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ARMY HELICOPTER INTERNAL LOAD OPERATIONS

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PREFACE

This manual will assist personnel who perform helicopter internal load missions. It will familiarize them with the tie-down equipment found in the Army inventory, acquaint them with the helicopter they will be loading, and provide basic procedures for loading and rigging loads.

Unit commanders should train selected groups of personnel on helicopter operations. Training should be geared to internal load requirements unique to each type of unit. This manual does not provide details on aviation operations, nor does it present detailed information that would normally be in unit standing operating procedures (SOPs) or other publications that specifically address the subject.

The proponent of this publication is the US Army Transportation School. Send comments and recommendations (including requests for validation of any load not covered in this text) on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commandant, US Army Transportation School, ATTN: ATSP-TD, Fort Eustis, Virginia 23604-5399.

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.
CHAPTER 1

INTERNAL CARGO-CARRYING HELICOPTERS

1-1. INTRODUCTION. This chapter identifies the Army helicopters used for carrying internal loads. It also describes the capacities, capabilities, and limitations of these helicopters.

1-2. UTILITY HELICOPTERS. A utility helicopter is a general-purpose aircraft that has limited carrying capability. Its mission includes transporting troops, cargo, or patients. Two helicopters fall into this type: the Iroquois and the Blackhawk.

   a. The UH-1 (Iroquois) is a single-turbine-engine, single-rotor helicopter with a skid-type landing gear (Figure 1-1). There are three models of the UH-1: H, M, and V. The differences among models are engine horsepower, rotor size, and cargo compartment size and configurations.

   (1) The UH-1 is used for aerial fire support, aerial command posts, light tactical transport, medical evacuation and electronic surveillance.

   (2) Depending on the model, the UH-1 can seat up to 11 combat-equipped troops. The cargo compartment floor has a maximum load limit of 100 psf. The cargo area contains about 220 cubic feet of obstruction-free cargo load space.

   (3) The tie-down rings in the floor have a rated capacity of 1,250 pounds in the vertical and 500 pounds horizontal load per fitting. Each aft bulkhead tie-down fitting is capable of the following load: 1,250 pounds, parallel to the bulkhead; 2,195 pounds at 45° angle.

   FIGURE 1-1. UH-1 Helicopter (Iroquois).

   FIGURE 1-2. UH-1 Cargo Restraint Ring Locations.