

AD-A071 943

ARMY COMMUNICATIONS-ELECTRONCS ENGINEERING INSTALLATI--ETC F/G 17/2  
INSTALLATION OF KG-13 COMSEC DEVICES AT THE TAEGU ASC.(U)  
JUL 79

UNCLASSIFIED

CCC-TED-79-TR-053

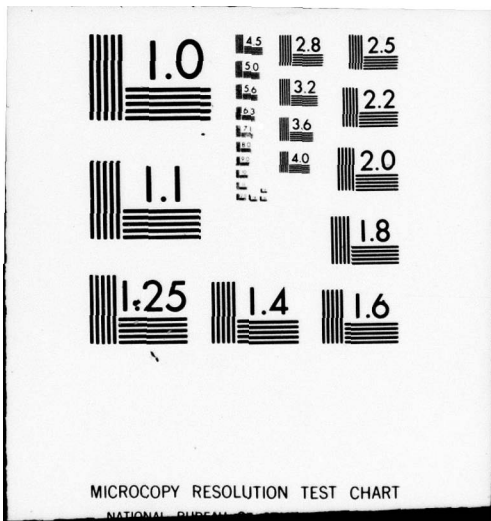
NL

1 OF 1

ADA  
071943



END  
DATE  
FILMED  
8-79  
DDC





*9) Test rept.*

DEPARTMENT OF THE ARMY  
U.S. ARMY COMMUNICATIONS-ELECTRONICS  
ENGINEERING INSTALLATION AGENCY  
FORT HUACHUCA, ARIZONA 85613

*11*

WPE-3330ND

JUL 17 1979

CCC-TED-TSDS

SUBJECT: *6* Test Report, Installation of KG-13 COMSEC Devices at the Taegu  
ASC, Publication No. *14* CCC-TED-79-TR-053

Commander  
US Army Communications Systems Agency  
ATTN: CCM-SW-B  
Fort Monmouth, NJ 07703

DDC  
RECEIVED  
JUL 30 1979  
C

*11-14 Jul 79*

*12*  
*28 p.*

ADA 071943

1. REFERENCES.

a. Message, DCA, Code 531/2484, 18 May 78, subject: Engineering Modification Requirement (EMR) for Installation of KG-13/CAU's at Taegu ASC.

b. Letter, USACC, CC-OPS-TS, 23 May 78, subject: Engineering Modification Requirement (EMR) for Installation of KG-13/CAU's at Taegu ASC.

c. Message, USACSA, CCM-SW-B, 301900Z Jan 79, subject: EMR 169 Installation of TSEC/KG-13/CAU Taegu ASC.

d. USACEEIA Engineering Installation Plan (EIP) for Installation of Eight (8) Additional KG-13 COMSEC Devices at Taegu ASC.

2. STATEMENT OF THE TASK. This test report records the results of Quality Assurance (QA) evaluations and tests conducted during the KG-13/CAU installation at the Taegu AUTODIN Switching Center (ASC). QA inspections and tests were conducted during the period of 21 May through 19 Jun 79.

DISTRIBUTION STATEMENT

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED

*405 982*

79 07 26 073 *11*

DDC FILE COPY

JUL 17 1979

CCC-TED-TSDS

SUBJECT: Test Report, Installation of KG-13 COMSEC Devices at the Taegu ASC, Publication No. CCC-TED-79-TR-053

### 3. BACKGROUND.

a. The Defense Communications Agency (DCA) established a requirement for additional R-Community terminations at the Taegu ASC. Due to limited crypto capabilities at the Taegu ASC this requirement could not be satisfied until eight KG-13 COMSEC devices and four Dual Function Crypto Ancillary Units were installed.

b. This Agency was tasked to engineer, develop installation plan, and perform QA/Testing necessary to accomplish the above installation requirements. The Tobyhanna Army Depot (TOAD) was designated as the responsible installation agency.

### 4. RESPONSIBILITIES.

a. US Army Communications Systems Agency (USACSA): As the Project Manager (PM) for Overseas AUTODIN, has management and control of the project. The PM establishes milestones, provided equipment release, and issued tasking for this program.

b. US Army Communications-Electronics Engineering Installation Agency (USACEEIA): Responsible to prepare the Engineering Installation Plan (EIP), provide the test director, and conduct quality assurance evaluations and final acceptance testing of the additional KG-13 units installed at the Taegu ASC.

c. Tobyhanna Army Depot (TOAD): Provide all items identified by the Bill of Materials (BOM) and perform all installation requirements identified by reference 1d.

d. USACC, 1st Signal BDE: Provide appropriate administrative and personnel support for the installation and test requirements identified by reference 1d.

### 5. SUMMARY OF RESULTS.

a. The quality assurance evaluation and test criteria contained in the Engineering Installation Plan (EIP) No. H8T036 were utilized as the QA inspection/evaluation and acceptance testing program for this installation effort. Material acceptance was accomplished as follows:

Session For	
AS GRAB	
IC TAB	
announced	
ification	
istribution	
Availability Codes	
Avail and/or special	
at	

JUL 17 1979

CCC-TED-TSDS

SUBJECT: Test Report, Installation of KG-13 COMSEC Devices at the Taegu  
ASC, Publication No. CCC-TED-79-TR-053

(1) Perform receipt inspection of BOM during inventory by installation team and perform in-process/acceptance inspections during each phase of equipment-cable installation, such as visual, mechanical, and electrical inspections during continuity/shakedown testing. A copy of the final QA Inspection Certificate is forwarded as Incl 1.

(2) With the exception of Test C-1 (LTBU), acceptance tests identified by reference 1d were performed to demonstrate that the KG-13 units and associated equipment were correctly installed and operating properly. In lieu of Test C-1, full operational capabilities were verified by patching each COMSEC device to an active circuit for a minimum of 24 hour on-line utilization. A copy of the "Certification of Test" data sheet for installed equipment is at Incl 2.

b. BOM item 27 provided for installation as item 15 on drawing KS802 SD-IN90002 was a substitute Electrolet Killark T-type FSCC conduit box of nonferrous material that would not satisfy MIL-HDBK-232 requirements. BOM item 26, Crouse-Hines T-type FSCD 2-RFI conduit box was installed instead, with the fourth port sealed with a ferrous plug.

c. This project was engineered to route all new AC wiring through the existing power ducting to Power Panel H. After arriving on-site, it was determined that routing additional AC wiring through the existing two inch EMT sweep elbow would be impossible. A one inch EMT conduit run was installed between the existing AC wireway and Power Panel H to accommodate the new AC wiring. Detail "Y" of site drawing 100000503-17, Sheet 7, was redlined to reflect this addition. Details of the installation, to include the BOM, are provided at Incl 3. Additional cabling for the new COMSEC equipment as added to the site cable running list, drawing 100000517-017, is forwarded as Incl 4. Also, site drawings 100000412-017, Sheet 4, Red Distribution Frame, Cabinet 7602 and 100000413-017, Sheet 3, Black Distribution Frame, Cabinet 7701 have been redlined to reflect cable terminations for COMSEC 3124 through 3127.

d. The engineering installation drawings included in the EIP were the only installation details provided for this project. These drawings have been redlined to reflect all changes/additions made during this effort and will be forwarded to the Engineering Directorate for appropriate action necessary to update the site drawings.

e. A daily log of significant events, as required by the EIP, was maintained throughout the installation and test. Copies of these logs are forwarded at Incl 5.

JUL 17 1979

CCC-TED-TSDS

SUBJECT: Test Report, Installation of KG-13 COMSEC Devices at the Taegu  
ASC, Publication No. CCC-TED-79-TR-053

6. CONCLUSIONS. All equipment and installation provisions of EIP H8T036 have been successfully installed, inspected and tested, and are technically acceptable for all operational requirements. A copy of the signed "Technical Acceptance Recommendation" is at Incl 6.

7. RECOMMENDATIONS. None.

FOR THE COMMANDER:

6 Incl  
as

*Calvin F. Phillips*  
CALVIN F. PHILLIPS  
Colonel, Signal Corps  
Director, Test & Evaluation  
Directorate

CF:  
COMMANDERS:

Tobyhanna Army Depot, ATTN: SDSTO-MI-M, Tobyhanna, PA 18466  
US Army Communications Command, ATTN: CC-OPS-TS, Fort Huachuca, AZ  
85613  
US Army Communications-Electronics Engineering Installation Agency,  
ATTN: CCC-CED-SWR, Fort Huachuca, AZ 85613  
36th Signal Battalion, APO San Francisco 96218

DIRECTORS:

Defense Communications Agency, ATTN: Code 531, Washington, DC 20305  
Defense Document Center for Scientific and Technical Information, ATTN:  
Documentation Service Center, Alexandria, VA 22314  
Defense Communications Agency, Technical Library Center, Code 205,  
Washington, DC 20305

QUALITY ASSURANCE INSPECTION  
CHECKLIST - INSTALLATION (CCCR 702-2)

PAGE 1 OF 11 PAGES

DATE (day, mo, year)  
18 Jun 79

SITE

Taegu ASC

LOCATION

Korea

TEST ENGINEER  
QUALITY ASSURANCE  
REPRESENTATIVE (QAR)

Wood

PROJECT NAME

KG-13 Installation

TASK NO.

EIP H8T036

REFERENCED T.O. FOR QUALITY OBSERVATIONS FOLLOW MAIN PARAGRAPHS

	YES	NO	NA
<b>A. <u>Drawings and Specifications</u> (AFTO 31-10-3, 31-10-9, 31-10-27, 31-10-29)</b>			
1. Are floor plan drawings available?	X		
2. Are equipment location drawings available?	X		
3. Are face layout drawings of equipment in bays available?	X		
4. Are drawings for distribution frame block assignments available?	X		
5. Are pin connections on terminal blocks shown on drawings?	X		
6. Is stenciling of terminal blocks shown on drawings?	X		
7. Are drawings of power distribution equipment available?	X		
8. Are wire sizes indicated on drawings?	X		
9. Are schematic diagrams of circuit types to be installed included in drawings?	X		
10. Are drawings of site grounding systems available?	X		
11. Are drawings showing arrangement of cable racks, ducts, and trenches available?	X		
12. Do specifications contain list of reference material required by installers?	X		
13. Do specifications contain cable running list for power distribution?	X		
14. Do specifications contain cable running list for signal cabling?	X		

INCL-1

	YES	NO	NA
15. Do specifications contain cable running list for RF cabling?			X
16. Do specifications contain detailed information on grounding?			X
17. Do specifications contain details on all special instructions for installers?	X		
18. Do drawings reference all applicable items on BOM?	X		
<b>B. <u>Tools and Equipment</u> (AFTO 31-10-29)</b>			
1. Is equipment damaged or unserviceable?		X	
2. Are all installation materials on hand and serviceable?		X	
3. Are all tools necessary for completion of the job on hand?		X	
4. Is all test equipment needed for test and checkout of installation available?		X	
<b>C. <u>General Safety Practice</u> (AFTO 31-10-29)</b>			
1. Are goggles being worn when drilling and grinding?	X		
2. Are sharp edges left on frame or duct work?	X		
3. Are all hand tools properly used?	X		
4. Are electric power tools properly grounded?	X		
<b>D. <u>Floor Plan Layout</u> (AFTO 31-10-9, 31-10-29)</b>			
1. Are equipment layout plans in accordance with drawings?	X		
2. Was layout plan completed before equipment was moved into area?	X		
<b>E. <u>Erecting and Mounting</u> (AFTO 31-10-29)</b>			
1. Is equipment laid out in accordance with floor plan drawing?	X		



	YES	NO	NA
2. Are equipment bays level and plumbed within tolerances?	X		
3. Has proper spacing been provided between equipment racks?	X		
4. Are base angles of frames secured to floor in proper location?	X		
5. Are all cabinets flush mounted and plumbed?	X		
6. Has finish of equipment, cabinets, and racks been touched up?	X		
7. Are bolts and screws free from stripped threads and defaced heads?	X		
8. Have sufficient clearances been provided between apparatus for heat dissipation?	X		
9. Are terminal blocks aligned on distribution frames?	X		
10. Has equipment been installed in cabinets or racks in accordance with face layouts?	X		
11. Are all nuts and bolts securely tightened?	X		
12. Are exposed or cut ends of metal filed smooth and painted?	X		
13. Have lock and flat washers been used?	X		
14. Is the C-E equipment BOM available at the facility?	X		
15. Has the C-E equipment been inventoried and discrepancies posted?	X		
16. Is all required C-E equipment at the site?	X		
17. Is all C-E equipment installed?	X		
<b>F. <u>Cable Racks</u> (AFTO 31-10-6)</b>			
1. Location of cable racks:			
a. Are cable racks located in accordance with cable plan drawing?			X

	YES	NO	NA
b. Does height of cable racks conform to height above floor as indicated on cable plan drawing?			X
c. Are cable racks located so that clearance is provided for installation and maintenance of ultimate equipment?			X
d. Are cable racks located so cables are not subject to damage or exposure or other detrimental conditions?			X
2. Assembly of cable racks:			
a. Are long sections of cable racks used where possible?			X
b. Have clamping details been altered other than where necessary to avoid interference?			X
c. Are open ends of cable racks properly closed?			X
d. Are vertical cable racks properly terminated on floors?			X
3. Support of cable racks:			
a. Are cable racks properly supported and fastened?			X
b. Are cable racks installed so that no excessive load or binding is imposed on the equipment?			X
c. Are horizontal cable racks supported on approximately 5 feet centers but not to exceed 6 feet?			X
d. Has support been provided within 3 feet of free end of cable rack?			X
e. Are cable racks braced where necessary to prevent sway?			X
G. <u>Running Cable</u> (AFTO 31-10-13)			
1. Are cable runs made in accordance with cable running list?	X		
2. Are cables twisted or crossed on cable rack?			X

	YES	NO	NA
3. Do cables at turns or bends conform to the bending radii and position?	X		
4. Is protection provided where cable sheaths contact rough or sharp edges or metal?	X		
5. Are cables which are turned off over side of cable racks formed with minimum allowable radii?			X
6. Are cables turned off rack horizontally and then up?			X
7. Do cables to the distribution frame enter on the vertical side?	X		
8. Are cables serving the horizontal side of a distribution frame secured to the transverse arms near the vertical upright?	X		
9. Are cable tags properly prepared and in accordance with the cable running list?	X		
10. Are cable tags secured at each end of cable run?	X		
11. Have cable tags been removed upon completion of verification and termination?	X		
12. Are cable butts located as near as practicable to the point where the first wires turn out?	X		
13. Are cable butts properly treated?	X		
14. Is insulation of wires undamaged at butt location?	X		
15. Are unused and spare wires protected at butt location?	X		
<b>H. <u>Securing Cable</u> (AFTO 31-10-2, 31-10-13)</b>			
1. Is starting stitch properly made and placed?			X
2. Is required Kansas City stitch properly made?			X
3. Are first and succeeding layers of cable properly secured?			X

	YES	NO	NA
4. Are cables secured at every cable rack cross strap?			X
5. When cable butt is between securing devices, are cables secured together with an appropriate stitch?			X
6. Are lock stitches properly made and spaced?			X
7. Are splices in twine properly made?			X
<b>I. Sewed Forms (AFTO 31-10-13)</b>			
1. Is proper size twine used for the diameter of the form?			X
2. Are proper number of stands used?			X
3. Are stitches properly spaced?			X
<b>J. Butting and Stripping (AFTO 31-10-13)</b>			
1. Are proper tools used for butting and stripping of cable?	X		
2. Are cable butts properly dressed?	X		
3. Is proper distance maintained from cable butt to fanning strip?	X		
<b>K. Fanned Forms (AFTO 31-10-2)</b>			
1. Are cables fanned and connected to the left side of vertical mounted terminal blocks and to the bottom of horizontal terminal blocks?	X		
2. Are conductors in fanned forms twisted and bunched?	X		
3. Are fanned forms straight and taut from butt location to fanning strip?	X		
4. Is length of skinners correct?	X		
5. Has color code been properly followed?	X		
6. Are spare wires disposed of properly?	X		
<b>L. Stenciling (AFTO 31-10-27, 31-10-29)</b>			
1. Is equipment correctly identified and stenciled in accordance with floor plan drawings?	X		

	YES	NO	NA
2. Are designations located correctly?	X		
3. Are correct size designations used on particular types of apparatus or equipment?	X		
<b>M. Strapping (AFTO 31-10-16)</b>			
1. Are straps properly placed?	X		
2. Is correct type of strap wire used?	X		
3. Does insulation extend to terminal?	X		
4. Are straps placed so as not to interfere with operation of apparatus?	X		
5. Is removal of apparatus blocked?	X		
6. Are designations of apparatus obscured?		X	
<b>N. Connecting and Soldering (AFTO 31-10-7)</b>			
1. Is soldering clamp used when connecting wires?	X		
2. Are connections made on terminal blocks in proper manner?	X		
3. Is all soldering done with standard rosin core solder?	X		
4. Are connections secure and free of foreign substances?	X		
5. Has all unsightly flux and excess globules of solder been removed?	X		
6. Is insulation on skinners burnt or otherwise damaged?		X	
7. Do skinners on connected terminals exceed 1/16 in?		X	
8. Are all conductors given a continuity test after connection is made?	X		
<b>O. Wrapped Connections (AFTO 31-10-7)</b>			
1. Are wrapped connections applied only on suitable terminals?			X
2. Are connections essentially straight and free of angular bends or crimps?			X

	YES	NO	NA
3. Are the required number of turns in contact with the terminal in accordance with criteria for gauge of wire used?			X
4. Are wrapped connectors soldered where applicable?			X
<b>P. <u>Cross Connections</u> (AFTO 31-10-11)</b>			
1. Are jumpers properly routed at distribution frame?	X		
2. Do jumpers have sufficient slack after connection?	X		
3. Are conductors twisted between fanning strip and terminal?	X		
4. Does twist remain in conductors beyond rear of fanning strip?	X		
5. Are jumpers properly dressed?	X		
6. Has excess solder been removed from terminals?	X		
<b>Q. <u>Equipment and Signal Grounds</u> (AFTO 31-10-24, 31-10-29)</b>			
Are equipment and signal grounds installed in accordance with applicable codes and standards and in accordance with installation drawings?	X		
<b>R. <u>Conduit</u> (AFTO 31-10-12)</b>			
1. Are burrs removed from conduit after cutting?	X		
2. Is bending radii of conduit adequate?	X		
3. Are there more than four 90-degree bends in a single conduit run?		X	
4. Does number of conductors in conduit conform?	X		
5. Are conduits supported at intervals not exceeding 6 feet?	X		
6. Have all fittings been tightened after installation?	X		

	YES	NO	NA
<b>S. <u>Ducts (RF Shieldings)</u> (AFTO 31-10-12, 31-10-13)</b>			
1. Are hangers for overhead ducts mounted first?			X
2. Is proper type mallet used in assembly?			X
3. Are flange sections cleaned before installation?			X
<b>T. <u>Coaxial Cables</u> (AFTO 31-10-14)</b>			
1. Is cable inspected for possible damage prior to installation?			X
2. Where required, is cable sewed in same manner as signal cable?			X
3. Is butting and stripping done in same manner as signal cable?			X
4. Do cable tags remain on coaxial cable from antenna to RF patch or equipment?			X
5. Is support spacing of cables installed as prescribed (3 ft for cable 1-5/8 in or smaller and 5 ft for cables 1-11/16 in or greater)?			X
6. Does bending radii of cables meet prescribed standards of the T.O.?			X
<b>U. <u>Waveguides and Antennas</u> (AFTO 31R-10-5, CEEIA PAM 105-3)</b>			
1. Are waveguides stored in a horizontal manner and away from heavy objects?			X
2. Are waveguides inspected for possible damage prior to installation?			X
3. Are waveguides cleaned in the proper manner prior to installation?			X
4. Are hangers installed every 5 feet, as prescribed?			X
5. Do waveguide bends conform to T.O. criteria?			X
6. Are antennas and reflectors mounted as prescribed heights?			X
7. Are antennas oriented to the prescribed azimuth?			X

	YES	NO	NA
<b>V. <u>Outside Plant Inspection</u> (AFTO 31R-10-5, 31-10-5, 31-10-3, 31-10-10, 31-10-21, 31-10-24, 31-10-28)</b>			
1. Are antenna tower locations proper?			X
2. Are footings or pads prepared prior to concrete pour?			X
3. Have concrete pours for footings and pads been accomplished in accordance with specified criteria?			X
4. Has proper cure time been achieved prior to mounting steel?			X
5. Is the tower constructed in accordance with the specified criteria, drawings, etc?			X
6. Are the antenna supports, anchors, pedestals, etc., properly installed in accordance with established criteria?			X
7. Are supporting structures, guy wires, tower lighting kits (when required), termination boxes, and baluns included and properly installed in accordance with established criteria?			X
8. Are antennas properly mounted and aligned?			X
9. Were antenna reflectors properly aligned prior to mounting the feed horn?			X
10. Are antenna curtains for rhombic and log periodics properly installed?			X
11. Are transmission lines, coaxial cables, waveguides, etc., properly installed?			X
12. Has tower and supporting structure been painted in accordance with established criteria?			X
13. Are waveguides, cable runs, etc., properly installed and protected?			X
<b>W. <u>Power Buildings</u> (AFTO 31-10-3, 31-10-29)</b>			
1. Are power buildings and pads properly located and installed?			X



	YES	NO	NA
2. Are generators and power distribution panels properly located and installed?			X
3. Are oil pans properly installed?			X
4. Are generators properly vented from the buildings?			X
5. Has all required wiring been installed?			X
6. Are fuel tanks installed above ground; if so, are they located at the proper distance from generator building?			X
7. If fuel tanks were installed underground, was it accomplished in accordance with established procedures?			X
8. Is safety equipment located in generator building?			X
X. <u>Installation Drawings (AFTO 31-10-29)</u>			
Have drawings been reviewed to assure "as built" accuracy?	X		

**TEST CERTIFICATION AND CHECKLIST**

**TEST A-1: KG-13**

**TEST B-1: SN. 394**

**TEST C-1: LTBU**

<u>KG-13 No.</u>	<u>TEST DATE</u>	<u>CAU No.</u>	<u>TEST DATE</u>	<u>LTB No.</u>	<u>TEST DATE</u>
1	<u>13 Jun</u>	1	<u>13 Jun</u>	1	<u>*</u>
2	<u>13 Jun</u>	2	<u>13 Jun</u>	2	<u>*</u>
3	<u>13 Jun</u>	3	<u>15 Jun</u>	3	<u>*</u>
4	<u>13 Jun</u>	4	<u>15 Jun</u>	4	<u>*</u>
5	<u>15 Jun</u>			5	<u>*</u>
6	<u>15 Jun</u>			6	<u>*</u>
7	<u>15 Jun</u>			7	<u>*</u>
8	<u>15 Jun</u>			8	<u>*</u>

This is to certify that the test identified above was conducted in accordance with section 7 of the EIP, Test A-1, Test B-1, and Test C-1.

**Test Conductor (s)**

Paul G. Sklar  
signature

18 Jun 79  
date

signature

date

**Q.A. Representative(s)**

Bullie R Wood  
signature

18 Jun 79  
date

signature

date

**Government Witness(es)**

John C. [Signature]  
signature

18 Jun 79  
date

signature

date

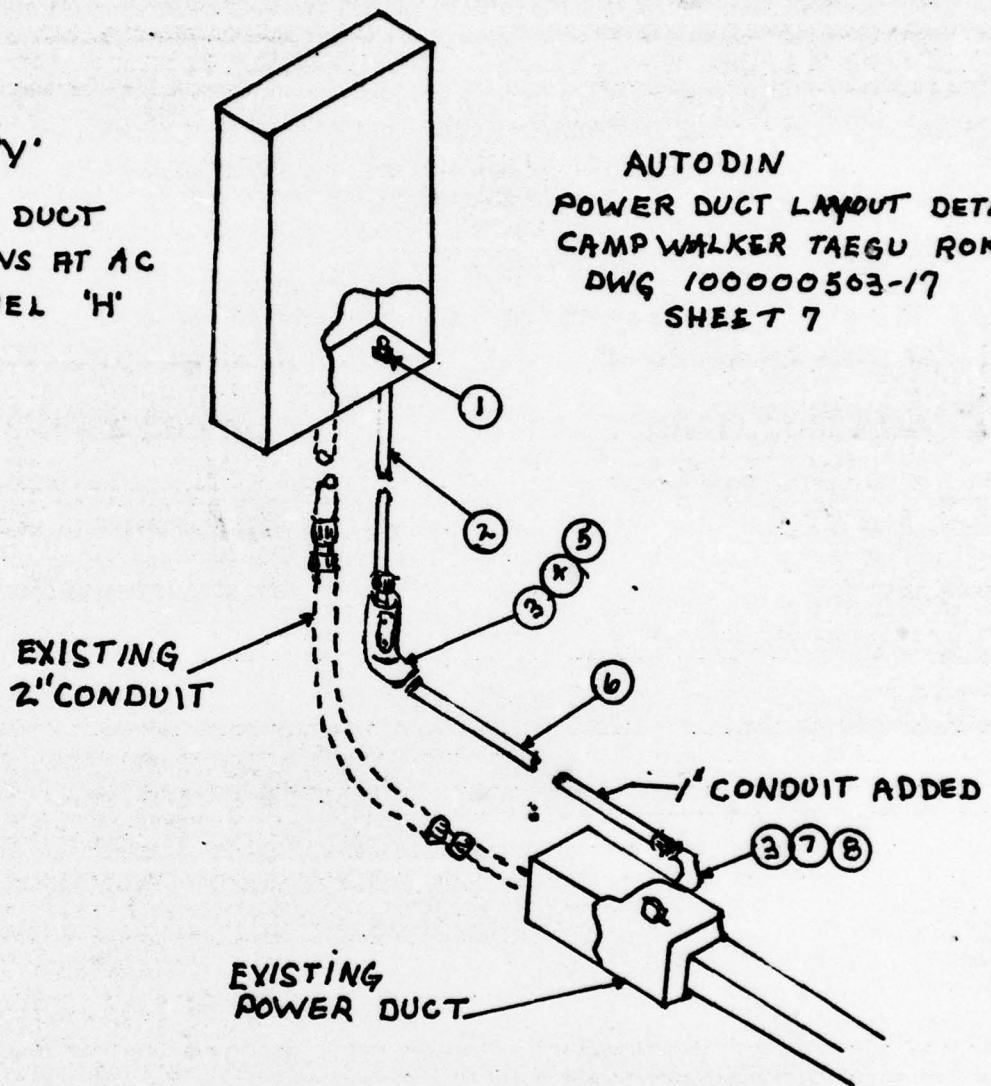
\* Test C-1 was not conducted. Full operational capabilities were verified by patching each COMSEC device to an active circuit for 24 hours on-line utilization.

INCL-2

POWER CONDUIT ADDED DURING TAEJU KG-13 UPGRADE

DETAIL 'Y'  
 CONDUIT & DUCT  
 CONNECTIONS AT AC  
 POWER PANEL 'H'

AUTODIN  
 POWER DUCT LAYOUT DETAILS  
 CAMP WALKER TAEJU ROK  
 DWG 100000563-17  
 SHEET 7



1. EMT BOX CONNECTOR 1"
2. CONDUIT EMT 1" (48")
3. ADAPTER 1" EMT
4. COVER 1" CONDULET
5. CONDULET 1" TYPE L CROUSE-HINES LL-38
6. CONDUIT EMT 1" (36")
7. CONDULET 90° ELBOW 1"
8. COVER 90° ELBOW

CABLES INSTALLED DURING EIP-H8T036 KG-13 COMSEC UPGRADE AT THE TABGU ASC

REFERENCE SITE CABLE RUNNING LIST - DWG 100000517-017

Sheet 74 Rev F

CABLE				FROM				TO			
Cabinet run	pair req	type	feet	equip no	equipment name	pn1 loc	ref dwg no	equip no	equipment name	pn1 loc	ref dwg no
3124-301	12	9L-0086-10	140	7602	Red Dist Frame	A-1	100000412	3124	COMSEC Type A	A-3	100000186
3125-301								3125			
3126-301								3126			
3127-301	12	9L-0086-10	140	7602	Red Dist Frame	A-1	100000412	3127	COMSEC Type A	A-3	100000186

Sheet 75 Rev B

CABLE				FROM				TO			
Cabinet run	pair req	type	feet	equip no	equipment name	pn1 loc	ref dwg no	equip no	equipment name	pn1 loc	ref dwg no
3124-311	12	9L-0086-10	170	7701	Blk Dist Frame	A-5	100000413	3124	COMSEC Type A	A-3	100000186
3125-311								3125			
3126-311								3126			
3127-311	12	9L-0086-10	170	7701	Blk Dist Frame	A-5	100000413	3127	COMSEC Type A	A-3	100000186

PROJECT LOG		SHEET NO 01
		DATE
		May
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP H8T036	KG-13 Installation	Taegu, Korea
FACILITY		CEEIA REPRESENTATIVE
AUTODIN Switching Center		Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
21/1300	W	Reference message CCC-CED-SWR, 112105Z May 79, subject: Engr Guidance for Instl of Ten Additional Red/Black Isolators at Taegu ASC. Ref message provided the requirement, engr guidance, LOM, installation data and checkout procedures to install 10 additional Red/Black isolators at the Taegu ASC by Jun 79. EMR-170 has been assigned this task and will be published after-the-fact due to the short suspense date. TOAD installation team hand-carried the LOM with instructions to install the isolators prior to the KG-13 installation.
22/0815	W	This starts the Red/Black isolator installation. Red cable run between isolator 5201 cabinet and Red IDF 7603 cabinet has started.
22/0830	W	Mounting isolator switches in the isolator 5201 cabinet has started.
22/1030	W	Red cable run between the 5201 and 7603 cabinets has been completed. Black cable run between the 5201 and Black IDF 7703 cabinet has started.
22/1400	W	Black cable run between the 5201 and 7703 cabinets has been completed.
22/1445	W	Mounting isolator switches in the 5201 cabinet has been completed.
22/1500	W	Cable terminations are in progress at the isolator 5201 cabinet.
23/0800	W	Cable terminations are in progress at the Black IDF 7703 cabinet.
NOTE	W	Fonecon between Mr. sklanka, TOAD and SFC Best CEEIA on 3 May 79 established informal requirement to modify two LTB's for 110 baud operation. CCC-CED-SWR message 112105Z May 79 did not confirm this requirement. Since site has no requirement to provide 110 baud service at this time. ASC OIC message 230200Z May 79 request that site be notified if this is a valid requirement and also provide the 110 baud modification to preclude problems experienced at

INCL-5

PROJECT LOG		SHEET NO 02
		DATE
		May
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP H8T036	KG-13 Installation	Taegu, Korea
FACILITY		CEEIA REPRESENTATIVE
AUTODIN Switching Center		Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
23/1100 (con't)	W	Cp Drake. They had problems during the 110 baud modification installation.
23/1200	W	Cable terminations have been completed at the 5201 isolator cabinet.
23/1300	W	Cable terminations for the additional isolators are in progress at the Red IDF 7603 cabinet.
23/1500	W	Cable terminations for the additional isolators have been completed at the Black IDF 7703 cabinet.
23/1630	W	Cable terminations for the additional isolators have been completed at the Red IDF 7603 cabinet.
24/0800	W	Equipment rack installation for the additional KG-13's has started.
24/0830	W	Appropriate cross connects being made for testing isolators. Ref checkout procedures contained in CCC-CED-SWRmessage 112105Z May 79.
24/1000	W	All isolators have been tested and released for site utilization.
24/1600	W	Equipment rack installation for the additional KG-13's has been completed.
25/0800	W	Mounting equipment in racks has started.
25/1000	W	Status Report No. 1 transmitted.
25/1200	W	All CAU and KG-13 units have been mounted in racks.
25/1300	W	AC power and signal conduit installation between equipment and existing ducting has started.

PROJECT LOG		SHEET NO 03
		DATE May/June
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP H8T036	KG-13 Installation	Taegu, Korea
FACILITY		CEEIA REPRESENTATIVE
AUTODIN Switching Center		Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
29/1600	W	<p>AC power and signal conduit installation between the equipment and existing ducting has been completed.</p> <p>1. The existing AC feeder duct ends with a 6" x 6" x 1' mixer duct. Two inch conduit with 2" sweep elbow connects this ducting to Power Panel 'H'. Team Chief determined that pulling additional AC wiring this existing conduit would be extremely difficult, in not impossible. An additional 1" conduit was installed between the mixer duct and Power Panel H. Ref detail 'Y' site dwg 100000503-17, sheet 7.</p> <p>2. BOM item 27 calls for a conduit box type Crouse-Hines FSCC 2-RFI Crouse-Hines cat 3500 29 Sep PG 9 5975-00-383-7679 to be installed as item 15 on DWG KS802SD-IN90002. BOM item 27 provided for this installation was a Electrolet Killark type FSCC conduit box of nonferrous material that would not satisfy MIL-HDBK-232. BOM item 26 Crouse-Hines type FSCD 2-RFI conduit box 5975-00-903-8853 was installed as item 15 on ref drawing with fourth port sealed with ferrous plug.</p>
30/0800	W	AC power cable run has started.
30/1600	W	AC power cable run has been completed.
31/0800	W	AC power cable terminations have started at equipment end.
JUNE		
01/1130	W	AC power cable terminations have been completed at equipment end. Terminations are in progress at Power Panel 'H'.
01/1230	W	AC power cable terminations have been completed at Power Panel 'H' and power applied to equipment at this time.
01/1330	W	Red and Black signal cable installation/termination between KG-13 and CAU has started.
01/1430	W	Status report no 2 transmitted.
04/1130	W	Red and Black signal cable installation/termination between KG-13's and CAU's completed.

PROJECT LOG		SHEET NO 04
		DATE June
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP H8T036	KG-13 Installation	Taegu, Korea
FACILITY		CEEIA REPRESENTATIVE
AUTODIN Switching Center		Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
04/1500	W	Red and Black Signal Grounds have been run and terminated.
05/0800	W	Cable runs between CAU's and Red/Black IDF's have started.
05/0900	W	KG-13 debug started by site Maintenance Personnel.
05/1630	W	Cable runs between CAU's and Red/Black IDF's have been completed.
06/0800	W	Cable terminations have started at the CAU's and Red/Black IDF's.
07/1030	W	Cable terminations have been completed at the Black IDF.
07/1415	W	Cable terminations have been completed at the Red IDF.
07/1430	W	Site drawing 100000513-17, sheet 7, has been redlined to reflect 1 inch conduit added between existing power duct and Power Panel 'H'. Site cable running list also redlined to reflect new Red and Black signal cables for crypto devices 3124 thru 3127.
08/1000	W	KG-13 debug has been completed.
08/1100	W	Statut Report No. 3 Transmitted.
08/1530	W	Cable terminations have been completed at the CAU's.
09/1100	W	Drawings 100000-412-017, sheet 4, Red Distribution Frame, Cabinet 7602 and 100000413017, sheet 3, Black Distribution Frame, Cabinet 7701 have been redlined to reflect cable terminations for comsec 3124 thru 3127.
11/1030	W	3124-A1 debug completed.
11/1530	W	3124-A2 debug completed.
12/1030	W	3125-A1 debug completed. Grounded pin at Black IDF caused SYNC INHIBIT condition. Also CAU had bad A-5 card.
12/1420	W	3125-A2 debug completed. 6 volts not wired in.



PROJECT LOG		SHEET NO 05
		DATE June
PROJECT/CONTRACT NUMBER	TITLE	LOCATION
EIP H8T036	KG-13 Installation	Taegu, Korea
FACILITY		CEEIA REPRESENTATIVE
AUTODIN Switching Center		Wood
DAY/TIME	SINE	SIGNIFICANT EVENTS
12/1600	W	3126-A1 debug completed.
13/1100	W	3126-A2 debug completed. wires for pin 17 and pin 18 were reversed between TB10 and J2 connector.
13/1445	W	Testing completed on 3124-A1, 3124-A2, 3125-A1 and 3125-A2.
13/1515	W	3127-A1 debug completed. Bad Red card and wire missing at Red IDF.
13/1600	W	3127-A2 de bug completed.
15/1300	W	Testing completed on 3126-A1, 3126-A2, 3127-A1 and 3127-A2.
18/1100	W	Site validation completed.
19/0900	W	Technical Acceptance Recommendation signed.
19/1100	W	Final Status Report (no. 4) transmitted.

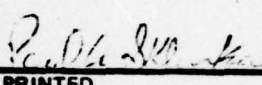
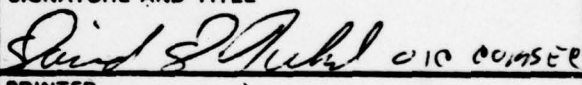
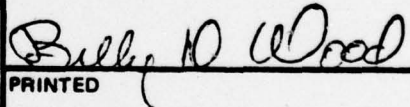
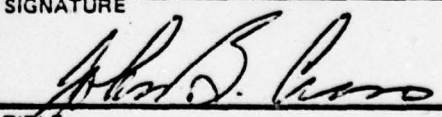
<b>TECHNICAL ACCEPTANCE RECOMMENDATION (SUMMARY)</b> (CCCR 702-2)		PAGE 1 OF 5 PAGES
		DATE (DAY, MO, YEAR) 19 June 1979
<b>PROJECT/CONTRACT NUMBER</b> EIP H8T036	<b>TITLE</b> KG-13 Installation	<b>LOCATION</b> Taegu, Korea
<b>FACILITY</b> AUTODIN Switching Center		<b>TEST DIRECTOR</b> Billie D. Wood
<b>OPERATING AGENCY</b> Commander 169th Signal Company DCSOPS APO SF 96218		<b>ENGINEERING AGENCY</b> Commander U.S. Army Communications-Electronics Engineering Installation Agency CCC-CED-SWR Fort Huachuca, AZ 85613
<b>INSTALLATION AGENCY</b> Commander Tobyhanna Army Depot SDSTO-MI-M Tobyhanna, PA 18466		<b>TESTING AGENCY</b> Commander U.S. Army Communications-Electronics Engineering Installation Agency CCC-TED-TSDS Fort Huachuca, AZ 85613
<b>PROJECT DESCRIPTION</b> Install eight KG-13 COMSEC devices, four Dual Function Crypto Ancillary Units, four RR-197 Relay Racks. This provides the capability to terminate eight additional encrypted R-Community subscribers at the Taegu ASC.		
<p>This Technical Acceptance Recommendation is executed by the onsite representatives of the installation, test and operating agencies. It does not constitute official acceptance of the project but does certify that the MAJOR ITEMS INSTALLED AND DOCUMENTATION PROVIDED are as stated herein. This document further certifies that the project has been installed and performs satisfactorily in accordance with the requirements listed under REFERENCES except as noted under EXCEPTIONS and REMARKS. Upon execution of this TECHNICAL ACCEPTANCE RECOMMENDATION, USACEEIA considers this project complete except for such follow-on action as may be necessary to clear the EXCEPTIONS stated herein.</p>		

INCL-6

9. TECHNICAL ACCEPTANCE RECOMMENDATION (INSTALLED EQUIPMENT) (CCCR 702-2)		PAGE 2 OF 5 PAGES	
		DATE (DAY, MO, YEAR) 19 June 1979	
PROJECT/CONTRACT NUMBER EIP H8T036	TITLE KG-13 Installation	LOCATION Taegu, Korea	
MAJOR EQUIPMENT INSTALLED/RELOCATED			
BOM ITEM NO.	DESCRIPTION	PART NUMBER/FSN	QUANTITY
1.	Rack Relay RR-197	5975-00-577-2533	4 ea
2.	Dual Function Synchronizer SN-394/G	5895-00-999-2435	4 ea
3.	TSEC/KG-13	5810-00-863-9816	8 ea

10. TECHNICAL ACCEPTANCE RECOMMENDATION (DOCUMENTATION) (CCCR 702-2)		PAGE 3 OF 5 PAGES
		DATE (DAY, MO, YEAR) 19 June 1979
PROJECT/CONTRACT NUMBER EIP H8T036	TITLE KG-13 Installation	LOCATION Taegu, Korea
PROJECT DOCUMENTATION PROVIDED		
REFERENCE DOCUMENTATION	TITLE	NO. OF COPIES sheets
KS802SD-FP90001	Station Floor Plan COMSEC Equipment Layout	1 of 1
KS802SD-PD90001	COMSEC Equipment Area Power Duct Layout	1 of 1
KS802SD-IN90001	Equipment Installation Detail Crypto Equipment Rack Floor Mountings	1 of 1
KS802SD-IN90002	TSEC/KG-13 and SN-394(V)/G RR-197 Rack Installation	1 of 1
KS802SD-GS90001	COMSEC Equipment Area Signal Ground Layout	1 of 1
KS802SD-CR90001	COMSEC Equipment Area Signal Duct Layout	1 of 1
KS802SD-PD90002	Power Wiring Diagram COMSEC Area (New Equipment)	1 of 1
KS802SD-ID90001	COMSEC Type "A" Facility Signal Information	1 of 1



<b>TECHNICAL ACCEPTANCE RECOMMENDATION (CERTIFICATION)</b> (CCCR 702-2)		PAGE 5 OF 5 PAGES
		DATE (DAY, MO, YEAR) 19 June 1979
<b>PROJECT/CONTRACT NUMBER</b> EIP H8T036	<b>TITLE</b> KG-13 Installation	<b>LOCATION</b> Taegu, Korea
<b>CERTIFICATION</b>		
Acceptance tests and Quality Assurance Inspections are complete for equipment installed under this project.		
WITHOUT EXCEPTIONS <input checked="" type="checkbox"/>		WITH NOTED EXCEPTIONS <input type="checkbox"/>
<b>INSTALLATION AGENCY</b>  Commander Tobyhanna Army Depot SDSTO-MI-M Tobyhanna, PA 18466		<b>SIGNATURE AND TITLE</b>  <b>PRINTED</b> PAUL A. SKLANKA Team Chief
<b>OPERATING AGENCY</b>  Commander 169th Signal Company DCSOPS APO SF 96218		<b>SIGNATURE AND TITLE</b>  <b>PRINTED</b> DAVID D. KEKEL WO1, USA OIC, COMSEC
<b>TEST AGENCY</b>  Commander U.S. Army Communications-Electronics Engineering Installation Agency CCC-TED-TSDS Fort Huachuca, AZ 85613		<b>SIGNATURE AND TITLE</b>  <b>PRINTED</b> Billie D. Wood QA/Test Director
<b>ACCEPTANCE</b>		
Equipment herein certified successfully installed and tested, is accepted for operation.		
<b>OPERATING COMMAND</b>  Commander 169th Signal Company DCSOPS APO SF 96218		<b>SIGNATURE</b>  <b>TITLE</b> JOHN B. CROSS CW3, USA OIC, ASC