TECHNICAL BULLETIN

POLICY DIRECTIVE GOVERNING THE EXECUTION OF THE JOINT AIRFRAME CONDITION EVALUATION (JACE) IN THE FIELD FOR ARMY, AIRFORCE, NAVY ALL H-60 AIRCRAFT

HEADQUARTERS, DEPARTMENT OF THE ARMY, AIR FORCE AND NAVY

15 MARCH 1997

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

POLICY DIRECTIVE GOVERNING THE EXECUTION OF THE JOINT AIRFRAME CONDITION EVALUATION (JACE) IN THE FIELD FOR ARMY, AIRFORCE, NAVY ALL H-60 AIRCRAFT

Headquarters, U.S. Army Aviation and Troop Command, St. Louis, MO
15 March 1997

1.0 INTRODUCTION AND GENERAL INFORMATION

1.1 PURPOSE AND BACKGROUND:

1.1.1 The Joint Airframe Condition Evaluation (JACE) criteria provide a method for the Tri-Service Users of the H-60 derivative airframe to identify candidates that require corrective depot-level maintenance action. This method utilizes a set of common faults, called condition codes, to permit evaluators to make an effective, objective assessment of specific factors judged most critical in determining the need for depot-level maintenance action. This evaluation consists of an examination of the aircraft structure for symptoms of possible hidden defects, together with an assessment of overall system material condition parameters.

1.1.2 These criteria replace the Airframe Condition Evaluation (ACE), as used previously in the U.S. Army and Air Force, and the Aircraft Service Period Adjustment (ASPA) criteria, as used previously by the U.S. Navy.

1.1.3 The JACE pertains principally to structural parts that are replaceable at depot level; however, abnormal conditions and/or defects observed will be recorded for disposition at the appropriate level of maintenance. This evaluation does not pertain to components or time change items, except as how they impact overall material condition.

1.1.4 This directive, along with the Implementation Plan, defines the actions required and the responsibilities of the affected organizations in order to replace the current ACE and ASPA inspection programs with the JACE.

2.0 GOVERNING POLICY

2.1 APPLICABILITY

2.1.1 **Aircraft**: Tri-Service aircraft that are encompassed by this JACE directive include the following:

Army: The UH-60AL, EH-60A/L, and MH-60A/UK Blackhawk aircraft.

Navy: The SH-60B/F and HH-60H Seahawk aircraft.

Air Force: The HH/MH-60G PAVE HAWK aircraft.

2.1.2 **Inspection Intervals:** All aircraft, except as noted in paragraph 2.2, are to be evaluated each year within a period of minus 6 months to plus 90 calendar days of either of the following dates:

(a) The calendar date of the expiration of the aircrafts Initial Operating Period (IOP).

(b) The calendar date of the annual anniversary of the IOP after the IOP has expired.

2.2 EXCEPTIONS: The following instances constitute the only approved exceptions to the policy provisions specified in paragraphs 2.1.1 and 2.1.2:

(a) Aircraft that have not yet reached the end of their IOP, which is defined as follows: A period of 36 consecutive months, (48 consecutive months for the SH-60B) after having been placed into service from a new condition, or after having been placed into service following the completion of an approved, comprehensive depot-level rework program (Standard Depot Level Maintenance (SDLM) for Navy; On Condition Maintenance (OCM) for Army or Air Force; Refurbishment for Army; Joint Depot Level Maintenance (JDLM) for all).

(b) Aircraft which have exceeded their IOP, but have not been ACEIJACE will not be placed in non-flyable status. These aircraft will be prioritized for scheduling initial JACE inspection.

(c) Aircraft that are accident, storm, crash and/or battle damaged, or undergoing a depot level repair operation to correct accident, storm, crash and/or battle damage. Aircraft placed into service from depot-level repair action may be subject to remedial actions as defined in paragraph 2.2.2.

(d) Aircraft undergoing a comprehensive, depot-level modification action, approved by the affected service, where the induction date occurs prior to the minus 6-month window, and/or the delivery date exceeds the plus 90-day window. Aircraft placed into service from the depot-level modification action may be subject to remedial actions as defined in paragraph 2.2.2.

(e) Aircraft deployed to an area duly designated by proper authorities within the DoD as a Combat/Hazardous Duty Zone. Aircraft exempted by this provision are subject to remedial actions as defined in paragraph 2.2.2.

(f) Aircraft deployed to a remote exercise site or aboard an under way vessel, whether or not the vessel (aircraft) is deployed in a Combat/Hazardous Duty Zone. This provision does not preclude the option of conducting an evaluation aboard a vessel or at the remote site if the transportation is provided by the owning unit or if the evaluation can be feasibly scheduled and completed coincidentally with a port call, provided that the port is not in a Combat/Hazardous Duty Zone. Aircraft exempted by this provision are subject to remedial actions as defined in paragraph 2.2.2.

(g) Any aircraftexempted specifically by order of command authority equal to or greater than those listed below.

Army: HQ DA (DALO-AV/DAMO-FDV)

Navy: Chief of Naval Operations (CNO)

Air Force: MAJCOM Logistics Management Office

Aircraft exempted by this provision are subject to remedial actions as defined in paragraph 2.2.2 unless relieved specifically from this requirement by the appropriate command authority.

2.2.1 **Exemption Records**: The affected service shall be responsible for maintaining records of all aircraft exempted from the evaluation for any of the reasons defined herein, and shall transmit those records to the Trend Analysis Database System Administrator for incorporation into the database, and to the JACE schedule administrator, where applicable. The record must indicate the aircraft tail number; exemption rationale and authority; and the planned remedial action to be taken.

2.2.2 **Remedial Actions**: Aircraft exempted from the evaluation, as defined in paragraph 2.2, with the exception of aircraft that have not yet reached the end of their IOP, shall be subject to the following remedial actions, except as noted in paragraph 2.2 (f):

(a) Aircraft that have been damaged by crash or combat operations shall have the provisions of the JACE satisfied coincidentally with damage assessment and repair estimate inspections. While no scoring data will be generated or reported, indicators or conditions uncovered shall be included in the repair estimate, and decisions regarding disposition shall be made by the affected service.

(b) Aircraft that are undergoing a comprehensive, depot-level modification action, as defined by paragraph 2.2 (c), may have the provisions of the JACE satisfied coincidentally with that modification action by the agency (Government or Contractor) conducting the modification action. The affected service may elect to postpone the JACE until after the completion of the modification action and subsequent delivery to the Government. In this event, the aircraft shall be subject to a maximum operational time limit that shall not exceed 30 consecutive calendar days from the date of Government acceptance, or 50 total flying hours from the logbook time of Government acceptance, whichever is the lesser. At the expiration of this time limit, the aircraft shall be placed into a nonflying status until such time as the JACE is conducted.

(c) Aircraft deployed to a Combat/Hazardous Duty Zone, a remote field exercise site, and/or aircraft deployed aboard an under way vessel, shall be subject to a maximum operational time limit that shall not exceed 30 consecutive calendar days from the date of return from the deployment, to Continental United States (CONUS) and/or an Outside Conus (OCONUS) location not designated as a Combat/Hazardous Duty Zone, or 50 total flying hours from such return from the deployment, whichever is the lesser. At the expiration of this time limit, the aircraft shall be placed into a nonflying status until such time as the JACE is conducted.

(d) Aircraft exempted by virtue of command authority shall be subject to a maximum time limit for operation after release from command authority, as specified by the command authority granting the exemption, at the time of the release. At the expiration of that time limit, the aircraft shall be placed on a priority schedule until such time as the JACE is conducted.

2.2.3 **Remedial Action Records:** The affected service shall be responsible for maintaining records of the remedial actions taken for any aircraft exempted for any reasons specified herein, and shall transmit those records to the Trend Analysis Database System Administrator for incorporation into the database. The records must include the aircraft tail number, action taken, result (score), and the date of the completion of the action.

2.3 DEFECT CORRECTION: Correction of defects uncovered as a result of JACE is driven by two criteria: defect severity and corrective action maintenance level. The guidelines for this policy are provided below:

2.3.1 **Minor:** All Minor defects identified during the JACE inspection, correctable at the Organizational/Intermediate (O/I) level, may be corrected at the convenience of the Unit Commander, or a designated representative, hereinafter referred to as Unit Commander. By definition, a minor repair should be correctable at the unit level.

2.3.2 **Major:** Major defects identified during the JACE inspection, falling within similar guidelines, also may be correctable at the O/I level at the convenience of the Unit Commander. However, according to the nature of the severity of the defect, every effort should be made to correct the defect at the earliest possible opportunity. Major defects that are identified as correctable at the depot level require that the Unit Commander and the affected service determine the impact of the defect on the units operational schedule, and ensure that required actions are scheduled as expeditiously as possible to minimize the impact on the operational unit.

2.3.3 **Critical:** Critical defects categorized by unit and affected service identified during the JACE inspection will be corrected before the aircraft is put back in service. The evaluation team, Unit Commander, and the affected service will determine the level of maintenance for the repair. If the repair is at the depot level, the affected service will be responsible for scheduling either depot field team or depot induction to evaluate or correct the defects. The repair will be scheduled expeditiously as possible to minimize the impact on the operational unit.

2.4 EVALUATION TEAM:

2.4.1 **Team Composition:** A minimum evaluation team shall be composed of a Team Leader and an Evaluator. The Team Leader shall function as the Principal Point of Contact (PPOC) with the unit personnel and the affected services, and shall provide direction and oversight for the evaluator(s) for which he exercises lead person authority.

2.4.2 **Orientation Seminar:** The JACE orientation administrator shall be responsible for the development and/or review and approval of programs designed to familiarize personnel for service as JACE Team Leaders or Evaluators, and the review and approval of the experience, qualifications, and capability of personnel applying to perform the JACE. Participating services shall assist the administrator in this effort.

2.4.2.1 Syllabus: At a minimum, a syllabus should consist of a classroom and an aircraft (lab) phase to ensure that a qualified candidate gains proficiency in the following areas:

(a) JACE directive policy and technical requirements.
(b) Individual service's (Army, Navy, Air Force) maintenance forms and records.
(c) Reporting and documentation requirements.
(d) Defect identification and severity classification.
(e) Defect correction maintenance level and repair alternatives (depot vs. field team).
(f) Field site protocol.
(g) Use of necessary tools and equipment.

2.4.2.2 Orientation: The Army shall be responsible for initial and recurrent qualification of personnel and seminar syllabi. Initial orientation shall ensure that trainers are proficient in all aspects pertinent to the JACE program, that evaluators have mastered the necessary knowledge deemed minimum for their assigned level, and that seminar syllabi are sufficient and effective for continued use. Recurrent orientation shall be conducted annually for those years in which new evaluation personnel are involved or when evaluation procedures change. Recurrent orientation shall include syllabi that have been updated as required by program changes, and requires that trainers and evaluators demonstrate the requisite mastery of knowledge and skills needed to continue in their assigned roles.

2.4.2.3 Personnel Experience and Qualifications: The following defines the minimum experience and qualifications necessary for individuals to attend the orientation seminar and apply for Team Leader, Evaluator, or Trainer positions:

Team Leader

(a) Possesses the qualifications of an Evaluator, and has six years of total experience in aircraft maintenance, with two years of experience as a qualified technical inspector/inspector authorization (TI/IA) in either the military or civil sector within the last five years.

(b) Two years of total experience in H-60 type (any service derivative) aircraft maintenance within the last five years.

(c) FAA Airframe and Power plant (A&P) license and 10 years of total experience may be substituted for TI/IA experience.

Evaluator

(a) Four years of total experience in aircraft maintenance in either the military or civil sector within the last five years.

(b) One year of total experience in H-60 type (any service derivative) aircraft maintenance, within the last five years.

(c) FAA A&P license and six years of total experience may be substituted for H-60 experience.

Trainer

(a) Possesses the qualifications required to be certified as a Team Leader, and has three years of experience as an aircraft maintenance technical trainer in either a military or civil sector technical school.

(b) FAA A&P license, 10 years of total experience, and five years of technical training experience may be substituted for TI/IA experience.

2.5 REPORTING AND DOCUMENTATION:

2.5.1 **Reports:** The JACE results will be reported to the Unit Commander for corrective actions, and to the Trend Analysis Database Administrator. The JACE Team will use the JACE automated database to complete the JACE Administrative Procedures Form, the JACE Checklist, and Discrepancy Summary Form(s) in accordance with this Technical Bulletin (TB) Appendix B The JACE Team will enter the JACE results in the automated JACE database and print the JACE Summary Report. The Summary Report at minimum will contain all the information from the JACE Administrative Procedures Form, the JACE Checklist results, and the Discrepancy Summary Forms. The Summary Report will be used to brief the Unit Commander on the results of the JACE. The aircraft records will be annotated, and a signed copy of the Summary Report (Administrative Procedures Form, JACE Checklist, Discrepancy Summary Form(s)), and a copy of the results on computer disk will be forwarded to the Trend Analysis Database Administrator for incorporation into the Joint database. After the database administrator verifies the data from the Summary Report with the data transmitted from the field, the Summary Report and a copy of the computer disk will be forwarded to the affected service. The JACE team leader will upload the aircraft's JACE summary reports to the JACE administrators bulletin board daily. All aircraft that were scheduled but not available for the evaluation over the period of the stay, immediately report the aircraft serial number to the affected service PPOC and JACE Project Officer.

2.5.2 **Unit Out-briefing:** The JACE Team Leader shall provide an out-briefing to the Unit Commander on the JACE results. The briefing will be consistent with the overall aircraft condition reported on the Summary Report. The Unit Commander or representative will sign the Summary Report (JACE Checklist, Discrepancy Summary Form(s), and Administrative Procedures Form), and a copy of the Summary Report will be provided to the Unit Commander.

2.5.3 **Aircraft Record Entry:** The JACE Team Leader will annotate each aircraft record with the JACE inspection date and signature.

2.5.4 **Record Keeping**: The affected service will maintain the original JACE Summary Report.

2.6 RESPONSIBILITIES AND AUTHORITY:

2.6.1 **Evaluation Team:** The evaluation team will be responsible for accomplishing the JACE and reporting the results. The JACE Team is authorized by the affected service to evaluate and classify defects identified during the conduct of the inspection, to document and report these defects to the Unit Commander, and to recommend to the affected service and Unit Commander the disposition of the defect and flying status of the aircraft, prior to any necessary repair actions.

2.6.2 **Unit Commander:** The Unit Commander is responsible for ensuring that the aircraft to be inspected are made available to the team, and have been prepared as specified in the official publication of JACE procedures. The Unit Commander is responsible for ensuring that the team is provided access to a working space and phone and/or fax capabilities. After review and acceptance of the evaluation team's report, the Unit Commander is responsible for negotiating the schedule and nature of maintenance action for major and critical defects.

2.6.3 **Affected Service Principal Point of Contact (PPOC):** The PPOCs (lead and participating) are responsible for ensuring that all Government interests are met, and all requirements of the JACE are accomplished for the respective service. The PPOC also is assigned responsibility and authority to perform all, or portions of, airframe depot program management functions to support the JACE effort. The JACE process shall be subject to evaluation and certification by the PPOCs to determine its effectiveness in supporting the requirements established in this directive, drawings, Technical Instructions, Technical Orders (T.O.s), Technical Manuals (TMs), and other supporting documents. The designated PPOC for each service is as follows:

Army: Department of the Army
Headquarters
Aviation and Troop Command/AMSAT-I-MCM
4300 Goodfellow Blvd.
St. Louis MO 63120

Navy: Department of the Navy 777
Naval Aviation Depot
Attn: MMHISST PSC Box 8021
Cherry Point NC 28533-0021

Air Force: Department of the Air Force
Warner Robins Air Logistics Center/LUH Special Operations Forces System Program Office
226 Cochran Street
Robins AFB GA 31098-1622

2.6.4 **Trend Analysis Database Administrator:** The database administrator is responsible for the storage and maintenance of all JACE records received. The administrator also provides data as needed for each service to develop respective reports and summaries. Administrator will assure that the database contains a complete record for all aircraft that have been JACE evaluated.

2.7 **Reporting of Errors and Recommending Improvements.** You can help improve this TB. 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) directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes directly by E-mail to <mpmt%avma28@st-louis-emh7.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.

APPENDIX A
TECHNICAL PROCEDURES

JOINT AIRFRAME CONDITION EVALUATION (JACE)

1.0 INTRODUCTION AND GENERAL INFORMATION

1.1 PURPOSE AND BACKGROUND:

1.1.1 The Joint Airframe Condition Evaluation (JACE) criteria provide a method for the Tri-Service (Department of Defense (DoD)) Users of the H-60 derivative airframe to identify candidates that require corrective depot-level maintenance action.

1.1.2 These criteria replace the Airframe Condition Evaluation (ACE), as used previously in the U.S. Army and Air Force, and the Aircraft Service Period Adjustment (ASPA) criteria, as used previously by the U.S. Navy.

1.1.3 The JACE pertains principally to structural parts that are replaceable at depot level.

1.2 SCOPE: This publication will provide the JACE evaluators with the information required to perform JACE satisfactorily.

1.3 EQUIPMENT AND PUBLICATIONS

1.3.1 The following equipment must be in the possession of each member of the JACE Team:

(1) Inspection mirrors (2 each).
(2) Flashlights 2 each) and spare batteries.
(3) Pocket magnifying lens 10X (1 each).
(4) Pointed probe (1 each).
(5) Caliper or other suitable tool for measuring fastener diameters (1 each).

1.3.2 In addition to the specific equipment required by each team member, the following equipment must be in the general possession of each JACE Team:

(1) Portable computer (1 each) with the following minimum capability: IBM PC compatible (120 megabyte (Mb) hard drive) with an internal fax/modem (14.4 Cubs, V3.2bis compatible) and appropriate communications software.
(2) JACE electronic data form executable file backup program disk (1 each) (GFE).
(3) Blank data diskettes (high density), quantity adequate for mission needs.

1.3.3 Technical publications; Army, Navy, or Air Force administrative publications; and other useful publications should be available in the libraries of the installations or units visited, if needed. This document represents the only technical publication that the JACE Team must possess.

1.4 CHANGE RECOMMENDATIONS: The reporting of errors, omissions, and recommendations for improving this publication or any other technical publications by individual users is encouraged. Change recommendations should be submitted on a publications change request, and forwarded to the appropriate PPOC, as indicated in this TB.

1.5 APPLICABILITY: Tri-service aircraft that are encompassed by this JACE publication include the following:

Army: The UH-60AL, EH-60A/L, and MH-60A/UK Black Hawk aircraft.

Navy: The SH-60B/F and HH-60H Seahawk aircraft.

Air Force: The HH/MH-60G PAVE HAWK aircraft.

1.6 DEFECT IDENTIFICATION AND CLASSIFICATION: Each JACE condition code and any other noted defects have three possible defect classifications. After examining the defect, classify it as either minor, major, or critical, depending on the severity of the defect. The defect classification and criteria are listed below:

1.6.1 **Minor Defect**: A defect that is not likely to materially reduce the usability of a system or component for its intended purpose; or is a departure from established standards having no significant bearing on the effective use or operation of the system or component.

1.6.2 **Major Defect**: A defect greater than minor limits that requires repair or replacement of the part to restore the full load carrying capacity of the structure. All cracks are considered major defects.

1.6.3 **Critical Defect**: Any defect that results in a hazardous or unsafe condition for persons operating the aircraft, or a defect that is likely to prevent performance of the tactical function of the aircraft. All critical defects shall be briefed to the Unit Commander or his designated representative (hereafter referred to as the Unit Commander), and the affected service on the discovery of the defect.

1.7 REPORTING AND DOCUMENTATION: The JACE team will complete the JACE administrative procedures form, the JACE checklist, and the discrepancy summary forms for all the major and critical defects using the automated JACE database during the execution of the JACE.

1.7.1 **JACE Administrative Procedures:** The Administrative Procedures Form provides the JACE Team with the aircraft background, and provides the services with information to assist in trend analysis of the aircraft or fleet. Information to complete the form can be gathered from the aircraft logbook. An example of the Administrative Procedures Form is provided in Appendix B.

1.7.2 **JACE Report Form:** The JACE Report is the completed JACE Administrative Procedures Form, JACE Checklist, and Discrepancy Summary Form(s). The JACE Team will complete the JACE Checklist for each indicator when the item is inspected. Using the automated JACE data base, select the appropriate defect(s) or no defect, and classify the defect(s) as Minor, Major, or Critical.

1.7.3 **Unit Out-briefing:** The JACE Team Leader shall provide an out-briefing to the Unit Commander on the JACE results. The briefing will be consistent with the overall aircraft condition reported on the Administrative Procedures Form. A copy of the JACE Checklist, Discrepancy Summary Form(s), and Administrative Procedures Form will be provided to the Unit Commander.

1.7.4 **Aircraft Record Entry:** The JACE Team Leader will annotate each aircraft record with the JACE inspection date and signature.

1.7.5 **Record Keeping:** The PPOC for the affected service will maintain the original JACE Administrative Procedures Form, Discrepancy Summary Form(s), and Checklist. The Administrative Procedures Form, Discrepancy Summary Form(s), and JACE Checklist will be filed by aircraft tail number, and will be maintained until the aircraft undergoes a comprehensive depot-level rework program.

2.0 TECHNICAL REQUIREMENTS

2.1 ACCOMPLISHING THE JACE: The JACE Team is responsible for the overall conduct of the JACE in accordance with this directive. The unit, at a minimum, will provide a unit Quality Assurance (QA) representative and an aircraft technician(s), as necessary, to assist the JACE Team.

2.1.1 **Local Briefing and Setup:**

(a) The Unit Commander will provide an orientation briefing to the JACE Team. The briefing will include safety issues, local procedures for exiting and entering aircraft inspection area, access to a telephone and telephone procedures, access to a desk and work area, location of technical data, and aircraft peculiarities. The aircraft records will be made available to the team.

(b) The Unit Commander will ensure that the aircraft is prepared for the inspection. Specifically, all access and inspection doors and panels will be removed in accordance with paragraph 2.2.2.

(c) The briefing will identify the PPOC for the affected service, evaluation team members, and any new procedural changes, and will provide an explanation of how the JACE will be executed at the unit.

2.1.2 **Aircraft Location:** The Unit Commander will ensure all scheduled aircraft are available for the inspection. Aircraft should be positioned to allow for maximum effectiveness of the team's time. Also, where possible, aircraft will be placed in a hangar to facilitate the inspection. If convenient, the Unit Commander will provide transportation for the evaluation team when aircraft are at a remote site within a two-hour one-way flight from their home field or base. The Unit Commander will arrange the flight and maintenance schedules to ensure that the inspection is not delayed unduly due to aircraft nonavailability.

2.1.3 **Problem Resolution:** If a JACE-related problem arises that cannot be resolved locally, the problem will be addressed to the PPOC of the affected service for resolution/mediation.

2.1.4 **Exit Briefing:** The JACE Team Leader shall provide an exit briefing on the inspection results. The briefing will convey to the Unit Commander the presence of any major and/or critical defects by aircraft serial number. The Unit Commander shall sign the JACE Checklist to indicate that the briefing has been accomplished, and the Team Leader shall provide a copy of the JACE Checklist, Administrative Procedures Form, and Discrepancy Summary Form(s) to the Unit Commander.

2.2 AIRCRAFT EXAMINATION:

2.2.1 **Administrative Procedures:** Examine the aircraft record and complete items 1-18 on the Administrative Procedures Form. After the inspection, complete items 19, 20, and 21. Instructions to complete the form follow.

NOTE

For Air Force aircraft, use AFTO Form 95; for Army aircraft, use DA Form 2408 series, and others, in the aircraft log book; and for Navy aircraft, use OPNAV 4790/60, Naval Aircraft Flight Records (Yellow sheets, OPNAV 3760/2); and the aircraft logbook to complete the following aircraft information:

(1) **TODAY'S DATE:** Enter date.

(2) **INSPECTOR CODE:** Enter inspector identification code.

(3) **INSPECTION AGENCY:** Enter inspection agency designation.

(4) **UNIT:** Enter unit designation, address, and branch of service.

(5) **LOCATION:** Enter base, post, station, or geographic location where the aircraft is being inspected.

(6) **AIRCRAFT MODEL:** _H-60_.

(7) **MANUFACTURE YEAR:** Enter year of aircraft manufacture.

(8) **SERIAL NUMBER:** Enter aircraft serial number.

(9) **TOTAL HOURS ON AIRCRAFT:** Annotate total hours on aircraft.

(10) **NUMBER OF TIMES AIRCRAFT HAS UNDERGONE A COMPREHENSIVE REWORK:** Annotate the number of times the aircraft has been reworked or the aircraft's current service tour number. If new, enter 00, then skip to Block 16.

(11) **COMPREHENSIVE DEPOT REWORK BY:** Identify the agency that performed the last rework.

(12) **AIRCRAFT HOURS AT TIME OF REWORK:** Annotate hours at the time of last rework.

(13) **DATE OF REWORK:** Annotate month and year of last rework.

(14) **DATE OF LAST AIRCRAFT CONDITION EVALUATION (ACE)/AIRCRAFT SERVICE PERIOD ADJUSTMENT (ASPA) OR JACE:** Annotate the date of the last ACE/ASPA or JACE. If this is the first inspection, leave blank.

(15) **NUMBER OF PRIOR JACE INSPECTIONS, ACE INSPECTIONS, OR ASPA SEQUENCES:** Write the number of prior JACE Inspections, ACE Inspections, or ASPA Sequences since last rework. If the aircraft is new, enter 0.

(16) **HOURS AT LAST PHASE INSPECTION (PI):** Annotate aircraft hours at last PI.

(17) **AIRCRAFT HISTORY:** In narrative form, report any damage, over stress, hard/overweight landings, chronic maintenance/system problems, and special operating conditions recorded in the aircraft logbooks and maintenance records.

(18) **LIFE LIMITED STRUCTURAL ITEMS:** Review life limited structural components installation data. Compare present operating hours to published operational limits in

technical data. Identify components whose service life will expire before the next JACE using the preceding year flying hours. Structural components found exceeding their service life limit will be recorded as a critical defect, and structural components found with service life projected to expire prior to next JACE inspection will be identified.

(19) **OVERALL AIRCRAFT CONDITION**: Complete this information after all other items of the JACE have been performed. In narrative form, report the overall condition of aircraft. Examine surface condition of exterior paint finish, state of corrosion protection, cracking or flaking of paint, indications of skin corrosion under the paint, seam sealing, and sealant. Identify hose assemblies whose service life will expire before next JACE.

(20) **DISCREPANCY SUMMARY**: Completion of the discrepancy summary is mandatory for all major or critical discrepancies found. The discrepancy summary also is used to provide detailed information, such as frame station and/or the number of loose rivets or fasteners for all discrepancies found and documented on the services appropriate maintenance forms. If none were found, state NONE.

2.2.2 **Preparation of Aircraft for JACE (Figure 1):**

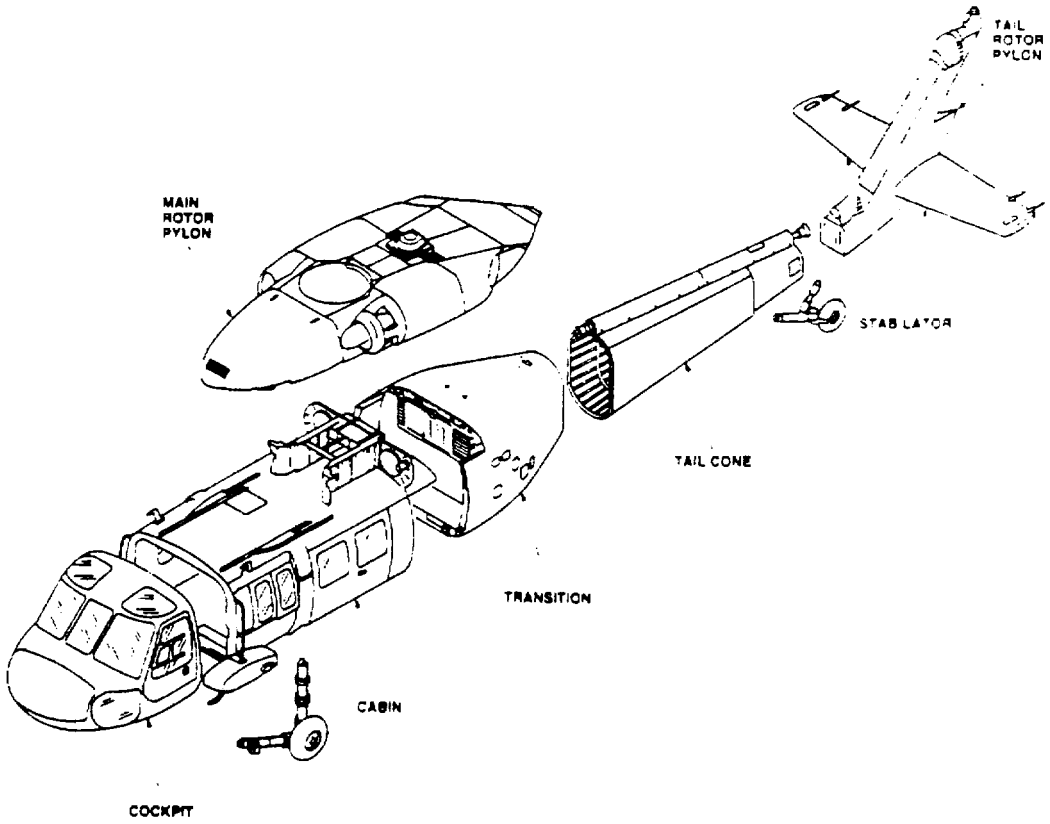

Figure 1. ACCESS PANEL REMOVAL

NOTE
Unlock all doors. Remove any equipment that may restrict the following:

(1) Open electronic compartment access door.

(2) Tilt pilot and copilot seats back if tilt capable. Otherwise remove seats.
(3) Open upper shock strut access doors, and External Stores and Shock Struts hard point fairings.
(4) Remove soundproofing and drip pan from main transmission. Remove soundproofing from sides and ceiling of cabin interior.
(5) Remove aft cabin bulkhead doors and cargo netting.
(6) Open tail rotor drive shaft covers.
(7) Remove intermediate gearbox fairing.
(8) Remove tail rotor gearbox fairing.
(9) Remove tail landing gear shock strut access covers, both left and right. Illustration denotes location for Blackhawk and PAVE HAWK only.)
(10) Open pylon fairing, cowling, and doors.
(11) Remove quad bay cover.
(12) Fold tail pylon section Navy only).

2.2.3 **JACE Indicators and Detailed Inspection Instructions**: The JACE Indicators are grouped by aircraft sections in a functional inspection sequence starting with the nose of aircraft rotating counterclockwise around the aircraft from top to bottom. The JACE Checklist is sequenced in the same order. The detailed inspection instructions by aircraft section and figure references are as follows:

2.2.3.1 Nose Section Evaluation (Figure 2):

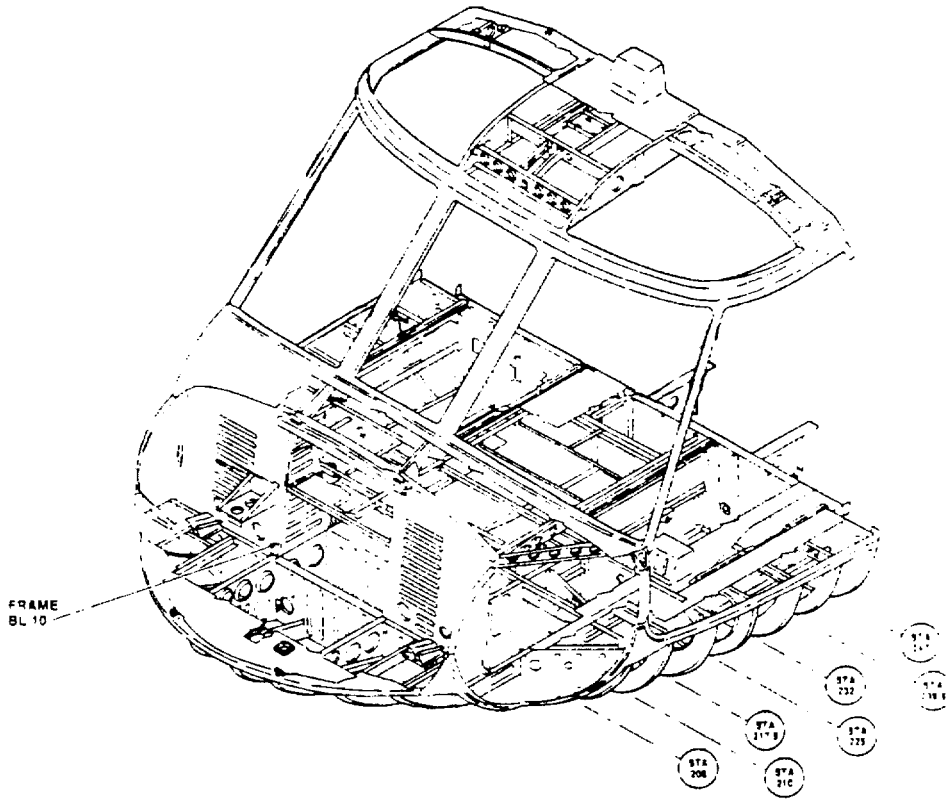

Figure 2. COCKPIT STRUCTURE

(a) Transparency Frames: Inspect framing and seals of the cockpit transparencies for general deterioration, cracks, corrosion, and loose or missing fasteners.

(b) Exterior Sheetmetal:

(1) Examine exterior of the nose section [Fuselage Station (F.S.) 162-247] for evidence of impact damage to skin, corrosion, dents, cracks, buckling, interim repair, and loose or missing fasteners.

(2) Inspect skin behind the covers of the radar and float bag bottles for cracks, corrosion, and loose or missing fasteners (SH-60).

(3) Examine the pilot and copilot door frames, attach fittings and latch keeps for cracks, excessive wear, interim repair, missing or loose fasteners, punctures, binding, and corrosion. If applicable, check operation of emergency window jettison.

(4) Examine the exterior of the Color Weather Radar and Forward Looking Infrared (FLIR), including the mounts, for deterioration, cracks, corrosion, and loose or missing fasteners (Figure 3) (HH/MH-60A/G/K/L).

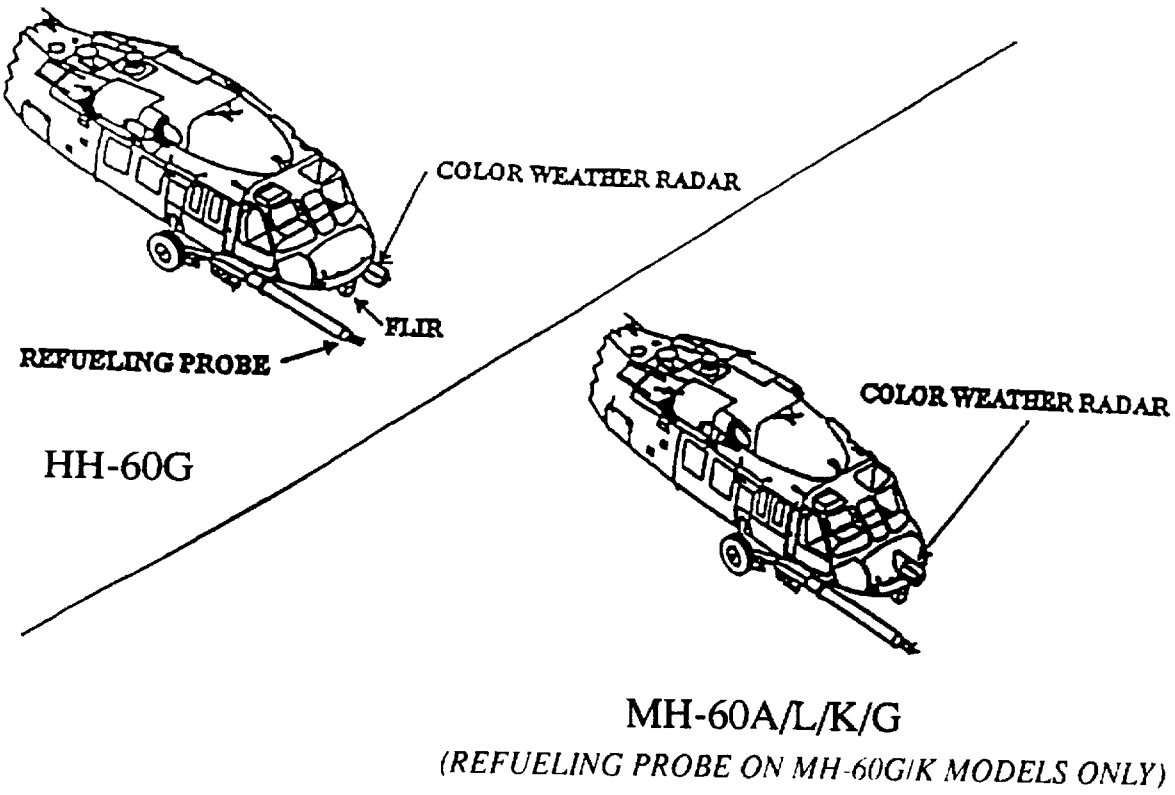

Figure 3. Color Weather Radar and FLIR

(c) Interior Structure:

(1) Inspect the avionics rack supports and electronics compartment for cracks, corrosion, buckling, and loose or missing fasteners.
(2) Inspect cockpit floor for punctures, loose or missing fasteners, buckling, and corrosion.
(3) Inspect nose section framing (F.S. 162-247) and aft cockpit bulkhead (F.S. 247) for evidence of cracks, scratches, dents, corrosion, and loose or missing fasteners.
(4) Visually inspect all accessible airframe structures under pilot's and copilot's seats (especially Butt Line (B.L.) 13 and B.L. 35) for evidence of excess wear, security, loose or missing fasteners, corrosion, and integrity of seat rails.

(d) Instrument Panel: Inspect instrument panel supports for cracks, buckling, corrosion, and loose or missing fasteners.

2.2.3.2 Cabin Section Evaluation

(a) Exterior Sheetmetal: Examine exterior skin of the cabin section (F.S. 247-379) for evidence of dents, cracks, buckling, interim repair, loose or missing fasteners, and corrosion.

(b) Fuel Probe Mount: Examine the area around the fuel probe mounts for cracks, corrosion, and loose or missing fasteners (HH/MH-60NAG/L).

(c) Airframe Behind Junction Box Panel: Examine the area behind the UH and R/H junction box panel, engine wash access panel, and sonobuoy access cover (SH-60B only) for cracks, corrosion, and loose or missing fasteners (SH-60).

(d) Airframe Around the Avionics Cooling Fan Exhaust and Air Condition Power Receptacle: Examine the area around the UH and R/H avionics cooling fan exhaust and the cargo hook area for cracks, corrosion, and loose or missing fasteners (SH-60).

(e) Cabin Frame: Visually evaluate the following structures for cracks, excess wear, interim repairs, loose or missing fasteners, punctures, buckling, and corrosion (Figure 4):

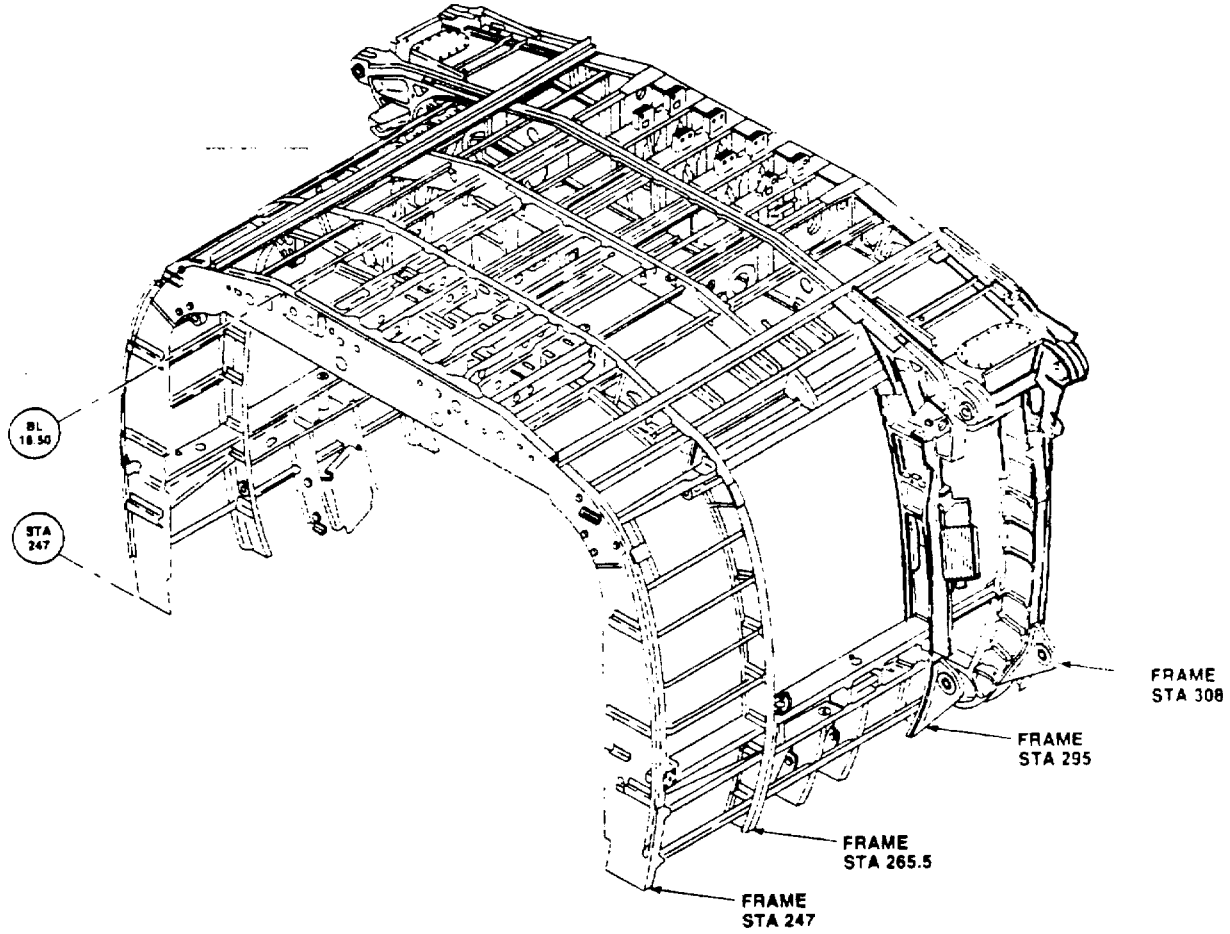

Figure 4. CABIN STRUCTURE (BODY)

(1) Cabin frames, F.S. 247-295, UH and R/H.

(2) Gun support beams, UH and R/H.

(3) Cabin frame, F.S. 379, UH and R/H.

(f) Examine the following structures for cracks, corrosion, binding, and loose or missing fasteners:

(1) Cabin door frame, UH and RIH.

(2) Cabin door track, UH and R/H.

(3) Cabin door latch keep, UH and R/H.

(g) Floor Panel Under the Spectrum Analyzer: Check the floor panel under the spectrum analyzer for crushing or delamination due to corrosion. These characteristics may indicate damage to floor support structure (SH-60B).

(h) Shear Deck Area of the Transmission Support Beams and Rescue Hoist Mounts and fittings (Figure 5):

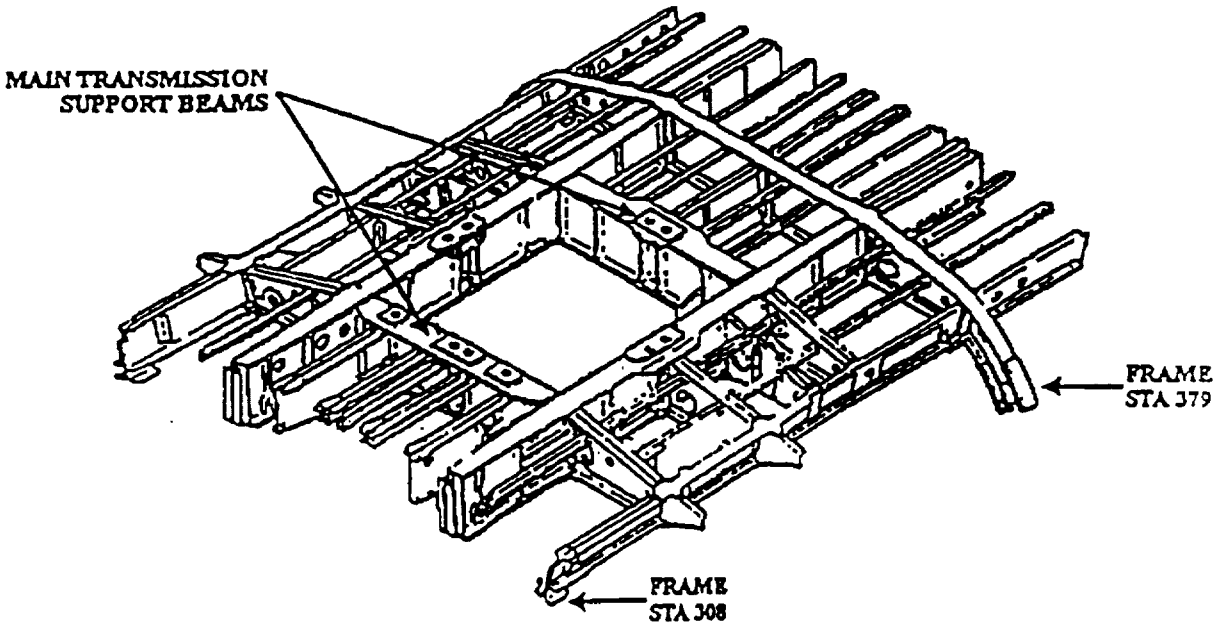

Figure 5. CABIN STRUCTURE (TOP)

(1) Closely examine the shear deck area of the main transmission support beams, rescue hoist mounts and fittings for cracks; loose or missing fasteners; oversized holes; corrosion; dents; and scratches or nicks. The areas of concern are the following:

(a) All shear deck fasteners on the ceiling side between F.S. 361 and 326; B.L. 16.5, UH and R/H; and outboard.

(b) Where the straps overlap the beams on the ceiling side of F.S. 327.115 and 360.065; B.L. 16.5, UH and R/H; and inboard to the end of the straps.

(c) The attachment of the beams at F.S. 327.115 forward end; F.S. 360.065; aft end to B.L. 16.5 beam; and UH and R/H immediately inboard B.L. 16.5 above waterline 261.

(2) Any discrepancies on working fasteners or oversized holes that require the replacement of a main transmission support beam automatically qualify as a critical defect.

(i) Flight Control Rod Supports and Upper Junction Box: Examine the airframe around the flight control rod supports and upper junction box for evidence of cracks, corrosion, chafing, security, and loose or missing fasteners. Also, check the flight control rods for interference or binding.

(j) Airframe Structure: Inspect the following structures for evidence of cracks, scratches, dents, loose or missing fasteners, excessive wear, and corrosion (Figure 6):

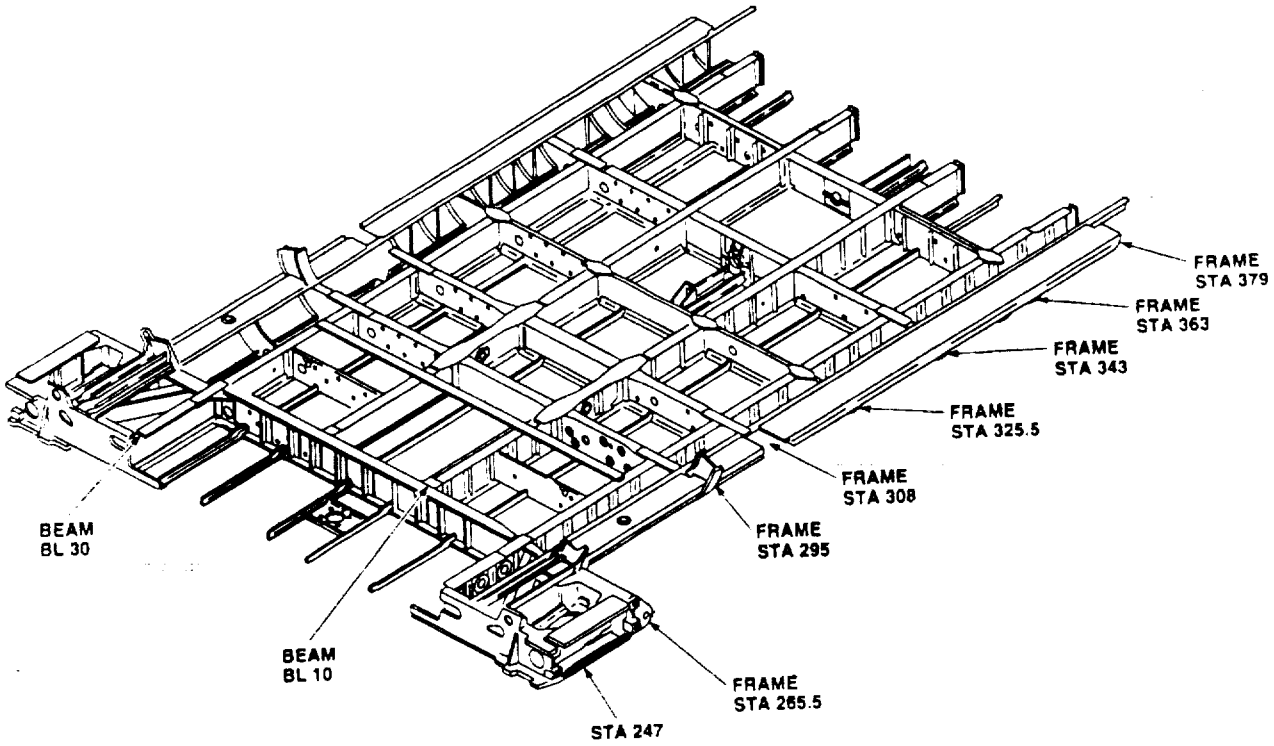

Figure 6. CABIN STRUCTURE (BOTTOM)

(1) External stores or weapon stub wings mounts and shock strut attach fittings, UH and R/H.
(2) Cabin frames, F.S. 308, L/H and R/H.
(3) Servo Beam Railings and T-Angle Supports.
(4) Cargo hook support fittings.

(k) For the SH-60: Check the airframe around the sonar operator's window and lifting eye bolt supports for cracks, corrosion, and loose or missing fasteners.

(l) For the SH-60B/H: Examine the airframe structure around the RAST Probe for evidence of cracks, excessive wear, corrosion, and loose or missing fasteners.

(m) For the SH-60F. Inspect the extended folding pylon and surrounding airframe for security, cracks, corrosion, and loose or missing fasteners.

2.2.3.3 Transition Section Evaluation.

(a) Transition Section Interior (Airfare Pave Hawk only): Gain access to the interior of the transition section and inspect for the following conditions (Figure 7).

(1) Examine stringers and frame for cracks, corrosion, and loose or missing fasteners.
(2) Examine interior skins for cracks, interim repairs, corrosion, buckles, and loose or missing fasteners.

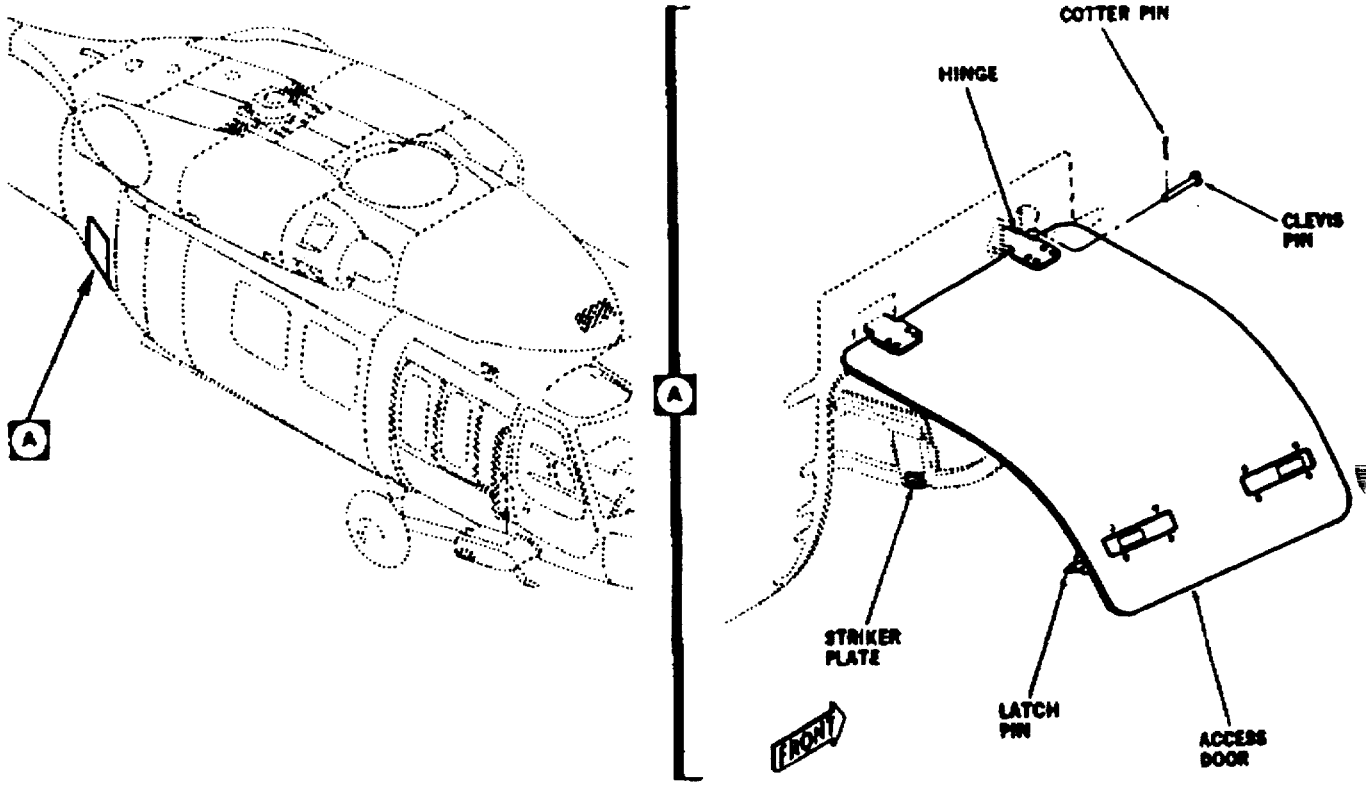

Figure 7. TRANSITION SECTION (AIR FORCE PAVE HAWK ONLY)

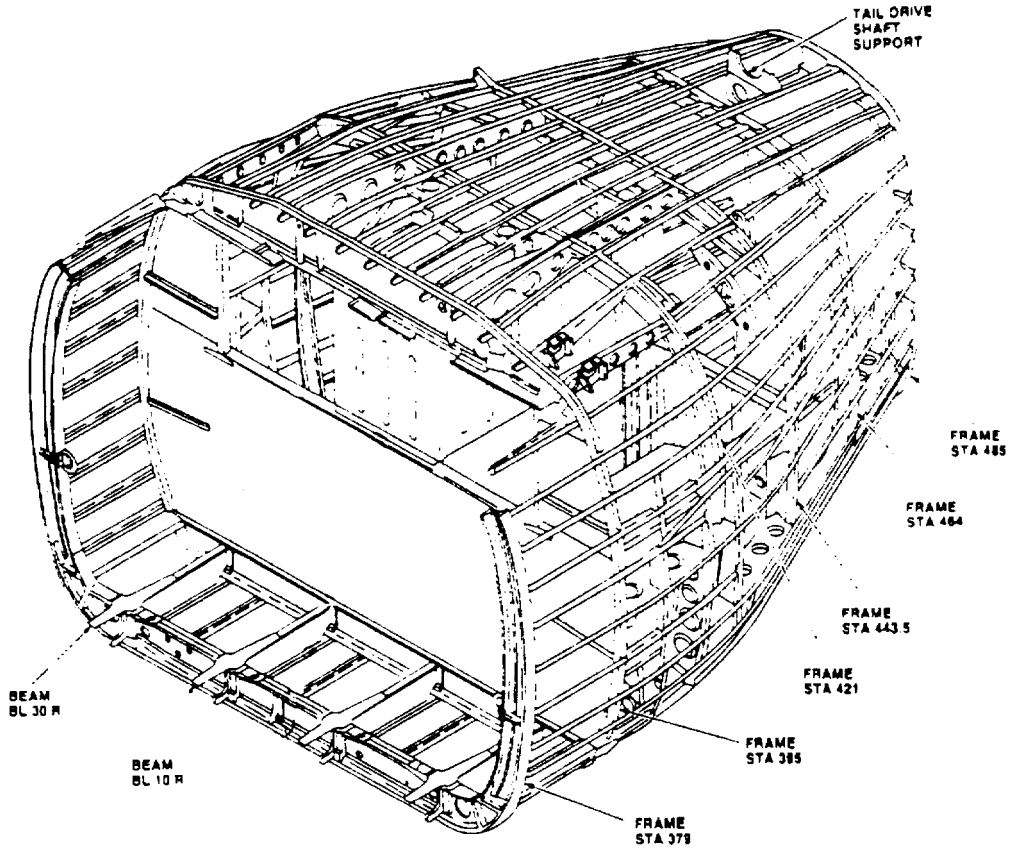

Figure 8. Transition Structure

(b) Antennas: Check antennas for security, corrosion, deteriorated seal, cracked base, and loose or missing fasteners (Figure 8).

(c) Drive Shaft Support: Look for cracks, corrosion, loose or missing fasteners, and security.

(d) Lifting Eye Bolts: Examine the attachment area for cracks, corrosion, and loose or missing fasteners.

(e) Transition Section Exterior Sheetmetal: Look for punctures, cracks, interim repairs, corrosion, buckles, and loose or missing fasteners.

(f) F.S. 485: Check for oversized holes, loose fasteners, cracks, corrosion, chafing, interim repairs, and buckles. Check for movement of torque stripes and for fretting residue at each bolt.

(g) Transition Section Interior: Gain access to the interior of the transition section and inspect for the following conditions.

(1) Examine stringers and frames for cracks, corrosion, and loose or missing fasteners.

(2) Examine interior skins for cracks, interim repairs, corrosion, buckles, and loose or missing fasteners.

2.2.3.4 Tail Cone Section Evaluation

(a) Exterior Sheetmetal: Examine the tail cone sheetmetal for cracks, punctures, interim repairs, loose or missing fasteners, buckling, and corrosion.

(b) Interior: Gain access to the interior of the tail cone section and inspect for the following conditions (Figure 9, sheet 1).

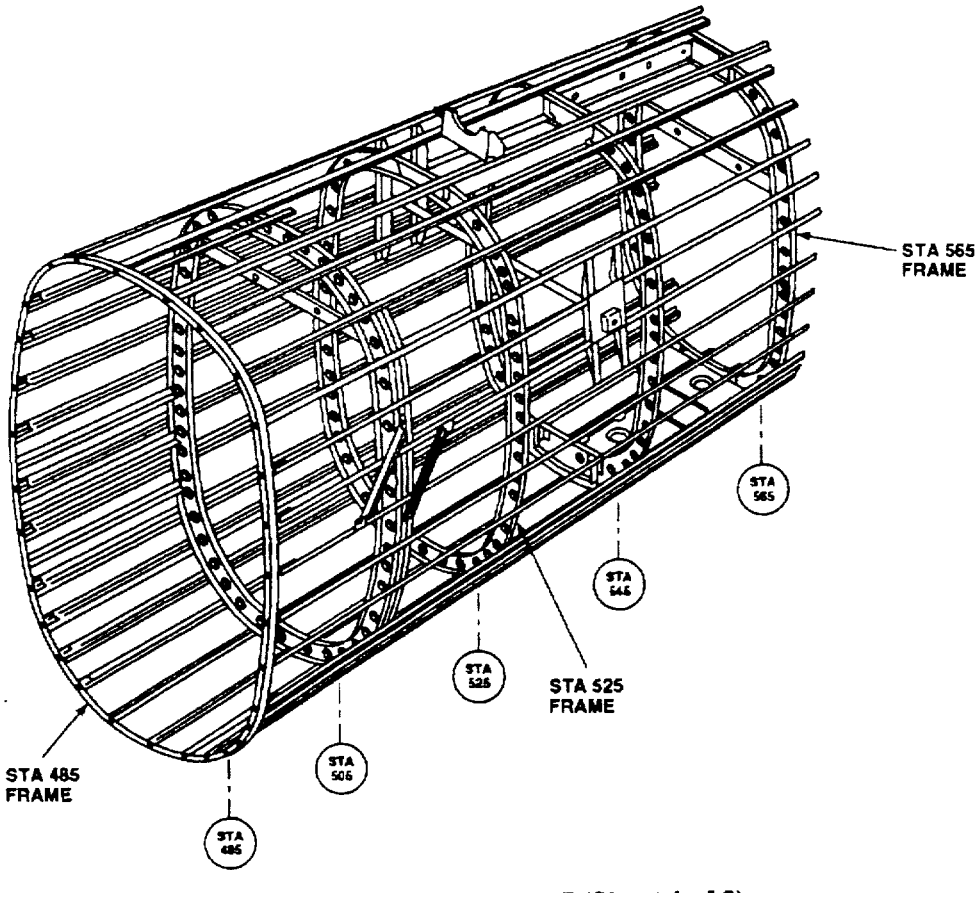

Figure 9. TAILCONE STRUCTURE (Sheet 1 of 2)

(1) Examine the aircraft skin, stringers, and frames (ribs) for evidence of cracks, corrosion, loose or missing fasteners, buckling, and interim repair.

(2) Examine internal stringers, frames, and brackets and supports used for items mounted externally on the tail cone for corrosion, and loose or missing fasteners.

(c) Tail Rotor Drive Shaft Supports: Examine the tail rotor drive shaft supports for cracks, loose or missing fasteners, and corrosion (Figure 9).

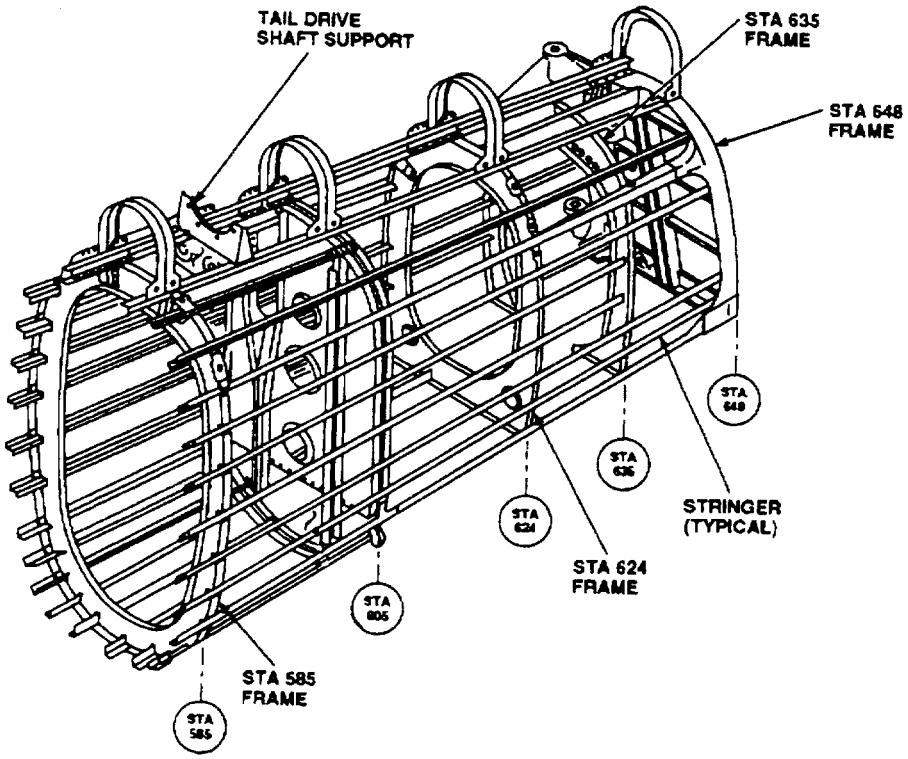

Figure 9. TAIL CONE STRUCTURE (Sheet 2 of 2)

(d) Bulkhead F.S. 605 (Army/Air Force): Examine the tail cone bulkhead, F.S. 605, for cracks, dents, scratches, and corrosion.

(e) MAD Pylon Support and Surrounding Airframe: Examine the MAD pylon support and surrounding airframe for cracks, corrosion, and loose or missing fasteners (SH-60B).

(f) Area Around the Flight Control Pulleys: Remove the tail cone flight controls access panel and examine the airframe around the area of the flight control pulleys for cracks, corrosion, and loose or missing fasteners.

(g) Canted Hinge: Examine the tail cone canted hinge bulkhead, F.S. 647, for cracks, dents, scratches, excess wear, and corrosion.

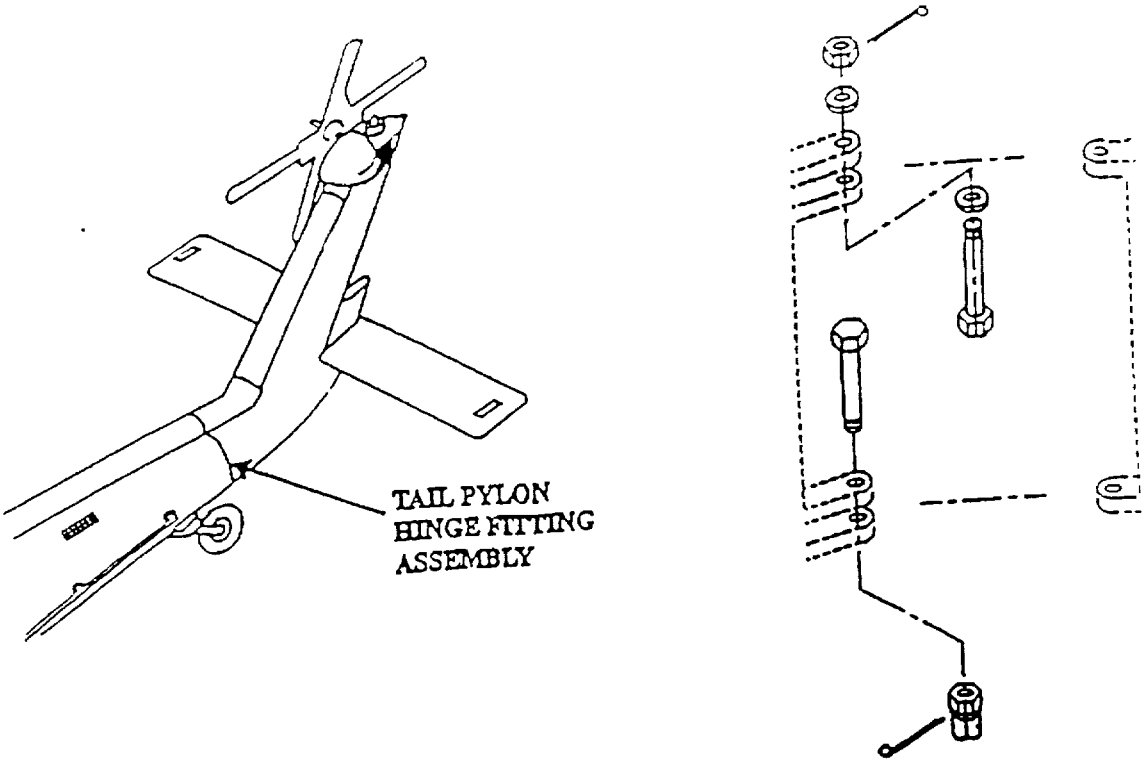

Figure 10. HINGE FITTING ASSEMBLY

(h) (Navy only): Hinge Fittings and Bushings: After folding the tail pylon and removing the pin puller, carefully inspect the tail cone hinge fittings and bushings for cracks, loose or missing fasteners, corrosion, and excess wear (Figure 10).

(1) On the exposed lug surfaces, any corrosion pitting will have to be repaired in accordance with NAVAVNDEPOT, Pensacola, FL, GenSpec/PN 2252, as soon as possible. Any significant wear in the pin puller bushings also requires repair as soon as possible (SH60B/F HH-60H).

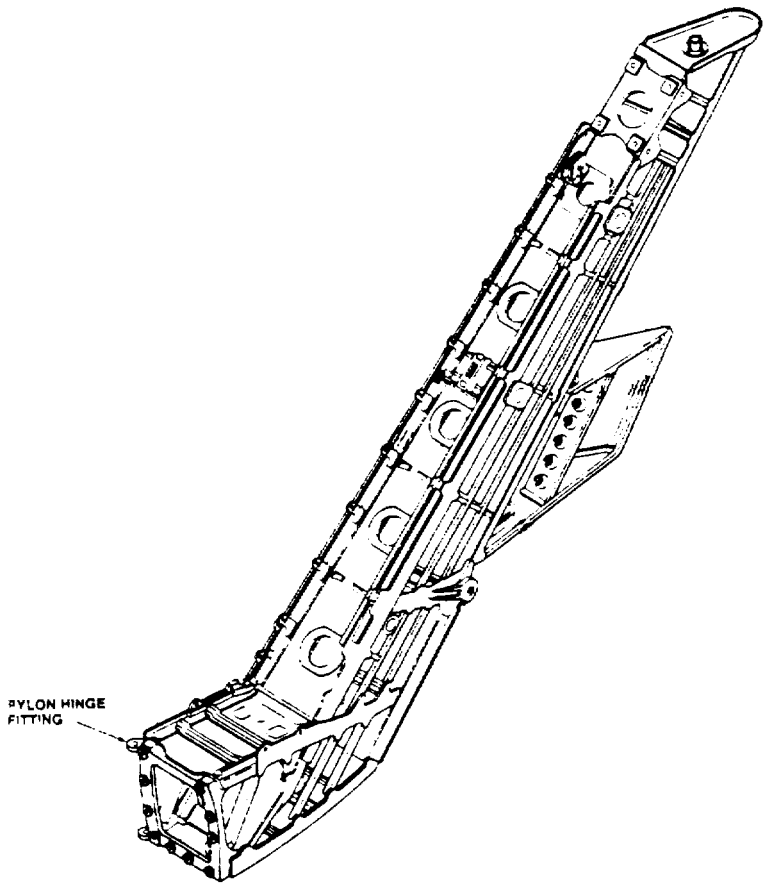

Figure 11. TAIL PYLON STRUCTURE

2.2.3.5 Tail Pylon Section Evaluation: Discrepancies found in the tail pylon section should be noted and considered when evaluating the overall condition of the aircraft. The tail pylon section is not as critical an area as other sections of the aircraft for depot induction. The entire tail pylon can be removed and replaced at the organizational level (Figure 11).

(a) Exterior Sheetmetal: Examine exterior skin of the tail pylon section (F.S. 647.5 762.75) for evidence of dents, cracks, chafing, buckling, loose or missing fasteners, and corrosion.

(b) Interior: Remove the pylon flight control access panel and inspect accessible interior for evidence of cracks, corrosion, and loose or missing fasteners. Examine the lower step guide pin for security, and examine the surrounding pulleys for damage. Also, examine the airframe under the tail rotor drive shaft and the skin where the drive shaft and gearbox access panels attach for excess wear, cracks, corrosion, security, and loose or missing fasteners.

(c) Hinge Fitting (Navy): With the tail pylon folded, inspect the pylon hinge fitting and exposed bushings for cracks, corrosion, and excessive wear.

(d) Intermediate and Tail Gearbox Mounts: Inspect the mounting areas of the intermediate and tail gearboxes for cracks, corrosion, loose or missing fasteners, and deterioration of sealant.

(e) Stabilator and Tail Skid: Check the stabilator and tail skid for security, cracking, excess wear, loose or missing fasteners, and corrosion.

(f) Antenna Mounts (MH and HH/MH models): Examine antenna mounts for corrosion, chafing, cracks, security, deteriorated sealant, and loose or missing fasteners.

2.2.3.6 Main Rotor Pylon Section Evaluation: Discovery of cracks, excessive wear, or corrosion in this area may require the removal of additional panels to determine the extent of damage (Figure 12).

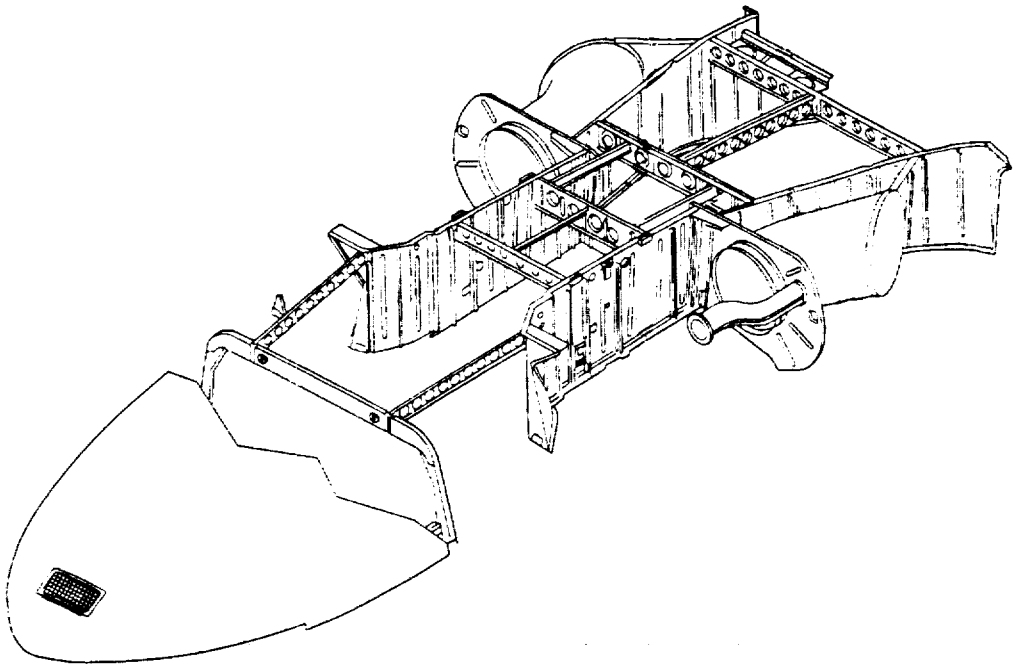

Figure 12. MAIN ROTOR PYLON STRUCTURE

(a) Frame: Open number 1 and 2 work platforms, and remove/open right and left oil cooler access panels, environmental control system access panel, auxiliary power unit access panel, UHF/IFF antenna cover (if installed), and fire bottle access panel. Examine exposed airframe for cracks, corrosion, excess wear, and loose or missing fasteners.

(b) Firewall: Examine accessible areas of the firewall for cracks, corrosion, loose or missing fasteners, and condition of seals.

(c) Oil Cooler Support Bracket: Examine the oil cooler support brackets for cracks, excessive wear, interim repairs, loose or missing fasteners, and corrosion.

(d) Forward Cover Tracks: Examine the forward cover tracks for excessive wear, cracks, corrosion, and loose or missing fasteners.

(e) Engine Supports: Inspect the area around the engine supports for cracks and corrosion.

(f) Main Gearbox Mounting Feet: Closely inspect area around the main gearbox mounting feet for any evidence of corrosion, shifting, loose or missing fasteners, or cracking. The main gearbox should be pulled to allow closer examination of the mounting pads and main transmission support beams if any of these conditions exist.

(g) Any discrepancies that would require the replacement of a main transmission support beam automatically qualify the aircraft for depot repair.

(h) Flight Control Deck: Examine the flight control deck and rescue hoist support for evidence of cracks, excessive wear, corrosion, and loose or missing fasteners.

(i) Exhaust Ejectors: Check the exhaust ejectors and Hover Infrared Suppression System Module (if installed) for cracks, chafing, and loose or missing fasteners. Inspect under the number 1 and 2 inlet ducts for fretting damage to the titanium decking.

2.2.3.7 Main Landing Gear Evaluation

(a) (Navy and Air Force): Remove main landing gear strut access panels. Examine mounting areas of main landing gear for corrosion, cracks, excess wear, and loose or missing fasteners.

(b) Examine the drag beam attachment fitting for cracks, scratches, dents, and loose fasteners.

(c) (Navy only): Disconnect the drag beams from the attaching lugs. Carefully check the lug area between the split bushings for any sign of corrosion.

2.2.4 **JACE Condition Codes**. A defect is measured by comparing the normal cross-sectional area of an individual element with the depth and length affected because of scratches, nicks, gouges, holes, dents, or corrosion. Regardless of the type of defect, the amount of material loss is identified as defect reduction. Any defect reduction will affect the strength of the part.

CONDITION	CODE	DEFECT CRITERIA
Worn Excessively	A	Report wear that has proceeded to more than half of the material thickness. For stainless steel wear strips, report wear through.
Buckled	B	Sheetmetal that has been warped, kinked, or deformed by an external force. Creasing due to oil-canning that does not return on its own or that is transmitted into adjoining pockets.
Deteriorated	C	General degradation of non-metals that results in a change of texture, consistency, shape, color, etc., and that reduces the functionality of the item.
Corroded	D	Corrosion of any type that has advanced beyond 5 percent of material thickness exceeds minor limits. Corrosion greater than 20 percent of total panel surface area (a panel is a portion of skin bounded by support members) exceeds minor limits.
Cracked	E	Cracks of any length exceed minor limits.
Binding	F	Any tight or resistive reaction between to moving surfaces due to deteriorated rollers or bushings or alignment.
Loose Fasteners	G	Any loose fasteners, report the total number of fastenersretaining the fixture or panel followed by the number of loose fasteners in the remarks section of the JACE Checklist.
Missing Fasteners	H	Any missing fasteners, report the total number of fasteners retaining fixture or panel followed by the number of missing fasteners in the remarks section of the JACE Checklist.
Broken	I	Any break exceeds minor limits.
Punctured	J	Any unauthorized hole is reportable as a puncture.
Chafing	K	Any stationary fixtures or panels rubbing against the other usually identified by a powdery substance around the panel or fixture edges. Usually the paint or sealant is worn through.
Oversize Holes	L	Any wear that has caused the holes to enlarge beyond repairable limits.
Security	P	Any condition where an item is not tightly connected to the attaching structure properly.
No Defect	R	If an indicator does not have a defect, circle the R to indicate the indicator was inspected.
Dented	U	Any dent that exceeds 10 percent of thickness or width or length that exceeds 2.5 times the material thickness is a major defect.
Scratched/Nicked	X	Any scratch that exceeds 10 percent of thickness or length exceeds 2.5 times the material thickness is a major defect.
Interim Repair	Y	Interim Repair or nonstandard repair not authorized in existing technical data.

3.0 DISTRIBUTION

NAVAVNDEPOT Cherry Point Code MMHISST.1	(50 Copies)	WR-ALC/LUH Robins AFB GA 31093	(50 Copies)
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AMSAT-B-DSL	(2 Copies)	AMSAT-B-D-CARP	(10 Copies)
AMSAT-I-MDC	(10 Copies)	AMSAT-I-MED	(50 Copies)

APPENDIX B

JACE Administrative Procedures Form

JACE Administrative Procedures	
Air Force use AFTO Form 95; Army use DA Form 2408 in the aircraft log book; and Navy use OPNAV 4790/60, Naval Aircraft Flight Records (Yellow sheets, OPNAV 3760/2); and the aircraft log book to complete the following aircraft information:	
1. TODAY'S DATE:	2. INSPECTOR CODE:
3. INSPECTION AGENCY:	4. UNIT:
5. LOCATION:	6. AIRCRAFT MODEL:
7. MANUFACTURE YEAR:	8. SERIAL NUMBER:
9. TOTAL HOURS ON AIRCRAFT:	10 AIRCRAFT:NUMBER OF REWORKS
11. COMPREHENSIVE DEPOT REWORKED BY:	
12. AIRCRAFT HOURS AT TIME OF REWORK:	13. DATE OF REWORK:
14. DATE OF LAST AIRCRAFT CONDITION EVALUATION (ACE)/AIRCRAFT SERVICE PERIOD ADJUSTMENT (ASPA) OR JACE:	
15. NUMBER OF PRIOR JACE INSPECTIONS, ACE INSPECTIONS, OR ASPA SEQUENCES:	
16. HOURS AT LAST PHASE:	
17. AIRCRAFT HISTORY: use block 20 for continuation.	
18. LIFE LIMITED STRUCTURAL ITEMS:	
19. OVERALL AIRCRAFT CONDITION:	
20. DISCREPANCY SUMMARY:	

APPENDIX C

Discrepancy Summary Form

DISCREPANCY SUMMARY FORM

1. DATE DISCOVERED	2. TIME DISCOVERED	3. UNIT	4. MDS 5. JCN
6. SERIAL NO.	7. DISCOVERED BY	8. UNIT REPRESENTATIVE	9. LOCATION
10. INDICATOR NOMENCLATURE		11. CORRECTIVE ACTION ESTIMATE (DESCRIPTION OF MAINTENANCE ACTION TO CORRECT THE DEFICIENCY, LEVEL OF MAINTENANCE, MANHOURS, SPECIAL EQUIPMENT, AND PARTS).	
12. CONDITION/CLASSIFICATION			

The Discrepancy Summary Form is completed for all Major and Critical defects at the time of discovery. Instructions to complete the form are below.

1. **DATE DISCOVERED:** Date of inspection (Day, Month, Year).

2. **TIME DISCOVERED:** Zulu time deficiency discovered.

3. **UNIT:** Unit to which the aircraft is assigned.

4. **MDS:** Model designation of aircraft.

5. **JCN:** Unit job control number.

6. **SERIAL NO:** Serial number of aircraft.

7. **DISCOVERED BY:** inspector's name and code.

8. **UNIT REPRESENTATIVE:** Name and rank of unit representative who witnessed the defect.

9. **LOCATION:** Location of inspection.

10. **INDICATOR NOMENCLATURE:** Defective indicator nomenclature as listed in the JACE Checklist.

11. **CORRECTIVE ACTION ESTIMATE:** Describe the maintenance actions, estimate level of maintenance, estimate the manhours, identify special equipment, and estimate components required to correct the defect.

12. **CONDITION/CLASSIFICATION:** Describe the condition and classify the defect.

APPENDIX D

H-60 Joint Airframe Condition Evaluation (JACE) Checklist

H-60 JOINT AIRFRAME CONDITION EVALUATION (JACE) CHECKLIST

INDICATOR NOMENCLATURE (PROCEDURES REFERENCE PARAGRAPH)	CONDITION CODE (CIRCLE APPROPRIATE CODE)	DEFECT CLASS. (CHECK CORRECT BOX)	REMARKS
NOSE SECTION, TRANSPARENCY FRAMING 2 2 3 1(a)	C E D H G R	M J C	
NOSE SECTION, EXTERIOR SHEET METAL, F S 162-247 2 2 3 1(b)(1)&(2)	E D C B H G Y R	M J C	
COPILOT DOOR FRAMES 2 2 3 1(b)(3)	E D A F J H G Y R	M J C	
COLOR WEATHER RADAR MOUNTS (HH,MH-60A/G/K/L) 2 2 3 1(b)(4)	E D H G C R	M J C	
FLIR MOUNTS (HH,MH-60A/G/K/L) 2 2 3 1(b)(4)	E D H G C R	M J C	
COCKPIT FLOOR AND AVIONICS RACKS, NOSE 2 2 3 1(c)(1)&(2)	E D J B H G R	M J C	
NOSE SECTION FRAME, F S 162-247, AND AFT BULKHEAD, F S 247 L/H 2 2 3 1(c)(3)	E C D X H G R	M J C	
AIRFRAME UNDER COPILOT SEAT AND SEAT RAILS 2 2 3 1(c)(4)	E C D A P X H G R	M J C	
INSTRUMENT PANEL SUPPORTS 2 2 3 1(d)	E B H G R	M J C	
CABIN SECTION, EXTERIOR SHEETMETAL, F S 247-379 2 2 3 2(a)	E D C B H G Y R	M J C	
FUEL PROBE MOUNTS (HH,MH-60A/G/K/L) 2 2 3 2(b)	E D H G R	M J C	
CABIN FRAMES, F S 247-295 2 2 3 2(c)(1)	E D A B J H G Y R	M J C	
CABIN, GUN SUPPORT BEAMS 2 2 3 2(c)(2)	E D A B J H G Y R	M J C	
CABIN FRAMES, F S 379 2 2 3 2(c)(3)	E D A B J H G Y R	M J C	
CABIN DOOR FRAMES, TRACKS, AND LATCH KEEPS 2 2 3 2,(c)(1)&(2)&(3)	E D F H G R	M J C	
OTHER CABIN INTERIOR STRUCTURE 2 2 3 2(c)&(d)&(g)	E D A B J H G Y	M J C	
TRANSMISSION SUPPORT BEAMS 2 2 3 2(h)	E C G H D C X R	M J C	
AIRFRAME AROUND FLIGHT CONTROL/JUNCTION BOX SUPPORT STRUCTURE 2 2 3 2(i)	E D P H G K F R	M J C	
CABIN FRAMES, F S 308 2 2 3 2(j)(2)	E D X C H G R	M J C	
SERVO BEAM RAILINGS AND T-ANGLE SUPPORTS 2 2 3 2(j)(3)	E D A X H G R	M J C	
CARGO HOOK SUPPORT FITTINGS 2 2 3 2(j)(4)	E D A X H G R	M J C	
AIRFRAME AROUND THE SONAR OPERATOR'S WINDOW AND FRAME (SH-60B) 2 2 3 2(k)	E D H G R	M J C	
RAST PROBE STRUCTURE (SH-60B/H) 2 2 3 2(l)	E A H G R	M J C	
FOLDING PYLON AND SURROUNDING AIRFRAME (SH-60F) 2 2 3 2(m)	E D P H G	M J C	
TRANSITION SECTION, ANTENNA MOUNTS 2 2 3 3(a)	E D P H G C R	M J C	
TRANSITION SECTION, TAIL ROTOR DRIVESHAFT SUPPORTS 2 2 3 3(b)	E D H G P R	M J C	
TRANSITION SECTION, LIFTING EYES SUPPORT STRUCTURE 2 2 3 3(c)	E D H G R	M J C	
TRANSITION SECTION, EXTERIOR SHEETMETAL 2 2 3 3(d)	E D J B H G Y R	M J C	
TRANSITION SECTION, TORQUE STRIPS, F S 485 2 2 3 3(e)	L E D K B G Y R	M J C	
TRANSITION SECTIONS INTERIOR, STRINGERS, SHEETMETAL, AND FRAMES 2 2 3 3(f)(1)&(2)	E D H G B Y R	M J C	
DEFECT CLASSIFICATION LEGEND M=MINOR J=MAJOR C=CRITICAL			

TAIL CONE, EXTERIOR SHEETMETAL 2 2 3 4(a)	E D J B H G Y R		
TAIL CONE, INTERIOR 2 2 3 4(b)(1)&(2)	E B D H G Y R		
TAIL CONE, ROTOR DRIVESHAFT SUPPORTS 2 2 3 4 (C)	E G H D		
TAIL CONE BULKHEAD, F S 605 2 2 3 4(d)	E U N D R		
TAIL CONE, MAD PYLON SUPPORT - SH-60B/F) 2 2 3 4(e)	E H G D R		
TAIL CONE, FLIGHT CONTROLS ACCESS PANEL, AND AIRFRAME AROUND THE FLIGHT CONTROL PULLEYS 2 2 3 4(f)	E D H G R		
TAIL CONE, CANTED HINGE BULKHEAD F S 647 2 2 3 4 (g)&(h)	E D A N U R		
TAIL PYLON, EXTERIOR SHEETMETAL 2 2 3 5(a)	E K D B U H G R		
TAIL PYLON INTERIOR 2 2 3 5(b)	E D A H G P R		
TAIL PYLON HINGE FITTING 2 2 3 5(c)	E D A R		
TAIL PYLON, INTERMEDIATE, AND TAIL GEARBOX MOUNTS 2 2 3 5(d)	E D H G C R		
TAIL PYLON, STABILATOR, AND TAIL SKID 2 2 3 5(e)	E A D P H G R		
TAIL PYLON, ANTENNA MOUNTS (HH/MH-60A,G/K/L) 2 2 3 5(f)	E K D B U H G C R		
PILOT DOOR FRAME 2 2 3 1(B)(3)	E D A F J H G Y R		
AIRFRAME UNDER PILOT SEAT AND SEAT RAILS 2 2 3 1(c)(4)	A P H G R		
MAIN ROTOR, PYLON FRAMES 2 2 3 6(a)	E D A H G R		
MAIN ROTOR PYLON, FIREWALL 2 2 3 6(b)	E D H G R		
OIL COOLER SUPPORT BRACKET 2 2 3 6(c)	E D A H G Y R		
MAIN ROTOR PYLON, FORWARD COVER TRACKS 2 2 3 6(d)	E D A H G R		
ENGINE MOUNT LUGS AND SUPPORTING STRUCTURE 2 2 3 6(e)	E D R		
MAIN ROTOR PYLON MAIN GEARBOX MOUNTING FEET 2 2 3 6 (F)	D P G H E		
FLIGHT CONTROL DECK 2 2 3 6(h)	E D A H G R		
EXHAUST EJECTORS 2 2 3 6(i)	E H G K R		
MAIN LANDING GEAR DRAG BEAM ATTACHMENT 2 2 3 7	E D A N U H G R		

By Order of the Secretary of the Army:

Official:

JOEL B. HUDSON
Administrative Assistant to the Secretary of the Army
03227

DENNIS J. REIMER
General, United States Army
Chief of Staff

DISTRIBUTION:
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From: "Whomever" <whomever@avma27.army.mil>
To: <mpmt%avma28@st-louis-emh7.army.mil>
Subject: DA Form 2028

1. ***From:*** Joe Smith
2. *Unit*: home
3. ***Address***: 4300 Park
4. ***City:*** Hometown
5. ***St:*** MO
6. ***Zip:*** 77777
7. ***Date Sent:*** 19-OCT-93
8. ***Pub no:*** 55-2840-229-23
9. ***Pub Title:*** TM
10. ***Publication Date:*** 04-JUL-85
11. *Change Number:* 7
12. *Submitter Rank:* MSG
13. ***Submitter FName:*** Joe
14. *Submitter MName*: T
15. ***Submitter LName:*** Smith
16. ***Submitter Phone:*** 123-123-1234
17. ***Problem:*** **1**
18. *Page:* 2
19. *Paragraph:* 3
20. *Line:* 4
21. *NSN:* 5
22. *Reference:* 6
23. *Figure:* 7
24. *Table.* 8
25. *Item:* 9
26. *Total:* 123
27. ***Text*:**

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER	SIGN HERE

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 075462-000