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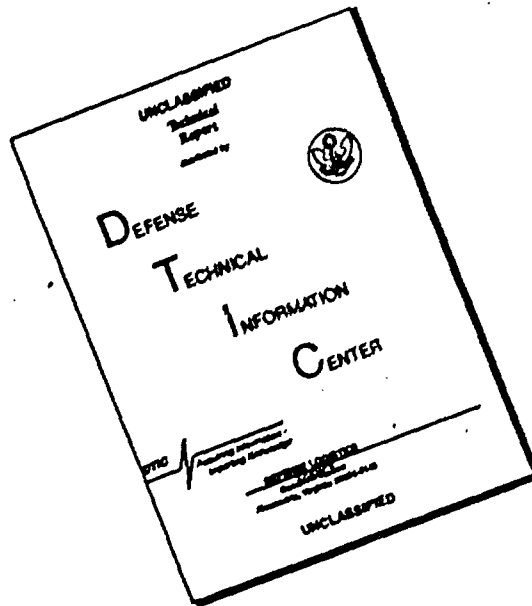
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DEPARTMENT OF THE ARMY  
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AGDA (M) (9 Sep 69)

FOR OT UT 692355

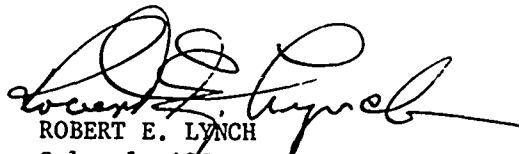
16 September 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 44th Engineer Group, Period Ending 30 April 1969

SEE DISTRIBUTION

1. Subject report is forwarded for review and evaluation in accordance with paragraph 5b, AR 525-15. Evaluations and corrective actions should be reported to ACSFOR OT UT, Operational Reports Branch, within 90 days of receipt of covering letter.
2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

  
 ROBERT E. LYNCH  
 Colonel, AGC  
 Acting The Adjutant General

1 Incl  
as

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 (ARMY) ATTN FOR OT UT, WASHINGTON, D.C. 20310

AD859902



DEPARTMENT OF THE ARMY  
HEADQUARTERS 44TH ENGINEER GROUP (CONSTRUCTION)  
APO SAN FRANCISCO 96233

THCON-OP

15 May 1969

SUBJECT: Operational Report of the 44th Engineer Group (Construction)  
for the Period Ending 30 April 1969, RCS CSFOR-65 (RI) WA93AA

1. Section 1, Operations: Significant Activities:

a. Mission: The 44th Engineer Group (Construction) continues to execute its assigned mission of support of US Army and US Air Force operations in Thailand by executing the troop construction portion of the military construction program, performing engineer reconnaissance and accomplishing civic action projects as available effort permits.

b. Bangkok Bypass Extension (Route 304): On 9 April 1969, the contract for seeding and sprigging of slopes and shoulders was awarded. This work is expected to continue into the rainy season so that the grass will thrive and bind the slopes.

c. Korat Logistical Complex: Upon movement of the 54th Engineer Company (Construction Support) to Northeast Thailand, effective 1 April 1969, the 549th Engineer Detachment (Control & Advisory) assumed responsibility for construction in the Korat area. The mission of this detachment is supervision and training of local nationals in the accomplishment of assigned projects. Projects completed during this reporting period were three Department of Army Civilian Bachelor Quarters, air-conditioning of USARSUPTHAI Headquarters, Craft and Hobby Shop and Quartermaster Self Service Supply Center. The last two facilities listed have some finish details remaining prior to final turnover.

The US Army Air Facility on the Royal Thai Air Force Base, the largest project in the Korat Area, is nearing completion. Work remaining consists of contractor installation of the operations building air-conditioning, fill and grade work and paving of entrance roads and parking area hardstands.

Other in-progress construction includes (with percent completed) six company headquarters buildings (92%), landscaping various projects (65%), athletic facilities (53%), audio - visual center (6%) POL storage, Phase III (10%), and the vault secure communications facility (63%).

FOR OTUT

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Inclosure

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New construction started during this reporting period are the civilian personnel office classroom (40 x 100 Pascoe), and a general support/direct support maintenance facility (two 40 x 100 Pascoe buildings) for Trans World Airlines (Contractor).

Projects assigned but not initiated are three additional Department of the Army Civilian Bachelor Quarters, realignment of the Royal Thai Army rifle range and a parking lot for the Express Transportation Organization (Contractor).

d. Sattahip Cantonment and Consolidated Supply Activities (CSA) Area: Construction of the Sattahip Cantonment and the Consolidated Supply Activity Area (See Incl No. 4) continued to be the primary mission of the 538th Engineer Battalion (Construction), the 561st Engineer Company (Construction), and 697th Engineer Company (Pipeline). The following facilities are now complete within the cantonment area (See Incl No. 5).

<u>No. of Bldgs</u>	<u>Description</u>	<u>Cost</u>
62	EM Billets, 28 Man	\$1,000,000
5	Company Hqs Bldgs	90,600
2	Mess Halls, 750 Man	165,060
3	Motor Maintenance Bldgs	43,830
10	BOQ's, 16 Man	251,000
1	USO Club	25,000
1	PX/Pascoe, Interim	7,193
1	Dispensary/Medical/Dental w/AC	59,280
5	Pascoe, 30' x 60'	34,500
1	Thai Mess Hall	10,440
1	Thai Admin Bldg	8,070

*In closure*

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<u>No. of Bldgs</u>	<u>Description</u>	<u>Cost</u>
1	Latrine Addition	3,167
76	538th Engr Base Camp	<u>108,597</u>
	TOTAL	\$1,840,577

The following buildings have been completed in the CSA Area (See Incl No. 3):

<u>No. of Bldgs</u>	<u>Description</u>	<u>Cost</u>
1	Dial Central Office w/AC	\$ 38,286
1	9th Log Hqs Bldgs w/AC	226,360
6	Pascoe Bldgs, 100' x 200'	314,400
1	ADPS Bldg	71,420
1	Stock Control Bldg	<u>40,150</u>
	TOTAL	\$686,616

The horizontal effort of the Battalion increased to such a degree that all earthmoving platoons were placed under the operational control of the Battalion Operations Section. During this quarter 35.6% of the roads and parking lots were finished and paved for a total of 63% overall completion. (See Incls 5 & 6) A total of 288,000 cubic meters of fill were hauled during the quarter.

At this reporting date, the water distribution system was 80% complete, the sewage system 89% complete, and the electrical distribution system 82% complete. The completed portions of these systems have been turned over to the Post Engineer. The security fencing was initiated during this quarter and was about 15% complete at the end of the quarter.

e. Northeast Lines of Communications (LOC's): The 809th Engineer Battalion (Construction) and its attached units are located at Camp Ruam Chit Chai, Camp Mitrapap and a camp at the Fakhon Phanom Royal Thai Air Base (See Incl No. 3). The attached units include: The 91st Engineer Company (Dump Truck), the 16th Engineer Company (Dump Truck), the 54th

*INCLOSURE*

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Engineer Company (Construction Support), the Earthmoving Platoon of the 561st Engineer Company (Construction) and two well drilling detachments. The 44th Engineer Detachment (EB Team), the 57th Light Maintenance Company, a Military Police Detachment, and a detachment of the 17th Military Intelligence are in direct support.

The Battalion's projects in the Northeast are the upgrading to class 50 and paving of 87 Km of Route 22 from Sakon Nakhon to Nakhon Phanom, the upgrading to class 50 of 75 Km of Route 223 from Sakon Nakhon to That Phanom, and the construction of the Udon Signal Site Extension. The scope of work on the 87 Km of Route 22 includes the construction of 27 pipe culverts and 39 box culverts; the raising of 11 bridges; placing an average of  $\frac{1}{2}$  to  $\frac{3}{4}$  meter of fill on the road bed; placing 15 cm of lime stabilized lower base; placing 11 cm of crushed gravel upper base and 5 cm of asphaltic concrete; construction of approximately 100 pipe culverts across access roads; sloping and ditching. During this quarter the 809th Engineer Battalion (Construction) has completed 15.72 Km of subgrade work (282,070 M<sup>3</sup> of earth-work), placed 10 Km of stabilized base, placed 6 Km of crushed rock (upper base), laid 5.80 Km of asphalt paving, installed 9 box culverts and 7 pipe culverts and raised  $1\frac{1}{2}$  bridges. The total construction completed up to this reporting date is as follows: 22.72 Km of subgrade has been placed, 10.6 Km of lower base has been placed, 6 Km of upper base and 5.8 Km of asphalt paving has been laid, 11 box culverts and 17 pipe culverts have been constructed, and  $1\frac{1}{2}$  bridges have been raised. The scope of work on the 75 Km of Route 223 includes the construction of 14 each 10 to 30 meter bridges, 24 box culverts, 17 pipe culverts and 2 large bridges (381' and 205'). An average of 1 meter fill on the road bed must be placed, shaped and capped with laterite, and ditching and sloping must be completed. Emphasis has been placed on the 12 Km of road from Sakon Nakhon to Camp Ruam Chit Chai. Of this 12 Km, 98% of the subgrade, one 20 meter bridge, 1 box culvert, and 2 Km of double bituminous surface treatment has been completed.

At the beginning of the quarter, quarry crushing facilities consisted of a 400 x 100 meter quarry with three 75 TPH crushers. Because of age and excessive wear one crusher was replaced with a 225 TPH unit. Further development of the benches at the initial quarry site indicated that the material would not meet specification requirements. As a result, quarry operations were relocated to obtain more

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suitable material. At present, work is progressing to develop an efficient floor and bench system and the 9 ft face in this 60,000 M<sup>3</sup> quarry. To date, the quarry has produced 17,799 M<sup>3</sup> of crushed material of which 8,799 M<sup>3</sup> was produced this quarter. Quarry output has been impaired by numerous break-downs and deadlined equipment.

f. Udorn Signal Site Extension: The scope of work for the Udorn Signal Site Extension consists of constructing facilities for the relocation of an AN/TRC 988 and AN/TRC 90 communications system from Udorn Royal Thai Air Force Base to the Udorn IIS Site. Work includes fill emplacement, construction of an access road, compacting and grading, construction of one bridge, pouring concrete pads for the communications system and related structures, erection of security fencing and placement of all power lines for the facility. Approximately 40% of this project has been completed of which 35% was accomplished this quarter. This project has been delayed several times due to real estate procurement and erratic logistical support.

g. Road Reconnaissance: The road reconnaissance conducted by teams from the 549th Engineer Detachment (Control and Advisory) is 98% complete, (4050 miles of a total of 4200 miles). Reports for the percentage completed are being typed and submitted to higher headquarters. Remaining portions to be reconnoitered will be taken over by Headquarters, 44th Engineer Group (Construction).

h. Civic Action: The civic action program of the 44th Engineer Group (Construction) for the past reporting period has been concentrated in five areas; village access roads, school facilities, trade fair participation, water development programs, and medical assistance to the local nationals. The 809th Engineer Battalion (Construction), located in north-eastern Thailand, has placed 20,000 cubic meters of fill on six access roads along Route 22 and 223, benefiting a population of 3,000 villagers. Construction of a 23' x 48' school house and repairs to seven other school facilities consumed 32,000 board feet of lumber. The 538th Engineer Battalion (Construction) erected a prefabricated building which was used as a display booth during the Cholburi Trade Fair. After the fair, the booth was dismantled and erected in the Sattahip area for a school house. The 549th Engineer Detachment (C&A) constructed a pavilion and basketball court for the Korat Community Trade Fair. Construction of three dams in Northeast Thailand by the 809th Engr Bn (Const) have provided catchment

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basins which benefit 800 villagers and farmers. Approximately 200 cubic meters of fill were placed. The Battalion Dispensaries treated 1800 local nationals in the past reporting period. The 809th Engineer Battalion (Construction) continues to hold their community relations council meeting with the provincial authorities of Sakon Nakhon with very good success.

i. Organization: During this reporting period, no units or detachments were activated or deactivated. The 54th Engineer Company (Construction Support) moved to Northeast Thailand in support of Northeast Lines of Communications, and the 549th Engineer Detachment (Control and Advisory) assumed construction responsibility for projects in the Korat Logistical Complex.

2. Section 2, Lessons Learned: Commander's Observations, Evaluation, and Recommendations.

a. Personnel:

(1) Observation: As of 8 May 1969, Group percentage of present for duty versus authorized strength was 78%. Group percentage of NCO present for duty versus authorized strength was 48%. G-1, USAARSUPHAI expects to provide 50 personnel of various grades and skills (2% of Group strength) this month as a stopgap.

(2) Evaluation: The effects of this severe overall shortage of personnel are obvious. The effects of the severe NCO shortage have been a subject for discussion in every ORIL, URR and CESUR submitted during the preceding 12 months and will not be repeated again here.

(3) Recommendation: That immediate action be taken by all headquarters senior to the Group to provide the personnel sorely needed to bring the Group to its authorized RECAPE; or that the requirement for personnel portions in the three reports referenced in (2) above be abolished as unnecessary and obviously ineffective.

b. Operations:

(1) CPM:

A. Observation: 44th Engr Gp (Const) initiated utilization of the Critical Path Method as a construction planning and control guide. Time

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was leased on a computer in Bangkok and the program was implemented and updated by 44th Engr Gp (Const) personnel. The project involved was the upgrading and paving of Route 22 in N.E. Thailand. Data input was provided by the constructing unit.

B. Evaluation: Because of the remoteness of the constructing unit, the CPM was not as beneficial as it might have been. Despite weekly reports by the constructing unit, the computer program was not in full touch with the project. Before feeder reports could be evaluated by 44th Engr Gp (Const) personnel in Korat, programmed and run on the computer in Bangkok, and the results analyzed and forwarded to the Northeast, a two week period had expired. The project involves principally horizontal work with limited separate operations.

C. Recommendation: That CPM be utilized on battalion level for projects involving a limited number of operations. All updating calculations can be done by hand on such projects within a much shorter time frame than if handled at Group level.

(2) Aircraft Support:

A. Observation: The remoteness of 44th Engr Gp (Const) units and limited air transportation available has greatly limited Group staff liaison and inspection visits to outlying units.

B. Evaluation: It has been difficult for 44th Engr Gp (Const) to keep in complete touch with, and exercise proper supervision of subordinate units. As a consequence, Group quality control has suffered, and the essential close working relationship between this Headquarters and subordinate unit has deteriorated.

C. Recommendation: That aircraft authorized by TOE be assigned to 44th Engr Gp (Const) on a full time basis.

c. Training: None

d. Logistics:

(1) MCA Construction Materials:

A. Observation: The Army Supply System does not stock Engineer Class II and IV Construction Materials to support construction currently underway in Thailand.

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15 May 1969

SUBJECT: Operational Report of the 44th Engineer Group (Construction)  
for the Period Ending 30 April 1969, RCS CSFOR-05 (RI) #A93AA

B. Evaluation: This condition was discussed in previous ORLL's by this headquarters. Since our last report a draft regulation WSARSUPTHAI #700-44 was developed which would have allowed for stocking of these high usage ISN items. The draft regulation was later changed and this provision was eliminated.

C. Recommendation: That the Army Supply System stock high demand ISN items.

(2) Communication Equipment:

A. Observation: Shortages of TQ&E radios are causing communications problems within the Group.

B. Evaluation: At the present time the Group is widely dispersed and future plans call for even wider dispersion. The only effective means of communication for command and control will be by radio. In order to meet the requirement needs we have been forced to obtain radio equipment through local procurement. The most critical shortages are the AN/VRC 46, AN/VRC 47, and AN/GRC 106; no due-in status is available on any requisition for these times.

C. Recommendation: That greater emphasis be placed upon filling TQ&E radio shortages within the Group.

(3) Standardization of Equipment.

A. Observation: Having two or three models of each type of equipment in each unit requires units to maintain a PLL larger than necessary.

B. Evaluation: Lateral transfers of equipment between units within the Group were effected to provide for the standardization of models within subordinate units to the maximum extent possible. This was particularly effective in the area of graders and dozers. The change permitted all units in Northeast Thailand to have the same models and to drop many items from their PLL. This also permitted their support unit to drop some items from their ASL. Units in the Sattaniip area still have a mixture of models but it is hoped that this can be eliminated soon.

C. Recommendation: That this standardization of equipment be maintained and extended as much as feasible within the Group and Command.

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SUBJECT: Operational Report of the 44th Engineer Group (Construction)  
for the Period Ending 30 April 1969, RCS CSFOR-65 (RI) WA93AA

- e. Intelligence: None.
- f. Organization: None.
- g. Other: None

8 Incl

- ~~1. Staff Directory~~
  - 2. Organization Chart
  - 3. Unit Deployment
  - 4. Sattahip Port Complex
  - 5. Sattahip Cantonment Area
  - 6. Sattahip Depot (CSA)
  - 7. Routes 22 & 223
  - 8. Unit Employment Chart
- Incl 1 wd Hq, DA

  
K. H. HATCH  
COL, CE  
Commanding

THOP-MH (16 May 69) 1st Ind  
SUBJECT: Operational Report of the 44th Engineer Group  
(Construction) for the Period Ending 30 April 1969,  
RCS CSFOR-65 (RI) WA93AA

DA, Headquarters, United States Army Support Thailand, APO  
96233 14 AUG 1969

THRU: Commander in Chief, United States Army Pacific, ATTN:  
GPOP-DT, APO 96558

TO: Assistant Chief of Staff for Force Development,  
Department of the Army, Washington, D. C. 20310

The Operational Report of the 44th Engineer Group (Const) has  
been reviewed and is forwarded with the following comments:

a. Concur with the observation in para 2a, Section II in  
that critical shortages exist in some units of the 44th  
Engineer Group. Since 23 May 69, this headquarters has been  
working to bring common skill MOS personnel strength up in  
the 44th Engineer Group. As of 25 July 69, this headquarters  
has only been able to bring the Group to 71% of its total  
authorized enlisted strength. Personnel are being diverted  
from other units to meet existing critical shortages. NCO  
shortages and projected losses are currently on requisition.  
On 14 August 69, the 697th Engineer Company will be inacti-  
vated and its enlisted personnel assets will be redistributed  
within the 44th Engineer Group, which will improve the person-  
nel posture.

b. Concur with comments in para 2b(2), Section II per-  
taining to aircraft support during period of report. Nonconcur  
with recommendation that aircraft authorized by TOE be assigned  
on a full time basis. The 44th Engineer Group has a very low  
priority for aircraft, and it is doubtful that the three UH1H  
authorized will be filled at this time. Since 14 July 69, one  
UH1H from the 70th Aviation Detachment has been stationed at  
Camp Ruam Chit Chai on a TDY basis for use of the Group, and  
additional support is rendered when mission essential require-  
ments or emergencies exist. This support is programmed for an  
indefinite period and is considered satisfactory.

c. Concur with comments in para 2d(1), Section II. The  
depot in Thailand did not stock Engineer Class II and IV

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Construction Materials required to support projects currently underway. Consideration is being given to establishing a forecast system whereby high demand and long lead time items will be forecast by the Engineer units based on approved MCA projects and stocked by the depot.

d. Concur with comments and recommendations in para 2d(2), Section II. The shortage of radio equipment AN/VRC 46, AN/VRC 47 and AN/GRC 106 was emphasized at the Distribution/Allocations meeting held at Headquarters, USARPAC on 9 - 13 June 69. It is anticipated that this added emphasis will assist in eliminating the shortage of radios within the 44th Engineer Group.

FOR THE COMMANDER:

  
P.A. LAPORTE **LS**  
CPT AGC  
Asst. Adjutant General

GPOP-DT (16 May 69) 2d Ind  
SUBJECT: Operational Report of HQ, 44th Engineer Group  
(Construction) for Period Ending 30 April 1969,  
RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 29 AUG 69

TO: Assistant Chief of Staff for Force Development,  
Department of the Army, Washington, D. C. 20310

1. This headquarters has evaluated subject report and forwarding indorsement and concurs in the report as indorsed.
2. Reference paragraph 2a and paragraph a, 1st Indorsement. Personnel strength status as of 15 August 1969 for the 44th Engineer Group was as follows: authorized strength 2,781; operational strength 1901; operational strength percent of authorized strength 69%. (Source: GPA-840 Report.) Although critical shortages of MOS qualified construction personnel were reported in the 3d and 4th Quarter, FY 69, USARPAC Command Summary Evaluation of Unit Readiness Report (CSEUR), a Department of the Army shortage of these skills and priority of fill of available assets to Vietnam precludes a near term solution to this problem. It was recommended in the 4th Quarter FY 69 CSEUR that continued emphasis be placed on improving the quality of fill of engineer personnel for US Army Support, Thailand.
3. Reference paragraph 2b(2) and paragraph b, 1st Indorsement. There are insufficient UH-1 helicopter assets available to fill all Pacific Command requirements. Therefore, assets are allocated according to mission priority, with first priority to those units whose mission is support of combat forces. USARSUPTHAI is authorized 17 UH-1 helicopters and 11 are assigned. One of the 11 is crash damaged and awaiting disposition instructions. Also, during the 1st Quarter, FY 70, 2 UH-1 helicopters will be transferred to U. S. Army, Vietnam. The remaining eight UH-1 helicopters must be "pooled" to efficiently accomplish all in-country requirements which

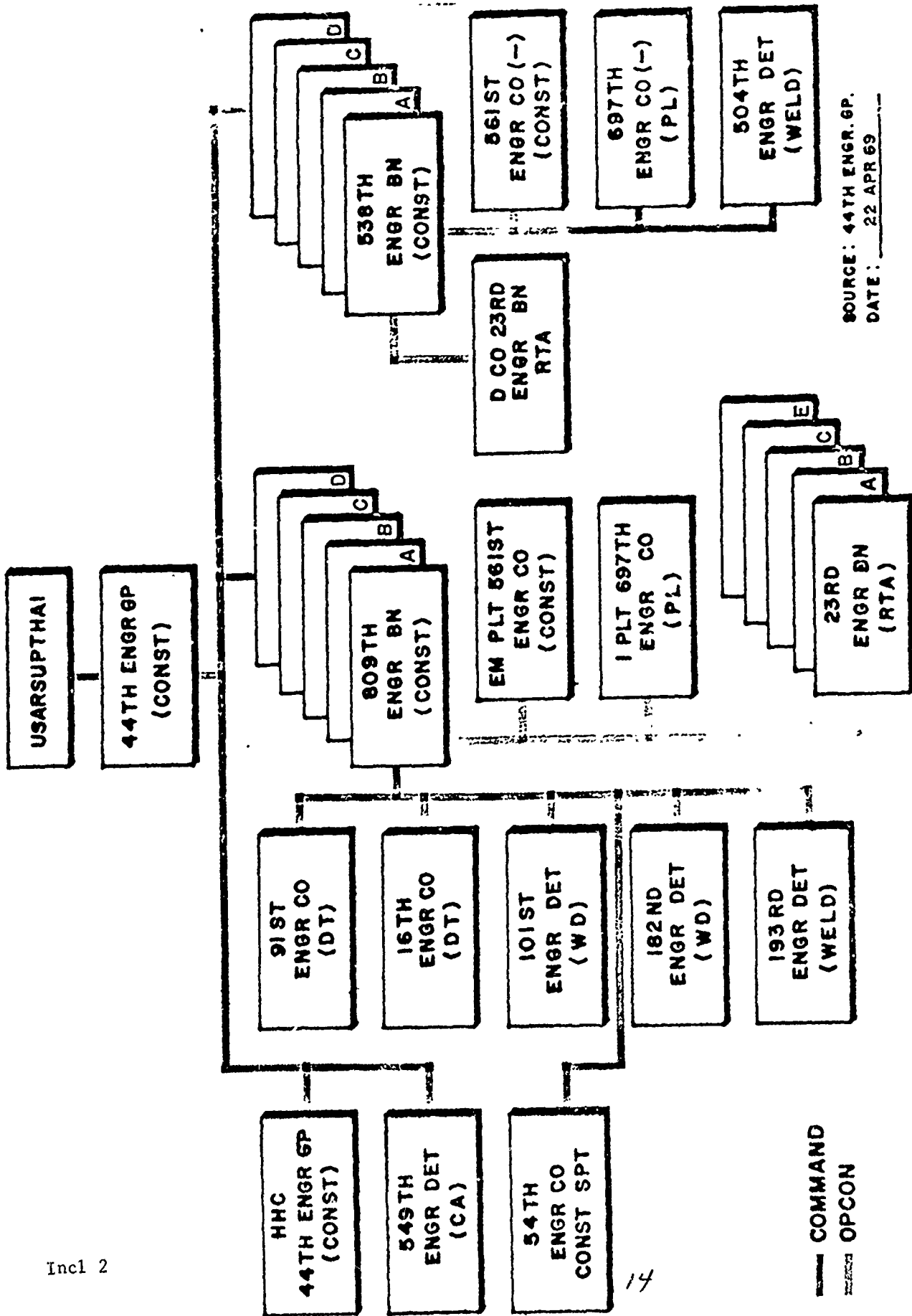
GPOP-DT (16 May 69) 2d Ind 29 AUG 69  
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(Construction) for Period Ending 30 April 1969,  
RCS CSFOR-65 (R1)

include support of AMEMB, USAMACTHAI, RTAVF training and  
USARSUPTHAI missions. As additional UH-1 helicopters become  
available, USARSUPTHAI will be considered for allocation in  
view of theater-wide requirements.

FOR THE COMMANDER IN CHIEF:

*[Handwritten signature]*  
D. A. TUCKER  
CPT. AGC  
ASST AG

Cy furn:  
CG USARSUPTHAI



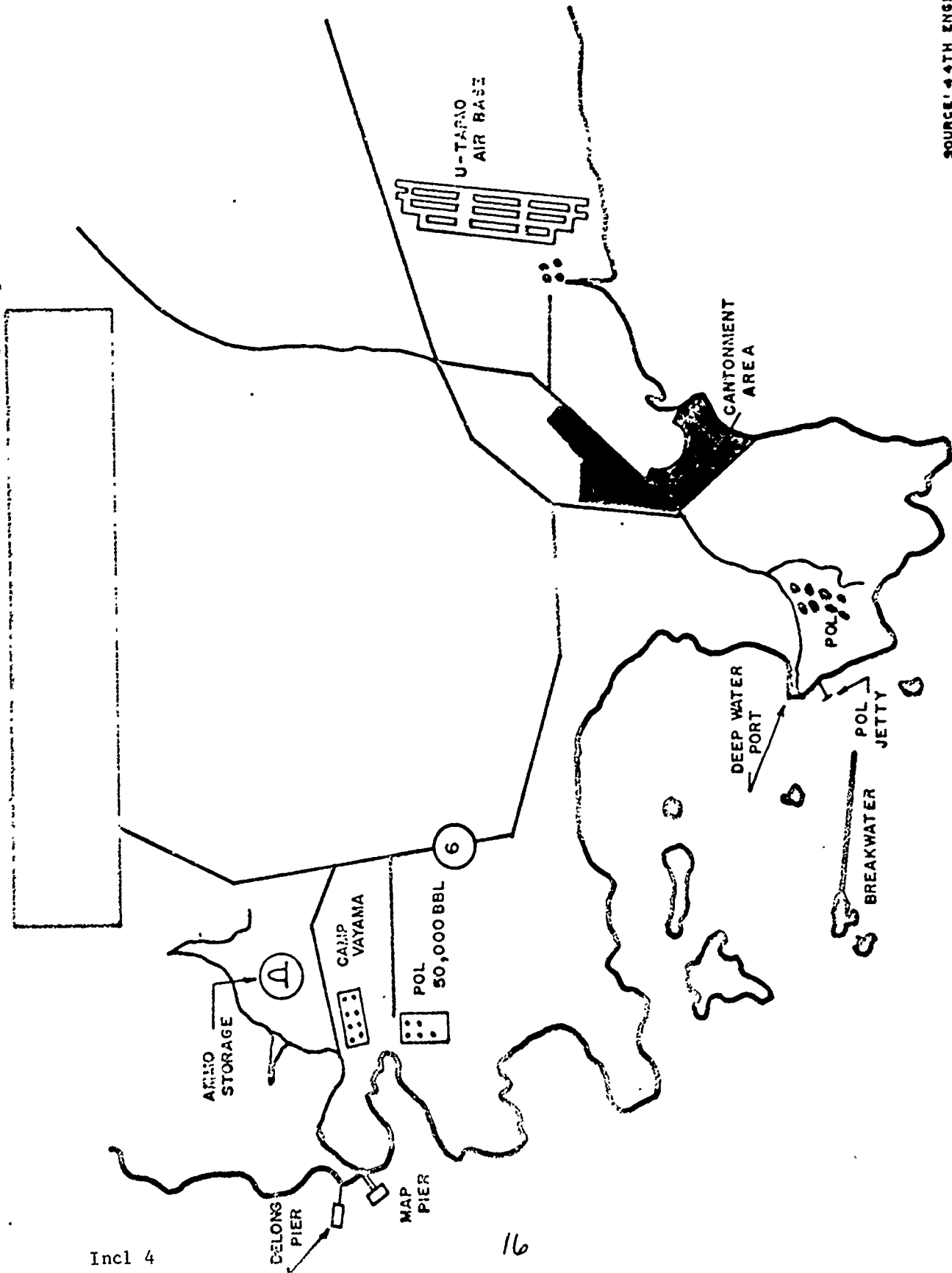
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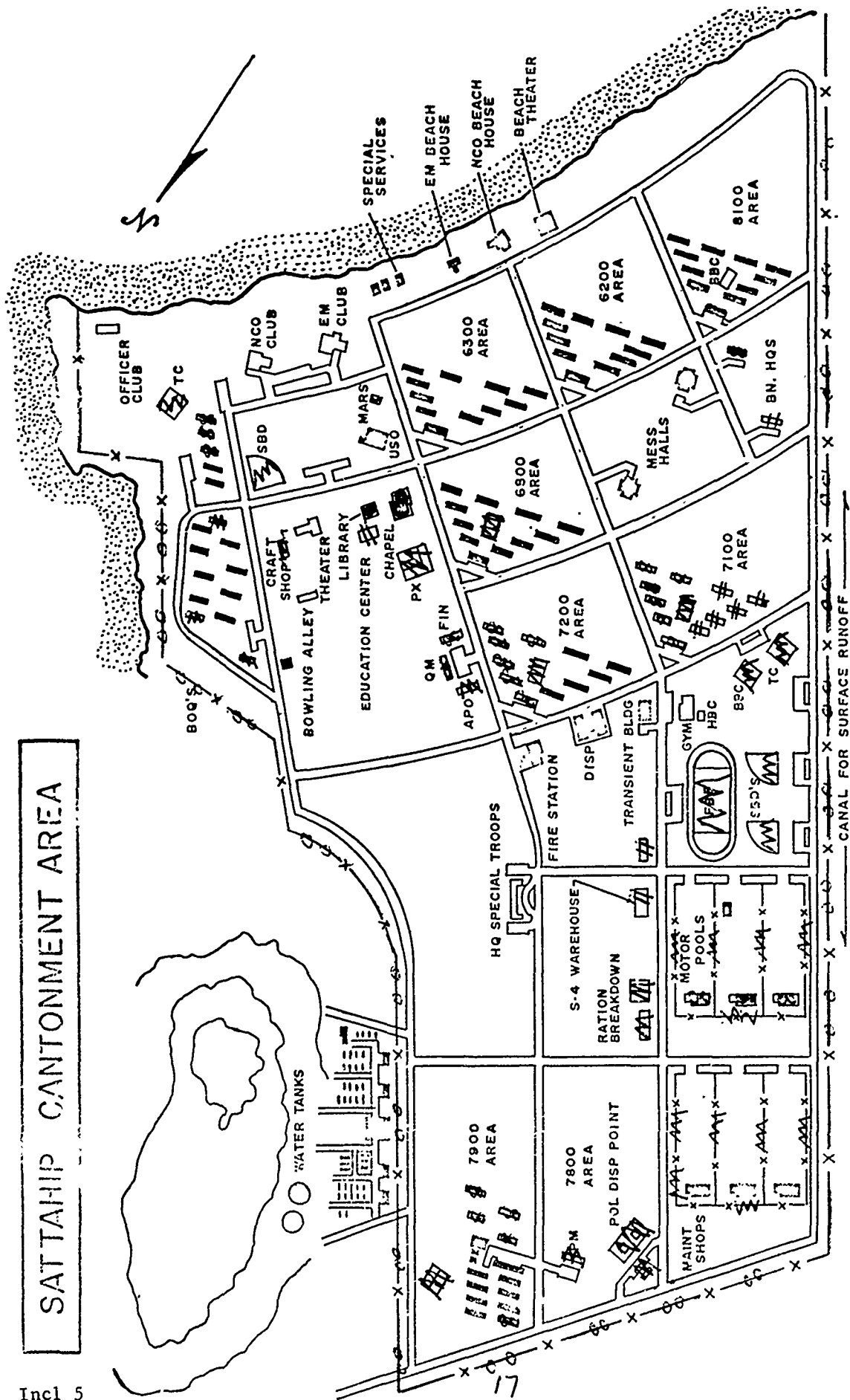
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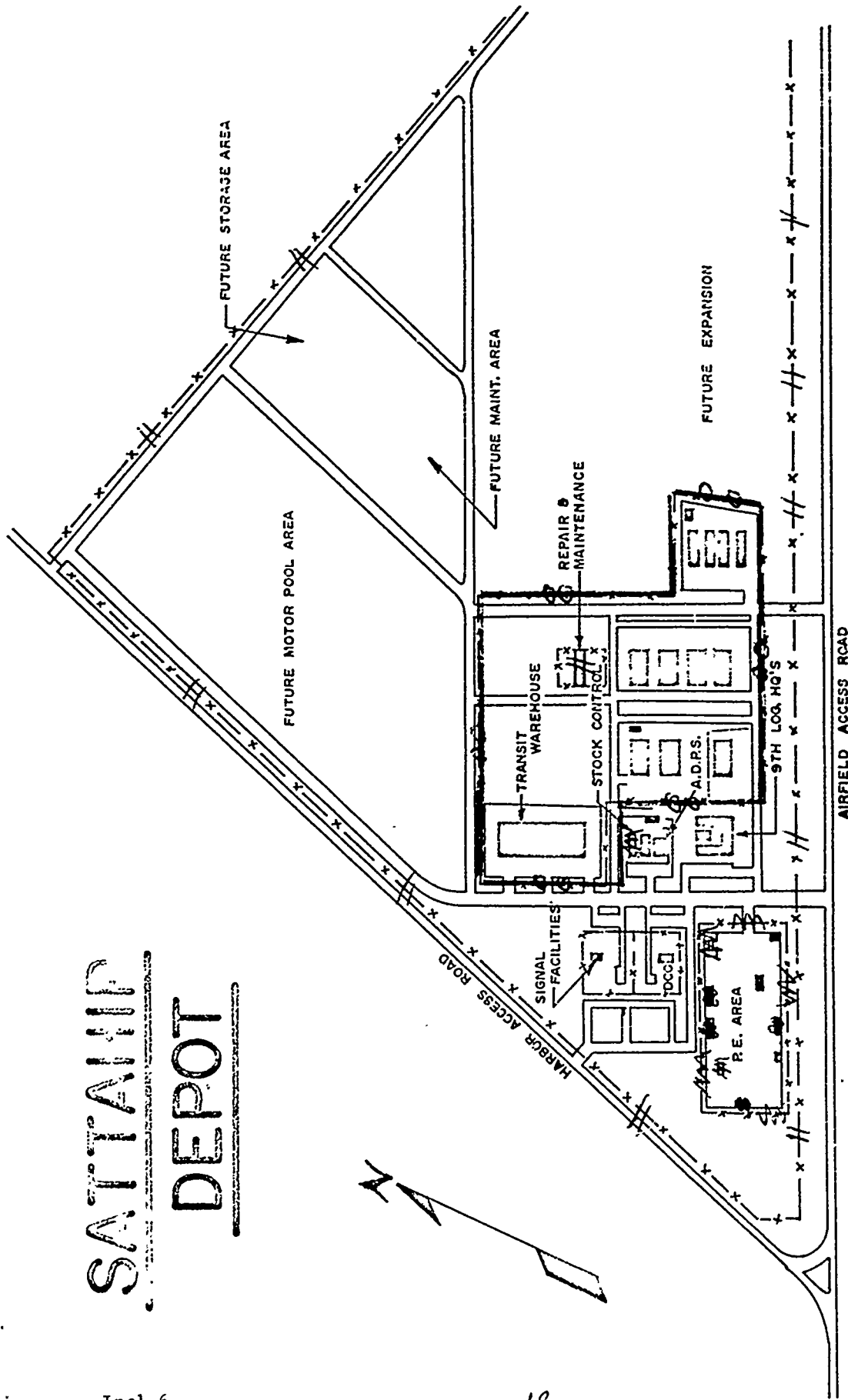
# SATTAHIP CANTONMENT AREA





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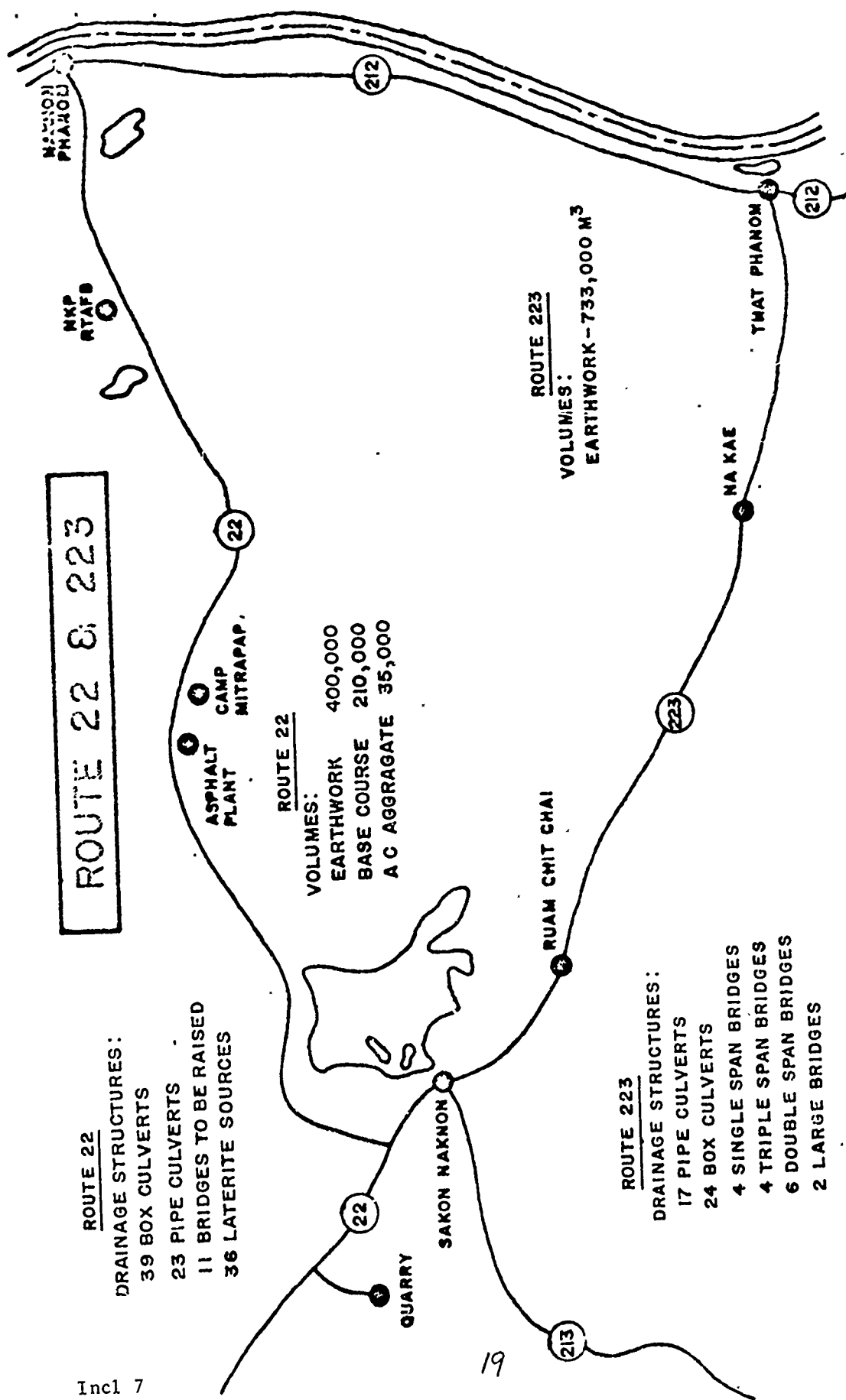
- EXISTING FACILITIES
- FACILITIES UNDER CONSTRUCTION
- APPROVED FUTURE CONSTRUCTION
- PROPOSED FUTURE CONSTRUCTION

# SATTALIF DEPOT



-  EXISTING FACILITIES
-  FACILITIES UNDER CONSTRUCTION
-  APPROVED FUTURE CONSTRUCTION
-  PROPOSED FUTURE CONSTRUCTION

SOURCE: 44TH ENGR. GR  
DATE: \_\_\_\_\_



**ROUTE 22 & 223**

- ROUTE 22  
 DRAINAGE STRUCTURES:  
 39 BOX CULVERTS  
 23 PIPE CULVERTS  
 11 BRIDGES TO BE RAISED  
 36 LATERITE SOURCES

- ROUTE 22  
 VOLUMES:  
 ASPHALT PLANT 400,000  
 BASE COURSE 210,000  
 A C AGGRAGATE 35,000

- ROUTE 223  
 VOLUMES:  
 EARTHWORK - 733,000 M<sup>3</sup>

- ROUTE 223  
 DRAINAGE STRUCTURES:  
 17 PIPE CULVERTS  
 24 BOX CULVERTS  
 4 SINGLE SPAN BRIDGES  
 4 TRIPLE SPAN BRIDGES  
 6 DOUBLE SPAN BRIDGES  
 2 LARGE BRIDGES

Incl 7

SOURCE: 44TH ENGR. GP.  
 DATE 22 APR 69

[ ]

UNIT	1969												1970											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
538TH ENGR. BN. (CONSTRUCTION)																								
54TH ENGR. CO. (CONST. SPT.)																								
697TH ENGR. CO. (PIPELINE)																								
549TH ENGR. DET. (CA)																								
609TH ENGR. BN. (CONSTRUCTION)																								
91ST ENGR. CO. (DUMP TRUCK)																								
16TH ENGR. CO. (DUMP TRUCK)																								
561ST ENGR CO. (CONSTRUCTION)																								
23RD ENGR. BN. (RTA)																								

SOURCE: 44TH ENGR. GP.  
DATE 22 APR 69

