s the maintenance department goes, so goes the squadron.” Sound familiar? If not, ask yourself a couple questions. Is your squadron struggling to keep aircraft up to meet commitments? Are the same old gripes commonplace?

If your maintenance department struggles to keep up with the flight schedule, you’ll have a frustrating day of brief, debrief and schedule changes. If the same gripes repeat themselves, then missions aren’t as effective, you second-guess maintainers, and you lose confidence in your machine.

Maintenance process and execution is the key
to successful squadrons and touches everything in a command. Solid maintenance, without a doubt, is a challenge to keep running smoothly. Whether you've been in maintenance or are headed there, I want to offer some perspectives from the eyes of an old maintenance officer.

The Challenge

As an aviator, you understand challenges. Besides the training hurdles, flying uncooperative beasts through the air, or just stealthily navigating ready rooms and wardrooms, your first maintenance division or branch position may be your biggest challenge, or the easiest. If you've already had a job in maintenance, how effective were you? Did those problems we talked of exist? Why or why not? What did you do to help?

I have seen many good aviators grace the passageways of our ships and squadrons. Most aviators I know are eager, knowledgeable, skillful, and confident. Still others I have known are arrogant, self-centered and cocky—some would argue these are exactly the qualities required in combat-ready, steely-eyed purveyors of death. How will you react when faced with perhaps your first real leadership challenge: managing a maintenance branch, division or department?

After paying some dues and spending some time at an outfit, you may get that coveted maintenance ground job, and it could be one of the most meaningful jobs of your career. You'll be in a leadership role and interact directly with enlisted personnel. Until now, you may only have experienced contracted-maintenance departments in training commands. But when you finally get your new ground job, I'm confident you'll be ready when you bring an "I am ready to do this" attitude. Some young officers may be intimidated by perceived bureaucracies and the mountains of a new type of paperwork, but most will meet the challenge.

The Maintenance Bible

The maintenance "bible" is called the Naval Aviation Maintenance Program, known as NAMP. It is found in CNAF Instruction 4790.2A. NAMP not only identifies all the roles and responsibilities of the personnel within the maintenance department, but it guides all the maintenance programs and processes.

A maintenance department at a typical squadron contains about 80 percent of the command's personnel. In this large group are well-trained mechanics, technicians and artisans. Some may have entered the Navy with an extensive technical background, and may hold FAA and FCC certifications. All have completed technical training courses that are the best in the world. They get taught and live by a creed [see back cover of this issue] that is as important to them as anything else in their lives.

How can you improve maintenance at your command? Start with communication, which is key to maintenance department and squadron success. The surest way to fix a plane is to make sure problems are described well, so always write good gripes. Next, give good debriefs to the maintainers. Here are some examples of bad ways to communicate. These maintenance
actions were submitted by pilots, and the replies are from maintainers.

Problem: Left, inside main tire almost needs replacement.
Solution: Almost replaced left, inside main tire.

Problem: The autopilot doesn’t.
Solution: It does now

Problem: Something loose in cockpit.
Solution: Something tightened in cockpit.

Problem: DME [distance measuring equipment] volume unbelievably loud.
Solution: Volume set to more believable level.

Problem: IFF [identification friend or foe] inoperative.
Solution: IFF always inoperative in off mode.

Problem: Engine No. 3 missing.
Solution: Engine No. 3 found on right wing after brief search.

Problem: Aircraft handles funny.
Solution: Aircraft warned to straighten up, fly right, and be serious!

Problem: Target radar hums.
Solution: Reprogrammed target radar with the lyrics.

While pondering what job to apply for as I entered the Navy, a wise old Army chief warrant officer told me, “Don’t just learn how to play with something, learn how to fix it. If you learn that, you always will know how to play with it.” Although simplistic, his words still hold that golden kernel of truth. Think about his words as you expand beyond NATOPS and into the realm of the Maintenance Instruction Manuals (MIMs), the other bible of the maintainer. MIMs provide step-by-step information and repair guidance to the maintainer; they also may help you write those discrepancies.

Ground Pounders and the Mess

In every squadron, you will find several “older” folks who have instant credibility and respect among the troops. Almost by birthright, these “ground pounders” or LDO and CWOs are professional maintainers who have risen to the officer ranks through the enlisted-maintainer pipeline. They are your technical managers and experts. Maintenance is what they do and what they know. It is their primary vocation, like flying is yours. Seek them out; ask them questions. Although you may not always like the answers, they will give it to you straight.

Chief petty officers often hear the words, “Ask the chief.” They have the experience to be your best advisor in terms of maintenance-department personnel, programs and efforts. Trust in the chief’s mess.

Rely on these maintenance professionals; they are an invaluable source of information on how the maintenance machine works and plays. They will make your life easier. Don’t be afraid to ask the “stupid” questions and learn the maintenance business.

The Strategy

The Naval Safety Center’s recent analysis shows that maintenance-error casual factors are roughly 15 percent of the total factors for class “A” mishaps.

![Human Error Drives Mishaps](image)

When maintenance errors occur, they are often spectacular. Why is this number so low when compared to aircrew error? To put it simply, and in terms of ORM, maintenance has a lot of associated controls. Between the rigors of aircraft-maintenance publications, Naval Aviation Maintenance Program (CNAF 4790) efforts, quality-assurance inspections and many oversight inspections, we have lots of help in keeping ourselves on track.

Now, when I talk to junior officers and department heads on surveys or on culture workshops, I tell them our safety strategy involves leadership being intrusive with their folks. I often get quizzical looks: “Well, how
do we do that? Aren't we already intrusive enough?” Or they say, “That sounds like too much work or too hard to do. Besides, my primary job here is to fly.” Intrusiveness, done with thoughtful intent, helps identify high-risk personnel, and affords an opportunity to mitigate potential mishaps. Why is this important? Look at the following statistics, beyond just aviation.

![How Did Our Sailors and Marines Die?](image)

How can we, or you, specifically, help reverse this trend, and save lives? Be involved. It’s that simple.

**Availability, Accessibility and Involvement**

Over the years, from my young enlisted days, a couple of outstanding naval officers and aviators come to mind as the best maintenance officers I’ve observed. They all share the same qualities: availability, accessibility, and involvement. They always were involved in what we were doing on the aircraft and what was happening in our lives. If we had to stay late to accomplish a major component change to support a critical event, they were there. If we had a problem, they always listened and provided words of wisdom, encouragement or direction. Although sometimes intrusive, they always had a sincere concern and appreciation for the job we were doing. They were a critical part of a team. When we were stumped by an issue, whether it was access to a component, dissecting technical instruction, or troubleshooting trees or wiring diagrams, they listened intently and subtly added a cool, affirming comment. By allowing the techs and mechs to be just that, it helped build respect. That same respect was paid to them, in return, as our leaders. Sometimes it was the little things that went a long way in our eyes.

Once, when we were knee-deep in a fuel transfer gripe on an aircraft, our division officer came in and joined our troubleshooting efforts. Any maintenance person will tell you fuel-related gripes can be some of the most challenging to work on with any platform. As we rolled out schematics and block diagrams, he helped by being involved in the discussion and analysis of the gripe. He tread a fine line by not sounding condescending and dominating the discussions. Instead, he gently coaxed, asked pointed questions, and led us in getting our arms around a very complicated problem. By team building and knowing how to use the strengths of each, we could fix any problem.

Another example occurred during an all-nighter on an FFG. While changing a transmission on a Sea Sprite helicopter, our detachment maintenance officer paid a special visit to the ship’s baker. He managed to arrange a deal to bake cinnamon rolls. When we took a break, he had the baker bring us a tray of freshly made treats. He gave us a pat on the back and a shot in the arm. Those were the best cinnamon rolls I ever have eaten.

I am sure you’ve heard of “management by walking around,” or MBWA. It’s a basic leadership principle that works today. Leaders would come and just talk to us on the days between hops or during the down times. Stories of our wives, children, financial concerns, educational pursuits and dreams, off-duty recreation and leisure activities were all easy topics of conversation with them. They made that impression on us so indelibly that we wanted to be like them, and aspired to be officers as well.

**Trust, Integrity and Leadership**

The tenent of the culture-workshop process states, “Operational excellence exists on a foundation of trust, integrity and leadership, created and sustained through effective communication.” Keep this principle in mind as you tackle the best job in the Navy, that of an aviation-maintenance officer. As you go forward in your ground job, remember these tips:

- Maintain a visible presence.
- Set a personal example.
- Get out the word: Communicate.
- Monitor work.
- Monitor morale.
- Represent your Sailors up the chain of command.
- We are all watching and learning.

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