

THE ASSIST

November 1999

Issue No. 15

**** Serving the RAST Fleet ****

AVCERT Preparation: Tips You Can Use!

There is still some confusion out in the RAST fleet as to the best way to prepare for an AVCERT (performed every 24 months). Here are some good tips to follow regarding this issue.

1. There should only be RAST associated equipment in the machinery room.
2. No evidence of leakage in the hydraulic system.
3. Hydraulic fluid samples must be analyzed according to current PMS.
4. Make sure you have all required special tools on board and that they are functional.
5. Check each traverse cable for proper coating (Pre-lube 19)
6. There should be a minimum of three spare RA cables stored on the machinery room bulkhead. They should also be cut to proper length.
7. Check TGW and RA cables for broken strands, and birdcaging, etc.
8. A nitrogen cylinder must be properly mounted in the machinery room at all times. The cylinder must have a full charge along with a good calibrated manifold.
9. All gages and meters properly calibrated.
10. All filter indicators on the WHPU are in the down position.
11. Hydraulic fluid level in the WHPU reservoir is at the proper level IAW PMS.
12. Walkways in the machinery room must have non-skid applied and they must remain oil free.

13. Flight deck drains clean and in their proper place.
14. Bell mouth(s) within wear tolerances as prescribed by current PMS.
15. Make sure bell mouth plug (s) is/ are in place and in good condition.
16. You should have a track slot seal long enough to seal the entire length of the track. (P/N 316322-1, NSN 5330-00-597-9254)
17. RAST tracks (s) free and clear of debris.
18. Track plate bolts are all in place and securely fastened.
19. TGW boxes and hatches are relatively free of corrosion and rust.
20. Control council lights are operable.
21. RSD Flags are up when the beams are in the closed position.
22. RSD safety bars are properly pinned in position when RSD is not in use.
23. RSD hydraulic fluid is at the proper level and samples taken as prescribed in current PMS.
24. Make sure all RAST PMS is up to date.

Submitted by,
EN1 Rob Bachand

Internet Access !!

You can view issues no. 1 through 15 simply by logging on to: www.lakehurst.navy.mil/rast
This is recommended reading for all RAST techs. All of the maintenance tips and general information in the back issues can be just as helpful today.

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Whats the Story With LRC Nos. 63 &

Launch and Recovery Change Nos. 63 and 64 are out out on the street. Some of you folks have already had the changes installed onboard. For those who have not, here is a run down on what these changes mean for you and the RAST system.

The purpose of both LRC's is to incorporate changes changes to improve system performance and reliability.

LRC NO. 63

1. Install a hinged traverse brake band for ease of maintenance and dowel pins to prevent loosening of support bolts.

2. Install a modified clamping arrangement on the RSD and remove electric cable gutters to prevent costly failures due to gutter misalignment.

3. Replace ECR tensioning nut and pads and apply Lubriplate grease to gears in order to help prevent loss of reel tension.

4. Install a low liquid level warning system for the WHPU to avoid catastrophic damage of hydraulic components in the event of a major leak or line rupture.

5. Install a more effective TGW exit sheave bearing to prevent seizure.

6. Install a more effective MSA seat switch actuator bearing to prevent seizure.

7. Remove test panel gage cutouts for all gages and install a snubber in the high-pressure gage line to avoid false pressure readings.

LRC No.64

1. Install an improved MSA gasket to provide a more reliable water tight seal upon switching the MSA between port and Starboard tracks.

2. Install a rubber boot over the RA seat switch plunger to prevent switch seizure from salt-water intrusion.

3. Replace RA tension meter with an improved model that prevents false readings due to static electricity.

Some of you may be wondering how to go about getting these changes incorporated onboard you ship. These changes are typically made during ship availability. If you are interested as to when your ship is will be eligible, please contact your local ASIR representative or your HELO Detachment.

Submitted by,

Paul Alexander

EN1 Rob Bachand



USS Samuel B Roberts (FFG-58)

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A WORD FROM ASIR NORFOLK & THE RAST FLEET LIAISON



Though not a requirement there are some things you should plan on doing while Launch and Recovery Change No. 63 and 64 are being installed on-board your ship. For example, in order to have the low liquid level warning system installed on the WHPU, the reservoir must be drained. It is highly recommended that you clean and inspect the tank. You should also replace all the filters and renew the hydraulic oil. (See attached parts list) Your local ASIR rep will guide you as to the proper procedure for this.

Since the RSD will have to be lifted from the tracks and placed on blocks to perform LRC No. 63, this is a very good time for you to perform a major cleaning of the RSD and catch up on all maintenance IAW MRC 5882 Q-3. Additionally, you should clean and reapply the prelube19 to the Traverse cables IAW MRC 5882 M-5.

Submitted by,
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“THE ASSIST” is an unclassified, quarterly publication issued by the RAST team of the Recovery Branch, SE/ALRE In-Service Engineering Division, Naval Air Warfare Center, Aircraft Division, Lakehurst, New Jersey.

The information herein is unofficial and is provided to assist the RAST community in the operation and maintenance of the RAST system.

Having Trouble With RSD System Pressure?

Over the years, we've had several instances where an RSD could not maintain hydraulic pressure, was unable to hold nitrogen pressure, or could not be charged up to high pressure. If you run into any of these situations, try the following steps to see if you can locate the cause:

IF UNABLE TO MAINTAIN NITROGEN PRESSURE:

1. Ensure the pre-charge was done properly. Before the accumulator is pre-charged, the manual actuating lever should be turned slightly off center to evacuate all fluid from the accumulator. Bleed the accumulator again after pre-charge to ensure no fluid remained in the accumulator during charging. Re-charge if required.
2. Check the RSD accumulator for leakage IAW MRC 4926 24M-1. If necessary, replace accumulator IAW the OMI, paragraph 6-142.
3. Check the nitrogen charge valve nut for leaks due to looseness, over-tightening, and/or a bad seal. Also, check tubing connections for leaks using leak test compound (MIL-L-25567) or soapy water.
4. Check the pressure gage for proper functioning and leaks.

IF UNABLE TO CHARGE TO HIGH PRESSURE:

1. Ensure proper operation of pressure switch 9S10 (Item 9-8 of figure FO-6.1 in the OMI) IAW OMI, paragraph 6-134.d, checkout procedure.
2. Listen for pump "chatter", which would indicate cavitation/aeration. If chatter is heard, check for loose suction line ferrules and blocked screen or air vent in the reservoir. Pour fluid around fittings and look

for ingestion while the pump is on.

3. Remove reservoir cover and determine which return line, if any is leaking fluid into the reservoir.

3.a. If, during charging, the pump's case drain return flow is observed to be high (greater than 0.11 gpm.) the pump needs to be replaced.

3.b. If excessive fluid flow is observed from the air bleed valve (Item 9-4 of figure FO-6.1 in the OMI) return line, replace IAW OMI paragraph 6-138. A brief, small amount of flow that stops is normal.

IF UNABLE TO MAINTAIN HIGH PRESSURE:

1. Perform RSD hydraulic fluid contamination check IAW MRC 4926 A-6, step 1.h. If fluid is found to be in excess of acceptable limits, perform the following:

** Inspect RSD hand pump filter element IAW MRC 4926 Q-3, step 2. b., and replace if necessary, IAW MRC 4926 (R-7). (continued on page 5)

Having Trouble With RSD System Pressure? (cont.)

**** Drain RSD hydraulic fluid, clean reservoir, and clean/replace RSD hydraulic fluid IAW MRC 4926 (A-6)**

**** For -14 RSD's and below, remove and replace RSD main line filter IAW MRC 4926 R-7. For -15 RSD's (LRC 62) and above, inspect RSD main line filter IAW MRC 4926 Q-3, i.e., determine if the differential pressure indicator has popped up. A popped indicator signifies that the filter needs to be replaced IAW MRC 4926 (R-7).**

2. Inspect all hydraulic fittings and connections for leaks. Check for loose ferrules.

3. Remove reservoir cover and determine if flow is returning to the reservoir from the system return line, it could either be from the marotta (control) valves or the pressure relief valve (Item 9-7 of figure FO-6.1 in the OMI). Use hand pump to get pressure to about 3400 psi. and listen for "pop" of relief valve, which is the sound of the valve reseating. Listen and feel for source of leakage past the relief valve or marotta valves. If the source of leakage is indeterminate, replace marotta (control) valve assembly IAW the OMI, paragraph 6-145. Then, if leakage persists, replace relief valve IAW OMI paragraph 6-141.

If the cause of pressure loss is not any of the factors listed, you can contact NAVAIRWARCENACDIVLKE engineers or your local ASIR rep for assistance.

Submitted by,
Marc Friedman



USS DEYO (DD-989)

MRC Revision (Update)

In our last issue, June 1999, we mentioned that the MRC cards are being revised, based upon Reliability Centered Maintenance (RCM) efforts. In the article, we gave a completion date for the new MRC's as October of 1999. However, the new MRC's are only 50 % complete at this time, and we expect to be finished early next year. We apologize for the delay.

Submitted by,
Marc Friedman

THE ASSIST - *Serving the RAST Fleet*
Parts List for Filters & Fluid

FILTERS

WHPU M8815/6-10
NSN 1650-01-033-1612
O-RING MS28775-020
NSN 5330-00-585-7723
APL U992000349

WHPU M8815/6-12
NSN 1650-01-262-1238
O-RING MS28775-024
NSN 5330-01-107-9249
APL U992000052

WHPU M8815/6-16
NSN 1650-00-149-8331
O-RING MS28775-028
NSN 5330-00-580-5056
APL U992000113

WHPU DRYER
GD00165-162W4 OR 6524E721-1
NSN 4440-01-245-8060
APL U992000143

WHPU DRYER GASKET
AA-9500-D1603
NSN 5330-01-258-6520

ROPE ACCUMULATOR
M8815/6-8
NSN 1650-01-114-1899
APL U992000242

HAND PUMP (RSD)
65322C424-1
NSN 4330-01-182-0433
APL U992000386

RSD LINE FILTER
-13 & -14 6532C292-3
FILTER P/N 712660-1
NSN 9C 4330-01-245-7699
ELEMENT P/N 712637
NSN 9C 4330-01-193-4011
-15 6532C292-4
FILTER P/N 861588
NSN 9C4330-21-914-6128
ELEMENT P/N 861485
NSN 9C-4330-21-914-6127

FLUID

WHPU HYDRAULIC FLUID
5 GALLON CANS
NSN 9150-00-985-7232
2075 T-H SYMBOL
60 GALLONS REQUIRED
APL 2-830024053

RSD HYDRAULIC FLUID
1.8 GALLONS REQUIRED
1 GALLON CANS
NSN 9150-00-149-7432
MIL-H-83282A
AEL 2-830024053

THE ASSIST

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NAVAL AIR WARFARE CENTER
AIRCRAFT DIVISION
CODE 4.8.10.2
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