MICROWAVE ANTENNAS
KS-16320 PASSIVE REFLECTORS
INSTALLATION
ASSEMBLY OF MOUNT FOR LIST 2 REFLECTOR

1. GENERAL

1.01 This section describes the assembly of the mount for the KS-16320, List 2 passive reflector.

1.02 The 4-inch O.D. by 14-foot steel pipe mentioned below is shipped separately; other parts mentioned are shipped in the smaller of two wooden crates.

2. ASSEMBLY

Caution: All ground assembly work is to be performed at a distance from the base of the supporting structure greater than one-third the maximum height at which work will be done aloft.

2.01 Referring to Fig. 2 in Section 402-423-400, place the pipe, Item 26, on three equally spaced saw horses (or similar supports) to hold it off the ground at a convenient height. Attach the two mounting angles, Items 3B, and mounting angle 5B loosely to the pipe and adjust the spacing between angles to conform to that shown in the figure. Apply lockwashers behind all nuts, as shown in enlarged view E-E. Spacing of the mounting angles with respect to the ends of the pipe should be adjusted as stated in point sections 402-423-206, -207, or -208, as applicable for the installation, provided that:

(a) The mounting angles shall be as close as possible to the points at which loads are transmitted into the supporting structure.

(b) No connection shall be made nearer than one pipe diameter from the adjacent end of the pipe mount.

2.02 If the angles are permitted to hang freely, they will, in general, align themselves. Tighten each angle enough to bring it snugly against the pipe, but not to clamp it rigidly; then check alignment of the three 1-inch pivot holes by passing a string through them and drawing it taut. The string should center in all three holes simultaneously when stretched parallel to the longitudinal axis of the pipe. Correct any misalignment between the mounting angles, being careful to avoid chipping the galvanized finish.

Then clamp them tightly, using 1-inch wrenches, and make a final check of spacing and alignment as above. *When assembly is complete, the pivot holes must be lined up with the axis of the pipe and spaced in accordance with the requirements noted in 2.01.*

2.03 Attach the lower mount, Item 13B, Fig. 2, in Section 402-423-400, as shown. Use 1-inch bolts with lockwashers and nuts, as shown in enlarged view E-E of the above figure, and tighten with 1-1/2-inch wrenches enough to prevent the mount from swinging freely. Attach pointer 34B, Fig. 2, in Section 402-423-400 at the slotted holes at the back of the lower mount, as shown in enlarged view C-C of the figure; use the two 8-32 screws provided. The scribed line on one face of the pointer must be visible and is to be aligned with the scribed line on the mounting bracket before the pointer is tightened in position. The top swivel assembly, Item 8B of the figure, is similarly attached and tightened, using a 1-inch lockwasher and nut. Insert a 1- by 5-inch bolt in the 1-1/16-inch hole of the swivel and place a lockwasher and nut on loosely for use when the reflector is connected.

2.04 Install angle 4B loosely on the pipe, bolt it to the bracket on angle 5B, as shown in enlarged view C-C of the above figure, and clamp it securely to the pipe mount, using 1-inch wrenches. The lands at the ends of angle 4B should be level with the top surface of the bracket on the diagonal member of the lower mount; check this condition. If necessary, loosen the angle and readjust it to the level position, being careful to avoid chipping the galvanized finish. Examine the holes in angle 4B and in the bracket for cleanliness and insert a list 8 azimuth adjustment tool between the lower mount and each position on angle 4B. *The tool must fit easily in each position.*

Note: Each mounting angle, Items 3B, 4B, and 5B, Fig. 2, in Section 402-423-400, should be in contact with the pipe at three places when fully tightened, as shown in Fig. 1 of this section.

PIPE MOUNT

U-BOLT

A

B

C
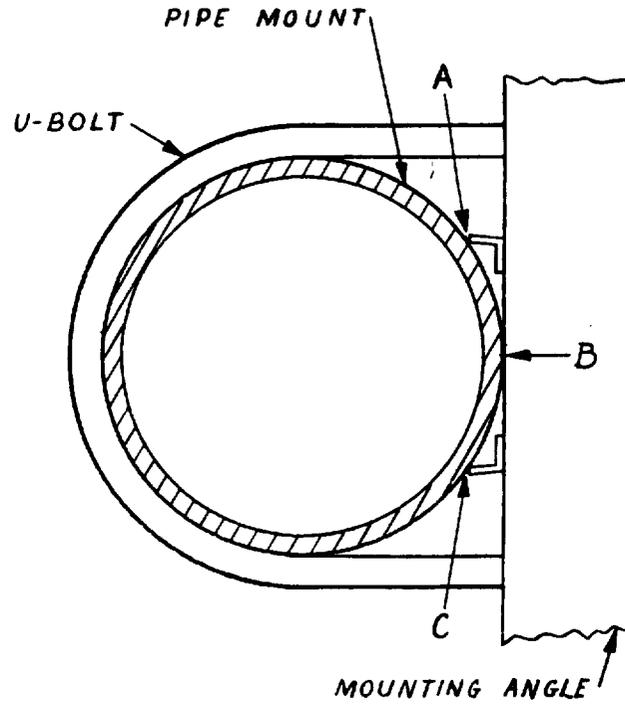
MOUNTING ANGLE

NOTE:
MOUNTING ANGLE SHALL CONTACT
PIPE MOUNT AT POINTS A, B AND C

Fig. 1 — Attachment of Pipe Support for
KS-16320 Passive Reflector