

NOT MEASUREMENT
SENSITIVE

MIL-M-63014A (AV)
28 March 1994

SUPERSEDING
MIL-M-63014 (AV)
31 July 1979

MILITARY SPECIFICATION

MANUALS, TECHNICAL: FOR PHASED MAINTENANCE CHECKLIST

This specification is approved for use by US Army Aviation and Troop Command, Department of the Army and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification contains the detailed requirements for the preparation of technical manuals for phased maintenance checklist of Army aircraft.

STANDARDS

MIL-STD-12

MILITARY

- Abbreviations for Use on Drawings, Specifications, Standards and in Technical Documents

2. APPLICABLE DOCUMENTS

2.1 *Government Documents.*

2.1.1 *Specifications and Standards.* The following specifications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 *Other Government Documents and Publications.* The following other Government documents and publications form a part of this specification to the extent specified herein.

SPECIFICATIONS

MILITARY

MIL-M-38784

- Manuals, Technical: General Style and Format Requirements

AR 95-1

- Army Aviation: General Provisions and Flight Regulations

AR 310-25

- Dictionary of US Army Terms (Short Title: AD)

MIL-M-63038

- Manuals, Technical: Organizational or Aviation Unit, Direct Support or Aviation Intermediate and General Support Maintenance

AR 310-50

- Authorized Abbreviations and Brevity Codes

TB 55-1500-337-24

- Phased Maintenance System for Army Aircraft

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC NO A7003

AREA TMSS

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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- FM 1-411 - Maintenance, Quality Control and Technical Inspection Guide for Army Aircraft
- DA Pamphlet 738-751 - The Army Maintenance Management System-Aviation (TAMMS-A)
- TM 1-1500-328-23 - Aeronautical Equipment Maintenance Management Policies and Procedures

(Copies are available through Commander, U.S. Army Publications Distribution Center, 2800 Eastern Blvd., Baltimore, MD 21220-2896.)

2.2 Conflict with Other Documents. Where the requirements of MIL-M-38784, or any other applicable publication covering preparation of technical manuals conflict with the style and format requirements specified herein, the requirements of this specification shall apply.

3. REQUIREMENTS

3.1 General. All style and format requirements of MIL-M-38784 shall apply, except as specified herein.

3.1.1 Military terms shall be in accordance with AR 310-25. Abbreviations shall be in accordance with MIL-STD-12 and AR 310-50.

3.1.2 Size and Binding. Phase maintenance checklist technical manuals shall be produced in final trim size of 8-1/2 inches wide by 7-1/4 inches high. These checklists shall be published in loose-leaf format, which shall be punched to fit a standard Army Aircraft Logbook binder (NSN 7510-00-889-3494; 2-1/2 inch x 8 inch x 10 inch). Dimensions for the basic reproduction pages are shown in figure 1.

3.1.3 Publication Number. The publication number assigned by the procuring activity shall appear in the upper outer corner of the cover page. (See figure 2).

3.1.4 Marginal Copy. (Publication number and page number.) The publication number shall appear centered at the top margin (figure 2) except on cover page (paragraph 3.2.1.1). The page number shall always appear centered at the bottom margin. Marginal copy shall appear within the text width and within one overall height shown in figure 1. Type size shall be 10 point (See figure 3).

3.1.5 Supersession Notice. When required, supersession notice shall be prepared in accordance with MIL-M-38784.

3.1.6 Change Numbers. Each page containing change material shall reflect the applicable change number (C1, C2, etc.) (figure 1). The change number will be furnished by the procuring activity prior to preparation of reproducible copy (MIL-M-38784).

3.1.7 Change Symbols. Change symbols shall be used in accordance with MIL-M-38784.

3.1.8 Illustrations. Illustrations shall be line drawings prepared in accordance with MIL-M-38784.

3.2 Detailed Requirements. Phased maintenance checklist shall be prepared in accordance with the standard outline indicated herein. When approved by the procuring activity, the outline may be altered to allow for differences between aircraft. Inspection instructions using Reliability Centered Maintenance (RCM) logic will be applied to all items of the aircraft as further defined by the procuring activity.

3.2.1 Front Matter. Page format and type size shall be as shown in figure 2. Mandatory Safety-of-Flight Inspection Items will be specified by the procuring activity.

3.2.1.1 Cover. The cover shall be prepared in accordance with MIL-M-38784. If specified by the procuring activity, an equipment illustration shall be included. If specified by the procuring activity, a metric conversion table covering applicable units shall be included on the inside back cover.

3.2.1.2 Safety-of-Flight Information. The following statement shall be entered on the top center of the first page (figure 2):

“WARNING

To prevent catastrophic aircraft accidents, certain inspections are mandatory Safety-of-Flight requirements and the inspection intervals cannot be exceeded.

NOTE

- In the event required inspections cannot be/are not accomplished at the specified interval (except in actual operational emergencies) the aircraft condition status symbol shall be changed to a Red X.
- Mandatory Safety-of-Flight inspection items are printed in **BOLD** face type.

NOTE

Inspection items contained in this manual are considered the minimum requirements for performing phased maintenance and must be performed. The cumulative effects of inspection deferrals are unknown and could result in catastrophic failure or increased maintenance at a later date. Therefore, the use of special lettering to emphasize Mandatory Safety-of-Flight Inspection Items is not to be construed as authority for deferral of other inspections."

3.2.1.3 Reporting Errors and Recommending Improvements. The statement shall appear on the cover/title page. (See figure 2). An overprinted sample DA Form 2028-2 and three blank DA Forms 2028-2 shall be included at the back of every TM. The three blanks shall be tear out forms pre-printed with the applicable manual number, manual date, and manual title as well as the proponent's correct return address on the reverse side.

3.2.2 "Section I. General Information." This section shall contain the following main paragraphs verbatim:

"Phased Schedule. This phased maintenance inspection checklist contains requirements for inspection of the (insert aircraft model) aircraft on a phased schedule having a (insert flight hour cycle) hour (flight hours) cycle with (insert phase hours) hour phases. Each requirement included herein is designated for accomplishment at least once, but not more than (insert number of phases) times during the (insert flight hour cycle) hour cycle. The inspections annotated by a "C" in the Inspect Phase No's column, along with special inspection listed on DA Form 2408-18/2408-18-E (Equipment Inspection List) are considered the minimum mandatory combat maintenance inspections required for aircraft stationed in a combat environment. Under no circumstances will two combat maintenance inspections be performed sequentially."

"Exceeding the Phased Schedule. The phased maintenance inspection intervals designated are the maximum and shall not be exceeded except in actual operational emergencies as explained herein. It is the Commander's responsibility to determine (on an individual aircraft basis) when inspection intervals may be exceeded. For this purpose, operational emergencies are conditions of combat, or conditions of disaster which necessitate flight to evacuate aircraft or personnel. When aircraft are operated beyond the normal inspection due time because of such emergency situations, a circled red X status symbol and an appropriate statement (to include authority) must be entered on DA Form 2408-13-1/2408-13-1-E (Aircraft Inspection and Maintenance Record) until such time as the inspection is complete. When inspections are delayed to meet emergency requirements, Commanders will assure

that the aircraft status symbol reverts to a Red X and that delayed inspections are accomplished immediately upon termination of the actual emergency. When unusual local conditions (utilization, type of mission, personnel, periods of inactivity, environmental conditions, etc.) dictate, it is the prerogative and responsibility of the Maintenance Officer to increase the scope and/or frequency of maintenance or inspection as necessary to ensure safe operation (TM 1-1500-328-23.)"

"Maintenance Activities. The inspections prescribed by this checklist will be accomplished at specified phases by Aviation Unit Maintenance (AVUM) activities with assistance of Aviation Intermediate Maintenance (AVIM) and Depot Maintenance activities when required."

"Limitations. The checklist does not contain instructions for repair or adjustment, nor instructions for correcting problems by any other means. It does not contain special tolerances, limits, or troubleshooting instructions. Refer to (insert technical manual number of applicable aircraft maintenance manual series) for maintenance instructions other than the phased maintenance included herein."

"Changeover to the Phased Maintenance System. Changeover shall be accomplished in accordance with instructions provided in TB 55-1500-337-24 entitled, 'Phased Maintenance System for Army Aircraft'. The requirements of this TB must be accomplished prior to implementation of Phase 1 inspection requirements specified in this checklist."

"Special Inspections, Calendar Inspections and Lubrication Requirements. Special inspections, calendar inspections and lubrication requirements contained in (insert applicable aircraft technical manual) and those listed on the aircraft's DA Form 2408-18/2408-18-E shall be reviewed and accomplished in accordance with the "inspection due" requirements specified in those documents."

"Time Between Overhaul (TBO) and Retirement Life Items Check. Prior to start of the applicable phased maintenance inspection, a check will be made of components and their remaining operating hours prior to removal. The latest issue of the aircraft's (insert applicable aircraft technical manual) and DA Form 2408-16/2408-16-E shall be referred to for a complete listing of components and their TBO and retirement life."

"Using the Phased Inspection Checklist.

a. A new checklist shall be used each time phased maintenance is due on the aircraft. The checklist is arranged such that it can be separated by area and distributed to the maintenance crew.

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(1) All forms and records will be completed per DA Pamphlet 738-751.

(2) Space is provided on each checklist form for entering the following data:

(a) The number of the phased maintenance inspection being performed.

(b) Aircraft serial number.

(c) Date of the inspection.

(d) Organization. (Entered on General page only).

(3) For each inspection task a column is provided for entering the following data:

(a) Actual manhours to complete the inspection.

(b) Inspection action and PID (Personnel Identifier).

b. Figure (insert number) shows examples of methods used to make entries on the phased maintenance checklist forms. Forms and records completion procedures are contained in DA Pamphlet 738-751. This checklist pertains to all (insert applicable aircraft) aircraft and may, therefore, contain inspection requirements applicable to specific equipment not installed on individual aircraft. When this situation is encountered, those requirements that are not applicable need not be performed." (See figure 3.)

"Insp. Phase Numbers Column. In the column headed 'Inspect Phase Nos.' and adjacent to the sequence number of each inspection requirement, there will appear the word 'ALL' or a series of numbers. The word 'ALL' indicates that inspection requirement shall be accomplished at each phase (or at every (insert hours) hour interval) of the (insert number of hours) hour cycle. The numbers represent the phase number at which that inspection requirement is to be accomplished. For example, if the numbers (insert first number) and (insert second number) are shown, this indicates that inspection requirement is to be accomplished at phases (insert first number) and (insert second number) only (or at every (insert appropriate hour) hour interval). If only one number is indicated, then that inspection requirement is accomplished at that phase (or at every (insert cycle hours) hours interval). At the completion of phase (insert last phase number) the cycle starts over again with Phase 1."

"Sequence Number Column. In the column headed 'Seq. No.' each inspection item will be assigned a sequence number. The sequence number will be developed by using the Inspection Area number and the inspection item num-

ber-for that area. For example, the first inspection item in Area 1 (Nose) would be numbered 1.1."

"Estimated Manhours Column. In the column headed 'EST MH', each inspection task will be assigned an estimated manhour completion figure."

"MOS Column. In the column headed 'MOS' the Military Occupational Specialty (MOS) required to complete the inspection task shall be inserted for each inspection task."

"Actual Manhours Column. In the column headed 'ACT MH' the actual manhours to complete the inspection task will be entered by the individual performing the inspection task." (See figure 3.)

"Inspection Action PID Column. After completion of the inspection task, in which no faults were discovered, the individual performing the inspection will enter 'Insp OK'. If a fault is discovered during the inspection enter 'Insp Compl' after the visual inspection is completed and the fault(s) has been entered on the appropriate form per DA Pamphlet 738-751. When an inspection task is not applicable to the particular inspection phase number being performed or to specific equipment installed on an individual aircraft, an 'N/A' entry is required. All inspection action entries will be followed by the Personnel Identifier (PID) of the person performing the task inspection. For use of PID's refer to DA Pamphlet 738-751. If a DA Form 2408-13-2/2408-13-2-E is initiated to record maintenance disassembly actions to complete the inspection task, enter '2408-13-2' below the PID." (See figure 3.)

"Final Records Check. After all corrective actions have been completed and following completion of the phased inspection, the Technical Inspector or designated supervisor shall verify that all applicable forms and records have been properly updated. All uncorrected faults shall be entered on DA Form 2408-13-1/2408-13-1-E or DA Form 2408-13-3 per DA Pamphlet 738-751. A final records checklist (table (insert number)) is provided to ensure forms and records have been inspected for completeness and accuracy prior to release of the aircraft from the phased maintenance inspection. The inspector verifying the final records check shall enter their PID adjacent to the indicated form or record on the Final Records Checklist." (See figure 4.)

"Maintenance Operational Check (MOC). After the completion of any required corrective actions to any of the components of a functional system of the aircraft, MOCs shall be performed on that system to determine the effectiveness of the maintenance actions performed and to verify the proper operation of that system. The MOCs shall be performed in accordance with TM 1-1500-328-23 and recorded per DA Pamphlet 738-751."

Maintenance Test Flight (MTF). When all required inspections in Section II have been accomplished and initialed in accordance with the above procedure, a daily inspection, in accordance with the TM specified in Section II, will be performed on the aircraft to permit performance of a MTF. The MTF shall be performed in accordance with the requirements of (insert applicable aircraft technical manuals) and TM 1-1500-328-23 using the MTF form in the MTF technical manual. A suggested MTF checksheet (figure (insert number)) and a rotor smoothing record (figure (insert number)) are provided at the end of Section I." (See figures 5 and 6.)

Checklist Disposition. The completed check-list and all forms and records documenting the inspection shall be disposed of per DA Pamphlet 738-751."

Inspection Areas. Figure (insert number) reflects the inspection areas of the (insert applicable aircraft model) aircraft. Those areas are titled as shown. Figure (insert number) shows the location of access doors and panels which require removal at various phased maintenance inspections." (See figures 7 and 8).

3.2.3 Section II. Inspection Checklist. This section shall begin with the following note (figure 9):

"NOTE

Prior to start of the Phased Maintenance Inspection, it is recommended that a pre-inspection maintenance test flight (MTF) be conducted. Accomplishment of the MTF shall be determined by the unit maintenance officer. The pre-inspection MTF should be conducted by a maintenance test pilot following a review of the aircraft forms and records and a briefing from the crew of the aircraft. The MTF is recommended to assess the aircraft performance and identify deficiencies that should be corrected while the aircraft is undergoing phased maintenance inspections."

3.2.3.1 General Inspection Items. List general inspection items specified by the procuring activity as shown in figure 10.

3.2.3.2 Aircraft Area Inspection Items. List aircraft area inspection items approved by the procuring activity. List shall be a logical sequence requiring a minimum of time and motion on the part of the individual performing the inspection, as shown in figure 11.

3.2.3.3 Power On Checks. List aircraft Power On Checks as approved by the procuring activity (figure 12).

3.2.3.4 Final Inspection Requirements. List aircraft final inspection requirements as specified by the procuring activity (figure 13).

4. QUALITY ASSURANCE PROVISIONS.

4.1 Quality Assurance Provisions. Quality assurance in the preparation of the Phased Maintenance Checklist Technical Manual shall be the responsibility of the contractor and shall be implemented in accordance with MIL-M-85337 to the extent specified by the contracting activity.

4.2 Responsibility for Inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.3 Responsibility for Compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

5. PREPARATION FOR DELIVERY.

5.1 Preparation and delivery shall be in accordance with MIL-M-38784.

6. NOTES.

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended Use. Technical Manuals conforming to the requirements of this specification are intended for use as military standardization documents and are listed in the DODISS. The general format described should also be considered for use in developing purchase descriptions and

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other non-DODISS procurement specifications, especially those which may be converted to a military specification at a later date.

6.2 Acquisition Requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1).
- c. Title and number of the technical manual, furnished by the contracting activity.
- d. Address for DA Forms 2028-2 (3.2.1.3).
- e. Reliability Centered Maintenance (RCM) logic (3.2).
- f. Use of front cover equipment illustration (3.2.1.1).
- g. Inclusion of metric conversion table on inside back cover (3.2.1.1).
- h. Those items designated to appear as "Mandatory Safety-of-Flight Inspection Items" (3.2.1.2).
- i. Phased schedule, flight hour cycle, flight hours and phase hours (3.2.2).
- j. General inspection items (3.2.3.1).
- k. Aircraft inspection areas (3.2.3.2).
- l. Final inspection requirements (3.2.3.4).

6.3 Data Requirements. The following Data Item Descriptions (DID) must be listed, as applicable, on DD Form 1423 (Contract Data Requirements List (CDRL)) when this specification is applied on a contract, in order to obtain the data, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

| Reference Paragraph | DID Number | DID Title |
|---------------------|------------|--|
| 4.2 | DI-M-2194 | Quality Assurance Program Plan |
| 4.2 | DI-M-2195 | Validation Plan |
| 4.2 | DI-M-2196 | Validation Certification |
| 4.2 | DI-M-2197 | Technical Manual Evaluation Record |
| 4.2 | DI-M-2198 | Verification Plan |
| 4.2 | DI-M-2199 | Verification Planning Data Cards |
| 4.2 | DI-M-2200 | Verification Sequence Control Chart |
| 4.2 | DI-M-2201 | Verification Incorporation Certification |

The above DIDs were those cleared as of the date of this specification. The current issue of DOD 5010-12-L (Acquisition Management Systems and Data Requirements Control List (AMSDL)), must be researched to ensure that only current, cleared DIDs are cited on the DD Form 1423.

6.4 TM Acquisition. This specification must be listed on the CDRL in order to acquire the TMs described by this specification, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

6.5 Additional Information. When specific questions and situations not covered by this specification arise, additional information may be obtained from the procuring activity or by contacting Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

6.6 Subject Term (Key Word) Listing.

- a. Checklist, Phase Maintenance
- b. Phase Inspection Intervals

- c. Instruction and Format, Preparation of
- d. Preparation instructions
- e. RCM Logic inspection instructions.

6.7 Changes From Previous Issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodian:
Army - TM

Preparing Activity:
Army - AV

Review Activity:
Army - SC

Project Number TMSS A292

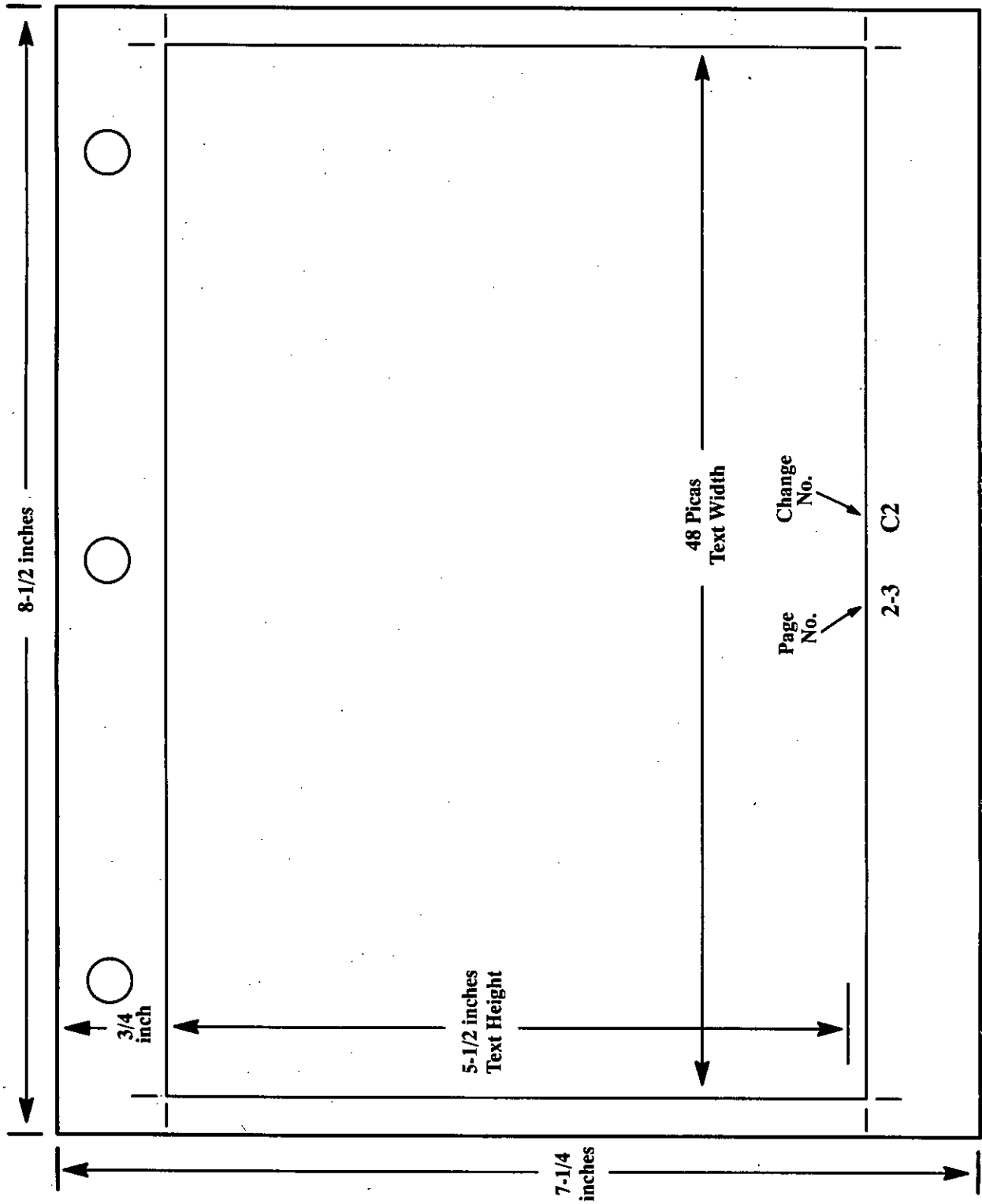


Figure 1. Dimensions for Basic Reproduction Page

TM 1-15XX-XXX-PM

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C.,

XH-1X AIRCRAFT

PHASED MAINTENANCE CHECKLIST

“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 the procedures, please let us know. Mail your letter, 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-1-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you.”

WARNING

To prevent catastrophic aircraft accidents, certain inspections are mandatory Safety-of-Flight requirements and the inspection intervals cannot be exceeded.

NOTE

- In the event required inspections cannot be/are not accomplished at the specified interval (except in actual operational emergencies) the aircraft condition status symbol shall be changed to a Red X.
- Mandatory Safety-of-Flight inspection items are printed in **BOLD** face type.

NOTE

Inspection items contained in this manual are considered the minimum requirements for performing phased maintenance and must be performed. The cumulative effects of inspection deferrals are unknown and could result in catastrophic failure or increased maintenance at a later date. Therefore, the use of special lettering to emphasize mandatory Safety-of-Flight inspection items is not to be construed as authority for deferral of other inspections.

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Figure 2. Cover/title page and Safety-of-Flight Information

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| PHASE INSP NO. <u>2</u> | | PHASE INSPECTION CHECKLIST | | | | |
|----------------------------------|----------|--|------------------|---------------------------------|--------|------------------------------------|
| Area Name and No. GENERAL - 0 | | Aircraft Serial No. 71 20172 | Date 7 Oct 93 | Organization B.CO. 6-229 AVN | | |
| Inspect Phase No's | Seq. No. | Inspection Requirements | EST MH | MOS | ACT MH | Inspection Action PID |
| ALL | 0.1 | Prior to inspection, check aircraft forms and records for recorded deficiencies (use Table 1-1 for reference to aircraft forms and records). | 1.0 | 67N | 1.0 | INSP OK TL 3163 |
| ALL | 0.2 | Clean engine air inlet and compressor in accordance with TM 55-2840-229-23. | 3.1 | 67N | 3.3 | INSP OK RB 3723 2408-13-2 |
| ALL | 0.3 | Clean aircraft in accordance with the latest issue of the aircraft AVUM and AVIM maintenance manuals. | | 67N | 2.1 | INSP OK TL 3163 |
| ALL | 0.4 | Check all electrical chip detectors (except engine) for metal accumulation and clean. Check continuity of electrical chip detectors. Refer to TM 55-2840-229-23 for engine chip detector check. | 1.3 | 67N 68F 68B | 1.2 | INSP COMPL RB 3723 2408-13-2 |
| 3, 6 | 0.5 | Defuel aircraft in accordance with TM 55-1520-210-23 prior to removal of floor panels. Refer to Item 6, page 2-59, 20 minute fuel caution light. | .2 | 67N | | N/A RB 3723 |
| 1, 2, 4, 5 | 0.6 | Fuel tanks shall be fully serviced prior to start of phased inspections. If maintenance is to be accomplished which required defueling, this item may be deferred until after such maintenance is completed. | .1 | 67N | .2 | INSP OK RB 3723 |
| ALL | 0.7 | Perform avionics inspections, check and test electrical equipment as required in applicable avionics publications. | 1.0 | | 1.0 | INSP OK AW 0077 |

"FOD REMINDER"

Check work area for tools and parts after completion of maintenance and inspection.

Figure 3. Example of Using Phased Maintenance Checklist

TM 1-15XX-XXX-PM

Final Records Checklist

This checklist is provided to ensure the indicated forms and records have been inspected for presence, completeness, legibility and accuracy prior to releasing the aircraft from a phase inspection. Verification of inspection will be indicated by placing the initials of the inspector in the appropriate initial block.

| AIRCRAFT LOG BOOK | DATE | PID | HISTORICAL RECORDS | DATE | PID |
|-------------------------------|------|-----|-------------------------------|------|-----|
| DA FORM 2408-4-1 | | | DA FORM 2408-5 & 5-1 | | |
| DA FORM 2408-4-2 | | | DA FORM 2408-15 & 15-2 | | |
| DA FORM 2408-4-3 | | | DA FORM 2408-16 & 16-1 | | |
| DA FORM 2408-13 | | | DA FORM 2408-17 | | |
| DA FORM 2408-13-1 | | | DA FORM 2408-19 series | | |
| DA FORM 2408-13-2 | | | DA FORM 2408-20 | | |
| DA FORM 2408-13-3 | | | LOCALLY REQUIRED FORMS | | |
| DA FORM 2408-14 | | | | | |
| DA FORM 2408-18 | | | | | |
| PRODUCT CONTROL RECORDS/FILES | DATE | PID | QUALITY CONTROL RECORDS/FILES | DATE | PID |
| FLOW CHART | | | TBO FILE | | |
| STATUS BOARD | | | QA FILE | | |
| WORK ORDER FILE | | | SERIAL NUMBER FILE | | |
| MWO FILE | | | AOAP FILE | | |
| 1352-1 REPORTS | | | WEIGHT AND BALANCE FILE | | |
| LOCAL RECORDS | | | MESSAGE FILE | | |
| | | | DA FORM 2410 SUBMITTED | | |
| | | | LOCAL RECORDS | | |
| | | | | | |
| | | | | | |

Figure 4. Example of Final Records Checklist

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| AH-1 MTF RECORD | | | |
|-----------------------------------|------|-----------------------------|---|
| SERIAL NUMBER | UNIT | PILOT | DATE |
| PURPOSE OF TEST FLIGHT | | | GROSS WT _____ LBS FAT _____ °C PRESS ALT. _____ FT |
| PRIOR TO MTF | | 3. CONTROL RESPONSE | |
| 1. FORMS & RECORDS | | 4. INSTRUMENTS | |
| 2. PRE-FLIGHT INSPECTION | | 5. YAW CHANNEL RESPONSE | |
| 3. SPECIAL REQUIREMENTS | | 6. PEDAL AUTHORITY | |
| BEFORE STARTING ENGINE | | 7. SIDEWARD HOVER | |
| 1. CAUTION/WARNING SYSTEMS | | 8. FORWARD HOVER | |
| 2. LIGHTING SYSTEMS | | 9. PYLON MOUNT | |
| 3. THROTTLE | | 10. ENGINE RESPONSE | |
| ENGINE START & RUNUP | | 11. LOW RPM HOVER | |
| 1. FLIGHT IDLE SPEED | % | 12. EMERGENCY GOVERNOR | |
| 2. GOVERNOR SWITCH | | 13. POWER CYLINDER | |
| 3. BLEED BAND | | 14. HOVER POWER | |
| CLOSED | % | TORQUE | PSI |
| OPEN | % | N1 | % |
| 4. MINIMUM BEEP | | INFLIGHT | |
| 5. MAXIMUM BEEP | | 1. TAKEOFF/CLIMBOUT | |
| 6. LINEAR ACTUATOR TRAVEL | SEC | 2. CONTROL RIGGING | |
| 7. RPM WARNING SYSTEM | | 3. AUTOROTATION | |
| 8. ELECTRICAL SYSTEMS | | 4. INSTRUMENTS | |
| 9. PITOT HEAT | | ENGINE OIL PRESS | PSI |
| 10. ECU/RAIN REMOVAL | | ENGINE OIL TEMP | °C |
| 11. DE-ICE SYSTEM | | XMSN OIL PRESS | PSI |
| 12. FORCE TRIM SYSTEM | | XMSN OIL TEMP | °C |
| 13. CONTROLS FRICTION | | 5. VIBRATION ANALYSIS | |
| 14. HYDRAULIC SYSTEMS | | 6. ENGINE TOPPING | |
| 15. SCAS SYSTEM | | N1 | % |
| 16. FUEL SYSTEMS | | TORQUE | PSI |
| 17. FUEL QUANTITY | LBS | EGT/TGT | °C |
| 18 N1 SPEED | | FAT | °C |
| 19 EGT/TGT | °C | PRESS ALT | FT |
| 20. TORQUE | PSI | 7. RADIOS/NAVIGATIONAL AIDS | |
| 21. ENGINE OIL PRESS | PSI | AFTER LANDING | |
| 22. ENGINE OIL TEMP | °C | 1. INSTRUMENTS | |
| 23. XMSN OIL PRESS | PSI | ENGINE OIL PRESS | PSI |
| 24. XMSN OIL TEMP | °C | ENGINE OIL TEMP | °C |
| 25. INSTRUMENTS/NAVIGATIONAL AIDS | | XMSN OIL PRESS | PSI |
| 26. HIT | | XMSN OIL TEMP | °C |
| N1 | % | 2. POST MTF INSPECTION | |
| EGT/TGT | °C | 3. FORMS & RECORDS | |
| HOVER | | 4. SPECIAL EQUIPMENT (LIST) | |
| 1. DROOP CAM | | | |
| 2. STABILITY/VIBRATION | | | |
| | | | |

Figure 5. Suggested Maintenance Test Flight Check Sheet

TM 1-15XX-XXX-PM
ROTOR SMOOTHING RECORD

| RED BLADE | | | | | WHITE BLADE | | | | |
|--|-----|------|---------|--------|-------------------|-----|------|---------|--------|
| SERIAL NUMBER | | | | | SERIAL NUMBER | | | | |
| ADJUSTMENT NUMBER | TAB | ROLL | BALANCE | EFFECT | ADJUSTMENT NUMBER | TAB | ROLL | BALANCE | EFFECT |
| 1 | | | | | 1 | | | | |
| 2 | | | | | 2 | | | | |
| 3 | | | | | 3 | | | | |
| 4 | | | | | 4 | | | | |
| 5 | | | | | 5 | | | | |
| REMARKS | | | | | | | | | |
| <hr style="width: 20%; margin-left: auto;"/> PILOT'S SIGNATURE | | | | | | | | | |

Figure 6. Example of Rotor Smoothing Record

TM 1-15XX-XXX-PM

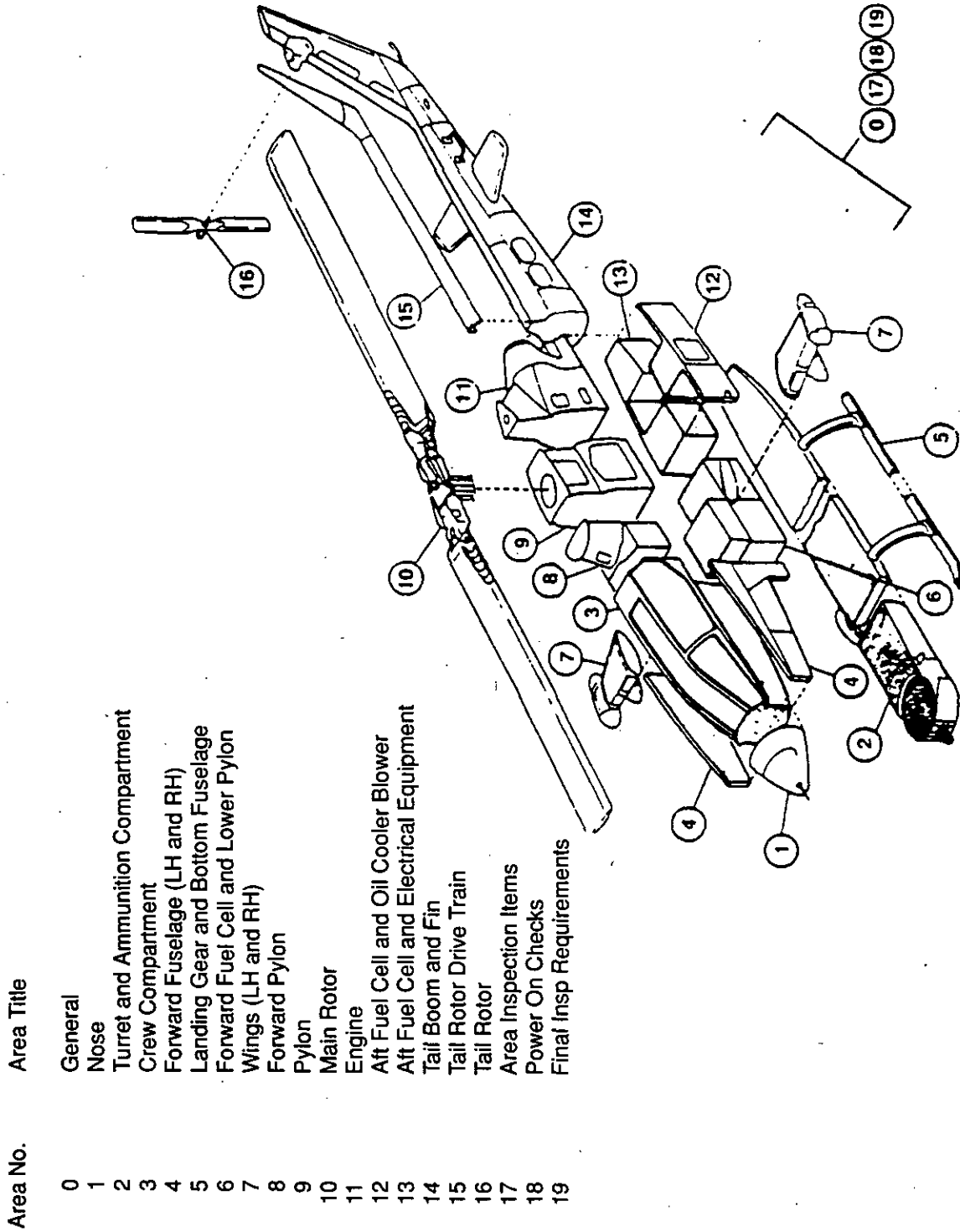


Figure 7. Example of Inspection Areas

TM 1-15XX-XXX-PM

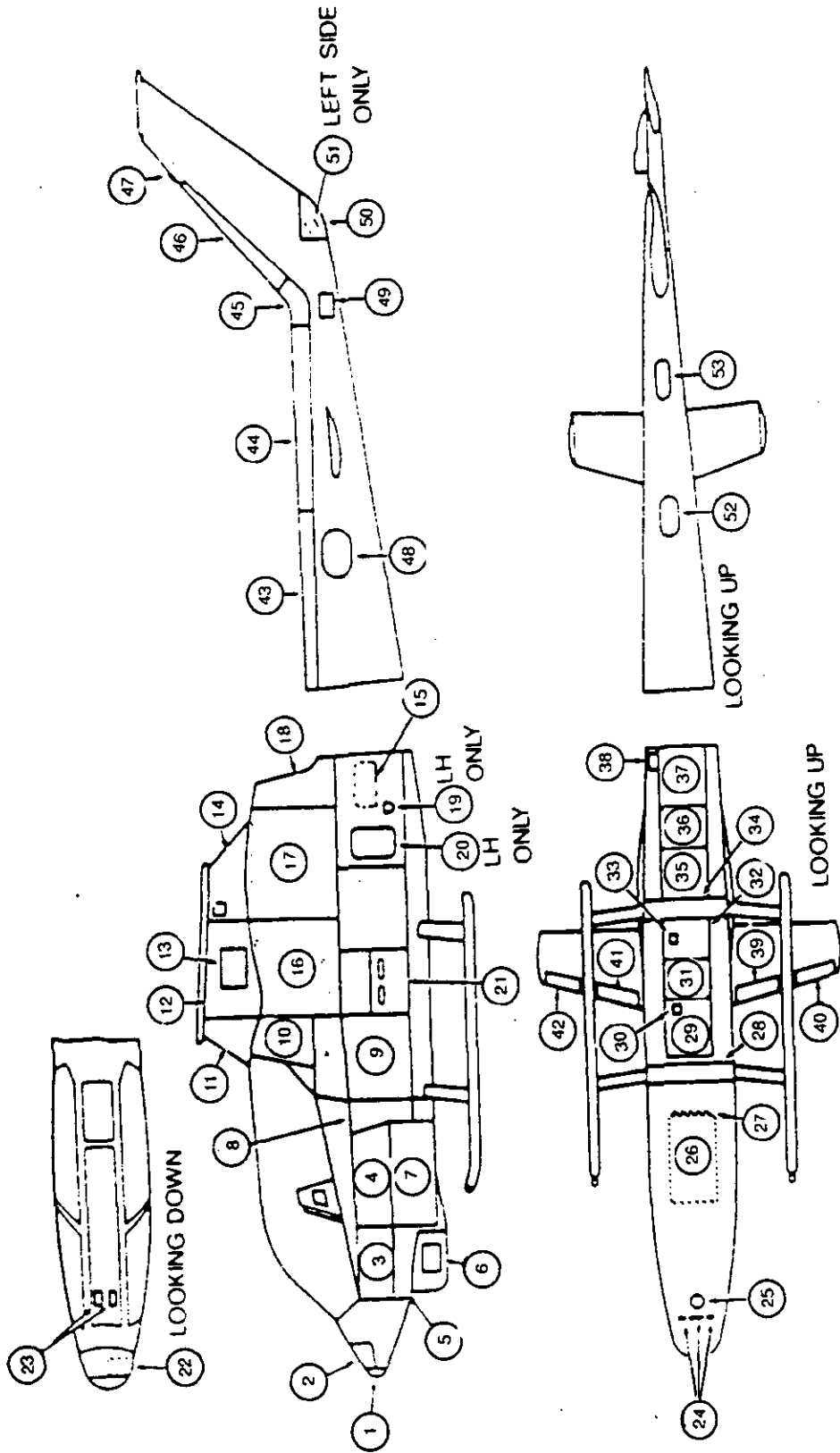


Figure 8. Example of Access and Inspection Provisions (Sheet 1 of 2)

TM 1-15XX-XXX-PM

- | | | | |
|-----|---|-----|------------------------------------|
| 1. | Electrical Relay - Nose Cover | 28. | Forward Crosstube Fairing |
| 2. | Battery (Alternate Location) - Nose Door | 29. | Forward Fuel Cell Sump Panel |
| 3. | Flight Controls Outer Panel (LH and RH) | 30. | Forward Fuel Drain Cover |
| 4. | Flight Controls Outer Panel (LH and RH) | 31. | Control Linkages Lower Skin Panel |
| 5. | Turret Fairing | 32. | Aft Fuel Cell Sump Panel |
| 6. | Turret Access Door | 33. | Aft Fuel Drain Cover |
| 7. | Ammunition Compartment Door | 34. | Aft Crosstube Fairing |
| 8. | Flight Controls Outer Panel (LH and RH) | 35. | Control Linkages Lower Skin Panel |
| 9. | Fuel Cell Outer Panel (LH and RH) | 36. | Electrical Cables Lower Skin Panel |
| 10. | Hydraulics Access Door (LH and RH) | 37. | ADF Sense Antenna |
| 11. | Forward Pylon Fairing | 38. | Jack Point Opening |
| 12. | Center Pylon Fairing | 39. | Wing Inboard Access Cover (RH) |
| 13. | Rotating Controls Access Door (LH and RH) | 40. | Wing Outboard Access Cover (LH) |
| 14. | Aft Pylon Fairing | 41. | Wing Inboard Access Cover (RH) |
| 15. | Aft Electrical Panel | 42. | Wing Outboard Access Cover (RH) |
| 16. | Transmission Cowl Door (LH and RH) | 43. | Drive Shaft Forward Cover |
| 17. | Engine Cowl Door (LH and RH) | 44. | Drive Shaft Aft Cover |
| 18. | Tail Pipe Fairing | 45. | Gearbox Fairing and Cover |
| 19. | External Power Door (LH only) | 46. | Fin Drive Shaft Cover |
| 20. | Oil Cooler Panel (LH only) | 47. | Gearbox Fairing and Cover |
| 21. | Transmission Access Panels (LH and RH) | 48. | Avionics Compartment Door |
| 22. | Battery Relay Access Panel | 49. | Tail Skid Access Covers |
| 23. | Gunner's Floor Access Panels (LH and RH) | 50. | Aft Fin Fairing |
| 24. | Nose Bulkhead Doors | 51. | Lower Fin Inspection Cover |
| 25. | Gunner's Pedals Access Cover | 52. | Tail Boom Access Door |
| 26. | Ammunition Compartment Upper Panel | 53. | Tail Boom Access Door |
| 27. | Ammunition Compartment Aft Panel | | |

Figure 8. Example of Access and Inspection Provisions (Sheet 2 of 2)

TM 1-15XX-XXX-PM

SECTION II - INSPECTION CHECKLIST**NOTE**

Prior to start of the phased maintenance inspection, it is recommended that a pre-inspection maintenance test flight (MTF) be conducted. Accomplishment of the MTF shall be determined by the unit maintenance officer. The pre-inspection MTF should be conducted by a maintenance test pilot following a review of the aircraft forms and records and a briefing from the regular flight crew of the aircraft. The MTF is recommended to assess the aircraft performance and identify deficiencies that should be corrected while the aircraft is undergoing phased inspection.

Figure 9. Example of Section II - Inspection Checklist Format

TM 1-15XX-XXX-PM

| PHASE INSP NO. _____ | | PHASE INSPECTION CHECKLIST | | | | |
|----------------------------------|----------|--|--------|-------------------|--------------|-----------------------|
| Area Name and No. GENERAL - 0 | | Aircraft Serial No. | Date | | Organization | |
| Inspect Phase No's | Seq. No. | Inspection Requirements | EST MH | MOS | ACT MH | Inspection Action PID |
| ALL | 0.1 | Prior to inspection, check aircraft forms and records for recorded deficiencies (use Table 1-1 for reference to aircraft forms and records). | 1.0 | 67N | | |
| ALL | 0.2 | Clean engine air inlet and compressor in accordance with TM 55-2840-229-23. | 3.1 | 67N | | |
| ALL | 0.3 | Clean aircraft in accordance with the latest issue of the aircraft AVUM and AVIM maintenance manuals. | | 67N | | |
| ALL | 0.4 | Check all electrical chip detectors (except engine) for metal accumulation and clean. Check continuity of electrical chip detectors. Refer to TM 55-2840-229-23 for engine chip detector check. | 1.3 | 67N 68F 68B | | |
| 3, 6 | 0.5 | Defuel aircraft in accordance with TM 55-1520-210-23 prior to removal of floor panels. Refer to Items 6, page 2-59, 20 minute fuel caution light. | .2 | 67N | | |
| 1, 2, 4, 5 | 0.6 | Fuel tanks shall be fully serviced prior to start of phased inspections. If maintenance is to be accomplished which required defueling, this item may be deferred until after such maintenance is completed. | .1 | 67N | | |
| ALL | 0.7 | Perform avionics inspections, check and test electrical equipment as required in applicable avionics publications. | 1.0 | | | |

"FOD REMINDER"

Check work area for tools and parts after completion of maintenance and inspection.

Figure 10. Example of General Inspection Items

TM 1-15XX-XXX-PM

| PHASE INSP NO. _____ | | PHASE INSPECTION CHECKLIST | | | | |
|---|----------|---|--------|-----|--------|-----------------------|
| Area Name and No. T/R AND GEARBOX - 20 | | Aircraft Serial No. | | | Date | |
| Inspect Phase No's | Seq. No. | Inspection Requirements | EST MH | MOS | ACT MH | Inspection Action PID |
| ALL | 20.1 | Vertical fin rib (P/N 204-030-827-27) along rivet row at fin station 10.08 for cracks (access thru topmost lightning holes). (Access panel 14, Fig. 1-4). | .2 | 67N | | |
| ALL | 20.2 | Tail rotor (90 degree) gearbox oil drained, sight gage for damage or stained glass, and refilled. | .2 | 67N | | |
| ALL | 20.3 | Tail rotor (90 degree) gearbox filler cap for vent. | .1 | 67N | | |
| ALL | 20.4 | MANDATORY SAFETY-OF-FLIGHT INSPECTION ITEM REMOVE AND INSPECT ALL SILENT CHAINS FOR CRACKS. (Access panels 14 and 29, Fig. 1-4). | 1.5 | 67N | | |
| ALL | 20.5 | Tail rotor control roller chain and sprocket for damage and security. (Access panels 14 and 29, Fig. 1-4). | 1.0 | 67N | | |
| ALL | 20.6 | Slowly operate tail rotor control pedals and observe roller chain operation to ensure no binding or climbing on the sprocket occurs. (Access panel 29, Fig. 1-4). | 1.1 | 67N | | |
| ALL | 20.7 | Remove tail rotor control tube. Check for excessive grease on tube. Splines and threads for wear. Threads for brass metal particles. (Access panel 29, Fig. 1-4). | 1.1 | 67N | | |
| ALL | 20.8 | Tail rotor control quill for nicks, corrosion, leakage and security. (Access panel 29, Fig. 1-4). | .3 | 67N | | |

"FOD REMINDER"

Check work area for tools and parts after completion of maintenance and inspection.

Figure 11. Example of Area Inspection Items

TM 1-15XX-XXX-PM

| PHASE INSP NO. _____ | | PHASE INSPECTION CHECKLIST | | | | |
|---|----------|---|--------|------------|--------|-----------------------|
| Area Name and No. POWER ON CHECKS - 24 | | Aircraft Serial No. | | | Date | |
| Inspect Phase No's | Seq. No. | Inspection Requirements | EST MH | MOS | ACT MH | Inspection Action PID |
| ALL | 24.1 | Cyclic and collective cylinders and connecting hydraulic lines for leaks. | .1 | 67N | | |
| ALL | 24.2 | Fuel lines for leaks during engine operation. | .1 | 67N | | |
| ALL | 24.3 | Tail rotor assembly balance with Vibrex if not previously accomplished in area 20. | 1.0 | 67N | | |
| 3, 6 | 24.4 | Perform electrical operational check on the bleed air heater/muff heater system. Inspect muff heater overheat switch. | .1 | 67N | | |
| ALL | 24.5 | Functional test windshield wiper motor and converter assembly. | .1 | 67N | | |
| 3, 6 | 24.6 | Perform inspection on fuel quantity indicator and 20 minute fuel caution light for correct readings. | .8 | 67N 68F | | |

"FOD REMINDER"
Check work area for tools and parts after completion of maintenance and inspection.

Figure 12. Example of Power ON Check Items

TM 1-15XX-XXX-PM

| PHASE INSP NO. _____ | | PHASE INSPECTION CHECKLIST | | | | |
|---|----------|---|--------|-----|--------|-----------------------|
| Area Name and No. FINAL INSPECTION REQUIREMENTS - 25 | | Aircraft Serial No. | | | Date | |
| Inspect Phase No's | Seq. No. | Inspection Requirements | EST MH | MOS | ACT MH | Inspection Action PID |
| ALL | 25.1 | Verify that all entries are completed in accordance with Table 1-2 and DA Pamphlet 738-751. | | | | |
| ALL | 25.2 | Perform maintenance operational checks (MOC), as required in accordance with the requirements of TM 1-1500-328-23. | | | | |
| ALL | 25.3 | Perform a daily inspection in accordance with TM 55-1520-210-PMD. | | | | |
| ALL | 25.4 | Release aircraft from inspection status to permit accomplishment of post-inspection maintenance test flight (MTF) in accordance with requirements of TM 55-1520-242-MTF and TM 1-1500-328-23. | | | | |

"FOD REMINDER"
Check work area for tools and parts after completion of maintenance and inspection.

Figure 13. Example of Final Inspection Requirements

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
MIL-M-63014A

2. DOCUMENT DATE (YYMMDD)

3. DOCUMENT TITLE
Phased Maintenance Checklist

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)
(1) Commercial
(2) AUTOVON
(If applicable)

7. DATE SUBMITTED
(YYMMDD)

8. PREPARING ACTIVITY

a. NAME
U.S. Army Aviation and Troop Command

b. TELEPHONE (Include Area Code)
(1) Commercial (314) 263-9401 (2) AUTOVON 693-9401

c. ADDRESS (Include Zip Code)
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