

# Non-Destructive Testing Newsletter

# Second Edition September 2001

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#### From the Chair...

Those of you who have been involved with NADCAP for any length of time know, and newcomers to the program will soon learn, that this is a very dynamic undertaking. There is constant growth; new mandates from Primes, new auditors, new Task Group participants; and there is change as we strive to make the process better. This issue of the Newsletter highlights both the growth and the continued efforts to improve.

Over the coming months you will be receiving more information focusing on the Task Group's efforts to drive improvement through increased focus on true Root Cause Analysis, real Corrective Actions and Actions Taken to Prevent Recurrence. As we all struggle to find ways to handle an ever-increasing workload, more and more we find Corrective Actions that address specific findings instead of delving into the real reason for the problem. When a deficiency is noted during an audit, this finding should be viewed as a symptom. And the first step should be to determine the depth of the problem, with follow-on actions designed appropriately.

For example, if it is found that a particular customer requirement has been missed either procedurally or in practice, the process for reviewing customer requirements, and

It is important to understand that if this scenario were to take place, and another instance were identified in another procedure or practice at the next audit, this would be considered non-sustaining corrective action. The corrective action either did not address the true root cause, the corrective action was not implemented, or it was inadequate. And a non-sustaining corrective action could impact a supplier's eligibility for Extended Frequency status.

Again, there will be more on this topic in the coming months as we work to make the NADCAP program as effective as we can. I hope to see you in Pittsburgh at the October meeting.

(philip.keown@ae.ge.com)

#### **Prime Additions**

In addition to the Rolls-Royce PLC mandate that is moving the NADCAP program into the UK and other parts of Europe, two additional domestic primes have joined the fold.

- 1) Lockheed Martin Corporation is now a full subscriber to NADCAP. This includes Ft. Worth, Texas and Marietta, Georgia. They accept NADCAP accreditation for all NADCAP programs.
- 2) Northrop Grumman has announced their mandate of NDT, Heat Treating, Materials Testing Labs, Chemical Processing, Coatings and Welding. They are mandating that their suppliers be accredited by 2003 (two-year time-frame).

We welcome their participation in the program and look forward to working with their representatives in the Task Group.

## New NDT Staff Engineer

In response to the latest growth spurt in our program, PRI has hired an additional Staff Engineer to support the NDT Task Group. Keith Purnell, an Associate Staff Engineer with

SAE since 1998, will be joining Mark Aubele in the administration of our Task Group. In addition to his SAE experience, Keith brings with him a wealth of NDT experience that can only enhance our program. He has level III qualifications in the NADCAP NDT methods, supervisory and administrative experience, so his addition is certainly welcome. I hope those of you attending the October meeting will stop by and join us in welcoming Keith to our NDT family.

#### New Auditors

As we welcome new Prime participants, and a new Staff Engineer, the growth of the NADCAP NDT workload requires additional auditor support. In response to this need we have added two new auditors centering on the Rolls-Royce suppliers in the UK.

Peter Stephens & Graham Chapman are our latest additions from across the pond.

Peter possesses a BS in Metallurgy and a Certificate of Education (F. E.). He has 16 years experience in Quality Control and NDT & possesses Level III's in PT, MT, RT, UT, VT & ET.

Graham also has a BS in Metallurgy and a Certificate of Education (F. E.). He has 28 years experience in NDT and has Level III's in PT, MT, RT, UT & ET.

#### Technical Issues

During the July 01 NDT Task Group meeting, several issues of a technical nature were discussed, a couple will be elaborated on here. The first concerns the administering of General and Specific exams as "closed book exams". What does that term mean? If we go to NAS 410, paragraph 3.4, we read in part, " An examination administered without access to reference material except that provided with or in the examination", and "...as determined by the responsible Level III". There is considerable variation in the NDT aerospace community about what this means. The basic rule of thumb from the NDT Task Group will be: any and all material may be supplied by the Level III with the exam with one major

consideration. Again we will refer to paragraph 3.4, "Questions utilizing such material shall require an understanding of the information contained therein rather than mere location". If material is provided, be certain that the questions pertaining to that information must be interpretive in nature, i.e., they must require the technician to evaluate and make a decision. No look up questions using such data will be permitted. The second issue involves procedures stating compliance to a specification or standard, then not meeting that standard. Caution needs to be exercised here, if a statement is made that such and such a procedure meets or exceeds the requirements of the said standard, then it must meet that standard. Process control requirements are a major item often overlooked when a procedure is revised to meet a new or revised standard. Many other issues were discussed that will not be mentioned here. What is the best way to find out those issues? Come to the NADCAP NDT Meetings.

### From the UT Task Group Rep

Question: What is the most common type of finding during the UT audit? Answer: Lack of documentation.

The Top 4 findings in this method all deal with documenting how the shop / laboratory meets MIL-STD-2154 requirements, whether its transducer documentation requirements. instrument calibration requirements, missing information in scan plans / inspection procedures, or the inspection records which document the inspection results. A review of these documents will decrease the number of findings for most companies and is where most will be able to help themselves as they prepare for the NADCAP audit. Remember to verify the contractual requirements are met, document those requirements and do what you document. (dave.dierking@lmco.com)

#### Reminder

Future issues of the Newsletter will be distributed electronically, so it is important, if you haven't already, that you contact Mark Aubele with your e-mail address.

## **Next Meeting**

The next NADCAP meeting is scheduled for Pittsburgh, PA, October 22-24, 2001. For more information please reference the NADCAP homepage at http://www.pri.sae.org/NADCAP

This website also contains information additional information concerning NADCAP and details of future meetings and meeting sites.