CHAPTER 1 — INTRODUCTION

CONTENTS — MAINTENANCE PROCEDURES

FIGURES

INTRODUCTION

1-1. GENERAL.

This Chapter provides a general description of the contents and use of this maintenance manual and the Model 212 Helicopter.

Generally, maintenance procedures for components or assemblies which have been removed from the helicopter are contained in BHT-212-CR&O Component Repair and Overhaul Manual.

THE MANUAL

1-2. USE OF THE MANUAL.

This manual is divided into Volumes, subdivided by Chapters. To find a desired subject, refer to the Alphabetical Index located within this Chapter to obtain the Chapter containing the desired information. Refer to the desired Volume and using the tabbed pages provided which separate each Chapter, refer to the Table of Contents at the beginning of the desired Chapter to locate the specific subject.

1-3. BULLETINS.

As necessary, Technical Bulletins (T.B.s) and Alert Service Bulletins (A.S.B.s) will be issued. These documents provide information to modify components or systems on the helicopter. Refer to Bulletin Record, BR-1/2 preceding this Chapter for bulletins which have been incorporated in this manual. Additional space is provided for listing T.B.s and A.S.B.s which are incorporated by the owner/operator.

Compliance with all alert service bulletins is mandatory.

1-4. CONSUMABLE MATERIALS.

WARNING

HANDLING AND STORAGE OF CONSUMABLE MATERIALS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS UNLESS OTHERWISE NOTED IN APPLICABLE MAINTENANCE TASKS.

Consumable materials required while performing maintenance are listed in the text by name and an item number such as "solvent (C-304)". The number refers to item 304 in Chapter 13 of BHT-ALL-SPM, Standard Practices Manual. In addition, a list of all consumable materials (by item number and full nomenclature) required for each individual Chapter is provided following the Table of Contents for that Chapter.

Occasionally, materials used in maintenance change properties, suppliers, or are discontinued. Also, new and more advanced materials become available. In the event of conflict between this manual and the Standard Practices manual, the manual with the latest date of issue lists the preferred material. However, either material may be used for the accomplishment of the prescribed task unless specifically stated otherwise.

1-5. SPECIAL TOOLS.

Certain maintenance procedures require the use of special tools. Special tools required are listed at the beginning of the applicable maintenance paragraph. A complete description and illustration of these tools is provided in BHT-TOOL-IPC.

1-6. TORQUES.

Torques are specified as either standard or special within this manual. Standard torque values for various type fasteners will be found in BHT-ALL-SPM. Where applicable, special torques are specified within the text (or on illustrations) within this manual.

1-7. TERMINOLOGY.

1-8. WARNINGS, CAUTIONS, AND NOTES.

Warnings, cautions, and notes are used throughout this manual to emphasize important and critical instructions as follows:

WARNING

AN OPERATING PROCEDURE, PRACTICE, ETC., WHICH, IF NOT

CORRECTLY FOLLOWED, COULD RESULT IN PERSONAL INJURY OR LOSS OF LIFE.

CAUTION

AN OPERATING PROCEDURE, PRACTICE, ETC., WHICH, IF NOT STRICTLY OBSERVED, COULD RESULT IN DAMAGE TO, OR DESTRUCTION OF, EQUIPMENT.

NOTE

An operating procedure, condition, etc., which is essential to highlight.

1-9. USE OF PROCEDURAL WORDS.

The concept of procedural word usage and intended meaning which is used throughout this manual is as follows:

'Shall' is used only when application of a procedure is mandatory.

'Should' is used only when application of a procedure is recommended.

'May' and 'need not' is used only when application of a procedure is optional.

'Will' is used only to indicate futurity, never to indicate a mandatory procedure.

1-10. WEAR LIMITS.

CAUTION

METRIC EQUIVALENTS TO U.S. STANDARD WEIGHTS AND MEASURES ARE PROVIDED THROUGHOUT THIS MANUAL. WHILE PERFORMING MEASUREMENTS TO DETERMINE THE SERVICEABILITY OF A COMPONENT OR TO ESTABLISH A SPECIFIED DIMENSION, ONLY THE U.S. STANDARD VALUES SHALL BE USED.

Throughout this manual, wear limits are provided to show the required fit between mating parts. It is not intended that all dimensions be checked as a prescribed maintenance procedure; however, parts that show evidence of wear or physical damage must be checked dimensionally.

Wear limits, fit, and tolerances are integrated into the inspection, repair, and assembly procedures. Unless otherwise specified, dimensions shall carry the following tolerances on decimals.

DECIMAL	TOLERANCE
.XXX	±0.010 inch
.XX	±0.03 inch
.X	±0.1 inch

1-11. STANDARD PRACTICES.

Standard maintenance practices and procedures not specifically described within this manual are contained in BHT-ALL-SPM .

1-12. REPLACEMENT PARTS AND ASSEMBLIES.

Replacement parts and assemblies required for proper maintenance are listed in a companion Illustrated Parts Catalog. This catalog provides complete nomenclatures, part numbers, and ordering information.

THE HELICOPTER

1-13. DESCRIPTION OF HELICOPTER.

The Model 212 helicopter (figure 1-1) consists of two major assemblies: The forward fuselage and the tailboom. The forward fuselage is of semimonocoque and reinforced shell construction with transverse bulkheads and metal and fiberglass covering. Two longitudinal main beams provide the primary structural support.

A hinged door on either side of the forward area permits direct access to the crew area and a large sliding door permits access to the cargo/passenger area. Additionally, a hinged cargo door is located immediately ahead of the sliding door. This door increases the width of access to the cargo/passenger area. Seating is provided for the pilot and forward passenger/copilot in the crew area (cockpit) and up to 13 passengers in the cargo/passenger (cabin) area.

The engine deck, located above and aft of the passenger/cargo area, is designed to accomodate the engine, reduction (combining) gearbox, firewalls, and air management system.

The tailboom is of semimonocoque construction which provides support for a vertical fin, aerodynamically actuated elevator, tail rotor and tail rotor drive system, tail skid, and baggage compartment.

The powerplant is a Pratt and Whitney of Canada, Ltd. PT6T-3 or PT6T-3B twin turboshaft (Twin-Pac) engine consisting of two identical free turbine power sections. A common reduction (combining) gearbox mounted across the aft end of the power sections has an engine-to-transmission output shaft (main driveshaft) extending forward along the centerline of the engine to provide power to the transmission.

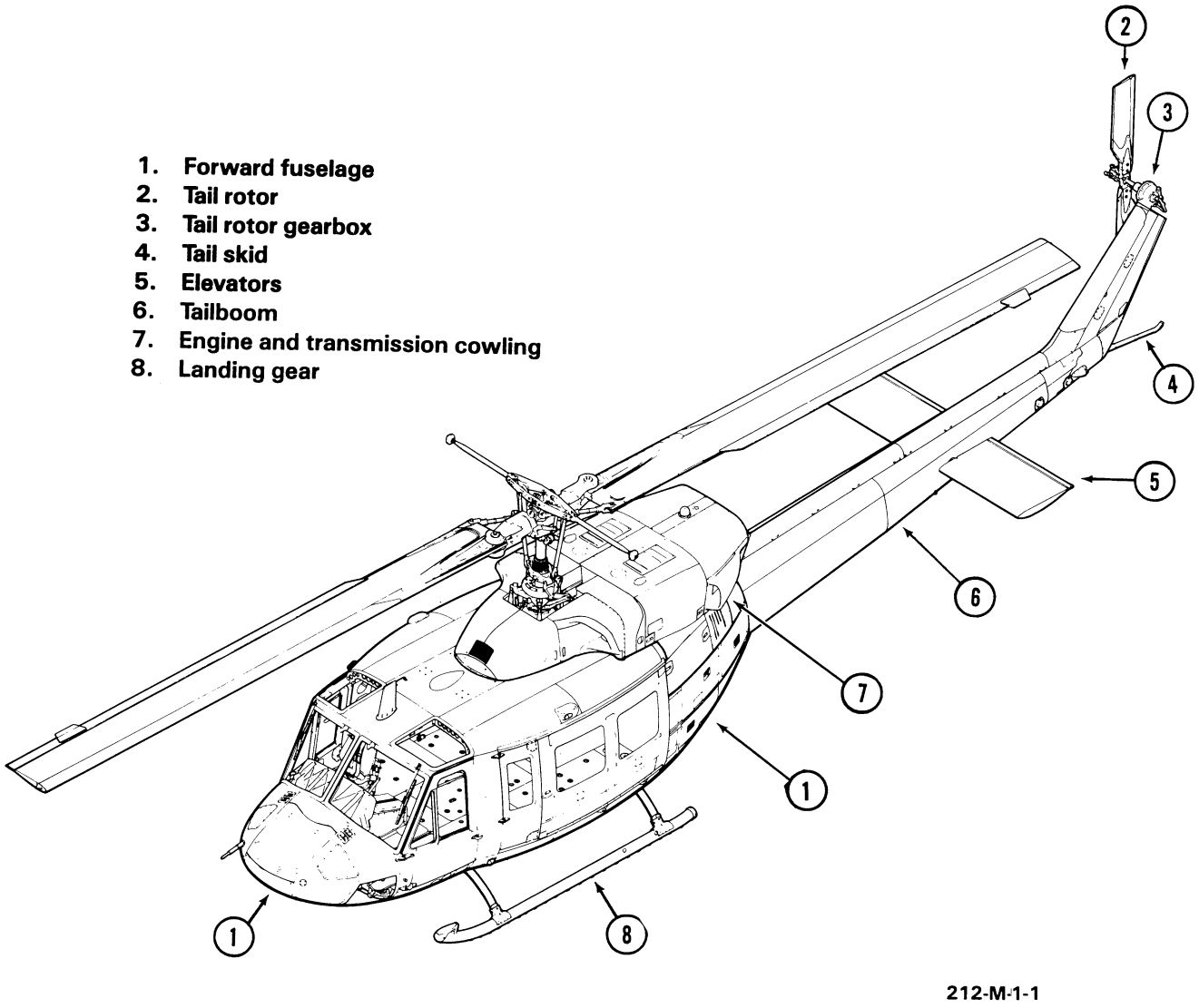

Figure 1-1. Model 212 helicopter (typical)