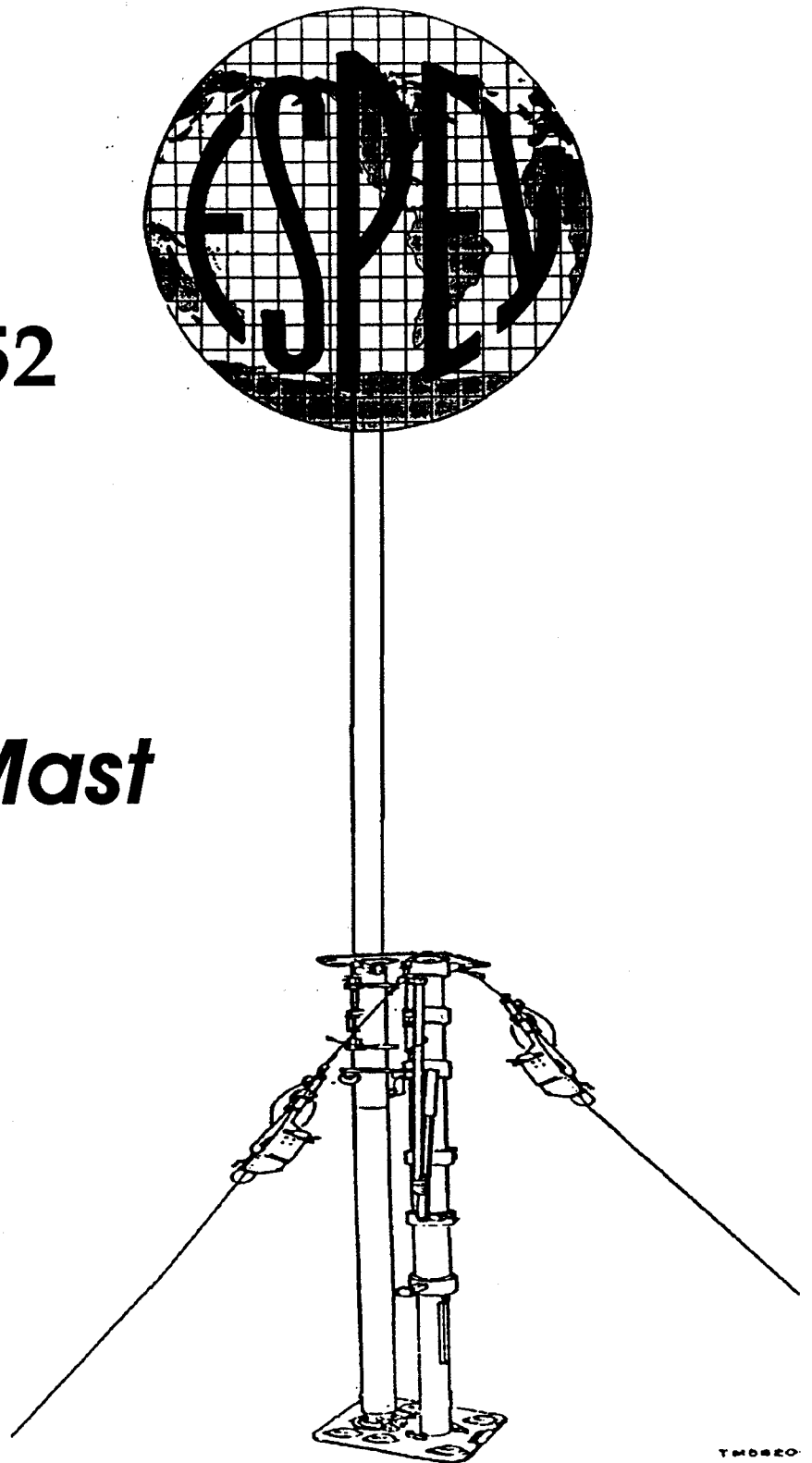


AB-952

***Antenna
Mast***



TM0820

**ESPEY MFG. & ELECTRONICS CORP.
P.O. Box 422
Congress & Ballston Aves.
Saratoga Springs, NY 12866**

The **AB-952 Mast** provides a 35 ft/11 m mast (with option to 50 ft.). Its lightweight construction, compact design and ease of erection and maintenance, makes the **AB-952 Mast** ideal for either short term or permanent service. Originally developed for the AN/GRC-103 Radio System, this mast, with its many versatile features, is now being used in a wide variety of military and commercial applications. Custom mounting for many other antenna elements is available by consulting the manufacturer.

DESCRIPTION - the **AB-952 Mast** consists of the Launcher, *AB-1072*, with seven mast sections, *AB-1071*, and the Mast Accessory Kit, *AB-1069*.

This self contained package includes the mast support, seven mast sections each five feet in length and a unique jacking mechanism for raising and lowering the mast sections. A bubble level insures true vertical position during erections. An azimuth bezel, which locks into the Mast after erection, facilitates proper orientation of the Antenna.

The Mast Accessory Kit, *AB1069* consists of a waterproof bag containing all of the necessary components and tools for erection and support of the Antenna and Mast.

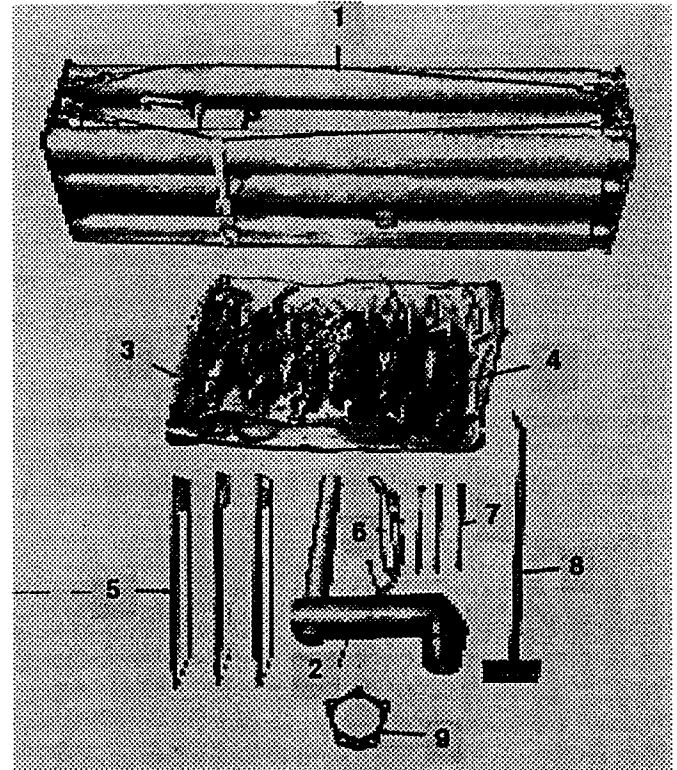
OPERATION - The erection of the Antenna and Mast can normally be accomplished by two persons in 15 minutes. Mast sections are breech loaded into the elevator through two sliding brake rings. When the jack lever is lowered, one ring grips the mast sections and raises it. As the jack lever is raised, the top brake ring holds the mast section in place, while the lower ring returns to the starting position for another operating cycle. A mechanical stop is automatically actuated when a mast section is fully raised. This prevents the mast from leaving the launcher and gives proper clearance for the next mast section to be added. Each section is coupled to the previous with a splined twist lock joint. To lower the mast sections, simply turn the two brake operating knobs to show the arrows pointing downward and activate the jacking lever.

The Mast Assembly is so designed that it can be staked to the ground as described or bolted to a platform, or hung from the side of a jeep or other vehicle which has been adapted with a simple holding devise.

MAST AB-952 COMPONENTS

Figure 1 illustrates the major components comprising the **AB-952**.

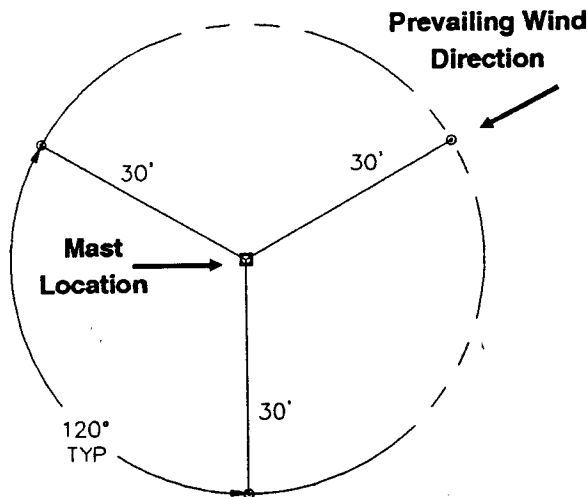
Figure 1



1. Launcher, *AB-1072* with Mast Sections *AB-1071*
2. Antenna Adapter
3. Accessories in Waterproof Bag (*AB-1069*)
4. Guy Wires (Three red, three white)
5. Guy Stakes, 24-inch (three each)
6. Strap Wrench
7. Spikes (three each)
8. Universal Tool
9. Guy Attachment Ring

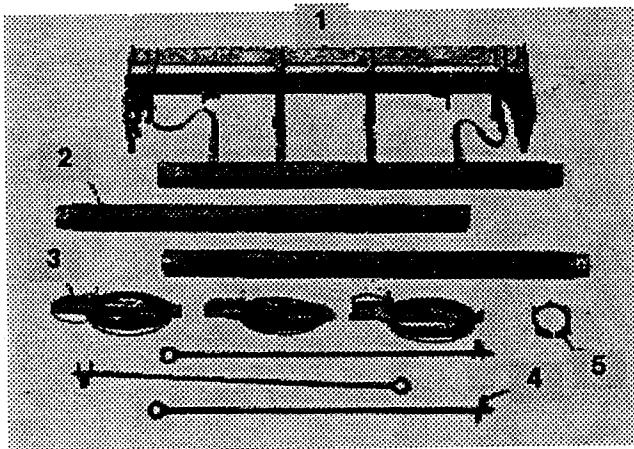
LAYOUT - The **AB-952** deployment can normally be accomplished by two men in 15 minutes. The Antenna and Mast site can be laid out using the layout plan shown in Figure 2. The guy stakes are placed in position using the universal tool. The launcher is raised to its operating height and with a half turn, locked into position. Vertical positioning is achieved by observing the spirit level and adjusting the lower guy wire assembly. Each guy stake accommodates two guy wires, one from the seven foot level (top of the launcher) and one (adjustable) from the uppermost level.

Figure 2



EXTENSION KIT - The optional **AB-1009** 15' extension kit allows the **AB-952** to be extended to a height of 50'. The **AB-1009** Extension Kit is illustrated in Figure 3.

Figure 3



The components of the **AB-1009** are listed below:

1. Extension Kit Case
2. Mast Sections (three)
3. Blue coded Guy Wires (three)
4. Guy Anchors (three)
5. Guy Attachment Ring

Figure 4 shows the major components of the **AB-952** assembly:

1. Launcher **AB-1072**
2. Center Mast Section
3. Antenna Adapter
4. Reflector **AB-2150**
5. Band III Dipole **AB-2195**

Figure 4

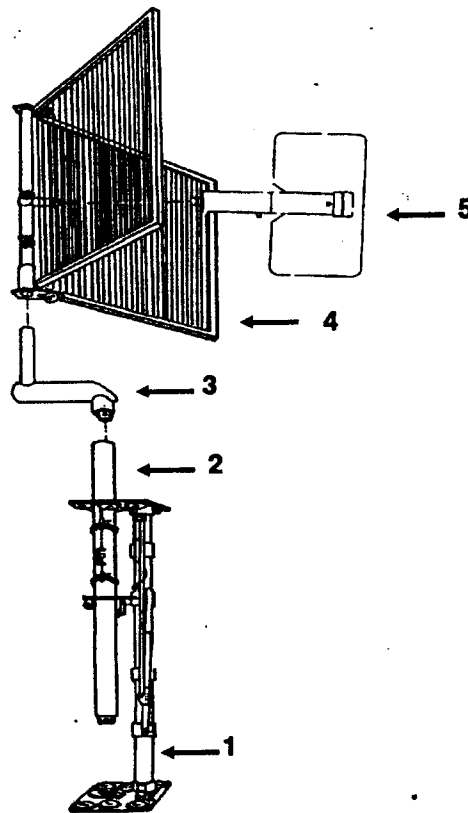


Figure 5

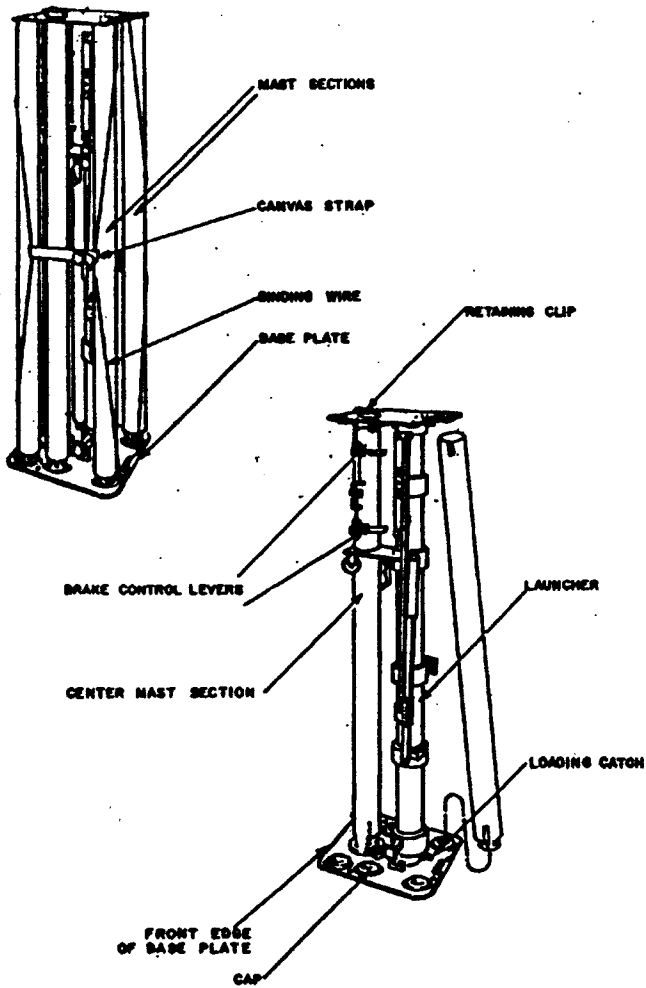


Figure 6

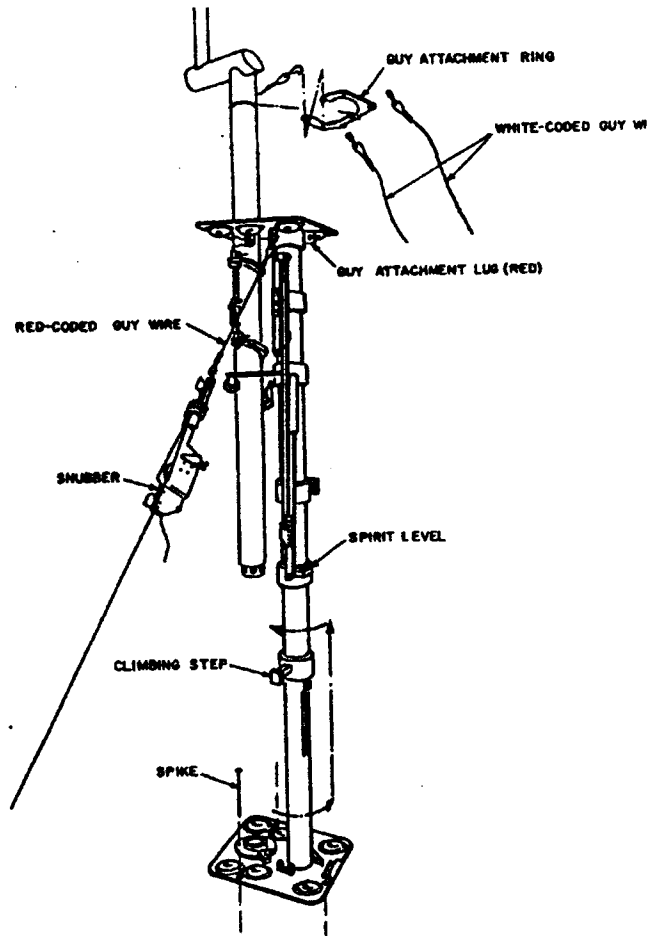


Figure 7

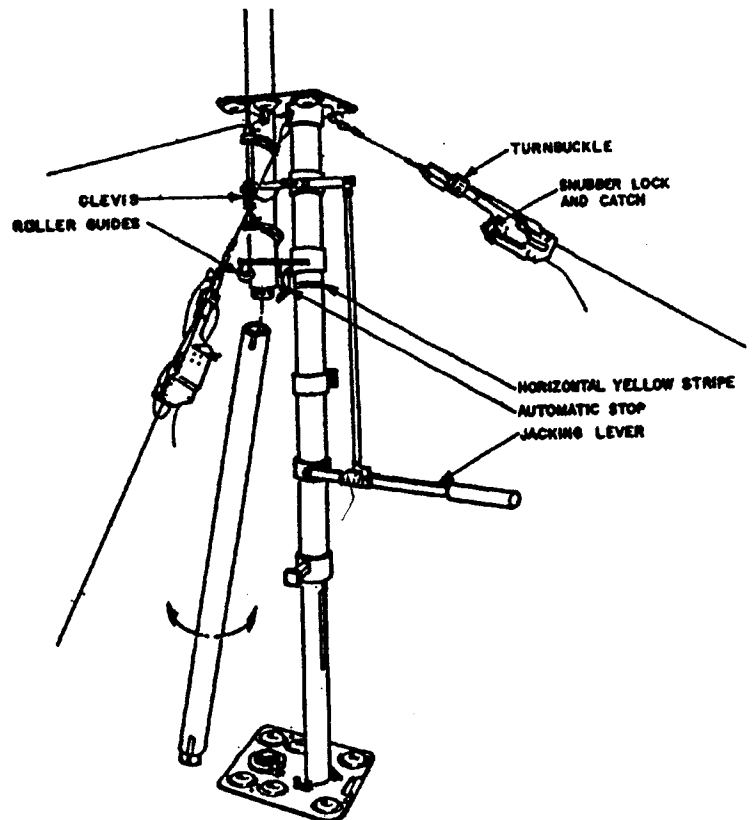


Figure 5 depicts the AB-952 Mast sections and elevator package both contained and in the initial assembly stage. The container becomes the mast elevator after removal of the outer mast sections with the center mast section in place for initial deployment.

Figure 6 indicates the critical elements necessary for successful deployment of the mast; guy wires are fastened and adjusted and spirit level is checked as azimuth base plate is secured.

Figure 7 illustrates the addition of mast sections being raised by the jacking lever located on the elevator assembly.