

THE ASSIST

July 1995

Issue No. 4

*** Serving the RAST Fleet ***

HOW DO YOU GAGE A FAILURE?

Once upon a time, a mechanic working in a large company went to his local hardware store to buy a thingamabob to fix his machine. The store clerk gave the mechanic his new thingamabob, charged the company's account and sent him on his way.

Now the clerk was very happy with this sale because the store had just gotten a large shipment of thingamabobs from a new supplier for a good price. The demand for thingamabobs had been increasing and with shrinking dollars to fill his shelves, he was glad that he was stocking the right item.

Back at the company, the mechanic installed the new thingamabob and was very disappointed to find that his machine wouldn't start. He tore his whole machine apart and finally determined that he still had a thingamabob problem after he switched the new one with a thingamabob from a working machine. The mechanic angrily threw the new thingamabob in the dumpster and went back to the hardware store for another one.

By now the mechanic is really torqued. He's been told by his boss (who the employees have nicknamed "The Captain") that he can't go home for the weekend until all the machines are running and he can forget about any overtime pay. Its Friday 6:00 pm.

The mechanic picked up another new

thingamabob without saying a word to the store clerk except: "Charge it!". Back to the shop and again...no good. Another trip to the dumpster, then the store, and back to the shop. Finally, this one works. Relieved, he carefully cleans up (with the EPA watching him closely), and races home to a cold dinner (and wife).

Meanwhile, thingamabob problems have been happening all over the company. The clerk can't keep his shelves filled. He's glad to be carrying a good product that is selling well. And the new thingamabob supplier...he's very happy. He had a tarnished reputation in the thingamabob business and was glad that his cost cutting programs hadn't affected the quality of his product. How could they if thingamabobs were in such great demand?

On Monday, all the mechanics were called into "The Captain's" office for a meeting. The Captain announced that the shop was over budget, mainly due to the huge thingamabob bill from the hardware store. So in order to save money, he told the mechanics they would have to keep the machines running without the benefit of the major overhaul program that had been in place.

This story continues on in a downward spiral. The

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A WORD FROM THE RAST FLEET LIAISON

Greetings from Lakehurst. We've heard a lot of good verbal feedback on "THE ASSIST", but only a handful of written responses or Feedback Forms (enclosed in this newsletter) have made their way back to Lakehurst. Remember, the feedback helps us gear the newsletter to what you want to hear and it only takes a couple of minutes. By the way, thanks for the ones we have received.

NAWCAD Lakehurst has seen a significant drop off in CASREPs over the past three months. In some cases, we haven't received the messages because we were not listed for an info copy. Please make sure to include us:

**"NAVAIRWARCENACDIV
LAKEHURST NJ // 48J200"**

as an info addressee on ALL CASREPs, updates, and CASCORS. We usually provide technical support to SPCC concerning CASREPs and if we have a copy in hand, you'll get your answer quicker.

Dave's article on RSD gages (page 1) is a good example of why we are going to bring all Air Capable Ships (ACS) inline with the ALRE discrepancy reporting program used by the carriers.

The reference manual for QDRs is OPNAVINST 4790.15B. NAVAIR and NAWCAD Lakehurst are currently working on a manual for all ACS to use. The ASIR field offices now have a copy of the 4790.15B and would be glad to assist you if you ask.

Listed below are the seven reports to be used and the key is to choose the right one:

1. CAT I ALRE QDR: New or newly reworked component whose failure affects safety/death.
2. CAT II ALRE QDR: New or newly reworked component, but does not affect safety or death, use Form

SF-368 NSN 7540-00-133-5541.

3. CAT I ALRE TDPR: Publication deficiency which may cause injury/death or equipment damage.
 4. CAT II ALRE TDPR: Technical errors, wrong sequence of adjustments or p/n errors. Use form OPNAV 4790/66 NSN 0107-LF-002-4400.
 5. ALRE EI: Safety is involved. Additional tech. or engineering info is required. System readiness is impaired.
 6. ALRE HMR: Part malfunctions or failures that may cause injury/death or damage to/loss of aircraft, equipment or facilities.
 7. ALRE HMR/EI: Combination of ALRE HMR and ALRE EI criteria, safety concerns should be emphasized when submitting this report.
- Refer to 4790.15 to report via message for all but 2. and 4. above. I'll provide more info in future newsletters.

Last but not least, *congrats* to all of the First Classes who were picked up for Chief.

*Submitted by:
EN1 (SW) Fales*

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

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TOUCH & GO'S

TRACK PLATE LIFTING TOOL:

Are you tired of busting your knuckles and your back dragging track plates around? In case you haven't heard, you can order something from supply to make your life easier. (No, its not a forklift.)

San Diego ASIRs submitted a sketch of a "T" handled, track plate lifting tool that someone had made out of scrap. We took the basic concept, made a drawing for it, built two in the shop, and tested them out at our RAST site. We figured if we (the engineers) found them easy to use, you would too.

TRACK PLATE LIFTING TOOL

Part No.: 524275-1

Stock No.: 5120-01-378-8867

Unit Cost: \$50.00

The NAWC part number is 524275-1 and they have been set up in the supply system with a stock number (5120-01-378-8867), for you to order. If you would like a copy of the drawing, either talk to your local ASIR or give us a call.

TGW PUMP BEARING FAILURE:

Recently, several TGW pumps have had bearing failures. The bearings, P/N XLS-2 and RXLS-2, seized up because the same shaft seal used on traverse pumps (with no stub shaft) was mistakenly installed during overhaul thus keeping the fluid out of the stub shaft assembly case.

In order to prevent this kind of failure, check that fluid is in the stub shaft case by cracking the case plug P/N 325B248 (#26, IPB figure no. 43). Fluid should seep out, then tighten up the plug. If fluid does not seep out, it indicates the seal is installed and the stub shaft case should be filled with MIL-H-17672. Check the fluid level periodically. Changeout the TGW pump during the next availability.

Submitted by: Dave Hoffman

THINGAMABOBS

(Continued from page 1)

clerk buys more thingamabobs, The Captain keeps cutting the budget, and the mechanics eat more cold dinners.

Sounds like a tall sea tale, right? Listen to this one. Back in 1993, about 200 pressure gages made by Perma-cal were rejected by a non-Navy source for unknown reasons, but you can guess why. Somehow all of these rejected gages were transferred to the RSD gage NSN. We didn't become aware of this switch until over a year later while conducting our Engineering Investigation on the RSD failures aboard the USS CARR (IS15-EI-RAST-403-4-R; NAWCADLKE msg 280810Z JUL 94).

We found that these gages had a tendency to leak around a brazed joint. The stainless steel was being sensitized by the brazing process, making it no longer stainless in that area.

We revised the gage drawing to impose ASTM brazing standards and stringent QA. The item manager was informed of the quality problems with the Perma-cal gages under that NSN. The item manager claimed that only gages from Gar-Kenyon (the original manufacturer) had ever been purchased for that NSN. He also said that he had not received a QDR, ROD, or any other complaint about this item to date. He put us off by saying he would run an investigation on the origin of these gages, but you could tell his heart wasn't into it. From his vantage point, he didn't have a problem.

After four months of nagging, we found out these gages were rejected by the Army, and that there was only one left on the shelf. It was purged and new gages should be good, but only the users can tell us that. We've talked to some user's who claimed that as many as 75 % of these gages leaked right out of the box. 75 % of 200 at about \$500.00 each is \$75,000.00 literally thrown into the sea. And we believe this is just the tip of the iceberg.

The good news (and the moral of the story) is that you can break the downward spiral if you **report bad thingamabobs when you get them**. Item managers that are inundated with the number of QDRs that these bad gages would have generated would have no choice but to quickly remedy the problem. For details on QDRs, read EN1 Fales' article on page 2.

Submitted by:

Dave Leung

RAST TECHs, WHAT'S YOUR PROBLEM?!

With shrinking budgets and a reduced workforce, it has never been more important for us to direct our efforts effectively. Since we can't work on all the problems at once, prioritization of our actions is essential to keeping RAST systems up and running. Rather than have us (the In-Service Engineering group) work on the problems *we think you have* - we need to be focusing our limited resources on the problems *you know you have*.

With that in mind, we would like to take a quick, informal survey to see what you consider to be the most nagging problems you find when maintaining your RAST. I know the last thing you need is to fill out another form, but please take a few minutes to tell us where you would like to see improvements made.

Consider problems with corrosion, frequent component failure or adjustment, difficult maintenance, unclear OMI or MRC procedures, lack of tools, and/or parts availability (be specific).

List your 3 most common areas of aggravation (in ranked order) on the enclosed feedback form and send it in to us. A David Letterman Top 10 List of RAST Pet Peeves if you will (except we only need the top 3).

We'll report the Top 10 back to you in the next newsletter. We will also give you an idea of what we can do or have done about each problem.

Of course, the assumption has been made here that your RAST system occasionally gives you headaches. If this is not the case, *please* tell us your secret.

Submitted by:
Dave Hoffman

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