CAUTION 1. BONDING INVOLVES USE OF CHEMICALS. FOLLOW MANUFACTURERS PRECAUTIONS.

CAUTION 2. BOND STRENGTH IS SENSITIVE TO SURFACE PREPARATION TEMPERATURE AND CURE TIME. INCREASED TEMP. CAN REDUCE CURE TIME. FOLLOW MANUFACTURERS RECOMMENDATIONS.

INFO CHEMLOK 304 – MANUFACTURED BY: HUGHSON CHEMICALS, LORD CORP, ERIE, PENN.

CAUTION 3. STABILIZER RODS AND 6 IN. DIA. TUBES: FRAGILE – HANDLE WITH CARE.

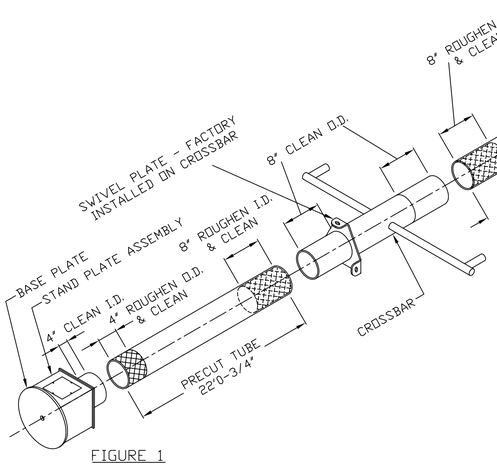

FIGURE 1
TACAN MONITOR STRUCTURE

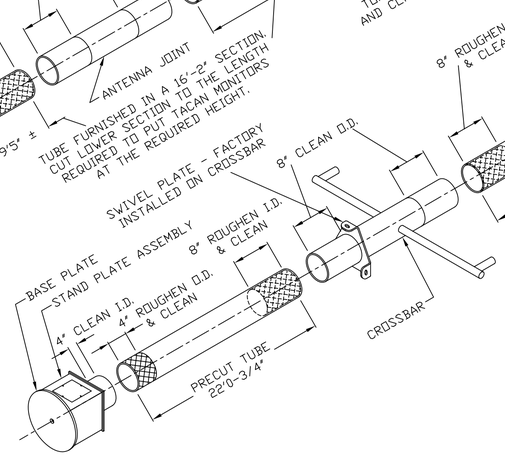

FIGURE 2
RCAG STRUCTURE

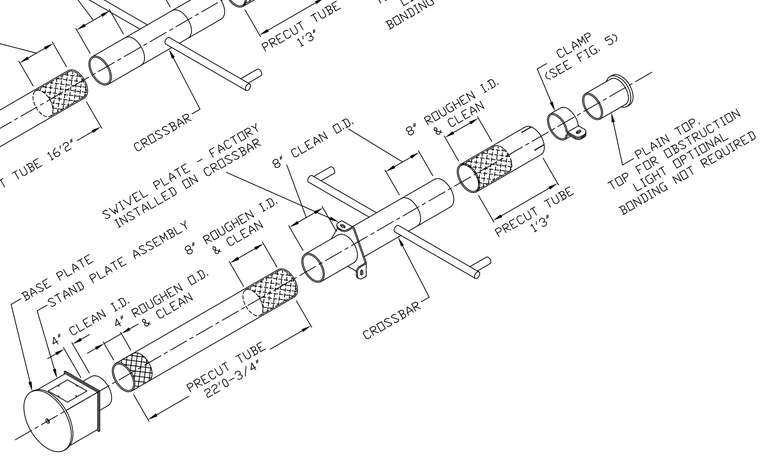

FIGURE 3
BUEC/SFO STRUCTURE

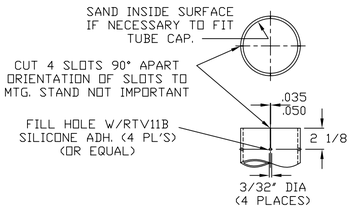

FIGURE 5
FIELD CUT SLOTS & HOLES
(FOR INSTALLING TUBE CLAMP)

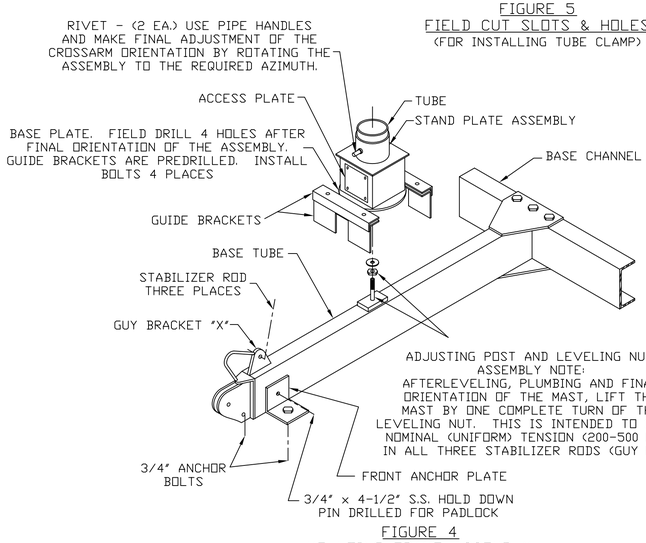

FIGURE 4
MOUNTING FRAME ASSEMBLY

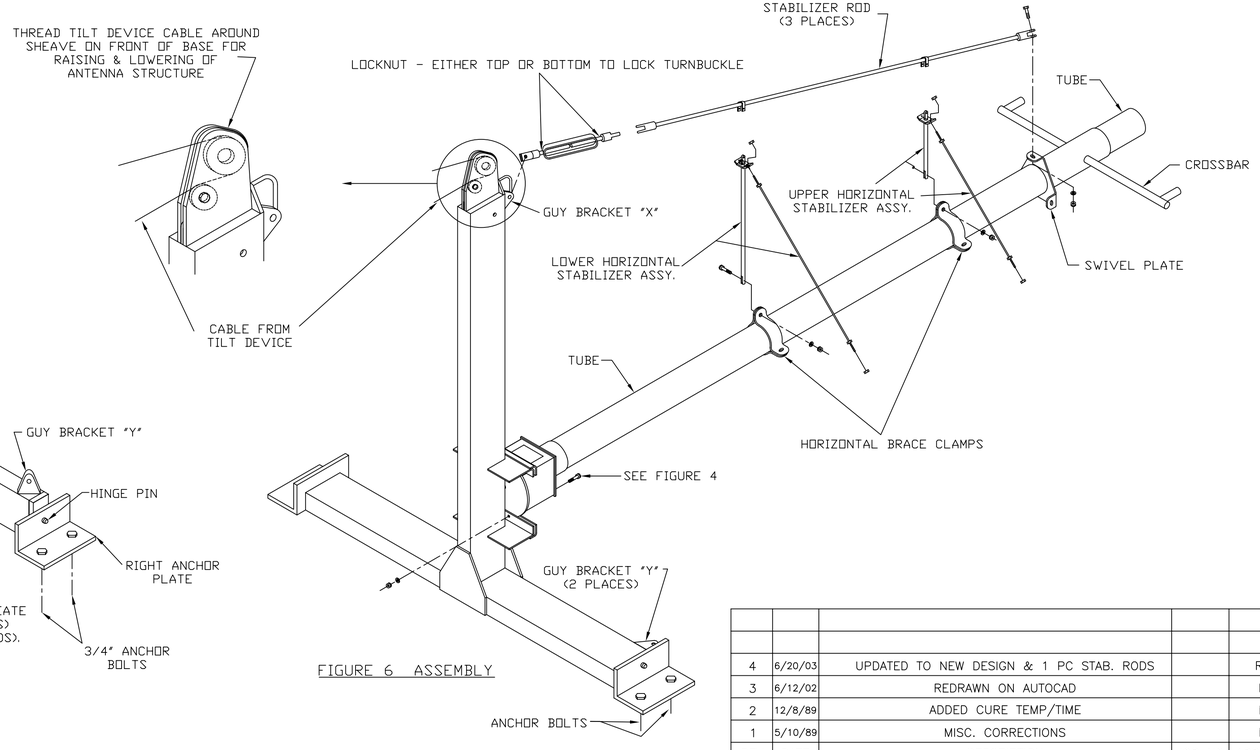

FIGURE 6 ASSEMBLY

ASSEMBLY INSTRUCTIONS

1. THE RCAG & BUEC/SFO STRUCTURES ARE FURNISHED WITH THE FIBERGLASS TUBE SECTIONS PRECUT TO THE REQUIRED LENGTHS. THE TACAN MONITOR STRUCTURE IS FURNISHED WITH THE LOWER FIBERGLASS TUBE SECTION PRECUT. THE CENTER & UPPER SECTONS ARE FURNISHED IN A SINGLE SECTION. CUT THE UPPER SECTION TO THE 4'6" LENGTH AND THE CENTER SECTION TO THE LENGTH REQUIRED (VARIES FROM APPROX 7'2" TO 9'5") TO CENTER THE TACAN MONITOR ANTENNAS ABOUT THE MIDPOINT OF THE TACAN ANTENNA RADOME.

2. CUTTING & BONDING INSTRUCTIONS: SEE FIGS. 1,2 & 3. CUT THE TACAN MONITOR TUBES USING A TABLE SAW WITH DIAMOND OR CARBIDE ABRASIVE BLADE. ALL SAW CUTS SHALL BE AT RT. ANGLE TO TUBE AXIS. DEBURR SAW CUT EDGES WITH A FILE. FOR BONDING, ROUGHEN SURFACES TO BE BONDED, AS SHOWN IN FIGS. 1,2 & 3 USING EMERY CLOTH. CLEAN MATING SURFACES THOROUGHLY WITH A SOLVENT (M.E.K., TOLUENE, OR ACETONE). MIX EQUAL PARTS OF CHEMLOC 304–1 EPOXY RESIN & 304–2 HARDENER. STIR THOROUGHLY BUT AVOID AIR INCLUSION. FOR EACH JOINT TO BE BONDED, SPREAD A LIGHT COAT OF MIXED ADHESIVE ON BOTH THE SURFACES TO BE BONDED. ASSEMBLE THE CROSSBARS AND ANTENNA JOINT TO THE TUBES FIRST. THE SWIVEL PLATE IS FACTORY INSTALLED ON THE CROSSBAR. SLOWLY SLIDE THE TUBES ONTO THE CROSSBARS AND ANTENNA JOINT WHILE ROTATING TO EXCLUDE AIR. CURE 48 HOURS AT ROOM TEMPERATURE ABOVE 65°. MAKE SURE THE UPPER RCAG CROSSBAR IS DIRECTLY ABOVE THE LOWER CROSSBAR. INSTALL THE TACAN ANTENNA JOINT WITH ITS CABLE CONNECTORS ON THE SAME ORIENTATIONS AS THE CROSSBAR. NEXT, BOND THE STAND PLATE ASSEMBLY TO THE LOWER TUBE USING THE SAME PROCEDURE EXCEPT THE TUBE SLIDES INTO THE STAND PLATE ASSEMBLY. ORIENT THE STAND PLATE ASSEMBLY ON THE TUBE SO THAT WHEN ITS ACCESS PLATE FACES THE FRONT OF THE INSTALLED MOUNTING FRAME ASSEMBLY (FIG. 4) THE CROSSBAR IS ON THE APPROXIMATE AZIMUTH REQUIRED BY THE SIRE PLAN. MINOR ADJUSTMENTS IN THE CROSSBAR ORIENTATION CAN BE MADE AFTER THE STRUCTURES ARE ERECTED BY ROTATING THE ENTIRE STRUCTURE AS INDICATED ON FIG. 4. THE FINAL ORIENTATION OF THE CROSSBAR SHALL BE ON THE AZIMUTH REQUIRED BY THE SITE PLAN.

3. IMPORTANT ~ ALL STRUCTURES ARE TO BE ASSEMBLED IN HORIZONTAL POSTION (SEE FIG. 6.) ELECTRICAL WORK NOT SHOWN HERE. USE MOUNTING FRAME ASSEMBLY SHOWN IN FIG. 4. INSERT HINGE PINS WHICH ARE ATTACHED TO BASE CHANNEL, INTO LEFT AND RIGHT ANCHOR PLATES. PLACE FRONT ANCHOR PLATE AND LEFT AND RIGHT ANCHOR PLATES OVER 3/4" ANCHOR BOLTS. CONNECT BASE TUBE TO BASE CHANNEL. MAKE SURE MTG. FRAME ASSEMBLY SWINGS FREELY ON HINGE PINS. SHIM TO LEVEL AND TIGHTEN ANCHOR BOLTS WITH 3/4" NUTS. RAISE MTG. FRAME ARM TO ABSOLUTE VERITCAL. CHECK WITH LEVEL. ATTACH STABILIZER RODS TO THE SWIVEL PLATE ASSEMBLY (FIG. 6). SLIDE THE LOOSE GUIDE BRACKETS OVER THE BASE PLATE ON THE STAND PLATE ASSEMBLY (FIG. 4) AND ALIGN NOTCHES WITH THE BASE TUBE. ROTATE THE STAND PLATE ASSEMBLY SO THE ACCESS PLATE FACES THE FRONT OF THE MOUNTING FRAME. SLIDE THE STAND PLATE ASSEMBLY ONTO THE MOUNTING FRAME WITH THE GUIDE BRACKETS FIT OVER THE BASE TUBE AND THE ADJUSTING POST FIT INTO THE HOLE IN THE BASE PLATE. ADJUST NUT FOR PROPER HEIGHT. SUPPORT UPPER END OF THE MAST SO IT IS APPROXIMATELY PARALLEL WITH GROUND. FASTEN TURNBUCKLES (ATTACHED TO STABILIZER RODS) TO GUY BRACKETS "X" AND "Y". TIGHTEN TURNBUCKLE AT GUY BRACKET "X" UNTIL MAST IS EXACTLY PERPENDICULAR TO MTG. FRAME. TIGHTEN OVER TWO TURNBUCKLES AT GUY BRACKETS "Y". ATTACH HORIZONTAL STABILIZER ASSEMBLY.

4. RAISE THE STRUCTURE TO A VERTICAL POSITION USING THE TILT DEVICE. LEVEL AND PLUMB THE STRUCTURE BASE AND MAST. WITH THE USE OF A TRANSIT, MAKE THE FINAL ORIENTATION OF THE CROSSARMS. DRILL THE BASE PLATE AND INSTALL BOLTS TO LOCK IN PLACE (SEE FIG. 4). IN THE LEVEL AND PLUMB POSITION, ALL THREE STABILIZER RODS (GUY RODS) SHOULD BE SNUG TIGHT. THEN USING ONE TURN OF LEVELING NUT, LIFT NL–40 MAST (SEE ASSEMBLY NOTE FIG. 4).

NOTES

1. EACH STRUCTURE SHALL BE CUT ACCURATELY, AND BONDED AND CURED PROPERLY IN A SUITABLE WORK ROOM.
2. BASE OF EACH STRUCTURE SHALL BE GROUNDED ELECTRICALLY IN FIELD.
3. EACH STRUCTURE SHALL BE MAINTAINED PER THE APPLICABLE PORTIONS OF THE MANUFACTURERS PREVIOUS INSTRUCTION BOOKS FOR L.I.R. STRUCTURES (i.e. T.I. 6850.57 OR T.I. 6850.77)
4. ALL BONDING SHALL BE CURED AT 65°F MIN FOR A MINIMUM OF 24 HOURS.

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REV	DATE	DESCRIPTION	JOB NO.	APPROVED
4	6/20/03	UPDATED TO NEW DESIGN & 1 PC STAB. RODS		R.P.
3	6/12/02	REDRAWN ON AUTOCAD		RP
2	12/8/89	ADDED CURE TEMP/TIME		NL
1	5/10/89	MISC. CORRECTIONS		NL

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
CENTRAL REGION – KANSAS CITY, MISSOURI

ASSEMBLY INSTRUCTIONS FOR JAQUITH NL–40 FIBERGLASS ANTENNA STRUCTURES

REVIEWED BY:		DESIGNED BY: NL	ISSUED BY					SUBMITTED BY:
		DRAWN BY: IDECO	AIRWAY FACILITIES DIVISION					APPROVED BY:
		CHECKED BY: NL	ENGINEERING BRANCH					DATE: 8/10/88
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SECTOR:								DRAWING NO.
		ALPHA TY & CL	ATS LOC	AF/REM	AF/CON	R/CCC		CE-D-7778-1