

THE ASSIST

June 1996

Issue No. 7

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

A WORD FROM THE RAST FLEET LIAISON

Submitted by EN1(SW) Fales

Greetings from Lakehurst. Spring has sprung here at Lakehurst and it's time to dust off the old thinking caps and try to answer some of your questions that you have sent in. From the USS SAN JACINTO CG-47, replacement of the RA cable is governed by PMS 4926 R-8 and 4926 A-9. The latter requires replacement after one year of service. Replacement after 100 landings is not required.

Next question concerns the location of track plate bolts in the IPB. These bolts are listed under Fig. 1-67 and 1-68, short and sweet the way I like it.

The next one took some time but I think I have the answer. It concerns the use of flat wrench P/N 6532C764-1. First, to help the fleet, all NAWC part numbers that start with 6532xxxx are used on the RSD. To finish it, check out maintenance procedures 6-150 -- 6-154 (please don't write and ask what happened to 6-152, I have no idea). This is the replacement procedures for the cam brake actuators.

Previous newsletters listed the latest RAST / HRS

tech manuals but did not include those for the oil cooler or hydraulic service unit. The manual number for the cooler is NAVSEA S9556-AH MMO-010 and the manual for the hydraulic service unit is NAVAIR 17-15BF-60. Thanks for pointing out our error in the reference omission of these manuals.

Lastly, be sure to check the cable tension on your RSD operating cables. Lakehurst has received several CASREPs concerning broken cables and we feel one of the main causes is loss of tension on the cables. These cables stretch over time and need to be adjusted in accordance with PMS 4926 R-2.

I hope this helps answer some of your questions. Feel free to send in any other questions or comments you have; we love to get feedback from the fleet. With over 80 RAST systems out there, you probably have a question that someone else is wondering about also. 'Til next time, be safe!

Future Internet Access:

Plans are currently underway to make future and back issues of "The ASSIST" available from the Navy Lakehurst Home Page at WWW.LAKEHURST.NAVY.MIL Stay tuned!

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***RAST FLUID FILTRATION
CART***

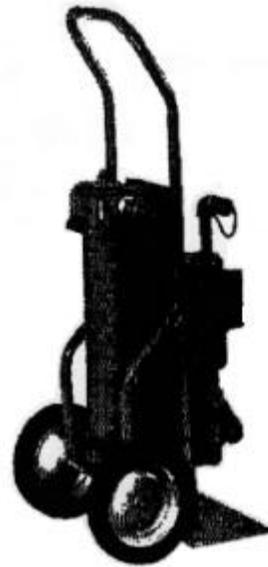
by Dave Walter

A number of years ago, concern was expressed about the method of replenishing hydraulic fluid in the WHPU Reservoir. The design required a special filling and strainer assembly on the side of the reservoir, but there was no logical way to fill it without removing this assembly and using a long necked funnel to pour the fluid in. This practice increased the chance of inducing contaminants into the system.

In an effort to assist RAST technicians, we investigated and evaluated the fluid filtration cart presently listed on Allowance Equipage List (AEL) 2-830024056. It is a compact, self contained filtration unit equipped with high efficiency, high capacity filter elements capable of removing particulate contaminants and/or water quickly.

Procedures for utilizing the fluid filtration cart are provided in Para 2-17 of the technical manual, AD-700A1-OMI-000. In addition, its use is now part of the S-9 MRC which was forwarded as facsimile sheet; 324-316, 4926/AST, 63 919JN, (REV) FEB '95.

It should be noted that the hose assemblies necessary to replenish and polish the WHPU reservoir fluid are not provided with the unit. The suction (inlet) line of the filter cart is 3/4 inches while the output (outlet) line is 1/2 inches. All hoses, couplings, adapters, and fittings required to fabricate the hose assemblies are listed on AEL 2-830024056 which identifies the filter cart and the parts needed to maintain it.



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ON THE HORIZON

by Marc Friedman

There are several ongoing hardware development efforts to improve the RAST system. The changes listed below are currently in the prototype design phase. By July of 1997, prototype testing will be complete. Installation of kits into the fleet will be in September of 1998 and will continue for four years.

1. **ELECTRIC CABLE REEL (ECR)** - Damage to the RSD electric cable is a common, time-consuming problem, as all of you know. To fix the problem, two prototypes are being considered. Only one will be chosen, based on performance and cost.

- a. Eliminate the ECR and gutters and use an industrial-type cable carrier.
- b. Modify gutter and/or cable configurations.

2. **MOVEABLE SHEAVE ASSEMBLY (MSA)** -

A couple of problems are being worked on:

- a. RA Seat Switch ** - seat switch seizure from corrosion/dirt is a common problem. A "boot" will be used to cover the top of the switch, to prevent seawater and dirt from falling on it.
- b. MSA Gasket** - this gasket (6546C099-1) is damaged when moving the MSA in and out of the MSA support structures. The gasket dimensions will be changed to prevent damage.
- c. RA Seat Switch Actuator Bushing - the current sintered bronze bushing seizes, causing the switch to bind. A different material bushing will be used.

3. **TRAVERSE BRAKE** - The traverse brake sometimes slips under load. In order to eliminate slippage and simplify brake pad removal, the following modifications are being considered :

- a. Improve attachment of traverse brake actuator support bracket. This will eliminate the common problem of the bracket bolts backing

out.

- b. Instead of one continuous band brake, add a pivot pin to the middle of the band for easy brake removal.

4. **TAIL GUIDE WINCH EXIT SHEAVE** - The exit sheave sometimes won't rotate due to corrosion or lack of bearing lubrication. The bearing material will be changed and a zerk fitting may be added.

5. **WHPU RESERVOIR FLUID LEVEL** - There have been several failures where a leak in the hydraulic lines (burst hose, loose fittings, etc.) drains all of the WHPU fluid. Major system damage occurred. A liquid level alarm is being considered, which will warn the LSO of low fluid level.

6. **RA TENSION METER** - The RA tension meter on the LSO console sometimes shows false readings due to static electricity. Meters will be provided which do not have this problem, following testing of a prototype in the June/July 1996 time frame.

7. **TEST CONTROL PANEL GAGE CUTOUPS** - The gage cutouts sometimes freeze up and the gages don't read the correct pressure. These gage cutouts will be removed and snubbers will be used instead. The snubbers will protect the gages from being damaged by pressure spikes but still allow visual confirmation of over-pressurization of the system. The snubbers contain no moving parts.

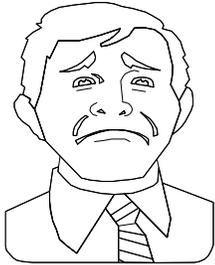
** - Due to ease of installation and low cost, these items will be installed by shipsforce as soon as the kits become available Fall '98 . They will be listed in a separate Service Change.



“NOT IN STOCK”AGAIN??!!!!

by Dave Hoffman

It is not uncommon to discover that a part that you desperately need is “not in stock”. Before you start slamming the supply system, realize that you may



have contributed to the problem. We realize that when you need a part, you need a part! In some cases, supply system lead times will not meet your mission. But there is a right and a wrong way to go about getting that part. Once you get your part by buying it

locally, having it made somewhere, or getting it from your friendly neighborhood ASIR, **there is one more important step to be taken.**

The supply system replenishes their stock based on quarterly usage rates. If the demand seen by the system does not include those parts that are obtained from non-supply system sources; the usage will be underestimated resulting in continuous shortages down the road. In a nutshell, supply thinks the fleet uses 5 dinglehooks when they really use 9.

NAVICP recommends submitting the following “demand only” requisition when ships obtain a part from outside the supply system:

DHA / N35 / nsn / unit of issue / qty required /

milstrip doc. no. / 0 (no demand code) / cog / normal supply support activity / A / A / last 3 digits of Julian date of report

This requisition (no cost to the ship) will register the fleet demand with supply without drawing the part from the supply system shelf. Then, who knows, maybe next time you requisition it, it just might be available.

For further details, refer to:

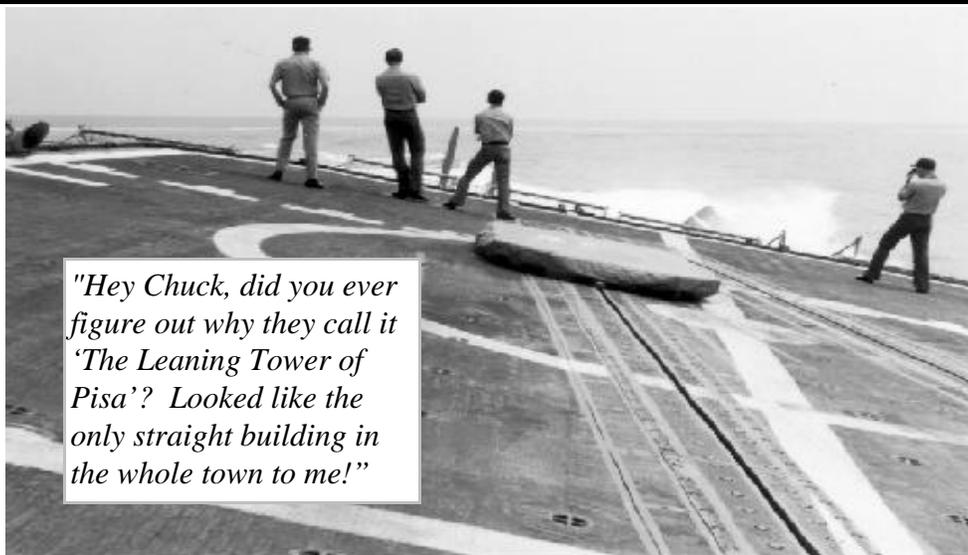
Milstrip/Milstrap Deskguide
NAVSUP Publication No. 409
NSN: 0530-LP-189-7100.

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“THE ASSIST” is an unclassified, quarterly, publication issued by the RAST team of the Recovery Branch, Support Equipment/ALRE In-Service Engineering Division, Engineering Group - Naval Air Warfare Center, Aircraft Division, Lakehurst, NJ. The information herein is unofficial and is provided to assist the RAST community in the operation and maintenance of the RAST system.

Production Editor - Gerry Wagner



“Hey Chuck, did you ever figure out why they call it ‘The Leaning Tower of Pisa’? Looked like the only straight building in the whole town to me!”

Including this issue, we have distributed seven newsletters covering a wide range of RAST maintenance tips, supply and logistical information, status of on-going system upgrades, RAST historical background, survey feedback, and answers to your various questions - 32 articles in all. An index of all published articles is listed below:

- | | |
|--------------------------|---|
| Issue No. 1
(Jul '94) | <ol style="list-style-type: none">1. Word from the Fleet Liaison - Introduction2. LRC No. 57 Introduces "-14" RSDs3. RAST RA CAL Kit Survey Results4. Tip of the Quarter - Proper servicing of the RSD Accumulator |
| Issue No. 2
(Jan '95) | <ol style="list-style-type: none">1. Maintenance Tip: Cycle Your Equipment!2. RSD Electric Cables3. ECA Fuses4. Tip of the Quarter - Proper Servicing of the Rope Accumulator5. Word from the Fleet Liaison - Documenting System Maintenance |
| Issue No. 3
(Apr '95) | <ol style="list-style-type: none">1. Your RAST System's Biggest Threat - Hydraulic System Contamination2. On the Horizon - A look at the ongoing efforts to improve the system:
RSD Block II Upgrade
Flexible RSD Electric Cable
Electric Cable Passing Tube
Elimination of ECR and Gutters3. Tip of the Quarter - How to Avoid Electric Cable & Gutter Problems4. Word from the Fleet Liaison - RSD Electric Cable Failures |
| Issue No. 4
(Jul '95) | <ol style="list-style-type: none">1. How do you Gage a Failure? - RSD Pressure Gage Failures2. Touch and Go's - Track Plate Lifting Tool, TGW Pump Bearing Failure3. Keeping RAST Systems Up and Running4. Word from the RAST Fleet Liaison - CASREPs and CASCORs |
| Issue No. 5
(Nov '95) | <ol style="list-style-type: none">1. Stripped Marotta Valve Threads2. Everything You Ever Wanted to Know About Traverse Cable Lube3. Maintenance Review Conference for RAST System4. Listing of Latest HLS Tech Manuals |
| Issue No. 6
(Mar '96) | <ol style="list-style-type: none">1. How Big is Your Connector? - Changing RA Cables2. RAST AVCERT Preparations3. RSD Turn-In Procedure4. HRS ISD (Indicator, Stabilization Device) Turn-In Procedure5. HRS Lamp Bar Turn-In Procedure6. Touch and Go's: Protecting RAST during SRAs & Smoking Prelube 19 Rags |
| Issue No. 7
(Jun '96) | <ol style="list-style-type: none">1. Hydraulic Fluid Filtration Cart Info2. Machinery Room Improvements Upgrade Status3. Demand Only Requisition Procedure4. Tip of the Quarter - Proper Servicing of RSD accumulator (Issue no. 1 repeat)5. Word from the Fleet Liaison - (Fleet Feedback Questions Answered) |

If you see a subject that interests you, or are missing an issue(s) that you would like to have, give us a call or mail the enclosed feedback sheet to us detailing your request. Since there is no such thing as a free lunch, we request that you give us some feedback (your own maintenance tip, comments on "THE ASSIST", a topic for a future article, or the biggest pain in your RAST neck) as compensation for "shipping and handling".

Tip of the Quarter ***by ENI (SW) Fales***

NAWC Lakehurst has seen a number of RSD CASREPs that may have been avoided if the accumulator was properly pre-charged with nitrogen. An improper pre-charge may cause slow beam movement, rapid loss of pressure, excessive time to fully charge to 3200 psi, or excessive pump cycling which may lead to a failed pump or motor.

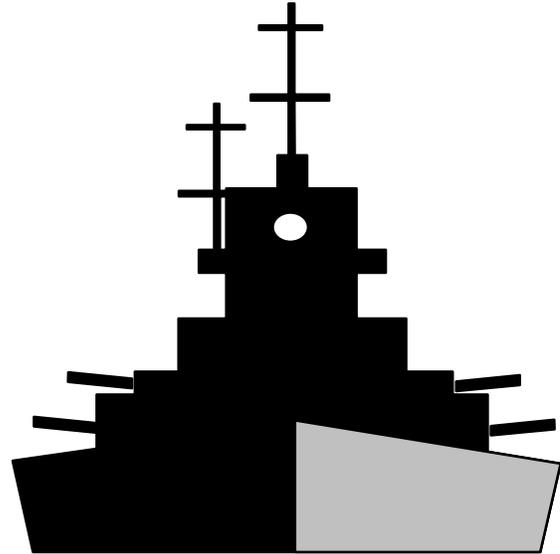
To properly check the pre-charge pressure, first secure power to the RSD. Using the manual actuating lever, rotate slightly off center until no fluid can be heard returning to the reservoir. Return the lever to center. After allowing the pre-charge to settle for a few minutes, rotate off center again to ensure fluid is out of the accumulator.

Now charge the accumulator to 750-850 psi. Again bleed off any residual pressure left in the system by rotating the manual actuating lever off-center and charge the accumulator. It may take several times until the proper pre-charge can be achieved. The

time you spend now will save down time in the future.

Now is also the best time to check for proper fluid level in the reservoir. Be sure the fluid is 1/8 inch from the top of the sight glass.

(Repeated from Issue No. 1)



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