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U. S. ARMY. SEVENTH ARMY.

REPORTS OF SIGNAL CORPS UNITS ENGAGED IN THE SICILIAN CAMPAIGN.

(OPERATION HUSKY)

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Report Documentation Page

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1st Ind.

ALLIED FORCE HEADQUARTERS, Office of the C.S.O., APO 512, U.S.Army, 20 Oct. 1943

TO : Chief Signal Officer, War Department
Washington, D. C.

1. Extracts of particular sections of this report for use of the various sections of the AFHQ Signal Section and for NATOUSA, have been made.

2. A detailed study of these sections will be made in this Headquarters with a view of initiating remedial action wherever possible insofar as the present 5th Army operations are concerned.

3. In view of the fact that the majority of these reports pertain to ground force Signal operations and contain many recommendations relative to strength and organization of such Signal units, it is recommended that this report be referred to the Army Ground Forces for their information. Special attention invited to Para 2, Page 11 of Inclosure No. 4 (Report from Hq. 3rd Div.) relative to strength of a Division Signal Co.

/S/ T. J. TULLY
T. J. Tully
Colonel, Signal Corps
Deputy Chief Signal Officer

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HEADQUARTERS, SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

U.S. Army. Seventh army

11 October 1943

SUBJECT: Transmittal of Reports.

TO : Chief Signal Officer, War Department, Washington, 25, D. C.
(Through: Chief Signal Officer, Allied Force Headquarters)

1. Inclosed herewith are copies of reports of the Signal Corps units which engaged in the Sicilian Campaign.

2. Extracts from these reports also appear in the Seventh Army consolidated report of the campaign.

/S/ ELTON F. HAMMOND,
Elton F. Hammond,
Colonel, Signal Corps,
Signal Officer.

Incls: 39 - Reports (Typewritten)
40 - Reports (Photographed)

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SEVENTH UNITED STATES ARMY
HEADQUARTERS PROVISIONAL CORPS
A.P.O. 758

ECS/fas

24 August, 1943

SUBJECT: Lessons Learned in Operation Husky.

TO : Commanding General, Seventh Army, APO # 758, U.S. Army.
(Attention Signal Officer).

1. Radio communication between moving headquarters, over mountainous terrain and continually changing distances will not be highly successful unless the following special arrangements are made:

a. A minimum of three operators, with no other duty, be available for each radio set which is on twenty-four hour per day schedule.

b. Baggage, extra equipment and personnel not on duty be transported in separate vehicles and not crowded into the radio station vehicle.

c. By prearranged schedule, whenever contact has been lost the radio vehicles concerned halt in the best available location and reestablish contact, clear urgent traffic on file and then resume the march regaining their positions in column if conditions permit.

d. Alternate frequencies adequate for all estimated distances must be available for both day and night operation. Change to these alternate frequencies to be understood and to depend on the time of day and the sequence of proceeding events.

e. Each radio station vehicle must be equipped for blackout operation of the radio without suffication of the operator.

f. Adequate ¼-ton 4 X 4 messenger vehicles must be available to deliver messages to the Commander when he has become separated from his principal radio station.

g. At least one staff officer with authority to act in behalf of the Commander should remain with the command radio station.

h. Radio link signs should be available for every link that may possibly be used and be in the possession of <u>all</u> operators involved or who may become involved in the communication (in more than one recent emergency it was impossible for Corps to contact a subordinate division in the "Army net" because the division operator did not have the existing link sign between his headquarters and his corps headquarters in the "Corps net").

i. Prearranged message codes or greatly improved "Codex" type codes are necessary to rapid communication. A comprehensive, daily changing, prearranged code restricted to the one net seems the most satisfactory solution.

j. Piper cub type planes with trained observers and radios operating in a special commanders net should report at scheduled intervals to the Commander. They should receive their mission from him by radio, complete the mission by flying as near the indicated location or troops as necessary, and return. The plane is thus used as a combined observer and radio relay station for the Commander. Small fuel trucks with landing strip and wind markers would remain with each column and be available to the plane on prearranged signal.

For the Commanding General:

EVERETT C. SMITH,
Captain, Signal Corps.

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SEVENTH UNITED STATES ARMY
HEADQUARTERS PROVISIONAL CORPS
A.P.O. 758

ECS/rmw

25 August, 1943

SUBJECT: Operation Husky.

TO : Commanding General, Seventh Army, A.P.O. 758, U.S. Army.
(Attention Signal Officer).

1. During the period 17 July 1943, to 25 July 1943, the Headquarters Provisional Corps, in Tactical Command of three divisions (one (1) Infantry Division, one (1) Armored Division and one (1) Airborne Division) moved in combat from Licata to Palermo, Sicily.

2. Communication equipment consisted of ten (10) SCR-193 radios mounted, two (2) in half-track M-3 vehicles, two (2) in regular scout cars and six (6) in ¼-ton 4 X 4 trucks. This equipment was supplemented on about 21 July by the addition of one (1) SCR-299 radio mounted in an M-3 with power unit trailer attached. No wire equipment was carried and communication was dependent solely on radio and messenger.

3. During the period mentioned the weather was hot and dry, the terrain was such that in most instances from one to several mountain ranges separated the Corps Headquarters from the Headquarters of subordinate Divisions. Distances between headquarters varied between five and thirty miles and all headquarters remained in motion the greater part of the time.

4. During the progressive movement across Sicily communication was entirely unreliable particularly while one or both of the units endeavoring to communicate were in motion.

5. Operation was on a twenty-four (24) hour day basis although some sets had only one available operator and only two sets had as many as three operators. Movement by day and night combined with this shortage of operators precluded any significant rest.

For the Commanding General:

EVERETT C. SMITH,
Captain, Signal Corps,
Actg Signal Officer.

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HEADQUARTERS, 1ST ENGINEER SPECIAL BRIGADE
APO #758, U. S. Army

24 August, 1943

319.1 - S

SUBJECT: Report of Lessons Learned in Operation "HUSKY". Part I.

TO : Commanding General, Seventh Army, APO #758. Attn: Signal Officer

1. Four Signal Companies participated in establishment of Shore Communications as follows:

a. 71st Signal Co (Special), 5-O and 172 EM, with 36th Engrs and 3rd Division, JOSS Beach.

b. Detachments from 72nd Signal Co (Special), 1-O and 48 EM, and 286th Signal Co, 3-O and 115 EM, with 531st Engrs and 1st Division, DIME Beach.

c. Detachment from 286th Signal Co, 1-O and 48 EM, with 1 Bn, 540th Engrs and 2 Armored Division, KOOL Force over DIME Beach.

d. 74th Signal Co (Special), 11-O and 214 EM, with 40th Engrs and 45th Division, CENT beach.

2. a. All the signal troops except 74th Signal Co, were trained and equipped in Africa in accordance with doctrines of ITC, tentative approval for which was received from AFHQ on 27 April, 1943. Separate Shore Regt, Bn and Co teams were formed. FM radio sets SCR 609 were introduced for R/T communications in place of SCR 511 or 536 sets. Results were very gratifying.

b. The 74th Signal Co was trained and equipped in U. S. Operation of its personnel and equipment in 9 large Shore Co teams with no Regt or Bn teams was not satisfactory. 9 station Company radio net was unwieldy, and was overcome in other teams by use of chain of command nets from Regt down.

3. a. Generally speaking, landing of personnel and opening of communications channels to assault teams followed quite closely the prearranged schedules, with Co teams landing H & 2, Bn teams at H & 3 and Regt teams at H & 6.

b. Failure to land Regt communications equipment on time on DIME Beach necessitated improvisation of Shore Bn equipment for this purpose during early part of operation.

c. Navy communications were very satisfactory on all the beaches. On the DIME and JOSS Beaches, Navy signal personnel were responsible to Army through Navy Beachmaster, whereas on CENT Beach responsibility was through associated Army signal team commanded by 2nd Lts on each Co beach. Former arrangement worked very well and is recommended.

d. There were six Signal Co casualties on DIME Beach, three of which have returned to duty, none on JOSS Beach, but at least two or three on CENT Beach. (Exact figures for CENT Beach are not available). None of the casualties were fatal.

4. a. These companies and associated Engr troops remained under control of Infantry Combat Teams until D8 to D10, at which time they reverted to Brigade control.

b. Commencing with the D8 to D10 period, the Engr troops were assigned scattered missions, such as running ports further along coast to the west, and advanced supply points at Caltanisetta, Petralia, Nicosia, etc, which required

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319.1 - S

Report of Lessons Learned in Operation "HUSKY". Part I (cont'd)

most careful use of Signal personnel and equipment to provide communications.

5. Officer personnel. It is impossible to furnish data for officers of 71st, 72nd and 74th Signal Companies (Special), these companies having since reverted to Fifth Army control. Information for 286th Signal Company is as follows:

NAME & ASN	RANK	DATE OF RANK	SPEC. NO.	POSITION VACANCY OCCUPIED
Rand S. Bailey, 0-908635	Major	26/6/42	0210	Brigade Signal Officer
Jack K. Wehrman, 0-346665	Capt.	14/4/43	8522	Company Commander
William H. Fishback, 0-1633210	1st Lt.	22/12/42	0110	Brigade Wire Officer
Harry W. Fristoe, 0-423382	1st Lt.	30/7/42	0431	Regt Communication Officer
John C. Gaines, 0-1633228	1st Lt.	22/12/42	0110	Asst Brig. Signal Officer
Gerald O. Huntzinger, 0-405591	1st Lt.	21/9/42	7870	Brigade Radio Officer
Burleigh R. Downey, Jr., 0-1633170	2nd Lt.	3/6/42	0110	Bn Communication Officer
James C. Drake, 0-1633172	2nd Lt.	3/6/42	0502	Bn Communication Officer
Richard T. Lumb, 0-1633379	2nd Lt.	3/6/42	4401	Mtr & Supply Officer
Ralph O. Crawford, W-2108232	WOJG	22/4/43	9927	Message Center Operation

For the Commanding Officer.

JOSEPH W. GRAFF,
Lt. Col., CE
Executive Officer

HEADQUARTERS, 1ST ENGINEER SPECIAL BRIGADE
APO #758, U. S. Army

24 August, 1943

319.1 - S

SUBJECT: Report of Lessons Learned in Operation "HUSKY". Part II.

TO : Commanding General, Seventh Army, APO #758. Attn: Signal Officer.

1. Most important lessons learned in this operation were the necessity for including:

a. Lighter weight switchboards and radio sets with greater imperviousness to salt air condensation and blowing sand.

b. Additional personnel in Regt Hq teams to provide complete operating personnel for 24 hour operation, without depending upon loan of men from Bn teams.

c. More powerful radio sets for communications over mountain ranges in later phases of operation.

d. Linemen (class 238) with necessary equipment for making more effective use of damaged commercial open wire lines.

2. A provisional T/O which will meet the above personnel requirements was submitted as Incl #3, with letter of 10 August, 1943, subject, "Provisional Signal Companies for Engr Specl Brig and Engr Shore Regt". Copy of original letter and its inclosures is attached.

a. It will be noted in paragraph 4 that although original letter pertained to disposition of 286th Signal Co personnel, the Signal Co (Special) as proposed, is suitable for the communications work of any 3 Bn Engr Regt.

b. Paragraph 3 of basic letter and Incl #1, deal with recommended change in the Signal Co T/O for Brigade communications.

3. Recommended T/E's for Signal Co (Special) and for Brigade Signal Co are attached as Incls #4 and #5. These T/E's reflect need for more powerful radio sets and open wire line construction facilities referred to above in paragraph 1c and d, as well as several other lesser needs. The proposed T/E's do not reflect certain criticisms of standard Signal Corps equipment, since it is not known whether superior equipment can be made available readily, or not.

4. Criticisms of Standard Signal Equipment. Lighter weight equipment, with increased imperviousness to salt air condensation and sand, is required. All equipment must be brought ashore and moved along the beach to changing CP locations on foot through soft sand by men heavily encumbered with full field equipment, entrenching tools (and, in this operation, with M1 rifles), while subjected to artillery fire and enemy strafing. Signal units weighing from 40 to 70 lbs are just too heavy for one and two man "carried" in soft sand. Same sand conditions precluded use of ammunition carts.

a. Switchboards. 2 BD-71 boards were used at Co CP's and 2 BD-72 switchboards at Bn CP's. Total weight is 100 and 144 lbs respectively. The key units, night alarm, generator and telephone set from 2 BD-72 switchboards were mounted experimentally in a light plywood case, to make a 24 drop Shore Bn switchboard, thereby reducing weight from 144 to 40 lbs. Case was sufficiently strong and very readily waterproofed. A regular design should be instituted, using special line terminals for direct termination of field wires on key tops, and a de-hydrating element should be included. 17 out of 156 switchboard key units

had to be replaced during operation on Beach, due to heavy salt air condensation and sand penetration.

4. b. Radio set SCR 609 had perfect protection and performed exceptionally well. Only criticism is of its weight. Radio set SCR 300 should overcome weight difficulty, but tests should first be made to see if it is equally reliable.

c. Radio set SCR 284 was vulnerable to moisture in set and in generator cable plug; was far too bulky and presented difficulties in high speed transmission and from insufficient receiver selectivity. The SCR 288 set overcomes bulkiness objection and would be more satisfactory if de-hydrating element and more reliable generator cable connections could be included.

d. Telephones EE-8-A were especially vulnerable to salt air and blowing sand, 25% being damaged beyond local repair. Generator crank bushing and transmitter were especially vulnerable.

e. Completely waterproof bags should be made available for bringing equipment ashore, preferably made to fit each particular unit, as was done with the bags BG-154 and 129 for the radio set.

For the Commanding Officer.

JOSEPH W. GRAFF,
Lt. Col., CE,
Executive Officer

Inclosures:

a. Letter 10 August, 1943, subject, "Provisional Signal Companies for Engr Specl Brig and Engr Shore Regt", with its inclosures #1 to #3, incl.
4. Proposed Table of Signal Equipment, Provisional Signal Company, Engr Shore Regt.
5. Tentative Table of Signal Equipment Signal Co (Special) for Engineer Special Brigade.

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Inclosure #4

Proposed Table of Signal Equipment — 23 August, 1943

Provisional Signal Company, Engineer Shore Regiment

Line No.	Article	Regt Hqrs	Bn Hqrs	Co Hqrs	Tot Bn	Tot Regt	Remarks*
1	Ax, LC-1	1	1	1	4	13	
2	Axle, RL-27	2	1			5	
3	Batteries, Storage, BB-50	1	1			4	
4	Chest, PC-5	8	2			14	(2 added in Regt)
5	Clip, TL-110	18				18	(New Item)
6	Coil, C-161	2	2		2	8	
7	Converter, M-209	2	2	1	5	17	(1 added per Co)
8	Drop Unit, Swbd, DE-2-B	3	3	1	6	21	
9	File, Contact, Tungsten	1	1		1	4	(New Item)
10	Flashlight, TL-122	61	23	10	159	220	
11	Frequency Meter Set, SCR-211	1	1		1	4	
12	Gauge, TL-144	1				1	
13	Gloves, LC-10	4	3	3	3	40	
14	Grip, LC-11	3				3	
15	Ground Rod, GP-16	2	2	2	8	26	
16	Hammer, HM-1	1				1	
17	Hammer, HM-3	1				1	
18	Hammer, TL-39	1	1		1	4	
19	Holder, M-167	2	2		2	8	
20	Hydrometer, HY-2	2				2	(New Item)
21	Insulator, IN-53	1000				1000	(New Item)
22	Knife, LC-14	1	1		1	4	
23	Ladder, LC-15	1				1	
24	Large Pole, PC-2	8	4		4	20	
25	Line Equipment, [illegible]	2	3	3	3	28	
26	Panel Set, AP-30-B	1	1		1	4	
27	Panel Set, AP-30-D	1	1		1	4	
28	Power Unit, PE-75	1				1	(New Item)
29	Radio Set, SCR-193	2	1		1	5	(1 added per BN)
30	Radio Set, SCR-284	2	3		3	11	(1 less per Bn & 2 in Regt)
31	Radio Set, SCR-299 w/truck	1				1	(New Item)
32	Radio Set, SCR-608	1				1	
33	Radio Set, SCR-300 or SCR-609	4	2	2	8	28	
34	Rectifier, SCR-169	1	1		1	4	
35	Reel Cart, PL-16	1	1		1	4	
36	Reel, Hand, DR-8		2	2	8	24	
37	Reel Unit, RL-26	2				2	(New Item)
38	Reel Unit, RL-31	2	1		1	5	
39	Reel Unit, RL-39		2	2	8	24	
40	Shovel, LC-19	1	1		1	4	
41	Soldering Equipment, TE-26-A	1				1	
42	Soldering Iron, TL-117	1	1		1	4	
43	Stamp, MC-181	1	1		1	4	
44	Stationery Set, SY-1-B	1				1	
45	Stationery Set, SY-2-B	1	1		1	4	

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Proposed Table of Signal Equipment
Provisional Signal Company, Engineer Shore Regiment (cont'd)

Line No.	Article	Regt Hqrs	Bn Hqrs	Co Hqrs	Tot Bn	Tot Regt	Remarks*
46	Switchboard, BD-71			2	6	18	(Preferably in light
47	Switchboard, BD-72	2	2		2	8	framework)
48	Switchboard, TC-4	1				1	(New Item)
49	Tag, MC-52	250	200	50	250	1000	(New Item)
50	Telegraph Set, TG-5-B(not A)	2	2		2	8	
51	Telephone, EE-8-A	20	18	6	36	128	(42 added per Reg)
52	Terminal Strip, TM-184	12	2		6	18	(4 added in Reg,
53	Test Clip,TM-32-A w/cordCD-190	7	4	3	13	46	(2 less per Bn)
54	Test Set, EE-65	1				1	
55	Test Set, I-56-C	1				1	
56	Tool Equipment, TE-5	1				1	
57	Tool Equipment, TE-33	12	6	5	21	75	(5 added in Regt)
58	Tool Equipment, TE-36	1				1	
59	Tool Equipment, TE-41	1				1	
60	Tool Equipment, TE-45	1				1	
61	Tool Equipment, TE-46	1				1	
62	Tool Equipment, TE-48	1				1	
63	Tool Set, TE-11	1				1	
64	Typewriter, MC-88	22				2	
65	Waterproof Equipt for Swbds, Radios & telephones					Lot	
66	Wire, W-110-B (mi)	30	10		10	60	(10 mi. added in Regt)
67	Wire, W-130 (mi)		8	4	20	60	
68	Wire pike, MC-123	1	1		1	4	

*Remarks Col. shows changes from orig list of 30 March,1943 and its supplement,17 May,1943

HEADQUARTERS, 1ST ENGINEER SPECIAL BRIGADE

Tentative Table of Signal Equipment — 17 August, 1943

SIGNAL COMPANY (SPECIAL) FOR ENGINEER SPECIAL BRIGADE

Line No.	Article	Quantity	Line No.	Article	Quantity
1	Ax, LC-36	3	55	Radio Set, SCR-188	2
2	Axle, RL-27	9	56	Radio Set, SCR-193	2
3	Auger, LC-34	*2	57	Radio Set, SCR-284	2
4	Bar, LC-20	1	58	Radio Set, SCR-608	*1
5	Bit Equipment, TE-25	*6	59	Radio Set, SCR-610	*6
6	Block Equipment, TE-92	*4	60	Rectifier, RA-36-A	*2
7	Block Set, LC-4	*2	61	Reel Unit, RL-26-A	3
8	Bracket, PF-57	*1000	62	Reel Unit, RL-31	9
9	Cable Assembly, CC-345 (5pr, 1000' length)	4	63	Repeater, CF-3	*8
			64	Ringing Equipment, EE-100	*8
10	Cable Assembly, CC-355 (10 pr, 1000' length)	*5	65	Shovel, LC-17	3
			66	Shovel, LC-18	*3
11	Cable Assembly, CC-358	*60	67	Shovel, LC-19	3
12	Cable Stub, CC-344 (10' length)	8	68	SIGABA Set	*1
13	Cable Stub, CC-356	*5	69	Signal Lamp Equipment, EE-84	*2
14	Charging Set, SCR-169	2	70	Stamp, MC-181	3
15	Chest, BC-5	5	71	Stationery Set, SY-1-B	1
16	Coil, C-114	*50	72	Stationery Set, SY-2-B	1
17	Coil, C-161	10	73	Switchboard, BD-72	*1
18	Connectors, #6 Kearney	*100	74	Telegraph Set, TG-5-B	5
19	Connectors, #8 Kearney	*100	75	Telegraph Printer Set, EE-97	2
20	Connectors, #12 Kearney	*100	76	Telegraph Terminal, CF-2	2
21	Convertor M-209	4	77	Telephone, EE-8-A	50
22	Convertor, M-222	*1	78	Telephone central Office set, TC-2	*1
23	Flashlight, TL-122-A	*187	79	Telephone cent. office set, TC-4	1
24	Frequency Meter, SCR-211	3	80	Telephone, TP-6	*50
25	Gloves, LC-10	*18	81	Telephone Terminal, CF-1	*2
26	Gloves, LC-29	*4	82	Terminal, TM-184	20
27	Grips, LC-11	*16	83	Test Equipment, IE-9	1
28	Grips, LC-28	*4	84	Test Equip, f/FM radio sets	*1
29	Guage, TL-144	1	85	Test Set, EE-65-E	5
30	Hammer, HM-1	8	86	Test Set, I-49	*2
31	Hammer, HM-3	1	87	Test Set, I-56-A	*1
32	Hammer, TL-39	3	88	Tool Equipment, TE-5	6
33	Holder, M-167-A	17	89	Tool Equipment, TE-33	36
34	Insulators, IN-25	*1000	90	Tool Equipment, TE-36	4
35	Insulators, IN-53	*2000	91	Tool Equipment, TE-41	2
36	Insulators, IN-56	*1000	92	Tool Equipment, TE-45	2
37	Knife, LC-14	6	93	Tool Equipment, TE-46	1
38	Ladder, LC-15	6	94	Tool Equipment, TE-48	1
39	Lineman's Equipment, TE-21	18	95	Tool Equipment, TE-49	1
40	Loudspeaker, LS-3	*8	96	Tool Equipment, TE-50	1
41	Oscilloscope, PH-360	*1	97	Tool Set, TE-6	3
42	Panel, AP-30-C	2	98	Tool Set, TE-11	1
43	Panel, AP-30-D	2	99	Tool Set, TE-16	*2
44	Photographic Equipment, PH-383	1	100	Typewriter, MC-88	6
45	Pliers, TL-103	*4	101	Wire, Instrument (rd & blk)	2000 ft.
46	Pliers, TL-126	*4	102	Wire, W-110-B (on DR-4) 5%)	20 mi.
47	Power Unit, PE-75	*2	103	Wire, Copper #10	2 mi.
48	Power Unit, PE-95	1	104	Wire, W-75	2 mi.
49	Printer, PH-87	*1	105	Wire Pike, MC-123	3
50	Protector, AR-4	40	106	Wire, W-50	25 Mi.
51	Public Address System, PA-25-50w	2	107	Wire, W-74	20 mi.
52	Radio Receiver, BC-312-D	2			
53	Radio Receiver, BC-342-J	*2			
54	Radio Set, SCR-299, w/truck	*2			

*Added to T/E 11-517, 4/12/43

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FIRST SIGNAL COMPANY
1st U.S. Infantry Division
A.P.O. # 1, New York, N.Y.

29 August 1943.

SUBJECT : Report of Operation "Husky".

TO : Commanding General, Seventh Army. (Attention of the Signal Officer)

1. The following report of the operation "Husky" is forwarded in compliance with letter, Headquarters Seventh Army, dated 20 August 1943 (319. 1-S).

a. General:

During the period 5 July 1943, the First Signal Company functioned in its normal capacity as signal unit for the First U.S. Infantry Division in its participation in the Sicilian Invasion by Allied Forces. Preparations for this invasion commenced immediately following the close of the Tunisian Campaign in the early part of May, 1943. A special combat team consisting of the 1st and 4th Ranger Battalions and the 39th Engineer Regiment was substituted for the 18th Infantry Regimental CT which was placed in Task Force Reserve under Task Force control. All other units of the Division plus attached units remained intact and under Division control for the operation.

In general, the Division was given the mission of landing and securing a beachhead on the South coast of Sicily to include the capture of Gela, the airfield about six miles north of Gela and Niscemi. Personnel and cargo ships for the invasion were supplied by the U.S.Navy.

b. Stations:

5 July 1943	Staoueli, Algeria - Staging area; supply and loading of personnel, transportation and equipment on ships.
6 July - 9 July 1943	On transports enroute to Sicily.
10 - 13 July 1943	Vic 4 miles East of Gela, Sicily - bivouac about 200 yards inland from beach - Combat zone.
14 - 15 July 1943	Vic 6 miles North of Gela - Combat zone.
16 July 1943	Vic Mazzarino - Combat zone.
17 - 19 July 1943	Vic Barrafrance - Combat zone.
20 - 21 July 1943	Vic Villa Rosa - Combat zone.
22 - 23 July 1943	Vic Alamena - Combat zone.
24 July 1943	Vic 7 miles Nor th of Alamena - Combat zone.
25 - 28 July 1943	Vic 4 miles West of Gangi - Combat zone.
29 July 1943	Vic 6 miles West of Sperlinga - Combat zone.
30 - 31 July 1943	Vic Sperlinga - Combat zone.
1 - 6 August 1943	Vic 6 miles NE of Nicosia.
7 - 13 August 1943	Vic Cerami.
14 - 17 August 1943	Vic 6 miles West of Randazzo.

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c. Losses in Action 10 July-17 August 1943 incl:

(1) Personnel:
(a) Killed in Action - Two (2).
(b) Missing in Action - None (0).
(c) Wounded in Action - Four (4).

(2) Equipment:
(a) Destroyed: One 2 1/2 Ton wire laying truck complete with reel unit RL-26 and 30 miles of wire, W-110 on LST ship receiving direct bomb hit. One 2 1/2 Ton Supply truck loaded with miscellaneous supplies - on LST ship receiving direct bomb hit.
(b) Damaged beyond Repair: One 2 1/2 Ton truck complete with company's radio repair equipment, - landed in about 7 feet of water. One radio receiver, BC-342 and practically all of Signal Company's radio repair equipment soaked in the sea water.

d. Discussion:

(1) In general, communications for the landing phase of this operation can be considered successful. This is attributed to the basic plan of loading which called for the proper priority of all communications equipment with radio and wire teams attached to combat teams and the remainder of the company tactically divided (equipment and personnel) into two separate Signal units capable of furnishing Division Signal communications on a reduced but ample basis. The vehicles of both these groups were combat loaded.

(2) Army radio communications from ship to shore during the period of debarkation was not satisfactory although distances involved were well within the normal range of the radio sets used and alternate FM voice channels only were provided for each radio net. Successful operation of one channel only was achieved using a U.S. Navy type TBL transmitter and type RAL receiver on ship and an Army type SCR-284 radio set on shore. Other radio sets used on shipboard were unable to receive the signal of radio sets established on shore and the reason for same has not been definitely determined. It is believed that this failure of reception of radio signals by receivers on shipboard is due to some extent to improper antenna construction and location. It is highly recommended that actual experimental tests be made to determine some standard and reasonably dependable system of radio communications for use in ship to shore amphibious operations. It is also believed that these tests should be accomplished by highly trained radio technicians in order to obtain a comprehensive study of the problem.

(3) During this operation an acute shortage of dry batteries for all type of radio sets and field wire, W-110-B developed during the first few days of the operation. If proper communications are to be realized on land after the initial phase of an amphibious operation are completed, a reasonable supply of these items must be made available.

(4) An outstanding feature of this operation is the proven value of a radio repair section for both amphibious and land operations. It was found that radio repair work necessitated the ceaseless efforts of the detachment of the 177th Signal Repair Company assigned to this division. In many instances, emergency repairs averted a serious shortage of equipment.

In view of this and the increased use of all types of radio equipment in an Infantry Division it is recommanded that a more comprehensive Radio Repair section be included on the Signal Company's TB/A and T/O.

e. Changes in T/O and TB/A:

(1) A Personnel Section with ratings is sorely needed. Suggest one Staff Sergeant, one Technician 4th Grade and one PFC. This is a very important function and should be given careful consideration.

(2) Eight radio teams with radio set SCR-193 and eight construction teams with reel unit RL-26 are needed in an Infantry Division Signal Company. Properly trained radio teams and wire teams must be available immediately during critical periods of combat.

(3) A more comprehensive radio repair section should be provided (equipment and personnel) to care for damaged radio equipment.

f. Officer Assignments:

Lt. Col. GEORGE W. PICKETT	Division Signal Officer
Capt. HENRY F. SANDER	Company Commander
1st Lt. LEO ROSENMAN	T&T and Division Wire Officer
1st Lt. HERBERT H. WIGGINS	Radio Officer
1st Lt. THOMAS J. CAMPBELL	Supply, Motor and Mess Officer
1st Lt. JOHN B. AHERN	Message Center Officer
1st Lt. CHARLES R. ALEXANDER	Radio Intelligence Officer
1st Lt. IRVING CASSENS	Div. Signal Supply Officer
2nd Lt. MAX GOLDBERG	Construction Platoon Officer
W.O.J.G. ANTHONY D'ADAMO	Admin., Ass't D.S.O.

HENRY F. SANDER
Captain, 1st Signal Co.
Commanding

SECRET

1st Ind.

HEADQUARTERS 1ST U.S. INF. DIV., OFFICE OF SIG. O., APO # 1, N.Y. 30 Aug. 1943.
TO: COMMANDING GENERAL, Seventh Army, U.S. Army, (Thru Channels).

1. Forwarded.

2. Following lessons learned in the Oran operation and Tunisian battles were proved again in the Sicilian campaign.

a. It is essential that the installation of radio sets on Command Post ships be made by experts to insure that the output of all sets is made maximum and mutual interference between sets is eliminated.

b. Frequency modulated radios such as the SCR-600 series are highly satisfactory for communications during the ship to shore phase.

c. The radio repair section of the United States Infantry Division Signal Company is not large enough or well enough equipped to maintain the radio sets of a division. Therefore, this section must be increased or it must be an established policy to attach a radio repair teams from a Signal Repair Company to each division in combat. In one week sixty-two (62) radios were either repaired or salvaged by the radio repair team attached to the 1st Signal Company.

d. Key transmissions by radio sets was proved again to be superior to voice transmission, except in lower units, in speed, accuracy, security, and range.

e. Even in an extremely rapidly moving attack over a prolonged period wire communications can be established and maintained. As a rule of thumb — as long as the front line troops are not motorized but are moving on foot wire communications can be maintained.

f. The Infantry Division Signal Company must be authorized eight (8) radios sets SCR-193 and eight (8) construction teams each equipped with reel unit RL-26. During this campaign an average of eight (8) SCR-193's was operated by the Signal Company. For one period of four or five days nine (9) SCR-193's were operated.

g. In amphibious operations, for every important vehicular radio there must be a hand set carried ashore which will operate in the required radio net until the vehicular set is landed and arrives at the proper Command Post.

h. Some means of mounting these hand carried sets (par 2g), such as in two (2) wheel carts, must be devised so that the sets are continuously in operation both on the move and when stationary.

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1st Ind. (Continued)

i. The most critical period during any landing operation is the first twelve (12) hours. It is vitally necessary that perfect communications be established on shore immediately after assault troops have landed. Therefore, signal equipment and vehicles must be given high priority on the unloading schedule and this schedule must be followed. One of the greatest contributing factors to the success of this operation was the quick establishment of good communications on the first day when the enemy made a strong counterattack. In the planning of such an operation special consideration must be given to providing a large amount of signal equipment, vehicles, and personnel on shore at an early hour.

j. This operation again brought out the following personnel faults that must be corrected:

(1) Personnel replacements arriving in the Signal Company came holding specialist ratings. These men were not nearly as well trained for combat as most privates in the company. Therefore, replacements should be sent in as basics.

(2) Radio operator replacements are not being sufficiently well trained in field net operation and in radio procedure before being sent to this organization.

k. The Division Signal Officer must have an assistant in the grade of Major to assist in planning, training, and giving instructions to division communications personnel. In addition the Division Signal Supply is a full time job for an officer who should be in the grade of Captain.

3. With the exceptions noted in paragraph 2, the organization and equipment of the Signal Company for this operation were excellent.

GEORGE E. PICKETT
Lt. Col., Signal Corps,
Division Signal Officer.

SECRET

HEADQUARTERS THIRD INFANTRY DIVISION
A. P. O. # 3

August 26, 1943

SUBJECT: REPORT OF SIGNAL COMMUNICATIONS OPERATION HUSKY

TO : Commanding General, 7th Army

1. This report is submitted in compliance with letter file 319.1, headquarters 7th Army, 20 August 1943.

Part I - ACCOUNT OF OPERATION

2. In the landing at Licata at 0300B on July 10, 1943, radio nets were established in accordance with diagrams attached to the Appendix I hereto. Comments on operation on each of these nets are as follows:

a. Division HF command net included an SCR 188 on the USS Biscayne, a Navy TCS 5, on each regimental headquarters ship, and an SCR 193 mounted in 3/4-ton carry-all with each regimental headquarters ashore. This net handled very little traffic since:

(1) Regimental commanders left their headquarters ships at H minus 45 and shipboard sets were never used.

(2) Vehicles mounting SCR 193 had a low priority of landing and did not report into the net until H plus 4 to H plus 8.

(3) This net was paralleled by the Division Commander's net and the Division FM Command Net, in both of which sets were landed and went into operation shortly after H hour.

b. The Division Commander's net utilized an SCR 188 on the USS Biscayne and SCR 193's in trucks, 1/4-ton 4x4, with the Division Commander, Deputy Commander, Assistant Commander, four Staff Intelligence Officers and three Regimental Commanders. Sets in this net were landed and checked into the net early in the operation, at least one being put ashore on each beach before H2. These vehicle-mounted sets were all landed in LCVP's, 11 being so landed without loss of a single set. Although this net was intended for personal voice contact between the Division Commander and his Staff Officers, radio interference conditions made it necessary to operate on CW most of the time.

c. Division FM Command net did not operate as a division net. The SCR 608 on the headquarters ship was tuned to the command channels of each Infantry regiment, each assault battalion, and the Division Artillery. One receiver stood by continuously on the assigned Division frequency. When the Division Commander desired to call a regiment or battalion commander he called on that officer's command frequency. When a regimental or battalion commander desired to call the Division he called on the Division frequency, the Division frequency being set up as the alternate frequency on his SCR 610. In this way the regiment and battalion commanders were able to work in two nets with one set which was light and portable enough to be with the commander at all times. They maintained

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contact with Division even during the process of landing.

d. The Division links to Force 343 and to 12th Air Support Command opened at H plus 1 and H plus 4, respectively, and functioned satisfactorily thereafter.

e. The J Service link to Force 343 and the Division link to Division rear did not work satisfactorily while operating with Navy TCS5 sets. The J Service link never worked, and the rear link worked only after an SCR 188 was diverted to it.

f. The circuit planned to work with the 82nd Airborne Division was never used. Its purpose could have been served as well by lateral calls on the Force 343 net.

g. The 36th Engineer Regiment command circuit was not used because of interference, and was not needed because the Engineer regimental Commander could make contact with his battalions through both division command nets.

h. Much difficulty was experienced in all nets through interference from Navy TCS5 sets. These sets did not function satisfactorily for any Army use.

3. The wire in the landing operation was brought ashore and laid from trucks, 1/4-ton 4x4. Additional wire was brought ashore and transported on shore in 2-wheeled 1/4-ton trailers, six miles being carried with each of the six teams landed. Trucks, 1/4-ton 4x4, continued to be the only wire laying vehicles used until trucks, 2 1/2-ton 6x6, were landed on D6. Wire to all three infantry regiments was put in operation as soon as physical contact with the regiments was established.

4. The message center of the landing operation opened aboard the USS Biscayne 6 July 1943 and was in continuous operation until D6. Cryptograph systems included M134, M138A, Codex and Joint Operations Code. An alternate message center was also provided aboard the alternate command ship. Analysis of message traffic appears at Appendix 3.

5. Except for continued contact with the Naval command on the headquarters ship and Engineer shore parties the amphibious phase of communications was concluded with the establishment of the Division command post ashore. Successive Division Command Posts were set up as indicated in the table in Appendix 2 which also shows time of opening, time of closing, distances of displacement, and the distances to Infantry and Artillery under the division command. Note that during the early stages of the operation and during the rapid march from Aragona to Palermo, displacement distances and the distances to regiments were far greater than are normally contemplated for an Infantry Division. Obviously these distances could not be covered by field wire, because of both limited mission range and limited wire supplies landed in the early stages. This problem was solved by the use of radio and existing open wire circuits.

6. Radio nets ashore were substantially as shown in Phase IV in diagrams of Appendix I except that rear links to ships and Regiment Commanders' sets in the Division Commander's net dropped out. Special nets not contemplated or provided

for in normal infantry division operation are discussed below:

a. Division Commander's net operates as an intelligence net, giving the Division Commander direct contact with his Assistant and Deputy and with Staff Officers representing him at regimental or assault battalion headquarters. This net proved invaluable throughout the operation in providing vital combat intelligence to the Commanding General immediately and completely. While intended as a voice net, interference conditions often necessitated its operation on CW, which operation did not reduce its value. The high mobility of the SCR 193 in truck, 1/4-ton 4x4, contributed greatly to its success.

b. Division and Regimental FM nets using SCR 608, 609 and 610 which in the landing phase served as a normal channel of command were later used to supplement the high frequency CW nets after the latter were established. With the intervention of mountainous terrain and the increase of distance between regiments the Division FM Net became useless and was discarded. The regimental nets, however, served as an alternate channel for intelligence reports and provided each regimental commander with a means of direct contact with his battalions when he was away from his command post. Battalion and regimental commanders were habitually accompanied by an SCR 609 or 610 wherever they went. An SCR 608 at the regimental command post operated both in the regimental intelligence net and for artillery fire control.

c. The SCR 511's used in Battalion Command Nets provided more constant communication than the SCR 536 sets previously provided.

d. Company Command Nets using SCR 536 with each platoon leader, company commander, and company executive, were a valuable aid to command not hitherto provided.

7. A detachment of one officer and 18 men from Company A, 51 Signal Battalion was used to supplement the Division Signal Company in the repair of open wire circuits. Open wire was repaired by patching with field wire rather than by complete open wire replacement. By this method it was possible to maintain wire communication between the division, its regiments, and its base during the movement from Licata and Oliva Station to Aragona which frequently involved links to regiments and attached battalions of 10 to 20 miles, and from the base of as much as 35 miles. During the movement from Aragona to command posts were occupied within twelve hours it was impossible to establish any degree of wire communication, and exclusive reliance had to be placed on radio. However, upon a rival at Misilmeri and Palermo it was necessary to establish a wire link to Prizzi, a distance of forty miles; this was done with open wire. Company A, 51st Signal Battalion was assigned to this Division for the operation but arrived late and was removed from Division control before it could be used. This company would have been invaluable in maintaining wire contact during long and rapid moves.

8. Artillery and Infantry communication during the Licata to Palermo phase of the operation met with about the same difficulties encountered by the division. Open Wire was seldom used except from regiment to battalions on wire leads developed by division teams. Radio contact was maintained without undue difficulty.

9. The third, or San Stefano to Messina, phase of the operation presented a set of problems entirely different from previous phases. The Division was required to operate against determined German resistance on a narrow coastal ledge where the length of the front was limited by mountains to ten miles. Communication was along a single, narrow coastal road interrupted by frequent German mine fields, interdicting artillery concentrations and demolitions.

10. This road provided a natural wire axis from which no unit of the division could wander very far. However, open wire lines were demolished beyond the capability of the division to repair. Traffic conditions on the road made wire laying and maintenance difficult. All wire in forward areas had to be laid from 1/4-ton trucks, as 2½-ton trucks would have blocked traffic on the roads. Large trucks were used only for wire supply and salvage.

11. The operation involved a series of enveloping movements by a regiment at a time over mountainous terrain impassable to any vehicle and passable with difficulty to pack animals. In one instance (battle of San Fratello) it was found necessary to lay a five-mile line of wire, W130, over a rocky, trackless mountainside over which a man could move only by frequent use of his hands, and for fifteen miles where wire could be transported only by pack animals and laid only by hand. In another instance (march of 15th Infantry from San Marco to Mirto to Naso) a twenty-mile line was laid entirely by hand. In a third instance (St. Angelo di Brolo to Patti) two lines of wire W130 were laid for a distance of fifteen miles completely clear of the trails used by men and pack animals. This line was laid at the rate of advance of the pack train carrying wire. One six-mile wire line, from the coast road to San Marco, required 24 hours to put in continuous operation because the winding, narrow mountain road on which it was laid was under constant shell fire and was used by 3 battalions of artillery.

12. Radio communication with these enveleping forces was made difficult by the necessity of substituting hand-carried or animal-packed sets for the vehicular sets normally used. Metallic deposits in the mountain ridges perpendicular to the coast often made radio contact across the ridges impossible. SCR 284 as a pack set was used on all these movements, but was never entirely satisfactory because it required some time to unpack and set up and usually had to have damages and misadjustments in transit repaired. A series of SCR 609's placed on peaks and ridges and used as relay stations provided more reliable contact on all these movements.

13. Amphibious envelopments by a battalion landing team were executed at San Agata and Brole. Radio contact with these landing forces was maintained on shipboard and established and maintained ashore within one hour after landing. Two SCR 193's in truck, ¼-ton 4x4, served admirably for this purpose, working in the Division Command and Division Commander's nets. They were able to follow the battalion from the beach to its objectives on high ground where larger vehicles could not go. On one occasion when the Infantry occupied a hill position where no vehicle would follow the officer and operators with the set displayed extraordinary courage in continuing to operate the set from an exposed position on the flat ground outside the main lines.

14. Command Post selection during the last phase was influenced by the desire of the Commanding General to be as near as possible to the front, and within ¼ mile of the main road. Locations within 3 to 5 miles of the front lines and under unobserved harassing shell fire were frequent. Selection of defilated locations was hampered by necessity for choosing ground passable for 2½-ton trucks used for Signal installation. Limited suitable ground made location of command post near artillery batteries necessary, with consequent exposure of counter-battery fire. Regimental command posts were often located on ground impassable to vehicles larger than ¼-ton trucks and occasionally away from any trail for wheeled vehicles. Forward location of command posts, rapid movement, and severe damage to open wire lines made wire contact from Division to Corps and Army very difficult. A construction company assigned to the line from II Corps to Division was able to keep these circuits in less than 50% of the time. Army was able to keep wire contact with the Division only where this could be done through field wire.

15. The message center was little used for tactical communication within the Division. It was used largely for division administration traffic and tactical and administrative traffic from higher headquarters. Normal handling of written messages was found too slow for division tactical use. Telephone in the large majority of cases, and the commander's net in some instances, were the principal channels used.

16. Signal supply functioned well throughout the operation with certain isolated exceptions. Adequate wire supply was maintained with the aid of salvage operations by the Signal Company, but wire dumps were often too far from the Division. On one occasion trucks had to be sent on a 200-mile round trip from Coronia to Licata for wire. Replacements of battle losses of radio sets were practically nil. There were shortages of batteries BA37, BA38, and BA49.

17. Manual telegraph was little used due to operational difficulty with relays in TG5A, and lack of an organized procedure for its use. Teletype was in use at only one command post and for only two days in the entire operation. The teletype control TG3 and additional teletypewriters were never used.

18. Codex Code device was used very successfully in Commanders' intelligence nets. Compromises were frequent but under circumstances that made them inevitable. There was a need for a special amphibious strip during the landing operations. There was some difficulty with the unfamiliar, peculiar British words in the code strips. There was a tendency to suspend use of Codex after compromise until a new code strip was issued, rather than to continue to use it for the limited security still afforded. There was a tendency to employ the message center in encoding and decoding Codex messages until it was made clear that these messages must be framed in Codex vocabulary by the writer.

19. The Radio Intelligence Platoon was almost never used for intercept of enemy transmissions. The Direction Finder Section was never used, and it should be eliminated. The platoon operated exclusively on our own nets, providing Division, Corps and Army commanders with information of our forward elements and adjacent divisions. It also provided the Division Signal Officer with information as to the discipline and security of Division nets. Mobility was hampered by use of trucks, 2½-ton 6x6, which should be eliminated.

PART II - LESSONS LEARNED DURING OPERATION

1. Signal Corps Equipment

a. Radio - Sets are generally deficient in spare parts kits. All sets should have spares for such critical items as dynamotors and relays, and kits should include tubes or cans of proper grade lubricating oils or grease. All manually tuned sets should have positive dial locks, both on transmitter and receiver. All of these conditions should be rectified on sets in service. Specific modifications recommended for each set are:

(1) SCR 193

(a) Approximately 50% of tubes, vt-4c, for transmitter BC191 received were defective due to broken filaments.

(b) Roller contact on antenna inductance must be heavier and in better contact with coil to avoid pitting of contact and erratic output.

(c) "On-off" toggle switch must be of more durable type, and easier to replace. This is always the first switch to wear out.

(d) Improved dust free bearings on keying relay of BC191 to provide faster keying operation.

(e) Cord for key, J-45, should be securely fastened to the key with a clamp rather than a tie cord, with reinforced rubber sleeve at point where fastened to key.

(f) A sturdy clamp to hold microphone T-17 should be built into cabinet holding the set. This would eliminate most microphone troubles.

(g) A stronger snubber mounting than the FT-172 and FT-178 is needed. The present mountings break off quickly during operations in rough terrain.

(2) SCR 284

(a) RF ammeter should be of external shunt type, with replacement shunts to be issued Division Radio Repair Shop.

(b) Sturdier tubes than VT-146, VT-221, and VT-223 should be used. "Loktal" types, of same types used in SCR-610, might well be used, thereby cutting down number of tube types.

(c) Cabinet of BC-654 must be made waterproof. Present seal unsatisfactory.

(d) Calibration chart for BC-654 should be mounted on panel of transmitter so that charts will not be exchanged when cabinet is replaced.

(e) Key should be mounted in upper left-hand corner of drop-shelf on BC-654 to afford support for arm while using key, and afford more writing space while receiving.

(f) Shock mounting of receiver tube sockets with rubber mountings is required to eliminate microphonics.

(g) Substitution of Mast Base MP-48 and Mast Base Bracket MP-50 for Mast Base Brackets MP-45 and MP-46, and Mast Base MP-37 is recommended.

(3) SCR 299

(a) Power relay is not heavy enough.
(b) RF ammeter should be of external shunt type, spare shunt to be provided with the set.
(c) Antenna tuning unit must be dust-proofed. Snap-on cover would be suitable.
(d) Fixed capacitor in antenna tuning unit and final amplifier stage should be mounted in a holder provided with manually operated snap clips rather than spring type clips, to prevent breakage in handling.
(e) Plug-in tuning units and their sockets should have heavy duty pins and contacts.
(f) Grid bias power transformer not heavy enough to stand overloads caused by shorted capacitors. Eliminate all electrolytic capacitors.
(g) Power unit must be provided with:
1 complete spare magneto
1 complete spare carburetor
1 complete spare governor
2 complete sets gaskets
10 extra sediment bowl gaskets
2 complete sets spare valves
4 complete sets spare spark plugs
(h) PE-95 gasoline engine should be provided with gasoline filter in addition to sediment bowl.
(i) If possible, redesign PE-95 to use standard engine employed in ¼-ton C & R truck.

(4) SCR 609 and 610

(a) Waterproof entire front panel, especially speaker unit office.
(b) Impregnate RF coils more thoroughly to avoid failure due to moisture absorption.
(c) Strengthen antenna mounting on rear end of BC-659 to take strain off threaded end of antenna AM-29-C.
(d) Make microphone transformer less subject to failure.
(e) Batteries for SCR-609 must be packed in waterproof boxes for shipment.
(f) Snap fasteners on side of cabinets should be strengthened.
(g) Supply adequate hardware for vehicular installation, including supporting brackets to secure mounting FT-252 to floor of ¼-ton truck.
(h) Supply reinforcing plate to mount behind mast base bracket MP-50 similar to that now provided with MP-22.
(i) Eliminate chest CH-72 and carry spare parts in case of power unit PE-117.

(5) SCR-608 and 628

(a) Reduce number of spare receiver tubes by 50%.

(6) SCR-536

(a) Case should have metal sleeve protecting antenna lead-in bushing.

(b) Hand switch should be stronger than that now used.

(c) Caps over microphone and earphone should be made of a plastic which will stand extreme shock.

(d) A diaphram of oil silk should be provided to waterproof the microphone and earphone.

(7) SCR 511

(a) This set is unsatisfactory for infantry use and should be replaced with SCR-300 as soon as possible.

(8) SCR 593

(a) Unsatisfactory for use by combat engineers. Too critical of adjustment and not sturdy enough for use in infantry division.

(b) Telephone and Telegraph Central Office Equipment

(1) Telephone C. O. Set TC-4 is too large, clumsy, and complex for service performed. Panel BD97 serves no useful purpose. TC-12 would provide a lighter, simpler, more compack and more flexible installation. Six TC-12's could replace four TC-4's with great gain in efficiency.

(2) Telegraph Central TC-3 is a heavy, bulky piece of equipment for which no use is found or anticipated. It should be removed from T/BA.

(3) Teletypewriter TG-7A is used only at rear echelon, and at administrative center; seldom if ever in tactical operation. Volume of traffic does not justify its use. Two of present four authorized would be ample.

(4) Telegraph Instrument TG-5A requires re-design of relay to make it less subject to shock.

(5) Telephone Switchboards BD71 and 72 are much too heavy and bulky for service performed and for amphibious and mountain operations. The German 10 drop board is an example of what can be done in this line.

(6) A telephone amplifier or booster should be provided to extend the range of field wire. Four-wire repeater EE99 was used as booster but was too large and complicated, and required a four-wire circuit. A simple two-wire booster to extend range to 30 miles is needed.

c. Construction Tools, Materials, and Equipment

(1) Wire W130 was found to be too fragile for use above battalions. Insulation should be more durable. Ground return circuits were used extensively when W130 lines became shorted. A single conductor wire for use where ground conditions permit should be supplied.

(2) Wire W110A had satisfactory physical characteristics but inadequate talking range. On many routes 8 to 20 lines were laid together; Testing and tracing a single line in trouble was very difficult. Four or five different color codes for wire would have simplified this work greatly.

(3) Reel Unit RL26 was used only for wire pick-up. RL31 is superior for wire laying and more adeptable to the lighter vehicles now being used for this purpose.

(4) Wire Grips BC11 were a much needed item not provided. Division Signal Company frequently works on existing open wire, and this item is essential to each wire team.

(5) Room Equipment LC80 was a badly needed item not provided. A makeshift substitute is now being improvised by the Signal Company.

(6) Reel Unit for Pack Saddle to permit laying wire W110 on reel DR4 from a pack animal is essential in mountain operation. Two per Signal Company are required.

d. Message Center Equipment

(1) Paper taps for Cipher Device M209 should be gummed for ease in pasting on paper.

(2) Codex Code Device was an invaluable aid in simplification of encoding. This device should be standaridized and issued on a basis of 300 per Division. Some of the words used were peculiarly British and sounded strange to Americans; and in many cases two or more words sound alike. Simple, familiar distinctive words of not more than 5 letters or 2 syllable should be used. A special vocabulary strip should be used for amphibious operations.

2. Personnel

a. No special changes are desired in the T/O's of units of this Division which are not equally applicable to all Infantry Divisions to operate in the European area. The present T/O of the company, authorizing 311 men should not be reduced. The changes recommended herein are only those which can be made immediately without too great adjustment or delay.

b. A list showing full name, serial number, rank, date of rank specification number, position vacancy, and date of joining or separation from Division of all Signal Corps officers is included as Appendix 5.

3. Modification of T/O's and T/BA's

a. Signal Section Division Hq. and Signal Company:

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(1) Tables of Organization.

(a) Two officers, a major and Assistant Division Signal Officer and a Captain as Signal Supply Officer should be added to the T/O of headquarters, Infantry Division. It is impossible for a single officer to make necessary inspections, reconnaissances, and contacts with commanders and communication officers in forward areas and still direct operation of Signal agencies from the Command Post. It is equally impossible for this officer to be on duty 24 hours per day. It is folly not to provide a replacement if the Signal Officer becomes a casualty. The Signal Company commander has a full time job in commanding a company of 311 men, and his usual post of duty is not at the Command Post; but at the company bivouac or rear echelon. The volume and importance of Signal Supply work in Division demand the assignment of a Captain to this job. Provision of this officer would separate the duties of Signal Company supply and division Signal Supply. These two functions have little in common and could operate separately more efficiently.

(b) Present officer and enlisted personnel of the Signal Company is adequate, with the exception indicated below, if an overstrength of 10% is supplied before going into combat and an adequate replacement system is in operation. This company had no overstrength of Officers and received no enlisted replacements during the entire operation. The radio and construction platoons were short of personnel on this operation, but can be strengthened by use of men gained by dissolution of the Direction Finder Section of the Radio Intelligence Platoon, and the Teletype Section, respectively. Specific recommended changes T/O #1-7, 1 Apr 43 within the strength of the company are:

Add	Drop
1 t/Sgt asst chief lineman (644)	1 t/sgt chief typ op (237)
1 sgt asst. chief lineman (644)	1 sgt asst chief typ op (237)
4 T/4 linemen, field, T&F (641)	2 T/4 typ op (236)
2 T/5 linemen, field, T&F (641)	1 T/4 typ repairman
3 pvt or pvt lcl lineman (641)	1 T/4 typ swtchbd op (237)
1 T/sgt chief rad op (766)	1 T/5 typ op (237)
1 s/sgt chief rad op (766)	1 T/5 typ swtchbd op (237)
1 sgt asst chief rad op (766)	1 pvt TG and typ opr (236 and 237)
2 T/5 rad op (766)	2 pvt or pvt lcl type swbd op (237)
4 Pvt or pvt lcl rad op (766)	1 t/sgt control chief (543)
	1 s/sgt wire chief field (595)
	1 sgt asst control chief (543)
	1 T/5 inst rep loc bat tel (638)
	1 T/5 plotter (725)
	1 pvt inst rep loc bat tel (638)
	2 pvt or pvt lcl linemen field tpd tg (641)
	1 pvt plotter (725)

The Division Signal Officer should have under his complete control one section ($\frac{1}{4}$ platoon) from a Signal Construction Company with an officer in command. This section would work primarily on the Division wire axis forward of the Division CP, but would be free for assignment to other open wire jobs when circumstances warranted. Such a section is essential to tie in the Division to its

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rear echelon on long jumps, and to its units operating beyond the range of field wire. Most of the lines rebuilt would be of service later as lines to Corps and Army.

(2) Tables of Basic Allowances

(a) Allowances of motor vehicles should be changed as indicated in Appendix 4 to remove all trucks, 2½-ton 6x6, from elements operating in the forward areas.

(b) Total allowance of Telephone and Telegraph Central Equipment should be as follows:

6 ea TC-12 (2 ea of 2 displacements, main CP, 1 for rear echelon, 1 for switching central or spare)

6 ea BD-72 (1 ea of 2 displacements of construction section and radio control, 2 for switching centrals, advance CP'S and spares.

2 ea EE-97 (1 ea rear echelon, 1 spare)

17 ea TG-5-B (6 ea displacement, 2 at rear echelon, 1 ea regiment radio team.

(c) Construction equipment should provide following items in quantities indicated:

8 ea Boom Equipment LC-80 (1 ea 6 construction teams and 2 salvage teams)

20 ea Reel Unit RL-31 (2 ea of 6 construction teams, 1 ea of 3 maintenance teams, 3 ea T&T section, 2 for construction test point)

2 ea Reel Unit RL-26 (1 ea of 2 wire salvage teams)

6 ea Grip LC-11 (1 ea of 6 construction teams)

500 lb. wire, copperweld #104.

Each lineman should be equipped with pistol, cal.45, M1911, in lieu of carbine, cal.30, M1.

(d) Radio and Radio Intelligence Equipment - following radio sets only should be supplied:

2 ea SCR-178 (as pack sets for mountain operation)

14 ea SCR-193 in truck, ¼-ton 4x4 (3 ea to regiment teams, 3 ea to Division Intelligence net, 3 ea to special missions)

5 ea SCR 193 in truck, carryall or weapons carrier, not C&R. (2 ea displacement, 1 for command, 1 for Intelligence net, 1 for R.I. platoon)

2 ea SCR-299 with 1 spare power unit PE-95 for 2 sets (link to Corps or Army).

6 ea Radio Receiver BC-683 (radio intelligence platoon)

6 ea Radio Receiver BC-312 (2 to Radio Control; 4 to R.I. platoon).

6 ea Radio Receiver BC-342 (R.I. Platoon)

3 ea Frequency Meter SCR-211 (2 for Radio Control 1 for R.I. platoon).

3 ea Detector SCR-625 (1 per 2 construction sections)

1 ea SCR-284(To maintenance section as replacements for sets turned in for repair)

3 ea SCR-511)

6 ea SCR-536)

4 ea SCR-610)

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(e) Message Center Section --total allowance of items listed:
12 ea Cipher Device M209 (4 ea displacement, 2 to rear echelon, 2 as spares and replacements)
300 ea Code Device, Codex or Slidex (to be distributed by DSO to Division)

b. Infantry Regiments

(1) Tables of Organization
(a) Infantry regiments should be authorized a captain, rather than a 1st Lt. as communications officer. This officer has the lowest grade and one of the most important jobs on the regimental staff. Good communications officers are difficult to keep on the job, being rewarded for good service by being made company commanders. Similarly the Division Artillery communications officer, who has a larger, more complex job, second in scope to that of the Division Signal Officer, should be a major.

(b) Recommend that wire and radio teams in the regiment be provided and so designed that regiments can attach teams to battalions to work back to regiments, in much the same manner that Division teams are attached to regiments. This would require additional personnel as follows:
To Regiment:
3 sgt. asst. chief linemen (644)
3 T/5 linemen, field, T&T (641)
6 pvt. linemen
(The 6 pvt. linemen might be transferred from battalion T/O)
3 Cpl. asst. chief radio op (177)
(One radio operator to be furnished from each battalion T/O and remaining operators at battalion made voice rather than CW)
To Battalions:
1 sgt or T/4 radio repairman (174)
(2) Tables of Basic Allowances
(a) Recommend that 1 radio set SCR-284 be removed from battalion and 3 ea added to regiment.
(b) Recommend that 5 ea SCR-610 be authorized each anti-tank and cannon company in lieu of SCR-511. 4 ea SCR-610 and 1 SCR-608 should be authorized each regiment, and 2 SCR-610 each battalion for regimental intelligence net.
(c) Recommend that SCR-245 be supplied with TV26 so that they will cover same frequency range as SCR-284.
(d) 3 ea additional Reel Unit RL31 should be authorized for addition wire teams.
(e) Total of 8 ea Telephones, EE-8-A, per battalion; 16 ea for regiment to provide linemen's test phones.

c. Division Field Artillery
(1) Table of Organization --- recommendation of grade of major for communications officer in sub-paragraph b. (1) (a) above.
(2) Table of Basic Allowances
(a) 6 ea Radio Set SCR-193 in truck, ¼-ton 4x4, should be authorized in lieu of SCR-284. Division Artillery net operates at same distances as Division Command Net and requires the same set.

LIBRARY
ARMED FORCES STAFF COLLEGE

(b) Total of 3 switchboards BD-72 and one BD-71 required.

d. Engineers

(1) Table of Organization

(a) Add one staff sergeant, communications chief (542) per battalion headquarters.

(2) Table of Basic Allowances

(a) All radio equipment now authorized Engineer Battalion is either inadequate or not required. In lieu of all present equipment, 1 ea radio set SCR-245 or SCR-193 in truck, ¼-ton 4x4, per lettered company and 2 per battalion headquarters should be authorized. Engineers operate in all parts of the Division sector and require sets having the same range as those in Division Command net.

(b) 10 ea Detector, SCR-625, should be authorized each lettered company, a total of 30 per battalion.

e. Reconnaissance Troop

(1) Table of Organization — no change.

(2) Table of Basic Allowances

(a) Delete 2 ea SCR-284 never used and not required.

(b) Add 3 ea SCR-193 in truck, ¼-ton 4x4, for use in terrain where car, half track M-3, in which present SCR-193's are mounted cannot be used.

L. K. TRUSCOTT, JR.
Major General, U. S. Army
Commanding.

CP LOCATION

ADVANCE	REAR Br. to Adv.	TIME OPENED	OPERATING DISTANCE IN MILES To RGT 7	To RGT 15	to RGT 30	To Div AR
BEACH YELLOW	LICATA	101232B July	-	-	-	-
LICATA	LICATA 4	101535B	8	5	7	-
S. OLIVA STATION	LICATA 17	122015B	7	13	11	-
NARO	LICATA 29	161845B	16	15	11	-
ARAGONA	ARAGONA 18	190600B	5	10	10	-
S. STEFANO	ARAGONA 26	211145B	7	11	2	-
PRIZZI	ARAGONA 35	211500B	-	-	-	-
CORLEONE	PRIZZI 24	231132B	5	5	5	-
MISILMARI	PRIZZI 31	240150B	3	8	-	-
SOLANTO	SOLANTO 37	262240B	7	11	7	7
TUSA	TUSA 6	310348B	3	5	7	-
S. STEFANO	CORONIA -	011745B Aug	4	5	6	-
CORONIA	CORONIA 6	-	1	5	2	-
AQUEDOLCI	S. AGATA -	091245B	6	2	4	1½
S. AGATA	S. AGATA 11	110530B	8	9	9	-
BROLO	BROLO 13	121510B	4	2	4	-
OLIVERI	BROLO 24	151920B	3	16	12	-
MERI	MERI 9	-	-	-	-	-
ROMETTA MAREA	ROMETTA -	170900B	3	17	18	-
TRAPANI		192300B	-	-	-	

APPENDIX #2

ANALYSIS OF MESSAGE TRAFFIC

AMPHIBIOUS PHASE

LAND PHASE

SYSTEM	JULY 10		JULY 11		JULY 12		JULY 13		JULY 14		JULY 15 AUG 17		TOTALS	
	GR	MSGS	GR	MSGS	GR	MSGS	GR	MSGS	GR	MSGS	GR	MSGS	GR	MSGS
ECM	705	9	295	4	5040	46	3858	46	4690	32	50772	520	65360	657
M-209	1958	31	830	18	553	14	1837	26	367	6	15499	352	22044	447
JT CP	205	14	14	2	91	2	—	—	—	—	—	—	310	18
CODEX	379	26	162	4	108	4	451	7	—	—	228	9	1328	50
CLEAR	—	11	—	5	—	3	—	7	—	8	311	—		345
TOTALS	3247	91	1301	33	5791	69	6146	86	5057	46	66810	881	89042	1517

APPENDIX #3

SECTION	¼ T		3/4 WC		3/4 CA		2½T		K-50		K-52 - 53		¼ T Trlr		1 T Trlr	
Supply		1		1			4b	6d		2			1	1	3	6d
Co Adm	1	3	2	4	1	1	4	4					2	2	3	4
Constr	12	12		6			9	4					2	6	3	2
Radio	12c	12c	2	4	6	6	2	1	1		2	2	2	2	2	1
T & T	1	1	2	5			5	1	1				2	4	5	2
Msg C	11	11		2			3	1					3	6	3	1
Sig O	1	1		1			1							1	1	
I	1	1	4	4	1	1	2								3	3
Total T/BA	26		8		6		28d			2					23d	
Total Excess T/BA	11c		2		2		2		2				12			
Loss Gain	3		17				13						10		4	

Notes: First Column indicates Old, second new assignment
(a) Not on T/BA
(b) 2 excess of T/BA
(c) 11 W/12V ignition and radio SCR-193
(d) Includes two maintenance trucks or power trlr.

APPENDIX 4

HEADQUARTERS THIRD INFANTRY DIVISION
OFFICE OF THE DIVISION SIGNAL OFFICER
APO #3

SIGNAL CORPS OFFICERS OF HEADQUARTERS THIRD INFANTRY DIVISION AND THIRD SIGNAL COMPANY DURING OPERATION "HUSKY"

Name	Serial No.	Rank	Date of Rank	ASN	Position Vac.
Brooke, James F., Jr.	0-17600	Lt. Col.	16 July 1942	09N1	Div. Sig. O. Transferred to 7th Army 2 Aug 43
Thomas, Jesse F.	0-021135	Major	21 July 1942	09N1	Asst. Div. Sig. Officer
Chinlund, Daniel K.	0-367095	Capt.	1 Feb 1942	0210	Co. Commander
Christy, Russ J. II	0-455043	1st Lt.	7 July 1943	0420	Const. O.
Davis, Ottis A.	0-1633154	1st Lt.	7 July 1943	0503	R.I. Officer
DiLaura, Anthony D.	0-1633162	1st Lt.	6 Jan 1943	0410	Asst. T&T O.
Fezell, George H.	0-453667	1st Lt.	15 Sept 1942	0221	Msg. Cen. O.
Goldstone, George H.	0-414009	1st Lt.	17 Aug 1942	0500	Radio Off.
Harris, Aaron G.	0-453829	1st Lt.	17 Aug 1942	0410	T&T Off. Wounded, hospitalized, dropped fr Co 22 Aug 1943
Northrup, Leroy M.	0-454595	1st Lt.	21 Sept '42	094K	Supply Off. Hospitalized, evacuated 25 Aug 1943
Rose, Thomas G.	0-1633502	1st Lt.	15 Sept 1942	0420	Asst. Const
Javins, Rexford R.	0-2055327	2nd Lt.	18 July 1943	0601	Motor Off.
Worblewski, Fred J.	0-1639837	2nd Lt.	16 Nov 1942 Reported 14 Aug 1943	0420	Asst. Const O
Dundee, Morris G.	0-1635816	2d Lt.	16 Nov-1942 Reported 16 Aug 1943	0500	Asst Rad. O.
Olander, Edwin J.	W-2114267	WOJG	22 Aug 1942	9909	Asst. Sup. O.

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9TH SIGNAL COMPANY
9TH INFANTRY DIVISION
APO #9 % POSTMASTER NY NY

29 AUGUST 1943.

SUBJECT: LESSONS LEARNED IN SICILIAN CAMPAIGN.

TO : COMMANDING GENERAL SEVENTH ARMY. (ATTENTION: SIGNAL OFFICER.)

1. IN REPLY TO LETTER, HQS., SEVENTH ARMY, APO. #759, DATED 20 AUGUST 1943, THE FOLLOWING REPORT IS MADE. THE 9TH SIGNAL COMPANY DID NOT PARTICIPATE IN OPERATION "HUSKY". THE REPORT IS BASED ON ACTION IN THE TROINA - RANDAZZO SECTOR OF SICILY BETWEEN AUGUST 3 AND AUGUST 18, TOGETHER WITH PRVIOUS COMBAT EXPERIENCE OF THIS UNIT.

2. SIGNAL CORPS EQUIPMENT:

A. THAT A PORTABLE DISTRIBUTION BOX THAT CAN BE COLLAPSED FOR TRANSPORT BE DESIGNED AND ISSUED TO M/C. THE VOLUME OF PAPER WORK THAT IS SENT THROUGH M/C IS SUFFICIENT BASIS FOR THIS ISSUE. MADE SHIFTS CAN BE MADE IN THE FIELD BUT HARD TO TRANSPORT AND ARE NOT TOO SATISFACTORY.

B. THAT THE BD-96 BE EQUIPPED WITH A PILOT LIGHT. ON A BUSY BOARD WITH SEVERAL CORDS UP IT IS VERY EASY TO OVERLOOK A SIGNAL, ESPECIALLY WHEN THE LIGHT IS BAD, WHICH IS QUITE OFTEN THE CASE.

C. THAT THE BD-96 BE EQUIPPED WITH A HEATING UNIT IN BACK TO PREVENT CROSSTALK DUE TO DAMPNESS. IT HAS BEEN NECESSARY ON MANY OCCASIONS TO PLACE A LIGHT BULB IN THE BACK OF THE BE-96 TO PREVENT CROSSTALK DUE TO DAMPNESS.

D. THAT THE REPEATING COILS IN THE BD-97 BE INSTALLED PERMANENTLY ON SOME DROP SO THAT IT WILL BE PROTECTED FROM LIGHTNING AND FOREIGN CURRENTS. WE HAVE HAD TO REPLACE SEVERAL COILS DUE TO DAMAGE CAUSED BY LIGHTNING. A RECOMMENDED WAY OF DOING THIS IS SHOWN IN FIGURE A. JACKS ARE INSTALLED TO SIMPLIFY TESTING.

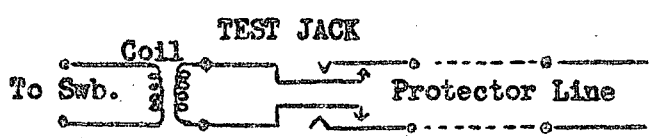

FIGURE A.

E. THAT AN ADDITIONAL CORD BE ADDED TO THE BD-96 TO BE USED AS A TEST CORD.

F. REPLACE 3/4 TON C.A. IN RADIO SECTION WITH K-51 PANEL TRUCKS. SPRINGS ON THE C.A. CANNOT ACCOMMODATE THE LOAD AND THE CREW HAS NOT ADEQUATE WORKING SPACE.

G. TRAINED WIRE-LAYING MULES WITH PROPER EQUIPMENT SHOULD BE AVAILABLE FROM CORPS OR ARMY FOR SPECIAL JOBS IN MOUNTAINOUS TERRAIN.

H. THE ENTIRE INTERNAL MECHANISM OF THE MINE DETECTORS SHOULD BE SHOCK MOUNTED AND LEADS MADE FLEXIBLE. MANY CASES OF TROUBLE HAVE BEEN TRACED TO BROKEN LEADS BETWEEN THE SHOCK-MOUNTED PORTION AND THE RIGID MOUNTED PORTION.

3. PERSONNEL:

NAME	SERIAL #	RANK	DATE OF RANK	SPEC. SER.#	POSITION VAC. OCCUPIED
KENNEY, EUGENE A.	0-018193	LT. COL.	10-28-42	0210	DIV. SIG. OFF.
BLANCHARD, HENRY N. JR	0-023777	CAPT.	7- 2-43	0210	COMPANY COMDR.
HERRIN, KENT (NMI)	0-401985	1ST LT.	2- 1-42	0210	ASST. DIV. SIG.OFF
LAVELLE, EDWARD J. JR	01633358	1ST LT.	11-25-42	0410	T & T OFF.
HANCOCK, DANIEL W.	0-414340	1ST LT.	12-30-42	0420	CONSTRUCTION OFF.
EISENSTATT, LEO (NMI)	01633192	1ST LT.	2- 4-43	4401	SUPPLY OFFICER
HARPER, ROBERT B.	01633259	1ST LT.	5-12-43	0420	ASST. CONST. OFF.
HOWARD, CHARLES A.	01633289	1ST LT.	7- 2-43	0500	RADIO OFF.
LEWIS, ROBERT E.	01633366	1ST LT.	7- 2-43	0601	MOTOR TRANS. OFF.
LARSEN, HAROLD E.	01291483	2ND LT.	8-26-42	0221	MSG. CEN. OFF.
FOGLE, JOSEPH C.	01638403	2ND LT.	11-30-42	0500	ASST. RDO. OFF.
ARNOLD, WYATT A. JR	02046364	2ND LT.	4- 1-43	0503	R/1 OFF.
WILLIAMS, ARNOLD L.	W2118300	CWO	3-24-43	4401	ASST. SUPPLY OFF.

4. MODIFICATIONS OF T/O

A. FOR 24-HOUR OPERATION AN ASSISTANT DIVISION SIGNAL OFFICER IS NEEDED. THIS OFFICER SHOULD BE IN GRADE OF MAJOR IN ORDER THAT HE BE SENIOR TO THE SIGNAL COMPANY COMMANDER AND THEREFORE IN PROPER POSITION TO ISSUE ORDERS TO THE COMPANY IN THE ABSENCE OF THE DIVISION SIGNAL OFFICER. MOST DIVISION STAFF SECTIONS HAVE A LT. COL. HEAD AND A MAJOR ASSISTANT.

B. T/O SHOULD BE REVISED TO MAKE A SIGNAL BN., INF. DIV., CONSISTING OF HQ. CO., (INCLUDING M/C, MOTOR, SUPPLY, AND ADM. SECTIONS), WIRE COMPANY (INCLUDING CONSTRUCTION AND T & T SECTIONS) AND RADIO COMPANY, (INCLUDING RADIO AND R.I. SECTIONS). THIS WOULD MAKE THE COMPANIES ABOUT THE SIZE OF AN ARTILLERY BATTERY. THE SMALLER COMPANIES WOULD FACILITATE ADMINISTRATION AND CONTROL.

C. A PERSONNEL SECTION OF THREE MEN HAS BEEN FOUND ESSENTIAL TO KEEP UP WITH PAY ROLL, ALLOTMENTS, INSURANCE RECORDS, AND OTHER PERSONNEL FUNCTIONS. RECOMMEND ADDITION OF ONE (1) S/SGT. AND ONE (1) T/5, AND ONE (1) PVT 1CL TO T/O FOR THIS PURPOSE.

D. THE DIVISION MESSAGE CENTER OFFICER HAS ONE OF THE MOST IMPORTANT POSITIONS IN THE COMMUNICATIONS SYSTEM. HE SHOULD BE A 1ST LT.

E. FOUR T/4TH RATINGS SHOULD BE AVAILABLE TO M/C SECTION IN LIEU OF FOUR PRIVATES OR PVT 1CL FOR MEN TRAINED IN SIGABA OPERATION AND MAINTENANCE.

5. MODIFICATION OF T/BA.

A. RECOMMEND THAT A PIPER CUB PLANE BE MADE AVAILABLE TO DIVISION MESSAGE CENTER. DURING SICILIAN CAMPAIGN SOME UNITS WERE AS MUCH AS FIFTY (50) MILES FROM THE C.P. AND ONLY REACHED BY ROADS THE ENGINEERS HAD HASTILY MADE. IT TOOK AS MUCH AS FIVE (5) OR SIX (6) HOURS TO REACH SOME UNITS.

B. THE ADDITION OF TWO (2) 3/4 TON VEHICLES TO CONSTRUCTION SECTION FOR TROUBLE SHOOTING AND PATROLLING LINES.

C. EACH CONSTRUCTION, MESSAGE CENTER, T & T, AND R. I. AND RADIO TEAMS SHOULD HAVE A SMALL CALAPSABLE STOVE TO HEAT WATER AND RATIONS WHEN OPERATING AWAY FROM THE COMPANY.

D. THAT TEN (10) 1/4-TON TRAILERS BE ISSUED TO TRANSPORT EQUIPMENT OF JUMP TEAMS OR SWITCH TEAMS BEHIND 1/4-TON C & R CAR WHERE LARGER VEHICLES ARE NOT PRACTICAL.

E. ONE (1) 1/4-TON C & R CAR AND TWO (2) 21/2-TON CARGO TRUCKS WITH 1-TON TRAILERS ARE NEEDED FOR DIVISION SIGNAL SUPPLY OFFICE. NO TRANSPORTATION IS AUTHORIZED THIS OFFICE BY CURRENT T/BA.

F. THREE (3) 1/4-TON C & R CAR WITH SCR-193 INSTALLED ARE NEEDED IN ADDITION TO THE SIX (6) 3/4-TON CA WITH SCR-193 NOW AUTHORIZED. THE SMALL CARS CAN FOLLOW REGIMENTS THRU TERRAIN WHICH IS IMPRACTICABLE FOR LARGER VEHICLES. ONE CAN FOLLOW THE CG ON RECONNAISSANCE SO THAT HE HAS INSTANT CONTACT WITH HIS CP. NEARLY ALWAYS SIGNAL COMPANY HAS TO FURNISH A RADIO STATION TO AT LEAST ONE ATTACHED UNIT.

G. ALL 1/4-TON C & R CARS IN CONSTRUCTION PLATOON AND T & T SECTION SHOULD BE EQUIPPED WITH RL-31 OR A SIMILAR WIRE-LAYING DEVICE ATTACHED TO THE BACK. THE 1/4-TON CAR CAN LAY WIRE WHERE A 21/2-TON TRUCK CANNOT GET THROUGH.

H. THAT THE SIGNAL COMPANY BE ALLOWED ONLY ONE TC-3 IN PLACE OF THE PRESENT ALLOWANCE OF TWO. IT IS VERY SELDOM THAT WE USE ONE TC-3 AND I KNOW OF NO CASE WHERE WE WOULD USE TWO.

I. THAT THE SIGNAL COMPANY BE ALLOWED THREE ADDITIONAL SMALL WALL TENTS FOR TELETYPE AND TELEGRAPH.

J. THAT ONE SCR-211 FREQUENCY METER BE ADDED TO THE TBA FOR USE WITHIN THE DIVISION COMMAND NET.

K. THAT TWENTY (20) ADDITIONAL TELEPHONES, EE-8-A BE ISSUED. THE PRESENT ALLOTMENT NEVER MEETS THE NEED IN COMBAT NOR IN REST AREAS.

L. DELETE TL-103 FROM CONSTRUCTION PLATOON'S T/BA AND ADD TWENTY-FIVE (25) TL-107.

HENRY N. BLANCHARD JR.,
CAPTAIN, SIGNAL CORPS,
COMMANDING.

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(GNMEX) 9/2/43 1st Ind. EAK/ok
HEADQUARTERS, NINTH INFANTRY DIVISION, OCSigO, A.P.O. #9, 6 September 1943
TO: Commanding General, VII Army, A.P.O. #758 (Attention: Signal Officer)

Aporoved.

EUGENE A. KENNY,
Lt. Col., Signal Corps,
Division Signal Officer.

~~SECRET~~

(GNMEX) (8/29/43) 1st Ind. EAK/jjs

HEADQUARTERS NINTH INFANTRY DIVISION, OCSigO, APO #9, 31 August 1943.
TO: Commanding General, 7th Army (Attention Signal Officer) APO #758.

This organization did not take part in the initial phases of operation "HUSKY" and was only in active combat for approximately twelve days. However, the experiences of this operation confirmed the conclusions deduced from the Tunisian Campaign, with reference to a Division Signal Company. The major desirable changes are:

(a) The Signal Company should be a Signal Battalion.
(b) There should be eight instead of six construction teams.
(c) There should be a Major as Assistant Division Signal Officer.
(d) Three additional SCR 193 in 1/4 ton vehicles should be authorized.
(e) The Division Signal Supply Officer should have the grade of Captain.
(f) Trained wire mules should be available on call in Corps or Army.

EUGENE A. KENNY.
Lt. Col., Signal Corps,
Division Signal Officer.

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~~SECRET~~

9TH SIGNAL COMPANY
9th Infantry Division
A.P.O. #9

2 September 1943

SUBJECT: Studies, TBA.

TO : Commanding General, Seventh Army, APO #758, U. S. Army
(Attention: Signal Officer)

1. Reference Letter Headquarters Seventh Army, Subject: Studies, TBA, dated 23 August 1943, the following changes in TBA are recommended:

a. Message Center

1. That a portable distribution box that can be collapsed for transport be designed and issued to M/C. The volume of paper work that is sent through M/C is sufficient basis for this issue. Makeshifts can be made in the field, but are hard to transport and are not too satisfactory.

2. Recommend that a Piper Cub plane or helicopter be made available to Division Message Center. During the Sicilian Campaign, some units were as much as fifty (50) miles from the C.P. and could only be reached by roads the Engineers had hastily made. It took as much as five (5) or six (6) hours to reach some units.

b. Radio Section

1. Two (2) each, Mast Base MS-53 be added to each SCR 193 to increase output. Can be set up quickly and used to advantage to supplement the flat-top antenna.

2. One (1) each, Blackboard (small size) with eraser and chalk. A training aid for continued instruction in Radio Procedure. Necessary due to the frequent changes in procedure.

3. That one (1) SCR-211 Frequency Meter be added to the TBA for use within the Division Command Net.

c. Mess Section

1. An alarm clock is needed to wake the cooks in time to prepare breakfast.

~~SECRET~~

9TH SIGNAL COMPANY
9th Infantry Division
A.P.O. #9

2 September 1943

d. Construction Section

1. Trained wire-laying mules with proper equipment should be available from Corps or Army for special jobs in mountainous terrain.

2. All ¼-Ton C & R cars in Construction Platoon and T & T Section should be equipped with RL-31 or a similar wire-laying device attached to the back. The ¼-Ton car can lay wire where a 2½-Ton truck cannot get through.

3. Delete TL-103 from Construction Platoon's TBA and add twenty-five (25) TL-107, (Eight-inch pliers), which are suitable for use with both field and open wire.

e. T & T Section

1. That the Signal Company be allowed only one (1) TC-3 in place of the present allowance of two (2). It is very seldom that we use one (1) TC-3 and I know of no case where we would use two.

2. That twenty (20) additional telephones, EE-8-A be issued. The present allotment never meets the need in combat nor in rest areas.

General

1. Each Construction, Message Center, T & T, R. I. and Radio team should have a small collapsible stove to heat water and rations when operating away from the Company.

2. The following is a list of the complete recommended transportation for a Signal Company, Infantry Division:

NO.	TYPE	USE
Administration		
1	¼-Ton C & R	Company Commander
1	3/4-Ton WC	Personnel of Adm. & Pers. Sec.
1	1-Ton Trailer	Administration & Pers. Equip.
Mess		
1	2½-Ton Truck	Kitchen truck
1	2½-Ton Truck	Ration truck
1	1-Ton Trailer	Rations & Equipment
1	1-Water Trailer	Water

9TH SIGNAL COMPANY
9th INFANTRY DIVISION
A.P.O. #9

2 September 1943

	NO.	TYPE	USE
Motor			
	1	2½-Ton Wrecker W/Winch	Wrecker
	1	3/4-Ton WC	Gas Truck
	1	1-Ton Trailer	Gas
	1	¼-Ton C & R	Motor Control & Light Maint. Jobs
Supply			
	1	¼-Ton C & R	Supply Officer
	3	2½-Ton trucks	Supplies
	3	1-Ton trailer	Supplies
R & M			
	1	2½-Ton SAR	Radio Repair Shop
	1	2½-Ton SAR	T & T Repair Shop
	1	K-52 Trailer	PE-95, Power for Radio Repair
	1	1-Ton Trailer	For PE-75 for T & T Power
	1	3/4-Ton WC	Spare parts and complete units in for repair at time of move.
DSO			
	1	¼-Ton C & R	Division Signal Officer
	1	2½-Ton Truck	Office Equipment
	1	¼-Ton trailer	Personal Equipment
Construction			
	6	2½-Ton W/Winch	Wire trucks with RL-26
	6	¼-Ton	Wire piking teams
	2	2½-Ton	Wire supply
	4	1-Ton trailer	Wire supply
	2	¼-Ton	Wire patrol & trouble-shooting
	2	3/4-Ton WC	Wire patrol & trouble-shooting
	2	¼-Ton	Wire Officers' reconnaisance
	4	¼-Ton trailers	Wire supply where 2½-Ton cannot get through
T & T			
	1	¼-Ton	T & T Officer
	4	2½-Ton	Pers. of teams
	4	1-Ton trailer	Equipment of Teams
	1	3/4-Ton WC W/Winch	Switch Teams.

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9TH SIGNAL COMPANY
9th Infantry Division
A.P.O. #9

2 September 1943

(Page 4)

	NO.	TYPE	USE
RADIO			
	2	K-51	SCR-299
	2	K-52 Trailer	PE-95
	6	K-51	SCR-193
	3	¼-Ton, 12 volt	SCR-193
	3	¼-Ton, Trailer	Equip. of men in ¼-Ton SCR-193
	1	3/4-Ton WC	SCR-284
	1	¼-Ton	Radio Officer
	1	1-Ton Trailer	Section Equipment
MSG.CEN			
	4	3/4-Ton WC	Team trucks
	9	¼-Ton	Messenger vehicles
	4	1-Ton trailer	Mesg. Cen. Equipment
R. I.			
	1	2½-Ton	Control Sec.
	1	2½-Ton	Intercept. Sec.
	1	K-52 trailer	PE-95 for Intercept. Power
	3	3/4-Ton WC W/Winch	Position Finder Teams
	1	3/4-Ton WC W/Winch	Wire Team
	4	1-Ton trailer	Section Equipment

TYPE OF VEHICLE	TOTAL
¼-Ton C & R	25
¼-Ton C & R-12 volt	3
3/4-Ton WC	15
K-51	8
2½-Ton truck	20
2½-Ton Wrecker	1
2½-Ton SAR	2
Total	74

TYPE OF TRAILER	TOTAL
1-Ton	24
K-52	4
¼-ton	8
Water trailer	1
Total	37

HENRY N. BLANCHARD JR.
Capt., Signal Corps
Commanding

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COPY

HEADQUARTERS COMPANY SIXTEENTH INFANTRY
APO #9. New York, N. Y.

27 August 1943

SUBJECT: Recommendations for changes and lessons learned from Husky operations.

TO : C. G., 7th Army, (Thru Channels).

1. Request for a lighter and more portable radio in the SCR 511, or the SCR 610 series. Experience has proven that the five and six hundred series are much too heavy to transport by hand and have to be mule packed.

2. New type cable on the SCR 511, present cable shorts out at the multiple connection and also breaks internally at the point where it joins the chest unit.

3. Wire W-130 be made in three colors, red, white, and blue, plus the standard black.

4. Ample wire W-130 be made available on DR-8, for use on a minutes notice.

5. Number of EE-8 telephones be raised from present eight (8) per Regt'l wire section to at least twenty (20), and from present five (5) per Battalion to at least ten (10).

6. Loading coils be added to wire equipment for Regimental section.

7. Black-out tents of the small wall type be issued to Message Center, and wire section of both Regiment and Battalion.

8. A device similar to the RL-39 or RL-27 be designed and issued to fit the DR-8.

9. Friction tape be made in two (2) widths, the standard width for W-110, wire, narrower tape to be used on the W-130 wire.

10. Experience has proven the standing Table of Organization is not providing a sufficient number of men to maintain wire over the extended Battale field of present day warfare in the infantry. We feel the number of wire personnel should be increased from the present twenty seven (27) to at least thirty five (35) men for the regimental section, and from the present eight (8) to at least twelve (12) in the battalion communications sections. Also another short-coming is the number of CW operators in Anti-tank Company, present number is three (3), should be increased to four (4). Cannon company should have provisions for a SCR 284 or an SCR 245 and four (4) operators. We have found the units needing the above during the past operations, and had to rectify the situation by supplying men from Regimental Hq Co. Subsequently short-handing the regimental section. The SCR 284 and four (4) operators are not called for under Cannon company's present T/O and T/BA, but there is a difinite need for this change. Another point is the additional rating it is felt is needed for a Signal supply sergeant. This sergeant should work at the R.S.O. and act as Signal Supply Center for the entire regiment. This has proven the only solution to Signal supply problems. It is recommended that this hold at least the rank of a staff sergeant.

/s/ DONALD H. WHALEN,
W. O., JG, 60th Inf.,
Regt'l Comm., Off.

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HEADQUARTERS FORTY FIFTH INFANTRY DIVISION
OFFICE OF THE SIGNAL OFFICER
A.P.O. 45, % POSTMASTER
NEW YORK, NEW YORK

23 August, 1943

SUBJECT: Report of Lessons Learned in Operation "HUSKY".

TO : COMMANDING GENERAL, Seventh Army.
(Attention: Signal Officer)

1. In compliance with letter, subject as above, file number 319.1-8, the following report is submitted in to parts as directed.

For the Commanding General:

HENRY J. HORT
Lt. Col., Sig. C.
Signal Officer

Incls: #1 Part I, Operation "HUSKY" Proper.
#2 Part II, Lessons Learned During Operation.

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Incl. #1

Part I, Operation "HUSKY" Proper.

1. For an Amphibious Operation, there is no need for a Signal Company (Special). This unit did not serve this Division any useful purpose during the operation. An addition to each Infantry Battalion of communication personnel and equipment, would have supplied a better contact. Additional Navy Personnel should direct the unloading of ships and small landing crafts. The trained personnel and valuable equipment of a Signal Company (Special) could have been used to a more useful purpose elsewhere.

2. This Division lifted more than 500 tons of Signal equipment in United States and North Africa, yet only have control of less than 100 tons. This was brought about by the direction of Signal Supply Officer, Seventh Army, that all signal equipment, regardless of markings would be placed in "ARMY DUMPS". Much loss of time and energy was caused by such an order. In future operations it is suggested that if a division lifts equipment that such equipment be available to that Division without any interference.

3. Early contact was made with the Task Force Headquarters, (CENT) by the early landing of a SCR-193 Radio Set, with the Division Signal Officer. This set was in the third wave of the assault battalion of the center beach. Due to wide landings and confused landings many infantry units did not have early contact. Some equipment was lost due to landing crafts being hung up on sand bars some distance out from shore, with water well over 5 feet deep between craft and shore.

4. In future operation the Signal Operation needs equal consideration with the G-2 or G-3 planning. This is necessary for intelligent planning of necessary equipment and operation.

For the Commanding General:

HENRY J. HORT
Lt. Col., Sig. C.
Signal Officer.

Part II, Lessons Learned During the Operation.

This report follows the guide given in basic communication.

1. Signal Corps Equipment.

a. SCR-511 is an excellent set but should be re-designed. More compact and be made a back-pack set.

b. Telegraph Set TG-5 in infantry units were not used. Excess equipment.

c. SCR-536 are of no special value to the Infantry Rifle Companies. Many were discarded in this Division. No personnel provided with units to operate sets. Each field artillery firing battery should be provided with two SCR-536 and two CE-11, Reel Equipment.

d. IE-17, four authorized per infantry regiment, only one required.

e. SCR-536 of infantry AT Co are of no value, SCR-510 or 610 should be supplied.

(1) Additional transportation required in infantry regiment - now authorized 8-¼ ton trailers. Require 5 additional and 1-3/4 ton truck.

(2) Covered in 1, a. above.

(3) None estimated at present.

2. Personnel.

a. (1) Infantry Communication Officer (Regt) should be the rank of Capt. in and on the Regimental Staff, separate from the Regimental Hq. Co.

(2) Additional maintenance men are required in each Infantry Regiment and Field Artillery Battalion. Two additional men are required to maintain radio equipment.

(3) Additional radios require additional radio personnel for all units.

b. (1) The Division Signal Supply Officer should hold the rank of a Captain. The duties of this office are as exacting as any branch and in this Division The Signal Supply Officer is a Warrant Officer JUNIOR GRADE.

(2) The Division Signal Officer's Section requires two assistants in the grade of one Major and one Captain. The Signal Officer cannot call upon the officers of the company for to be his assistants. Their functions are of highly technical nature and are required with their sections continously for successful operations.

c. Modification of present T/O, T/BA, or T/E.

(1) Given in above paragraphs.

(2) Radio Direction Finding Equipment SCR-206 now authorized for a Division Signal Company is of no value. This set should be replaced by Navy Set, Model DAG. This set is of portable type and much batter construction.

In general communications in this Division, both wire and radio were excellent during the operation. In many instances the equipment preformed beyond the designed limitations.

There is a great need for a Construction Battalion in Corps Organization. On several occasions the duties of the corps construction company was to great and impossible to perform.

.By authority of.
.CG 82d A/B Div..
.Initials RMB .
.16 Sep 1943 .

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HEADQUARTERS 82D AIRBORNE DIVISION
Office of the Division Commander

APO 469, U. S. Army.
September 16, 1943.

SUBJECT: Signal Communication, Operation HUSKY.

TO : Commanding General Seventh Army, APO 758, U. S. Army (Attention Signal Officer)

Pursuant to letter your headquarters, Subject, Report of Lessons Learned in Operation HUSKY, dated 30 August 1943, the following report is submitted:

PART I OPERATION - HUSKY

1. Communication between Division Headquarters in SICILY and Base Echelon at KAIROUAN.

a. An SCR 299 using a directional antenna mounted on thirty foot uprights was employed at KAIROUAN.

b. An SCR 284 equipped with an antenna from an SCR 188 was sent in with first parachute elements. No combat test of this arrangement resulted due to signal detachment being dropped near SYRACUSE instead of near GELA as planned.

c. An SCR 193 also with an antenna from an SCR 188 was brought over with a detachment of Division Headquarters on the MONROVIA. This set was mounted in a jeep and once ashore established and maintained radio communications with KAIROUAN throughout the operation.

2. Use of the SCR 193 mounted in jeep. At the suggestion of your Signal Officer an extensive use was made of the SCR 193 mounted in a jeep. This set proved to have a veriety of uses other than the special one noted above. It is especially valuable during a fast moving situation.

3. Division Signal personnel and equipment used during entire operation follows:

SCR 177 - To Seventh Army (furnished by Seventh Army)
SCR 193 - To Provisional Corps (furnished by Prov. Corps.)
SCR 193 - To KAIROUAN
3-SCR 193 - Division Command Net (Regimental sets furnished by Division.)
One wire construction team (Jeep w/RL 31)
One Messenger Jeep
One BD 96
Two BD 72
Twenty telephones
Three Officers
Eighty men

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PART II - Lessons Learned

1. The lessons learned was that to operate during a sustained ground action this Division requires the services of a Division Signal Company organized and equipped as is the signal company of an infantry division.

2. The question of transport for the heavy equipment of an infantry division signal company immediately arises. The answer is that during the airborne phase this Division must operate without proper equipment. Once the airborne phase is over however, heavy equipment must be provided if this Division is expected to function in a sustained ground action. This equipment is not available from other units:

PART III - Miscellaneous

1. Special equipment needs. The airborne division needs five light weight, long range radio sets capable of being dropped by parachute. Five of these are now under test.

2. Status of Officer:

Name	ASN	Rank	Date of Rank	SSN	Position of Vacancy
MOORMAN, Frank W.	0-19444	Lt. Col.	Oct. 8, 1942	04MI	Signal Officer
FURMAN, Robert E.	0-452756	Captain	Apr. 13, 1943	094B	C. O. Signal Co.
COOPER, William A.	0-452598	1st Lt.	Jan. 21, 1943	090W	Wire O (not in T/O)
NERF, Richard A.	0-452911	1st Lt.	July 20, 1942	09IS	Radio Officer
MARK, Robert G.	0-1633390	2nd Lt.	June 3, 1942	09Z3	Msg Center Off.
KACYZINSKI, Edward	0-908448	2nd Lt.	June 15, 1943	094K	Ass't Radio Officer (not in T/O)
CALDWELL, Ramon S.	W-21066182	WOJG	Apr. 12, 1943	04TA	Supply Officer.

For the Commanding General:

R. M. BRITTON,
Major, A. G. D.,
Adjutant General.

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HEADQUARTERS 2ND ARMORED DIVISION
APO 252, U.S. Army

August 24, 1943.

SUBJECT: Report of Lessons Learned in Operation "HUSKY".

TO : Commanding General, Seventh Army, APO 758, U.S. Army.
(Attention Signal Officer)

1. In compliance with letter, above subject, Headquarters Seventh Army, dated 20 August, 1943, a report is submitted herewith in two parts as directed.

For the Commading General:

R. H. SHELL
Lt. Col., A.G.D.,
Adjutant General.

Incl:
1. Report of Operation "HUSKY" (Part I).
2. Annex #1 to Part I, "Line Route Maps".
3. Report of Lessons Learned in Operation "HUSKY" (Part II).
4. Annex #1 to Part II, "Proposed Table of Organization for Armored Signal Battalion for an Armored Division.

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HEADQUARTERS 2ND ARMORED DIVISION
Office of The Division Signal Officer

PART I

REPORT OF OPERATION "HUSKY"

1. The assault wave of the 142nd Armored Signal Company with attached troops from 1st Armored Signal Battalion prepared for embarkation for the invasion of Sicily. Communications composed of six officers and one hundred fifty nine enlisted men were disposed as follows.

2. The main portion of the company was loaded and embarked on the LST No. 369. A provisional headquarters communication staff was organized and embarked on the U.S.S. Orizaba, headquarters ship of the Sub Task Force KOOL, from the port of Oran, Algeria on Monday, July 5, 1943. This staff consisted of Major Carmon L. Clay, Force Signal Officer; Henry J. Stuart, Executive Officer; 1st Lt. Edward D. Northrop, Signal Supply Officer and temporary Operations Officer; 1st Lt. Frank R. Hickory, Message Center Officer; seven enlisted men of the message center section; eight enlisted men of the radio operations section; one enlisted man of the Signal Office section; two enlisted men, officer orderlies; and one enlisted man, Signal Corps photographic attached from the 1st Armored Signal Battalion.

3. During the voyage through the Mediterranean Sea a small Army Message Center was operated to handle intra and inter ship traffic.

4. The attack on Sicily was scheduled to strike at 100345B July 1943. At 100001B July a full scale message center bagan operations. Radio stations manned by our own operators commenced operations aboard the Orizaba in the Force 343 Command Net, Force 343 "J" reporting net and KOOL Command net. At 100800B July a KOOL auxiliary SCR-509 net was opened. This was an unofficial net consisting basically of Headquarters Force KOOL, Headquarters CC"B" , Headquarters 18th Combat Team, The Beachmaster, and Headquarters 142nd Armored Signal Company aboard LST 369. Five reserve SCR-509's were held aboard the Orizaba to be dealt out as needed to staff parties as they went ashore. Subsequent events proved this improvised, highly flexible and elastic net, composed of dependable portable SCR-509 radios, to be priceless in that it was the sole means of communication available for command of Force KOOL and control of beach activities and unloading of vehicles and personnel as required.

5. At 101300B, Lieut. Hickory, two radio operators, Sgt.A.L. Smith and Tech. 4th Grade J.J. Diederich carrying two SCR-509 radio sets went ashore with Col. Perry, Chief of Staff of Force KOOL, and Col. Marvin, C.O. of the 540th Engineer Bn. Colonel Perry conferred with General Allen of the 1st Infantry Division ashore and returned to the Orizada. Lieut. Hickory and Sgt. Smith remained on Red Beach to maintain contact between the beach and the Orizaba. Tech. 4th Grade Diederich accompanied Col. Marvin to Blue Beach thus bringing that beach into our FM net. Bombing of both beaches by enemy aircraft was intermittent. By 102300B the entire KOOL Headquarters staff was ashore. In late afternoon Major Clay accompanied the bulk of the Staff in.

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In early evening, Lieut. Northrop accompanied the Force Commander ashore. Each increment brought with it an SCR-509 radio thus keeping the entire Force Headquarters linked together in spite of the apparently haphazard markamanship of the landing craft.

6. The initial C P of KOOL Task Force ashore was finally established about one half mile inland and three miles East of Gela early in the morning of July 11th. Our FM net was still our sole means of communication. Its composition was basically the same as afloat except that now the KOOL C P was ashore with an SCR-509 set remaining aboard the Orizaba, the Headquarters ship. From that time on the landing of troops and vehicles was directed by relaying requests over this net through the radio set aboard the Orizaba, thence over Navy channels to the ships concerned. A set with the 540th Engr. Bn. provided the means of requesting supplies as needed when they were landed.

7. Shortlay after dawn Capt. Stuart arrived at the C P with the remainder of the Signal personnel from the Orizaba after an all night march from the wrong beach. This provided sufficient personnel to operate an effective Message Center, though the nerve center of the C P was still an SCR-509 radio set located on the ground beneath a tree. In the late afternoon the efforts of Lieut. Northrop produced telephone communications with the 18th Combat Team, the 1st U. S. Infantry Division, and a little later the 540th Engr. Bn. In the meantime the C P was moved to a more suitable location about one mile more distant from Gela on the same beach road.

8. During the day of July 12th the news of a German tank threat started the FM net buzzing until a company of tanks of the 67th Armd Regiment was brought ashore just in time to repulse the attack. Two SCR-193 radios in 1/4 ton trucks were landed from the Orizaba and entered into the Force 343 Command and "J" reporting nets. Later that day Lieut. Hanson and Lieut. McNeil with the bulk of the Signal Company aboard the LST 369 arrived at the C P. We now had all our radio and wire equipment ashore and were ready to start full scale operations. A BD-72 switchboard was set up; local drops were laid within the C P; a line run to Headquarters CC"B"; and the improvised lines to the 18th C. T. and 1st. U. S. Infantry Division were replaced by our own lines. Due to the extremely bad sandy roads and lack of trees to facilitate overhead hanging of wire, constant trouble was experienced due to vehicles skidding and getting stuck in the sand thus chewing up the wire.

9. Because of the large amount of trouble experienced with the line to CC "B", a second one was laid on July 13th following a different route. This completed the development of wire facilities for this phase. (Line Route Map, East of Gela, dated July 13th, 1943, Map, Gela Sheet 272-11, 1/50,000, Annex # 1, A.)

10. Communications for Headquarters Force KOOL were then under full swing. In the meantime Lieut. Northrop assuming his role as Signal Supply Officer undertook the task of finding and accumulating sufficient signal supplies to anticipate and fill the shortages that would exist at the end of the attack which was about to start. There was no transportation available.

Badly needed wire, telephone, a switchboard and a quantity of miscellaneous equipment were accumulated thus establishing a nucleus of replacement supplies. As the action progressed units began to report losses of major items of equipment and Lieut. Northrop, having a definite objective commenced scouring the beaches and rummaging through dumps which would mysteriously disappear overnight and appear elsewhere with a new group of personnel in charge.

11. By July 14th and beach-head had been sufficiently extended so that it became apparent what the role of the Second Armored Division would be. The C P made its first move to a location one mile west of Gela. The town of Butera to the North was captured and the enemy pushed well beyond. Radio nets in operation at that time were the Force 343 Command and "J" Reporting nets, and the KOOL Command and Reconnaissance nets. All nets worked satisfactorily at this time. The Force 343 "J" Reporting did not come up to expectations as a reporting net, but proved to be of considerable value as a parallel channel to the Force 343 Command net which became so jammed with urgent messages that it was often impossible to clear any traffic in a reasonable time. Wire communication was maintained with major units of KOOL. (Line route map, West of Gela, Map of Italy, 1/50,000 Gela sheet 272-11 Annex #1B). A line was laid to Army Headquarters in Gela, one to the Ranger Bn. which had moved so rapidly toward and beyond Butera that it was necessary to attach a wire team to them. Lines were further laid to the medical detachment, a platoon of the 82nd Rcn. Bn., the Quartermaster warehouse and the Quartermaster ration dump. A move in the direction of Butera was contemplated and wire preparations were made accordingly. Plans were suddenly changed, however, and KOOL moved to Campobello where the 13th Combat Team was relieved from this force, Combat Command "A" rejoined and other units assembled to form for the first time in action, the Second Armored Division. Radio and wire communications were adjusted to accommodate the change in composition of troops. Lieut. McNiel laid wire lines as shown in line route map, Annex #1, C. The Division Administrative net was opened at this time in addition ot existing nets. During this period Lieut. Northrop, with some borrowed trucks was shuttling equipment from signal depots along the beach to a vacant building in the C P. By the time he was finished, the Division was ready to move on westward to begin the march on Palermo.

12. On July 19th the C P moved westward along route 115 to the vicinity of Porto Empedocle, just South of Agrigento where it spent the night anxiously awaiting orders as to whether the attack would follow the most direct northward route through Agrigento and Prizzi or the westerly route through the city of Castelvetrano. It was an anxious night for the Signal Corps, because in moving the C P, all radiovehicles had been left behind at the old C P to follow at a later hour. Heevy traffic, jammed by blown bridges delayed the arrival of these vehicles, and attempts to enter the Seventh Army Command net with a low powered set were unsuccessful because of extremely bad atmospheric conditions. At long last, the message came through we were to take the Castelvetrano route. The C P Moved on to Ribera on July 20th. With the westward progress of the attack, our advance

C P consisting of the Commanding General, G-2, G-3, the Artillery Officer, the Engineer Officer, and an advance communication group consisting of Major Clay, Signal Officer, Lieut. Hickory, message center officer, 5 mounted messengers, a skeletonized message center crew, and four radio cars operating tn the Division Command, Division Reconnaissance, Army Command and Provisional Corps Command nets. The Second Armored Division had come under the jurisdiction of the Provisional Corps, at Porte Empedocle. Traffic piled up in all nets during the march and Lieut. Hickory with his message center had his hands full during the following night unscrambled the mess. The Division Command Liaison net was the chief means of communication during such movements. On July 21st a new C P was established on the West bank of the Belice River between Nemfi and Castelvetrano. This consisted of the Commanding General and his staff. The entire Signal Company was left behind not to move until thirty minutes after the Chief of Staff moved. The only communication link with the advance C P was by means of the G-3 radio operating in the Division Command Net. Traffic on all other nets piled up. The Company was delayed in reaching the advance C P by a demolished bridge at the Belice River. Radio contact with Provisional Corps was useless because it refused to accept traffic while on the move. Once more Lieut. Hickory worked through the night clearing accumulated messages, while Lieut. Hanson, acting as courier delivered pending messages in person to Provisional Corps the location of which was discovered by questioning a passing officer. All messages were finally cleared at 0300 July 22nd.

13. At 0530B, the advance C P moved to a point several miles North of Castelvetrano, stopping only for several hours. CC "A"s dawn attack progressed rapidly northward with the Division C P following closely behing. A new C P was established the afternoon of July 22nd one mile South of San Guissepe Jato. By 1400B the leading elements of the division had arrived in Palermo. Advance elements were held outside Palermo until 1900B by Corps order. During the stay at S. Guissepe radio communications were very difficult because of unfavorable mountainous terrain. Throughout the northward march on Palermo. Lieut. McNiel with his wire teams was frantically trying to maintain continuity of wire communications, but the rapidity of the advance made this impossible even where existing open wire circuits were used to maximum advantage.

14. During the day of July 23rd, the occupation of Palermo continued. On July 24th the city was turned over to the 3rd U.S. Infantry Division. On July 25th the 2nd Armored Division C P was established on route 113, about seven miles North of Palermo. The Division was assigned an area of responsibility West of Palermo, and all units assembled generally West of Palermo along highway 113 to rehabilitate troops and perform badly needed maintenance of equipment. One day after the establishment of the C P the Signal Supply Officer arrived with about 25 tons of signal supplies and equipment and established a depot nearby. Within three days practically all major shortages within the division were filled.

15. Meanwhile, Lieut. McNeil was busy night and day exploiting and rehabilitating existing open wire circuits throughout our area of responsibility. Units of the Division were then assigned local zones for police and before long the Division was pretty well scattered throughout Western Sicily. Radio communication was used to full advantage to maintain communication at all times. The wire network was developed and expanded until by July 31st practically all units were being served by telephone. (Line Route Map, Annex # 1 F) The open wire network proved to be highly satisfactory with little natural trouble. However, there was still no rest for the wire section because of frequent sabotage of long lines.

ANNEX NO 1

LINE ROUTE MAPS

INCLOSURE NO. 2

LINE ROUTE MAP

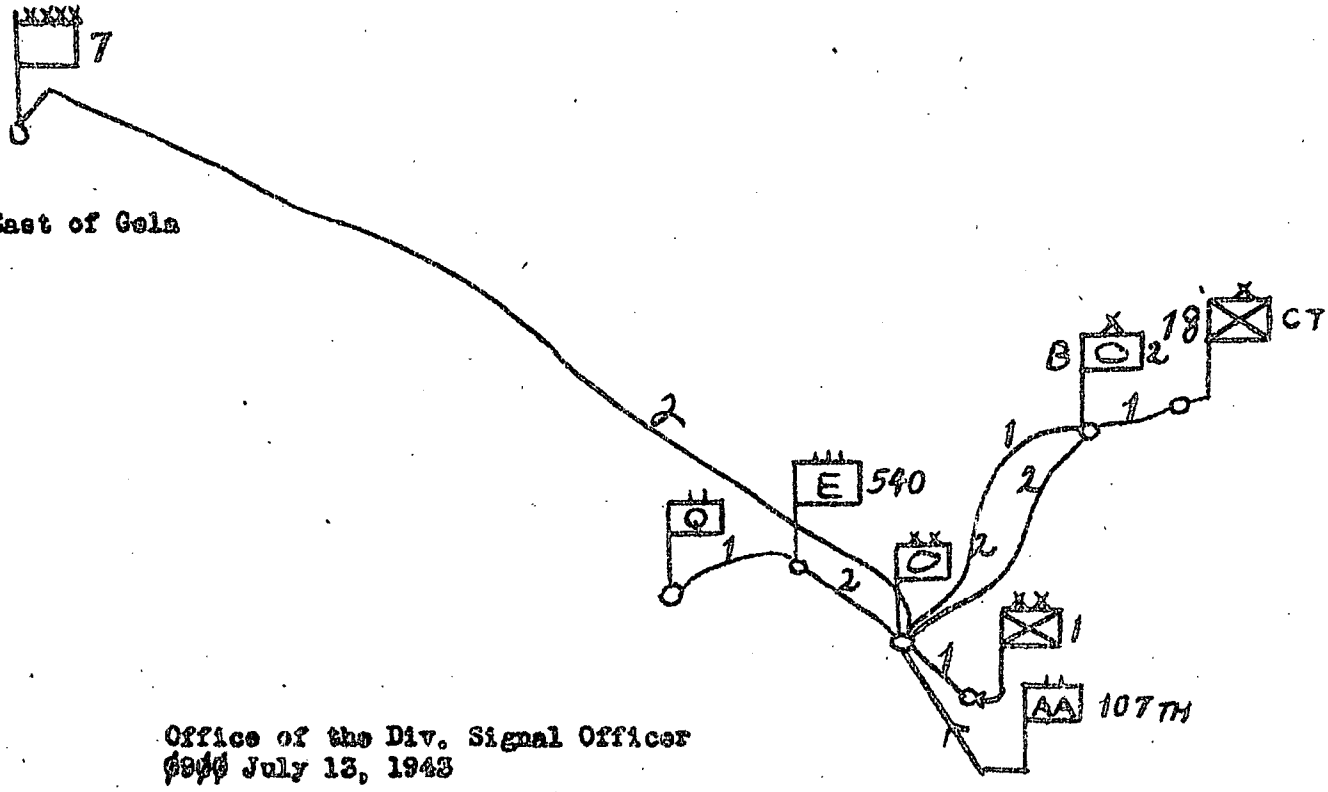
GKLA

SHEET 272-11

1/50,000

28

32

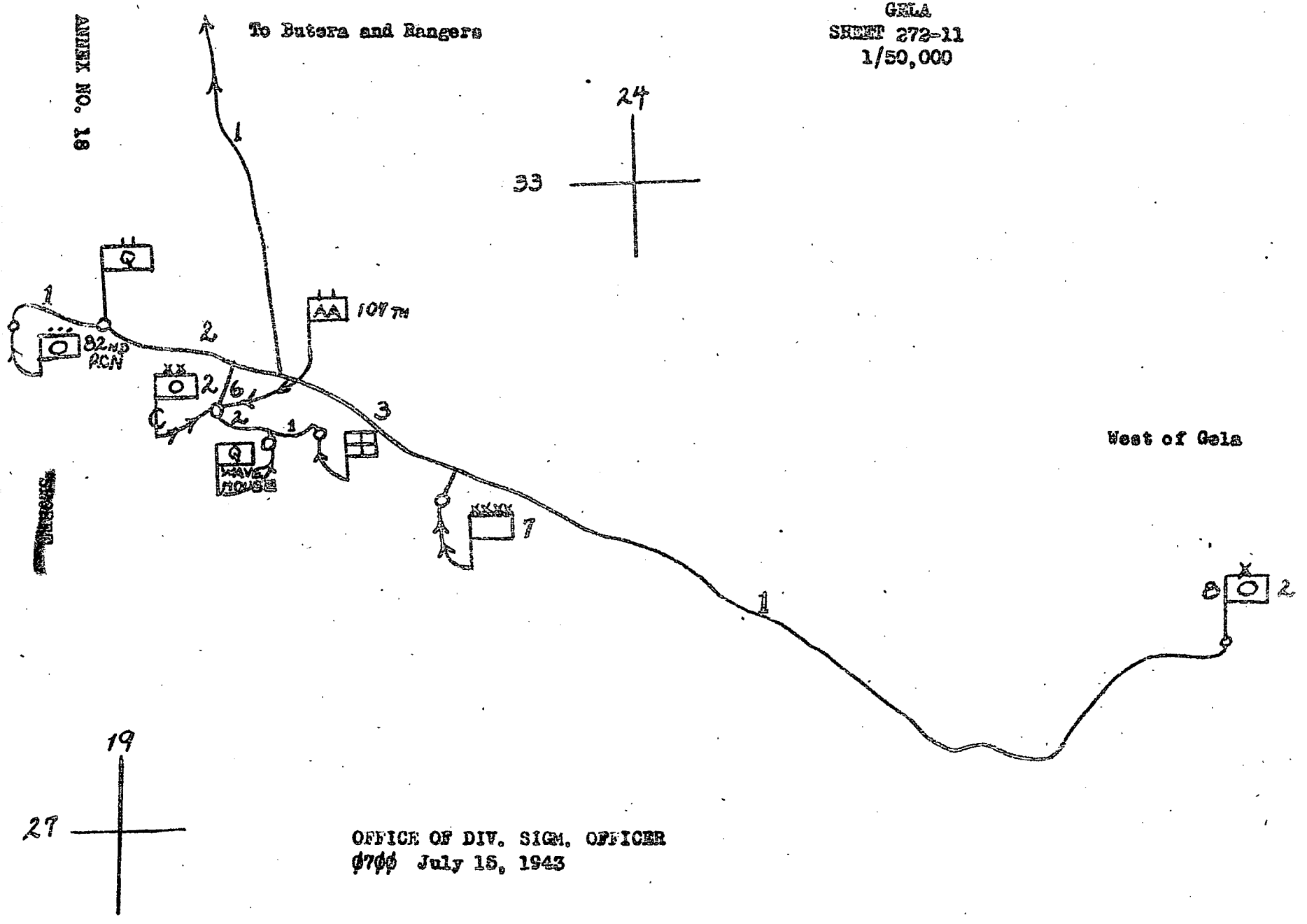


Office of the Div. Signal Officer
~~8946~~ July 13, 1943

ANNEX NO. 1 A

ANNEX NO. 18

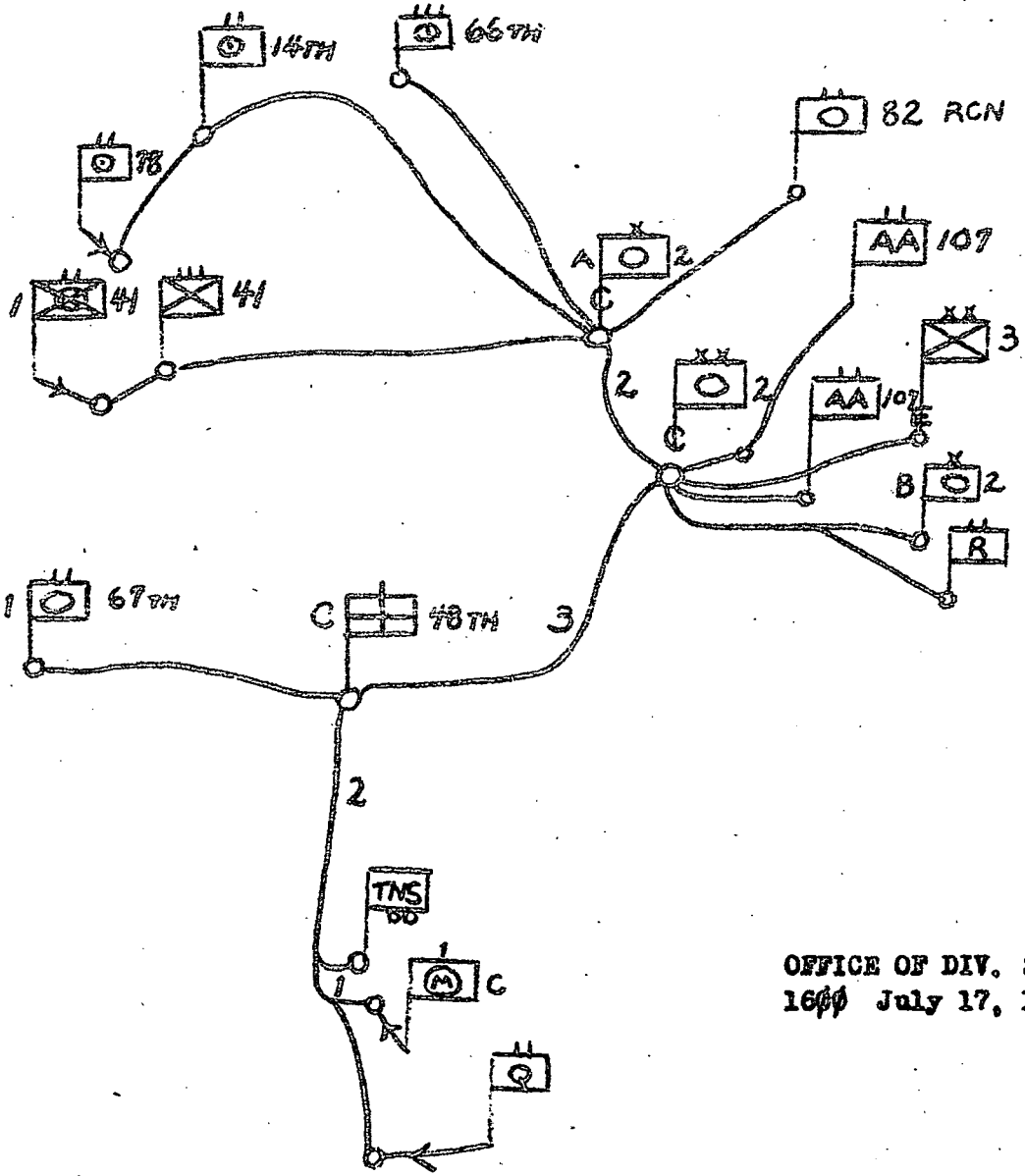
LINE ROUTE MAP
GELA
SHEET 272-11
1/50,000



OFFICE OF DIV. SIGN. OFFICER
0700 July 15, 1943

ANNEX NO. 1 C

LINE ROUTE MAP
MAP CAMPOBELA
1/50,000



87
66

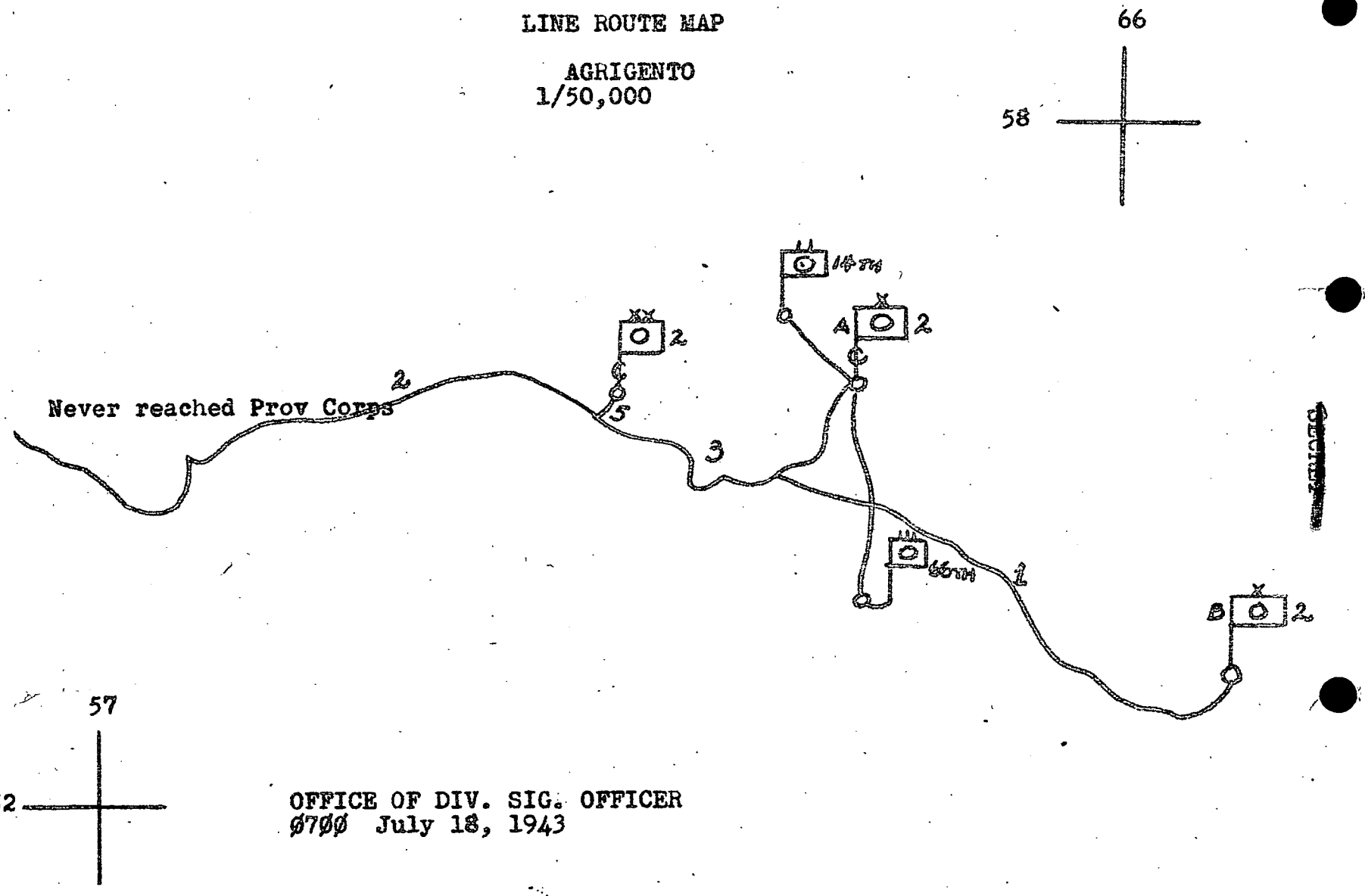
78
61

OFFICE OF DIV. SIG. OFFICER
1600 July 17, 1943

ANNEX NO. 1 D

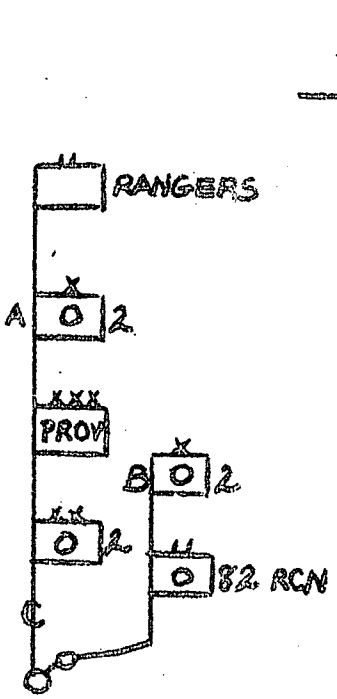
LINE ROUTE MAP

AGRIGENTO
1/50,000



OFFICE OF DIV. SIG. OFFICER
Ø7ØØ July 18, 1943

SECRET



LINE ROUTE MAP

MAP RIBERA
1/100,000

OFFICE OF THE DIV. SIG. OFFICER
ØBØØ July 19, 1943

66
30

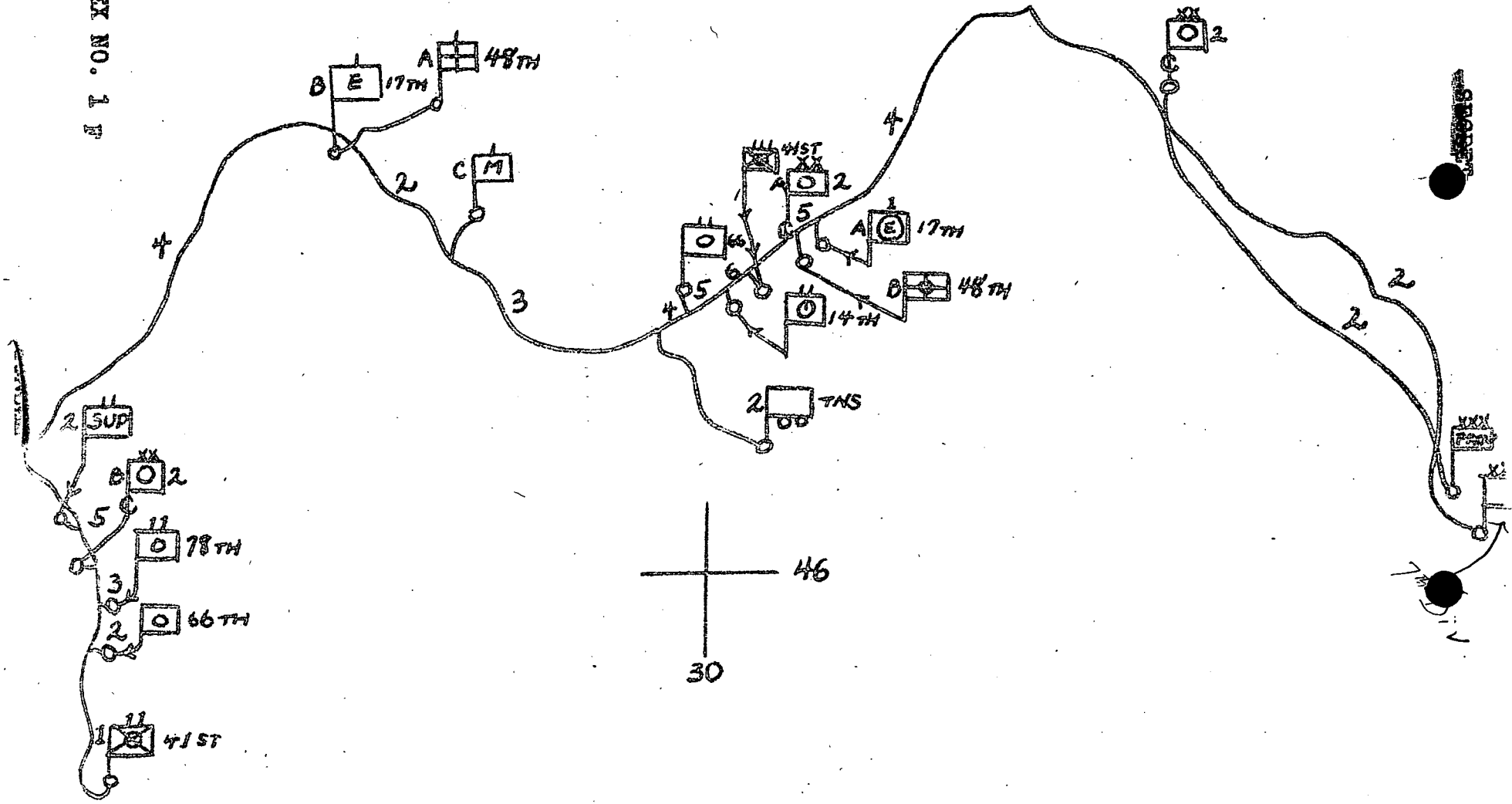
SECRET

ANNEX NO. 1 E

ANNEX NO. 1 F

LINE ROUTE MAP

MAP PALERMO
1/100,000



OFFICE OF DIV. SIG. OFFICER
Ø7ØØ July 31, 1943

HEADQUARTERS 2ND ARMORED DIVISION
Office of the Division Signal Officer

PART II

REPORT OF LESSONS LEARNED IN OPERATION "HUSKY"

1. Operations: Experience gained in Operation "HUSKY" have proven that current methods and practices in signal communication for an Armored Division are sound. "Army Code Sign System", "Combined U.S.—British Radio Procedure" and "Link Sign System" are satisfactory. Performance of equipment in general was excellent. Series "B" Radio Channels of Communication is fundamentally correct requiring occasional minor adjustments to meet a special situation.

2. Wire: The Sicilian Campaign proved that more wire communications are required by an Armored Division today than was conceived when Tables of Organization were written. Consequently, presently authorized wire facilities are not adequate to supply wire demands. Recommendations for modification of current Tables of Organization are included in paragraph 5. The particular advantage to be gained by exploiting existing open wire lines indicates a definite need for a small amount of open wire equipment to perform minor emergency repairs sufficient to permit use of the lines.

3. Equipment: The following deficiencies in Signal Corps equipment were noted as being very common among items turned in as unserviceable.

a. Mast section, MS-53. This item manufactured without a rivet securing the tip to the rod. This results in a separation of the two parts because of failure of the bonding material at the joint.

b. Mounting, FT-250-A. Almost all items of this type turned in for salvage are deficient in the same manner, that is, a fracture of the bottom part of the inner frame immediately adjacent to the bend.

c. Flashlight, TL-122-A, There is a large percentage of failures of this item due to the inadequate constructions of the switching mechanism. It is found by test that about 10% are deficient when unpacked.

4. Personnel: The following is a list of Signal Corps Officers on duty with the 142nd Armored Signal Company:

NAME	SER. NO.	RANK	DATE OF RANK	SPEC. SER. NO.	POS. VAC.
Carmon L. Clay	0-367907	Major	3-10-43	04M1	DSO
Henry Joseph Stuart	0-354006	Capt.	8-4-42	094B	ExO
Allen T. Messina		1st Lt.			Mtr Off
Edward Danby Northrop	0-401887	1st Lt.	1-12-43	09PM	Sig Sup
Carl Henry Hanson	0-452750	1st Lt.	1-12-43	091S	Opr Plat
Frank Richard Hickory	0-453822	1st Lt.	3-20-43	0923	Msg Cen
Nixon (NMI) McNiel	0-453856	1st Lt.	3-20-43	09QX	Wire Off
Charles Castor		1st Lt.			M/C Off
Charles D. Sanborn		2nd Lt.			RedM Off
Ernest Eugene Miller	0-2046459	2nd Lt.	5-3-43	094J	Opr Plat
Norman E. Dall		2nd Lt.		Asst	Wire Off

(Note: Officers for whom information is incomplete are with rear echelon of this organization.)

5. Table of Organization: Experience gained during the Sicilian Campaign has confirmed conclusions drawn from the Tunisian Campaign with regard to the necessity for having an Armored Signal Battalion in an Armored Division. Attached hereto is a proposed Table of Organization for an Armored Signal Battalion (Annex - 2). The battalion consisting of twenty-three commissioned officers and three hundred eighty-two enlisted men, has been designed on the operation of a smaller provisional battalion in operation in the 1st Armored Division since January 1942, and in the 2nd Armored Division since May, 1943. The battalion provides a communication platoon for each Combat Command Headquarters, and for a third Combat Team when necessary. The platoon leader is a Signal Corps Captain who is Signal Officer of the Combat Command and is responsible for all its communications. The platoon provides sufficient personnel and equipment to maintain continuous radio and wire communication with Division Headquarters. It is recommended that this T/O be adopted by Army and that the battalion be activated for immediate future use.

Inclosure No. 3.

HEADQUARTERS FIFTY FIRST SIGNAL BATTALION
OFFICE OF THE BATTALION COMMANDER
APO 758, U. S. ARMY

ARM/jjc

25 August 1943

PART I

OPERATION "HUSKY"

The 51st Signal Battalion played a small part in the operation, primarily the operation of communications for Seventh Army Headquarters during the last phases of the Campaign.

At the opening of the Campaign the 51st Signal Battalion, less "A" Company, less one section was operating and maintaining communication for the Rear Headquarters of Seventh Armyat Bizerte together with assisting the Eastern Base Section in rehabilatating the open wire and cable plant in the Bizerte Area. "A" Company less one section, was attached to 3rd Division for the initial phase. Eighteen men and one officer formed four wire teams to augment the teams from the Division Signal Company, and were attached to small combat teams of the assault force. The balance of the company, less one section, was held in reserve.

The wire team with the assault troops laid field wire, patched up existing Italian open wire and whatever was necessary to keep in wire communication for the combat units. On D + 12 the balance of "A" Company less one section, arrived in the vicinity of Lacata. There they were joined by the assault wire team and following the advance North, rehabilitated the existing open wire line from Agrigento North to Palermo, the final Headquarters of Seventh Army. On August 2, 1943, the bulk of the battalion arrived at Palermo. A small detachment had been left in Bizerte to operate the message center and radio nets for the Rear Headquarters of Seventh Army. "A" Company was returned to the control of the battalion shortly after its arrival in Palermo, and once again the battalion had control of all its elements. This was short lived however, as a detachment of "A" Company was sent to 2nd Armored Division to assist the Division Signal Company in building open wire lines.

The 51st Signal Battalion replaced the 1st Armored Signal Battalion in Palermo and took over the operations and maintenance of communications for Headquarters Seventh Army. The close of the Campaign found the battalion engaged in operating the main message center at Palermo; operating same Provisional Corps radio nets; operating and maintaining a local 10,000 line automatic telephone system, a TC-1, two telephone switching points, a 2 position BD-100 teletype switchboard, a teletype switching point; rehabilitating and maintaining the local civilian cable plant and open wire lines from Palermo South to Agrigento, East to San Stefano, and West to Alcamo; and repairing the underground cable from Palermo to Caltanissetta.

It was found in Sicily that local telephone system were owned by private companies. The long distance open wire circuits were not telephone circuits but telegraph circuits. One long distant underground cable was found running from east to west and dipping down to the center of the Island. This cable with repeater station and the open wire lines were under the control of the government. In order to establish talking circuits over the open wire it was necessary to transpose all lines. Other difficulties found in establishing open wire circuits were that the parts of lines demolished by shell fire, a certain amount of sabotage, different sizes and kinds of wire proved necessary to comprise a group, lack of sleeves for connecting wires necessitating soldered Western Union joints, and a great shortage of Signal Corps wire for repairing breaks in the line. Considerable damage to the local cable plant and automatic system in Palermo was found. This damage was the result of bombings, direct hits and flak.

All members of the command fell to with enthusiasm and worked from daylight to dark. Repairs to underground cable was carried on during the entire 24 hours of the day using blackout tents and blowers. Rehabilitation and repair of open wire is very difficult under blackout conditions.

PART II

"LESSONS LEARNED DURING THE OPERATION"

The subject can best be treated from the standpoint of the different sections. All remarks are based on the promise that this or a similar battalion will operate an Army setup.

MESSAGE CENTER

I. Equipment.

1. Signal. - All Signal Corps equipment was found to be perfectly satisfactory. An addition of three MC-88 Typewriters to message center is recommended, which would bring the total from two to five. The following amounts of special equipment is felt necessary for the efficient operation of two echelons of Army Headquarters; 4 Sigabar, 8 - M-209, 2 - M-138 and 4 - CH-76.

2. Other. - Fifteen ¼ ton trucks were used at the main headquarters and four at the rear echelon. It is recommended that the total number of vehicles for message center to operate two echelons be increased from fifteen ¼ ton trucks to twenty ¼ ton trucks and four ¼ ton trailers. It was necessary to use trailers frequently on the more important runs, to handle the volume of mail.

II. Personnel.

The following is a comparison of T/O with actual number of personnel used. The main headquarters required the majority of men as the rear echelon was very small. The forward echelon in this operation was handled by another battalion. To operate two normal echelons of Army Message Center the following recommendations are made.

	T/O	Actually Used in this Operation	Recommended of Operations of Two Echelons
Meassage Center Clerks	22	26	30
Code Room	9	16	24
Drivers	32	32	46
Officers	3	5	7
Total EM	63	74	100
Total Officers	3	5	7

RADIO SECTION

I. General. The radio section of the 51st Signal Battalion during "Operation Husky", operated one net at the rear echelon and only filled in with operators at the main headquarters. All remarks concerning this section is based only on observation and not on experience. Recommendations are based upon a twenty four hour operation of twelve nets.

II. Equipment.

1. Signal: All standard Signal Corps equipment was found to be satisfactory with the exception of the receiving whip antennas, on SCR-299's when operating over long distances, i.e., from Africa to Sicily. It was necessary to build flat top receiving antennas for the long distance nets. It is recommended that allowances of following be increased:

	TBA	Recommended
SCR - 299	3	15
Antenna Chests SCR -177 (Receiving Antennas)	0	6
MC-88 Typewriters	3	10
J-36 Speed Keys	6	10

It is further recommended that the four SCR-177's be dropped from TBA as the SCR-299 is more suitable for long distance Army Communications.

2. Other. An addition of one ¼ ton truck is recommended for this section.

III. PERSONNEL:

In order to carry out the operation of the twelve nets it is felt that an increase in enlisted personnel from 56 to 90 and officer personnel from 2 to 3 is essential.

WIRE OPERATIONS SECTION

I. EQUIPMENT.

1. Signal: All standard Signal Corps equipment was found to be satisfactory, with the exception of TBA volt meters which are designed for measuring DC only. It is recommended that the TBA volt meters be redesigned to include an AC scale or that AC Meters be furnished. Also a very important instrument

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which is not on TBA and not obtainable thru normal supply channels is a Wheatstone Bridge. This instrument is absolutely necessary for correct locations of circuit troubles. It is further recommended that all telephone and telegraph carrier and repeater equipment be eleminated from TBA and carried by Signal Depots for specific installations. A suggested change on design of equipment is attached.

2. Other: It is recommended that this section have its allowance of ¼ ton trucks increased from one to three. It is suggested tha following items of TBA equipment and material be dropped from this section as no use of it by this section is apparant.

10	Anchors	AH - 2
10	Anchor Rods	AH - 6
2	Auger	LC-34
2	Bar	LC-2
4	Bar	LC-3
500	Brackets	PF-57
4	Jacks	LC-13
2	Reels	RL-17
6	Shovels	LC-17
6	Shovels	LC-16
2	Support	FT-245

II. PERSONNEL: Experience has proven that an increase in telephone operating personnel must be increased from 22 to 48.

CONSTRUCTION COMPANIES

Construction Section

I. GENERAL.

It was found that where there is an existing cable plant it is best to set up a cable section. This section was set up under the supervision of a construction officer and all cable splicing teams were placed in this section. It was also found that for the most efficient and quickest method of clearing open wire trouble was the use of a party line dispatching circuit to trouble crews stationed along the route. As most routes are along railroads a handcar or motor car is a necessity. Fortunately in this operation a handcar was found and put to good advantage.

II. EQUIPMENT.

1. Signal: All standard Signal Corps equipment was found to be satisfactory, however many changes in construction companies' TBA are recommended based on six months of construction work since leaving the states.

a. Recommended additions.

	TBA	NEW
TE-92 (Block Set)	20	50
EE-8 (telephone)	24	36

	TBA	New
TE-27 (tool set)	4	8
Blow torch (for line crews)	0	8
Scolding irons (for line crews) #5 & #7	0	8
TL-143 (Sleeve Roller)	8	16
EE-65 (test set)	2	4
PO-6 (Pike Pole)	24	32
LC-3 (tamping Bar)	12	16
LC-47 (Running Board)	4	8
Wrench, crescent, 12"	0	48
RL-31 (Red Unit)	12	16
HM-1 (hammer)	12	48
Bridging connectors	0	500
Copper Wire .104	0	1000#

b. Recommended Deletions

(1) 400 reels of CC-358, Spiral - 4, and this to be carried in Depot stock for specific projects.

(2) 200 PF-25, crossarms, same as (1).

(3) Pole line hardware allowed on 10-1 be deleted 75%. This hardware is issued for specific projects.

2. Other. It is recommended that the construction companies have their TBA 3/4 ton trucks changed from five to eight. This felt necessary for the large number of small trouble crews used.

It is further recommended that each company of the battalion have its TBA changed to include a 250 gallon water trailer.

III. PERSONNEL:

It is felt that no change in the TO of construction companies is needed. However, it is recommended that a 15% overstrength of enlisted men be granted the battalion just prior to an operation. Experience has shown that this percentage is usually absent due to sickmen of wounds.

A. R. MORLEY
Lt. Col. 51st Sig Bn
Commanding.

1 Incl: Changes in Equipment.

CHANGES IN EQUIPMENT

1. Carrier telephone CF-1A, has worked on open wire lines quite a lot in North Africa and is being worked on open wire lines in Sicily.

2. We suggest that in the carriers manufactured in the future, a variable gain control be incorporated to adjust the transmitting level. This control should be arranged in the circuit to allow a higher level to be transmitted when working on open wire lines, and the range of the carrier would be increased. Also, the receiving level could be decreased there-by obtaining an improvement in the signal to noise ratio.

3. Commercial carriers similar to the CF-1A transmit a level of plus 18 DBM when working on open wire lines that have been carrier transposed. While the open wire lines in this country may not be carrier transposed, it is believed that a level greater than the set level of 1 DBM could be transmitted without causing cross-talk to adjacent circuits.

4. Another suggested change is that the wiring in the Panel BD-79 Main Frame be arranged differently so the coils may be easily connected between the protectors and the switch-board. The long distance circuits that wired to the coils, being longer than locals are liable to be damaged by lightning more than the locals. Therefore protectors should be on the line side of the coils.

MORRIS S. KNIGHT
1st Lt., 51st Sig Bn
Signal Corps

HEADQUARTERS 47TH INFANTRY
A. P. O. #9

24 August 1943

SUBJECT: Report of Lessons Learned in Operation "HUSKY".

TO : Commanding General, Seventh Army, (Attention Signal Officer)

1. From lessons learned during the operation "HUSKY" the following changes are recommended:

a. Signal Corps Equipment

1. The field wire W-130 was not satisfactory. Foot troops, sheep, goats, cattle, or mules walking across the W-130 wire broke it frequently or caused short circuits by breaking the insulation. It was impossible to install the wire overhead due to the lack of vegetation. A light field wire is needed by Infantry regiments. It is recommended that a wire similiar to the W-130 wire but with a braided cover be issued.

2. It is recommended that the codex machine be provided for the commanding officers of the Regimental, Anti-tank, Cannon, and Service companies, and for the leader of the Regimental Reconnaisance platoon.

b. Modification of present T/O.

1. Under the present T/O each infantry Bn is authorized four radio operators. During the operation "HUSKY" (and all other operations in which this regiment participated) the battalion communication platoons were required to operate a minimum of four radios. Thus, no reliefs were available. However, the radios had to be 'open' 24 hours a day. It is recommended that the present T/O for the infantry battalion communication platoon be changed to provide eight radio operators.

2. During the operation "HUSKY", wire communication was desirable down to rifle companies and to battalion OPs. The terrain was very mountainous and the highways were impassable to vehicles initially due to blown bridges and anti-tank mines. Thus, it was necessary for the battalion communication platoons to carry their wire and equipment by hand. Each battalion is authorized four linemen. It was practically impossible for four men to install and maintain the wire lines desired by their battalions. Lines were broken frequently by artillery or mortar fire, by animals, vehicles and, in a few instances, by civilians or enemy patrols.

It is recommended that the Infantry Battalion communication platoons be authorized eight linemen.

c. Modification of present T/BA's.

1. Under the present TBA, each battalion communication platoon is authorized two $\frac{1}{4}$-ton trailers. In these they have to carry at least ten miles of wire, spare batteries, tape, spare parts for radios, switchboards, BD-71, five telephones, and other

authorized signal equipment. The total weight of the equipment which has to be carried in these two ¼-ton trailers amounts to 2500 lbs. (wire equipment, approx. 1500, radio equipment and batteries, approx 1000.)

The regimental communication platoon is authorized two ¼-ton trailers to carry its wire (26 miles of W-130 and 26 miles of W-110) which weights approximately 2½ tons; its maintenance equipment and batteries, weighing approximately ⅓ tons; and other authorized equipment, weighing approximately ½ ton.

During operation "HUSKY", it was necessary for the battalions and the regimental communication platoons to shuttle their equipment forward. This interfered with the efficiency of the platoons. Vehicles had to be sent to the rear to bring up the balance of the equipment and sometimes it was late in getting forward - especially during rapid advances.

It is urgently recommended that the present T/BA's be modified to provide on 3/4 ton 4 x 4 truck for each infantry battalion communication platoon and one 2½ ton 6 x 6 truck and an additional two ½-ton trailers for the regimental communications platoons.

2. The communication platoons within the infantry regiment do not require the complete linesman equipment, TE 21. Only the climbers, LC 16, the belt and safety strap are required.

It is recommended that only the climbers, LC 16, the belt, and safety strap of the linesman equipment TE 21 be authorized for infantry regimental and battalion communication platoons.

By order of Colonel SMYTHE.

/s/ REGINALD L. RILEY,
Reginald L. Riley,
Captain, 47th Inf.,
S-3.

SECRET

128th Signal Radio Intelligence Co.
A. P. O. # 758, U.S. Army

21 August 1943

SUBJECT: "Operation Husky", Part I.

TO : Commanding General, Hq. Seventh Army, A. P. O. # 758.
(Attention: Signal Officer)

1. It was planned to place in operation, three operation teams of the same experimental type used with success in the Tunisian Campaign.

2. These teams were to be equipped only with personnel and equipment needed for efficient operation and to be as streamlined as possible. All three teams were to work as a complete unit until such time as it was decided that they could be transported to the scene of the operation. Information gotten while working as a whole unit was to be relayed from the control station to communication teams who were to accompany the two assaulting forces who in turn would relay received information to the two associated G-2's.

3. The forming of the teams and the communication teams were accomplished on schedule and as planned. Communication was established between the control and the two communication teams on D plus 3, but it was found that interception was impossible from the distance designated for the unit to work. This was noted two days after the operation was launched. The original plan was that the entire organization would embark from North Africa as a whole unit when a beachhead of approximately twenty thousand yards had been secured which was contemplated to be about D plus 20. The organization did not embark from North Africa until 10 August, Arriving in Sicily on 12 August and was in position for operation on 13 August, Hq. Section with 7th Army at S. Stefano, and Detachment No. 2 with II Corps at Cesaro. Hq. Det. Later moved to vicinity of Naso. In the short time that remained before the end of the campaign, enough operation was accomplished to prove that each section was working according to plans, efficiently and well.

4. It is felt that in future operations, these sections will prove their worth operating as they now are.

/S/ SHANNON D. BROWN,
Shannon D. Brown,
Capt., Signal Corps.,
Commanding.

SECRET

128th Signal Radio Intelligence Co.
A. P. O. #758, U. S. Army

21 August 1943

SUBJECT: Lessons Learned on Operation Husky, Part II.

TO : Commanding General, Hq. Seventh Army, A. P. O. # 758.
(Attention: Signal Officer)

1. Signal Corps Equipment

a. Interception of the type of traffic wanted (tactical), cannot be accomplished from any great distance from the actual line of battle. The intercept station should be no further back than the Advance CP of Army or Corps. This also assures very close liaison between unit and G-2, who is primarily interested in the results obtained.

b. The equipment used was the same type used satisfactorily in the Tunisian Campaign and here again also has proved very satisfactory except the Power Units, PE-75, which have proven very unsatisfactory for continuous operating under the amount of load which is required to be put on them. Each section should have at least two PE-95's with two PE-75's as auxiliaries. It is suggested that 2½-ton GMC Van bodies be substitued for the 2½-ton cargo trucks now being used for set trucks because of the deterioration of the tarpaulin tops and the sets cannot be protected from the elements.

c. Following is a list of equipment used by this organization which in some cases is not full T/BA, and in others, over. The remainder of the T/BA is not necessary:

	T/BA	Required
Axle, RL-27	3	3
Coil, C-114	50	50
Coil, C-161	10	5
Frequency Meter, SCR-211	6	6
Mine Detector, SCR-625	5	5
Power Unit, PE-75	7	11
Power Unit, PE-95	4	4
Lineman's Equipment, TE-21	6	6
Radio Receiver, BC-342	19	19
Radio Set, SCR-188	3	3
Radio Set, SCR-244	10	10
Radio Set, SCR-284	9	9
Radio Set, SCR-206	6	6
Radio Set, SCR-255	1	1
Radio Receiver, BC-787	9	9
Radio Receiver, BC-779	2	2
Radio Receiver, BC-344	1	1
Plotting Board, ML-122	1	1

	T/BA	Required
Knife, LC-14-A	3	3
Reel Unit, RL-26	3	3
Reel Unit, RL-31	3	3
Switchboard, BD-71	2	2
Switchboard, BD-72	1	1
Switchboard, BD-100	1	1
Telegraph Printer, EE-97	6	6
Telegraph Set, TG-5	9	9
Telephone, EE-8-A	30	30
Test Set, I-56	5	5
Test Set, EE-65	1	1
Tool Equipment, TE-33	135	135
Tool Equipment, TE-41	6	6
Tool Equipment, TE-45	7	7
Tool Equipment, TE-48	6	6
Tool Equipment, TE-49	7	0
Tool Set, TE-6	2	2
Tool Set, TE-11	1	1
Voltmeter, I-50	1	1
Wire, W-110-B	50 mi	50 mi
Typewriter, MC-88	34	13
Signal Generator, I-72	6	1
Recorder, Equipment, RC-17	5	2
Charging Set, SCR-169	2	2
Axe, LC-39	3	3
Bar, LC-2	3	1
Chest, BC-5	21	21
Flashlight, TL-122-A	95	95
Gauge, TL-144	3	3
Gloves, LC-29	1	3
Hammer, HM-1	3	3
Hammer, TL-39	3	2
Holder, M-167	12	8
Lance Pole, PO-2	45	24
Protector, AR-6	20	20
Saw, TL-104	3	2
Wire Pike, MC-1	6	6
Wrench, TL-108	6	6
Terminal Strip, TM-184	15	13
Tungar Charger, (1-24 batteries)	1	1
Tungar Charger, (1-12 batteries)	2	2
Head Set	50	50
Cipher Device, M-94	7	7
Loud Speaker, LS-3	5	5
Trailer, 1/4 ton, 2 wheel cargo	19	19
Trailer, 1 ton, 2 wheel cargo	5	12
Trailer, Semi, 6 ton gross	11	2
Truck, 1/4 ton, 4x4, C&R	4	4
Truck 1/2 ton, 4x4, C&R	0	1
Truck, 3/4 ton, 4x4, C&R	0	2
Truck, 3/4 ton, 4x4, WC	15	16

	T/BA	Required
Truck, 1½ ton, 4x4, Cargo	0	2
Truck, 1½ ton, 4x4, Panel	0	2
Truck, 2½ ton, 6x6, Cargo	3	2
Truck, Tractor, 4-5 ton, 4x4	11	2

2. Personnel

a. The T/O for this organization calls for 7 officers, 1 Warrant Officer, and 251 enlisted men, divided into various operating detachments. The forming of this organization has been somewhat different in this respect.

It is divided into three complete operating sections resembling three separate companies in that they are set up with all the operating functions of a company (2 of which operate less supply and administration) and are absolutely self contained and self sufficient:

Hq. Det. consists of Hq., Supply and Administration.
3 officers and 130 enlisted men.

2 Dets. (less supply and administration)
2 officers and 91 enlisted men.

b. Officer personnel Roseter

Commanding Officer, Shannon D. Brown, O-450808, Capt., Sig. Corps, 10 December 1942, 094B
Supply and Motor Officer, Phillip L. Dunn, O-1633183, 1st Lt., Sig Corps, 19 December 1942, 094K
Platoon Commander, Frances H. Smith, O-453915, 1st Lt., Signal Corps, 7 February 1943, 094K
Communications and Intercept Officer, Willliam N. Papian, O-483858, 2nd Lt., Signal Corps, 23 July 1942.

3. Miscellaneous

All detachments are so equipped in regards to transportation that no installation need be removed from its vehicle, which in this case necessitates substitution of various vehicles as are authorized per T/BA.

/S/ SHANNON D. BROWN,
Shannon D. Brown,
Captain, Signal Corps,
Commanding.

SECRET

177th SIGNAL REPAIR COMPANY
APO 434 U. S. Army

25 August 1943

SUBJECT: Report of Lessons Learned in Operation "HUSKY". (Part II)

TO : Commanding General, SEVENTH ARMY, APO 758, U. S. Army.

Attention: Signal Officer.

1. The best Tactical use of a reapir detachment is with an S & I detachment at a forward signal dump. The repair detachment should be free to send sections on detached service where most needed, and to use the signal dump as a base of operations. All equipment should be thoroughly checked and serviced prior to any operation.

2. The following units of signal equipment were found to have faults as noted.

a. SCR-284 - PE-103 safety switches require adjustment too often, and are not needed. Condenser across keying circuit should have greater breakdown voltage.

b. SCR-299. Shorts and opens found in control wiring.

c. SCR-509, 510, 609, & 610. All cordage requires frequent replacement. Does not remain aligned, due to vibration in use. Filament resistor, and bleeder resistor in power pact burn out frequently.

d. SCR-511. Pedestal casting often broken. Cordage requires frequent replacement.

e. SCR-536. Push to talk switch breaks due to mechanical weakness. Antenna switch requires adjustment or replacement.

f. SCR-593. Speaker often ruptures due to blast. AN 75 and cord replaced frequently.

g. BC-312 and 342. Dynamotor, DM21, and Rectifier RA20 require frequent replacement and are hard to obtain.

h. BC-191. Keying relay contacts burn and require replacements.

i. Note: VT-171, 172, 173, and 174 require very frequent replacement in all sets.

j. RL-26. Although considered obsolete, many Lauson motors are found in operation.

3. A wire repair section should be equipped with the following machine tools for manufacturing small parts which are not obtainable.

a. Small bench lathe.
b. Milling machine.
c. Manually operated press.
d. Instrument repair kit.
e. Motor Vehicle Mechanic's Tool Set.

4. The T/O of the wire section should be changed as follows:

a. Section Leader, 097, Technical Sergeant.
b. Telephone Repairman, 097, Staff Sergeant
c. Telephone Repairman, 097, Technician Grade 5
d. Teletype Repairman, 239, Technician Grade 4
e. Electrician, Motor Repairman, and instrument Repairman, 338, Technician Grade 3

SECRET

Ltr. 177th Sig. Rep. Co., 25 August 1943, Report of Lessons Learned in Operation "HUSKY". (Continued).

f. Machinist, 114, Technician Grade 4
g. Mechanic and Driver, 014, Technician Grade 4
h. Driver, 345, Private
i. Note: Present T/O does not include motor mechanic, and contains eleven men. This number is too large. The bulk of wire repair work is on Power units and reel units.

5. The following items of T/BA in wire repair truck are not needed.
a. Individual tool sets should be revised to conform with proposed T/O.
b. Wire Chief's Test Set.
c. TE-47 should be revised to omit the bulk of spring benders and common battery equipment.

6. The following items are required for alignment of SCR-536 and SCR-522 or 542.
a. Test Set IE-17, one per radio section.
b. Test Set IE-19, one per radio section.
c. Test Set for BC 603 and 604.

SEARS WILLIAMS
1st Lt., Sig. C.

SECRET

HEADQUARTERS
206TH SIGNAL DEPOT COMPANY
APO 758, U. S. ARMY

JMT/lgb
25 August 1943

319.1-S

SUBJECT: Report of Lessons Learned in Operations "HUSKY".

TO : Commanding General, Headquarters Seventh Army, APO 758, U. S. Army.
Attention: Signal Officer, Headquarters Seventh Army, APO 758, U. S. Army.

1. In compliance with letter your headquarters, file and subject as above, dated 20 August 1943, the following report is submitted by this unit:

a. Operation of Husky Project.

(1) S & I Sections are not allowed sufficient transportation. At present one 3/4-ton Weapons Carrier is all that is allowed. A minimum of two 2½-ton cargo trucks are needed by each section.

(2) The strength of an S & I Section should be increased to at least thirty (30) men. In all cases the S & I Sections were required to furnish their own mess and administration facilities and no provisions are made for this in our present T/O. It is recommended that one clerk, one second cook, one chauffeur, one mechanic, one radio man and two basics be added to the present T/O strength of an S & I Section.

b. Lessons Learned During the Operation.

(1) PE-95. Gas and oil lines going bad; no spare parts available. Recommend this line be clamped of tied down in some manner to prevent vibration.

(2) PE-75. Will not stand up under constant operation. No spare parts kits have been available to repair worn PE-75.

(3) SCR-625. Oscillator coil and transformers burn out.

(4) SCR-593. Speaker voice coil burns out. Sometimes speaker cone is damaged from gun blasts. Antenna cable breaks from mechanical strain. Suggest separate carrying strap instead of cable.

(5) SCR-509, 510, 609 and 610. Cable and plug break down frequently causing shorts.

(6) SCR-511. The aluminum pedestal breaks. Cords also break down.

(7) SCR-536. The "press-to-talk" switch breaks and antenna switch wears out.

(8) Dynamotor unit on BC-312 and rectifier unit on BC-342 frequently burn out and no replacement parts are available.

(9) Decided shortage of spare parts kits for most types of Signal equipment. Many items are salvaged because of the shortage of spare parts. Spare parts kits should be revised to cover characteristic troubles of the sets. Spare parts kits should contain more cordage.

c. Personnel - List of Officers and Assignments.

Serial No.	Name	Grade	Duty
O-473830	Tallman, John M.	Capt.	094B
O-1634579	Burns, Robert W.	1st Lt.	154B
O-1640086	Trousdale, William D.	1st Lt.	154B
O-1635449	Voskuil, Homer J.	1st Lt.	124B
O-1640964	Smith, Raymond C.	2nd Lt.	154B
W-2104618	Yeates, Harris S.	C WO	9927
W-2118437	Brooks, Paul K.	WO (JG)	9907
W-2108364	Fennell, James R.	WO (JG)	9907
W-2106261	Melore, Vincent A.	WO (JG)	9927
W-2118438	Zuercher, Robert W.	WO (JG)	9901

d. Modification of T/BAs.

(1) Addition: ME-13 not included in Depot Company T/BA. This set is essential for repair section. Suggest four be added to T/BA immediately.

(2) Addition: No tools or information are furnished for use of our meteorological repair section. Suggest necessary tools and information be allowed on T/BA for this section.

(3) Deduction: TE-44 tool equipment. No use has been made of this item and it is too bulky to carry as part of T/BA.

JOHN M. TALLMAN
Capt., 206th Sig Depot Co.
Commanding.

LIBRARY
ARMED FORCES STAFF COLLEGE

[redacted]

229TH SIGNAL OPERATION COMPANY
A. P. O. # 758, U. S. Army

25 August 1943

SUBJECT: Husky Operation - Part I.

TO : Commanding General, Hq. Seventh Army, APO # 758, U. S. Army.
(Attention: Signal Officer)

1. The 229th Signal Operation Company is set up to operate all types of wire communication, particularly in a fixed plant basis. It has a complete Installation and Maintenance Platoon. Also a complete Radio Platoon which is self sufficient in equipment and maintenance. The entire company arrived in Licata, Sicily, 18 July 1943. Annex 10 to Field Order No. 1, called for a detachment of approximately one third of the company to arrive D / 8. Due to the rapidly moving events, the entire company was ordered to Sicily D / 8.

2. The mission of the company in the Husky Operation was two-fold and carried out fully. Fixed plant installations were taken over and operated thereby releasing for new assignment other units which had preceded this organization. These fixed installations included locations at Gela, Licata, Agrigento (later Porto Empedocle), Naro, Canicatti, Caltanissetta, and at the Base Area Group Headquarters. At Gela and Licata manual Italian telephone switchboards were repaired and placed in service. At Agrigento the Ereckson Automatic telephone exchange was repaired and placed in service. The second part of mission was to rehabilitate, repair, and use open wire circuits wherever possible to replace field wire. This amounted to a great deal more construction than at first anticipated because it was soon apparent that open wire circuits had to be substituted for Spiral Four Cable in all parts of the southern sector. This was due to sabotage and damage caused by grass fires, metal rims on cart wheels and military vehicles. Sabotage greatly hindered rehabilitation of open wire circuits but was easier to control.

3. a. Generally speaking, Signal Corps equipment gave excellent performance. The following detailed items came to our attention:

(1) Wire, 110-B, and Spiral Four easily destroyed by cutting on hard, stoney, surface when run over by metal rim carts and military vehicles. Also both easily destroyed by head from numerous near-by grass fires.
(2) Telering not adjustable to frequencies from 50 to 60 CPS.
(3) TC-3 (BD-100) shipped without literature and specifications.
(4) Fuse brackets of BD-100 broken loose at spot weld, causing open circuits.
(5) Broken jumper connection FM-19 of TC-1 switchboard due to insufficient bracing of verticals of FM-19.

[redacted]

(6) PE-75 and PE-97 generators required relatively high maintenance when run continuously. T/BA quantity does not allow for alternate running of generators.

b. Radio Communications.

(1) SCR-177-B and SCR-193 did not possess sufficient power output for the radio mission of this company in Operation Husky.

(2) Many trouble conditions caused by excessive vibration experienced in SCR-299 mounted in half tracks. Most common among these is that of damaged tubes.

(3) Helmet and lines not usable with regular radio headsets.

4. a. The following items were found essential to performing company's mission in Wire Communication:

(1) Additional EE-65 and I-49 test sets.
(2) Buffalo grips LC-11 or blocks.
(3) Additional Linesman equipment.
(4) Splicing sleeves of various types.

b. Radio

(1) Signal Generator.
(2) Frequency Meter such as SCR-211-C.

c. Message Center

(1) Two (2) 138-A Ciphers
(2) One (1) M-131-A Scrambler

d. Telephone Operation

(1) Three (3) M-1 Twenty-four clocks.

5. a. Modification Desired - Wire Communication.

(1) Adjustable frequency control on Telering.
(2) Lock in on TC-1 for recall on magneto line circuits.
(3) Self restoring magneto drops on TC-1.
(4) Larger fuel tanks in PE-75, PE-77, and PE-201.
(5) Improvised suppressor circuits on TG-7-A and No. 19 Teletype Printer machines.
(6) Main Frame, FM-19, of TC-1 be better braced.

b. Radio Communication

(1) A versatile antenna coupling circuit supplied with SCR-299 to facilitate use of more efficient antennae would have been desirable in Operation Husky.

(2) Power transformer of SCR-299 supplied with variable primary windings and heavier iron cores to facilitate use of commercial power.

c. Message Center.

(1) Sparking at SIGABA contacts better suppressed to reduce noise and wear.

(2) Printing paper for M-209A converter should have glued backing.

(3) MC-88 typewriter should have clip arrangement to hold printing paper of SIGABA or M-209A.

6. New equipment needed - Wire Communication

(1) New Hybrid Coil set for use with Carrier (present Carrier - three (3) telephone channels and four (4) telegraph channels - operate over one (1) open wire pair in place of two (2) open wire pairs).
(2) Static Sub-Cycle Frequency Converter.
(3) Linesman Volt-Ohmeter.

b. Radio

(1) HS-30 Headsets permitting use of helmet.
(2) HO-17 and 2½ ton trucks in place of half tracks.

7. a. Personnel - Wire

(1) One (1) Construction Section for Installation and Maintenance Platoon.

b. Message Center

(1) Six (6) additional code clerks (806)

c. Telephone Platoon

(1) Ten (10) additional Common Battery Operators (741)

d. Headquarters Platoon

(1) One (1) additional company clerk (405)
(2) One (1) additional auto mechanic (014)
(3) Ten (10) additional drivers (345)

e. List of Officers

Name	ASN	Rank	Date of Rank	SSN	Vacancy Occupied
Brady, Robert J.	0-441644	Capt	19 Oct 42	0220	Commanding Officer
Shaughnessy, William F.	0-441890	1st Lt	31 Mar 42	0410	Wire Officer
Chamberlain, Edward N.	0-472488	1st Lt	4 Jun 42	0221	Telephone Officer
Selover, Victor R.	0-441926	1st Lt	19 Oct 42	0221	Msg Cen Officer
Holman, Charles S.	0-372502	1st Lt	1 Feb 42	0410	Wire Officer
Cathcart, Robert D.	0-1634603	2nd Lt	13 Aug 42	4401	Adm & Sup Officer
Cronin, William J.	0-1635536	2nd Lt	13 Aug 42	0221	Msg Cen Officer
Tetreault, Normand E.	0-1635403	2nd Lt	13 Aug 42	0500	Radio Officer
Koch, Kenneth J.	0-1637844	2nd Lt	16 Oct 42	0221	Teletype Officer
Lettire, William J.	0-1637925	2nd Lt	16 Oct 42	0420	Wire Officer
Brown, Frederick R.	0-1640633	2nd Lt	19 Jan 43	0221	Msg Cen Officer
Chase, Vernon R.	W-2109931	WOJG	20 Dec 42	0500	Radio Officer

ARMED FORCES STAFF COLLEGE

8. Modification of T/O 11-97, 1 April 1942

a. Officers

Addition of two (2) Msg Cen Officers (2nd Lt), SSN 0221.

b. Enlisted Men - Wire

(1) One (1) Construction Section

(a) One (1) Construction Foreman (S/Sgt)
(b) One (1) Sub-Foreman (Sgt)
(c) Eight (8) EM (2-T/4, 2-T/5, 4 Pvts)

(2) Message Center

Six (6) code clerks additional, making a total of twelve (12), and ratings modified as follows:

3 - Sgts, being an addition of two.
3 - T/4, being an addition of three.
3 - T/5, no addition.
3 - Pfc, no addition.

(3) Telephone

Ten telephone (CB) operators (741) making total of thirty five (35) and rating arranged as follows in order to operate several boards with shifts.

One (1) S/Sgt - additional
One (1) Sgt - in present T/O
Four (4) Cpls - two in present T/O
Four (4) T/5 - two in present T/O
Twenty-five (25) Privates

(4) Headquarters Platoon.

1 - Mechanic (014) T/5
10 - Drivers (2 per 5 extra ½ ton trucks in Msg Cen)
1 - Company Clerk extra (405) T/5 (Company Clerk in present T/O changed to T/3)

9. T/BA and T/E Changes

(1) Two M-5 gasoline motor generator (use in Signal Center)
(2) Two I-49
(3) 3 EE-65 additional
(4) Two Hybrid Coil sets
(5) Two Static Sub-Cycle Frequency Converters
(6) Twelve Linesman Volt Ohmeters
(7) In place of twelve TG-7A in EE-97 equipment
Ten TG-7A Printers
Two No. 19 Printers and Distributors
Two Reperforators

(8) Buffalo Grips or Blocks
(9) One Frequency Meter SCR-211-C
(10) One Signal Generator
(11) Three SIGABAS
(12) Two M-131-A
(13) Two 138-A Ciphers
(14) Six M-209-A additional
(15) One portable typewriter, additional
(16) Five ¾ ton trucks, additional
(17) Twelve 2½ ton trucks, cargo, additional, as company cannot be moved without them
(18) One Auto Mechanic tool equipment

10. a. In general, all equipment performed well and came up to standards as rated. Where wire was laid on the ground it was continually subject to damage. Carrier and Spiral Four came up to expectation insofar as its electrical characteristics were concerned. Spare parts required for teletype printer repair were not available making field repair difficult. Automotive maintenance rose steeply due to exceedingly bad road condition and spare parts for repairs were greatly inadequate.

/S/ ROBERT J. BRADY,
Robert J. Brady,
Capt., 229th Sig. Opn. Co.,
Commanding.

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229TH SIGNAL OPERATIONS COMPANY
A. P. O. #758, U. S. Army

25 August 1943

SUBJECT: Operation Husky, Part II.

TO : Commanding General, Hq; Seventh Army, A. P. O. # 758, U.S. Army
(Attention: Signal Officer)

1. The lessons learned in Operation Husky by this organization were many and varied. To us in the Southern sector of Sicily, the far reaching effects of sabotage became very apparent. The amount of sabotage ingenuity displayed was neither expected nor anticipated. It was even noted in Radio Communications as well as wire. From information available, sabotage in the area taken in by the towns of Gela, Licata, Canicatti, and Caltanissetta was one of the worst on the island.

2. One of the first difficulties encountered was that of open wire circuits running along the railroad instead of the highways. Rehabilitation requires the use of rail cars of which few were available for use of signal troops. Also as the railroad traffic was gradually increased, signal work was slowed down because of time lost in obtaining railway clearances. By having a number of these cars available for signal troops only, more crews could operate at one time and more work could be accomplished. Signal trucks were found impractical for most of the work along the railroad. If open wire circuits in other countries follow the normal line construction as found in Sicily, carrier will be of limited use because often a wire pair must be made up one (1) copper and one (1) iron and it is difficult to balance carrier. However, if Hybrid Coil Sets are available, it is often possible to make a copper pair which will then be sufficient for carrier. Telephone and teletype channels could have been available much earlier in the operation by the use of the Hybrid. It is proven that Spiral Four is not practicable for tactical use. If used in the same manner as field wire it is as easily destroyed by ordinary damage and sabotage. By hanging or supporting it on poles, Spiral Four was found to be bothered less by sabotage and received little damage by ordinary causes. With roads of the type in Sicily much damage to field wire and Spiral Four can be avoided by staking it well off the road. Another condition was experienced in some sections. Spiral Four and field wire were damaged by field fires. Damage and maintenance was greatly minimized by supporting wire in air. In the future the raising of wire off the ground will be attempted as soon as practicable after the operation starts. By making use of foreign boards which were slightly modified, more T/BA equipment was made available for use elsewhere. In spite of very dry earth, good ground return operation was experienced wherever used.

3. A construction section added to the Installation and Maintenance platoon is urgently required. This fact was apparent in past operation of this organization. This section if large enough to consist of two teams of

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five (5) men per team and properly equipped would have been invaluable. The extent of construction required of this organization is partly shown by the fact that whereas the Installation and Maintenance Platoon normally has two (2) outside maintenance teams it was found necessary to form ten (10) such teams. In Radio operation it was found that such sets as SCR-299 whose power output is in the neighborhood of 400 watts was not sufficient to insure reliable contact for even one hundred miles. If special antenna could be efficiently coupled to the SCR-299, its output would be improved. This could not be done because of limited antenna coupling facilities of the SCR-299. However, radio provided much of the communication in the earlier and even to a large extent in the latter phases of the operation. As with wire equipment many spare parts could not be obtained at the depots. SCR-177-B and SCR-193 had insufficient power for this organization's mission in the Operation Husky.

4. Of all the difficulties and deterrents to successful building and maintaining of wire communication, sabotage caused the most concern. It was carried on in such manner and with such ingenuity as to indicate a possible underground organization. All through the campaign sabotage remained exceedingly effective against vigorous attempts to control it. There were weeks when as much as 50 to 60 percent of all outside work was just repair of lines and circuits sabotaged. It was not anticipated that this would reach the proportions it did and it indicated that some patrol or guard must be established under similar conditions. These troops will have to be provided for in planning the operation or else they will not be available. It was proven that such saboteurs are not easily caught and few were, considering the widespread damage caused by them. In radio communication saboteurs were also at work. Jamming was experienced and bands made useless by use of an automatic key and a high powered station transmitting dots on assigned frequencies. Repair and maintenance of trucks and vehicles mounted so high, extra mechanics had to be assigned to the motor section. Courier runs were greatly slowed down by bad roads, requiring an increase in the number of couriers used. Thus more couriers are being requested.

5. In general, all foreign communication systems, railroad and roadways, are not maintained at the high standards of those in the States. Thus more repair and rehabilitation than usual must be expected when taking over foreign communication. It is felt that most of the ordinary difficulties could have been surmounted with reasonable effort if it had not been for sabotage. Enemy action behind the lines must be given greater consideration than heretofore thought. This organization has never been set back in it's work to the extent it was in Operation Husky.

/S/ ROBERT J. BRADY,
Robert J. Brady,
Capt., 229th Sig. Opn. Co.,
Commanding.

H E A D Q U A R T E R S
814TH SIGNAL PORT SERVICE COMPANY
A.P.O. 758, U.S. ARMY

24 August 1943

REPORT OF LESSONS LEARNED IN OPERATION "HUSKY"

PART I

Report of Operation "Husky" Proper

1. Officer Personnel in organization is as follows:

NAME	RANK	SERIAL NO	DATE OF RANK	SPEC SER.NO	POSITION OCCUPIED
MARSHALL, ELMER P	Major	0484151	Feb 22/43	4410	Port Sig Supply Officer
HUBERY, CHARLES W	Capt	0338978	Dec 8/42	4410	Radar Subsection Officer
PARENT, VEARL A	Capt	0486803	Mar 1/43	4410	Ground Subsection Officer
SREBNIK, RAYMOND	Capt	0455313	July 2/43	4411	Storage & Issue Sect Officer
ACLIN, LOUIS	1st Lt	01633043	Dec 8/42	7864	Sig Repair Sect Officer
JASON, OTIS R	1st Lt	01634011	Dec 8/42	0210	Company Commander
SKINNER, GEORGE P	1st Lt	01635340	July 2/43	7723	Port Comm Sect Officer
ZIMMERMAN, HARRY E JR	1st Lt	01634500	Dec 8/42	4410	Air Subsection Officer
CARLETON, JAMES T	2nd Lt	0464594	June 8/42	0210	Adm Sect Officer
FORESTER, BRUCE C	2nd Lt	01642059	Jan 19/43	0222	Port Comm Sect Officer
KERN, GERALD S	2nd Lt	01633330	June 3/42	0210	Adm Sect Officer
PARK, JOSEPH C	2nd Lt	0484421	July 18/42	0210	Adm Sect Officer
BAKER, JOHN D	WO(jg)	W2108920	Mar 7/43	9909	Port Sig Sup O Adm Asst

2. Special Detachment, attached 1st American Prov Service Group.

a. This detachment consisting of 2-O and 39-EM was attached to the 1st American Prov. Service Group for the purpose of providing Signal communication and handling Signal Supplies.

b. The detachment left Bizerte on July 15, 1943, and arrived at Syracuse, Sicily, on July 20, 1943. Upon arrival at Syracuse the group partially disembarked but reembarked and proceeded to Licata on the same day. Upon arrival at Licata on July 21, 1943, the communication section installed five miles of line between 1st APSG HQ and main switchboard in Licata as well as several telephones. The detachment then proceeded by truck, leaving Licata July 27, 1943, and arriving at Palermo on July 28, 1943. The detachment was released from attachment to the 1st American Prov. Service Group and rejoined the Company in Palermo, July 30, 1943.

c. This detachment did not handle any signal supplies in this operation.

3. Present Operations

The 814th Signal Port Service Company (less detachment) left Bizerte on July 25, 1943, and arrived in Palermo, Sicily, on July 28, 1943. The detachment of 2-O and 39-EM on duty with the 1st American Prov. Service Group rejoined the Company on July 30, 1943. The Company began operations on July 29, 1943.

A. Warehouse and Trans-shipping.

(1) The Warehouse and Trans-shipping section was assigned the task of opening Signal Depot #31 (Palermo) on July 29, 1943. This work necessitated the forming of a stock record and control section; a receiving and shipping section; a warehousing section. An added problem was that of seperating the Italian equipment (captured) into basic signal components. Upon the arrival of the 206th Sig Depot Co., August 2, 1943, the task of handling signal supplies at this depot was split between the two companies. This section handled the warehousing problems of major complete items and took over complete control of the pole yard which was immediately organized. All necessary paper work for this operation is also handled by this section.

Major Items Handled to Date

Approximately - 5000 miles of field wire (various types)
" - 2500 miles of combat wire
" - 4000 miles of cable assembly (various types)
" - 100 miles of RPL
" - 500 Radios received and checked
" - 2,250,000 batteries (all types)

(2) The Signal Repair Section working as an internal part of this section has been handling the job of checking all incoming signal equipment for completeness and serviceability. Approximately 500 Radios of all types have been checked to date.

(3) 814th is supplying office personnel for the operation of the 7th Army Signal Supply Office. It handles the consolidated records of the various depots under 7th Army control.

B. Communications.

The communication section, on July 28, 1943, commenced the installation and operation of the telephone communication for the 10th Port of Embarkation. This installation included the installing of a TC-4 Switchboard at the tenth port headquarters. Then to facilitate operations at the docks it was necessary to install a TC-2 Switchboard. Approximately seventy (70) EEFA and TP-6 telephones are operating off of the two boards.

In addition to the above installation, the communication section installed an Italian board at the Signal Dump. There are approximately 25 phones operating off of this board.

About sixty miles of wire were used in the above installations.

B. (Continued)

In the dock area it became necessary to set a string of poles. Due to the fact this company has no digging tools, it was necessary to borrow from the 51st Signal all tools needed. Also because of shortage of man power, it was necessary to draft the labor of ten prisoners to dig the holes, and seven men were furnished by the 51st Signal to help in maintenance.

At the present all operations and maintenance in the port are being carried on by this company.

ELMER P. MARSHALL
Major, Sig C
Commanding

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H E A D Q U A R T E R S
814TH SIGNAL PORT SERVICE COMPANY
A.P.O. 758, U.S. ARMY

24 August 1943

REPORT OF LESSONS LEARNED IN OPERATION "HUSKY"

PART II

Lessons Learned During the Operation

1. No deficiencies in signal corps equipment were noted.

2. The following modifications in T/O 11-327 (Signal Port Service Co.) are suggested:

a. Eliminate column 3 (Port Signal Supply Office) consisting of 1 - Major (Port Signal Supply Officer), 3-Captains, 1-Warrant Officer, and 10-Enlisted Men.

The function of the Port Signal Supply Office is to control the flow of signal supply thru a port depot. The experience of this operation and previous experience in theatre of operations show that the operation and control of depots is not a function of a Port in this theatre, but is assumed by Base Sections or Signal Supply Officer, Army. In view of this, no function exists for this section.

b. Increase number of Telephone switchboard operators (741), column 5 from 6 to 12. It has been necessary in both this and previous operations to utilize EM normally assigned to other functions to supplement present switchboard operators.

c. Add 7 truck drivers (245) and 2 motor mechanics (014) to column 4. Since arrival in this theatre special authorization has been received for 7 additional vehicles to permit organization to fulfill its missions. No provision is made in present T/O for drivers or maintenance mechanics and at present it is necessary to withdraw personnel from other vital assignments to fill these positions.

d. Add construction crew consisting of 5 Linemen, telegraph and telephone (238) and 1 Wire Chief (596), Sergeant.

Setting up communication facilities in Port area in theatre of operations necessitates fairly extensive line construction involving setting of poles on docks and dock areas. No equipment and personnel is authorized for this work.

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3. The following modifications in T/E 11-327 are suggested:

a. Add 1-K43, construction truck with necessary tools. For use of construction crew suggested as change in T/O.

b. Add vehicles as follows:

4 - Truck 1/4 ton, 4 x 4
1 - Truck 3/4 ton, 4 x 4 W/C
2 - Truck 2½ ton, 6 x 6

These vehicles now in possession of organization on special authorization. Organization could not operate efficiently without these vehicles.

c. Add 1 truck, 4 ton wrecker, 1 trailer, K36 pole hauler, and 4 Hook LC-32.

For handling of poles and heavy equipment in Signal Depot and Pole Yard.

ELMER P MARSHALL
Major, Sig C
Commanding

SECRET

HEADQUARTERS, SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

10 August 1943

COMMUNICATION LESSONS OF SICILIAN CAMPAIGN

1. Aboard Headquarters Ships.

A headquarters ship was provided for each Army, Corps, and Sub-Task Force. In addition, each Regimental Combat Team improvised its own headquarters upon the ship transporting it. Each headquarters divided its personnel and equipment so as to provide an alternate in case of the sinking of the main. Only one of these ships have been completely constructed as such a ship. The others were altered within the African theater.

The number of radio channels which can be permitted on any headquarters ship, due to space limitations, and interference due to proximity of sets, is rather limited. Each of the three services, Navy, Air, and Army, specified the minimum number of channels which would perform the required mission while afloat. These channels were provided in the headquarters ships and all functioned well.

As far as possible the actual radio sets were Naval equivalents of the normal sets used by the various services. The reason for this being that Naval radio sets are manufactured with the view of standing salty atmosphere. As a result of these arrangements all three services had independent channels after radio silence was lifted which could be devoted to their own missions. It had been found on previous occasions that it was not possible for reliance to be placed upon Naval operators and equipment to carry Army and Air Corps traffic. The number of channels to be provided for each service depends upon the mission and must be figured in the original planning. No reliable estimate of that number can be given.

In our case we found that we had to much traffic for the number of channels. This was caused by a tremendous amount of administrative traffic being forced upon these sets at a time when there should have been nothing but tactical traffic. This point should be worked out with all staffs prior to setting out on a mission. All messages to be sent out by any unit must be carefully censored by the Chief of Staff or his assistants. Similarly, all incoming messages must be delivered to the same point for proper distribution. Experience has shown that this is the only method which will provide rapid transmission of important messages. Administrative traffic must be kept off the air at such times.

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2. Landing Phase.

Special radio channels were provided to Naval Line Ships and to Naval Fire Control Support Parties which accompanied the various Sub-Task Forces ashore. This had been previously tried out and again had worked to perfection. The radio sets used by these parties must be of sufficient power and range to surely cover the distances required and must be light enough to be readily carried while ashore. In our case these sets were carried by Artillery personnel from the various units, accompanied by a Naval liaison officer who actually directed the fire, transported in one quarter ton trucks.

3. Communications with and between units.

Initially, such communication is by messenger. As soon as it can be set up, this is supplemented by radio. At the first available moment thereafter, wire communications are established and the radio remains silent and is used only for emergency.

During periods when radio is in use a large amount of information concerning our own movements has been obtained by placing suitable radio operators and receivers with necessary codes to listen on subordinate radio nets. This is essentially a form of radio reconnaissance. It is called "J" Service after the British. It has resulted in speeding the receipt of information from the lower units to Army Headquarters from two to four hours. We have used no enemy intercept for the simple reason that the unit designed for that purpose has not yet reached us.

4. Communication principles.

Between individuals within voice range, voice and visual signals are used. Between Squadrons, Sections, and Platoons, and as high as a Company in an Infantry Division, messengers and 'walky-talky' radios (SCR-536) are used. The use of these small radios has doubtless saved many hundreds of lives. Between the Company and Battalion a small radio set (SCR-511) somewhat larger and of greater range than the 'walky-talky' is used, supplemented by messenger. From the Battalion to Regiment a still larger radio (SCR-284) of greater range is used. This is supplemented by messenger and as soon as possible by wire. Between Regiments and Divisions messengers, wire, and radio are also used. The radios (SCR-193) being somewhat larger and of greater range than those used by the Battalions. From Divisions to Corps and higher units, high powered radios (SCR-299) are used, supplemented by messenger and usually by open wire circuits.

5. Supplementary lessons.

The radio frequencies must be chosen carefully so as to prevent interference. If the same frequency is to be used more than once, they must

be so chosen that the units repeating the frequency must be widely separated. In other words, radio frequencies must be assigned while looking at a map.

High powered radio in amphibious vehicles were tried and used successfully in this operation. They provided the most reliable early communications that we had and some are still in use. The most useful vehicle we have found equipped with radio has been the one quarter ton truck on land, equipped with a 75 watt, 12 volt set. The set used was the SCR-193.

ELTON F. HAMMOND,
Colonel, Signal Corps,
Signal Officer.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. #758

18 July 1943

1. In debarkation over the ramp from a LST or an LCT precaution should be taken to sound the beach depth beyond the ramp before the first vehicle is discharged. This is particularly necessary where beaches have been subjected to shell fire or bombing. Since the leading vehicle may be bogged down or entirely lost if it is driven into an underwater crater.

2. Emphasis should again be placed upon the necessity for keeping signal crews with their equipment. Once a piece of equipment becomes separated from the using personnel its recovery is practically impossible and the equipment might better have been left on the originating shore.

3. Since unexpected success, resulting in movement ahead of timetable, places a great strain on the signal wire construction organizations, it is essential to transport considerably more than the bare minimum of wire teams to arrive on the far shore not later than twenty-four hours subsequent to the establishment of the Army Command Post.

4. Since existing communications in an invaded area cannot be utilized for long haul lines until considerable rehabilitation work has been performed upon them, it is essential that sufficient field wire be brought into a invaded area in the early stages to provide an Army Wire Net, and a sufficient amount should be available to permit laying wire to Army units in a rapidly moving situation.

5. In landing operations where several beach heads are being established, small fast power boats should be made available to the army task force commander for messenger service between the task force and subordinate units. This method is probably preferable to air messenger service, due to the great tendency for anti-aircraft artillery to fire upon all air craft in the excitement of landing operations.

6. Construction of additional lines on existing poles can be speeded up by use of bracket or knob insulator additions. An invasion force provided with materials for this type of construction can construct lines rapidly with a minimum of tonnage of construction material in the assault and first follow up convoys. The necessity of establishing lines which are off the ground would be emphasized - particulary in the early phase of establishing a beach head, since traffic of troops and supplies unloaded across beaches move at right angles to the wire lines connecting the several beach heads and tends to cause innumerable line breaks, since vehicles are not confined to movement over roads and continually required to cross lines laid on the surface.

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7. Wherever possible, radio sets being prepared for landing operations should be equipped with new storage batteries, since the traffic carried by these sets is of a tactical nature and power failure can not be tolerated.

8. It is recommended that each signal battalion be equipped with three or four Pieper Cub air planes, or the equivalent, to be employed in messenger service.

NORMAN H. SAUNDERS
Lt. Col., Signal Corps
Executive Officer

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HEADQUARTERS, SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

19 August 1943

SUBJECT: Report on Observations of Sicilian Operation.

TO : Signal Officer, Headquarters Seventh Army, A. P. O. # 758.

1. The following is a report of the observations, experiences and recommendations by the undersigned during the Sicilian Operation, July 10 to August 18, 1943:

a. From the experience of this operation it is clearly shown that there were not sufficient signal construction troops in this theater. The signal troops were required to do too much hasty construction, due to the rapid advance, which resulted in bad transmission, and it was impossible to go back over these lines to rehabilitate until too late. Unlike other troops in the theater, signal troops were required to work day and night with little opportunity for rest during the entire operation.

b. In the initial landings it was found that it was not advisable to attempt to use any portion of the enemies' field or permanent wire construction due to the destruction of the lines. No attempt should be made to use the permanent wire plant until sufficient time is available for a thorough reconnaissance made by an experienced officer.

c. Except in an extreme emergency, two separate units should not work on the same line within a certain area. Areas of responsibility between test points should be assigned to each unit.

d. It is essential to any operation that all captured permanent wire diagrams be forwarded by special messenger to the Army Signal Officer as soon as possible, as it is at this office only that such diagrams can be fully utilized.

e. All wires and cables should be placed on poles as soon as possible, even at the expense of slightly delayed communications.

f. It is believed that too many switching points, originally placed as a temporary expedient, were left as a permanent set up. Switching points should be replaced by test points as soon as possible.

g. There is an absolute need of six cub planes at Army headquarters and three cub planes at Corps headquarters for use as special messengers. These planes should be assigned to the signal section.

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h. TBA should be increased to include eight come-a-longs and blocks, making two complete sets for each construction truck or team. Many instances of delays in construction were due to lack of come-a-longs as only one man per crew was able to use these items.

i. The use of an experienced officer in outside construction to inspect each line within the Army area before and after rehabilitation and to report and work directly under the Army Signal Officer is recommended.

j. The Advance Signal Section should include the following as a minimum:

Signal Officer
Wire Officer
Radio Officer

Code and SOI Officer with duplicating equipment to make SOI's in the field. Serious delay in distribution of items of the SOI were experienced due to the fact that the Signal Section was required to have mimeograph work on SOI's made by the Adjutant General's section which was located eighty miles to the rear.

/S/ EARLE B. WILLIAMS,
Earle B. Williams,
Lt. Col., Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

21 July 1943

SUBJECT: Lessons Learned from Operation Husky.

TO : Signal Officer, Seventh Army, A.P.O. # 758.

1. The following points were brought out regarding wire communications during the initial stages in the invasion of Sicily.

(a) More construction teams with equipment are needed in a fast moving situation.

(b) Men and their equipment must not be seperated. Several more teams could have been made available if the equipment had been shipped with the men.

(c) Much faster communication can be obtained if field wire or spiral-4 cable is placed originally rather than attempting to rehabilitate existing open wire lines.

(d) Open wire lines should be rehabilitated as rapidly as possible to replace field wire and spiral-4 cables. This rehabilitation requires special training of personnel and requires special materials which must be provided.

(e) Transportation must be provided for wire section Officers to make inspections. Otherwise the wire Officers try to make assignments of various facilities without the necessary information.

(f) Signal personnel in lower units Must be impressed with the serious consequences of cutting circuits of other units.

(g) Signal equipment must be made available. T/BA allowances must be increased by special equipment necessary to do specific jobs.

(h) Lower units must report their wire situation with line route maps and circuit diagrams.

PHILIP W. BIERMAN,
Major, Signal Corps,
Wire Officer.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

22 August 1943

SUBJECT: Lesson Learned in Operation "Husky".

TO : Signal Officer, Seventh Army.

1. The following observations were made during operation "Husky" with respect to wire communication.

2. Existing facilities in Sicily.

(a) Very little long distance telephone communication had ever been established in the island. Practically all main route overhead lines contained many telegraph circuits but few telephone circuits. The existing telephone and telegraph lines were made up of various size copper and iron wire. In many cases the same circuit would be composed of three different sizes of copper wire with iron wire cut in the circuit for considerable distances. It is reasonable to assume that other localities where material has been scarce will present the same circuit conditions.

(b) Central-office facilities in general were in poor operating condition. Direct bomb hits had destroyed the central office equipment at Caltanissetta. The automatic equipment at Palermo and Agrigento were in working condition but required much cleaning and routine maintenance before good service could be restored.

3. Rehabilitation of open Wire Facilities.

(a) Because of the rapid advance it was necessary to rehabilitate and use existing open wire as rapidly as this could be done. Since the open wire was largely telegraph it was necessary to transpose circuits before they provided satisfactory transmission. The lines also had to be resagged and replaced before they could be used. The work necessary on the open wire emphasized the necessity for training signal construction personnel for such work. Additional tools are needed by the construction teams to do this work, particularly "come-along" are critically needed. Also sleeves and wire splicing tools should be provided in greater quantities.

4. Rehabilitation of Central Offices.

(a) Rehabilitation of existing central office equipment became an immediate problem as soon as the army Headquarters was established on a semi-permanent basis. At Palermo and at Licata it was necessary to rely on the existing systems and in both cases the initial service was poor because of the time required to put the equipment in good operating condition.

5. Material and Equipment.

(a) Open wire material is essential and should be available in the early stages of the operation so that construction teams can keep up with the tactical situation.

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(b) Spiral - 4 cable has proved unsatisfactory in many respects. Many cases of sabotage have been reported on spiral 4 cable where open wire lines in the same area were not touched. Considerable difficulty was experienced in making spiral 4 cable work after it was installed which may have been due in part to lack of experience.

(c) Telephone switchboards have been very satisfactory except that additional provisions should be made so that satisfactory supervision can be obtained when working with existing commercial systems. Where TC-1's and TC-2's have been installed to work in connection with automatic exchanges the dial trucks have proved to be inadequate. Several TC-1 switchboards should be made available early in the operation to provide army Headquarters adequate switchboard facilities. Every TC-1 shipped to the theater has required extensive repairs because of damage in shipping.

(d) Carrier systems of the TC-21 and TC-22 type have been very satisfactory except for repair work necessary because of damage in shipping. These systems were designed for spiral - 4 cable but have worked well on open wire.

(e) Carrier systems other than TC-21 and TC-22 should be made available for use on open wire. The additional circuits gained using the TC-21 and TC-22 on open wire do not justify the equipment required. Two wire carrier for use on open wire should be provided.

(f) Long range field wire was available only in limited quantities but proved very satisfactory and should be used to a greater extent in future operations.

6. Signal Troops.

(a) Additional Signal Troops should be provided where the area involved becomes large. In this operation signal troops were spread to the very limit of their capabilities with tactical troops forced to operate semi-fixed installations which should be operated by base area groups or civil affairs. In the shipping stage in some cases signal troops were seperated from their equipment which caused delay and loss of equipment.

7. Subordinate Units.

(a) Signal troops of subordinate units must render reports to higher headquarters of their wire systems. In many cases the Army Wire Officer was without knowledge of what lower units had done particularly on existing open wire leads.

8. Wire Section of Signal Office.

(a) In this operation the wire section consisted of three officers and three enlisted men which was insufficient to meet the various problems encountered. When the headquarters was divided into a forward and rear echelon the personnel problem became even more acute. Furthermore transportation must be provided for the wire section so that the necessary reconnaissance and inspections can be made. The following officer personnel is essential to the proper functioning of a wire section:

1 officer in charge.
2 officers for reconnaissance.
1 officer for planning and assignment of lines based on reconnaissance information.
1 officer for central office installations, to include teletype switchboards
1 officer to deal with local telephone officials and supervise rehabilitation of existing central offices.
1 officer in charge of records, production of line route maps, telephone directories, etc.

9. Requests for Lines.

(a) In the planning of operation "Husky" efforts were made to secure the line requirements of the various services involved including Air Corps, Navy, etc. The requests received in the planning stage have been exceeded many times over particularly by the Air Corps. In future planning greater effort must be made to get specific plans from all services involved.

PHILIP W. BIERMAN,
Major, Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

21 August 1943

MEMORANDUM:

TO : Colonel Elton F. Hammond, Headquarters Seventh Army.

1. The following report on "Lessons Learned" in operation "HUSKY" is submitted for your information:

a. (1) The main and foremost problem that was encountered in the training program was unusual long distances between units. As the location of the units was a tactical necessity, the training program must conform with the situation.

(2) Recommendations:

a. That centralized schools for officers and non-commissioned officers be established to facilitate coordinated instruction within and between all units.

b. That specialized signal schools with large facilities be established to train new men in the various specialties, and advance courses for other men with some experience.

c. That these schools be set up and operated by the Base Area Group which will be under the control of the Army Signal Officer.

Note: The Base Section if equipped at the present time could do wonders with training schools, as this is the time to begin or renew training, not later.

b. (1) The complexity of an army organization makes the use of Link Sign above the division impractical.

(2) Recommendations:

a. That Link Sign be used from division down.

b. That CCBP1 and CCBP2 be used from division up.

c. If in any further operations we have any units staged in the United States, or apart from the main force, it is recommended that a liaison officer from the Signal Office be properly briefed and sent to that unit to insure coordinated training. In the operation "HUSKY", the lack of this liaison caused much confusion and could have been eliminated.

WILLIAM F. STARR,
Major, Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
APO 758

20 August 1943

SUBJECT: Lessons Learned in Operation HUSKY.

TO : Signal Officer, Seventh Army.

1. The Signal Supply personnel for an operation of this type which requires the establishment of a new base area and the opening of new ports should be assembled as early as possible, preferably three (3) months prior to "D" Day. This is necessary to insure the efficient organization and accumulation of the necessary information needed for smooth and effective operation. Signal Supplies for an operation of this type must be ordered and plans projected months in advance. Information regarding troops, plan of action and information on territory, ports, etc., to be occupied must be given to the Supply people early and as accurately as possible. The base area personnel must work under the direction of the Signal Supply Officer on the Tactical Staff who with his assistants must be located where the planning is going on so that he can advise and direct the base area activities. This was not done in this operation which resulted in inquiries and complaints on supplies going direct to the Signal Officer, rather than to the Signal Supply which was not located with the Tactical planning Headquarters. The ideal situation would be to have both the tactical and base area organizations located in the same area, but not in the same building. This would result in the saving of much time and insure more accurate planning.

2. Liaison personnel must be attached to all headquarters with which the supply personnel must deal and should remain with them after the operation begins until such time as all contacts with that headquarters ceases.

3. In an operation of this type it is necessary that equipment in excess of T/BA be authorized, procured and issued for the units prior to the commencement of the operation. In order to facilitate these activited, the theater commander who is responsible for equipping and mounting the Task Force must determine early the policy and routine which such requests for excess materials must follow. There cannot be any delay in the authorization or disapproval of such requests as the procurement of most Signal equipment is critical and therefor, in all fairness to the Task Force commander, he should be advised at an early date whether his plans should include the extra authorized equipment requested or whether it is impossible to approve or obtain same.

4. The Signal Depot Company should be assigned to the Task Force three months in advance of the landing operation in order that they may procure and issue all shortages of T/BA of units in the Task Force as well as assemble, package, mark and ship all maintenance supplies to maintain the Force. This should be done under the direction of the headquarters responsible for the equipping and mounting of the Task Force. This depot should have no other responsibilities other than those pertaining to the Task Force units.

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5. The Signal Supply Officer (Tactical) should be the first to accompany the Tactical Staff so that he may coordinate the care and use of Signal equipment. He should also secure warehouse and depot space so that when the supplies and depot personnel arrive (which should be early, not later than D plus 2), they can readily go to work forming an efficient depot. As much of the work as possible, such as locator cards, stock record cards, small bins, etc., in forming a new depot should be done prior to embarkation so that an efficient depot can be set up at an early date.

6. The balance of the depot company (less the S&I sections needed to operate the subtask for depots) should be landed one week prior to the landing of supplies other than assault phasing supplies consigned to Subtask forces. This is about D plus 12. An army depot should then be established near the principal port from which supplies are landed.

7. As soon as Amy takes control of the troops from the subtask forces, the subtask force depots should revert to Army Supply Points. There is no need normally for more than one A.S.P. per Corps. These A.S.P. should be stocked with about 7 days supply of the main items, used by the units being served by them. They should be manned by S&I sections of the Army Depot Co., and should be Army controlled. However, the Signal Officer of the Corps which it serves must approve the issuing of critical items of equipment and supply issued to his units. These A.S.P's will be moved forward by Army as the Corps moves. The A.S.P. commander will submit request for stocks to the Army Depot who will fill such requests subject to the approval of the Army Signal Supply Officer.

8. The three S&I sections of the Army depot must have attached to them always a repair section of a Signal repair Company, these sections each consisting of two radio repair teams and one telephone repair team. This system has proved very successful in this operation. The repair sections are mobile and can go forward to the units to make repairs or can repair material turned into the depot.

9. There is one great mistake made in this operation which must never be repeated in the future operations, and that is the divided responsibilities of supply between two headquarters. If the Army Signal Supply Officer is being held responsible for planning and operating, and keeping supplies flowing to the units he must at all times have direct control of all depots and Army Supply points. He must know the status of stock in these depots and A.S.P's at all times in order to anticipate the future needs. He must be able to order the personnel direct by phone if necessary in order to readily supply units.

10. In order to salvage signal supplies behind the fighting forces there should be attached to the Army Signal Depot Co. at least two salvage teams consisting of about one officer and ten men each and three vehicles, a peep, and two 2½ ton trucks with Reel units RL 26A. It is essential and very necessary to recover field wire as quickly as possible after it is no longer in use. This will insure a greater percentage of

recovery as well as replenish depot stock when the wire is still needed. These teams can also salvage all captured material before civilians and our own troops can pilfer it.

11. The assault and phrase supplies must be packaged very ruggedly and weight kept as close to 70 lbs per package as the article will allow. The wood handles at the ends of the boxes are an invaluable aid to the efficient handling of supplies. All boxes containing heavy items such as batteries, wire, and insulation must be strapped with Iron bands. The waterproofing of assault phase material and those on the first follow up convoy must be complete. Supplies on subsequent convoys need not be waterproofed as completely as by that time unloading facilities will be developed so that material will only be subjected to salt water mist. The system used by Atlantic base section of wrapping the items in paper and dipping the package in molting pitch was very satisfactory.

JOHN L. LEIDENHEIMER,
Major, Signal Corps,
Signal Supply Officer.

SECRET

HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
APO 758

20 August 1943

SUBJECT: History of Signal Supply in Sicily.

TO : Signal Officer 7th Army APO 758.

1. Signal Supply for the troops in Sicily started on July 10, 1943, with the opening of Subtask force Signal dump one for each of the force as follows.

a. At Vittoria for Cent Force.
b. At Gela for Dime Force.
c. At Licata for Joss Force.
d. At Gela (same dump as Dime) for Kool Force. Assault phase signal supplies for these Subtask force were placed in these dumps and issued under control of Subtask force Signal Officer until the dumps reverted to 7th Army control. These dumps were operated by S&I section of the 206 Signal Depot Co. which were attached one each to the Cent, Dime and Joss Forces. They were assisted by personnel from the subtask forces.

2. On July 16, 17 and 18, 1943 Subtask forces were dissolved and all units reverted to seventh Army Control at which time all subtask force dumps became Army supply points controlled by Army. On July 16, 17, 18, 1943 the 1st Amphibian Brigade was given the responsibility of unloading all supplies and operating all depots and dumps, under the direction of the various supply services through G-4 seventh Army. This resulted in a delay in the issuing of supplies and the issuing of (uncontrolled) critical items of Signal equipment and since the Signal Supply Officer 7th Army was responsible for maintaining stock flow from North Africa, it became a tremendous and discouraging task to secure reports through the Brigade as to the status of stocks and since, there was no control of issue of the critical items it became almost an impossible task to foresee the requirements.

3. The return by the Navy of 80 % of all assault phase signal supplies for Dime was only overcome and helped by the fact that both Kool and Cent forces has a 21 day maintenance supply upon which we could draw.

4. About July 20, 1943 the units of II Corps had pushed on beyond Caltanissetta and were too distant from their A.S.P. at Gela. A new signal A.S.P. was established for the units of II Corps at Caltanissetta about this time. Also the A.S.P. at Vittoria was abandoned and all stock moved to Gela dump. Unloading of supplies at Vittoria stopped and there was no need for further activity in this area.

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5. The Caltanissetta Signal A.S.P. was supplied from Gela and Licata stocks. On July 27, 1943 Caltanissetta Signal A.S.P. was closed and moved to Petrilia nearer the unit it was serving.

6. On July 27, 1943 the Palermo Signal Supply Depot was opened in the captured Italian Engineer Depot. In the Italian Army the Engineers have the Communication responsibility and therefore have the Signal Supplies. A lot of usable stock were taken over and much of it issued and used. The 814 Signal Port Service Co. came in about this date and since the Engineer Shore regiments operating the port had their own Signal Corps personnel, the Port Company was used to open and operate the depot.

7. On about July 29, 1943 the Gela dump was abandoned and all stocks moved to Petralia and Licata. The S&I Section of the 206 Signal Depot Company under Lt. Burns was then moved to Palermo to help establish and operate the Base Depot.

8. On about August 1, 1943 the balance of the 206 Signal Depot Co. arrived at Palermo and were moved to the Base Depot, Palermo and began the operation in conjunction with the 814 Signal Port Service Co.

9. On August 3, 1943 the Signal A.S.P. serving II Corps units was moved forward to Nicosia. Several days later certain units again advanced too far from the A.S.P. and a wire dump was established at Orlando as a branch of the Nicosia depot.

10. Supplies were moved forward by daily train from Licata supplemented by truck transportation and by truck and train from Palermo.

11. As soon as possible after the units reverted from Subtask force control to 7th Army control, the three repair sections of 177 Signal repair Co. were detached from the units to which they were assigned and were assigned one each to the three S&I Sections of the 206 Signal Depot Co. These repair sections worked in and near the A.S.P.'s but on occasions had gone out to units to check and repair their equipment.

JOHN L. LEIDENHEIMER,
Major, Signal Corps,
Signal Supply Officer.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. #758

31 August 1943

MEMORANDUM:

TO : Signal Officer, Headquarters Seventh Army.

Report of Radio Difficulties During HUSKY.

1. Phase 10 July through 12 July.

a. Too much traffic going down at a time when the bulk of traffic flow should have been from lower to higher units.

b. Too much traffic was sent that could have waited until after the landing phase.

c. Messages were over three times longer than necessary.

2. Phase 12-21 July.

a. Little difficulty with radio transmission except messages were too long and not enough radios had arrived.

3. Phase 21-25 July.

a. Transmission extremely difficult due to poor ground conductivity in region.

b. Units became extended to far greater than normal distances apart requiring higher powered sets.

c. Shortage of high power sets.

4. Phase 25 July - 6 August.

a. Electrical equipment in city made operation of radio control in Headquarters very difficult.

b. Units extended beyond range of sets.

c. Messages too long.

d. Lack of knowledge on part of staff as to time required to transmit messages by radio.

e. Overclassification of messages.

5. Phase 6-15 August.

a. Split headquarters caused extreme shortage of radio equipment.

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b. Messages were too long.

c. Unimportant messages were being sent by radio to lower units which would have been faster by other means.

d. Overclassification of messages jamming traffic.

e. Lack of knowledge on part of staff and other units as to which echelon to send traffic to resulted in much unnecessary transmissions between advance and main headquarters and caused many unjustified complaints as to non-delivery or delay in traffic.

6. Phase 15-20 August.

a. Messages too long.

b. Messages overclassified.

c. Not enough radio equipment and personnel available.

7. General.

a. The Link sign system of call up provided a constant source of trouble throughout the entire operation and should be abolished above the division level.

BERTRAM B. DALES, JR.,
Captain, Signal Corps.

HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. #758 20 July 1943

SUBJECT: Comments on "HUSKY".

TO : Signal Officer, Headquarters Seventh Army.

1. Headquarters Ships.

a. Need more space for Radio Receivers, Message Center and Code Room.
b. Army, Navy and Air need seperate message centers with separate windows and entrances.
c. Army, Navy and Air traffic should be handled seperately.
d. Corps or larger unit needs the following radio links from ship: (Army Only)

(1) 3 command channels.
(2) 1 link to higher headquarters.
(3) 1 FM link to work shore.
(4) 4 Intercept receivers (monitor).
(5) 1 spare transmitter and receiver.

e. "J" service as such should not be attempted on a landing operation until established ashore, except for monitoring.
f. Three radio operators must be provided for every radio set.

2. Landing Phase.

a. Signal equipment and personnel should be on two LST's.
b. A complete radio company (armored) should be evenly divided on the two LST's. All parts of the company should be included (Maintenance, Administration, Men, etc.).
c. Signal personnel ashore should establish FM channel back to headquarters ship at earliest possible time at selected shore CP.

3. General Comments.

a. Radio set upon ship worked extremely well, but more circuits were needed.
b. Shore radios were ready to take over all links from ship on change of CP.
c. Radios were controlled from a central remote. This worked perfectly and eliminated much of the trouble encountered in the "TORCH" operation.
d. Messages were too long, the average group count outgoing being eighty three (83) and incoming fifty six (56).
e. Lower units should be instructed to send in "spot"or short sitreps at frequent intervals without higher headquarters having to jam air asking for them.
f. Staff officers should not make personal checks on messages. To do so seriously interferes with transmission of traffic and does not accomplish any useful purpose.
g. Too many messages were classified "urgent" which should not have been.

BERTRAM B. DALFS, JR.,
Captain, Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. #758

22 August 1943

SUBJECT: Recommendations.

TO : Signal Officer, Headquarters Seventh Army.

1. Personnel.

a. Assign at least two lieutenants with special wire qualifications to assist the Wire Officer in the Signal Section. These officers would be capable linemen and would be used mainly to get information on circuits by direct observation. This would increase the value of reports on existing circuits, progress of teams, etc.

b. Recommend existing T/O be changed in regards to Company Commander of an Infantry Signal Company acting also as Assistant Signal Officer.

(1) With a company of three hundred eleven (311) men, the Commanding Officer of a Signal Company is unable to fulfill both positions (Commanding Officer and Assistant Division Signal Officer).

(2) Recommend one Major be added to act as Assistant Division Signal Officer.

(a) The above based on personnel experience.

2. Telephone Exchanges.

a. Closer coordination between AMGOT and Army Headquarters in communication as regards civilians.

b. Army Headquarters must rely to a certain extent on civilian personnel immediately upon establishing a Headquarters in any City of any size which creates a problem of dealing with civilian personnel.

(1) Personnel is not now provided in Army Headquarters Signal Section to handle matters as regards pay, etc.

H. W. BERRY,
Captain, Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. # 758

23 August 1943

MEMORANDUM:

TO : Signal Officer, Seventh Army.

1. During the operation "Husky" the Wire Officer very often lacked complete information of line routes, type of construction, extent of damage and progress made in the repair of lines. Information received second hand was often incomplete and sometimes inaccurate. Proper line reconnaissance cannot be conducted by the Wire Officer in person. His presence is required constantly at the Signal Office.

The addition of four (4) Second Lieutenants with line construction experience, to the Wire Section, for line reconnaissance duties, would greatly aid the Wire Officer in keeping an up-to-the-minute accurate picture of the status of all lines in the Army Area.

2. Present switchboards BD-89A and BD-80A are equipped with one (1) and three (3) dial trunks, respectively. Existing Civil Automatic Dial Systems cannot be used extensively without modification to provide additional Dial Trunk Circuits.

In view of possible further operations in areas, where the Dial System is used, the BD-89A and the BD-80A Switchboards should be modified for ten (10) dial trunk circuits each. This will provide ten (10) dial trunk circuits for the TC-2 Central Office Set and thirty (30) dial trunk circuits for the TC-1 Central Office Set.

3. The face of Power Panel BD-90 is at present attached to the power panel frame by ten (10) 3/16" x $\frac{1}{2}$" bolts. A number of BD-90 Power Panels have been received with all bolts sheered off and the fittings on the bottom of the panel face badly broken. This results in a good deal of delay in placing the equipment in operation while parts are being obtained and replaced.

Larger bolts (and) (or) spot welding should be used to secure the Power Panel Face to the Power Panel Frame.

LOUIS H. SPIEGEL,
Captain, Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
APO 758

21 August 43

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SUBJECT: Lessons Learned in Operation HUSKY.

TO : Signal Officer Seventh Army.

The following observations are made from the Signal Supply viewpoint:

1. Adequate officer and enlisted personnel must be provided for the supply planning section at the earliest possible time. I would suggest a minimum number of four officers and seven enlisted men be assigned to the planning section from the very beginning.

2. The Planning Section must be kept advised at all times of (a) proposed plan of operation, (b) troops which are to participate, (c) special projects for permanent installations.

3. Considerable time was spent on requests of the various units for special items of equipment. It is realized that most of these requests were justified and that the extra equipment should be issued. Units should put in their requests for equipment over and above their TBA at the earliest possible date in order that necessary action can be taken on them. It is suggested that, in future operations, units be notified to get in their requests for extra equipment at an early date.

4. Recommend that a large pool of equipment be placed under the direct control of the Army Signal Officer for use of special projects and also in order to take care of special need which may arise.

W. H. WALDSCHMIDT
Captain, Signal Corps
Assistant Signal Supply Officer

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. #758

20 July 1943

SUBJECT: Comments on Message Center in Operation "HUSKY".

TO : Signal Officer, Headquarters Seventh Army.

1. Aboard ship.

a. Message Center.

(1) More Space was needed for message center.
(2) Separate message centers are needed for Army, Navy, and Air Force, and they should handle their traffic individually.
(3) Messengers should not pull K.P.
(4) Staff should be fully instructed as early as possible that messengers are to be used for communications - not for convenience of staff in their personal duties.
(5) More radio should be provided to take care of the extremely heavy traffic.
(6) Messages were badly overclassified.

b. Cryptographic material.

(1) Four SIGABA's are needed to clear traffic with any degree of speed. Two were used in Operation "HUSKY" and could not be used in tandem due to heavy traffic, thus increasing possibility of error.
(2) All SIGABA's should be equipped with Joint Army-Navy rotors for an operation.
(3) All traffic before the firm establishment of the Army ashore should be in Joint Army-Navy systems to:

(a) Simplify and standardize cryptographic operations for a short period of time.
(b) To keep paraphrasing and re-enciphering of messages to a minimum.

(4) The Joint Army-Navy M-209 key list, SIGSOT, was used often and proved of great value.
(5) The Division Field Code was not used at all.
(6) The strip systems were used on very few occasions.
(7) The Joint Operations Code, SIGMIS, was used on a few occasions, but messages which normally would go in this code were put into the M-209 cipher which code clerks preferred.

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2. Landing phase.

a. More radio was needed in early phase.

b. A SIGABA repairman proved useful as two machines at different times were temporarily inactive.

c. The switch to purely army cryptographic systems should come only when it is certain all units who may be required to transmit messages aboard ship are fully set up on shore.

d. A second message center must be fully set up ashore before the first leaves the ship.

e. Messages were badly overclassified in the opening phase. Messages were being classified "URGENT" to get quick action.

3. General Comments.

a. Message center work on board ship and in the early landing phase was exceptional, but more facilities were needed. 18,006 code groups were sent out of the code room in the first day ashore.

b. No effort was made by originators to keep messages short, and many messages were slow in clearing because of their length.

c. Staff officers should be barred from the message center, or the message center should be placed in such a manner that the staff office can talk only to the message center officer.

d. Two additional SIGABA's and four additional joint Army-Navy rotors should be provided for the operation.

e. Traffic slowed down considerably once the army was firmly established ashore.

f. Seven code clerks are necessary at all times to clear urgent traffic quickly from the code room. This organization had five on duty at all times and more errors were made in the later phases on board ship when the men had been working at a fast pace for several days and fatigue had set in.

g. A minimum of five M-209's are necessary to provide three set up on the daily key, one for the day before, and one spare to set up on a different SOI in case of need.

ALANSON B. DUNN,
1st Lt., Sig. C.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. #758

22 August 1943

MEMORANDUM:

SUBJECT : Lessons Learned in Operation "HUSKY"

TO : Signal Officer, Seventh Army.

1. The Division Field Code was held by all units of Seventh Army during the Sicilian Campaign, but was used by no units. Recommend that it not be distributed to Seventh Army.

2. The Air-Ground Liaison Code was never used by units holding it. Artillery officers stated that it was obsolete. Recommend that it not be distributed to Seventh Army.

3. There is a definite need for at least three airplanes of "Piper Cub" type for use by the Seventh Army message center.

4. Eight SIGABA's are necessary for an Army in tactical operations.

5. The Joint Army-Navy M-209 key list proved extremely useful during the early phases of the operations.

ALANSON B. DUNN,
1st Lt., Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Supply Officer
A. P. O. # 758

21 August 1943

SUBJECT: Lessons learned from experience during operation HUSKY.

TO : Signal Officer, Seventh Army, APO 758 U. S. Army.

1. Following is a list of recommendations with regard to Signal Supply for future operational planning learned from actual experience during HUSKY campaign.

a. Efficient and trained personnel should be selected prior to planning stage in order that this same personnel may follow through complete operation.

b. Control of Supply should be limited to one Headquarters. Having to go through several channels increases the time before material can actually be delivered to units as well as determining actual quantities available.

c. Fixed open wire requirements should be supplied by wire section.

d. Troop lists should be stabalized as early as possible in order to guarantee proper quantities of maintenance materials.

e. Packing and marking of maintenance materials for initial stages of operation should be far superior to those found during present campaign.

f. Only those parts of equipment should be taken on assault phase that are to be unloaded and used during that period.

g. Field units should be cautioned against stripping special pieces of equipment issued for landing purposes before being returned to depots.

HAROLD C. WAFLER
1st Lt. Sig. Corps
S & I Officer

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Supply Officer
APO 758 U. S. Army

21 August 1943

SUBJECT: Defective Equipment and Recommended Improvements Noted During the Sicilian Campaign.

TO : Signal Officer, Seventh Army, APO 758, U. S. Army.

1. The Ground Rod Bracket on the SCR-511 Radios are repeatedly broken due to the weakness of the metal used. Recommend steel or brass instead of aluminum.

2. The connecting cable on the SCR-609 breaks off at the receiver. Recommend change in style or design of cable to provide more flexability.

3. Spare polarized relays mounted inside of CF-2 and CF-2-A Carriers, become loose during shipment, breaking meter faces and tubes. Recommend taping relay to mounting bracket at point of manufacture.

4. The Power Unit mounted within the CF-1, CF-2 and CF-2-A Carriers is too heavy for the mounting plate. We find most mounting plates buckled in the center, causing relay covers and associated equipment to be inaccessible. Recommend stronger mounting plates, or more even distribution of weight on present mounting plate.

5. Panels on BD-90 and BD-98 Power Panels shear off of brackets due to small type of screw used for a comparably heavy panel, resulting in much damage to wiring and meters. Recommend heavier screws by used.

6. RA-36 Rectifiers mounted within BD-90 Power Panels shear off at the spot-welded bracket on the rectifier. Recommend more solid welding or re-design of bracket.

CHARLES D. ERCKMAN,
1st Lt., Signal Corps,
Repair Officer.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. # 758

20 August 1943

MEMORANDUM:

TO : Colonel Saunders

The following comments are submitted as a result of my observations during the planning and execution of "Husky".

1. Planning Phase

(a) During the planning stage for operation Husky there was an inadequacy of trained enlisted personnel for handling the huge volume of clerical and stenographic work in the Signal Section. There were available only seventeen enlisted men. Future planning for a similar headquarters, planning a similar operation, dictates minimum requirements of twenty four enlisted men.

(b) Complete and accurate troop lists showing all signal units and detachments and the headquarters or units to which assigned or attached must be available prior to the initial phase of the operation. Loading lists showing total officer and enlisted personnel and vehicles by type in the organization should be available to the signal officer.

(c) Plans must assure that adequate transportation for the signal officer and signal staff be landed at earliest possible time.

2. Operation Phase

(a) Immediately upon selection of a C. P. location for a signal unit the location must be reported to the signal officer. Whenever a C. P. is moved the signal officer must be advised immediately of the new location.

(b) The M/C officer should, at all times, be able to receive from G-3 the correct locations of all units to whom the message center is responsible for deliveries. The difficulty experienced by message center in obtaining this information caused undue delay in the delivery of messages.

(c) Lack of sufficient vehicles for messenger service placed undue burdens on electrical transmission facilities in the initial phase of the operation. Future planning should provide additional vehicles at this time when messenger service is most practicable and often proves to be the most expedient and reliable means of communications.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Supply Officer
APO 758 U.S. Army

22 August 1943

SUBJECT: Lessons Learned in "HUSKY" Operation.

TO : Signal Officer, Seventh Army, APO 758, U. S. Army.

1. Being at the Rear Echelon during the initial phases of the operation I found that equipment which left Africa for HORRIFIED in good operating condition was received in very poor condition. This was especially true of radio equipment. This necessitated a considerable delay due to repair and the use of valuable spare parts. Units handling equipment should be warned to take better care of equipment under their authority.

2. It is a good policy to have a signal officer follow through with all signal supplies. This prevents delays and insures that the proper equipment is shipped.

3. Equipment transported by LST's or similar small craft should be carefully checked when loaded and the ship carry a Tally on the equipment they have aboard to hand to those responsible at the receiving end.

RICHARD O. LAWTON
1st Lt., Signal Corps,
Property Handling Officer.

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(Operation Phase, Cont'd)

(d) In at least one case which was called to my attention by the M/C officer a regularly scheduled messenger was detained by a staff officer for a period of three hours so that the officer could dispatch a message. Staff personnel should be properly instructed.

3. Post Operation Phase

(a) Staff personnel must be educated in the economy of messages. A sizeable percentage of the total traffic on electrical transmission facilities can be attributed to verbose wording.

(b) Greater care should be used in the preparation of all messages. Many are so poorly worded as to be unintelligible or fail to convey the intended meaning.

(c) The present policy of this headquarters is to assign cite numbers to outgoing messages. This procedure is entirely unsatisfactory since the addressee very seldom uses the cite number in his reply. The use of this reference adds approximately four words to every message without accomplishing any practical purpose. SOP for all Headquarters should use date time group for reference to all messages.

RICHARD L. BLOSSER,
2nd Lt., Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A. P. O. # 758

21 August 1943

MEMORANDUM:

TO : Colonel Elton F. Hammond, Headquarters Seventh Army.

The following is a report of "Lessons Learned" from the operation "HUSKY".

1. (a) The problem of obtaining specialized personnel for Signal Units was made more difficult by the requests for the personnel going through parallel channels. The results were some unnecessary work and often some units obtaining more men than needed while others were deprived of needed personnel. There was also trouble in obtaining the names and other necessary information from units who were in excess of T/O which at times delayed the reassignment of such excesses.

(b) The problem would be greatly simplified if an officer was designated as a Signal Personnel Officer. He should be a member of the Signal Section and work very closely with G-1. He should receive periodical reports from which he could obtain information as to overages, shortages, and specialists who are improperly assigned from all the Signal Units under Army control. If these reports contained the names, rank and serial numbers of excess personnel, they would greatly speed up the paper work involved in transferring signal personnel from one organization to another. This officer should act as a coordinating agency for all these problems of personnel and all the signal units should send their requests for additional personnel through him. He could keep records of the specialists by S.S.N. within each unit and could keep the Signal Officer informed as to what specialties were generally lacking in the Army. This officer could, with a little investigation into the merits of officers and key enlisted men, make for better distribution of the talents throughout the entire Army Signal organization.

2. (a) Within an organization of this size the exact location and status of units as far as assignment or attachment is concerned is a very large problem and one which often calls for a great deal of time checking with G-3 on such matters for Signal Units. This time spent in checking could be materially lessened.

(b) Records should be kept within the Signal Section as to the location of each Signal Unit, regardless of its size. This record could probably be best kept on a map of the area in which the Army is operating. Such a reference would greatly speed up the assigning of small individual units to do special signal tasks. This would be especially true of individual wire construction and radio teams. Such a record would also make for more rapid communication between the Signal Units and the Signal Section and shorten the time between the plan and the fulfillment.

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3. My position in the Section has been so general in nature that the particular troubles in any one phase of signal communications have not been brought to me consistently enough for me to judge if such things were just isolated incidents or whether they were the general character of things; so I feel that I am really in no position to comment on most of the other matters.

JOHN B. PALMER,
2nd Lt., Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Supply Officer
APO 758 U. S. Army

23 August 1943

SUBJECT: Lessons Learned from Operation HUSKY.

TO : Signal Officer, Seventh Army, APO 758, U. S. Army.

1. Due to the fact that my appointment as a commissioned officer in the Signal Corps became effective 23 July 1943, my knowledge of Signal Operations in the Sicilian campaign is very limited. My duties previous to my appointment was that of a motor sergeant with the 1st Armored Signal Battalion and pertains, therefore, to Ordnance equipment and operations.

2. However, I have one suggestion that may prove helpful in future operations. During Operation HUSKY it became necessary for me, as a Signal Corps officer to spend a day and a night at our forward Signal Depot to pick up a report requested by Major Leidenheimer. In the course of the visit I came in contact with the officer handling Signal Communications at the front. It was brought out that there appeared to be a shortage of certain Signal equipment. One captain from the 1st Division stated that he had had two hundred (200) casualties due to the fact that he had no Wire, W-130 for use to communicate with the Field Artillery. He stated that he had sent a runner back requesting the wire be supplied him. The time lost by doing so permitted the enemy to get his artillery into operation and the American Forces had no alternative but to fall back, with severe losses.

3. It is my belief that if some way could be devised to remedy this situation from recurring in the future thus decreasing the number of casualties considerably. Our forward depot had no such wire on hand at the time, but we managed to obtain a few miles of German assault wire from a nearby Signal Battalion, thus placing the above-mentioned unit into operation.

FRED E. PARKER, JR.,
2nd Lt., Signal Corps
Sig.Sup.Requirements Officer.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. # 758

22 August 1943

SUBJECT: Lessons Learned in Operation "Husky".

TO : Signal Officer, Seventh Army.

1. A large supply of reserve S.O.I's proved valuable in lessening the problem of production during the campaign.

2. An adequate supply of current S.O.I Items should be retained at the rear or Main echelon to fill last-minute requests for additional items.

3. Complaints were common that the Division Field Code and the Air-Ground Liaison Code were never used and, because of their confidential classification, they proved an unnecessary burden. Suggest their distribution be discontinued to Seventh Army troops.

4. Severe violations of security were observed in daily reports from G-1, G-2, G-3 and the Engineer Section. Daily, the G-3 report began with the same 30 words, and the G-2 report always started "Isum for twenty four hour period ending..." Suggest that Message Center be instructed to begin encipherment of these daily reports in the middle of the message and to indicate clearly where the message begins. This method has proved more practical and satisfactory than attempts to educate originators in the requirements of security.

RICHARD H. TARPLEY,
W.O. (j.g.) Signal Corps.

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HEADQUARTERS SEVENTH ARMY
Office of the Signal Officer
A.P.O. 758 U.S. Army

21 August 1943

SUBJECT: Lessons Learned from Experience During Operation HUSKY.

TO : Signal Officer, Seventh Army, APO 758 U.S. Army.

1. Following is a list of recommendations for future planning:

a. Guards should be placed over all items of captured Signal equipment to prevent pilfering by other units until such time as an accurate inventory can be made and the material segregated as to condition, types and usefulness.

b. Personnel who have to operate apart from main Headquarters should be provided with sufficient transportation so as to carry out assigned missions promptly.

c. Telephone service to all Supply points should operate without interruption. In some cases captured equipment was used and, due to its inferiority to U.S. equipment, would not work efficiently in conjunction with our equipment.

d. Maintenance requisition made up from stock records cards should be thoroughly checked for correctness of nomenclature, stock numbers, and amounts before submission. This would tend to avoid delay in shipping.

e. All personnel should be well trained at their particuler assignment and also have a working knowledge of what the other divisions work involves.

JOHN J. MCMURRAY
W. O. (jg) A.U.S.
Sig. Sup. Adm. Off.

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