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### Personnel Balloon - 39-Foot Diameter

#### Purpose

The purpose of the 39-Foot Diameter Personnel Balloon is to provide a means for infiltration of denied areas by personnel in a manner which is undetectable by the opposition.

#### Description

This polyethylene personnel balloon has a volume capacity of 28,000 cubic feet and a maximum diameter of 39 feet. It is a series of continuous longitudinal strips of polyethylene heat sealed together to form the balloon shape. The load is supported by glass fiber adhesive tapes which extend from the apex to the base of the balloon.

The tapes are tied in to a supporting harness to which the gondola is hooked. This two-man gondola has a plywood floor which measures approximately 4 feet by 5 feet. The floor is supported by canvas which extends approximately one foot above the floor level thus forming the four sides of the gondola.

Sealed into the apex of the balloon is a spring-loaded valve by means of which the occupants of the gondola can release lifting gas to control altitude. The valve is operated by a line which extends through the hose of the balloon into the gondola. Altitude can also be controlled by manual release of sand ballast which is contained in the gondola pockets.

A destruction device has been incorporated into the balloon design which facilitates landing. Upon landing, the occupants may expel the lifting gas by pulling a cord which rips out a section of the balloon skin.

#### Performance and Limitations

This balloon is capable of lifting approximately 1300 pounds (personnel, equipment, and ballast) to 10,000 feet. Complete load versus altitude characteristics can be obtained through USS.

The vehicle offers a minimum radar target and at night is impossible to detect visually.

The destination of the vehicle, being a free balloon, is completely dependent upon prevailing winds. It is, therefore, essential that adequate meteorological support be available to the operating personnel.

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Launching becomes more difficult as ground winds increase. Launching when ground winds exceed 10-12 knots is not recommended since the shroud technique used for smaller balloons is not available for this size.

#### Training Requirements

Both the launching crew and the personnel to be transported require formal training in balloon operations.

#### Procurement

BALLOON, PERSONNEL - 39-FOOT DIAMETER is available through stock control, however, a stock number has not yet been assigned. The gondola must be requisitioned as a separate item.

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