CROSSFEED

Maintenance Officer
LCdr. Bert Ortiz
bert.ortiz@navy.mil

Editorial Coordinator
AMC(AW) Paul Hofstad
paul.hofstad@navy.mil

Support Equipment

Inconsistencies in Material Handling Equipment (MHE) Management

By ASCS(AW) Phil LeCroy

Recent events relating to MHE have highlighted inconsistencies in training and licensing procedures, specifically with forklift operators at intermediate-level activities.

MHE is a broad field that covers everything from forklifts to pallet jacks. This equipment shouldn't be confused with weight-handling equipment, which applies to cranes. In this article, I want to address forklifts.

These MHE actually are a NAVSEA asset and are not support equipment (SE). This fact is part of the problem. The NAMP in Chapter 17 provides extensive policy and procedures for training and licensing SE. It also, unfortunately, provides erroneous information about forklifts.

NAVSUP PUB 538, Appendixes A and B, provides an extensive list on the course track that covers training and licensing of MHE. This manual and the SW023-AH-WHM-010 comprise the definitive guides for the management of general cargo-handling and ammunition-and-explosive-handling licensing. Yet, the NAMP does not list the NAVSUP PUB 538 as an MHE reference.

Chapter 17 of the NAMP does require the maintenance officer to sign the motor-vehicle operator's card (OF-346) for forklift operators. However, that card is a motor-vehicle license and does not apply to forklifts, which are considered industrial fork trucks. The actual licensing form is the MHE operators' license, which is found in NAVSUP 538 (Chapter 4, page 4-6).

The NAMP in Chapter 17 also lists the completion of the SE forklift-operators course (C-600-3283) as a minimum licensing requirement. But is it a requirement in the definitive publications for management and licensing of forklifts (P-538 and SW023)? Does a genuine need for the C-600-3283 exist?

An additional training consideration is found in the Naval Ordnance Safety and Security Activity (N545).

In making a case to use the training and licensing requirements found in the P-538 and SW023 in lieu of a CNET course, it should be stressed that the NAVSEA courses require ashore and afloat activities to tailor the classroom and proficiency demonstration parts of their course to address the types of MHE being used, the types of loads to be handled (general cargo, ammunition, etc.), and the operational conditions where the MHE will be used (e.g. shipboard magazine, trailer at a loading dock, railcar, rough terrain, pier side, cargo aircraft, and others). Training provided in this manner meets the minimum OSHA requirements for MHE operators and is considered the most effective training as it relates to the operator's job. It's doubtful that training can be provided centrally (a classroom) and address the myriad processes, equipment and conditions that operators encounter.

It's very likely that more than a few personnel in the fleet are not trained properly or licensed correctly to operate forklifts. Solving this problem isn't as hard as it might seem. According to the NAVSUP P-538, the CO/OinC shall authorize in

writing those instructors actually responsible for MHE training and licensing. That authorization should address three things:

- Completion of a course providing training to become proficient as an instructor. The Catalog of Navy Training Courses, CIN A-012-0023—Shipboard/Workspace Trainer—meets this requirement. The CO/OinC also may accept other equivalent training or prior instructor experience as meeting this requirement.
- Possession of the appropriate MHE operators' license.
- Identification of the persons with the necessary knowledge, training and experience to train industrial MHE operators and to evaluate their competence.

Afloat maintenance officers should screen their personnel for instructors who meet this criteria, and licensing activities shall use NAVSUP P-538 and SW023-AH-WHM-010 for all their MHE training and licensing requirements.

It's clear that the NAMP must be changed to address the real requirements and procedures mentioned in this article. The bottom line is that MHE are NAVSEA assets and NAVSEA has developed extensive operator and instructor courses and the required training and licensing policies and procedures.

It's time for the fleet to get on board and to get our people correctly trained and licensed to prevent someone from getting hurt.

Senior Chief LeCroy is a maintenance analyst at the Naval Safety Center.

Avionics

Chasing Ghosts

By CWO4 Ron Stebbins

Are you tired of chasing electronic ghosts in your aircraft systems? It has been proven that spurious emissions, inadvertent exposure to transmitted energy, and system incompatibility can cause false indications in electronic components, and it can affect the safety of flight and mission readiness. The Naval Air Systems Command [AIR-4.9.5 Electromagnetic Environmental Effects (E3) Division] has been tracking down these aircraft issues and many other related problems. The sleuths in AIR-4.9.5 have determined that significant savings in operating costs can be garnered from eliminating Electromagnetic Interference (EMI), as well as, significant increases in the safety of flight profiles and mission accomplishment.

The AIR-4.9.5 team was crucial to resolving false chip-light indications in H-60 gearboxes. The transmission chip light had more than 50 documented false indications that required mission aborts, chip-detector inspections, and gearbox changes. After a thorough investigation, the team initiated a RAMEC to filter the chip detector from spurious emissions from other sources that cause a false signal through EMI. The team also investigated FA-18C/D gear-down indications in-flight and AN/ARC-210 UHF radio degradation. The culprit was the Large Area Training Range (LATR) internal package for both systems. LATR interference of a landing-gear proxy switch caused the gear-down indication, while LATR emissions degraded AN/ARC-210 communications. The proxy-switch issue was addressed directly to the fleet for removal and replacement and through the logistics pipeline for spares. However, some old switches could be hiding in pre-ex bins because an occasional report about this problem still comes in. ECP No. N-L-E03001 was initiated to solve the problem with the AN/ARC-210. These examples are just a few items that AIR-4.9.5 is tracking and resolving.

Fleet technicians frequently are the first people to suspect EMI problems. One sign is when they troubleshoot failures that occur in-flight, but the gripes cannot be duplicated on the ground. Thorough debriefs of aircrew are critical in identifying EMI sources. Does the failure only occur when flying around an aircraft carrier? Does the carrier have a new radar or other transmitting system? Does the failure occur only on a training range with aircraft-tracking systems? Does the aircraft have a new system installed that could be a source of EMI? Think about all the possibilities to help identify the root cause of the problem. The Navy

has great tools to help fleet technicians, including the Engineering Investigation, Quality Deficiency Report, Hazard Report, and AIR-4.9.5. For more information on EMI issues for a particular platform, visit www.asemicap.net on the Internet or contact AIR-4.9.5 fleet-support specialists:

Wayne Blanks, Norfolk/East Coast, 757-880-4922, wblanks@sentel.com

Ron Eisenhower, San Diego, 858-735-0327, reisenhower@sentel.com

Gary Cooper, Whidbey Island, 360-257-1252, gary.e.cooper@navy.mil

Dave Willis, New Orleans/Reserves, 504-678-5873, dave.willis@navy.mil

CWO4 Stebbins is head of the avionics/ALSS branch at the Naval Safety Center. He just reported from VF-31, where he served as the AMO.

Ejection Seat Safety

Changing of the Guard

By AMEC(AW/SW/NAC) Ellen Darby

One nice thing about being in the Navy is change. Another is knowing the longest you'll ever have to put up with someone is about three years. The bad thing is that you make good friends and then have to say goodbye. That is the situation with AMEC(AW) Edgar Cintron, who is retiring at the end of June—before this issue hits the street. Ed has been an outstanding chief and an AME, and I have big shoes to fill.

One of the things I know I must do is to share the events I've seen, learned about, or picked up on surveys. For my first story, I want to share a story about an AME who survived an in-hangar ejection, and one I was privileged to serve with. I say privileged, but fortunate might be a better word, especially since he had screwed up severely but lived to tell about it.

He was finishing the arming sequence on an EA-6B pilot's seat and couldn't get the banana links to line up with the sear on the primary firing mechanism. He then pulled out the safety pin from the sear. A lance corporal on the ECMO 1 seat next to him told him he wasn't supposed to do that, but the sergeant. told the younger Marine that he knew what he was doing. The younger Marine, wise beyond his years, left the aircraft, but the sergeant. continued to push the sear aft, so he could attach the banana links.

Anyone who has heard the ratcheting of the primary firing mechanism knows what is about to happen. The sergeant had 1.2 seconds to get out of the aircraft, and the canopy was installed.

The sergeant ducked below the canopy and jumped, getting everything out of the way, except his left leg. It was crushed against the canopy, but he was lucky to get away with a left leg that is an inch shorter than his right one. He had a pronounced "Martin Baker Limp" but lived to tell others about his ordeal and the lesson learned because of his mistake.

Photo by Matthew J. Thomas

I challenge each of you to look at the legacy you will leave at a squadron. Will it be one of always doing maintenance by the book, or will you be one to pencil whip training or records? If you're a true leader, the answer to this question is easy. Raising our junior mechanics and showing them the right way will have a lasting impact on the way they will do business in the future. Don't short-change your people; give them the benefit of your experience, and make sure they develop good, solid habit patterns and follow the book every time.

We read messages all the time at the Naval Safety Center that deal with mishaps around the fleet. Equipment is damaged, and people get hurt almost every day because they simply didn't follow the book. We must do better and must lead our people, making sure they use checklists and other resources. I think it's critical to remember that the most important lessons we learn are the ones we learn after we think we know it all.

Chief Darby is a maintenance analyst at the Naval Safety Center.

Tool Control

Tools! What Tools?

By AEC(AW/SW) Matthew Cooper

It always amazes me that, during safety surveys, we still find several tools not accounted for, either in a tool container, tool room, or on the master inventories.

We have seen myriad discrepancies, ranging from multi-piece tools not being inventoried to tool serial numbers being used as the inventory number. Volume V, Chapter 13 of COMNAVAIRFORINST 4790.2 clearly defines how toolboxes and tool rooms are supposed to be set up and managed.

Multi-piece tools always are a problem. The general rule of thumb is this: If the tool has pieces that can be removed, then it must be accounted for as a multi-piece tool. Tool containers have a standard arrangement, and items in that container should have their own item number from No. 1 through the last tool in the drawer. Don't use the serial number as the item number.

We still find broken tools in toolboxes. Apex tips are notorious for cracking and having small pieces fall off. Is it now a broken or missing tool? If you can't find the piece, the status sounds like a missing tool to me.

Toolboxes must be inventoried at regular intervals, and it will help keep the broken or missing status clear. Checking boxes or pouches for broken tools, removing them from the box, and completing a broken-tool report will make it easier to keep the paperwork straight and prevent the problem of missing tools.

Pay attention to tool control, comply with the NAMP, and find an active tool program manager to prevent shortcomings in your program.

Chief Cooper is a maintenance analyst at the Naval Safety Center.

Maintenance Management

Things That Make You Go "Duh!"

By AMCS(AW/SW) Cheryl Poirier

Sex, sex, sex! Now that I have your undivided attention, hang on because we're going to deviate from the norm in the Crossfeed section. Why? Well, the Navy and Marine Corps has a PMV problem, and I have creative license.

Maintainers always figure out problems, and this one has many of us frustrated. I want to relate the traffic-safety problem to our main business: aircraft maintenance, safety equipment, and lessons learned.

We all know that some aircraft have ejection seats, and they are used to safely eject aircrew. Have you ever known a pilot who didn't strap in? Some might be thinking, "Duh, Senior, that would be stupid!" Well we just lost an E-1 the other night because he ran off the road and was ejected from his vehicle. My point? Being ejected from an unrecoverable aircraft…good. Being ejected from an automobile…bad.

Traveling around the country, I see Sailors and Marines driving down the road without seatbelts. Newton's first law of motion states, "Every object in a state of uniform motion tends to remain in that state of motion, unless an external force is applied to it." Folks, your car is not equipped with an ejection seat to get you out a nanosecond before a crash.

Following that first law and traveling 65 mph without a seatbelt, the car will stop when an external force is applied to it. However, your body will keep going until something brings it to a perma-

nent state of rest. Unfortunately, that item tends to be a windshield, tree, ground, or any other object.

Research has shown that lap and shoulder safety belts reduce the risk of fatal injuries 45 percent to front-seat occupants. That NHTSA stat from January 2006 also says safety belts reduce moderate-to-critical injuries 50 percent. As Buffy the Vampire Slayer would say, "Things that make you go 'Duh!'"

Don't wear your seatbelt for me or because it's a requirement, wear it for:

- The motorist who can't bear to live because he or she ran over your body after it was ejected.
- Passing motorists who can't sleep at night because they witnessed your death in their arms.
- Your mother, father, sister, brother, shipmate, or other loved one whom you just talked with, kissed, hugged, e-mailed, or greeted and thought you'd see again. Their lives now are devastated.

No doubt you believe you're the safest driver in the world, that crashes happen to the other person, and you never will be in an accident. That statement might be true, but remember, a lot of other idiots are out there and ready to ruin your day. Do your family and friends a favor, wear a seatbelt, be safe, and drive safe.

Senior Chief Poirier is a maintenance analyst at the Naval Safety Center. She recently transferred to VAW-126.

Class C Mishap Summary

By AMC(AW) Paul Hofstad

From Jan. 01, 2006 to Mar. 31, 2006, the Navy and Marine Corps had 36 Class C mishaps, involving 33 aircraft. The damage total was $1,803,743.

Every mishap from this period still is under investigation, so no specific reports can be referenced at this time, but I will tell you that a majority of the mishaps involved the movement of aircraft. Those mishaps involved aircraft moving under the control of aircrew—taxiing—and those being towed. In both cases, the damage was significant. The sad part is that we continue to see Class C mishaps, like these, all the time. In many cases, the only injury suffered is to a person's pride or backside. However, we still pay a hefty price whenever an aircraft ground mishap occurs.

Composite materials are adding to the high price tags, especially when a stabilizer or an aircraft wing accidentally is towed into a building, NAV pole, hangar-bay door, or another aircraft. The equipment always loses in events like this. The other losers are the commands involved because they have to forfeit OPTAR dollars to fix damaged components. I-level commands also feel the pain, too, because they now have their composite technicians working on damage that was preventable.

The big loser is the Navy and Marine Corps because we lose readiness when a valuable asset is non-mission capable. The aircraft or equipment is unavailable while the damage is repaired. Those assets are an integral part of the Global War on Terror and can't be used until repaired.

An example of the damage from a bad move

Accidents will continue to happen, but we need to stop using the term "accidents" for events and mishaps that are preventable. No one goes to work in the morning thinking, "Today, I'll tow an aircraft into the side of a hangar." It does take a team effort, though, to prevent those types of events from happening. If you're a director on an aircraft move, be assertive and make sure each member of the team is doing his or her job correctly. In other words, take ownership of the process and help reduce mishaps.

Chief Hofstad is a maintenance analyst at the Naval Safety Center.