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* Supersedes Technical Bulletin TB600N-006, dated 12 January 2004. Revised to reflect the new hole location in the horizontal stabilizer. Aircraft that are in compliance with TB600N-006 meet the intent of this revision.

600N YAW STABILITY AUGMENTATION SYSTEM (YSAS) INSTALLATION

1. PLANNING INFORMATION

A. Aircraft Affected:

600N helicopters, Serial No. RN003 and subsequent that do not have the YSAS installed.

B. Assembly/Components Affected By This Notice:

Horizontal Stabilizer Assembly (P/N 500N3900-15), Fairing Installation (P/N 600N6070-25, -26), Lateral Actuator Assembly (P/N 369D27001-3), Console Assembly (P/N 369D24153-509. -511, -513, -515), Strake (P/N 600N2011-1).

C. Reason:

MDHI is offering the Yaw Stability Augmentation System (YSAS) installation, which will reduce pilot workload, improve the helicopter handling characteristics and increase passenger comfort.

D. Description:

Procedures in this Bulletin provide owners and operators with information pertaining to installation of the YSAS. This consists of removing the gurney flaps from the horizontal stabilizer and aft landing gear fairings, installation of a rate gyro and control box under the pilot's seat, installation of a YSAS actuator and switch, fin position indicator and circuit breaker on the console, replacement of the lateral cyclic trim actuator, removal of the strake from between the windshields, replacement of the controls support bracket assembly, vertical fin torque tubes, longitudinal link assembly and rig plates, and modification of the wiring.

E. FAA Approval:

The technical design aspects of this Bulletin are FAA Approved.

F. Manpower:

Helicopter Serial No. RN003-RN099: 185 man-hours.
Helicopter Serial No. RN100-SUBS: 160 man-hours.

G. Time of Compliance:

Customer option, at owner/operator's discretion.

H. Interchangeability:

N/A

I. Material/Part Availability:

Installation of the YSAS requires steel parts which are installed in production for helicopter Serial No. RN100-SUBS. All parts and materials needed are included in the following YSAS Installation Modification Kits.
Helicopter Serial No. RN003-RN099 P/N 600N97300-907 (includes steel parts).
Helicopter Serial No. RN100-SUBS: P/N 600N97300-901.
Contact MDHI Parts Sales Department.

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Additional items and consumable materials required to perform the modification but not included in the Kits are listed below.

REPLACEMENT PARTS/SUPPLIES			
Nomenclature	**Part No.**	**Qty.**	**Source**
Chemical coating (MIL-C-5541)	Iridite 14-2 Al-Coat Alodine 1201 (or equivalent)	AR	Richardson Company Allied-Kelite Products Division 2400 E. Devon Ave Des Plains, IL
Cleaner	Desoclean 45 (or equivalent)	AR	Crown Metro Inc P.O. Box 5857 Greenville, SC 29606 (864) 299-1331
Enamel, epoxy (MDM15-1100)		AR	Commercial
Primer (MIL-P-85852)		AR	Commercial
Adhesive, epoxy (MDM16-1068)	EA9330.3	AR	Dexter Adhesives & Coating Systems 2850 Willow Pass Rd P.O. Box 312 Bay Point, CA 94565-0031 (925) 458-8000 (800) 424-9300
Sealant (MIL-S-81733)	PR-1431 Type IV PR1436G Type II PR1436GB-2	AR	Stabond Corp. 14010-T S. Western Ave. Gardena, CA 90249 (310) 380-6168
Sealing Compound (fuel resistant) (MIL-S-8802)	Pro-Seal 890	AR	Product Research and Chemical Co. 5426 San Fernando Rd. Glendale, CA 91209
Resin, fiberglass	EA9313	AR	Dexter Adhesives & Coating Systems
Abrasive cloth, aluminum oxide (grade as noted) (P-C-451)		AR	Commercial
Grommet (NASM21266-1N)		AR	Commercial

J. Warranty Policy:

Standard spare parts warranty applies.

K. Tooling:

TOOLS AND EQUIPMENT	
Nomenclature	**Source**
Heat Gun	
Drill Motors, Straight, 45 and 90 Degree	
Rivet Gun, Hand Squeeze	
#10 Rivnut Puller	
MH860 Crimping Tool - M22520/7-11 and 7-12 Turrets	
M22528/2-01 Crimping Tool - M22520/2-08 Turret	
Wire Strippers	
Multi-Meter	
Red & White, and Green & White Insert & Extractor	
90 Degree High Speed Grinder	
1 and 2 Inch Drum Sander	
Pencil Grinder	
Cutting Wheels	
600N Aircraft Lifting Fixture	
Test Box & Cables for Rigging 500N9701-13	MDHI
Rig Plate Locating Tool 600N9935-1	MDHI
600N Vertical Fin Trim Tab Bending Tool	MDHI
Compass Rose for Swing Flux Valve, as required	

L. Weight and Balance:

Weight and balance accomplished as part of the YSAS installation procedure.

M. Electrical Load Data:

Baseline electrical load is increased by 5A for standard operating conditions.

N. Other Publications Affected:

Basic Handbook of Maintenance Instructions (CSP-HMI-2),
Illustrated Parts Catalog (CSP-IPC-4)
Rotorcraft Flight Manual (CSP-600RFM-1)

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2. ACCOMPLISHMENT INSTRUCTIONS

NOTE:

- In the following procedures, refer to CSP-HMI-2 for detailed instructions.
- The instructions in this bulletin are for standard configuration helicopters. Depending on options installed, some items may be mounted in different locations. Deviations to be documented when signing off this Technical Bulletin.
- Depending on options installed, some items may need to be moved to accomplish this technical bulletin. Deviations to be documented when signing off this Technical Bulletin.

A. Helicopter Disassembly for Modification

(1). Disconnect battery.

(2). Remove vertical stabilizers (Ref. Sec. 53-50-30, Vertical Stabilizer Removal).

(3). Remove access panels from horizontal stabilizer.

(4). Remove horizontal stabilizer (Ref. Sec. 53-50-30, Horizontal Stabilizer Removal).

(5). Remove control tube and bellcrank (Ref. Sec. 53-50-30, Horizontal/Vertical Stabilizer Control Tube and Bellcrank Removal).

(6). Remove both vertical stabilizer torque tubes (Ref. Sec. 53-50-30, Vertical Stabilizer Torque Tube Removal).

(7). Remove rotating thruster cone (Ref. Sec. 53-40-30, Rotating Thruster Cone Removal).

(8). Remove stationary thruster cone (Ref. Sec. 53-40-30, Stationary Thruster Cone Removal).

(9). Remove tailboom (Ref. Sec. 53-40-30, Tailboom Removal).

(10). Remove fan inlet air screen (Ref. Sec. 53-30-30, Anti-Torque Fan Air Inlet Screen Replacement).

(11). Remove Fan Hub Cover (Ref. Sec. 53-30-30, Fan Hub and Transmission Cover Fairing Replacement).

(12). Remove interior trim in passenger/cargo compartment (Ref. Sec. 25-30-00, Interior Trim Replacement).

(13). Remove cyclic stick controls cover (Ref. Sec. 25-30-00, Cyclic Stick Control Cover Replacement).

(14). Remove R/H console fairing (Ref. Sec. 95-00-20, “T” Instrument Panel).

B. Replace Control Support Bracket Assembly (Modification Kit P/N 600N97300-907 Only)

(1). Remove control support bracket assembly (Ref. Sec. 67-10-00, Control Support Bracket and Bellcrank Removal).

(Ref. Figure 1)

(2). Install new control support bracket assembly (Ref. Sec. 67-10-00, Control Support Bracket and Bellcrank Installation), except as shown.

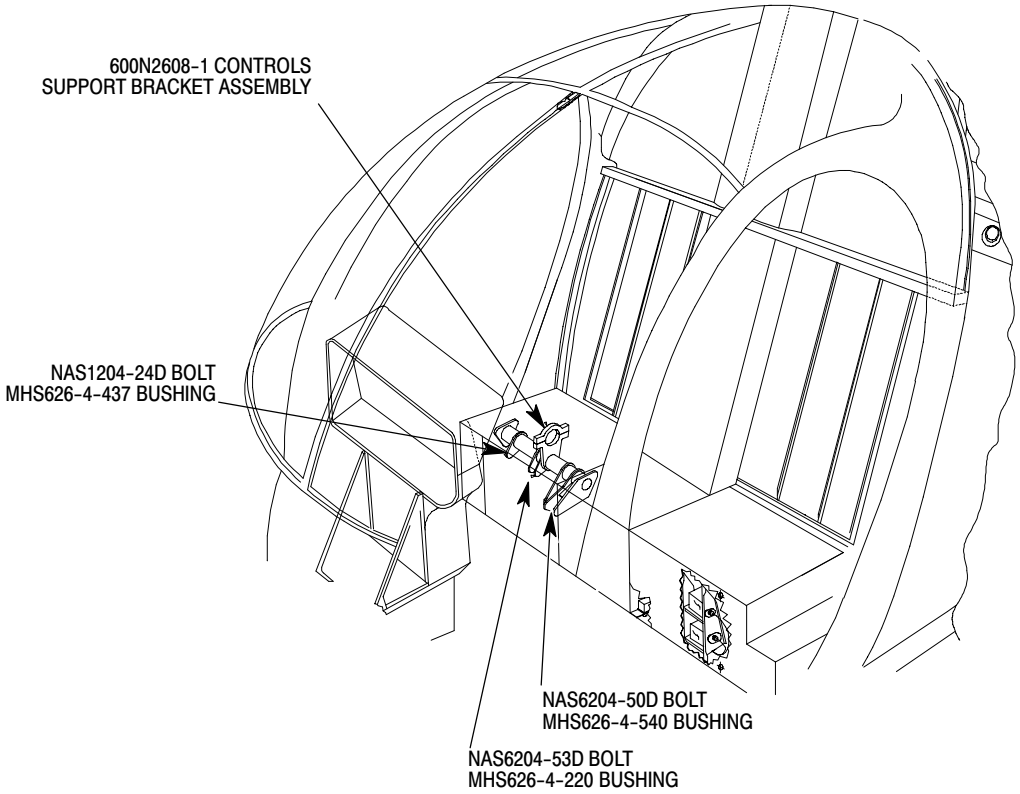

Figure 1. Control Support Bracket Assembly Replacement (Modification Kit P/N 600N97300-907 Only)

C. <u>Replace Longitudinal Link Assembly (Modification Kit P/N 600N97300-907 Only)</u>

(1). Remove longitudinal link assembly (Ref. Sec. 67-10-00, Link Assembly Removal).

(2). Install new longitudinal link assembly (Ref. Sec. 67-10-00, Link Assembly Installation).

D. <u>Horizontal Stabilizer Modification</u>

(Ref. Figure 2)

(1). Horizontal Stabilizer Gurney Flap Rework

(a). Mask off stabilizer on edge of the gurney flap.

(b). Tape a thin strip of stainless to the stabilizer for protection.

(c). Using a high-speed grinder, remove vertical legs of gurney flap.

(d). Carefully contour cut edge.

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(e). Touch up with epoxy enamel to match.

(2). If both grommets on R/H side of stabilizer are in use, install third grommet on R/H side of stabilizer as follows:

(a). Mark and drill 0.50 inch (12.7mm) grommet hole in bottom of stabilizer for wire harness exit.

(b). Install MS35489-11 grommet in hole.

(3). Rig Plate Location

NOTE: Because of the chance of damaging the horizontal stabilizer, removal of the existing rig plates is not recommended. The existing rig plates will no longer be used for rigging (Ref. CSP-HMI-2).

(a). Locate rig plate on top right side of horizontal stabilizer 37.07 inches (94.15 cm) from center of stabilizer (BL 0.00), with aft end of rig plate against reworked gurney flap.

(b). Mark stabilizer for rig plate aft rivet hole.

(c). Using a #41 drill, drill rivet hole.

(d). Cleco rig plate onto stabilizer.

(e). Position rig plate with 0 (zero) line aligned with center of vertical stabilizer torque tube hole and mark stabilizer for rig plate forward rivet hole.

(f). Remove rig plate and drill hole for forward rivet using a #41 drill.

(g). Prime holes with primer.

(h). Mix adhesive (CM409) according to manufacturer's instructions.

(i). Apply a thin even coat of adhesive to stabilizer and install 500N3921-5 rig plate with MS20604AD3W1 rivets wet with primer.

(j). Wipe off excess adhesive.

(k). Touch up with primer and paint with epoxy enamel to match.

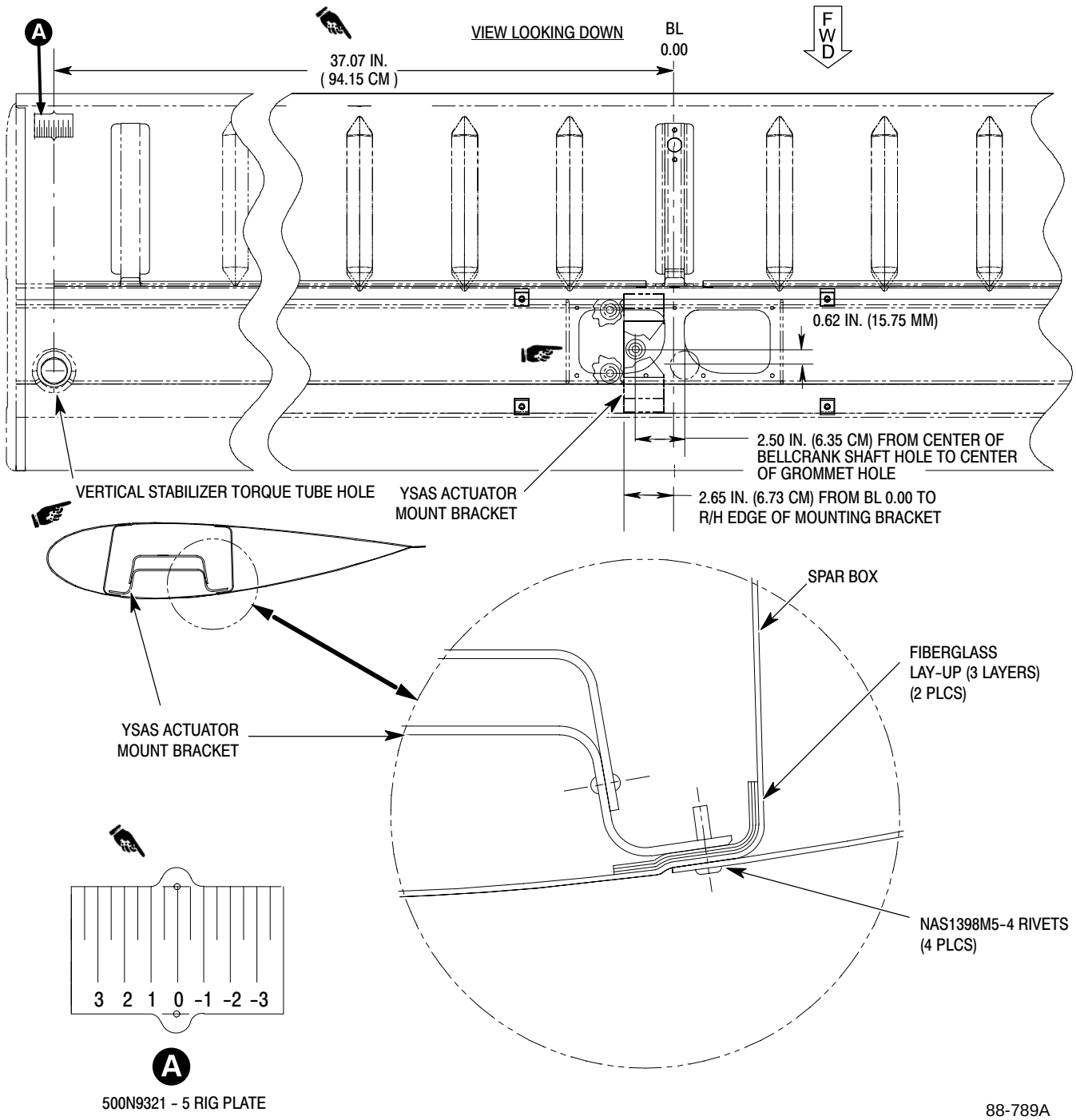

Figure 2. YSAS Actuator Mount Bracket Installation

(4). Actuator Mounting Bracket Installation

(Ref. Figure 2)

NOTE: The YSAS Actuator is mounted inside the horizontal stabilizer spar box to the right hand side of butt line 0.00.

Mount bracket holes in stabilizer are existing and filled from the factory.

(a). Locate mount bracket holes and remove filler.

(b). Position mount bracket and drill four holes using a #21 drill.

(c). Inside the horizontal stabilizer, measuring 3.00 inches (7.62 cm) to the right of B/L 0.00 and mark for fiberglass lay-up.

(d). Cut six pieces of fiberglass cloth 2 X 3 inch (5.08 X 7.62 cm).

(e). Mix fiberglass resin according to manufacturer's instructions.

NOTE: The actuator mount bracket is installed while the resin is wet.

(f). Lay in three layers of glass cloth on each side of spar box and position the mount bracket in place.

(g). From outside, open rivet hole through fiberglass with awl or scribe, or other suitable tool.

(h). Secure mount bracket with clecoes.

(i). Install four NAS1398M5-5 or NAS1919M05S05 rivets.

(j). Wipe excess resin squeeze-out.

(k). Allow resin to cure.

(5). Horizontal Stabilizer Buildup

(a). Remove double rod end from L/H control tube and install single rod end from outboard end of removed R/H control tube.

(b). Install control tube and bellcrank on left side (Ref. Sec. 53-50-30, Horizontal/Vertical Stabilizer Control Tube and Bellcrank Installation).

NOTE: In the following step, do not torque or safety wire the control tube jamnuts.

(c). Assemble tube and actuator with two NAS6603-13 bolts, four AN960-10 (or NAS1149F0306P) washers and two MS21045L3 nuts. Torque nuts to **30 - 40 inch-pounds (3.39 - 4.52 Nm) plus drag torque.**

(d). Install YSAS actuator with tube onto actuator mount using one MHS626-4-165 bushing, one NAS6204-13H bolt and one NAS1149D0416K washer, but do not do final torque on mounting hardware (Ref. Sec. 67-20-30, S.A.S. Actuator Installation) (Ref. Figure 3).

(e). Install new bearing races on torque tube (Ref. Sec. 53-50-30, Vertical Stabilizer Torque Tube Bearing Race Replacement.

(f). Install both vertical stabilizer torque tubes (Ref. Sec. 53-50-30, Vertical Stabilizer Torque Tube Installation).

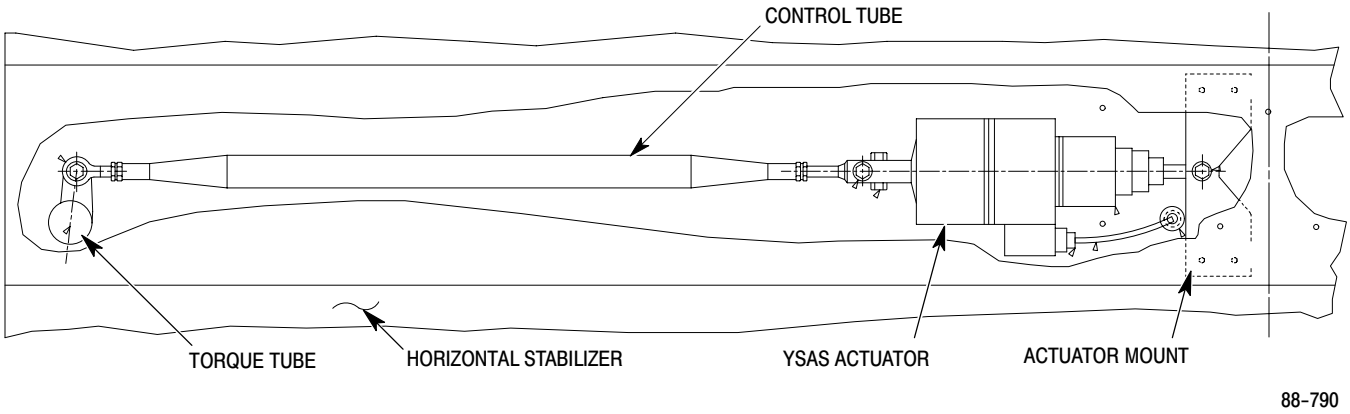

Figure 3. YSAS Actuator Installation

E. Rate Gyro, Control Box and Mount Bracket Installation

NOTE: In some instances, components mounted under the seat may have to be moved to a new location to facilitate installation of the rate gyro and control box.

(1). Lay out hole pattern as shown (Ref. Figure 4).

(2). Mark rivets to be removed for installation of top doublers.

NOTE: Before drilling any holes in seat structure, ensure there are no components that need to be moved. Use caution to avoid drilling though stiffener on back side of seat structure.

(3). Using a 0.220-0.226 inch (5.588-5.7912 mm) drill, drill four holes marked in seat structure.

(4). Drill out previously marked rivets.

(5). Deburr and treat with chemical coating.

(6). Locate and secure top doublers is place.

(7). Using a hole finder, locate and drill rivet holes in top doublers.

(8). Using adhesive, bond bottom doublers to seat structure; remove excess sealant squeeze-out.

(9). Using adhesive, bond top doublers to seat structure and rivet in place using MS20470AD rivets; remove excess sealant squeeze-out.

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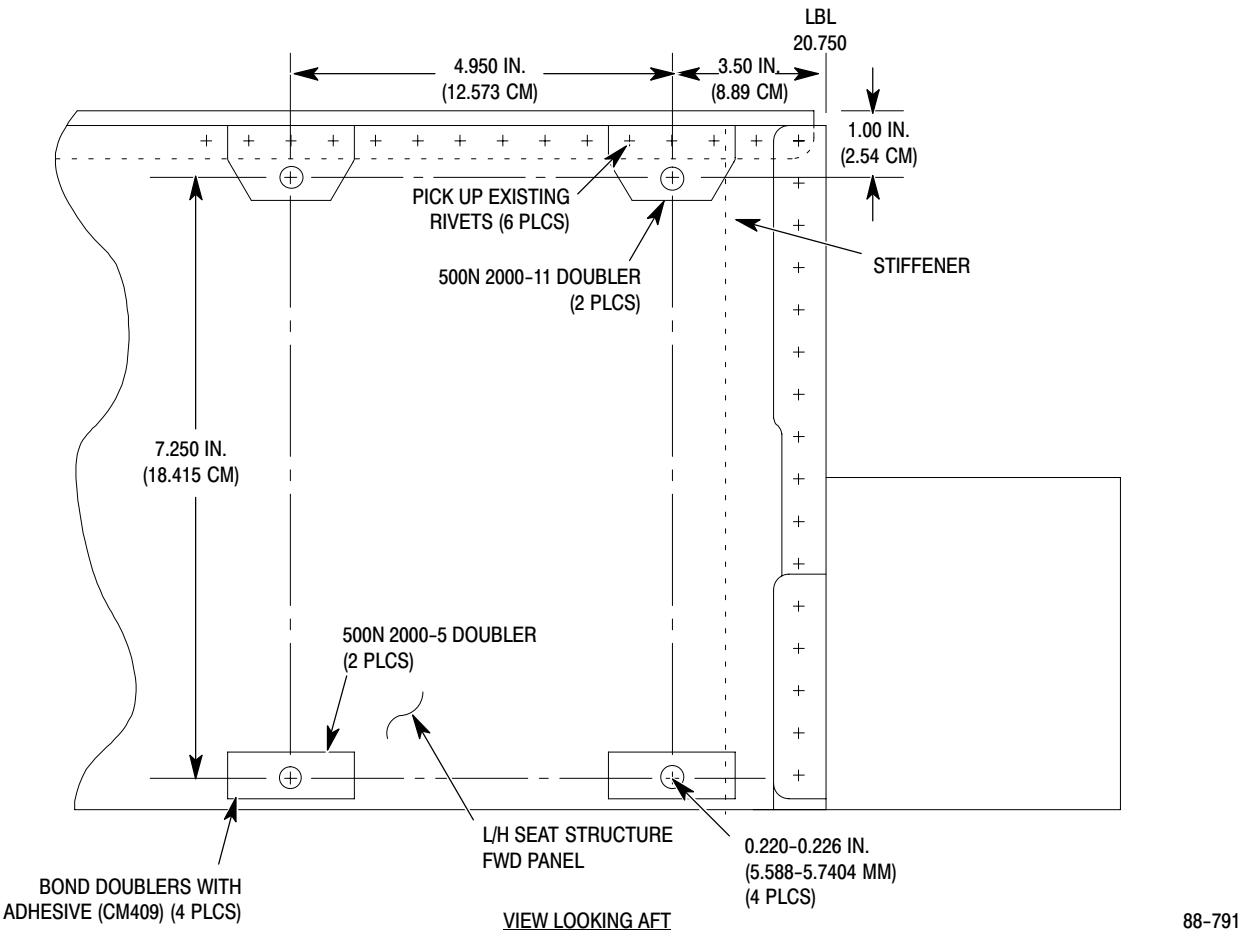

Figure 4. Rate Gyro and Control Box Mount Location

(10). Touch up rework area with primer and finish with epoxy enamel to match.

(11). Install rivnuts in mounting bracket (Ref. Figure 5).

(12). Fit check bracket. If holes in bracket do not align with holes in doublers, proceed as follows:

(a). Trim above two upper attach holes, 1.5 minimum edge distance is acceptable. Blend trim tangent to aft flange.

(b). Touch up rework area with primer and finish with epoxy enamel to match.

(13). Bond prep mating surfaces between rate gyro and mounting bracket, control box and mounting bracket, and seat structure and mounting bracket.

(14). Install rate gyro on top plate of mounting bracket with four NAS1351-3-10 screws and four NAS620-10 washers.

(15). Install control box on bottom plate of mounting bracket with four NAS1351-3-10 screws and four NAS1149F0363P washers.

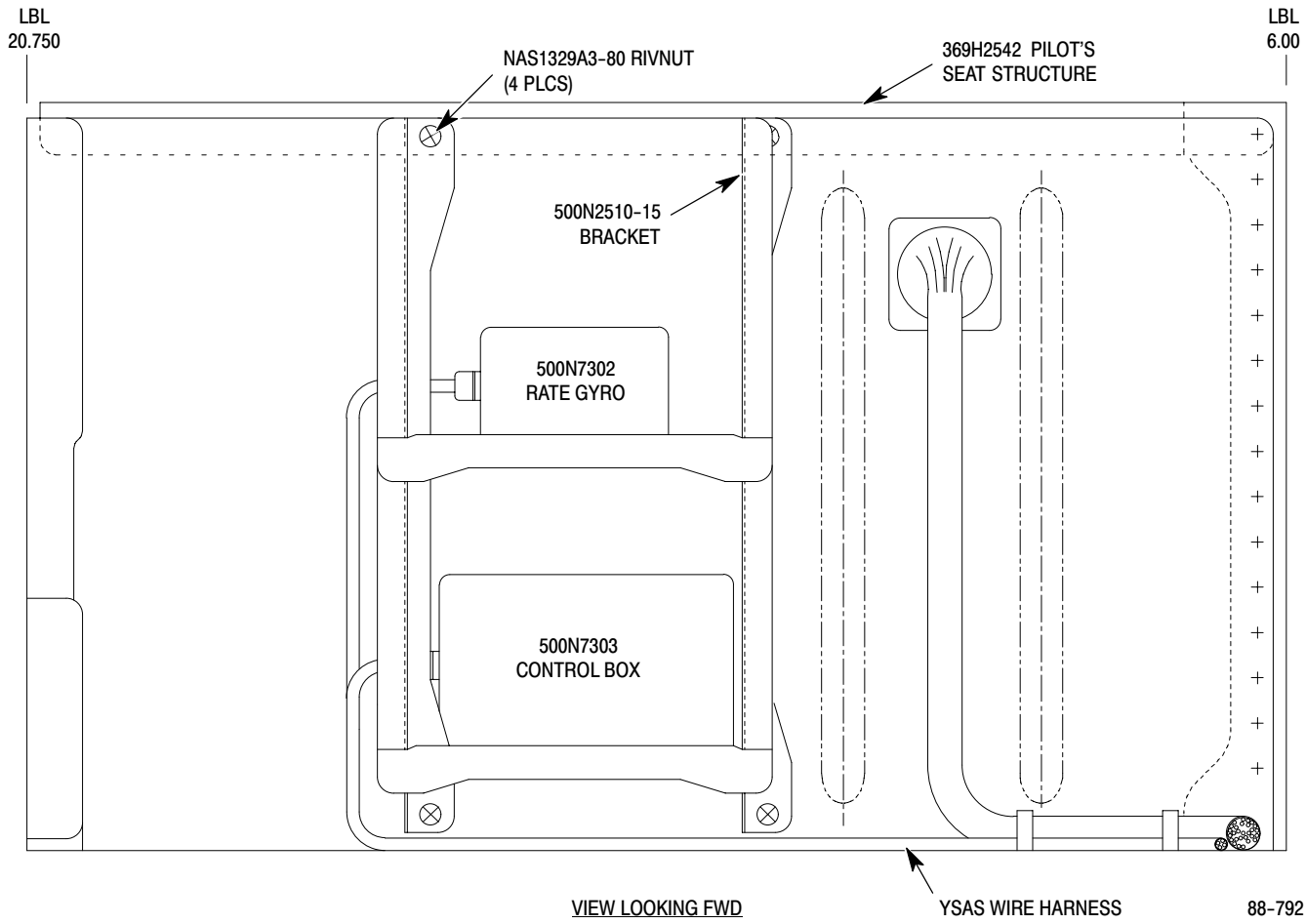

Figure 5. Rate Gyro and Control Box Installation

NOTE: Do not over-torque screws, rivnut keyway may be stripped.

(16). Slide complete assembly into place and install four NAS603-10P screws with four NAS1149D0332K washers from front side of seat structure.

(17). Check rate gyro to mounting bracket, control box to mounting bracket, and seat structure to mounting bracket for Class R electrical bond.

F. <u>YSAS Fin Position Indicator Installation</u>

(Ref. Figure 6)

NOTE: When installing the YSAS fin position indicator, some existing components may need to be relocated.

(1). Remove existing switch panel, save hardware.

(2). Remove edgelit panel and discard.

(3). Disconnect and remove cigar lighter, cap and stow wires using MHS5077-4003 thermo-fit sleeves.

(4). Remove all existing electrical components from sheet metal detail and save for reinstallation. Discard sheet metal detail.

NOTE: Nutplates may need to be transferred from removed sheet metal detail to supplied switch panel.

(5). Transfer previously removed components to supplied switch panel

(6). Install YSAS fin position indicator mount bracket.

(7). Install YSAS switch in empty hole to the left of the indicator hole.

(8). Install YSAS fin position indicator in the hole with countersunk screw.

(9). Install switch panel using previously removed hardware.

(10). Install pan-head screw to hold indicator clamp.

(11). Install supplied edgelit panel.

(12). Locate circuit breaker and switch panel.

(13). Remove edgelight panel.

(14). Locate an empty circuit breaker hole and remove plug.

(15). Install circuit breaker in hole (Ref. CSP-HMI-3, Sec. 96-30-00, Circuit Breaker and Switch Replacement).

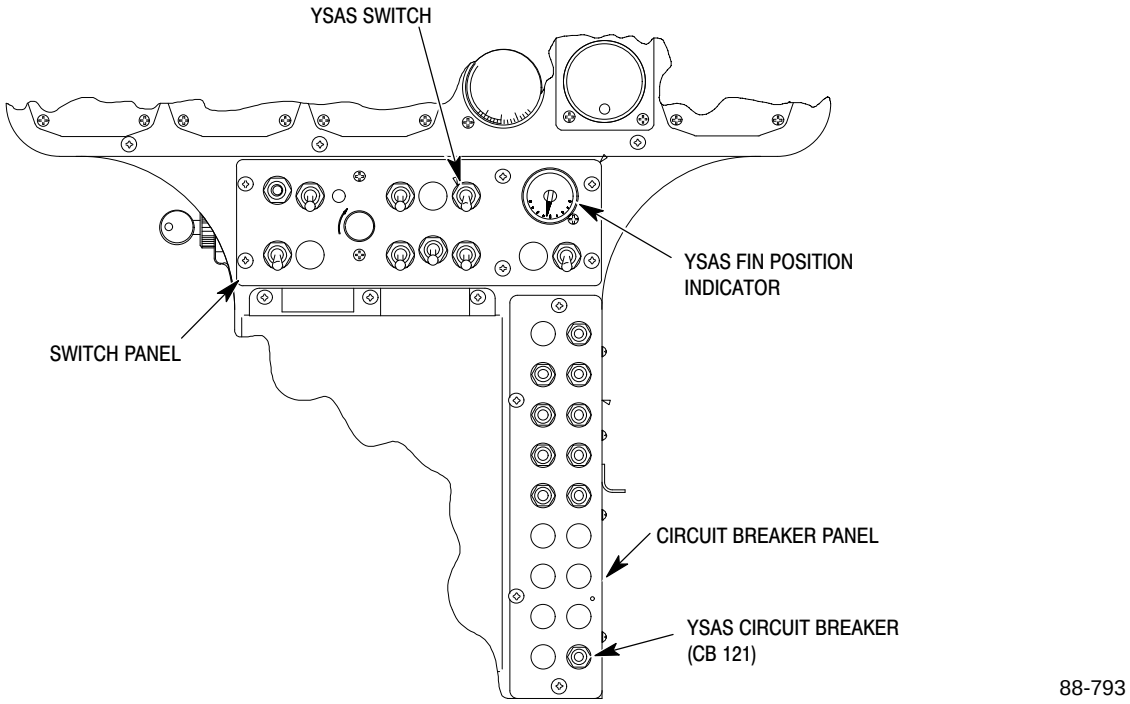

Figure 6. YSAS Switch, Circuit Breaker and Fin Position Indicator Installation

NOTE: On installations where the avionics circuit breakers or bus bars have not been installed, it is permissible to attach the bus feeder wire directly to the line side of CB121 or it's related bus bar.

(16). Connect circuit breaker to bus bar.

(17). Install supplied edgelit panel.

G. Wire Harness Routing and Terminations

(Ref. Figure 7 and Figure 8)

NOTE:

- Wires come in ready-made harnesses and have terminal pins crimped on one end. Route un-pinned wire ends through aircraft.
- When cutting wires to length, always allow for two re-terminations.
- When securing backshell, wire outer protective sleeving should be secured in backshell.
- Install sealing plugs in all unused connector cavities and secure backshell.

(1). Wire Harness Routing in Horizontal Stabilizer

(a). Temporarily mount horizontal stabilizer on tailboom.

(b). Route wires through grommet in stabilizer (Ref. Figure 8, View A).

NOTE: Connector backshell should be installed facing up to minimize service loop.

(c). Cut wires protruding from stabilizer to allow for two re-terminations.

(d). Crimp supplied terminal ends to wires.

(e). Terminate shields with solder sleeves provided.

(f). Pin wires into connector P514 and secure backshell.

(2). Wire Harness Routing in Tailboom

(a). Remove hardware securing 600N3500-15 doubler to tailboom below R/H stabilizer mount bracket.

(b). Remove any remaining sealant from around hole.

(c). From inside the aft end of tailboom, route supplied wire harness.

1). Feed wires from inside tailboom, upper R/H side, through hole in shield. Enlarge hole in shield as required. Install NASM21266-1N grommet, using epoxy adhesive, as required.

2). Feed wires down to bottom of tailboom.

3). Route wires from behind shield and forward through R/H conduit in bottom of tailboom (Ref. Figure 8, View A).

4). After wire protrudes from forward end of conduit, route down through R/H grommet in bottom of tailboom.

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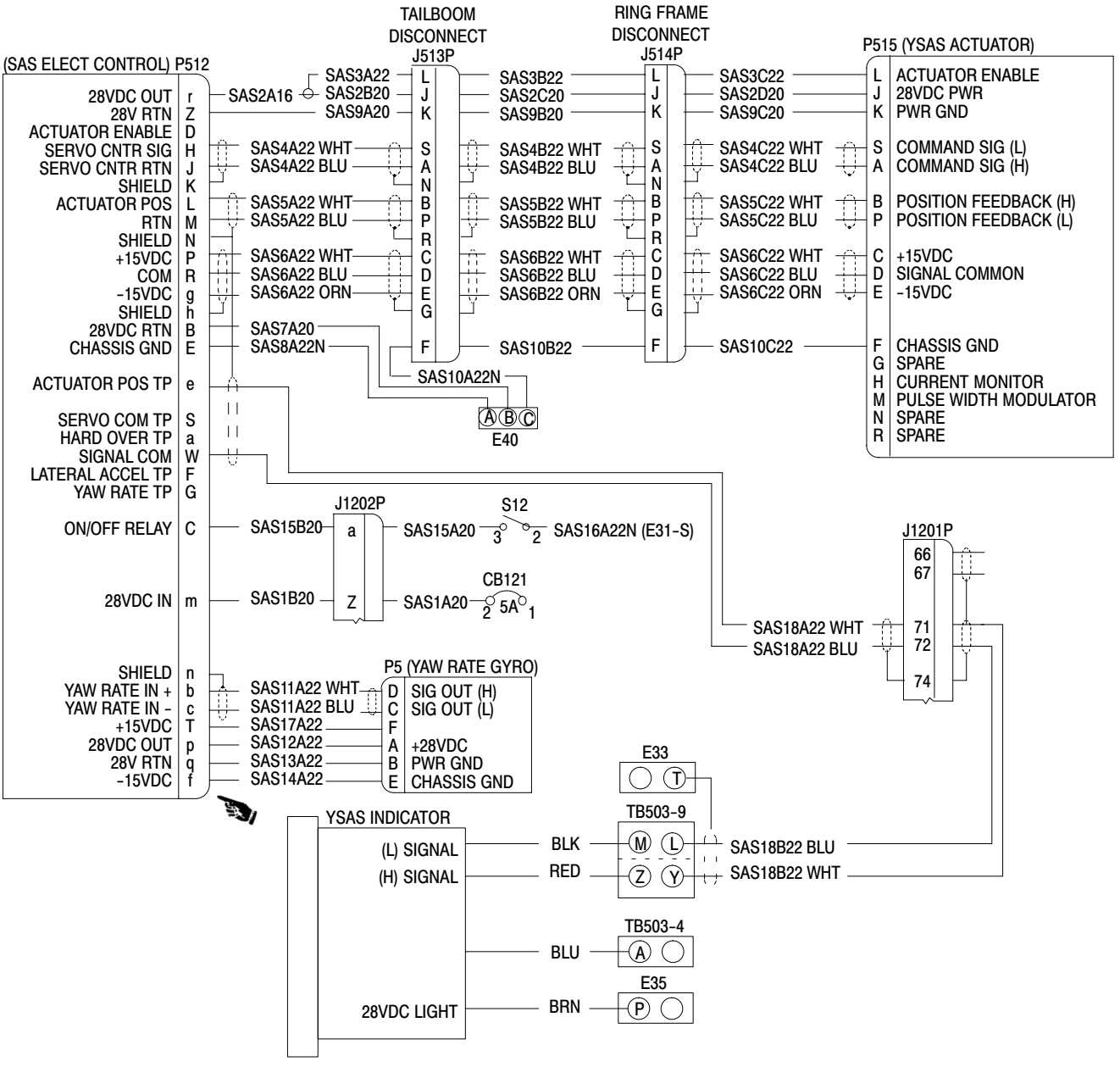

NOTE:
IF TERMINAL BLOCKS FOR YSAS INDICATOR ARE FULL FROM PRIOR INSTALLATIONS, ALTERNATE LOCATIONS MAY BE REQUIRED.

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Figure 7. YSAS Interconnect Data

(d). Mount J514 connector to tailboom with one M85049-14-A mounting plate, four NAS600-6P screws, and four NAS1149DN416K washers.

(e). Seal around connector with sealant.

(f). Pull excess wire slack forward.

(g). After wire are routed, cut wires so only enough wire protrudes from forward tailboom grommet for two re-terminations.

(h). Crimp supplied terminal ends to wires and pin wires into P513 connector and secure backshell.

(i). Terminate shields with hardware provided.

(3). Wire Harness Routing in Instrument Panel

(a). Route wires between P1201 and TB503-9 (Ref. Figure 7).

(b). Pin wires into connector and TB 503-9.

(c). Route wires between TB503-9, TB503-4, E31 and YSAS indicator.

(d). Pin wires into TB 503-9, TB503-4, and E35.

(e). Route and connect wires between P1202, and S12 and CB121.

(f). Connect wires to P1202, S12 and CB121.

(g). Route and connect wire from S12 to E31.

(h). Ty-rap wires to existing harness.

(i). Mount E40 to stiffener on 369A2542-33 panel (Ref. Figure 8, View F).

1). Drill mount hole in convenient position.

2). Bond prep hole (Ref. CSP-HMI-3, Sec. 96-00-00, Maintenance of Electrical Bonding Connections).

3). Mount E40 to stiffener.

4). Route wires and cut to length, plus two re-terminations.

5). Crimp terminal ends to wires and pin into E40.

(4). Wire Harness Routing in Fuselage

(a). Route wires from P512 to J1201 and J1202 (Ref. Figure 8, View H).

(b). Terminate shields as shown (Ref. Figure 7).

(c). Pin wires into P512, J1201 and J1202.

(d). Ty-rap wires to existing harness.

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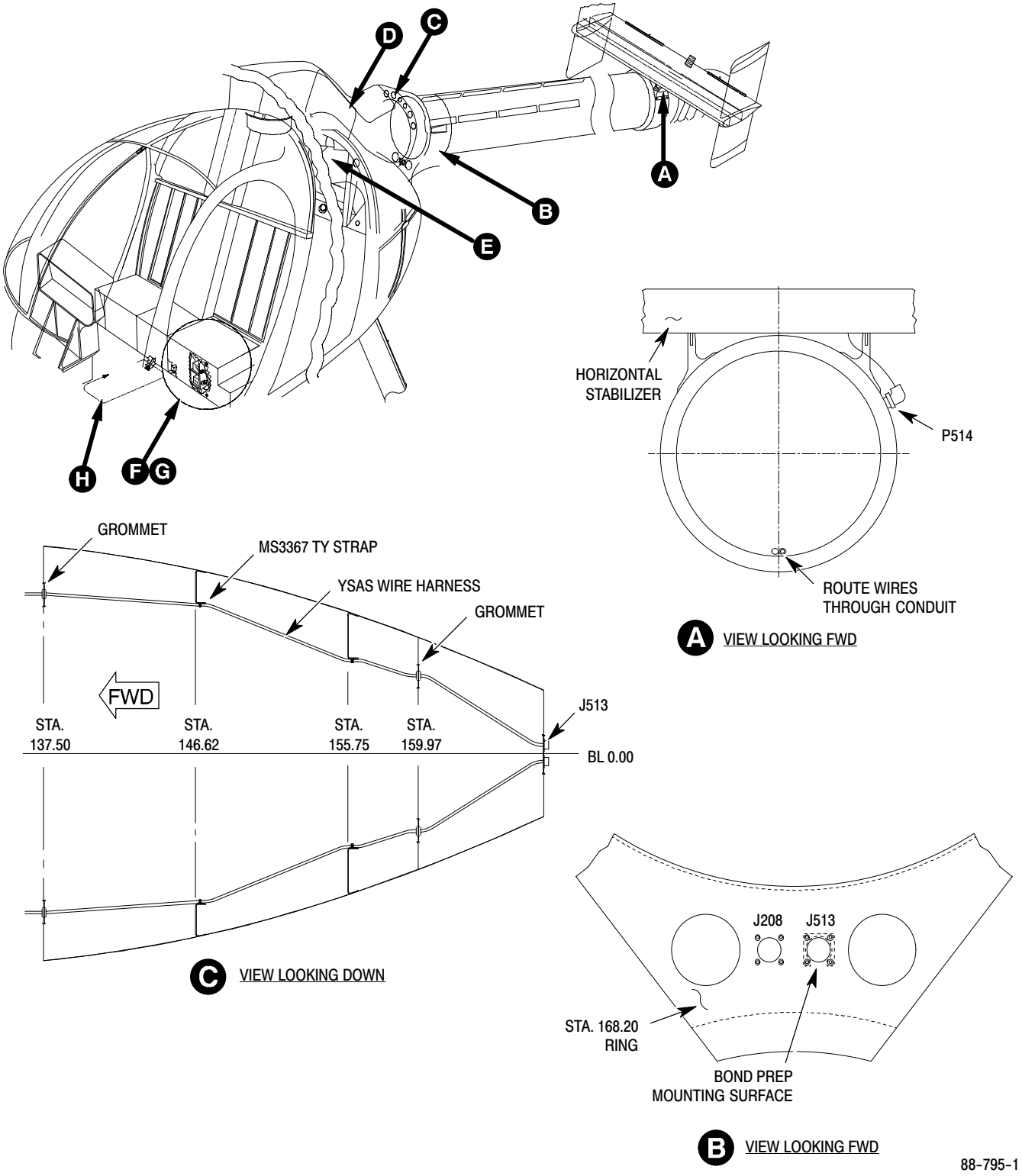

Figure 8. YSAS Wire Harness Installation (Sheet 1 of 3)

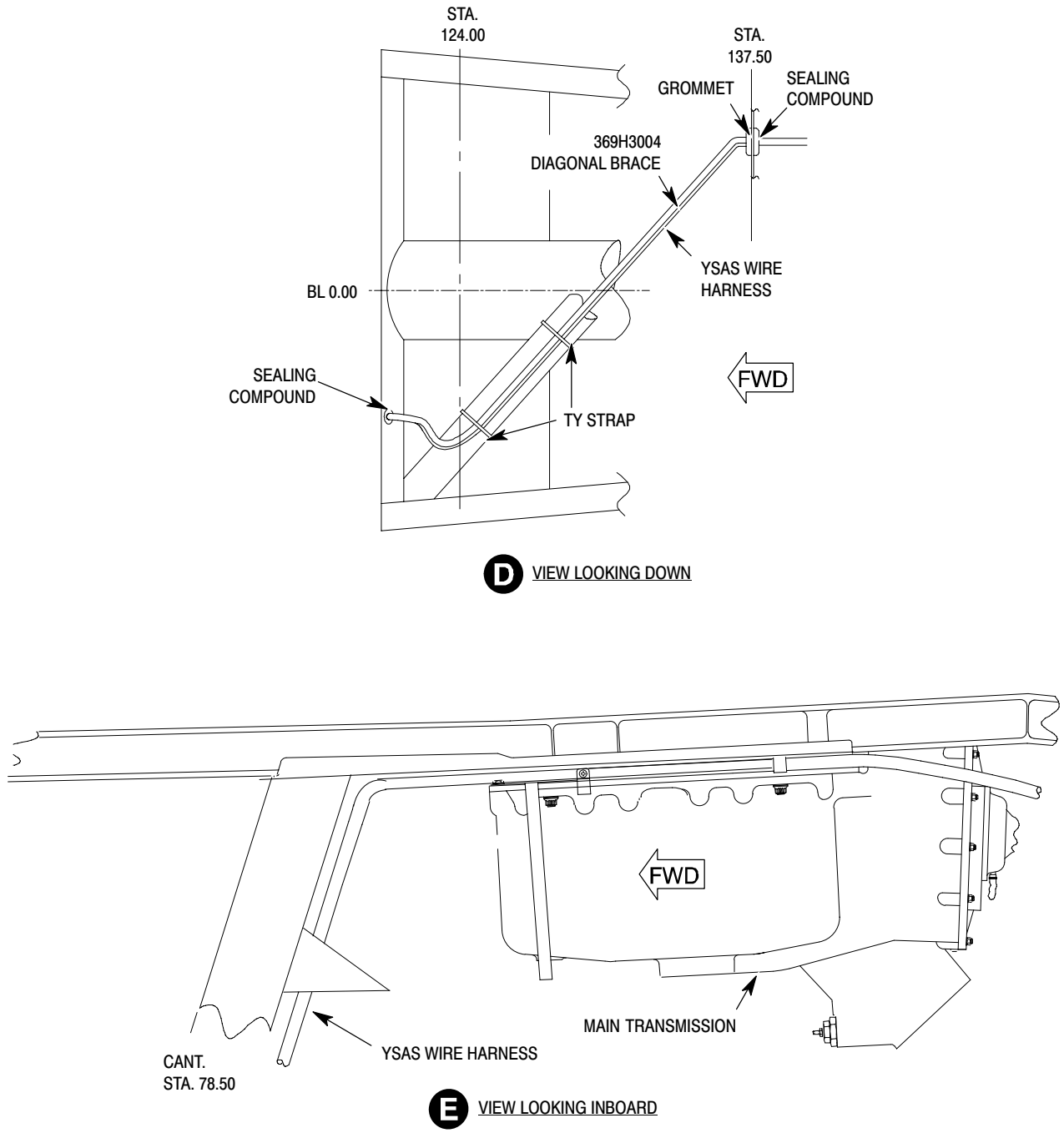

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Figure 8. YSAS Wire Harness Installation (Sheet 2 of 3)

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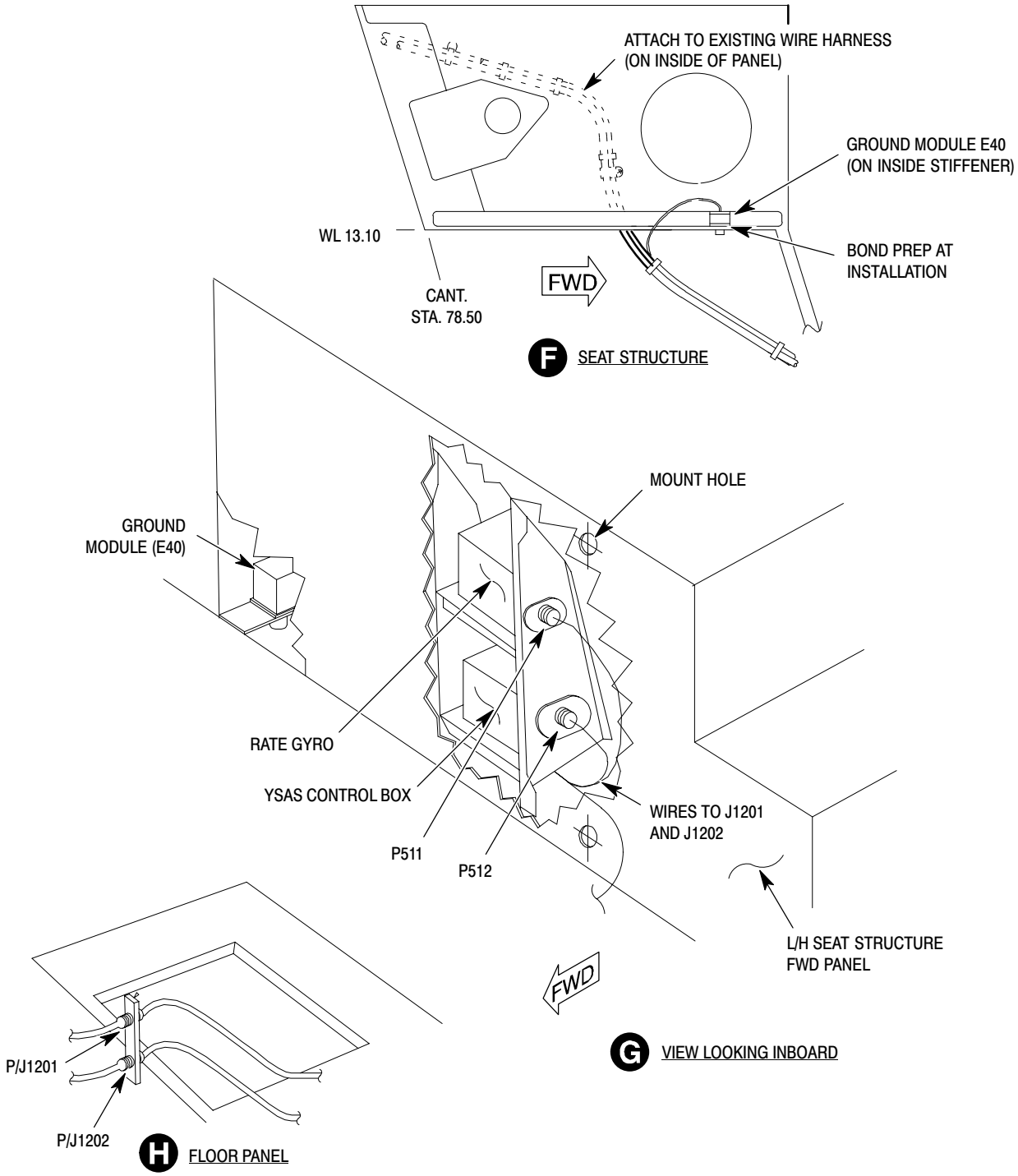

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Figure 8. YSAS Wire Harness Installation (Sheet 3 of 3)

(e). Pin wires into P512 connector (Ref. Figure 8, View G).

(f). Route and connect wire between P512 and P511.

(g). Apply protective sleeving to wires that are routed aft to tailboom connection.

(h). Rout wires through left-hand footwell, under seat structure (Ref. Figure 8, View F).

(i). Rout wires up Sta. 78.50 canted bulkhead and along left-hand roof beam. Attach wires to existing wires (Ref. Figure 8, View E).

(j). Rout wires though Sta. 124.00 (Ref. Figure 8, View D), seal around wires at Sta. 124.00.

NOTE: In the following step, access must be gained thru the fan inlet area.

(k). Tie-wrap wires to cross brace that run diagonally from Sta. 124.00 to Sta. 137.50 and seal with sealing compound, where shown (Ref. Figure 8, View D).

(l). Snake a fish-line thru the grommets in the Sta. 137.50 and 159.97 frames.

(m). Attach wires to fish-line and route wires through grommet at Sta. 137.50 and 159.97 as shown and tie-strap at Sta. 146.62 (Ref. Figure 8, View C).

(n). Bond prep bottom-right electrical connector hole in Sta. 168.20 ring (Ref. CSP-HMI-3, Sec. 96-00-00, Maintenance of Electrical Bonding Connections).

(o). Cut wires to length, plus two re-terminations.

(p). Crimp supplied terminal ends to wires.

(q). Pin wires into J513 connector.

(r). Terminate shields with hardware provided.

(s). Install sealing plugs in all unused connector cavities.

(t). Secure backshell.

(u). Mount J513 connector to tailboom attachment ring with one M85049-14-A mounting plate, four NAS600-6P screws, and four NAS1149DN416K washers (Ref. Figure 8, View B).

H. Lateral Cyclic Trim Actuator Assembly Replacement

When installing the YSAS in the 600N helicopter, the lateral cyclic trim actuator assembly must be replaced with a 369A7170-19 lateral cyclic trim actuator assembly with new hardware (Ref. CSP-HMI-2, Sec. 67-10-00, Cyclic Trim Actuator Replacement).

I. Strake Removal

The strake mounted between the windshields is not required once the YSAS is installed in the aircraft.

The removal of the strake can be accomplished at owner/operator's convenience. If immediate removal is preferred, perform the following procedure:

(1). The following procedure is for removal of the vertical leg of the strake and is the preferred method:

(a). Mask off windshield on both sides of the strake.

(b). Tape a thin strip of stainless to the windshield for protection.

(c). Using a high-speed grinder, remove vertical leg of strake.

(d). Carefully contour cut edge.

(e). Touch up with epoxy enamel to match.

(2). The following is an alternate procedure for removal of the strake:

(a). Disconnect compass at wire splice and remove compass and heat duct trim (Ref. CSP-HMI-2, Sec. 25-40-00).

(b). Remove screws, washers and nuts securing strake to windshield.

(c). Using a soft wooden or plastic chisel, slide chisel between strake and windshield retainer, and pop strake free from windshield.

(d). Scrape sealant residue from windshield retainer.

(e). Reinstall windshield mounting hardware.

(f). Touch up with paint epoxy enamel to match.

J. Aft Landing Gear Fairing Gurney Flap Removal

CAUTION Do not try to remove gurney flap by removing rivets and debonding from landing gear fairings, fairings may be damaged.

(1). Using a die grinder with a cutting wheel, carefully remove vertical plane of gurney flaps.

(2). Break all sharp edges.

(3). Treat bare metal with chemical coating and prime with primer.

(4). Finish with epoxy enamel to match fairings.

K. Helicopter Initial Reassembly

(1). Reinstall cyclic stick controls cover (Ref. Sec. 25-30-00, Cyclic Stick Control Cover Replacement).

(2). Reinstall interior trim in passenger/cargo compartment (Ref. Sec. 25-30-00, Interior Trim Replacement).

(3). Reinstall console fairings (Ref. Sec. 95-00-20, “T” Instrument Panel).

(4). Reinstall Fan Hub Cover (Ref. Sec. 53-30-30, Fan Hub and Transmission Cover Fairing Replacement).

(5). Reinstall fan inlet air screen (Ref. Sec. 53-30-30, Anti-Torque Fan Air Inlet Screen Replacement).

(6). Reinstall tailboom (Ref. Sec. 53-40-30, Tailboom Installation).

(7). Reinstall stationary thruster cone (Ref. Sec. 53-40-30, Stationary Thruster Cone Installation).

(8). Reinstall rotating thruster cone (Ref. Sec. 53-40-30, Rotating Thruster Cone Installation).

(9). Reinstall control tube and bellcrank (Ref. Sec. 53-50-30, Horizontal/Vertical Stabilizer Control Tube and Bellcrank Installation).

(10). Reinstall horizontal stabilizers (Ref. Sec. 53-50-30, Horizontal Stabilizer Installation).

(11). Reinstall vertical stabilizers with NAS6204-36 bolts, AN960-416 washers and MS21042L4 nuts (Ref. Sec. 53-50-30, Vertical Stabilizer Installation).

L. YSAS Rigging Instructions

NOTE: YSAS fin position indicator is disabled when YSAS ground test box is installed.

(1). Connect power supply.

(2). With power supply OFF, turn S.A.S. switch on the instrument panel to the OFF position.

(3). Install the Yaw S.A.S Test Box (ST1013) to the computer located and mounted on the co-pilot's seat structure forward bulkhead, the test box is now in series with the computer and actuator.

(4). Using the aircraft power supply or an external power source, activate S.A.S. switch.

(5). Adjust actuator to the fully extended position using the Yaw S.A.S. test box.

(6). Turn aircraft power OFF, actuator should remain in fully extended position.

NOTE: With jamnuts loosened, control tubes can be adjusted similar to a turnbuckle.

(7). Adjust tip of the right vertical stabilizer to -1.75° ±0.25°.

(8). After adjustments, finger-tighten control tube jamnuts.

NOTE: In the following procedure, use care to not disturb control tube adjustment.

(9). Remove mounting hardware and slide control tube/actuator out far enough to torque and safety the jamnuts.

(10). Slide control tube/actuator back in and attach (Ref. Sec. 67-20-30, SAS Actuator Installation).

(11). With pedals set to full right position, adjust tip of the left vertical stabilizer trailing edge to 12°.

(12). After adjustments, finger-tighten control tube jamnuts.

NOTE: In the following procedure, use care to not disturb control tube adjustment.

(13). Remove mounting hardware and slide control tube out far enough to torque and safety the jamnuts.

(14). Slide control tube back in and attach (Ref. Sec. 53-50-30, Horizontal/Vertical Stabilizer Control Tube and Bellcrank Installation).

(15). Adjust vertical stabilizer trim tabs to nominal settings:

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(a). L/H set to 15 degrees right.

(b). R/H set to 0 degrees.

M. Helicopter Final Reassembly

(1). Reinstall access panels from horizontal stabilizer.

(2). Perform and record helicopter weight and balance (Ref. Sec. 08-10-00, Helicopter Weighing).

NOTE: Refer to the current Airworthiness Limitation Section of the Maintenance Manual for any changes to life limited parts.

N. Post Modification Check

(1). Check directional potentiometer (Ref. Sec. 76-47-00, Directional Potentiometer Installation).

3. DISPOSITION OF PARTS REMOVED

The 369D27001-3 Actuator Motor may be returned to MDHI Warranty Dept. for credit. The core charge value of $500.00 will be applied to the customer account in the form of a spares credit.

4. COMPLIANCE RECORD

Record compliance to this Technical Bulletin in the Compliance Record section of the helicopter Log Book. Refer to CSP-HMI-2, Section 04-00-00, Airworthiness Limitations Schedule for service life of the YSAS components.

5. POINTS OF CONTACT:

For further assistance, contact the Field Service Department at MDHI, Mesa, Arizona. Telephone 1-800-388-3378 or (480) 346-6387. DATAFAX: (480) 346-6813.