

A high priority was given to the sorting and classification of material in the base depots, and service troops were made available for this work. They were aided between 4 February and 14 March by approximately thirteen hundred Italian Prisoners of War.[13]

By 7 March 1944, General Anderson was able to inform General McNair that everything was running according to schedule with the single exception of getting troops out of the area.[14] Heavy demands on the Southern Pacific, which carried the bulk of traffic from the desert, limited the movement to about three trains daily. The fact that units moved with full, and sometimes extra, equipment created a considerable demand for cars.[15]

By the beginning of April the number of troops in the area had been reduced to approximately 35,000. All divisions had departed from the area except the 80th Infantry Division, and it cleared on 5 April. Seven principal camps, two general hospitals, and three principal supply installations were evacuated. Plans for disposition of personnel not in tabular units had been put into effect, and approximately 250 men were being processed weekly through the replacement training depot which checked to see if they were qualified for overseas duty. Conferences with local government representatives were held for the purpose of discussing road damage and measures to be taken. Investigations were conducted on reports of alleged destruction or misappropriation of government property, the majority of which were proved to be groundless.

By 15 April, all camps and installations were evacuated except Camp Young, headquarters of the communication zone, the Base General Depot and the Pomona Ordnance Base.[16]

Lt. Col. Rolf Dallmer of the Fourth Army had previously been directed by the Commanding General, Army Ground Forces, to survey the Army fixed-wire plant in the CAMA. His report, written in January 1944, was intended to indicate possible economies in the wire plant, but instead served as an aid in its dismantling.[17] The Army open-wire plant in the CAMA consisted of 659.35 line miles of a total of 6655.1 wire miles. At the request of the Commanding General, Ninth Service Command, 827.4 wire miles were left in place to serve installations to be operated by the personnel of the Service Command after the closing of the simulated theater. The remainder, a total of 5827.7 wire miles, was removed and the salvaged equipment shipped in accordance with instructions received through representatives of the Army Service Forces. All commercial contracts were terminated except those required for operation by the Ninth Service Command.[18]

The Headquarters and Headquarters Detachments, Special Troops, were inactivated except the 4th, which was transferred to Fort Riley and assigned to the Second Army [19] Records of the Headquarters of Special Troops were turned over to headquarters of the communication zone.

Base General Depot and Pomona Ordnance Base retained records pertaining to their respective headquarters. Records pertaining to Headquarters, CAMA, and headquarters, communications zone, were turned over intact in their file cabinets to the Ninth Service Command Liaison Detachment, CAMA, at San Bernardino, California. Records pertaining to the various staff sections, such as Signal, Engineer, Finance, were turned over to the corresponding staff officers of the Liaison Detachment. Records of the CAMA Post Exchange were turned over to the Ninth Service Command Liaison Exchange representative.[20]

Authority was obtained to ship surplus maps, plates, and negatives to the Army Map Service, San Antonio, Texas. Over 409,000 copies of maps were finally shipped.[21]

Some concept of the magnitude of the task may be grasped from a few figures:

Between 17 January and 15 April 1945, the following ordnance materiel had been turned in to the zone of interior:

1,239	pieces of artillery
43,708	small-arms weapons
6,110	tons of serviceable parts (automotive and weapons)
3,830	tons of reclaimable parts
989	tons of scrap
13,604	vehicles [22]

Of the 27,000 vehicles in the CAMA on 17 January, all were evacuated from the CAMA except 1,238 which were turned over to the Ninth Service Command. Of these, 300 were in the hands of troops, 536 were on Memorandum Receipts, and 402 were pooled. All of the pooled vehicles had been given technical inspections and 266 were ready for issue. [23]

Within the capabilities of the troops available, work on the location and destruction of duds was carried out in the Iron Mountain impact area. Two hundred eight duds were located and destroyed. In the records a map was included of the known impact areas throughout the CAMA for the information and guidance of the Army Service Forces.

By the end of April all camps east of San Gorgonio Pass, that is, in the entire combat zone and a portion of the communications zone, had been evacuated of personnel, supplies, and readily removable property. At the request of the Ninth Service Command and by agreement with the District Engineer, Pacific Division, six division camps were released through the Commanding General, Ninth Service Command, to the District Engineer for disposal. Two temporary nondivisional camps were completely dismantled by CAMA troops. The remaining installations and camps, including those not declared surplus, were turned over under guard to the Ninth Service Service Command on 30 April 1944.[24]

The certificates of audit for Class I, II, and IV Quartermaster Section accounts at Base General Depot indicated many errors and discrepancies. The discrepancies were adjusted prior to the completion of the audit.[25]

Four hundred fourteen units, with a total strength of approximately 130,000, were moved from the area; turned over to the Army Service Forces, or disbanded.

Equipment processed at Base General Depot included among much else approximately 100,000 tents, 400,000 cots, and 300,000 gasoline cans; among other shipments from the depot were included about 45 tons of scrap rubber, 90 tons of rags, 90 tons of tin cans, and 100 tons of assorted metal.

The status of all personnel remaining in the area had been established and the necessary records transmitted to the service command.[26]

Officers from Headquarters, Army Ground Forces, inspected the CAMA during the final period and found the general appearance of the entire area to be excellent. All highways, tracks, and trails had been policed to a condition probably better than had existed before Army use of the area. The officers from Army Ground Forces declared the performance of Major General Anderson, Colonel Edmunds, and their respective staffs to be superior. Since the results could have been serious if the evacuation had not been carried out as efficiently, they recommended the Distinguished Service Medal for General Anderson, the Legion of Merit Medal for Col. James B. Edmunds (Colonel Hughes of Army Ground Forces not concurring), and three other officers. Headquarters, Army Ground Forces, made formal recommendation but The Adjutant General did not consider their duties to have been such as to warrant the awards.[27]

When Maj. Gen. D. McCoach, Commanding General, Ninth Service Command, had first seen the extent of work that would be necessary to clear material from the maneuver area, he had not believed that the evacuation could be as nearly completed as it was toward the end of April. He stated that finishing the job would be an easy task and he expressed his appreciation for what General Anderson had accomplished.[28]

At midnight of 30 April - 1 May 1944, General Anderson relinquished command and turned over responsibility for the CAMA to the Commanding General, Ninth Service Command, the representative of the Commanding General, Army Service Forces.[29] The allotment of personnel by Headquarters, Army Ground Forces, to the CAMA personnel were transferred to the control of the Commanding General, Ninth Service Command, for a short period.[30]

The first simulated theater of operations in the United States was at an end.

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Notes on Chapter I.

1. WPD memo (S) for G-3 WD, 31 Jan 42, sub: Procurement and Tng of Certain Sp Units. Binder, "GHQ Papers, 2 Sep 7 Mar 42," (S).

2. (1) GHQ memo (S) 353-Gen-G for WPD, 5 Feb 42, sub: Procurement and Tng of Sp Units. "GHQ Papers, 2 Sep 1942 to 7 Mar 1942," (S). See also: (2) GHQ memo (C) 353/37 -G for ASW, 11 Feb 42. 353/37 (C). (3) Memo (C) of ASW 353/37 -G for S/W, 9 Feb 42. 353/37 (C). (4) WD memo G-3/47765 for CG Field Forces, 11 Feb 42. 680.1/4 (S).

3. OPD G-3 Wd Brief (S) 680.1/4, 13 Feb 42. 680.1/4 (S).

4. GHQ ltrs to CGs First Army etc., 28 Feb 42, sub: Units for (DTC). 353/3, (CAMA)(C).

5. WD ltr (S) AG 680.1 (2-12-42), 6 Mar 42, sub: Establishment of a Tng Area for Desert Opns. 680.1/4 (S).

6. GHQ memo (C) 353/6 (Desert) for CG I Armd Corps, 1 Mar 42, sub: Orgn of a DTC. 320.2/103 (Desert)(C).

7. Fld Hq 1 Armd Corps ltr (C) to CG Fld Forces, 10 Mar 42, sub: Orgn of a DTC. 320.2/103 (Desert)(C).

8. Interview of member of AGF Hist Sec with Mr. Robert Diemer (at that time Chief Operations and Maintenance Engr in charge of the Aqueduct and Distribution System of the Metropolitan Water District), at Los Angeles 22 Aug 1942. Desert Records. See also: Metropolitan Water District ltr 405.101, 30 Dec 42. Records of Metropolitan Water District of Los Angeles.

9. Interview of member of AGF Hist Sec with Mr. John C. E. McClure (at that time Special Engr for the Southern Pacific), at Los Angeles, 21 Aug 1944. Desert Records.

10. Radio, Sig C, U S Army, 6 Apr 42. 320.2 (Activation of DTC at Indio Calif), records of Sig Office, Forward Echelon, Ninth Serv Comd, Presidio of San Francisco. See Map No 2, showing telephone facilities available for the area before the establishment of the DTC.

11. (1) Ltr of Sig O, Forward Echelon, Hq Ninth Corps Area, Presidio of San Francisco, 320.2 (Sig), 8 Apr 42, sub: Activiation of Desert Trs. (2) Memo for record, Sig O, Forward Echelon, Ninth Corps Area, Presidio of San Francisco, 483.2 Desert Center (Sig), 10 Apr 42, sub: Telephone Call fr Col Sanger at 1030 to Maj Hill. 483.2 Cp Young. (3) Radio, Sig O, Forward Echelon, Ninth Corps Area, Presidio of San Francisco. 320.2 (Activation of DTC at Indio, Calif). (4) Ltr, Sig O, Forward Echelon, Ninth Corps Area, Presidio of San Francisco, 483.2 (Desert Center)(Sig), 15 Apr 42, sub: Report of Visit of Inspection DTC. 483.2 Cp Young. All above are in records of Sig O, Forward Echelon, Ninth Serv Comd, Presidio of San Francisco.

12. Record of telephone conversation with Col Hammond, 1630, 13 Apr 42, sub: Installations for Desert Training Camp No 1. Files of Sig O, Forward Echelon, Ninth Serv Comd, Presidio of San Francisco, Calif: 483.2 (Cp Young).

13. Fld Hq I Armd Corps ltr (C) to CG Fld Forces, 10 Mar 42, sub: Orgn of a DTC. 320.2/103 (Desert)(C).

14. (1) DTC ltr (office of the Surgeon) to CG DTC, 1 May 42, sub: Initial Sanitary Rpt. (2) "Early Desert History." (3) "Desert Communities." All three in Book, "DTC - General Information - Maj Gen White, IX Corps, June 1943." Desert Records. (4) Interview of member of AGF Hist Sec with Lt Col H. W. Thompson (Ex O of U S Dist Engrs at Los Angeles), at Los Angeles, 21 Aug 44. Desert Records.

15. (1) Photostatic copies of 14 public land orders, general licenses and permits from Southern Pacific Co., State of Calif., Dept of Interior etc. are contained as incls to CAMA ltr, 30 Apr, sub: Final Rpt Transfer of CAMA to ASF. Desert Records. (2) Ltr (C) of ExO, State Lands Commission, Div of State Lands, Calif, 9 Mar 42. Ph cpy 320.2/103 (C). (3) Interview of member of AGF Hist Sec with Mr. Earl Tandberg (at that time Chief of Utilities Sec of U. S. Dist Engrs at Los Angeles), at Los Angeles, 19 Aug 44. Desert Records. (4) WD memo WDGCT 47765 for CG SOS, 16 Mar 42, sub: Orgn of DTC. DTC-CAMA files at Cp Haan: Binder, "The History of DTC, Appendix."

16. (1) WD ltr (R)320.2 MR-M-SP, 27 Mar 42, sub: Orgn of a DTC. 353/2 (CAMA)(R). (2) WD ltr (R) 320.2 MR-M-SP, 1 Apr 42, sub: Changes in ltrs, "Orgn of a DTC, dated 27 Mar 42." 353/2 (CAMA)(R).

17. (1) Memo of Director of Ground Air Support, Armd Force, 23 Mar 42, sub: Summary of Conferences. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 1942 to ---." (2) Memo of Col G. L. King for the Chief of the Armd Force, 24 Mar 42, sub: Extension of Memorandum on Air Participation in Desert Force Test. In binder, as above.

18. WD ltr (R) 320.2 MR-M-SP, 1 Apr 42, sub: Changes in Letters, "Orgn of a DTC, dated 27 Mar 42." 353/2 (CAMA)(R).

19. (1) AGF memo (R) 604.4/1 (R)-GNTRG for CofS USA, 1 Apr 42, sub: Lands for DTC Maneuver Area. (2) WD 1st ind (R) 601.0 (4-1-42) MC-C, 5 May 42. 354.2/13. Desert Maneuvers 1942 (R).

20. GHQ ltrs (C) 353, to CGs First Army etc, 28 Feb 42, sub: Units for DTC. 353/3, 353/4 (CAMA)(C).

21. AGF ltr (R) to CG DTC, 26 Mar 42, sub: Orgn of a DTC. 353/2 (CAMA)(R).

Notes on Chapter II.

1. I Armd Corps ltr (R), 21 Mar 42, sub: Instructions Relative to Duties of Advance Party. DTC-CAMA files at Cp Haan: Binder, "The History of DTC, Appendix."

2. (1) Interview of member of AGF Hist Sec with Lt Col H. W. Thompson, at Los Angeles, 21 Aug 44. Desert Records. (2) Interview of member of AGF Hist Sec with Mr. Robert Diemer, at Los Angeles, 22 Aug 44. Desert Records. (3) Record of telephone conversation between Col Devine, Col Conklin and Col Muller, 1230, 28 Mar 42. DTC-CAMA files at Cp Haan: Binder, "The History of DTC, Appendix."

3. I Armd Corps memo to all Train Comdrs, 28 Mar 42. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 1942 ---."

4. I Armd Corps ltr, 23 Mar 42, sub: Special Instructions for Units Ordered to DTC. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 to ---."

5. Interview of member of AGF Hist Sec with Maj R. W. Smith (who commanded the QM Provisional Bn), at Cp Haan, 25 Aug 44. Desert Records.

6. Interview of member of AGF Hist Sec with Capt F. Guetschow at Cp Haan, 25 Aug 44. Desert Records.

7. Interview of member of AGF Hist Sec with Mr. H. P. Jacobs (who owned Bonny's Fountain Lunch when DTC opened, soon drove Cp Young - Indio bus, later worked for Cp Young Post Exchange) at Indio, 25 Aug 44. Desert Records.

8. (1) This was the layout of the temporary camp, from the highway to the aqueduct: First platoon, Co "A", of the 240th QM Serv Bn; Co "C" of the 57th QM Heady Maint Regt; a Light Maint Co; 138th QM Truck Co; 144th QM Truck Co; the QM Provisional Bn; Hq DTC. When the third bn of the 1st Inf Div arrived, it was assigned a site to the west of the QM Prov Bn. (2) Interview of member of AGF Hist Sec with Maj R. W. Smith at Cp Haan, 25 Aug 44. Desert Records.

9. The contract did not go into effect until July of 1942. See: Interview of member of AGF Hist Sec with Mr. Earl Tandberg, at Los Angeles, 19 Aug 44. Desert Records.

10. Interview of member of AGF Hist Sec with Capt F. Guetschow, at Cp Haan, 25 Aug 44. Desert Records.

11. After Lt Gen S. B. M. Young, an Indian fighter who fought in this region, first Chief of Staff of U S Army; per DTC GO No 7, 12 May 42, pursuant to authority contained in WD ltr AG 680.1 (4-1-42) MR-M-SP, 25 Apr 42, sub: Designation of Cp Young, Calif. DTC-CAMA files at Cp Haan: 353.

12. (1) Interview of member of AGF Hist Sec with Mr. Earl Tandberg, at Los Angeles, 19 Aug 44. Desert Records. (2) Ltr of Metropolitan Water District of Southern California, 6 May 42. Files of Metropolitan Water District.

13. (1) DTC, (Office of the Surgeon), 1 May 42, sub: "Initial Sanitary Rpt." Binder, "DTC, General Information, Maj Gen White, IX Corps," Desert Records. (2) Record of telephone conversation between Col Daley (Cofs 5th Armd Div) to Col Gay, 1220, 23 Jul 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

14. WD ltr (S) 680.1 (2-12-42), 6 Mar 42, sub: Establishment of a Tng Area for Desert Opns. 680.1/4 (S).

15. Personal ltr Gen Patton to Roy Chapman Andrews, Honorary Director of American Museum of Natural History, 17 Mar 42; and Mr. Andrews' reply, 24 Mar 42. DTC-CAMA files at Cp Haan: Binder, "History, DTC, Appendix, From 1 Apr 42 to ---."

16. Binder: "Desert Training Center -- General Information -- Maj Gen White -- IX Corps -- June 1943," Desert Records.

17. DTC Tng Memo 1, 1 Apr 42. DTC-CAMA files at Cp Haan: "History DTC, Appendix, 1 Apr 42 to ---."

18. Indio News, 17 Apr 42, p 1, col 5.

19. Interview of member of AGF Hist Sec with Mr. Ed Dawson, at Los Angeles, 22 Aug 44. Desert Records.

20. Interview of member of AGF Hist Sec with Capt F. Guetschow, at Cp Haan, 25 Aug 44. Desert Records.

21. (1) Record of telephone conversation between Col Ennis and Col Pickering, 4 May 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls. (3) DTC memo, 13 Apr 42, sub: Practice March. 353/42 (CAMA).

22. Gen Patton, "Brief Rpt on the Tactical Opns of the DTC for the Period Apr 29 to May 1, 1942." DTC-CAMA files at Cp Haan: Binder, "History of DTC, Maneuvers."

23. AAF memo for CG AGF, 11 May 42, sub: Visit of Ground-Air Support Directorate Representatives to DTC. 353/135 (CAMA).

24. Lt Kenneth Hechler, "Some Passing Remarks of Maj Bartlett Hayes." Desert Records.

25. DTC ltr, 13 Jul 42, sub: Rpt of Opns from July 5th to July 11th. DTC-CAMA files at Cp Haan: Binder, "The History of the DTC, Appendix," Folder #50.

26. Gen Patton, "Notes on Tactics and Technique of Desert Warfare (Provisional)," 30 Jul 42. 353/136 (CAMA).

27. Most references for the following section come from civilians bec[illegible] reasons: (1) Military personnel who served under the first DTC [illegible]anding General are scattered at the time of writing; (2) during the [illegible] of the I and II Armored Corps civilians came frequently to the DTC [illegible] fact, descriptions of the maneuvers under the II Armored Corps appe[illegible] the Indio News.

28. AAF memo for CG AGF, 11 May 42, sub: Visit of Ground-Air Support Directorate Representatives to DTC. 353/135 (CAMA).

29. I Armd Corps ltr to AGF, 8 May 42. Also incl, "Brief Rpt of Opns for the Week Ending May 9, 1942." 319.1/20 (CAMA).

30. Interview of member of AGF Hist Sec with Maj R. W. Smith, at Cp Haan, 25 Aug 44. Desert Records.

31. (1) Ibid. (2) Interview of member of AGF Hist Sec with Mr. Earl Tandberg, at Los Angeles, 19 Aug 44. Ibid. (3) Interview of member of AGF Hist Sec with T/5 William N. Knottnerus (stationed at Cp Young in June 1942), at Cp Haan, 25 Aug 44. Ibid.

32. Personal ltr Gen Patton to Maj Gen J. L. Devers, Hq Armd Force, 28 Apr 42. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 to ---."

33. Interview of member of AGF Hist Sec with Col Donald B. Sanger, at Army War College, 1944.

34. Lt Kenneth Hechler "Some Passing Remarks of Maj Bartlett Hayes." Desert Records.

35. Interview of member of AGF Hist Sec with Mr. Walter Irving (Secretary of Chamber of Commerce of Indio), at Indio, 28 Aug 44. Ibid.

36. DTC ltr, 24 Apr 42, sub: Special Services Officers. DTC-CAMA files at Cp Hann: Binder, "History DTC, Appendix, 1 Apr 1942 to ---."

37. Interview of member of AGF Hist Sec with Mr. Fred Stone (baggage agent throughout period of DTC), at Indio, 26 Aug 44. Desert Records.

38. Interview of member of AGF Hist Sec with Mr. Ed Dawson, at Los Angeles, 22 Aug 44. Ibid.

39. Interview of member of AGF Hist Sec with Mr. John W. Hilton (often at the DTC, collector and purveyer of desert lore), at Thermal, 26 Aug 44. Ibid.

40. Interview of member of AGH Hist Sec with Mr. C. P. Perrin (Ninth Serv Comd Sig) liaison men with U. S. Dist Engrs at Los Angeles), at Los Angeles, 16 Aug 44. Ibid.

41. Interview of member of AGF Hist Sec with Mr. Ed Dawson at Los Angeles, 22 Aug 44. Ibid.

42. Ibid.

43. Record of telephone conversation between Col Ennis and Col Gaffey, 0815, 20 Jun 42 (Gen Patton joining in). DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

44. (1) Record of telephone conversation between Col Gaffey and CofS and Surgeon, Ninth Corps Area, 20 Jun 42. Ibid. (2) Record of telephone conversation between CofS Ninth Corps Area and Col Fitzgerald, 24 Jun 42. In Ibid. (3) Memo of Surgeon DTC for Col Gaffey (CofS DTC), 7 Jul 42. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 ---."

45. The Western Defense Comd was given authority to use AGF troops in an emergency. See: OPD Directive (S) 320.2 WDC (5-4-42), sub: Reserve for Western Defense Comd. Files of Hq Western Defense Comd, Presidio of San Francisco, Calif.

46. (1) Record of telephone conversation between Col Pickering and Col Ennis, 0830, 29 May 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls. (2) DTC ltr to CG AGF, 6 Jan 42, sub: Rpt of Opns from May 21 - Jun 5, Both Dates Inclusive. 319.1/22 (CAMA). (3) Interview of member of AGF Hist Sec with Lt Col Carl T. Isham (Special Services Off and later member of Desert Warfare Board at DTC), at Ft Ord, 15 Aug 44. Desert Records.

47. (1) AGF ltr (R) 353/4 GNTRG, 1 May 42, sub: Tng Dir for Period: July 13 - Sep 4. 354.2/6 (Desert Maneuvers 1942)(R). (2) AGF telegram (C), 5 May 42. 353 (CAMA)(C).

48. Record of telephone conversation between Col Ennis and Col Pickering, (Gen Patton joining in), 12 May 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

49. Record of telephone conversation between Col John R. Hodges (CofS VII Corps) and Col Pickering, 1400, 12 May 42. Ibid.

50. Record of telephone conversation between Col Pickering and Col G. J. Braun (G-3 of VII Corps(, Third Telephone Call, 7 May 42. Ibid.

51. Record of telephone conversation between Col Ennis and Col Pickering, 1525, 14 May 42. Ibid.

52. Record of telephone conversation between Gen Barr and Gen Devers to Gen Patton, undated, but probably late June or early July, 1942. Ibid.

Notes on Chapter Three

1. Record of telephone conversation between Col Ennis and Col Gay, 1145, 29 Jul 42. Ibid.

2. Record of telephone conversation between Col Daley (CofS 5th Armd Div) and Col Gay, 1200, 23 Jul 42. Ibid.

3. Interview of member of AGF Hist Sec with Lt Col Carl T. Isham at Fort Ord, 15 Aug 44. Desert Records.

4. Initial Sanitary Rpt, Office of Surgeon, DTC, 1 May 42. Binder, "DTC, General Information, Gen White, IX Corps, June 1943," Desert Records.

5. Record of telephone conversation between Col Roisden and Col Pierce, 1735, 10 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

6. (1) Record of telephone conversation between Col Devine and Col Barr, G-2 of Armd Force, 25 Mar 42. Ibid. (2) "Desert Communications," (R), Southern California Telephone Co., p 2-3. Desert Records.

7. Indio News, 3 Jul 42, p 1, cols 4 and 5.

8. Ibid, 9 Oct 42, "Strictly Personal," p 1, col 1.

9. Interview of member of AGF Hist Sec with Mr. Fred Stone (baggage agent at Indio throughout period of DTC), at Indio, 26 Aug 44. (2) Interview of member of AGF Hist Sec with Mr. John W. Hilton, at Thermal, 26 Aug 44. (3) Interview of member of AGF Hist Sec with Capt. H. C. Skilling (Camp Engr at Cp Young), at San Bernardino, 25 Aug 44. Desert Records.

10. Indio News, 3 Jul 42, p 1, cols 4 and 5.

11. (1) DTC ltr IG 333.5 Post Ord Account, Cp Young, Calif. 21 Jun 43, sub: Rpt of Investigation of the Stock Record Account of the Post Ord Off, Cp Young, Calif., par 76. This report is in separate folder in DTC-CAMA files at Cp Haan. (2) Interview by member of AGF Hist Sec with Mr. Charles M. Downey (General Yardmaster at Indio throughout period of DTC), at Indio, 27 Aug 44. Desert Records.

12. (1) Interview of member of AGF Hist Sec with Mr. F. L. McDonald (Yardmaster at Indio), at Indio, 25 Aug 44. Ibid. (2) Indio News, 29 Jan 43, "Strictly Personal," p 2, col 1.

13. Interview of member of AGF Hist Sec with Mr. Charles M. Downey, at Indio, 27 Aug 44.

14. App "E" contains "Volume of Business Handled in and out of Indio, Calif., and Yuma, Arizona," which was an incl to Southern Pacific Co ltr, 30 Aug 44. (2) Interview of member of AGF Hist Sec with Mr. Bud Grover (who lives in the Territorial Prison), at Yuma, 2 Sep 44. Desert Records. (3) Interview of member of AGF Hist Sec with Pvt George B. Fruehan (who was in Army Transportation Office at Yuma from May 1943 until Apri 1944), at Cp Haan, 25 Aug 44. Ibid.

15. Record of telephone conversation between Col Devine and Col Barr, G-2 Armd Force, 25 Mar 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

16. Record of telephone conversation between Col Ennis and the Corps CofS, 25 Mar 42. Ibid.

17. AGF memo for Director of Opns SOS, 1 Jun 42, sub: Supplies and Equip for DTC. SOS 1st ind, 21 Jun 42. 400/1 (CAMA).

18. Interview of member of AGF Hist Sec with Maj R. W. Smith, at Cp Haan, 25 Aug 44. Desert Records.

19. DTC ltr 354.2, 21 May 42, sub: Report of Requirements at DTC. 354.2/7 (Desert Maneuvers 1942).

20. Record of telephone conversation between Col Ennis and Col Gaffey, 0830, 30 Jun 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

21. AGF memo for Director of Opns S)S, 1 Jun 42, sub: Supplies and Equip for DTC. SOS 1st ind, 21 Jun 42. 400/1 (CAMA).

22. Record of telephone conversation between Col Ennis and Col Gaffey, (Gen Patton joining in), 100, 29 Jun 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

23. (1) Interview of member of AGF Hist Sec with Capt F. Guetschow, at Cp Haan, 25 Aug 44. Desert Records. (2) Interview of member of AGF Hist Sec with Lt Col Carl T. Isham, at Ft Ord, 15 Aug 44. Ibid. (3) Rpt (C) "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units in the CAMA," 6 Jun 42. 333.1/103 (CAMA)(C). (4) Exhibit D, p 6, Rpt by Maj F. M. Price, 4 Mar 43. DTC-CAMA files at Cp Haan: Binder III of "Rpt of Investigation, Post Ord Off's Stock Record Account, Camp Young, Calif."

24. (1) Memo of Maj A. D. MacLean for G-4, AGF 9 Sep 42, sub: Obs of the VII Corps Maneuvers, DTC, Exercise C-2, 5-7 Sep 42. 354.2/233 (Desert)(1942). (2) Memo of Lt Col W. N. Taylor for G-3 AGF, 28 Sep 42, sub: Rpt of Obsns of DTC Maneuvers, Sep 22 and 23, 1942. AGF G-3 file: 333.1 Inspection, Memo for CofS AGF, 28 Sep 42.

25. Pars 13 and 16 of Annex 3, G-3 Rpt in Vol I, VII Corps Rpt, sub: Rpt of DTC Maneuvers, 14 Aug - 17 Oct 42. 354.2/267 1/2 (Maneuvers) (Desert).

25A. Memo of Maj A. D. MacLean for G-4 AGF, 9 Sep 42, sub: DTC. 354.2/233 (Desert)(1942).

26. Par 1, Supply Plan in Annex 4 - G-4 Rpt in Vol I, VII Corps Rpt, sub: Rpt of DTC Maneuvers, 14 Aug - 17 Oct 42. 354.2/267 1/2 (Maneuvers)(Desert).

27. Record of telephone conversation between Col Pierce, Col Ennis and Maj Truman, 0900, 8 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls, I and II Armd Corps.

28. (1) AGF ltr, 21 Sep 42, sub: Maneuver Obsns. 354.2/175 (Desert Maneuvers 1942). (2) Section concerning Gen Gillem and II Armd Corps in Rpt (C) "Investigation To Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units of the CAMA," 6 Jun 42. 333.1/103 (CAMA)(C).

29. (1) AGF M/S, QM to G-4 and G-3, 9 Sep 42. 320.2/46 (Desert). (2) Memo of Brig Gen W. S. Paul for CofS AGF, 14 Sep 42, sub: Rpt of G-4 Inspection Trip, 4 Sep to 7 Sep 42, inclusive. 354.2/233 (Desert)(1942)

30. Memo (C) of Lt Gen J. T. McNarney for Gen McNair, 11 Oct 42. In 354.2/7 (DTC)(C).

31. Memo of Brig Gen W. S. Paul for CofS AGF, 14 Sep 42, sub: Rpt of G-4 Inspection Trip, 4 Sep to 7 Sep 42, inclusive. 354.2/233 (Desert)(1942).

32. Memo of Lt Col F. A. Hornisher, AGF G-4 Trans Div, for Brig Gen Paul, 10 Sep 42, sub: Inspection Summary, DTC. 354.2/149 (Desert)(1942).

33. Rpt (C) "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units in the CAMA," 6 Jun 42. 333.1/130 (CAMA)(C).

34. (1) Interview of member of AGF Hist Sec with Capt F. Guetschow, at Cp Haan, 25 Aug 44. Desert Records. (2) Rpt (C) "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units of the CAMA," 6 Jun 42. 333.1/103 (CAMA)(C).

35. Par 6, Annex 3 "Armd Force" to G-3 Report, Vol I, VII Corps rpt, sub: Rpt of DTC Maneuvers, 14 Aug - 17 Oct 42. 354.2/267 1/2 (Maneuvers)(Desert).

36. Statement by Col J. B. Edmunds, 23 Sep 43, in Rpt (C) "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units of the CAMA," 6 Jun 44. 333.1/103 (CAMA)(C).

37. Ibid. Secs on Gen Patton, Gen Gillem, and testimony of Charles A. Early, given on 28 Feb 44.

38. See Chap I Sec 1.

39. Pursuant to Ninth Corps Area GO 30, 16 May 42.

39A. Study prepared under direction of Col J. C. Crockett, sub: Orgn DTC. DTC-CAMA files at Cp Haan: Binder, "History DTC, Summary and Index."

40. Exhibit II(C), "Statement" by Maj Cecil E. Kemper, 26 Apr 43, in Part III of Rpt of Investigation, Post Ord Officer's Stock Record Account, Cp Young, Calif, 21 Jun 43. DTC-CAMA files at Cp Haan: (C).

41. Par 23, Part I, of Rpt of Investigation referred to in preceding note.

42. (1) The I Armd Corps was relieved from the Armd Force and assigned to the CG DTC, effective 1 Apr 42. AGF ltr (C), 19 Mar 42, sub: Assignment of I Armd Corps. 320.2/4 (Armd Cen)(C). (2) Record of telephone conversation between Col Ennis and Col Pickering, 4 May 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

43. Armd Force memo on Desert Opns, 23 Mar 42, sub: Summary of conferences. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 to ---."

44. WD ltr (R) AG 320.2 (3-31-42) MR-M-Sp, 1 Apr 42, sub: Changes in Letter, "Organization of a DTC, 320.2 (3-27-42) MR-M-SP," dated 27 Mar 42. 353/2 (CAMA)(R).

45. Record of telephone conversation between Col Pickering and Col Ennis, 8 May 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

46. Armd Force ltr AFB 200, 15 Apr 42, sub: Armd Force Bd Offs Transferred to DTC. DTC-CAMA files at Cp Haan: 353, Binder No 1.

47. Record of telephone conversation between Col Ennis and Col Pickering, 30 Apr 42. DTC-CAMA files at Cp Haan, 319.1 (2) Telephone Calls. See, for similar situation and similar decision by AGF concerning Ord Bd: CofOrd ltr, 7 Jul 42, sub: DTC Activities; AGF 1st ind, 15 Jul 42. 353/209 (CAMA).

48. Indio News, 22 May 42, p 15, col 1.

49. Ibid, 16 Oct 42, p 14, col 1.

50. Sources for this section are: (1) Indio News, 17 Apr 42, p22, col 1; 10 Apr 42, p 1, col 5; 8 May 42, p 1, cols 1 and 2; 15 May 42, p 1, cols 3 and 4; 22 May 42, p 1, col 3, and p 15, col 1 and col 5; 29 May 42, p 1 col 3 and p 7, col 2 and p 2, col 1; 5 Jun 42, p 2, col 1, Strictly Personal; 5 Jun 42, p 1, col 2; 3 Jul 42, p 5, col 3 and p 12, col 1; 10 Jul 42, p 1, col 1; 24 Jul 42, p 1, col 5; 24 Jul 42, p 14, col 4; 14 Aug 42, p 1, col 3; 4 Sep 42, p 2, col 1; 9 Oct 42, p 1, col 1; 16 Oct 42, p 2, col 1; 15 Jan 43, p 1, col 2; 8 Oct 43, p 1, col 4. (2) Interview of member of AGF Hist Sec with:

Mayor C. A. Washburn (Mayor of Indio throughout period of DTC), at Indio, 26 Aug 44; Mr. Arthur Madox (porter at Indio Hotel), at Indio, 28 Aug 44; Mrs. Rose Thompson (real-estate agent and insurance broker), at Banning, 29 Aug 44; Mr. Richard Stanton (owner of the Valley Cafe at Yuma) at Yuma, 30 Aug 44; Mr. Emil Eger (Senior Engineering Aid, Engr Bd, Yuma Test Branch) at Yuma, 31 Aug 44; Mr. K. P. Shipp (Asst Cashier of the First National Bank of Arizona, Yuma Branch--the only bank in Yuma County), at Yuma, 1 Sep 44. Mayor W. S. Ingalls (Mayor of Yuma throughout period of DTC), at Yuma, 30 Aug 44; Mr. W. W. Cook (President and General Manager of the California Date Growers' Association throughout period of DTC), at Indio, 27 Aug 44; Mrs. Edie Rumley (waitress at restaurant, later clerk at railway station), at Indio, 28 Aug 44; Sgt Lloyd Thornsburg (of Indio Police Department), at Indio, 27 Aug 44; Rev Paul Biesemeyer (Pastor of Community Methodist Church throughout period of DTC), at Indio, 28 Aug 44. Mrs. Lydia Fatzinger (Senior Hostess at U. S. O., church leader) at Indio, 28 Aug 44; Mr. R. C. Nicoll (owner of large date shop at Thermal), at Thermal, 26 Aug 44; Mr. R. W. Crom (Manager of the Harris Department Store of Indio), at Indio, 27 Aug 44; Mrs. Ruth Little (newspaper woman and one of the organizers of "The Canteen" for servicemen at Banning), at Banning, 29 Aug 44; Lt Col Carl T. Isham (who served as Special Services Off at Camp Young for a time during the period of I Armd Corps), at Ft Ord, 15 Aug 44; Mr. John B. Wisely (City Attorney for Yuma), at Yuma, 30 Aug 44; Mr. Bennie Giusti (owner of the International Pharmacy), at Yuma, 30 Aug 44; Acting Chief of Police Harold D. Breech, at Yuma, 30 Aug 44; Mr. Paul Rothi (Associate Engr with Engr Bd, Yuma Test Section), Capt R. R. Stander (Engr Bd, Yuma Test Section), at Yuma, 31 Aug 44; 1st Lt Richard R. Canaday (Special Services Off at Yuma Air Base), at Yuma Air Base, 31 Aug 44; Mrs. Florence P. Rhoads (Secretary of Banning Chamber of Commerce), at Banning, 29 Aug 44; Mr. C. K. Graham (Dist of Southern California Gas Company and Chairman for Civilian Group for Servicemen's Recreation), at Banning, 29 Aug 44; Mr. Walter Irving (Secretary of Chamber of Commerce at Indio), at Indio, 28 Aug 44; Mr. Fred Stone (baggage agent at Indio throughout period of DTC), at Indio, 26 Aug 44. Desert Records.

(3) Banning Record, 29 June 42, p 1, col 3.

(4) "Report of Investigation Regarding Complaints as to Treatment of Colored Soldiers." DTC-CAMA records at Cp Haan: 333.

1. DTC GO 23, 2 Aug 42. DTC-CAMA files at Cp Haan.

2. AGF M/S, Off Div G-1 to G-1, 5 Aug 42, sub: Telephone Conservation with Maj H. A. Franklin. 354.2/73 (Maneuvers DTC 1942).

3. Memo of Lt Col Forrest A. Hornisher, AGF G-4 Trans Div for Brig Gen Paul, G-4 AGF, 10 Sep 42, sub: Inspection Summary, DTC. 354.2/149 (Maneuvers DTC 1942).

4. Record of telephone conversation between Col Ennis and Col Pierce, 1400, 4 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone calls.

5. Memo of Lt Col W. N. Taylor for G-3 AGF, 28 Sep 42, sub: Rpt of Obsns of DTC Maneuvers, and Sep 22, 23, 42. AGF G-3 file: 333.1 Inspection.

6. "Report of Desert Maneuvers, Aug 14 - Oct 17, 1942," VII Corps, Vol 1, Sec 1. 354.2/267 1/2 (Maneuvers)(Desert).

7. (1) Record of telephone conversation between Col Ennis and Col Pierce, 7 Aug 42. (2) Record of telephone conversation between Col Pierce and Col Hudson, AGF, 20 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

8. Record of telephone conversation between Col Pierce and Col Hudson, 1730, 20 Aug 42. Ibid.

9. Record of telephone conversation between Col Schabacker and Col Pierce, 1445, 1 Sep 42. Ibid.

10. Record of telephone conversation between Col Conklin and Col Pierce, 1235, 10 Aug 42. Ibid.

11. AGF memo (R) for OPD, 15 Sep 42, sub: Confusion over Conflicting Orders. 370.5 (R).

12. OPD 1st ind (R) to above, 15 Sep 42. 370.5 (R).

13. (1) Record of telephone conversation between Maj Truman and Col Pierce, 1830, 12 Aug 42. (2) Record of telephone conversation between Maj Truman and Col Pierce, 1830, 18 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

14. Memo of Lt Col W. N. Taylor for G-3 AGF, 28 Sep 42, sub: Rpt of Obsn of DTC Maneuvers, and Sep 22, 23, 42. AGF G-3 file: 333.1 Inspection,

15. (1) Record of telephone conversation between Col Ennis and Col Pierce, 5 Aug 42. DTC-CAMA files at Cp Haan: Telephone Calls, I and II Armd Corps. (2) AGF ltr (R) to CG DTC, 13 Aug 42, sub: Tng. 354.2/6 (Desert Maneuvers 1942) (R).

16. Memo of Col Wright for CofS Armd Force, 21 Aug 42. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 to ---."

17. Record of telephone conversation between Maj Truman and Col Pierce, 0830, 12 Aug 42. DTC-CAMA files at Cp Haan: 319.1 (2) Telephone Calls.

18. Record of telephone conversation between Col Ennis and Col Pierce, 1400, 4 Aug 42. DTC-CAMA files at Cp Haan: Telephone Calls, I and II Armd Corps.

19. On the same day the Ninth Corps Area was redesignated as Ninth Service Command, and Corps Area Service Command Unit 1925 became Service Command Unit 1925.

20. (1) "Organization -DTC," a study prepared under the direction of Col J. C. Crockett, Asst G-2, Armd Force, as a result of a survey of the DTC, in Sep 1942. DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix, 1 Apr 42 to ---." (2) AGF memo 320.2/47 initialed "W. S. P." (Brig Gen Willard S. Paul), G-4 AGF, undated but probably about middle of Sep 1942. (3) AGF M/S, G-3 to CG, 2 Sep 42, sub: Permanent Tng and Admin Hdqs at DTC. 320.2/46.

21. See GO 8, Hq Cp Young, SCU 1925, 28 Sep 42, in Exhibit U of Part III, Rpt of Investigation, Post Ord Officer's Stock Record Account, Cp Young, Calif, 21 Jun 43. DTC-CAMA files at Cp Haan.

22. (1) Testimony (C) of Maj Frederick M. Price, 12 Mar 43, p 34. (2) Testimony (C) of M/Sgt Benjamin W. Weikopf, p 139. (3) Testimony (C) of Maj Price, resumed, p 174. (4) Testimony (C) of T/Sgt Harry L. Hartzell, 25 Mar 43, p 219. DTC-CAMA files at Cp Haan: Part II of Rpt of Investigation, Post Ord Officer's Stock Record Account, Cp Young, Calif, 21 Jun 43 (C). (5) Exhibit (C) JJ, Col Walter W. Warner, Ord Off for II Armd Corps.. DTC-CAMA files at Cp Haan: Part III of Rpt of Investigation, Post Ord Officer's Stock Record Account, Cp Young, Calif, 21 Jun 43 (C).

23. (1) VII Corps rpt, sub: Rpt of Desert Maneuvers, Aug 14 - Oct 17, 1942, Annex 3 -- G-3 Rpt, par 1 -- Plan of Maneuvers. 354.2/267½ (Desert Maneuvers). (2) DTC rpt, 27 Aug 1942, sub: Brief of DTC Maneuvers, 31 Aug - 18 Oct, 42. 354.2/147 (Maneuvers DTC 1942).

24. See the second section of Appendix "K".

25. (1) Memo (C) WDCSA 319.1 (Ft Huachuca) of Lt Gen J. T. McNarney for Gen McNair, 11 Oct 42. 354.2/7 (DTC)(C). (2) AGF memo (C) for CofS U S A, 12 Oct 42, sub: 93d Div DTC. 354.2/7 (DTC)(C).

26. Interview of Chief of AGF Hist Sec with Lt Gen Walton H. Walker, at Pentagon, 29 May 45. Desert Records.

Notes on Chapter One

1. AGF ltr, 9 Sep 42, sub: Orgn of the DTC. 320.2/28 (CAMA).

2. Personal ltr Brig Gen E. S. Ott to Brig Gen Floyd Parks (CofS of AGF), 14 Sep 42. 320.2/20 (CAMA).

3. DTC ltr, 20 Sep 42, sub: Orgn of the DTC. 320.2/28 (CAMA).

4. AGF M/S, J. G. C. (Col James G. Christiansen) to G-1 and G-2, 12 Oct 42, sub: Orgn of DTC. Ibid.

5. Maj Gen J. L. Devers, "Orgn of a Training Army in the California-Arizona Area." DTC-CAMA files at Cp Haan: Binder, "History DTC, Appendix from 1 Apr, to ---."

6. AGF 1st ind to above, 23 Nov 42. 320.2/46 (CAMA).

7. AGF M/S (which follows Gen Ott's report), staff sec, Nov 42, sub: DTC. 320.2/28 (CAMA).

8. WD ltr (S) AG 680.1 (2-12-42) to CGs, 6 Mar 42, sub: Establishment of a Tng Area for Desert Opns. 680.1/4 (S).

9. AGF ltr, 18 Nov 42, sub: Orgn and Tng, DTC. 320.2/46 (CAMA).

10. AGF memo G-4 for CofS, 21 Nov 42, 32o.2/49 (CAMA).

11. AGF memo for CofS USA, 24 Nov 42, sub: Desert Theater of Opns. 320.2/28 (CAMA).

12. WD memo WDGCT 320.2 Gen (11-24-42) for the CGs, 25 Nov 42, sub: DTC. Ibid.

13. WD memo SPOPP 353 (12-4-42) for CG AGF, 11 Dec 42, sub: DTC. Ibid.

14. AGF memo for CofS USA (Attn: G-3 Sec), 12 Dec 42, sub: Desert Theater of Opns. Ibid.

15. WD memo WDGCT 320.2 Gen (11-24-42) for the CGs, 25 Nov 42, Sub: DTC. Ibid

16. WD memo WDGCT 320.2 Gen (1-2-43) for CGs, 9 Jan 43, sub: DTC. In X Corps History, June 1943, Desert Records.

17. See Map No 5, Main Installations and Rail Net of DTC-CAMA, p

18. WD ltr (C) AG 400 (1-12-43) OB-S-SPOPP-M to CGs, 14 Jan 43, sub: Supply Directive, DTC. 400/33 (C).

Notes on Chapter Two

1. (1) Engr Sch ltr, 10 Mar 43, sub: Rpt on attendance at maneuvers at DTC, 15 to 27 Feb 43. AGF G-3 Sp Projects file: Observers Rpts, DTC, 1943. (2) DTC memo (OofEngr) for G-3 DTC, 10 Mar 43. DTC-CAMA files at Cp Haan: 354.2 Maneuvers - DTC. (3) DTC ltr to CG AGF, 23 Mar 43, sub: Final Rpt DTC Maneuvers. DTC-CAMA files at Cp Haan: Binder, "History of DTC - Maneuvers." (4) AGF ltr to CG DTC, 23 Mar 43, sub: Visit to DTC. 353.02/113 (AGF).

2. DTC ltr 319.1/2 GNWXC, 28 Mar 43, sub: Rpt of Activities DTC 8 Nov 42 to 28 Mar 43. AGF G-3 Sp Projects file: DTC Rpt Activities 8 Nov 42 - 26 Mar 43.

3. Personal ltr Gen McNair to Gen W. H. Walker, 9 Mar 43. McNair Correspondence.

4. AGF ltr, 6 Apr 43, sub: Orgn and Tng, DTC. 320.2/80 (CAMA).

5. (1) Memo (C) of Col Joel R. Burney, IGD, for TIG, 25 May 43, sub: Rpt Covering DTC, Indio, Calif. 333.1 (CAMA)(C). (2) AGF M/S, G-4 to CofS through Engrs, 8 Jul 43, sub: Visit of Inspection to the DTC, 9 - 10 June, by Gen Lear. AGF G-4 Fld Serv file: 333.1/5 Insp. (Desert). (3) "Data on Camps and Location of Units, DTC, 8 June 1943," incl to "Information for CG AGF for use on Trip to DTC," from AGF G-3 Sec, 14 Jun 43. AGF G-3 Sp Projects file.

6. (1) ASF memo (Chief of Transportation, Maj Gen C. P. Gross), SPTTT 531.5 (Desert Training Area) for Gen McNair, 15 Jun 43. (2) AGF memo for Maj Gen C. P. Gross, 25 Jun 43, sub: Desert Tng. 320.2/90 (CAMA).

7. (1) "History of IX Corps, 24 Oct 40 to 1 Nov 43, (R), Chap VI. (2) AGF ltr, 12 Jul 43, sub: Visit to the DTC, 27 - 29 Jun 43. (3) DTC ltr, 20 Jul 43, sub: Reply to Ltr 353.02/184 (AGF)(12 Jul 43) GNGCT. (AGF).353.02/184. (4) "Inspection Report, Second Phase--Desert Maneuvers, 6-17 Jul 43," ASF Opns and Tng Br, Trs Div. AGF g-3 Sp Projects file: Observers Rps, DTC, 1943. (5) Maneuver Director Hq ltr, 19 Jul 43, sub: Medical Service, Maneuvers, DTC, June to July 1943. G-3 Sp Projects file.

8. (1) IX Corps ltr, undated, to CGs of Divs. 320.2/91 (CAMA). (2) Memo of Col Riley F. Ennis for G-3 AGF, 15 Jun 43, sub: Obsns During Visit to the DTC and Alliance Army Air Base, Alliance, Neb. AGF G-3 file: Binder No. 248-333.1.

9. Answer 29 (C) in "Answers by Headquarters AGF to Questions Asked in Connection with Investigation Directed by the Deputy Chief of Staff, 2 February 1944." 333.1/102 (CAMA)(C).

10. AGF ltr (C), 16 Jul 43, sub: Orgn and Policies in Connection with Administration of DTC, Cp Young, Calif. 320.2/10 (CAMA)(C).

11. (1) Record of telephone conversation between Maj Alenius and Maj D. J. Thomson, 1730, 10 Aug 43. DTC-CAMA files at Cp Haan: 311.1/32. (2) AGF ltr, 26 Oct 43, sub: Inspection Trip. 353/252 (AGF).

12. (1) DTC Staff Study (C), 20 Aug 43, incl to DTC ltr, 21 Aug 43, sub: Plan for Reorgn of DTC. DTC-CAMA files at Cp Haan. (2) AGF M/S (R), CofS to CG, 31 Aug 43, sub: Orgn of the DTC. 320.2/23 (CAMA)(R). (3) AGF 1st ind (R), 1 Nov 43. 320.2/23 (CAMA)(R).

13. "History of the Communications Zone, CAMA," incl 2 to CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

14. Interview of AGF Hist Off with Maj Gen Christiansen, CofS AGF, 19 Jan 45. Ibid.

15. (1) CAMA Field Maneuver 1 and 2, 90th Inf Div, 93d Inf Div, 20 Nov - 11 Dec 43. AGF G-3 file: 354.2 DTC Maneuvers. (2) "IV Corps, an Analytical History, 1939-1944," prepared under the direction of Maj Gen A. M. Patch, (C). AGF Hist Sec File. (3) Memo of Col R. F. Ennis for G-3 AGF, 30 Nov 43, sub: Visit of Inspection to Cp Cooke, Calif., and CAMA. AGF G-3 file: Binder 64, 333.1 - Inspected by Staff Off.

16. WD ltr (R) 322 OB-S-GNGCT-M, 28 Nov 43, sub: Asgnm of AAF Units at CAMA. 320.2/63 AAF (R).

17. AGF memo (C) for CofS USA, 24 Dec 43, sub: CAMA. 320.2/24 (CAMA)(C).

18. X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities, CAMA, during Period under Control of X Corps, 17 Jan - 30 Apr 44. Desert Records.

19. (1) CAMA ltr 354.2 GNWXC, 13 Mar 44, sub: CAMA Field Maneuvers, 8 Feb - 5 Mar 44. DTC-CAMA files at Cp Haan: 354.2 Maneuvers - DTC. (2) AGF ltr, 11 Mar 44, sub: Visit to CAMA, 1 - 3 Mar 44. 354.2/105 (Gen)(CAMA).

20. (1) CAMA GO 15 (R), 28 Apr 44, sub: Change in Comd of the CAMA. (2) X Corps TWX (R) to CG AGF, 1 May 44. 320.2/30 (CAMA)(R).

Notes on Chapter Three

1. Personal ltr (C), Gen Anderson to Gen McNair, 8 Jun 44. 333.1/103 (CAMA)(C).

2. Rpt (C) "Answers by Headquarters AGF to Questions Asked in Connection with Investigation Directed by the Deputy Chief of Staff, 2 Feb 1944." Question 28. 333.1/102 (CAMA)(C).

3. (1) Ibid. (2) Memo of Col Riley F. Ennis for G-3, AGF, 15 Jun 43, sub: Obsns During Visit to the DTC and Alliance Army Air Base, Alliance, Neb. AGF G-3 file: No 248-333.1. (3) AGF ltr to CG DTC, 12 Jul 43, sub: Visit to the DTC, 27-29 Jun 43. (AGF) 353.02/184.

4. Interview of AGF Hist Off with Lt Gen Walton H. Walker at Pentagon, 29 May 45. Desert Records.

5. DTC ltr 319.1/2 GNWXC, 28 Mar 43, sub: Rpt of Activities DTC, 8 Nov 42 to 28 Mar 43. AGF G-3 Sp Projects file: DTC Rpt Activities 8 Nov 42 - 28 Mar 43.

6. AGF ltr, 6 Apr 43, sub: Orgn and tng, DTC. 320.2/80 (CAMA).

7. History of the XV Corps (C), p 10. Analysis Unit Records Branch AGO.

8. DTC ltr to CG AGF, 20 Mar 43, sub: Final Rpt on OTC Maneuvers. DTC-CAMA files at Cp Haan: Binder, "History DTC, Maneuvers."

9. (1) DTC ltr 319.1/2 GNWXC to CG AGF, 28 Mar 43, sub: Rpt of Activities DTC, 8 Nov 43. AGF G-3 Sp Projects file: DTC Report Activities 8 Nov 42 - 28 Mar 43. (2) AGF ltr, 6 Apr 43, sub: Orgn and Tng, DTC. 320.2/80 (CAMA). (3) AGF ltr, 12 Jul 43, sub: Visit to the DTC, 27-29 Jun 43. (4) DTC ltr to CG AGF, 20 Jul 43, sub: Reply to ltr 353.02/184 (AGF)(12 July 1943)GNGCT. 353.02/184. (5) See rpts in AGF G-3 Sp Projects file: Observers Rpts, DTC, 1943. (6) CAMA ltr 353.16 GNWXC to CG AGF, 21 Oct 43, sub: FA Bn Tests. DTC-CAMA files at Cp Haan: 353.16/21 Tng FA.

10. Interview of AGF Hist Off with Lt Gen Walton H. Walker at Pentagon, 29 May 45. Desert Records.

11. Memo of Lt Gen Ben Lear for CofS, USA, 11 Jun 43, sub: Visit of Inspection to the DTC. 333.1 (CAMA).

12. AGF ltr, 26 Oct 43, sub: Inspection Trips. (AGF) 353/252.

13. Personal ltr (C), Gen Anderson to Gen McNair, 8 Jun 44. 333.1/103 (CAMA)(C).

14. Statement of Gen Walton H. Walker to AGF Hist Off at Pentagon, 29 May 45. Desert Records.

15. AGF ltr, 6 Apr 43, sub: Orgn and Tng, DTC. 320.2/80 (CAMA).

16. Interview of AGF Hist Off with Lt Gen Walton H. Walker at Pentagon, 29 May 45. Desert Records.

17. Memo of Col Michael Buckley for G-3 AGF, 13 Jun 43, sub: Inspection Rpt 6-11 June 43. AGF G-3 file: No 248-333.1

18. AGF ltr, 12 Jul 43, sub: Visit to the DTC, 27-29 Jun 43. (AGF) 353.02/184.

19. DTC ltr, 20 Jul 43, sub: Reply to ltr (AGF)(12 Jul 43)GNGCT 353.02/184. Ibid.

20. (1) Memo (C), Gen McNair for CofS AGF, 9 Jul 43, sub: Outline of Policies in Connection with Admin of DTC. 320.2/10 (CAMA)(C). (2) AGF M/R, Gen Walker, 10 Jul 43, sub: Gen McNair's Conference on DTC. 430.2/7 (CAMA). (3) AGF M/S, G-4 to Surg, 12 Jun 43; Surg to G-4, 13 Jul 43. 430.2/7 (CAMA). (4) Memo (C), Gen McNair for COfS AGF, 13 Jul 43, sub: Additional Policies in Connection with the Admin of the DTC. 320.2/10 (CAMA). (C)

21. AGF ltr (C), 16 Jul 43, sub: Orgn and Policies in Connection with Admin of DTC, Cp Young, Calif. Ibid.

22. Record of telephone conversation, 0900, 24 Jul 43. DTC-CAMA files at Cp Haan: 311.1/32.

23. Record of telephone conversation, Maj Alenius to Maj D. F. Thomson, 1730, 10 Aug 43. DTC-CAMA Ibid Cp Haan: 311.1/32.

24. P 5, "History of Communications Zone, CAMA," incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

25. AGF ltr, 26 Oct 43, sub: Inspection Trip. (AGF) 353/252.

26. AGF M/S (C), Gen McNair to G-4, 27 Dec 43, sub: Gen McNair's Trip to the West Coast - Dec 1943. 320.2/105 (CAMA)(C).

27. AGF ltr, (C) 31 Dec 43, sub: Policy with Regard to Rations and Operation of Exchange and Off' Club in the CAMA. Ibid.

28. AGF ltr, 24 Jan 44, sub: Policy with Regard to Rations in the CAMA. Ibid.

29. X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities, CAMA, During Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

30. Memo of Lt Gen Ben Lear for CofS USA, 11 Jun 43, sub: Visit of Inspection to the DTC. 333.1 (CAMA)

31. CAMA 3d ind, 24 Oct 43, on Mira Loma QM Depot Ltr, 14 Oct 43. 430.2/9 (CAMA).

32. Ltr, "Enlisted Men of Hq and Hq Btry XV Corps Arty," undated but probably early Sep 43, sub: Tng. 353/287 (CAMA).

33. (1)Ltr James H. Gordon, 31 Jul 43. (2) Ltr Mrs B. M. Hobbs. (3) AGF Memo for Asst to Director WDBPR, undated, sub: Suggested Reply for Sec Patterson to Dr. Palmer. 353/285 (CAMA).

34. 85th Inf Div ltr (C) 333 GNWL, 11 Aug 43, sub: Rpt of Investigations of the Circumstances Connected with the Deaths of Three Members of the First Plat, Co "E", 337th Inf, 23-25 Jul 43. Ltr and incl in rpts folder (C) in DTC-CAMA files at Cp Haan.

35. AGF Memo for Asst to Director WDBPR, undated, sub: Suggested Reply for Sec Patterson to Dr. Palmer. 353/285 (CAMA).

36. Personal ltr Gen Haislip to Gen McNair, 7 Sep 43. McNair Correspondence.

37. AGF M/S, G-1 to CG, 21 Dec 43, sub: Tng Material from Maj Gen Allen, 104th Inf Div. AGF G-1 files: 319.1 Rpts (Misc), Binder 2.

38. AGF "Condensed QM Observers Reports CAMA Maneuvers No. 4," 14 Feb 44. AGF G-3 Sp Projects file: Observers Rpt CAMA, title as in quotas.

39. (1) CAMA ltr 463.7 GNWXQ, 23 Nov 43, sub: Request for Gasoline Tankers and Trailers. (2) AGF 1st ind, 18 Dec 43. 451/127 Vehicles (CAMA).

40. (1) AGF ltr, 26 Oct 43, sub: Inspection Trip. (AGF) 353/252. (2) AGF ltr, 8 Jan 44, sub: Visit to CAMA, 17-18 Dec 43. AGF 353.02/403. (3) AGF ltr, 11 Mar 44, sub: Visit to CAMA, 1-3 Mar 44. 354.2/105 (Gen)(CAMA).

41. (1) AGF M/S, G-1 to CofS, 20 Dec 43, sub: Asgnt of 2d Lts. (2) AGF 2d ind, 22 Dec 43. 210.31/104 (CAMA).

42. (1) AGF ltr, 29 Nov 43, sub: Rotation Policy CAMA (Including Com Z), (2) CAMA ltr 320.2 GNWXA, 18 Dec 43, sub: Rotation Policy CAMA (Including Com Z). 210.31/102 (CAMA).

43. (1) SOS ltr SPOPP 352.11, 17 Feb 43, sub: Asgnt of Off to SOS Overseas Pool. (2) Com Z CAMA ltr GNWZA 352.11 (SOS Off Pool), 9 Mar 43, sub: Asgnt of Off to SOS Overseas Pool. (3) AGF M/S, 19-26 Mar 43, sub: Asgmt of Offs to SOS Overseas Pool. 210.31/66½.

44. (1) SOS ltr SPOPP 210, 28 Jan 43, sub: SOS Off Repl Pool. (2) ASF ltr SPOPP 352.11, 29 Mar 43, sub: Establishment of ASF Overseas Off Pool. DTC-CAMA files at Cp Haan: 353 ASGOOP 1943.

45. Com Z ltr 211 SOP/GNWXC, 25 May 43, sub: ASFOOP. DTC-CAMA files at Cp Haan: 353 ASFOOP 1943.

46. P 8, "History of the Com Z, CAMA," incl 2 of CAMA ltr, 30 Apr 44. sub: Transfer of CAMA to ASF. Desert Records.

47. (1) Com Z CAMA ltr 210.31 GNWZC, 29 Oct 43, sub: Asgnt of Offs to ASFOOP. (2) AGF 2d ind, 12 Nov 43. 210.31/91 (CAMA).

48. AGF ltr (C), 16 Jul 43, sub: Orgn and Policies in Connection with Admin of DTC, Cp Young, Calif. 320.2/10 (CAMA) (C).

49. Ibid, 31 Aug 43.

50. (1) AGF M/S (C), G-1 to CofS, 20 Aug 43, sub: Orgn and Policies in Connection with Admin of DTC. (2) ASF 1st ind (C) Mil Pers Div, SPGAM/210.31 (31 Aug 43), 20 Sep 43. (3) AGF M/S (C), G-1 to CofS and (4) AGF M/R (C), 20 Sep 43, sub: Additional Tng in the Com Z, DTC. 320.2/10 (CAMA)(C). (5) AGF M/S, G-1 to G-2, 27 Sep 43, sub: Asgnt of Staff Off to Additional Tng Periods in Com Z, DTC. 21o.31/78(CAMA).

51. WD ltr (R) AG 320.2(1-20-43)OB-I-AF-M, 21 Jan 43, sub: Reassignment of Certain AAF Units to the DTC. 320.2/181(R).

52. WD ltr (R) AG 320.2(3-30-43)OB-I-AFDPU-M, 31 Mar 43, sub: Constitution and Activation of the DTC Air Force Serv Comd. 320.2(R)(DTC).

53. AGF ltr to CG's 17 Jan 43, sub: Special Instructions in Employment of Air Support. DTC-CAMA files at Cp Haan: 353.02.

54. DTC ltr, 20 Mar 43, sub: Final DTC Maneuvers. DTC-CAMA files at Cp Haan: Binder "History DTC Maneuvers."

55. AGF ltr (R), 28 Apr 43, sub: Opportunities for Additional Air Units to Participate in Combined Tng at DTC. 353/20 (Air Ground)(R).

56. AAF 1st ind, (R) 7 May 43. 353/20 (Air Ground)(R). See also AAF ind (R). no date, on ltr, sub: Air Support Priorities. 353/16 (Air Ground)(R).

57. AGF ltr (S), 6 Apr 43, sub: Orgn and Tng DTC. 320.2 (CAMA).

58. AGF M/S, G-3 to CofS, 28 Jul 43. 354.2/35 (Desert Maneuvers--1943).

59. IV Air Spt Comd ltr, 354.2, 16 Jul 43, sub: Report of Air Spt, Jun-Jul Maneuvers, 1943, DTC. AGF G-3 Sp Projects files: Obs Rpts, DTC, 1943.

60. Hq and Hq Sq, IV Air Spt Comd, was redesignated Hq & Hq Sp, III Tac A Div, 4 Sep 43, by DTC GO 91.

61. AGF memo, G-3 Air Spt Br for G-3, 1 Dec 43, sub: Rpt of AGF Obs. AGF G-3 Air Spt Br: Paper 13, Binder 21, Maneuvers, DTC.

62. AGF M/S(C), to CofS, etc, 13-20 Nov 43, sub: G-3 WD Conference on Joint Tng Facilities. 353/27 (Air Ground)(C).

63. (1) WD ltr (R) AG 322 OB-GNGCT-M, 28 Nov 43, sub: Asgnt of AAF Units at CAMA. (2) The Thermal Air Field was placed under control of CG AAF, effective 13 Dec 43. See WD ltr (R) AG 322 OB-I-WDGCT-M, 7 Dec 43, sub: Reasgnt of the Thermal Air Field. 320.2/63 AAF (R).

64. WD Memo WDGCT 353 DTC (1 Oct 43) for CG's AAF and AGF, 19 Nov 43, sub: Combined Air-Ground Tng. 353/323 (Air Ground).

65. See his rpt in Binder 13, 333.1 (Insp by Staff Off) in files of AGF G-3 Sec.

66. (1) Com Z ltr 452 GNWZF, 6 Oct 43, sub: Air Supply. (2) AGF 2d ind, 26 Oct 43. (3) AAF 4th ind, 15 Mar 44. (4) AGF 6th ind, 6 Apr 44. 310.31/86 (CAMA).

67. AGF M/S (C), G-3 to CofS, 10 Nov 43, sub: G-3 WD Conference on Joint Tng Facilities. 353/27 (Air Ground)(C).

68. WD Memo (S), WDGCT 580 for CGs, 2 Mar 43, sub: Combined Air Ground Tng. 353/13 (Air Ground)(S).

69. AAF ltr, 5 May 43, sub: Utilization of Acft. 452.1/7 (CAMA).

70. Personal ltr Gen Haislip to Gen McNair, 14 Sep 43. McNair Correspondence.

71. 90th Inf Div ltr 353 GNWN-C, 16 Sep 43, sub: Conduct of Plat Leadership Exercises. DTC-CAMA files at Cp Haan.

72. (1) AGF ltr, sub: Visit to DTC 26-28 Aug 43. (2) AGF ltr, 12 Jul 43, sub: Visit to DTC 27-29 Jun 43. (AGF) 353.02.

73. AGF ltr, 26 Oct 43, sub: Inspection Trip. (AGF) 353/252.

74. Memo of Col Riley F. Ennis for G-3 AGF, 15 Jun 43, sub: Obsns During Visit to the DTC and Alliance Army Air Base, Alliance, Neb. AGF file: No. 248-333.1.

75. DTC ltr 353 GNWXC, 8 Jun 43, sub: Tng, DTC, 10 Jun 31 Jul. DTC-CAMA files at Cp Haan: 353.

76. (1) AGF ltr, 12 Jul 43, sub: Visit to the DTC, 27-29 Jun 43. (2) AGF ltr, 9 Sep 43, sub: Visit to the DTC, 26-28 Aug 43. AGF 353.02.

77. History of IX Corps (R), 24 Oct 40 to 1 Nov 43, Pt VI, P; 7-8. Hist Analysis Unit Record Br AGO.

15. Personal ltr (C) Gen Anderson to Gen McNair, 8 Jun 44. 33.1/103 (CAMA)(C).

16. (1) DTC Check Slip (C) G-1 to Cof S, 8 Apr 43. DTC-CMA file at Cp Haan: Binder 320.2 Orgn (C). (2) Memo (C) of Col R. Burney, IGD, for TIG, 25 May 43, sub: Rpt Covering DTC, Indio, Calif. 33.1 (CAMA)(C).

17. AGF ltr (C), 16 Jul 43, sub: Orgn and Policies in Connection with Admin of DTC, Cp Young, Calif. 320.2/10 (CAMA)(C).

18. AGF ltr (R), 23 Nov 43, sub: Allotment of Pers for Augmentation of Corps Hq. 322/7 (Corps)(R).

19. AGF ltr (R), 26 Jan 44, sub: Allmt of Pers for Augmentation of Corps Hq. 352/7 (Corps)(R).

20. (1) AGF M/S (C), CG to CofS, 31 Aug 43, sub: Allotment of Offs, DTc. DTC-CAMA files at Cp Haan: DTC Policy File (C). (2) Chart, "Hq and Hq Co Com Z, DTC," by Maj James I. Maloney, 2 Oct 43. AGF G-3 Overhead Allotments Div file. (3) Chart, "Recapitulations, Showing, Present, Requested, and Recommended Allotments to DTC," by Maj James I. Maloney, 2 Oct 43. Ibid.

21. AGF ltr (C), 20 Oct 43, sub: Revision in Present Allotment of Personnel to the CAMA. DTC-CAMA files at Cp Haan: 320.2/4 Orgn (C).

22. (1) AGF M/R. (2) AGF 1st wrapper ind, 10 Dec 43. (3) Com Z CAMA 3d wr ind, 31 Dec 43. 320.2/120 (Binder 2) (CAMA).

23. Interview of member of AGF Hist Sec with Maj Maloney, Jan 45.

24. AGF memo G-4 for CofS, 21 Nov 42. 320.2/49 (CAMA).

25. SOS memo (C) SPTRU 353 for CG AGF, 16 Jan 43, sub: Tng Directive for Tng of SOS Units at DTC. 33.1/2 (CAMA)(C).

26. AGF ltr (C), 10 Feb 43, sub: Tng Directive for Tng of Serv Units at the DTC. 353/3 (CAMA)(C).

27. Ibid.

28. AGF M/S, G-4 to G-3, 19 - 26 Mar 43, sub: Asgmt of Offs to SOS Overseas Pool. 210/31/66½ (CAMA).

29. AGF ltr (C), 16 Jul 43, sub; Orgn and Policies in Connection with Admin of DTC, Cp Young, Calif. In 320.2/10 (CAMA)(C).

30. (1) AGF M/S(C), G-4 to CofS, 25 Oct 43, sub: Air Forces and DTC. 353/27 (Air Ground)(C). (2) DTC ltr, 14 Oct 43, sub: Instructions Concerning Preparations for Overseas Movements. 370.5/64 (CAMA).

31. AAF memo (S) for CofS USA, 1 Oct 43, sub: AAf Units at the DTC. 353/32 (Air Ground)(S).

32. AGF memo (S) for CofS USA, 16 Oct 43, sub: AAf Units at DTC. Ibid.

33. WD memo (C) WDGDS 7158, Supply Div G-4 for G-3 Wd, 15 Oct 43, sub: Joint Tng Facilities. 353/27 (Air Ground)(C).

PART II

Notes on Chapter IV.

1A. DTC GO 8, 26 Jan 43. Desert Records: Binder, "DTC General Information, Maj Gen White, IX Corps, Jun 43."

1. (1) TWX (C) Gen Walker to CG Ninth Serv Comd, 6 Feb 43. Part III, Post Ord Officer's Stock Record Account, Cp Young, Calif (C), Exhibit I, in DTC-CAMA records at Cp Haan. (2) "History of the Communications Zone, CAMA," Incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

2. AGF ltr (R), 20 Jan 43, sub: Orgn of 1st Hq & Hq Det, Sp Trs, DTC. 322/1(R) (CAMA). This folder contains activations of the other detachments, reorganizations, inactivations.

3. (1) DTC memo 8, 27 Jan 43. Desert Records: Binder, "DTC General Information, Maj Gen White, IX Corps, Jun 43." (2) "Advance Sections - Communications Zone," in History of the Communications Zone, CAMA," incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

4. SOS ltr (C) SPTRU 353 for CG AGF, 16 Jan 43, sub: Tng Dir for Tng of SOS Units at DTC. 333.1/2 (CAMA)(C).

5. (1) AGF M/S, Ord to G-4, 20 Mar 43, sub: Ord Maint in DTC. AGF G-4 Sec file: 333.1/149 Inspections and Visits. (2) Section under Gen White and IX Corps in Rpt (C) "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equip Maint in Units in the CAMA," 6 Jun 44. 33.1/103 (CAMA)(C).

6. Interview of Maj Gen J. G. Christiansen, CofS AGF, by the Hist Off, 19 Jan 45. Desert Records.

7. AGF M/S, Col W. H. Schildroth (Asst G-4) for G-4, 10 May 43, sub; Visit to DTC, Feb 4 and 5, 43. 33.1/84 (CAMA).

8. Memo of Col Riley F. Ennis for G-3 AGF, 15 Jun 43, sub: Obs During Visit to DTC and Alliance Army Air Base, Alliance, Neb. AGF G-3 file: Binder, 248-333.1.

9. Ibid. (Col Ennis)(15 Jun 43).

10. Personal ltr Gen White to Gen McNair, 5 Jul 43. McNair Correspondence.

11. (1) DTC memo (C) (Office of Surgeon), 6 Jul 43. (2) 1st ind (C) (Surgeon of Hq DTC), 15 Jul 43. (3) AGF M/S (C) G-1 Off Div, etc, 24 Jul - 9 Aug 43, sub: Rpt of an Asst Med Umpire during Jun and Jul Maneuvers. 354.3/1 (CAMA) (C).

12. AGF ltr (C), 16 Jul 43, sub: Orgn and Policies in Connection with Admin of DTC, Cp Young, Calif. 320.2/10 (CAMA)(C).

13. (1) DTC ltr 632 GNWZJ, 7 Oct 43, sub: Additional General Hospitals, 600.12/25 (CAMA). (2) "Advance Sections - Communications Zone," in "History of the Communications Zone, CAMA," incl 2 of CAMA ltrs, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

14. (1) Interview of Maj Gen J. G. Christiansen, CofS AGF, by Chief of AGF Hist Sec, 19 Jan 45. (2) AGF M/S Hist Sec to CofS, 20 - 24 Jan 45, sub: History of DTC-CAMA. Desert Records.

34. AGF M/S (C) G-3, CofS etc., 13 - 20 Nov 43, sub: G-3 WD Conference on Joint Tng Facilities. Ibid.

35. Ibid. AAF had exchanged tactical groups in the CAMA which reducted personnel and equipment from 3 to 2 sqs (117 offs to 89, 878 enlisted men to 447). See: (1) AGF M/S (S) G-3 to CofS, sub: Exchange of Rcn Gp at DTC. (2) AAF 2nd ind (S), 18 Sep 43. 320.2/3 (CAMA)(S).

36. (1) WD memo WDGCT 353 DTC (1 Oct 43) for CGs AAF and AGF, 19 Nov 43, sub: Combined Air-Ground Tng. 353/323 (Air Ground). (2) AGF memo for TAG, 26 Nov 43, sub: Asgmt of AAF Units at CAMA. 320.2/63 (AAF)(R). This source lists units at CAMA which were placed under control of CG AAf.

Notes on Chapter V

1. P 44, "History of Ordnance Section," in History of the Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

2. (1) AGF Memo for Maj Gen C. P. Gross, 25 Jun 43, sub: Desert Tng. 320.2 (CAMA) (2) SOS 5th ind (C), 25 Jun 43. 333.1 (CAMA)(C). (3) AGF 2d ind (C), 10 Jul 43. 333.1 (CAMA)(C). Ibid.

3. ASF Memo SPDDQ 430.2(Rations) Serial No 9562 for QMG, 9 Apr 43, sub: Rations for DTC Maneuvers. 354.2/22(Desert Maneuvers - 1943).

4. P43, "History of Ordnance Section," in History of the Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 43, sub: Transfer of CAMA to ASF. Desert Records.

5. Personal ltr (C), Gen Anderson to Gen McNair, 8 Jun 44. 333.1/103 (CAMA)(C).

6. AGF M/S, G-4 and Ord, 16-24 Jul 43, sub: Channel of Supply of Automotive Spare Parts - DTC. AGF G-3 file: Cpy No 138 in S and T file, DTC-CAMA.

7. (1) P 44, "History of Ordnance Section," in History of the Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records. (2) DTC ltr 400.22 GNWXD, 20 Apr 43, sub: Directing Shipments. Also OQMG 2d ind SPQSG 400.312, Cp Young, 20 May re. 400/85 (CAMA). (3) DTC-CAMA files at Cp Haan: 353.01/23 Tng Scd.

8. Record of telephone conversation between Col Carlsten, DTC Sig Off and Col Hildreth, Storage and Issue Div, O of CSigO, 18 Dec 42. DTC-CAMA files at Cp Haan: 319.1/12 Telephone Calls, IV Armd Corps.

9. (1) WD ltr (R) AG 400 OB-S-SPDDL-M, 24 Jan 43, sub: Equipment for Units Assigned to SOS, DTC. 475/1 (CAMA)(R). (2) AGF M/S (R), G-4 to G 3, 19 Jun 43, sub: Equip for Units Moving to DTC. 475/7 (CAMA)(R).

10. WD ltr (R) AGF 400 OB-S-C, 3 Aug 43, sub: Equipment for Non-Div Serv Units Moving to DTC. 475/10 (CAMA)(R).

11. (1) Record of telephone conversation between Capt Clapper in Sig O, IV Armd Corps and Capt K. Kuhn of the Sig Security Sec, O of CSigO in Wash 1330 PWT, 18 Jan 43, sub: Final Attempt to Get Cryptographic Equip M-134-C (SIGABA) for Hq Armd Corps and also a Separate and Additional Issue of the same for Hq DTC. DTC-CAMA files at Cp Haan: 319.1/13 Telephone Calls, IV Armd Corps. (2) Records of telephone conversation between Col Carlsten, DTC Sig Off, and Col Hildreth, Storage and Issue Div, O of CSigO, 19 Dec 43. Cpy as in (1). (3) Record of telephone conversation between Lt Col Wilson, DTC Actg G-4 and CO of Stockton Mtr Dep, 3 Feb 43. Cpy as in (1). (4) AGF M/S "TPN" to "SUP", 11 Mar 43, sub: Shortage in Equip in Ord Maint Units Stationed at DTC. AGF G-4 S and T file: Cpy No 38, DTC-CAMA. (5) WD ltr (R) AG 400 OB-S-SPDDL-M, 24 Jan 43, sub: Equip for Units Assigned to DTC. 475/1(CAMA)(R). (6) AGF Memo (R) for Information, Supply Div, G-4, 9 Feb 43. 451/67 (CAMA)(R). (7) Record of telephone conversation between Col Collier and Col Ennis, AM 24 Nov 43. Cpy as in (1). (8) Record of telephone conversation between Capt W. F. Berg and Lt Col Harrison, 1100, 3 Aug 43. DTC-CAMA files at Cp Haan: 311.1/11 (9) DTC ltr 475 GNWXR, 31 Aug 43, sub: Tng Equip. 475/134 (CAMA). (10) Com Z DTC TWX, undated. 451/97. (11) DTC ltr 451.3 GNWXD, 6 Jul 43, sub: Refrigeration for DTC. Also DTC 1st ind, 17 Jul 43. Ibid. (12) Com Z DTC ltr 400.01 GNWZR, 17 Sep 43, sub: Tool and Test Equip for Sig Repair Sec, also ASF 2d ind to above, SPAG 475, 25 Oct 43.

413.4/63 (CAMA). (13) Ltr of 253d Ord Maint Co, 5 Oct 43, sub: Non-Receipt of Equip Due on Shortage Lists. 413.1/399. (14) DTC ltr 472 GNWXO, 18 Sep re, sub: Subcaliber 37-mm Gun, M1916 for Light and Medium Arty for Tng Purposes in DTC. Also AGF 1st ind, 19 Oct 43. 472/11 (CAMA). (15) 12th TD Gp ltr, 18 Aug 43, sub: Shortage of Radios. Also AGF 3d ind, 14 Sep re. 413.4/49(CAMA). (16) DTC memo 3 Sep re, sub: Visit to 192 Ord Bn, Goffs, Calif. DTC-CAMA files at Cp Haan: 333. (17) DTC ltr 333 GNWXO, r Sep 43, sub: Rpt of Ord Visits, and "Ord Insp Trip to 77th Div" by Maj V. O. Davis. DTC-CAMA files at Cp Haan: 33/44. (18) AGF ltr, 9 Sep 43, sub: Visit to DTC, 26-28 Aug 43. (AGF) 353.02/223. (19) 6th Rcn Sq ltr, 10 Aug 43, sub: Shortage of Controlled Items of Equip, Sig Property. 413.4/42(CAMA). (20) Par 13, DTC Maneuver Memo 8, 11 Oct 43. 300.6/113(CAMA). (21) Par 4, DTC Tng Memo 33, 14 Aug 43. In 300.6/79 (CAMA). (22) Memo of CAMA Sig ? to Lt Col Clarke. AGF G-4 file: 33.1/185 (Insp and Visits). (23) AGF ltr, 26 May re, sub: Request for Air Trans Planes. 353/279 (Air Ground). (24) AGF Memo to DCofOrd, Tank-Automotive Cen, 21 Jan 43, sub: Status of Trans Engr Units at DTC. 451/54 (CAMA). (25) Memo (G) of Brig Gen J. W. Barnett for WD G-4, 8 Feb 44, sub: Evacuation of the CAMA. AGF G-4 Adminis Div file: Binder 2, 320 (CAMA)(C).

12. (1) Ord Base DTC ltr, 5 Apr 43, sub: Supplies (Major Items and Spare Parts). Also DTC 2d ind, 16 Apr 43, and AGF 3d ind, 1 May 43. 475/63 (CAMA). (2) AGF M/R, Supply and Trans Div, 1 Jun 43, sub: Half-Tracks in the Desert. AGF G-4 S and T file: 101 DTC-CAMA.

13. Fourth MRU (Mbl) (C) to AG of Com Z, DTC, 27 Jun 43. DTC-CAMA files at Cp Haan: 354.2 Maneuvers (C).

14. Com Z, DTC, G-4 Rpt 1, (C), 17 Jun re. DTC-CAMA files at Cp Haan: 354.2, Maneuvers (C).

15. AGF M/S, G-3 to G-4, 17 Jun 43, sub: DTC Supply. AGF G-4 S and T file: 133, DTC-CAMA.

16. AGF M/R, 19 Nov 43, sub: Crystal Shortages for Radio Sets SCR-608-610 and 628. 413.4/47 (CAMA).

17. M/R, AGF G-4 Sup and Trans Div, 6 Aug 43, sub: Rpt of Obsns at DTC. AGF G-4 file: S and T file, DTC.

18. Memo AGF, G-4 Sup and Trans Div for CofS, 28 May re, sub: Visit to DTC 16 May-22 May 43 in "Rpt of Trip to DTC 15 May-23 May 43." DTC-CAMA files at Cp Haan: folder "Insp Rpt - DTC."

19. DTC ltr, 3 May re, sub: Troop Unit Reqmts, DTC, with 17 incls on Troop Unit Reqmts. In DTC-CAMA files at Cp Haan: DTC Policy File.

20. (1) ASF memo SPMNT 333.1 Serial No 1-110 for Cg Agf, 20 Jul 43, sub: Rpt of Obsns at the DTC, submitted by Col F. C. Devenbeck, ASF Ord Dep, Chief of Policy Br, Maint Div. (2) AGF ltr to CG ASF, 2 Aug 43, sub: Rpt of Obsns at DTC. (3) ASF 1st ind, SPMNT 333.1 Serial No 197-C, 3 Sep 43. 319.1/17 (CAMA).

21. (1) DTC ltr (C) 320 GNWXC, 16 Oct 43, sub: Reorgn of DTC. 320.2/10 (CAMA)(C). (2) AGF M/S (C), G-4 to CofS, 25 Oct 43, sub: Air Forces and DTC. 353/27 (Air-Ground)(C).

22. AGF Memo (C) for CofS USA, 24 Dec 43, sub: CAMA. 320.2/24 (CAMA) (C).

23. CAMA ltr (C), 5 Jan 44, sub: Status of Ord Serv. 320.2/107 (CAMA) (C).

24. (1) AGF memo, G-4 Fld Serv Sec for G-4, 5 Jul 43, sub: Insp Trip to Cps Carson and Hale, DTC, and Ft Bliss, 24-30 Jun re. AGF G-4 file: 33.1/37 Insp and Visits. (2) AGF memo, G-4 Fld Sv Sec for G-4, 21 Dec re, sub: Insp Trips, 14-19 Dec re. AGF G-4 file: 333.1/185 (Insp and Visits.

25. Com Z DTC ltr, 400.01 GNWZR, 17 Sep re, sub: sub: Tool and Test Equip for Sig Rep Sec. 413.4/63 (CAMA).

26. Memo of CAMA OSigO for Lt Col Clarks, AGF, 17 Dec 43. G-4 file: 333.1/185 Insp and Visits.

27. "History of Ordnance Section," History of Communications Zone, CAMA, incl 2 of CAMA ltr, 3 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

28. "The Quartermaster Section," in History of Communications Zone, CAMA. Ibid.

29. Memo of Col R. F. Ennis for AGF G-3, 30 Nov 43, sub: Visit of Insp to Cp Cooke, Calif, and CAMA, AGF G-3 file: Binder 64, 333.1 Insp by Staff Off.

30. AGF 1st ind (C), 23 Sep 43. 353/404 (Int Tng)(C).

31. Memo of Lt Gen Ben Lear for CofS USA, 11 Jun 43, sub: Visit of Insp to the DTC. 33.1 (CAMA).

32. AGF ltr (R) 15 Dec 43, to CAMA, sub: Insp of Armd Units in CAMA. 333.1/1 (CAMA)(R).

33. "The Quartermaster Section," in History of Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

34. Memo (C) of Col Joel R Burney, IG, for TIG, 25 May 43, sub: Rpt Covering DTC, Indio, Calif. 333.1 (CAMA)(C).

35. AGF ltr, 24 Jan 44, sub: Tech Insp, Med Facilities, CAMA. DTC-CAMA records at Cp Haan: 333.1 Sp Insp, 23 Dec 43 to

36. (1) DTC ltr (C) 320 GNWXC, 16 Oct 43, sub: Reorgn of DTC. 320.2/10(CAMA)(C). (2) AGF M/S (C), G-4 to CofS, 25 Oct 43, sub: Air Forces and DTC. 353/27 (Air Ground) (C).

37. (1) AGF memo of G-4 Fld Sv Sec for G-4, 5 Jul 43, sub: Insp Trip to Cp Carson and Hale, DTC, and Ft Bliss, 24-30 Jun 43. AGF G-4 file: 333.1/137 Insp and Visits.

38. (1) "The Quartermaster Section," in History of Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records. (2) AGF 1st ind, 15 Mar 44. 320.2/208 (CAMA).

39. (1) DTC 2d ind (C), 16 Apr 43, 475/63 (CAMA). (2) AGF ltr (C), 16 Jul 43, sub: Orgn Policies in Connection with Adm of DTC, Cp Young, Calif. 320.2/10 (CAMA)(C)

40. (1) DTC ltr (C), to AGF, 3 May 43, sub: Troop Unit Reqmts, DTC. DTC-CAMA files at Cp Haan: DTC Policy File (C). (2) DTC ltr (C) 320 GNWXC, 16 Oct 43, sub: Reorgn of DTC. DTC-CAMA files at Cp Haan: 320.2/3 Orgn (C).

41. (1) AGF ltr to ASF, 2 Aug 43, sub: Rpt of Obsns at DTC. (2) ASF 1st ind, SPMNT 333.1, Serial No 197-C, 3 Sep 43. 319.1/17 (CAMA).

42. AGF ltr (S), 14 Nov re, sub: Readiness of Units for Mvmt Overseas. Incl, Quarterly Rpt of TIG. DTC-CAMA files at Cp Haan: 353 Int Tng Status Rpts. (S).

43. AGF M/S (C), G-3, CofS, etc, 13-20 Nov 43, sub: WD G-3 Conference on Joint Tng Facilities. 353/27 (Air Ground)(C).

44. "The Quartermaster Section," in History of Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

45. AGF ltr (R), to CAMA, sub: Med Sup Dep Sec. DTC-CAMA files at Cp Haan: 354.2 Maneuvers DTC.

46. "History of G-2 Section," in History of Communications Zone, CAMA, P 15 incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

47. CAMA ltr (C), 5 Jan 44, sub: Status of Ord Sv. DTC-CAMA files at Cp Haan: 320.2/5(C).

48. Memo (C) of Col Joel R Burney, IGD, for TIG, 25 May re, sub: Rpt Covering DTC, Indio, Calif. 333.1 (CAMA)(C).

49. AGF ltr to DTC, 5 Jan 43, sub: DTC as a Theater of Op. (AGF) 353.02/219.

50. "History of Ordnance Section," in History of Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

51. Rpt (C), "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units in the CAMA," 1 Jun 44. 333.1/103 (CAMA)(C).

52. (1) Ibid. (2) ASF ltr SPAOD 333.1, 18 Mar 43, sub: Unsatisfactory Condition of Equip at DTC. 475-395(Ord). (3) Memo of Col W. H. Schildroth for G-4 AGF, 10 Mar 43, sub: Visit to DTC, 4 and 5 Feb 43. 333.1/84 (CAMA). (4) AGF 1st ind, 8 Apr 43; and DTC 2d ind 451 GNWXD, 20 Apr 43. AGF G-4 file: No 62 S and T, DTC-CAMA. (5) ASF memo SPMNT 333.1 Serial No I-110, for CG AGF, 20 Jul 43, sub: Rpt of Obsns at DTC, Submitted by Col F. C. Devenbeck, ASF Ord Dept, Chief, Policy Br, Maint Div, 319.1/17 (CAMA).

53. "History of Ordnance Section," in History of Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

54. ASF 5th ind (R), 25 Jun 43, 451/62 (CAMA)(R).

55. Interview of member of AGF Hist Sec with Lt Col F. W. Rodman, AGF Ord Sec, at AWC, 17 Nov 44. Desert Records.

56. Memo(C) IG 333.1 CAMA, of TIG, for the DCofS USA, 12 Jan 44, sub: Special Maint Insp of CAMA. 333.1/101 (CAMA)(C).

57. Studies in the History of AGF 1, A General History of The Army Ground Forces, (R), Chap V, pp

58. AGF ltr (C), 20 Jan 44, sub: Rpt of TIG. AGF G-4 Adm Div file: Binder 2, 320 (CAMA)(C).

59. CAMA 1st ind (C), 8 Feb 44. 333.1/101 (CAMA)(C).

60. AGF memo (CO for TIG (Att: Col John A. Hunt), 27 Apr 44, sub: Answers by Hq AGF Asked in Connection with Investigation Directed by the DCofS, 2 Feb 44. 333.1/102 (CAMA)(C).

61. AGF memo for CofS USA, 24 Dec 43, sub: CAMA. 320.2/24 (CAMA)(C).

62. Rpt (C) WD, etc, "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units in the CAMA," 6 Jun 44. 333.1/103 (CAMA)(C).

63. WD ltr (C), WDCSA 333(2 Feb 44) for CG AGF, 13 Jun 44, sub: "Investigation to Fix Responsibility on Individuals for Improper Supervision of Equipment Maintenance in Units at the CAMA." Ibid.

Notes on Chapter Six

1. Pp 5 and 18 and "History of G-4 Section," in History of the Communications Zone, CAMA, incl 2 of CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Desert Records.

2. (1) Interview of AGF Hist Off with Lt Gen Walton H. Walker at Pentagon, 29 May 45. Ibid. (2) Gen Patton "Notes on Tactics and Technique of Desert Warfare (Provisional)," 30 Jul 43. 353/136 (CAMA).

Notes on Chapter Seven

1. AGF memo for CofS USA, 24 Dec 43, sub: CAMA. 320.2/24(CAMA)(C).

2. WD memo (S) WDGCT 354 for CGs, 1 Jan 44, sub: Reduction in Number of Maneuver Areas. 354.2/100 (Maneuvers)(CAMA)(S).

3. AGF M/S (S), G-3 to CofS, 13 Jan 44, sub: Reduction in the Number of Maneuver Areas. The Oregon Maneuver Area had already been discontinued. For discussions at AGF, see: (1) AGF M/S (S), Opns to G-3, 10 Jan 44, sub: Impracticability of Operating CAMA or IMA as a Theater of Operations. (2) "AGF Plan for Reduction of Maneuver Areas," 12 Jan 44. Ibid. (Maneuvers) (3) WD memo (C) WDGCT 331 (24 Dec 43) for CG AGF, 12 Jan 44, sub: CAMA. AGF G-4 Adm Div file: Binder 2, 320 (CAMA)(C).

4. WD memo WDGCT 354 for Cgs, 22 Jan 44, sub: Reduction of Number of Maneuver Areas. 354.2/105 (Maneuvers).

5. (1) AGF ltr, 22 Jan 44, sub: Status of CAMA. (2) WD memo WDGCT 354 for CGs, 22 Jan 44, sub: Reduction in Number of Maneuver Areas. Ibid.

6. (1) AGF G-4 M/R, 31 Jan 44, sub: Discontinuing the CAMA. Ibid. (2) AGF ltr, 7 Feb 44, sub: Visit to CAMA. AGF 353.-2/429.

7. X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities CAMA during Period of Control of X Corps, 17 Jan - 30 Apr 44. Desert Records.

8. Memo (C) of Gen J. W. Barnett for G-4 WD, 8 Feb 44, sub: Evacuation of the CAMA. AGF G-4 Adm Div File: Binder 2, 320 (CAMA)(C).

9. (1) AGF M/S (C), G-4 to CofS, 15 Feb 44, sub: Status of CAMA. (2) AGF ltr (C), 19 Feb 44, sub: Status of CAMA. Incl 1 to Incl 2, 320.2/104 (CAMA)(C).

10. AGF G-4 M/R, 24 Feb 44. 354.2/105 (Maneuvers).

11. AGF M/R, 0800, 2 Mar 44, sub: Telephone Call from Col Bryan in CAMA to Gen Porter. Ibid.

12. AAF ltr (C) (Sv Orgn Br), 20 Mar 44, sub: Evacuation of CAMA. 602.1/110 (C).

13. X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities CAMA during Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

14. Personal ltr, Gen Anderson to Gen McNair, 7 Mar 44. 354.2/105 (Maneuvers).

15. AGF M/S, G-3 to CofS, 18 Mar 44, sub: Mvmt of Trps from CAMA. Ibid.

16. (1) ASF memo SPDDO 451 (Vehicles) for CG AGF, 8 Mar 44, sub: Disposition of Surplus Vehicles. 451/216 (Vehicles)(CAMA). (2) X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities CAMA during Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

17. (1) AGF ltr, 15 Dec 43, sub: Orders. AGF Sig Sec file: 676.1/53. (2) 1st ind, Lt Col R. Dallmer, 20 Jan 44. Ibid. (3) X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities CAMA during Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

18. X Corps ltr (C), 22 Apr 44, sub: Evacuation of Army Owned Fixed Wire Plant and Sig Sup from CAMA. 320.2/104 (CAMA)(C), incl 2.

19. AGF ltr (R), 6 Apr 44, sub: Transfer of Hq and Hq Det, Sp Trs. 370.5/26 (CAMA)(R). Also see AGF ltrs in 322/6 (CAMA)(R).

20. (1) CAMA ltr 313.6 GNWXE, 23 Mar 44, sub: Disposition of Records. (2) Com Z CAMA 3d ind, 313.3 GNWZG, 29 Apr 44. DTC-CAMA files at Cp Haan: 313.6.

21. X Corps ltr 000.4 GNMXC, 12 May 44, sub: Activities CAMA during Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

22. AGF memo, Ord for CofS, 3 May 44, sub: Closing of CAMA -- Visit of 26-29 Apr 44. 354.2/105 (Maneuvers).

23. CAMA ltr, 30 Apr 44, sub: Transfer of CAMA to ASF. Incl, Final Rpt to Ninth SvComd. Desert Records.

24. Ibid.

25. (1) Com Z CAMA ltr 140 GNWZK, 20 Apr 44, sub: Audit of Property Accounts. 140/211. (2) ltr 132.2 GNWZF, 11 Apr 44, sub: Certificate of Audit. 140/212. (3) Com Z CAMA 2d ind, 140 GNWZK, 21 Apr 44. Ibid. (4) Com Z CAMA ltr 140 GNWZK, 30 Apr 44, sub: Audit of Property Accounts. 140/214.

26. X Corps ltr 000.4, 12 May 44, sub: Activities CAMA during Period under Control of X Corps, 17 Jan-30 Apr 44. Desert Records.

27. (1) Memo of Hq AGF Off for G-4 AGF, 11 May 44, sub: Consolidated Rpt 2 May 44. 200.6109 (Legion of Merit). (2) See AGF 201 files of officers concerned: Gen Anderson, Col Edmunds, Col Harry M. Roper (CofS X Corps), Col Marcus A. S. Ming (commanded Base Gen Dep), and Lt Col John M. Henderson (commanded Pomona Ord Base).

28. Personal ltr, Maj Gen D. McCoach to Gen Anderson, 20 Apr 44. 200.6/109 (Legion of Merit).

29. (1) CAMA GO 15, 28 Apr 44, "Change in Command of CAMA." (2) X Corps TWX (R) to AGF, 1 May 44. 320.2/30 (CAMA)(R).

30. (1) AGF ltr, 19 Apr 44, (R), sub: Withdrawal of the Allotment of Personnel to CAMA. 320.2/29 (CAMA)(R). (2) Memo of Hq AGF Off for AGF G-4, sub: Consolidated Rpt of Cols Huges, Daniels, Denniston, and Bryan on their Visit to the CAMA, 25 Apr-2 May 44. 200.6/109 (Legion of Merit).