THE ASSIST

October 2002 | Issue No. 16

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

A Word From the RAST Fleet Liaison

Hi! My name is EN1 Tony Wine, and I am your new RAST Fleet Liaison. I know it's been a while since the last ASSIST issue was published, but we intend to get timely issues back on track again. I reported for duty in Lakehurst, after completing the RAST Mechanical school in Norfolk, VA. Prior to that, I spent five years on sea duty. I served aboard the USS Lassalle from Feb. '87 to Feb '89. Then, I spent a few years on the USS Holland.

In 1992, I was stationed at NWS Earle as the Chief Engineer on board the USN Bogalusa. After decom, I transferred to ACU-2 onboard LCU 1658/1654 as YTB Chief Engineer.

Currently, I am assigned in this unique billet here in Lakehurst and hope to put my experience and expertise to work for the fleet. New Jersey has a much different pace then Norfolk. The commuter traffic isn't nearly as bad but the drivers leave a lot to be desired.

During the last fifteen years, I have learned that no matter how much effort is put into keeping thing's running smoothly, there was always one or two chronic problems that I regarded as a major pain in the back side!!

If you would take a few moments of your time, we would like to hear about any issues you are having with your RAST system. In this way we can help you resolve whatever problems you might be having. One of the main goals of the RAST In-Service Engineering Team (made up of engineers, logisticians, and technical specialists) here at Lakehurst is to provide as much assistance as possible directly to you, the RAST Technician. But they need your input to do it. So please fill out the feedback forms, send an e-mail, or give us a call. All the POC's are inside on page 2. I'm looking forward to hearing from you. Until next time, take care.

- EN1 SW/AW Tony Wine

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.

inside...

SH-60 PROBE SLIPPAGE IN THE RSD

One of the major challenges facing the RAST Fleet recently is the fore/aft slipping of the A/C through the RSD beam pins during straightening and traversing. In the past, isolated incidents of slipping through one or two beam pin positions had been experienced on FFG7, CG47, and DD963 Class RAST ships. However, the chronic, excessive slipping that was recently reported across the DDG 51 Flight IIA Class ships indicated an unacceptable condition requiring resolution. In May 2001, the USS LASSEN (DDG82 - 111715Z MAY 01) first reported that during traversing and straightening, the SH-60 probe consistently slipped through the RSD arresting beam pins and was impacting the forward RSD cover plate.

The RSD arresting beam pins were originally designed to fit a 2.625 inch diameter probe, but the probe diameter was later changed to 2.73 inches. It appears that the ship dynamics and forward shear of the flight deck unique to DDG51 FLT IIA class ships tend to exaggerate the effect of this larger probe, resulting in excessive slipping through the pins.

At the same point in time, and unrelated to the probe slippage issue, RAST In-Service Engineering was conducting testing for the "Latch and Pivot" Launch and Recovery Change (LRC). The Latch and Pivot LRC will provide modified latches, arresting beams, and pins to the fleet, in order to eliminate inadvertent RSD beam unlatching. In June 2001, the new pin design (part of the LRC) passed deadload testing at the Elevated Fixed Platform (EFP) test site in Lakehurst.

Since the pin from the LRC was designed to re-establish the original probe-to-pin profile interface for the 2.73 inch helo probe, we suggested to the TYPE COMMANDERS that these pins may solve the emerging probe slippage problem. As a result, a plan was set to evaluate the effectiveness of the new pin design on Flight IIA ships.

The new pins were installed aboard USS ROOSEVELT in Feb 02 for evaluation, with very favorable results. As a result of the successful test aboard DDG 80, Interim LRC 65 was initiated to get the pins into the fleet quicker than originally scheduled as part of the Latch and Pivot LRC. In June 2002, ILRC 65 was approved for issue to the DDG 51 FLT IIA Class ships. The formal LRC 65 is planned for distribution to the rest of the RAST fleet starting October 2002.

When LRC 65 is installed, the RSD and RSD Arresting Beam dash numbers will change. The Port Beam 6532E777-7 becomes a –8, the STBD beam 6532E776-3 becomes –4. The RSD 6532E900-14 becomes -16, and 6532E900-15 becomes –17.

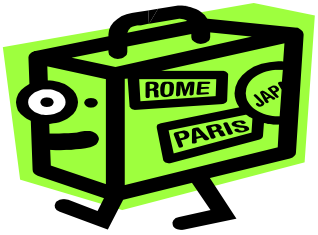
The new APL's are –16 RSD U992000443, -17 RSD U992000444, -8 Arresting Beam U992000441 and the –4 Arresting Beam U992000442. ***So be sure to report your configuration changes to ensure that you have the proper APL support.***

NAWC Lakehurst RAST Points of Contact

TITLE	PHONE	E-MAIL
RAST IN-SERVICE ENGINEERING	-1602, -1603, -1597, -1599, -1168	david.a.hoffman@navy.mil
RAST FLEET LIAISON	-1813	anthony.wine@navy.mil
RAST LOGISTICS	-1801	
RAST PROGRAM MANAGEMENT	-2730	

Comm. phone: (732) 323-XXXX DSN: 624-XXXX fax: -7232

WHERE'S THE CASE ?!?



The RA Cal kit (622484-5) is a required tool needed by your ship to get certified by the ASIRs. The biggest cause of RA Cal kit failures appears to occur in storage of the Calibration Unit (623553-2). We've heard from some ASIR reps. that many times, the RA Cal kit is not stored in its case. Also, some ships may not even have a case. If the components of this kit are stored outside the case, chances are that they will be damaged sooner or later. That means lost money and time, not to mention the CO coming down on you because he can't get certified due to a bad Cal kit. So, it's a good idea to use the case if you have one. If you don't have a case, please put in a requisition for one, ie., NSN 4920-01-413-9898 CASE,ELECTRICAL-ELECTRONIC TEST AND MEASURING EQUIPMENT. The ASIRs and your CO will thank you.

PICTURES OF THE QUARTER

We want to highlight the job you do in the fleet, and since a picture tells a thousand words, we've decided to publish your pictures each quarter. Since this is the first time we're doing this, the following pictures were found from the internet. For future ASSISTs, we'd like to get pictures that you take, and put them in here. So, please send us your pictures……

"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.

GOD BLESS AMERICA !!!

NICE VIEW ……
(U.S. NAVY PHOTO BY PHOTOGRAPHER'S MATE 2ND CLASS FREDERICK MCCAHAN)

"HEY, LOOK WHAT I FOUND !!"

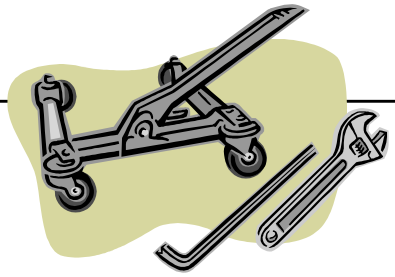
"What's my AGE again ?"

It's been nearly 20 years since the RAST system was introduced to the Navy. LAMPS MkIII has proven itself many times over, but where would LAMPS be without a RAST system to allow the helicopter to land and take off in rough seas?

Our team is constantly working to improve the RAST system, through incorporation of design changes and revised maintenance procedures. But, even though these things help, the system is still getting older.

I'm sure you've heard "Respect your elders !!" many times. The RAST system, too, needs to be treated with respect. It'll work the way you want, as long as you take care of it.

We know that with your workload, it's tough to do all of the PMS. That's why a team of In-Service engineers, logisticians, ASIRs, RAST Technicians, and SIMA overhaulers conducted a 3 week Reliability Centered Maintenance (RCM) review in order to optimize the PMS and determine areas that need redesign. As a result of the RCM review, the total RAST PMS workload was reduced by 20%. A New MRC deck which reflects the changes was issued October 2001.



Saving Time

With the help of the ASIR reps (our reps. in the field who are responsible for helping you to certify your equipment), we've put together a list of common problems that you should check for. *This will save you a considerable amount of time when AVCERT rolls around ……..*

REFERENCES

A. NAVAIR RAST Illustrated Parts Breakdown AD-700A1-IPB-000, Change 6, 1 March 1999

B. NAVAIR RAST Technical Manual AD-700A1-OMI-000, Change 6, 15 April 1999

1. ***Hydraulic Fluid Analysis***. Samples can not exceed the following: NAS 1638 classes: WHPU, class (8); Rope Accumulator, class (10); port and Stbd RSD; class (10)

2. Inspect the ***RSD FWD and Aft flag assemblies*** Repair or replace damaged components IAW Ref A, Figure 91, Index No's (29 thru 64) and (65 thru 78), after LRC 57 applies. Adjust flag assemblies IAW Ref B, Para 6-130A and 6-130B Pages 6-189 through 6-192

3. Inspect ***Port and Stbd TGW Exit Sheaves*** Hatch Covers to see if they are missing handles.

4. Inspect for loose bolts on the bracket holding the ***RSD clamping cylinder*** in place (ref. A, figure 74, item 167). If necessary, apply locking compound, grade N to bolts, (items 168 & 169) and torque bolts 108-132 in. lbs.

(Continued—next page)

Saving Time (continued)

5. Whenever you have ***track*** plates off, inspect the flight deck RAST Trough, Fwd and Aft Traverse Cable Turn Around Sheave Assemblies, Shock absorber Assemblies, Fuel/Weir dams, cable guides, and Support Post & Blocks. On the post and blocks, look for cracks and/or corrosion. On the posts in particular, corrosion will look like a white powder (on aluminum decks) and the area around the thread insert will look like it was eaten away. Note any discrepencies and inform ASIR when they are onboard.

6. Note any areas where deck ***non-skid*** has flaked off.

7. Inspect RSD Accumulator pressure gauge (0-5000 LB) ***site glass*** (PIN 6532B287-1) for deterioration, ie., obstructs view, scratched, looks fogged up, etc.

8. Inspect the RSD ***Cam Brake actuators*** for loose bolts (ref. (a), fig. 174, items 125 & 132).

9. Examine the port and Stbd ***TGW cables and hooks*** for corrosion. Replace cable assemblies if necessary.

10. Examine the ***Port and Stbd Bellmouths*** and Wear Plates for excessive wear. If necessary, replace Bellmouth, Wear Plates, and securing Screws.

11. Inspect the ***RSD safety bar*** for damage, ie., warped, cracked, missing bolts, missing pins, etc. Replace if necessary by procuring and installing Safety Bar, P/N 6532D826-3, NSN 1710-01-285-4645.

12. Inspect ***RSD arresting beam cables*** for proper tension, in accordance with the S8 & R10 cards (most current MRCs were issued May 2001).

13. The RAST System ***hydraulic fluid cooler (Detroit) Temperature Switch*** requires annual calibration per MIP 5882/012-XX. The Switch is calibrated IAW the ship's metrology automated system for uniform recalibration and reporting (Measure Format 350) & MIP 9802/003-XX, to a calibrated (close) setting of 136 deg. F (increasing). The switch differential (the gap between closing & opening temperatures) is from 3 deg. F to 10 deg. F below its closing.

14. Inspect the Movable Sheave Assy. (MSA) ***R/A seat switch*** and monorail cabling for damage and/or corrosion. If necessary, replace seat switch ASSY; P/N 6547D593-1, and Mounting Plate; P/N 6546C207-1, and 2 Ea. Screws; P/N MS35307-358.

15. Inspect the ***RAST Required Tools*** to see if the following are missing: (a) RSD Manual actuating lever ASSY (P/N 6532D259-1 with attaching lanyards), (b) Gauge Assembly-Rope Accumulator Servicing Kit (P/N 521294-1), (c) Bleed line assembly for the rope accumulator (P/N 6538C308-1), (d) Accumulator Charging Kit N/2 (P/N 520203-1), (e) ECR Tension Wrench P/N 017243 (can be Procured through the Gleason Reel CORP (920) 387-4120), (f) Spring scale (0-200 LB.) P/N AAA-S-133D, (g) Track Slot Gauge (P/N 519736-1)

16. Inspect ***R/A Calibration Kit*** P/N 622484-5; for up-to-date calibration (NSN 6635-01-260-6870)

17. Inspect WHPU Hydraulic Test Panel ***Servo Accumulator Pre-Charge pressure*** to see if it will maintain a Nitrogen charge of (750+/-50 PSI) as required. If necessary, check all lines, fittings, gauge, and Accumulator (P/N MS28700-2, NSN 1650-01-441-7404) for leaks. Repair or replace failed components as necessary and ensure Gauge is calibrated.

Saving Time (continued)

18. Inspect the ***WHPU Hydraulic Reservoir Dryer Filter*** for Dryer saturation (dessicant turns pink). If necessary, replace Dryer; P/N 6534E721-1, NSN 4440-01-245-8060.

19. Check all ***hydraulic filter*** indicators and replace filters as necessary.

20. Inspect the ***Rope Accumulator accumulators*** for proper nitrogen charge. Ensure a fully charged bottle of nitrogen is maintained and stowed within the RAST Machinery Room for servicing Rope ACC. Charge accumulators with nitrogen IAW Ref B, Para 6-110A. Check all lines, fittings, and gages for leaks. Ensure all gages are calibrated.

21. Inspect the ***belt*** between the tandem pump and RA pump for damage. If necessary, replace belt, P/N 420H200, NSN 3030-01-188-1871.

22. Ensure three required spare ready-issue ***Recovery Assist (RA) cables*** are stowed properly in the RAST Mach Room.

23. ***Additional HLS Tech. Manuals***: HRS AD-400A1-OMI-000, Ch. 5 01-Jan-1997; HRS AD-400A1-IPB-000, Ch. 2 01-Apr-1996; FDSSS, AD-400B1-OMI-000, Change 1 01-Jun-2000.

BE KIND TO YOUR LOCAL ASIR

(The paragraphs below have been reprinted/revised from the ASSIST, Issue 10, June 1997, because the information is relevant today and deserves to be re-emphasized)

The RAST In-Service Engineers and Logisticians are in constant contact with the ASIRs in our field offices. Hardly a day goes by that we aren't on the phone with one or more ASIRs: troubleshooting system malfunctions, correcting discrepancies, providing technical information, recording data, expediting a CASREP, or asking about system tendencies that are developing in the fleet. The purpose of these conversations we have with the field offices is to improve the readiness, reliability, and performance of the RAST system through changes in maintenance, procedure, or design.

ASIRs are a RAST Tech's best resource—not their worst nightmare. The ASIRs have developed a wealth of RAST (as well as other aviation systems) knowledge by resolving numerous RAST issues over many years in the field. When it comes to RAST failures, the ASIRs ***have seen and fixed it all.*** They have access to points of contact at NAVICP for supply issues, in the shipyards during availabilities, at NAVSEA, NAVAIR, Type Commanders, and are only a phone call away from all of us at Lakehurst and you.

The ASIRs' goal is to identify any serious problems as early as possible, give the ship the most effective game plan to resolve those issues, and return the system to a fully operational, certified condition that will last long into any ship's upcoming deployment. Nothing more—nothing less. The ASIRs should not be called upon to do PMS that was never done, as has been occurring on an increasing basis.

Since there are nearly a hundred RAST ships and only 2-3 ASIRs in each homeport who work RAST, when your local ASIR takes the time to assist a ship, he should be met with full cooperation. Those visits should be considered a golden opportunity to attack and resolve the most difficult issues. ***RAST Techs: Make good use of your ASIR's time and expertise***.

Working with the ASIRs to address outstanding problems early on in a shipyard availability is certainly preferable to dealing with the inevitable failure alone during night ops in the middle of a deployment. The daily efforts of the ASIRs are a substantial factor in the high rate of RAST system readiness that exists across the fleet. The valuable service they provide should be acknowledged, respected, and appreciated.

USS Winston S. Churchill

IN MEMORIAM……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Parts List for Filters & Fluid

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 & SUBSEQUENT 6532C292-4
FILTER P/N 861588
NSN 9C4330-21-914-6128
ELEMENT P/N 861485
NSN 9C-4330-21-914-6127

WHPU HYDRAULIC FLUID
5 GALLON CANS
NSN 9150-00-985-7232
2075 T-H SYMBOL
60 GALLONS REQUIRED
APL 2-830024053
MIL-PRF-17672
RSD HYDRAULIC FLUID
1.8 GALLONS REQUIRED
1 GALLON CANS
NSN 9150-00-149-7432
MIL-PRF-83282A
AEL 2-830024053

RSD AIR FILTER
-15 & SUBSEQUENT 524640-1
FILTER P/N LBGCPM
NSN 9C 4310-00-847-2523

COMMANDER
NAVAL AIR WARFARE CENTER
AIRCRAFT DIVISION
CODE 4.8.10.2
HWY 547, BLDG. 596-1
LAKEHURST, NJ 08733-5090

Ships: Pass to RAST Technician