

TECHNICAL MANUAL
AVIATION UNIT AND INTERMEDIATE MAINTENANCE
BATTLEFIELD DAMAGE
ASSESSMENT AND REPAIR
FOR
ARMY
CH-47D HELICOPTER
(NSN 1520-01-088-3669) (EIC: RCD)

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HEADQUARTERS, DEPARTMENT OF THE ARMY
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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 15 APRIL 1997**AVIATION UNIT AND INTERMEDIATE MAINTENANCE****BATTLEFIELD DAMAGE
ASSESSMENT AND REPAIR****FOR****ARMY
CH-47D HELICOPTER
(NSN 1520-01-088-3669) (EIC: RCD)****REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. You may also submit your recommended changes by E-mail directly to <daf2028@avma27.stl.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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CHAPTER 1 GENERAL INFORMATION AND ASSESSMENT

SECTION I. GENERAL

1-1. INTRODUCTION. During the first few days of combat maximum aircraft availability is essential. Aircraft will sustain varying degrees of damage during combat operations. The damage must be assessed and repaired as quickly as possible. Maximum availability must be maintained for further sorties. In addition to the combat damage, aircraft will have higher component failure rates because of increased flying hours and higher stress levels. Aircraft combat maintenance battle-damage repair (ACM/BDR) is an operational concept for maintaining aircraft at a high level of readiness in combat. Peacetime maintenance procedures and methods must be modified to achieve this. One method will be to defer all but the most essential maintenance needed for the next scheduled mission. They will often be flown with nonessential components damaged, inoperative, or missing.

a. Scheduled Maintenance. There are no scheduled maintenance and inspections. However, necessary lubrication, servicing; and operational checks will not be deferred. When conditions permit, the "overflow" inspections will be completed. When expedient repairs are made on the aircraft or repair of damage is deferred, to ensure flight safety or mission accomplishment, it may be necessary to schedule inspections at subsequent flight hour intervals. Scheduled battle damage inspections of this type will not be deferred.

b. Unscheduled Maintenance. Repair of systems and subsystems which are not critical to mission accomplishment, may be deferred unless they might cause further damage. Items may be deferred even if it places operational limitations on the aircraft, as long as the restricted aircraft can accomplish designated missions and can contribute to the battle. Deferment of repairs for a one-time flight to a higher maintenance level, or for self-recovery from a combat area, is highly desirable. This eliminates the need for another aircraft to accomplish the recovery, or the loss of the aircraft if recovery is not available. The maintenance officer or assessor will make the decision based on an analysis of the overall situation and airworthiness of the aircraft.

c. Assessment. Aircraft which have battle damage will be inspected and classified by a damage assessor using a method similar to the medical concept of "triage." Following assessment some aircraft will be

returned to service immediately through deferment. Other aircraft will be repaired using approved battle damage repair techniques. Those requiring extensive repair (4 to 24 hours) will be set aside and repaired as manpower and parts become available. Assessors will be trained to identify and assess damage and failed aircraft subsystems. They will learn isolation and repair methods and procedures and serviceability standards.

1-2. PURPOSE. This manual provides information and instructions for assessing and repairing battle damage to the Army CH-47D Chinook helicopter. The purpose of the manual is to assist the damage assessor in identifying and classifying aircraft battle damage, assessing the extent of damage, and determining if repair can be safely deferred. Methods of expedient battle-damage repair are also presented.

1-3. SCOPE. This manual is to be used to assess and repair battle damage to the CH-47D helicopter. It is intended for use by aviation unit maintenance (AVUM) and aviation intermediate maintenance (AVIM) personnel during combat operations, and for training of personnel. The procedures are to be used only during combat operations or during periods of extreme emergency. The commander determines when normal maintenance procedures may be deferred. Repairs are made using interim techniques, off-the-shelf standard hardware (not necessarily aircraft related), and without concern for appearance. As new repair procedures, materials, tools, and equipment become available they will be introduced and incorporated into this manual.

1-4. FORMS. RECORDS. AND REPORTS.

a. Status Symbols. Status symbols used in aircraft logbooks to record defects are defined below:

(1) Red "X". A red "X" shows that a defect exists and the aircraft is unsafe for flight.

(2) Circled Red "X". A red "X" inside a red circle indicates a limiting defect. The aircraft may be flown under specific limits as directed by higher authority, or as directed locally until corrective action is taken.