THE SUPPLIER

A SUPPLIER OF NEWS AND INFORMATION

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THE IN'S AND OUT'S

By Scott Bussell, CO

During our audits it is important to realize that companies now will do whatever it takes to get listed in the Register. They want this listing for various reasons but most want it. It is because of this, that I have included in my in-brief a discussion on the up and down side of being listed and then deleted from the Register.

The up side of course is a benefit for the carriers and the vendor that reduces multiple audits. The vendor can usually envision increased marketability by being listed in the Register. The down side is being deleted, which can occur for a variety of reasons. We have discussed the reasons for deleting vendors numerous times (Ref. P&P 3-2.0 Pg 2) and they include safety of flight, intent to defraud, poor performance and/or reliability. Also, considered a viable reason to delete a vendor would be failure to follow through on corrective actions from previous C.A.S.E. audits (Ref 4-2-0 Pg 1). This is why we added the requirement for a vendor to maintain a file of audits and corrective actions for three years. We also expect a vendor to continue to meet the standard he was audited to, which is one reason we give him a copy. If the next auditor finds major system faults in multiple areas, the vendor is not serious about maintaining his systems between audits.

In the past, vendors have been deleted for any of the reasons listed and this always raises the question of whether the deletion is justified or not. In each case I have been involved, the deletion was justified and also served notice on the vendor that we will not condone a lackadaisical attitude towards quality. By relaying this information during the in-brief, the vendor is informed of what our expectations are, and the consequences if he chooses not to try and meet them. He should also be made aware of what he can expect when the deletion notice is distributed. More than likely the phone is going to start ringing and his calendar is going to be full of audits from most of his customers. We don't take lightly the listing of a vendor in the Register and neither should the vendor.

REPAIR STATION SELF AUDIT

By Bill O'Brien, FAA

Ed. note: The following article was written by Bill O'Brien from the FAA in Washington D.C. The article was written as a magazine article and deals with how a repair station can conduct a self audit of its facility. It may help auditors to conduct a better audit and could also be given to repair stations to conduct internal surveillance.

Every year 4800 plus repair stations are inspected at least once by the local Flight Standards District Office (FSDO). Some repair stations are inspected more often by the local FSDO because of their size, complexity, or perhaps a shaky level of past performance.

I would like to offer you a system to lower your anxiety level about FAA inspections, now and in the future. The system is a self-audit test that should take about a couple hours to complete. The test is composed of questions that are similar to the ones that are asked every day by the FAA Inspectors performing repair station inspections world-wide.

Our self audit is broken down into six areas of concern: The Management team, certificate and ratings, your inspection manual, personnel, record keeping, and your facility.

Questions for your management team:

1. Who has overall responsibility for the Repair Station?
2. Does that person know his/her duties and responsibilities?
3. Is that person qualified? Can you prove it?
4. Does that person know he/she is qualified? Did he/she sign anything accepting that responsibility?
5. Can that person tell me how the repair station inspection system is run?

Of the first five questions #5 is the most important. If the manager cannot describe the repair station inspection system or worse yet

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DESCRIPTION OF THE WORK PERFORMED

By Don Godfrey, FAA FSDO, Denver

As a reminder, please be aware that in the functional use of a "serviceable part" tag that the information recorded therein must meet the requirements of 14CFR 43.9 by way of 14CFR 145.57. There is no regulatory requirement addressing a "tag" in 14CFR 145. Also when the terminology "maintenance release" is utilized this indicates a major repair has been accomplished, reference 14CFR 43, Appendix B(b)(3).

FAR 43.9 states that an entry must be made in the maintenance record containing a description of the work performed or reference to data acceptable to the Administrator. The statement "reference to data acceptable to the Administrator" is not intended to allow repair stations to record maintenance by stating "details on file under Work Order XYZ". If the "details on file" constitute a description of the work performed then these details must be provided to the owner/operator. A "description of the work performed" should be information of enough scope and detail to which a person who did not do the work could read and know what work was performed and how it was accomplished. The owner/operator of an aircraft has the responsibility to have this record by way of the regulations (i.e. 91, 121, 135).

COMPLIANCE WITH IMPLIED F.A.R. REQUIREMENTS

By Tony Halsema, FM

How can you require compliance with a regulation that does not directly apply to the activity being audited? Or better yet, how can you require something that's not even discussed in the FAR's? It can be difficult, but perhaps I have some ideas that will help.

We are questioned or challenged about this from time to time by vendors, but more often by in-house personnel. Some people are uncomfortable "requiring " compliance with

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SELF AUDIT cont'd.

the system he describes is different than what is in his manual, then I have some serious doubts as to the accuracy of his answers to questions #1 through #4. This is not an auspicious beginning.

Questions on your Certificate and Ratings:

1. What ratings do you have? Are you doing work other than what you are rated for?
2. Where are your FAA Repair Station Certificate and Operations Specifications displayed?
3. Do you still have all the equipment that you had when you were certified? Is it serviceable?
4. Who is responsible for work that is sub-contracted out? Are sub-contractors identified? Where? Are they repair stations?

It is a mistake to think that a certificate hanging in a lobby with a list of ratings is for display purposes only. It also lists the repair station's privileges and limitations. The certificate is very similar to the certificate that an A&P holds.

To abuse the ratings and sign off more than what the repair station was inspected and certified for is a breach of contract between the repair station and the FAA. It would be the same as an A&P signing off an Annual Inspection. The Federal government does not take a warm and fuzzy attitude towards either kind of performance from the folks they certificate.

Questions about your Inspection Procedures Manual:

1. Who has copies of the Inspection Procedures Manual?
2. Is it accessible to Inspection and Maintenance personnel?
3. Who is responsible to revise the manual? How is it done?
4. Is the latest revision in all the manuals including the one sent to the FAA?
5. Does the inspection procedures manual accurately reflect how the repair station operates? This includes referencing the latest specification or procedures presently being used on the floor.

Correct answers to these five questions are vital because the inspection procedures manual is your repair station's bible. It is your show and tell book that should describe who your are, what you do, how you do it. It should be written in such a way anyone after reading the manual should have a clear understanding on how you operate.

If you cannot answer the five Inspection procedures manual questions with a high degree of confidence, then more doubts are raised. At this point I would have to question you on just how are you complying with FAA regulations when you have no controls or safe guards built into your organization to ensure safety?

To be honest, I would subjectively appraise your repair station as something less than a professional run organization because I have found that your daily operational inspection and repairs procedures are based on the old 1943 WAG method.

Personnel Questions:

1. How many repair station personnel do you have? Do you have a list of who they are and what they can do?
2. Do you have enough people for the amount of work performed?
3. Are they trained both initially and on a recurrent basis?
4. How do you record the kind and amount of employee training? Please show me a sample of an employee training record.
5. (Picking an employee at random) How does the repair station inspection system work?
6. How many FAA certified repairman do you have? Who is authorized to sign off work?

If you have significantly less employees now than when you were certified and you still perform the same amount of work? If so, why? Are your remaining employees burdened with many job functions to make up for missing personnel? To find the answers, I would first check your overtime records. Has there been a constant, long term requirement to pay overtime? If so, then this is a good indication that you do not have enough people to do the work.

Next, I would look at your warranty or rework records and if you rework is above 5% this is a good indicator that your people are improperly trained, or fatigued or both. These two causes are perhaps the main reasons why you have a large percentage of work to do over.

Question #5 is the same question I asked management earlier. If I receive the wrong answer or just a shrug from the man on the floor, this would really start the alarm bells ringing. If the guy doing the work on the floor has no idea what and how the system is suppose to work, who does?

Questions about your Record Keeping:

1. Are the records used on the floor the same as what is called out in the inspection procedures manual?
2. May I see a record of maintenance that you performed two years ago?
3. Please show me a copy of your maintenance release for a Major Repair or Major Alteration.
4. Who is approved to sign the maintenance release? Where is that information found?
5. How is acceptable data and approved data identified on your maintenance records?
6. Is "total time" reflected on all inspection records, (ref, 43.11)?
7. How are Part 121 and Part 135 maintenance records processed? Where are these procedures found? How are required inspection items handled?
8. How are maintenance records for work performed by subcontractors handled? Where are these procedures found?
9. How are Malfunctions and Defects reports submitted?

Shoddy record keeping is the "silent scream" that will alert me to major organizational problems within the repair station. it tells me that there is little or no communications between your quality control, maintenance department, and parts department.

No communication means no coordination between departments. This alerts me to the fact that no focal point for record responsibility exists in your organization, which in turn is one of the major causes for incomplete, or poor record keeping.

Questions about your Facility:

1. Is your current facility identified in your manual?
2. Is all your required equipment serviceable?
3. Is the shop area properly lighted and heated?
4. Are the maintenance library, AD, and Service Bulletins current?
5. Who is responsible for keeping the library current?
6. Are the subcontractor's libraries current? Can you prove it?
7. Are all tools and special equipment properly calibrated?
8. What procedures in place if a calibrated tool is abused?
9. If so, where can I find this information?
10. Who is responsible for the facility condition?
11. Is the facility large enough to do the work performed?
12. Are conflicting work functions (painting and build-up) segregated?
13. How are life limited parts handled?
14. How do you separate serviceable from unserviceable?
15. Who is responsible for ensuring that all consumables (gaskets, seals, hoses, etc) have not past their cure or drop dead date)?

Your facility is your home away from home. If it is dirty, cramped, and more like a dungeon than a place to work, my first impression is that the work performed here will be less than satisfactory and safety is compromised.

First impressions, mine or your customer, can create powerful feelings, both positive and negative. Let me try to prove my point. For example you go into a doctor's office, you notice that it is dirty, the receptionist is rude or even worse ignores you, there's girly magazines littering the table. The doctor comes out to greet you and you notice that he cut himself shaving and there is blood on his shirt collar. What is your impression of this doctor? Do you think he is professional? Would you give him your business?

Now substitute the word maintenance manager for doctor and grease/dirt for the word blood. Now ask yourself the same three questions. How do your people and facility stand up under the first impression test?

The self-audit test is over for now. I suspect that you have found a few items that need attention, like tightening up the record keeping system, a little general hangar housekeeping, some training required for employees and management, or maybe it got you thinking about performing a self audit on a few subcontractors.

Now, I would like to close with an observation and a suggestion.

Observation: Some folks took the self-test in the hopes of finding a loop hole or two to keep the FAA off their back. Some folks will use the self-audit as a crib-sheet to pass the next FAA inspection.

I did not create the self audit test as a yearly thing to do, nor quarterly, nor monthly, or just something to do before "They" are in a visiting mood. My intent was to provide repair station managers and quality control folks with a generic audit system to uncover organizational and technical discrepancies within the repair station year round.

Suggestion: The self-audit test should be done once a week by all department heads. This self-audit should be improved upon and personalized by adding specific areas of concern relative to your facility.

THE C.A.S.E AUDITOR

By Sal Scalone, FF

Our C.A.S.E. organization continues to grow with new member applicants and an unprecedented number of auditor candidates. Obviously this growth and acceptance is proof we are doing many things right. One of the most important factors to our continued success, is the C.A.S.E. auditor. Our ambassador from the airlines to those businesses that support us. It is the auditor that makes the system work.

C.A.S.E. has been fortunate in attracting some of the finest airline people in our industry. They go to the vendors with years of training and experience, armed with industry accepted standards, searching for compliance. Compliance that translates to safety for our passengers and crews.

The auditor forms the basis of a relationship that increases understanding and builds confidence. Purposely avoiding matters of competition, pricing or violations and focusing strictly upon a detailed understanding of compliance to our standards. They work vigorously to identify not just symptoms but root problems and work closely with vendor management to correct the discrepancies or create policy to aid compliance. Often vendors view the auditors as unpaid consultants.

Those businesses which become listed in the C.A.S.E. Register on their first audit should be proud. Those businesses which become listed after a few audits have obviously taken the auditors comments seriously and have become strengthened. And those vendors that continually fail the audits should reexamine their place in our industry.

Each auditor who has identified a problem, helped correct a discrepancy, suggested an alternative, offered advice, worked directly or indirectly with management to make a system better, has helped make all our skies a little safer and a lot brighter.

AIRFRAME CLASS RATED REPAIR STATION AUDITS

By Scott Bussell, CO

In the past, we have discussed audits of the class rated airframe repair stations that perform heavy maintenance on the entire aircraft. The debate centered on whether we should be using the 1-A standard to audit these types of facilities. Some felt the standard did not go far enough and a task team was formed to develop a new standard for these facilities. The task team looked at the problem and came to the conclusion that most carriers would probably conduct their own audit based on the aircraft and type of maintenance check the vendor was to perform. There was also discussion relative to deleting the process codes for class rated repair stations, but some carriers objected to this. The main problem is that if a carrier looks at one of these facilities for say a 727 C-Check that is no assurance the repair station can do a DC-9 C-Check. The conclusion that has been reached is really one of no action. It has been concluded that if a classified repair station is audited to the 1-A Standard and subsequently listed in the C.A.S.E. Register, it is a listing that indicates his quality system meets the standard. This listing does not mean he can perform any kind of check on any type of aircraft. Each carrier who chooses to utilize this listing to meet the requirements of 121.373, must still ascertain that the repair station can conduct the type of check he needs on the aircraft he operates. How you do this is up to you, but you should be assured he has the quality system in place to support this effort.

IMPLIED REQUIREMENTS cont'd.

something not specifically backed up by an FAR. The operative words in this situation are "Implied Requirement". I've put together some ideas on how such a "requirement" can be justified. I think the "logic trails" below will support this. These particular "logic trails" discuss stores' activities, but the concept can apply almost anywhere.

1. In order for the company to comply with specific FAR requirements that deal with aircraft maintenance, certain things must take place in supporting groups that are not directly affected by the regulation. Common sense, good business practices, and the company's philosophy also require that certain things must happen.

2. Parts installed on the aircraft must be in a legal and airworthy state. This implies that a part received into stores must also be in a legal and airworthy state. It must remain so until issued unless some "enhancement" action is scheduled between receipt of the part and issue of the part to the mechanic.

This implies a number of requirements:

A. There must be documents received with the part to prove it is legal and airworthy.

B. There must be documents that describe in detail how the part was made legal and airworthy; e.g. a tear down report.

C. Personnel must be capable and knowledgeable of their job functions and any governing regulations. They need to know what is required and must be able to decide whether or not what they have in hand satisfies the requirements. This implies training and recurrent training (formal and/or OJT).

D. There must be a documented system of handling, storage, and issue of parts and materials that assures continued integrity of the part.

E. Consistent performance implies written

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IMPLIED REQUIREMENTS cont'd.

work instructions that are detailed, current, readily available, and in concert with the associated FAR's. It also implies that applicable manuals, drawings, catalogs, regulations and other appropriate technical and administrative data must be current and readily available to the workers. If a viewing device is required, e.g. for microfilm, it must be readily available to the workers and must be in good working order.

3. Company philosophy, OSHA, and good business practices require that the work place be free of safety and health hazards and is an environment conducive to the well being of the worker.

4. Legality and airworthiness of parts and materials, and good business practice, dictates an environment for parts and materials that protects them from contamination, damage, weather, theft, and tampering.

5. Legal and airworthiness requirements also imply periodic review of stored material to verify its continued airworthiness; e.g. shelf life, parts protected from contamination and damage.

6. Proof that appropriate and adequate training was provided requires a record keeping system to prove each element.

7. For an activity to perform well and consistently implies that someone is held responsible for the performance. This responsibility needs to be described in writing, preferably in some kind of operations or procedures manual.

8. Availability of adequate, current work instructions and accountability for complying with these work instructions implies some system for collecting and retaining this data. Rather than loose memos and various scraps of paper, these instructions should be maintained as some kind of procedures or operations manual, or departmental handbook.

9. The maintenance release tag should contain the statement "suggested" in figure 35A of AC 145.3 Granted, an Advisory Circular is not generally an official regulation. However, the statement in 145.3 accurately reflects the requirement stated in FAR 145.2 and is the strongly preferred version. The example in FAR 43, appendix B is more suited to non-air carrier work.

10. Regardless of which example of a release statement is used, both examples specify a signature rather than a stamp, initials, or other symbol. AC 145.3 specifically prohibits anything but a signature. I would say that such a negative specific could be considered a requirement.

There are no doubt other requirements that are based on implied FAR direction. If you have any other good ones that are specific, let me know. I'll collect them and we can use them as reference material and a refresher, should we need one.

REPEAT FINDINGS

D.O.D. Air Carrier Survey Office

We were asked to discuss the most frequent repeat maintenance findings that we see during our on-site surveys. So here goes:

Tool Calibration. Without a doubt, we have more findings in this area than anyplace else. For whatever reason, many companies fail to establish tool and equipment calibration programs. Due dates aren't positively tracked, no stickers on tools, employees use their own uncalibrated tools. Given all the automation we have today, this area should be easy to manage and keep current. We see some carriers that have good in-house programs but fail to check on the calibration efforts of their vendors. Some time back we surveyed a repair station used by readers of this article. We found the following discrepancies: records indicated that several items were overdue calibration, two torque wrenches couldn't be located, no calibration certificate for an altimeter tester, and the calibration records for 13 pieces of test equipment were eventually located in a sealed envelope in an individual's desk.

Spares Management. Here a prime problem is the fact that the individual items or parts are not conditioned tagged. If they are tagged, there was no inspector signature. Frequently, we see serviceable and unserviceable parts commingled. In the case of the repair station previously mentioned, they had automotive parts "mingling" with aircraft parts. Shelf life on expendable sealants or adhesives are sometimes expired--one mechanic told us " If we can get the lid off it's okay."

Training and Training Documentation. In DOD, training and training documentation are an integral part of every function. It, therefore, blows our minds when we see companies with poor training programs. When we find companies without training programs or records, we get comments like "he has an A&P license" or "our supervisors are watching." We visited one location and witnessed a new hire mechanic trying to change a tire. He was using the wrong equipment to start with and, secondly, there wasn't a supervisor around. When we looked at the individual's training record, we noted that the company had not only failed to provide indoctrination training but there was no verification that the individual had an A&P license. Additionally, we eventually discovered that he had no experience on the type equipment the company operated. Many companies also ignore recurrent training which, we believe, is essential for many critical tasks; especially, those that a mechanic may not routinely perform: engine run, taxis, towing, etc. RII is another problem area. Again, some companies provide no initial or recurrent RII instruction. The inspector may be hand picked, but you could never verify the individual's qualifications by looking at his or her training records. There are companies that actually have training programs outlined in their manuals, but there are no due dates, training is accomplished whenever time permits, and no records are maintained.

Internal Audits. A good self-inspection program can save company resources, save customers, and save money. Yet, it is a neglected area. It doesn't take a pilot to figure out that finding your own problems and deficiencies are more effective than letting your customer find the problem for you. But many, many companies do not have an internal audit program.

Manuals/Policy Guidance. The lack of documented policies, specific guidance, instructions and/or work procedures are, from our experience, often the cause of problems in any business and especially in an aircraft maintenance facility. Writing a policy statement that proclaims "we produce quality work" isn't enough. Personnel have to understand how to go about doing quality work. They need clearly documented guidance as to what is expected and the steps required to turn policy into practice. Too often we have seen maintenance organizations functioning without standardized procedures for doing the job. Some companies seek to hide behind the idea that they are so small that written policies and procedures aren't required. We don't believe that to be a valid argument and have recommended against using companies that have not developed and somehow documented standardized maintenance procedures.

Other Frequent Findings. Unkept and unsafe facilities, poor or no receiving inspections, no deicing training, and no verification that the vendor did the job properly.

These are some of the findings that we encounter during our on-site surveys. Call us if you want to discuss any of these issues in more detail.

FUTURE MEETINGS

July 20 & 21 Level III Training - MSP

October - Fall C.A.S.E. Conference - DFW

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