

**Reducing Mishaps - Saving Lives - Improving Readiness**

THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

# approach

[www.safetycenter.navy.mil](http://www.safetycenter.navy.mil) • January-February 2005



# The Naval Safety Center's Aviation Magazine

January-February 2005, Volume 51 No. 1

**RADM Dick Brooks** Commander, Naval Safety Center  
**Col. Alan Lewis, USMC** Deputy Commander  
**John Mahoney** Head, Communications and Marketing  
Naval Safety Center (757) 444-3520 (DSN 564) Dial the following  
extensions any time during the greeting

**Publications Fax** (757) 444-6791

## Approach Staff

**Jack Stewart** Editor  
jack.stewart@navy.mil Ext. 7257  
**Allan Amen** Graphics, Design & Layout  
allan.amen@navy.mil Ext. 7248  
**Ginger Rives** Distribution (Magazines and Posters)  
virginia.rives@navy.mil Ext. 7256  
**Col. Alan Lewis, USMC** Aviation Safety Programs  
alan.lewis@navy.mil Ext. 7225  
**Cdr. Deke Forbes** Aircraft Operations Division  
donald.forbes@navy.mil Ext. 7203  
**Cdr. Chuck Huff** Aircraft Mishap Investigation Division  
Charles.E.Huff@navy.mil Ext. 7236  
**Capt. Nicholas Webster** Aeromedical Division  
nicholas.webster@navy.mil Ext. 7228

## Analysts

**Cdr. Deke Forbes** NATOPS/WESS  
donald.forbes@navy.mil Ext. 7203  
**Cdr. Mike Scavone** Carrier Branch Head, EA-6B, S-3, T-45, F-14  
michael.scavone@navy.mil Ext. 7272  
**Cdr. "Stel" Barrickman** E-2, C-2  
darryl.barrickman@navy.mil Ext. 7212  
**Maj. "Spool" McCann, USMC** AV-8B, ARSAG, NVD  
david.b.mccann@navy.mil Ext. 7216  
**LCdr. "Molly" Bates** FA-18  
lyndsi.bates@navy.mil Ext. 7217  
**LCdr. Bruce Bicknell** F-16, F-5, T-38, F-4, T-2, UAV  
bruce.bicknell@navy.mil Ext. 7274  
**Cdr. Jack Thoma** Shore-Based Branch Head  
John.Thoma@navy.mil Ext. 7277  
**Cdr. "Buc" Owens** P-3, EP-3, C-130  
donald.owens@navy.mil Ext. 7210  
**Cdr. Bob Lucas** H-2, H-3, H-60  
robert.lucas@navy.mil Ext. 7207  
**LtCol. Jon MacCartney** CH-46E, V-22, USMC CH-53  
jon.maccartney@navy.mil Ext. 7281  
**Capt. "Fancy" Shea, USMC** AH-1 UH-1N, UH-1, H-57, NVG  
edward.shea@navy.mil Ext. 7266  
**Lt. Scott Harvey** USN H-46D  
scott.harvey@navy.mil Ext. 7208  
**LCdr. Frederick B. Hoo** Facilities Branch, Fuels  
frederick.hoo@navy.mil Ext. 7281  
**Lt. Michael Ellingson** C-12, T-6 (JPATS), T-34, T-39,  
T-44, Flying Club, USN H-53E  
michael.ellingson@navy.mil Ext. 7281  
**ACCS (AW/SW) Leslee McPherson** ATC  
leslee.mcpherson@navy.mil Ext. 7282  
**ABEC (AW) Mark Bertolino** ALRE/Air Terminal  
mark.bertolino@navy.mil Ext. 7279  
**ABE3 Samuel Phillips** ALRE/Air Terminal  
Samuel.d.phillips@navy.mil Ext. 7276

Mishaps waste our time and resources. They take our Sailors, Marines and civilian employees away from their units and workplaces and put them in hospitals, wheelchairs and coffins. Mishaps ruin equipment and weapons. They diminish our readiness. This magazine's goal is to help make sure that personnel can devote their time and energy to the mission, and that any losses are due to enemy action, not to our own errors, shortcuts or failure to manage risk. We believe there is only one way to do any task: the way that follows the rules and takes precautions against hazards. Combat is hazardous enough; the time to learn to do a job right is before combat starts.

*Approach* (ISSN 1094-0405) is published bimonthly by Commander, Naval Safety Center, and is an authorized publication for members of the Department of Defense. Contents are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, or the U.S. Navy. Photos and artwork are representative and do not necessarily show the people or equipment discussed. We reserve the right to edit all manuscripts. Reference to commercial products does not imply Navy endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author. *Approach* is available for sale by the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Telephone credit card orders can be made 8 a.m. to 4 p.m. Eastern time at (202) 512-1800. Periodicals postage paid at Norfolk, Va., and additional mailing offices.

Postmaster: Send address changes to *Approach*, Code 73A, Naval Safety Center, 375 A Street Norfolk, VA 23511-4399

Send articles and letters to the address above, or via e-mail to the editor, jack.stewart@navy.mil.

# Features

## 4 You Smell That?

By Ltjg. Mike Ferrara

This Viking reeks of smoke.

## 6 An Ounce of Prevention

By Lt. Scott Myers

When you ride a motorcycle, wearing PPE is a matter of survival.

## 8 Rushing to a Midair

By LCdr. Chris Bergen

Prowler crew visits the "Iron Maiden." So, what's the rush?

## 10 Who's "That Guy"

By SSgt. Edw. S. Heyward, USMC

All the other people are the bad drivers—really.

## 18 What's That Noise

By Cdr. Karl Thomas

A Hawkeye crew learns that if something doesn't seem right, it probably isn't.

## 22 Rubbin's Racing

By Lt. James McKenna

We're talking Tomcats here, not NASCAR.

## 24 NORDO in the Rhino

By Lt. Sara A. Stries

Know the communication procedures before you go NORDO.

## 27 Ride of a Lifetime

By Cpl. Daron Aukerman, USMC

How did the crew door become a safety issue?

## 28 Just Another Tanker Rendezvous

By LCdr. Will Powers

A Hornet pilot tries to "hack it" and gains a better appreciation for following the "rules."

## 30 Missiles Fly at 30 Knots?

By Lt. Ryan Carron

Helos fly better without 5,500-pound monsters hanging from them.

## 20 **Bad Call on Airspeed**

By Capt. C. T. Bignell, USMC

The uneventful trip home became a lesson in fuel management.

## 32 **Who's Seen the T-handle?**

By Lt. Mike Meeks

You just know the word "embarrassing" will be in this article.

## 33 **Best Practice**

Information for continual improvement

## *January-February Thanks*

Thanks for helping with this issue...

Capt. John Kirby, USMC, HMH-363

Cdr. Andy Docherty, VT-6

Capt. Paul Spangenberg, VT-6

LCdr. Xavier Delatorre, HSL-43

Ltjg. Clint Miller, VS-31

LCdr. Kevin Sandlin, VF-213

LCdr. Bob Adair, VR-54

LCdr. Markus Gudmundsson, VFA-102

Capt. Robert Davis, HMM-261

LCdr. Joe Gadwill, VAQ-139

LTjg. Chris Moore, VAW-117

LCdr. Bruce Bicknell, NSC

Discover *Approach* online at:

[www.safetycenter.navy.mil/media/approach/default.htm](http://www.safetycenter.navy.mil/media/approach/default.htm)

On the cover: A Marine CH-53E from HMH-769, based at Edwards AFB. Photo taken while operating in Afghanistan.

# Departments

2 **Admiral's Corner**  
**Mishaps and Malpractice**

3 **Work Zone**  
**BASH Update**

10 **ORM Corner: Not Quite the Massage at the MGM Grand**

By LCdr. Drew Krasny

A HAC and his crew learn to keep their cool in the heat.

14 **CRM: Hauling Trash**

By AD2 Terry Allegood

At some point you have to, "Take a deep breath, step back, and look at the big picture."

17 **Bravo Zulu**

BC **Ready Room Gouge**



# Admiral's Corner

From Commander, Naval Safety Center



## Mishaps and Malpractice

Last year an experienced FA-18 pilot operated his section in complete violation of established procedures on a low-level route below the route structure. The mishap aircraft hit charted powerlines, FODed both engines, and was destroyed. Though the mishap wingman was in section, he didn't communicate his concerns about blatant SOP and OPNAVINST 3710 flight violations.

Also last year, a squadron commanding officer failed to prepare properly for a flight with the known risks of landing on a short runway. Instead, he flew a low-altitude air show for family and spectators before willfully landing with a known anti-skid failure. A subsequent main-brake failure, and not following NATOPS procedures, resulted in his ejection and Class-A damage to the aircraft.

Rarely does an accepted causal factor of any mishap fall outside categories cited in the OPNAVINST 3750. However, these two mishaps clearly fit into a category all its own: disregard for established rules and regulations. This behavior is clearly unacceptable.

A review of last year's mishaps indicates some form of human error remains as a primary cause in Class-A mishaps. We find almost 90 percent of all mishaps can be traced to some sort of human error, especially decision errors. Here are several recent examples:

- Pilot confuses launch-bar switch for the taxi light and lowers launch bar on landing rollout. Launch bar snags arresting gear, and aircraft flips over. Class-A damage to an FA-18.
- An H-53 pilot doesn't land immediately after indications of an engine failure/fire, in violation of NATOPS. Four fatalities.
- A T-45 student aviator fails to execute NATOPS procedure for perceived brake failure. Aircraft swerves, departs runway and is destroyed after flipping over.
- Pilot disengages nosewheel steering (NWS) while clearing a flight-control problem. NWS is not reengaged by

pilot on takeoff roll, and aircraft departs runway because of pilot's inability to control aircraft with only differential braking. Class-A damage to an FA-18.

- Pilot fails to perform NATOPS procedure on landing rollout after anti-skid failure. Aircraft is on bingo profile at an unfamiliar field. The pilot ejects. Class-A damage to an FA-18.

- An FA-18 pilot shuts down the wrong engine while executing NATOPS procedure for a hydraulic failure. Aircraft becomes uncontrollable, and the pilot ejects, resulting in Class-A mishap.

Though each mishap was not the result of willful violations of NATOPS or established SOPs, aircraft, and in some cases, lives were lost. NATOPS is not advisory—it will save aircrew lives and precious assets if followed. It is when we depart from established procedures, either willfully or through neglect that mishaps result. I encourage each ready room to review these mishaps and walk away with the right lessons learned.

When we talk about reducing mishaps, we must focus on what is preventable. Willful aircrew malpractice or violations of procedures are controllable by those of us in Naval Aviation. We know the pressures to complete the mission can create tough situations and challenge our aircrew, but as professionals, we must always strive to do the job correctly and safely. Intrusive leadership, effective training and on-target risk management should be the "mantra" of every CO.

Take advantage of all the resources available to you, whether it's the experience of your shipmates, additional training opportunities, simulators, survey-team visits, or culture workshops. Visit our website; you'll find a wealth of information and material to help make your unit safer.

### HOW ARE WE DOING?

Aviation (Rates = Mishaps Per 100,000 Flight Hours)

Class-A Flight Mishaps (FY05 thru 27 December)

Service	Current Rate	FY04 thru 27 Dec 04	FY05 Goal*	FY02-04 Avg	Fighter/Attack	Helo
USN:	3/1.34	1/0.44	10/0.88	19.7/1.75	2/3.96	1/2.31
USMC:	1/1.48	4/5.78	7/1.94	14.7/3.97	1/3.90	0/0.00

\* Goals based on FY02 baseline.

■ rate above goal.

■ rate below goal.

# WORK ZONE

REDUCING MISHAPS BY 50%



## BASH Bird/Animal Strike Hazard

You're on final approach; you look up, and a cloud of 10,000 shore birds are between you and the runway—obviously a dangerous situation, but was it avoidable? Every time you strap in to fly, there's a possibility you will encounter a bird or animal.

The Naval Safety Center has recorded information regarding wildlife-strike events with naval aircraft since 1979. This data has helped us develop bird detection and deterrent strategies, harassment techniques, and habitat modification to reduce the incidence of wildlife strikes at Navy and Marine Corps airfields around the world.

With our web-based wildlife-strike-reporting process, the number of reported strike events is increasing every year. But, the BASH program involves more than just birds; it includes all types of wildlife, including deer, fox, bats, moose, coyotes, snakes, and even fish. Facilities that now are collecting data on BASH events are realizing just how powerful this data can be in preventing future strike events and educating pilots and airfield personnel. By reducing the number of BASH events, facilities will realize reduced maintenance costs and aircraft downtime. This data also has proven useful to the facilities natural-resources managers in documenting and managing problem areas and species of wildlife around the facility.

To report a wildlife-strike event, go to our Safety Center website at: [www.safetycenter.navy.mil/aviation/operations/bash/](http://www.safetycenter.navy.mil/aviation/operations/bash/). All events, and even near-miss events, are to be reported whether they do damage to the

aircraft or not. Although the number of strike events are increasing every year, we estimate only about 25 percent of them are being reported.

The key to a facility's successful BASH-prevention program is identifying the strike remains and location of the event. By knowing what the problem species are, efforts in harassment and depredation can be targeted. Most facilities have a natural-resources professional on staff. They can help with identifying the remains; save as much of it as possible. Of the 593 strikes reported in 2004 (through Nov.), only 237 had remains collected, and just 141 remains were identified.

For more information on the Navy's BASH program, contact: (All strike remains that cannot be identified locally also should be forwarded to Mr. Klope.)

Matthew W. Klope  
Navy BASH Program Manager  
NAS Whidbey Island  
1115 W. Lexington St, BLDG 108  
Oak Harbor, WA 98278  
(360) 257-1468  
DSN 820-1468  
[matt.klope@navy.mil](mailto:matt.klope@navy.mil)

*Approach* featured the BASH program in a special April 2003 issue. View it online at: [www.safetycenter.navy.mil/media/approach/issues/apr03/](http://www.safetycenter.navy.mil/media/approach/issues/apr03/). 

Do you know the No. 2 most reported bird species causing aircraft strikes on ships at sea? First is the generic "unknown seabird." Let's face it: How many of you can tell the difference between a sooty shearwater and a fulmar? But, No. 2 on the hit list is the barn pigeon—and we all know what that looks like.

Where are these birds coming from? The ship itself. Every time a Navy ship pulls out of port, it not only has taken on supplies but also a new load of pigeons. Since the Safety Center has documented this problem, efforts are underway to include bird surveys throughout the ship before the ship leaves port. If any birds are found on the ship, including pigeons, owls, sparrows, and starlings, they will be removed as a part of the ship's BASH program.

Need BASH training? A BASH training module has been developed through the Navy Civil Engineer Corps Officers School (CECOS). This module is available in cd format. Contact Dr. Rick Montgomery, Environmental Training Technologies, CECOS, (256) 721-6675, e-mail [esupport@tecquest.net](mailto:esupport@tecquest.net). Additional training modules are available from Dr. Montgomery upon request.

### Why BASH programs are important.

	Class-A/B/C events	Total costs
2000 to 2004(through Nov.)	61	\$63,728,073.00

# You Smell That?

By Ltjg. Mike Ferrara

**T**he squadron had been aboard USS *George Washington* (CVN-73) for almost a month, and we were near the end of my first set of work-ups. We were scheduled for a “pinky launch” on a standard S-3B recovery-tanker mission but with the added excitement of a trip to the KC-135. I only had been to the “Iron Maiden” once, so I was apprehensive. My COTAC and I did a thorough brief.

## As we completed our after-takeoff checks, smoke now was visible around the center console and was blowing around the cockpit.

Off the catapult, I raised the landing gear and kept climbing. As the flaps came up, and, as we passed 1,000 feet, we knew something wasn't right. I continued to climb straight ahead, took a good look at my instruments, and asked, "You smell that?"

"Yeah, get your mask on," my rightseater replied.

The jet flew fine, with no fire lights or caution lights on the panel. The engine instruments were normal, as were the oil and hydraulic pressures. Immediately, my mind started to imagine the terrible things that could be occurring somewhere out of sight, deep in the bowels of our aged jet. The fumes made my eyes water—definitely acrid and not good. Something that should not have been burning was trying to ruin our day.

As we completed our after-takeoff checks, smoke now was visible around the center console and was blowing around the cockpit. I quickly executed the boldface of the smoke-and-fumes emergency procedure, as my COTAC backed me up. Based on recent S-3B mishaps, it occurred to us that something might have been amiss in the electronic-control-system (ECS) compartment.

As we passed 2,500 feet, we told departure of our problem and asked to speak with our CATCC rep. We returned overhead to continue troubleshooting.

The rep started working to get us recovered—ASAP. In the meantime, the offgoing

tanker rendezvoused overhead the ship with us to check for trailing smoke. After a brief discussion over tac frequency, the other crew said we looked OK.

"What is this?" my COTAC shouted as he looked down.

Molten plastic had dripped from the overhead-eyebrow panel onto his leg. Good thing he was wearing his gloves because his first reaction was to touch the hot plastic to figure out what it was. We were amused for a few seconds, but then we refocused and decided to turn off all the rheostats that provide backlighting to that panel. The sporadic puffs of smoke obviously were coming from behind the eyebrow panel. The smoke seemed to subside, but we remained on oxygen because the odor remained.

Soon we were vectored to downwind, and it was time to think about the approach. We checked and triple-checked everything. The approach and landing were uneventful.

Our maintainers determined recent rain, combined with chafed insulation on the wiring behind the formation-lights rheostat, had created a short circuit. The jet reeked of smoke for almost two weeks after the incident but went flying the next morning. Although the incident turned out OK, it could have been worse if we had not reacted as crew. Thanks to good procedures and proper PPE, no one was hurt. 

Ltjg. Ferrara flies with VS-31.

# An Ounce of Prevention

*By Lt. Scott Myers*

**T**he lesson of this saying is well practiced in the naval-aviation community. We start each day by walking our airfields and ships, picking up every piece of FOD that a gas-turbine engine possibly could ingest. While our mechanics are checking and double-checking our aircraft, the pilots start the preflight brief by conducting an ORM check. This check is designed to find out if everyone's head is in the game and if they're ready to climb into the aircraft.

The crew then does a preflight brief, in which we talk about what we'll do for specific emergencies or situations we might encounter during the flight. After checking the maintenance records for the aircraft, we do a preflight check on our personal life-support gear. We check our radios, first-aid kit, flares, smokes, alternate air source, personal flotation collar—everything that will keep us alive and aid in our rescue, should the situation demand it. Then we walk to the aircraft and complete a very detailed preflight inspection of the aircraft before departing on our mission.

This same philosophy should hold true when it comes to riding motorcycles. When Sailors and Marines mount their mighty two-wheeled machines, they need



to do more than just kick the tires and make sure the gas tank is full. Like an aircraft, the motorcycle needs to be checked to make sure it will perform as expected, and the rider needs to be equipped with the proper life-support gear.

In five years of riding motorcycles, I never had had to test my protective motorcycle gear, which includes helmet; gloves; a ballistic, nylon, motorcycle jacket with integrated pads; and leather, steel-toed boots. My first practical test, however unplanned, came the evening of July 19, 2004.

I was riding my Honda RC-51 motorcycle home from Mayport Naval Station. As typically occurs in North Florida during the summer, a storm had passed through at some point in the day. The ground still looked a little damp, and the skies remained overcast. Traffic was heavy on the Dames Point bridge, a large bridge that crosses the St. Johns River. I changed to the right lane and decelerated as I started up the main section of the bridge.

About two seconds after I had changed lanes (I was riding the left-hand side of the right lane behind a large truck, trying not to get too far left because traffic was passing), I saw that a large portion of the right lane was eroded and full of water. I had no choice but to stay where I was because traffic was passing me to the left. If I tried to switch to the right-hand median, I would travel through the eroded part anyway and angle toward a concrete wall bordering the bridge span.

I depressed both front and rear brakes for about a second and released them just before I hit the eroded part of the lane. I immediately felt the bike dip down, then pitch up before it came out from under me. I landed on the road, flat on my chest, and started a spinning slide on my chest and side. I could see peripherally that the traffic all around me had started to open up, giving me some room. I watched my bike sliding on its side on the road behind me, moving about the same speed as me. I remember thinking about what fairings I would have to replace on the bike.

As I slowed down, I used my hands to control my spinning and leaned to the right, which seemed to help me move to the right side of the

lane, then into the right-hand median. I came to a stop on my chest, did a quick physical assessment, stood up, and walked about 50 feet to my bike. Traffic in the right and center lanes was completely stopped about 10 feet away from my bike. Drivers were out of their cars, standing with their mouths open and looking astonished that I was up and walking.

One guy asked if I was OK, and I gave him a quick thumbs up. Then I grabbed and righted my bike. The guy who had asked if I was OK handed me my tank bag, which had come off my fuel tank. I put the tank bag back on the bike, slipped the bike into neutral, and walked it to the right-hand median. Traffic started to move once I was clear of the roadway, except for a couple of cars that stayed parked in the right lane; those people wanted to make sure I really was OK.

When I got my bike restarted, I did a slow taxi-test in the right-hand median to ensure it was rideable. Once I knew the bike was OK, I drove it home at a relatively slow speed, intently watching for any more potholes in the road. I called the sheriff's office from home and told them about the roadway-erosion problem I had encountered. The woman I talked to said they would take care of the matter. I then told my wife about my exciting experience, ate dinner, called my insurance company, worked out, got a good night's rest, and stood squadron duty the next day.

You might be thinking I got a lucky break. Not too many people have their motorcycles ripped out from under them at 65 mph, in heavy traffic, and escape without a scratch. If I were asked to quantify it, I would say it was 70 percent good preparation and 30 percent things that just worked out in my favor. I was driving defensively at the time and wearing the proper PPE. These factors significantly contributed to my being able to enjoy dinner with my wife that night, meet my service obligations the next day, and save my wife and I a lot of physical and emotional pain. The same factors also enabled me to recount my experience in this forum. The bottom line here is that there is no substitute for good preparation. 

Lt. Myers flies with HSL-46.



# Rushing to a Midair

*By LCdr. Chris Bergen*

**E**veryone I talk to has bad stories about visiting the “Iron Maiden” (aka the KC-135). We frequently receive lectures and discuss techniques about getting into its unique metal basket. When it was our turn to visit the big-wing tanker, the evolution

didn't go according to plan. We had a nighttime flight during late spring work-

ups in an area off the Virginia coast. My pilot was a Cat. I nugget, who had been on my crew since his arrival in the squadron. I was a salty lieutenant with a set of work-ups and one deployment under my G-suit. We were comfortable with each other's habit patterns, and we meshed well as a crew. I enjoyed flying with him.

Our mission was to get night current on the KC-135, and we were scheduled for the last recovery of the evening—a benign mission when you get down to it. Perhaps our complacency would bite us in the end. A quick



review of the airplan showed two sections of FA-18s also would be tanking. We talked about the FA-18s because they had air-to-air radar and would beat us to the tanker, so we planned to be last in the basket. Our NATOPS and mission brief covered all the standard items, and we reviewed radio calls and procedures to expeditiously get into the basket.

Our night Case III departure was uneventful, and, with a few steers from strike toward the tanker, we thought we were set. Working 1,000 feet below the tanker's briefed altitude, we had our air-to-air TACAN set to receive DME, which counted down as we neared the rendezvous point. Then, the DME went up, so we turned around, and the DME went back down. This pattern continued for about 15 minutes. Our backseaters tuned up the boom freq, and we could hear the last Hornet completing his plug.

When we were confident the Hornets had departed, I asked the tanker to call his position off mom. He replied with his radial and DME and asked if we wanted him to remain "midnight." The lights might have been off on the tanker, but they all were turned on in our cockpit. The two sections of Hornets had tanked on goggles, which explained why we (not on goggles)

couldn't find anyone. After replying negatively to the "midnight" query, the tanker turned on everything, and, lo and behold, there she was, about five miles away.

Now we were rushing. The departure, the aborted rendezvous, and the impending Case III recovery put us in a time crunch. We quickly joined up and set up to plug. Instead of focusing on the task at hand, we realized we would be late for our recovery.

After calling, "Complete, thanks for the work," I looked down at the radio-control panel to change back to strike freq. When I looked up, I didn't see the tanker disappearing out the left side of the wind-screen, but I saw an up-close and personal view of the two starboard engines. Instead of disengaging, drifting back, and then clearing to the right, we got out of the basket and immediately turned right.

I emphatically called, "Move it right" to my pilot, who replied calmly, "I am."

I looked down to see full-right stick deflection, and our plane waffled in an uncomfortably close position to the KC-135. Finally, putting out the speed brakes and using a little cross control got us out of the vortex of the starboard wing, and we descended clear. The approach and recovery were uneventful and unusually quiet, as we dwelled on the near-midair collision.

What we did wrong is evident. We didn't talk in the brief about establishing adequate fore and aft separation prior to lateral separation. What actually put us in this near-disastrous situation? We were complacent; it was just a "benign" flight, right? We also imposed perceived pressure on ourselves and rushed the evolution. We were worried about getting to the marshal stack on time. In hindsight, was that so important? Being on time didn't seem so important after we had cleared the KC-135.

What did we do right? Not much. Some outstanding piloting by my single-anchor crew member saved our lives. I learned once again that complacency can kill you, or at least raise its ugly head to let you know it's out there trying to. Don't rush the important things—rushing also can kill you. Always remember to focus on the task at hand. 

LCdr. Bergen flies with VAQ-139.

## Not Quite the Massage at the MGM Grand

By LCdr. Drew Krasny

Just another standard day in the Eastern Pacific op area: hot. Wow, it was hot! We were in the third week of a three-month counter-drug-op deployment aboard USS *Valley Forge* (CG-50). This cruise was to be her last time underway—decommissioning loomed.

We had launched our SH-60B on a daytime detection and monitoring (D and M) mission. The basic scenario was to elevate to about 2,500 feet, turn on the radar, and see who was

who in the zoo.

We have a crew of three, including the pilot, airborne tactical operator (ATO), and SENSO—an enlisted rate manned by an air-warfare operator (AW).

We found our first contact 20 minutes into the flight. “120 true at 23, sir,” was the call from my SENSO.

We approached the contact at 200 feet and 80 knots. The standard procedure was to establish the aircraft in a hover, train the forward-



### ORM Corner

Please send your questions, comments or recommendations to:

Ted Wirginis, Code 11,  
Naval Safety Center,  
375 A St.,  
Norfolk, VA 23511-4399.  
(757) 444-3520, ext. 7271 (DSN-564).  
E-mail: [theodore.wirginis@navy.mil](mailto:theodore.wirginis@navy.mil).



looking-infrared radar (FLIR) to the contact, and downlink the picture via our HAWK or data link. HAWK allowed the transfer of a real-time FLIR picture to the ship's CIC. The Coast Guard watchstander also would look at the FLIR picture and decide if the contact was a target of interest (TOI). We quickly determined the contact was a Taiwanese long-liner fishing boat that had crossed the Pacific to bring back a catch of fish to sell in Taiwan.

To get a good picture to the ship, I completed the automatic approach checklist and put the aircraft in an 80-foot hover. The minute we were established, I noticed a pronounced one-per-vibration. To explain this sensation, I have to be honest: Helicopters vibrate. I know, you're shocked, but, there are some vibrations that indicate failure of a dynamic system. In this case, the rotor head vibrated. I asked the crew if they had felt anything, and nobody else did. I departed the hover, and, as we started to gain airspeed, the vibe became more pronounced, and the rest of the crew agreed something wasn't right.

The problem was clear to me: The aircraft had experienced a damper failure. A damper is a little shock absorber mounted horizontally on the blade support that allows the blade to lead and lag. Without pulling out the slide rule, helicopter blades are very dynamic; they lead and lag, and the flap equals up and down. The damper allows the blade to lead and lag effectively in flight. Once we had the damper failure, the blade had trouble being in the same space as the rest of the blades during the rotation of the rotor head. That's when the helo began to do a cruddy low-rider impression.

We established a forward airspeed of 80 knots as recommended by NATOPS. At this speed, the blades are least likely to do all of that dynamic stuff, and, as a result, the ride became smoother. The ship followed the emergency procedures (EPs) and got calm winds over the

deck; we also had a level deck. The EP then recommended a degraded control RA (RAST-assisted) recovery.

This recovery has you hover over the deck and drop a wire out of the helicopter. The deck crew then takes a heavier wire from the ship and attaches it to the helicopter wire. At this point, the SENSO winches in the helo's cable and secures it with an anchoring device inside the helicopter. A pilot in the LSO shack initiates a process where he winches down the helo to the deck with about 4,000 psi of tension.

This point is where I decided NATOPS was not a "substitute for sound judgment." Let's see: Get an aircraft that already has degraded control characteristics into a hover, fly it over a confined area, and have people get under it so the pilot can land the bird. It's like asking if you'd like to stand against the wall while some dude throws daggers at you. I told the crew I did not want to do that type of landing, and I felt comfortable landing unassisted on a free deck.

Our plan was to obtain landing clearance, get the bird on deck, and immediately shut down. We had looked at the risks and decided the benefit of landing without the RA outweighed the risk of landing with the assistance of an RA cable with a crew on deck. We came aboard with no deck crew on deck. The landing went smoothly.

What my crew learned that day are the same things you learn every time something does not go according to plan. Remain calm; all is well. Lose your cool and only unwanted drama can and usually does follow.

Consider all the variables. Your experience and ability to think out of the box are valuable assets. You can and usually will turn an unstable situation into a very manageable and controllable scenario. Above all else, sound cool on the radios. 

LCdr. Krasny flies with HSL-43.

# Who's "That Guy"?

*By SSgt. Edw. S. Heyward, USMC*

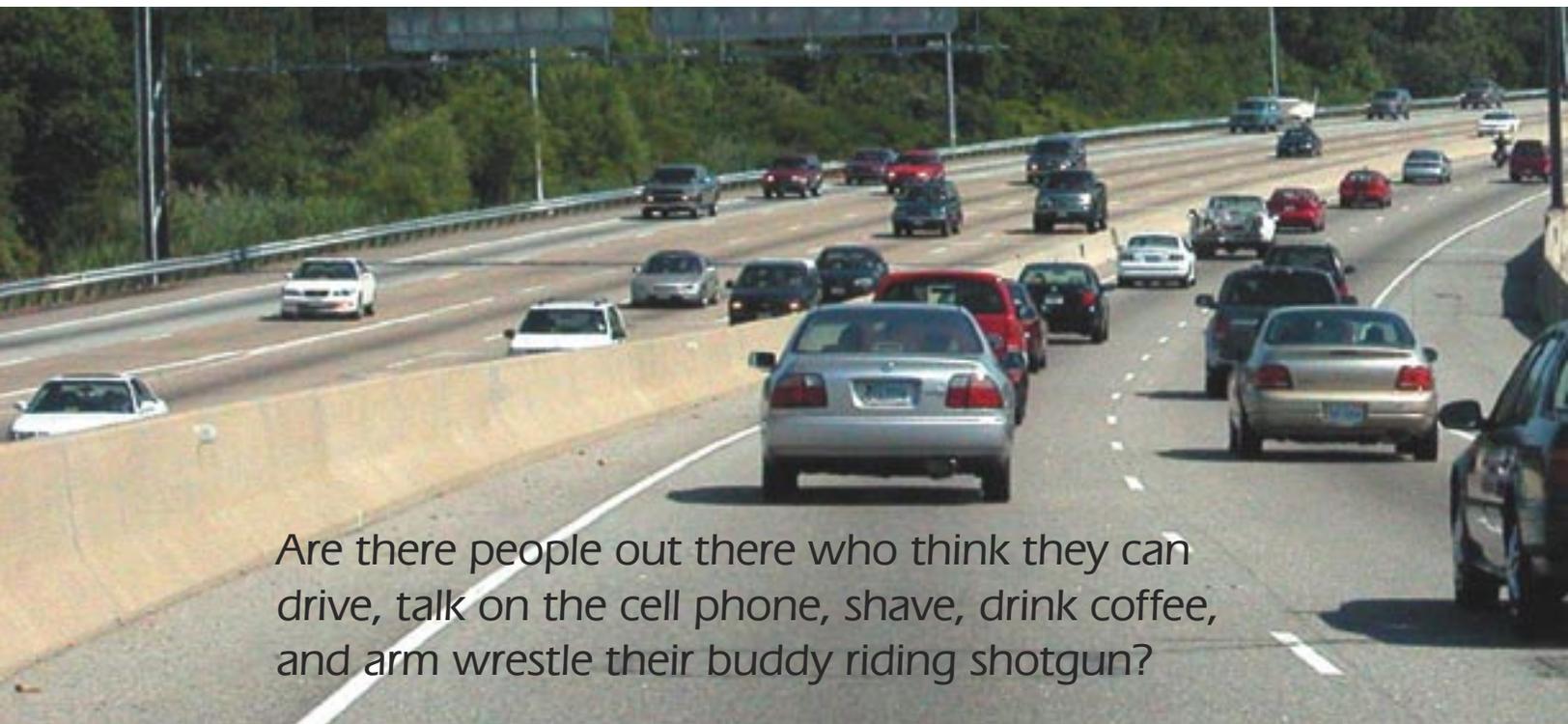
If you're reading this article, chances are you're a lieutenant stuck on duty in a ready room, so I'll do my best to make this entertaining. It's late afternoon, another week has passed, and we're all much closer to that great green pasture in the sky some of us call retirement.

My commute to and from work has enlightened me that the ratio of idiots to normal people on the road has gone up significantly. Funny thing is, most people I see driving like idiots all have really short hair—hmmmm.

Because driving is something we do about every day, most of us take it for granted. The truth is, driving can be just as deadly as a pistol duel (or being Saddam Hussein's body double). Can most of us drink coffee and drive? Yes. Can most of us drive and listen to music? Absolutely.

Are there people out there who think they can drive, talk on the cell phone, shave, drink coffee, and arm wrestle their buddy riding shotgun? You bet. Their driver's licenses all read "That Guy." He's the one who always seems to be doing something stupid, and you wonder how Darwin's Theory hasn't removed him from this planet yet.

So, thanks to him, guess what, we have to talk about driver safety, starting with speed. As I was driving to work one morning, I had a vision. It was yellow and neon green, and it passed my driver's window at the speed of holy cow. It sounded like a weed-eater and a top fuel dragster. This little bugger was running wide open. Anyhow, this thing passed me so fast that, when it got back into my lane, even though it was only five feet off my front bumper, I couldn't read its license plate. If bad things can



Are there people out there who think they can drive, talk on the cell phone, shave, drink coffee, and arm wrestle their buddy riding shotgun?

happen at 55 mph, imagine how bad and how fast things can happen at the speed of holy cow. Case in point, slow down!

I looked at this young Marine, and the first thought in my mind was, “His sergeant must be a real hard case for him to risk his life doing something so foolish, rather than be a few minutes late for work.” Here’s a preventive measure for our speed demon: Wake up 15 minutes earlier so you don’t have to rush. I mean, proper prior planning prevents poor performance, right? That’s day-one stuff.

Next, for all you people still satisfied with driving to work below the speed of light but above the speed of smell, the biggest thing you should worry about is what we in aviation call “task saturation.” If you’re trying to do a hundred things at once, plus trying to drive, you are quite possibly the biggest hazard on the road. In the Marine Corps, we have a big thing called “attention to detail,” which, contrary to popular belief, applies to everything you do, even driving to work. You cannot pay full attention to the road and the things going on around you if you have 10 other things going on—no matter how small they individually seem. So, for all “those guys” who drive like this, keep in mind what you lack in pure idiocy and speed, you

make up for in lack of attention to what you are doing. Here’s another preventive measure: Stay focused on driving, and take care of everything else when you get to your destination.

Now, for the other end of the spectrum. If you are driving at the speed of smell and slamming on your brakes every time a raindrop hits the road, your life is in danger. You are risking your life in two ways. The first risk is from other traffic. There is a lot to be said for going with the flow, and you can cause more problems than you will solve by driving too slow and braking excessively. The second risk is when you push someone like me right over the proverbial edge we all call sanity—then, I’m coming for you. The preventive measure here is to stop this madness. If driving makes you that nervous, catch a ride with a buddy; it’s safer for everyone.

A serious thought to keep in mind—we have lost more people to driving accidents in the last five years than in combat operations. Imagine going to war, doing your duty, getting home, and then dying in a car wreck because you just couldn’t wait to make that phone call. You have accomplished too much in life and are too important to your country and the Corps to die foolishly. 

SSgt. Heyward is the H-53E Group NATOPS evaluator with MAG-26, MCAS New River.



# Crew Resource Management

Situational Awareness

Assertiveness

Decision Making

Communication

Leadership

Adaptability/Flexibility

Mission Analysis

## Hauling Trash

By AD2 Terry Allegood

I awoke before the alarm that morning but remained in bed to squeeze out all of the rest I could. I knew we had a long mission scheduled that day: Fly from NAS New Orleans to Panama, pick up five pallets that weighed about 23,000 pounds, and fly to NAS Norfolk. Some of the cargo in Panama was the usual SEAL cargo: small-arms live ammo, smoke grenades, and other fun stuff. We also had a few flight doctors from NAS Pensacola riding along with us. No problem for the mighty Herc, right?

As I arrived at the squadron, the first crew member I met was our second loadmaster (2LM), a reservist who was a knowledgeable and skilled aircraft mechanic. He already had completed his preflight. The 2LM and I directed the flight docs to the officer's wardroom to relax until we had finished up the preliminaries.

We talked about the mission and busied ourselves with getting the lift messages, signing the aircrew reading-board pages, getting coffee and water, and taking care of other details. Once the weight and balance form was completed and the coordinated checks and preflight were done, we got our doctors, briefed them, and headed out to the bird.

We had completed the checklists and were rolling down the runway when, just before rotation speed, the flight engineer called out, "Bird strike!" The cockpit crew decided to continue the takeoff.

As soon as possible, I was up looking for bird



#### CRM Contacts:

CRM Instructional Model Manager  
NASC Pensacola, Fla.  
(850) 452-2088 (DSN 922)  
<https://www.ntcnet.navy.mil/crm/>

LCdr. Deborah White, Naval Safety Center  
(757) 444-3520, Ext.7231 (DSN 564)  
[deborah.j.white@navy.mil](mailto:deborah.j.white@navy.mil)



damage to the port side, where I was seated. Then I looked out the right-side paratroop-door window. My attention immediately was captured by the large amount of fuel being siphoned out of the right, external fuel tank. I vividly remember saying, “Flight. Load. No visible bird damage. However, we have fuel venting overboard through the filler cap on the right external tank.”

The flight engineer exploded, “What? Are you sure? How much?”

I answered the best I could. Even though a large amount of fuel was coming out, the air stream kept it flowing against and along the tank—a good thing because hot exhaust was passing just up and inboard of the leak.

In the meantime, the cockpit crew cleaned up the airplane and completed the after-takeoff checks. We then discussed the plan for returning to NAS New Orleans for a bird-strike inspection. We were sink-rate

limited with 50,000 pounds of JP-8 on board, but, our aircraft commander decided we could land without dumping fuel.

The flight engineer came to the back to confirm the fuel leak. Now, some of you might be thinking, “Why would the engineer go to the back after a load-master has told him the trouble?” Friends, that’s what CRM is all about: backing up one another. The pilots and FE set up for our landing. We returned to Earth uneventfully.

Impact marks of a dove were evident on the radome during the walkaround inspection. The No. 2 propeller cut up at least one bird, and the leading edge outboard of the engine “cried fowl.” Fortunately, for us, the birds were small.

With the bird-strike inspection complete and the fuel cap reset, we again set out to complete our mission. After all, isn’t that what it’s all about? I love this stuff.



We had to consider our crew duty-day limitations. In the C-130, we may fly long missions across several time zones, so crew fatigue is always a challenge. We had an hour delay to begin our day, and, with the bird-strike inspection, we were looking at a lot of lost time.

We decided to go and arrived at Tocumen, Panama, five hours later. What could go wrong now? After all, home base and the bird strike were behind us. We now faced the time crunch of loading the aircraft inside of 90 minutes, so we could maintain our crew duty-day limits.

**We should have left 30 minutes earlier; the rest of the SEAL team left an hour ago on another aircraft.**

The 2LM and I were escorted to the pallet-staging area, where we planned the order for loading the pallets. We had to consider the location of the hazmat pallet and the height of all the pallets.

It became clear this load was not ready for us; it didn't have a current certification. The only paperwork was five weeks old, but we had the verbal assurance by the SEAL team hazmat-certification officer. This situation was certain cause for disqualifying the load. However, after discussions with the SEAL team and my aircraft commander, and with a can-do attitude, we were convinced we could complete the mission. The only remaining hitch was that the NAS Norfolk folks might not accept the load without the proper certification.

With the load plan completed and the clock ticking, we asked for the heaviest pallets to be loaded first. When the first pallet came out to us, I noticed it was positioned farther out on the arms of the forklift than normal. This situation shifts the forklift's center of gravity forward, causing the load to become unstable during braking. As we pushed the pallet into place inside the Herc, it seemed heavier than advertised. Initially, I attributed this difficulty to the ramp's uphill grade. Then I used a little ORM: What if the load was heavier than I had planned? It would be a hazard. The risk of getting the aircraft out of CG was significant.

ORM says never take unnecessary risks. Well, we had a crew duty-day limit and a mission to complete. But, then I wondered if my reasoning about the upslope causing the heavier load was wrong. My gut feeling said I needed to weigh the pallets.

Wouldn't you know—the first few pallets all were off by at least 500 pounds apiece. “No problem,” I thought, “I'll just make a few changes in weight and moments. No big deal.” Didn't I already say that? Then came the last pallet, the ammo pallet, which was advertised at 1,120 pounds. Our U.S.-certified and calibrated scale, however, read 2,400 pounds. We determined that pallet had been weighed and assigned a kilo weight.

We had planned for this pallet to ride on the ramp, but the new weight made the aircraft severely tail heavy at 37 percent mean-aerodynamic chord (MAC). A 30-percent MAC is the farthest aft limit at this weight. In addition, four SEAL-team members were assigned to guard this load. They also had to be figured in the load plan.

“Take a deep breath, step back, and look at the big picture,” I thought. The plane is loaded, except for one pallet—of hazmat. I wanted to kick off the pallet. We should have left 30 minutes earlier; the rest of the SEAL team had left an hour ago on another aircraft. We weren't supposed to spend the night in Panama. To take this load, we would have to reconfigure the aircraft. We decided to break down the seating arrangements in the forward end of the compartment. We pushed all four pallets forward to regain the center of gravity, then took off to complete the mission.

After landing in Norfolk that night, I thought about this incident. In our haste to get the mission accomplished and take off on time, we easily could have skipped questioning the load weights. The use of metric vice English units even confuses the engineers at NASA. What would have happened if we had not caught this discrepancy? Perhaps, we would have rotated on takeoff and lost longitudinal stability and control after rotation. That flight would not have been... 

AD2 Allegood is a loadmaster with VR-54.

# BRAVO Zulu

Lt. Thomas J. Oneglia, a VT-6 flight instructor, and his student, Ens. Glen Cabarcas, were on a mid-stage, day contact flight (call sign Shooter 252) out of NAS North Whiting Field. As they climbed through 4,500 feet, they received a call from Pensacola departure, requesting their assistance with a civilian aircraft in distress.

A single-engine Cessna had declared critical fuel and was heading toward Brewton airport for an emergency landing when Shooter 252 got the call. Following a vector from Pensacola departure, Shooter 252 soon spotted the Cessna at their 11 o'clock position, descending through approximately 1,500 feet. Soon after Shooter 252 spotted the aircraft, however, the Cessna ran out of gas and began a spiraling descent to a controlled landing in a farmer's field a couple miles west of Brewton.

Shooter 252 was given a discrete frequency and then flew over the downed aircraft to survey the scene. The two pilots appeared OK, and there was no fire; this information was passed to departure, along with locating information, which included radial-DME and visual-reference points. Departure told Shooter 252 to proceed on course and complete their flight. Cell phone contact from the Cessna pilot to emergency services later confirmed no injuries.

Several minutes later, however, departure called Shooter 252 (on UHF guard) and requested assistance directing an ambulance to the crash scene. Shooter 252 returned to the scene and passed locating information, including precise GPS lat/long coordinates. They remained on station to vector the ambulance through a number of dirt roads to the crash site. Once the ambulance reached the crash site, Shooter 252 was released from responsibilities as on-scene commander and recovered at North Whiting.

Following the incident, Lt. Oneglia said, "I'm glad we were in the right place at the right time to provide assistance. My student did a great job spotting the aircraft as it was going down, and we were relieved to learn both pilots were not hurt."



Photo by YN2 Jessica Nelson



Lt. Thomas J. Oneglia and Ens. Glen Cabarcas

Photo by YN2 Jessica Nelson

# What's That Noise?

By Cdr. Karl Thomas

We had manned-up for yet another Operation Iraqi Freedom mission, and the ORM buzzword of the day was complacency. We had been in theater for more than three months and hadn't missed a sortie yet. Our coveted 100-percent sortie-completion rate was put in jeopardy every time I briefed ORM and said, "We won't take the plane if it isn't absolutely safe. We've got command and control backups on the ground."

Coordination reporting centers (CRCs) on the ground in Iraq would provide command and control 24 hours a day if we couldn't get airborne for any safety-of-flight reason. The air wing hadn't dropped a bomb in the past two months because the hot spots on the ground were too sporadic, ill-defined, or isolated for close-air support. Besides, we were in a nation-rebuilding mode. The mission still was important, and the air wing was flying overhead in case the situation escalated or a valuable target was identified. We definitely were trained and ready to answer the call to

Photo by PH3 Elizabeth Thompson



support ground forces facing an increasingly testy and annoying enemy.

The brief and preflight for our evening flight went well. After engine start, the three NFOs in the back were busy entering waypoints, punching buttons, conducting system tests, and getting radio checks to make sure we had a full "up" aircraft.

I almost missed it: I heard a noise as the pilots were wiping out the controls. The sound completely was unfamiliar and something I never before had heard. The two junior aircrew on either side of me didn't hear it—not until I told the pilots to repeat whatever they just did and drew the aircrew's attention to the noise. It was a weird, feint whine but noticeable. The pilots at the opposite end of the aircraft couldn't hear it.

As the first to launch, we were running out of time to close the main-entrance hatch—the yellowshirts wanted us to taxi early to the cat. After several control wipeouts, and with an airframe technician looking at me with a quizzical look, I wanted an additional opinion about the noise. I had the carrier-aircraft-plane commander (CAPC) come back into the Hummer tube for a listen. He also heard it, and we decided this plane wasn't going flying tonight.

We had a backup plane and launched as the last plane off the deck. Our 100-percent sortie-completion rate still was intact. The whining noise was fluid leaking past the hydraulic-isolation valve of the elevators. The maintainers changed the valve that night, and the aircraft reentered the lineup.

I was scheduled for the same sortie the following night, with the same CAPC. As we conducted our preflights, the aircraft-control officer checked the aft-equipment compartment and saw a small puddle of hydraulic fluid. It wasn't much but enough to pool below the hydraulic filters that normally are dry. Spotting the fluid was a good catch.

In the center compartment of the E-2, where the aircrew sit, floorboards prevent looking below and into the bilge. We called in a troubleshooter to pull the floorboard next to where the fluid was found—another good decision. A considerable amount of fluid



As the first to launch, we were running out of time to close the main-entrance hatch—the yellowshirts wanted us to taxi early to the cat.

Photo by PH3 Yesenia Rosas

was present, and our crew decided the plane wasn't going flying.

Unfortunately, a backup aircraft wasn't available this time, and our sortie-completion rate was in severe jeopardy. The airframers did a quick cleanup, and we left the CAPC behind to turn the engine and check for a static leak or bigger problem. The maintainers determined the fluid was static and was left over from the previous night's fix.

With time running out, we manned-up to make the launch. As we started the aircraft and wiped out the controls, I heard a different noise: a swoosh sound. Two nights in a row, I had heard two noises that didn't sound right. The same airframer from the night before came in, and the two of us looked at each other with disbelief. This time, however, his expression wasn't as confused. He headed directly for the hellhole to purge air from the hydraulic system. The noise went away, and we were in business. In the meantime, a little more fluid began to seep and pool. Knowing there were small holes between the frames underneath the floorboards, we called in the airframers to make the call. They said the fluid was only residual, and we took the plane.

After we shot down the catapult, we saw a sheen of hydraulic fluid covering the pressure bulkhead in the back of the aircraft. The ACO went to the aft-equipment compartment, and, to our shock, there was a

large quantity of fluid. We quickly marked our hydraulic reservoirs and monitored them throughout the flight. Apparently, the fluid that was cleaned up underneath the aircraft-control officer's (ACO's) seat wasn't all the fluid from the previous day's maintenance. Fluid also was found beneath the NFO's compartment.

As we took the cat shot, the fluid found its way to the back of the aircraft. After landing, the fluid disappeared back into its hiding spot. After a thorough postflight inspection, no additional leaks were found. What we had was excess fluid that had found its way outside the direct area of maintenance.

What did we take away from this experience? Use all your senses—if something doesn't sound right, it probably isn't. Have the confidence and willingness to stop and get a second opinion. For our maintainers, when cleaning up from a job, follow the 36-inch rule, and clean up beyond the direct repair. When it comes to fluid, look further. A more thorough cleanup of this job would have found the excess fluid.

Finally, have a go or no-go plan. When do you make the sortie, and when do you call it quits? I initially felt I had made the wrong call after we had launched the second night and hydraulic fluid had reappeared. A 100-percent sortie-completion rate means nothing if not completed with 100-percent safety. 🇺🇸

Cdr. Thomas is the commanding officer of VAW-117.



# Bad Call on Airspeed

*By Capt. G. T. Bignell, USMC*

**W**e were fat, dumb and happy while we planned our trip home from a glorious weekend cross-country in Tokyo. The weather was bad enough to make four helicopter pilots file IFR. We double-checked fuel for both aircraft and figured we had enough for the return trip to Iwakuni, Japan. Everything was in place for an uneventful trip home.

Both crews completed their preflight inspections and began their start checklists. We filed separate flight plans, but, to keep call signs simple, the first aircraft was referred to as Dash 1 and the second as Dash 2. Dash 1 called for taxi and departed. Ten minutes

later, Dash 2 did the same. Because of sequencing, the aircraft ended up about 20 minutes apart. As Dash 2, we maintained contact with Dash 1 to obtain winds, weather and fuel status. This strategy proved useful because, one-and-a-half hours into the flight, the weather looked good enough to cancel IFR. We contacted Dash 1 to get their thoughts about the weather and its location. Dash 1 said it was not a good idea to cancel IFR. Our fuel states remained roughly the same for the first two hours of flight. Because of our fuel situation and confidence in our planning, the last thing we were concerned about was fuel. Everything still looked “peachy.”

Wow, flying IFR sure is boring. How do those great big, “cool” jets do this so much? The boredom almost was overwhelming. Oh, as I reflect, how I preferred the boredom to the excitement about to ensue. With one hour and fifteen minutes left in the flight, we were “lucky” to have an auxiliary tank decide to cease transferring. That tank had over 600 pounds of fuel we could not get to. In light of this development, we decided to use that little wheel thingy that was issued back in flight school. We dusted off the old whiz wheel and began spinning away. After trying to spin the wheel, we decided it would be better if we just put the wheel away and manually did the calculations. “Man, that thing sure is hard to use,” I thought. I don’t remember it being that hard.

Well, there we were again, but not so fat, dumb and happy anymore. Our situation wouldn’t really have been a problem had we seen the ground. However, we hadn’t seen the ground in the last hour. I had an idea: Change our airspeed to maximum range (that doesn’t happen often). Everyone agreed this idea was a grand one. “Does anyone know what that speed is?” I queried. No luck; we didn’t have a clue. But wait, I remembered some charts in the back of the pocket checklist. I was relatively sure the answer was in one of those charts somewhere. We found the chart, but we forgot how to read the crazy thing.

After being baffled thoroughly by the most complicated chart on earth, we decided on 80 knots. That number was the only one that stuck in our head. It turns out 80 knots was the maximum endurance, and we had made a bad call on airspeed. The lesson is to know how to read those silly charts—all of them.

We had about 45 minutes of usable fuel and 40 minutes of flight time. But, there was a catch: Flight time was off the GPS. If we were flying direct to Iwakuni, it would take 40 minutes. The controllers were vectoring us, and our route wasn’t close to being direct. We let ATC know our fuel state and told them we couldn’t accept a delay. ATC instructed us to maintain heading, which was no help. It took 10 minutes for them to translate what we were saying, and for us to translate what they were saying (English to Japanese can be trying).

We were at decision time: to declare or not to declare. For some reason, a helicopter pilot’s worst

nightmare is to declare an emergency. We decided to declare. ATC turned us to a more direct route. Still flying around at a painfully slow 80 knots, we checked the GPS to discover we still had 30 minutes flying time left. Cross-checking that info with fuel available, we had exactly the same amount of fuel as flight time—this situation was not good.

Dash 1 continued to communicate with us. They, of course, had no problem with their fuel, and, therefore, they were far less stressed. It’s a good thing they were ahead of us to relay when they barely had broken out at decision height. “Cool, throw another ball in the mix to juggle,” I thought.

Around this time, we decided 80 knots wasn’t going to get us there, and we kicked it up a bunch of notches. ATC held us at 3,000 feet. We knew we were over water, so we requested a descent to VMC conditions. ATC denied our request several times. We received a friendly reminder from the caution panel that we might want to land soon: The No. 1, fuel-low caution light illuminated. ATIS called weather to be just above mins—basically what Dash 1 had told us.

We finally were told to stand by for the final controller. We could see the light at the end of the tunnel, and the load started to lift, slightly. Then the second low-fuel light illuminated, and, once again, we were reminded to land. The approach was IFR the entire way down. At decision height, there was a pause, then, finally, after what seemed like forever, we saw the field. We dumped the nose and went as fast as we could to get feet dry over the runway. Finally, its wheels were on the deck.

Texaco, the crew, and I always will have a special bond that never can be broken.

Crew-resource management is not limited to your cockpit. Other aircraft, the ODO and anyone near the ODO, and ATC are all available resources. Know how to use all fuel and planning charts that pertain to your aircraft. Even when you fly IFR, have an idea of what is below you. Remain as calm as possible in the cockpit; it will help put everyone at ease, and they’ll be more useful crew members. 

Capt. Bignell flies with HMH-363.

# Rubbin's Racing

By Lt. James McKenna

I had been pumped about flying Tomcats ever since I put it as my first choice out of the training command. Not only Tomcats look good in the break, but, because I was flying the F-14 Delta, I had a Gucci HUD and extremely powerful engines—something I was deprived of while flying the T-2 and T-45A.

I was scheduled for my fifth flight in the FRS and my first time flying form with another Tomcat. My first four flights had gone well, and, being the salty FRS student I now was, I figured flying form is the same—regardless of the aircraft type.

The brief went as expected, and we walked for a normal start-up and taxi. Our briefed “eight sec flight lead separation” takeoff and initial join-up was uneventful and expeditious. I had a HUD with all the great flight information, especially the velocity vector and power carrot, so I found this way of flying much easier than the steam-gauge scan I had used in the training command.

Once in the operating area, the flight continued as briefed. We jumped right into a number of break-ups and rendezvous’ that went smoothly. I was surprised at how easy the

A blue F-14 Tomcat fighter jet is shown from a low angle, positioned on the deck of an aircraft carrier. The jet's two vertical stabilizers are prominent, and its wings are swept back. The background shows the carrier's deck and the ocean under a clear sky.

*I was surprised at how easy the procedures were in this jet, compared to the trainers.*

procedures were in this jet, compared to the trainers. At this point in the flight, I started to get complacent. Takeoff, no problem; initial join-up, done; break up and rendezvous, piece of cake—I had begun to think I had this stuff wired. The only things left to do were a section approach, rejoin for a depart, reenter to the break, and a few touch-and-goes for landing training.

The section approach went as briefed. My lead dropped me off on the ball for a touch-and-go while he did a low approach. Off the touch-and-go, I found my lead, joined-up, and he gave me the battle-damage-check signal. While I checked his aircraft, he set up for the section break. Once the battle-damage checks were complete, I slid back into position, gave him a thumbs up, and he passed me the lead.

We still were in a tight section turn, heading back toward the initial. My lead looked over my jet, gave me a thumbs up, and I passed him back the lead. During my transition from lead to wing, I took a small cut away while simultaneously yanking off some power to

slide right into position. I then found out just how big the Tomcat's wings actually are. As I leveled them, my right wingtip "rubbed" his left wingtip. I know "rubbin's racing" in NASCAR and the movies, but I was confident what had happened wasn't something we should have done with two \$60-million-taxpayer assets. Although midair is something we always brief, you just don't ever expect it to happen.

My lead and I knew we had "swapped paint," so we split the flight and separated from each other. My lead landed first, and I came in right behind him—both with visual straight-ins.

Neither aircraft had any real damage. The postflight inspection only showed some scraped paint, and the wingtip lights still worked.

After admitting to maintenance and the squadron what had happened, as well as conducting a thorough debrief, the jet and I were back flying later that night. This time, though, I was quite a bit more humble and sporting a new call sign.

As usual, there are lessons learned. We didn't do controllability checks after we

## I then found out just how big the Tomcat's wings actually are.

touched—we probably should have. We had the gas and the time, and it wouldn't have hurt to be extra cautious. I also learned, for real this time, the meaning of the phrases, "Don't let complacency set in," and, "It ain't over until it's over."*[Isn't that a Yogi Berra quote?—Ed.]* Taking care of the basics is essential to any mission. The flight isn't really over until you're safely on deck, the aircraft is shut down, and you're walking into the hangar.

While "rubbing" may be OK for NASCAR, it's frowned upon in the fighter community. 

Lt. "Rub" McKenna flies with VF-213.



Photo by PHAN Tony Foster

# NORDO in the Rhino

By Lt. Sara A. Stries

**M**y pilot and I briefed for a day recovery tank and SSC mission with our section lead. We planned to do package checks at our lead's tanking altitude, then proceed to a separate altitude for recovery tanking. We then would rejoin as a section for the SSC mission.

We walked on Diamondback 104 on a beautiful April Fools' Day while deployed on USS *Kitty Hawk* (CV-63). The skies were beautiful and clear, with the sun shining on a steady deck. The jet preflight went as planned, and all indications pointed to a normal day launch and recovery—that is, until we manned up and strapped in.

As always in the Super Hornet, we checked the ICS after turning on battery power to make sure we had two-way comms before proceeding with our start-up sequence. Unfortunately, we couldn't talk to each other. We also couldn't talk to the troubleshooter who hooked into our aircraft. The troubleshooter initially thought the problem might be with our aircrew masks. That idea was eliminated when a replacement mask was brought to the jet and tried in both cockpits—we still had no communications.

Eventually, our AT shop's leading petty officer came to help. He isolated the problem to the front cockpit-communications suite. The intercommunications-amplifier control (IAC) was the problem. Our ATI unscrewed the three cannon plugs that connect the IAC to the jet, then reseated them to check their security.

Once they were reconnected, we had communications. The jet was buttoned up, and the rest of our start and launch was uneventful.

Within 10 minutes, our lead already had a good check on our air-refueling store (ARS). We were in the midst of checking the other aircraft's ARS pod when we realized we no longer could communicate over the ICS. We disengaged the drogue and moved to the right side of our lead's aircraft. I tried to talk over both radios to tell lead of our broken ICS. I also realized our lead was trying to detach us for the recovery tank. We were not receiving any radio transmissions, and I could see our lead WSO trying to contact us over our aux frequency.

My pilot did an excellent job maintaining a





close parade position, so I could communicate our NORDO status via hand signals to the other jet. I pointed to my helmet and mask, then to the entire jet with an emphatic two thumbs down. My point was made, and our lead recognized our NORDO status. In the cockpit, we began to understand, in addition to having no ICS or radios, all our aural-warning tones and cautions were not working. We had no master-caution tones, no radar-altimeter tones, and no “Betty” to back us up. The only two means of internal communication was to yell as loud as we could or to pass notes back and forth.

The lead WSO signaled me to pull the PRC-90 from my survival vest to sort out a game plan. After fumbling for a while, I managed to

connect the earpiece of the PRC-90 to the radio. I almost dropped the small plastic part of the earpiece, which would have created a secondary problem with FOD. Fortunately, I kept all the small pieces off the floor of the cockpit. I tried to put the earpiece into my ear underneath my helmet, but the bud was too large to sit comfortably under my helmet’s ear cup. I temporarily took off my helmet, which might not have been the best idea, but I needed to establish communication with the lead aircraft. I had to press my hand against my ear to hear my lead WSO talk because the jet’s environmental-control system (ECS) was so loud.

We managed to coordinate via the hand-held radio that we would hold overhead the carrier at

our squadron's high-holding altitude until someone came back to lead us into the break. Once I had put away my PRC-90, my lead also used hand signals to tell me to look in CVW-5's inflight guide to reread the airwing's standard NORDO procedures. Our lead detached and left us to hold. I wrote a note detailing the plan and passed it forward to my pilot so he could have an idea of what was happening.

## I found we had to be more vigilant in using visual cues for information because we had no aural cues to rely on.

We held in Diamondback 104 for about 10 minutes until our lead joined with us. We stayed in a parade position for the duration of the flight. Fuel and G checks were conducted via hand signals, and the lead WSO passed the current altimeter setting with hand signals. The lead aircraft had told the ship and tower of our NORDO status, and the ship decided to bring our section in first for the Case II day recovery. I don't think my pilot or I knew which type of recovery we were flying, nor do I think either of us cared. We maintained parade on the left side of our lead, which enabled us to break into the day pattern first. This position also allowed our lead to rejoin if we bolted.

The lead gave us the kiss-off signal a mile in front of the bow. We communicated the landing checklist by yelling. I found we had to be more vigilant in using visual cues for information because we had no aural cues to rely on. I found I was watching for the radalt to start flashing on my up-front-control display (UFCD) as an indication of altitude behind the carrier. While my pilot focused on flying a good pattern, I looked for all the lights that might indicate a problem with the jet.

In all the paddles lectures we had had before cruise, the LSOs always stressed the importance of being on lineup in a NORDO status. They could give signals for more power with the cut lights, but they had no way of

cueing my pilot to his lineup discrepancies. If lineup was off, we automatically would receive the waveoff lights. My pilot did an excellent job with lineup, and we saw only one flash of the cut lights as a power call. We trapped without event on the first try.

This flight was eye-opening for many members of our squadron, and this was my first experience completely without means of communication. I never had spent enough time briefing NORDO procedures on earlier events because of my laziness. I always thought because I fly in the newest jet in the fleet, with two radios and new components, I wouldn't have to worry about losing all comms. Apparently, that is not the case when all communications and aural tones run through one component: the IAC. If the IAC fails, aircrew can do nothing to prevent a NORDO situation. Additionally, aircrew must rely solely on visual cues because all the normal aural warnings and cues we use are gone.

I also learned to be absolutely familiar with my squadron and airwing standard NORDO-operating procedures. If my lead WSO hadn't told me to look in the in-flight guide, I never may have found the appropriate CV-NORDO-recovery procedures or the appropriate squawks. My pilot and I would not have been ready to execute a safe day, carrier-NORDO recovery.

Fortunately, this was a day carrier recovery, so we could rely on hand signals. If we had had a night recovery, I would have spent a lot more time on the PRC-90, communicating with our lead aircraft.

I would like to put in a pitch for redesigning the PRC-90 earpiece. If the ear bud were more like some of the off-the-shelf designs available, it would fit more comfortably under a helmet. I also more easily could have heard my lead, without removing my helmet during flight. I wouldn't have had to assemble the two small pieces of plastic while sitting in the aircraft. This situation created a potential FOD hazard.

I hope never again to have the pleasure of being NORDO behind a carrier. We were fortunate it was a beautiful day, we had no other compounding emergencies, and we had an emergency divert from the carrier if the situation got incredibly bad. Have a solid brief, and know your NORDO procedures—cold. 

Lt. Stries flies with VFA-102.



# Ride of a Lifetime

*By Cpl. Daron Aukerman, USMC*

**W**e preflighted in the late afternoon for a day-into-night unaided flight. As a CH-46E crew chief, I frequently fly on confined-area-landing (CAL) hops. Although we often don't fly at night without night-vision goggles, I was well rested and up to the challenge. I was hot seating into a turning aircraft. I had plenty of time to carefully preflight my gear, including my gunner's belt.

During the hot-seat turnover, the offgoing crew chief told me the crew door had come open on him on two occasions; I heeded his warning. My AO and I latched the door, made sure it was secure, and kicked at it just to check. "Maybe," I thought, "the other crew chief just had not secured it properly." I didn't think to actually inspect the crew door for damages. I also didn't feel the door was a safety issue because I usually don't lean on the door. We taxied and took off.

On the first landing in the zone, I saw a gouge in the metal just above the spring that holds the door latched closed or open. I didn't think this gouge was the problem because the door didn't open when we kicked it. Just to make sure, we opened and closed the door after two more landings to see if we could duplicate the problem but couldn't.

The sky was getting darker, and the next part of the flight was unaided. The HAC took the controls for the first night-unaided landing, and, as we came in on short final, the crew door finally flew open. Although I was standing

just inside and not leaning on the door, I was sucked out of the plane by the rushing wind. I felt a sudden jolt as my gunner's belt snapped me back. Had I not been wearing it, I would have fallen at least 30 feet to the ground.

Stunned and unable to reach my long cord, I could not tell my crew mates what had happened, so I rode to the ground hanging outside the aircraft. Once on the ground, I released my belt and signaled from outside the aircraft to a surprised pilot. The AO was just as surprised because he had been concentrating on the landing. Because the door was a safety issue, and I had hurt my back on the open crew door in the fall, we terminated all training. We cargo-strapped the door shut and returned to base.

If not for my gunner's belt, I could have been injured or killed. No matter how routine the mission, even small discrepancies should be noted and inspected. Always inspect your gear and properly wear your gunner's belt or restraint device; it may save your life, as it did mine. Use operational risk management (ORM) because even the smallest detail can turn into a dangerous situation.

In hindsight, I should have told the HAC about the door and had airframe personnel inspect it before accepting the aircraft. My checkup at the hospital found only a few bruises, so, instead of a serious injury, I just learned a valuable lesson. I also earned one more story for my helmet bag. 🦘

Cpl. Aukerman is a crew chief with HMM-261.

# Just Another Tanker

By *LCdr. Will Powers*

I will never forget night 16 of Operation Iraqi Freedom. No, I didn't perform some heroic feat, but it was the night I nearly flew my wingman and myself into an Air Force tanker.

I was scheduled to lead a section of Hornets on a night-interdiction mission into northern Iraq. It had been 22 nights since my last night flight, and the moon was supposed to be out (50-percent illumination). The weather brief brought more "good" news: The weather was forecast to be lousy, with multiple layers up to 30,000 feet, and hazy, with limited visibility. Fortunately, my wingman was an experienced and seasoned second-cruise JO.

The late-afternoon launch and rendezvous were uneventful. The first sign of things to come began with our transit through Turkey. The weather was lousy—just as forecast. My wingman and I had to climb and dodge all sorts of weather in the transit corridor to reach our tanker track in Iraq. Of the three tanker tracks, only two were workable. We found our tanker at dusk, topped off with fuel, and headed into Iraq.

We dropped our bombs on Iraqi positions, then headed back to the tanker track. It was dark, with the various cloud layers blocking out the moon. My wingman and I had donned NVGs, but the haze and broken layers severely limited their utility. The weather we had passed on our transit had moved into the tanker tracks, and now only one of the tracks was workable. Multiple tankers were working this track in weather that ranged from VFC to complete IMC. We had to sort through some confusion before we found our tanker.

The fun began during our rendezvous on the KC-10. In and out of the clouds, with no horizon, and dodging other aircraft became a handful. We had closed to within three miles of our tanker when I had a serious case of vertigo. I felt like I was in a right-hand, nose-low

spiral. I flipped up the NVGs and transitioned to a radar and HUD scan to beat the vertigo. We had closed to within a mile and a half of the tanker, but we were 500 feet high and acute as I battled with the leans. That's when the tanker completely went IFR. I tried to transition my scan to the radar, control closure, and finish the now IFR rendezvous—I failed miserably.

The next thing I saw was the tanker pop out of the clouds, and we were on an acute, constant-bearing, decreasing-range flight path. No problem, I just would under-run. As I sucked the throttles to idle and popped the speed brake, my situation got worse. I tried to lose altitude from our acute and high position, but all I did was to increase our already excessive closure. I recall seeing the windscreen full of KC-10 as I stuffed the stick forward as hard as I could. NVGs, smartpacks, kneeboard cards, and piddlepacks went everywhere as I braced for the impending collision.

I heard the roar of the KC-10's engines and then silence; I narrowly had avoided the collision. I glanced over my left shoulder, expecting to see the fireball of my wingman's collision, but, to my relief, he had avoided the KC-10 as well. He ended up slightly lower but closer to the tanker than I had been. As we stabilized outside the tanker, I realized I needed to quickly find that used piddlepack. I profusely apologized to my wingman as we crossed back under and joined on the tanker. We got our gas, cleaned up the mess in our cockpits, and enjoyed our night traps.

We had a chance to discuss the incident at mid-rats. As the safety officer, I had warned the squadron about the dangers of complacency, but I had ignored my warnings. During the previous three weeks, I had completed four daytime-tanker rendezvous during every flight. I had become used to carrying excess closure and positioning myself slightly acute to expedite the join-up.

# Rendezvous

During the daytime, this procedure was fine because most rendezvous were VFR and presented visual cues of when to slow the closure. The night of my incident, though, with bad weather, vertigo, and IFR conditions, I had carried far too much closure, too close to be safe or controllable.

I had become a victim of the dreaded “I can hack it” syndrome. When I lost sight of the tanker, I should have executed procedures taught since day one of form flying in the training command: Establish an altitude and heading difference. Instead, I tried to “hack it.” Following procedures would have prevented the close pass.

Finally, I unintentionally had violated NVG-training rules. These rules prohibit wearing NVGs while in instrument conditions. During the tanker rendezvous, I thought the NVGs were helping my situational awareness, but, in hindsight, I really think they caused most of my vertigo. The various rules that govern our flying are designed to prevent dangerous situations, and, had I obeyed those rules, this situation would have been avoided. With more than 2,500 flight hours and a three-year FRS tour behind me, I thought I had seen it all. A dark night, combined with challenging weather, taught me a lesson I never will forget. 🇺🇸

LCdr. Powers flies with VFA-37.

# MISSILES FLY AT 30 KNOTS?

By Lt. Ryan Carron

The days before Operation Iraqi Freedom were busy ones for trash-haulers in the Arabian Gulf. The Deuces of HC-5 Detachment 2, deployed on USNS *Flint* (T-AE-32), were the first operational MH-60S det to deploy on the T-AE-class ship. We had worked out most of the growing pains coordinating with the ship and with the new Knight Hawk airframe.

We felt comfortable with our shiny MH-60S, still with its new-car smell, and our detachment was getting in the groove with almost three months down on a seven-month deployment. We kept busy passing out the bombs and bullets that would rain down on the enemy. The day before combat operations, we got word the Marines in Kuwait direly needed SLAM-ER missiles. They wanted us to externally carry them 75 miles, directly to the airfield.

I'm all about door-to-door service, but if you're unfamiliar with hauling external loads, it can be a slow process when going extended distances. Loads can "fly" and get unstable when going fast. You don't want to fly over populated areas in case of an inadvertent release, which is right where our customers wanted us to fly. Our solution was to fly the missiles to a port 35 miles away. With a two-pack of SLAM-ERs weighing 5,500 pounds, the ride would be fun enough.

I was knee-deep in a functional check flight (FCF), while the OinC started the pick and drops. The plan was for me to join in if my bird came up. We did a thorough brief with QA and had a good ORM review, letting everyone know our intentions. We briefed the crew with the FCF portion of the flight and the possible mission in case we became players. The day in the North Arabian Gulf (NAG) was relatively cool but hazy; our ship's TACAN was down.

As we started the FCF, we saw the boss come in for the first pick. The SLAM-ER is a long missile, and we had our doubts on how it would fly. Immediately after takeoff, the heavy containers started to spin and move side to side. I thought to myself, "We're in for a long trip." We continued with the FCF, and the first helo came back every hour and a half to get another load for the beach. We got our bird up and decided to join in the mix with the final two loads.

We gassed and let the first bird make its pick and lead us into the zone. The other crew had been there five times before, so I figured it would be easy. When I started to pull tension on the load, I realized what a workout our compa-



trients had been through; we were at our torque limits, with a little safety margin worked in. Immediately after takeoff, the load started to dance. A 5,000-pound-plus swinging load on a 17,000-pound helicopter definitely is noticeable and uncomfortable. I pressed on, thinking that if my mates in the other helo could do it, why couldn't I?

We tried various airspeeds and quickly found going over 25 knots was not possible without the load getting unstable. Fortunately, we had a tailwind and managed almost 35 knots over the ground. I had my nugget copilot figure out the gas; it would be tight, but we would make it.

I had my hands full flying the aircraft and controlling the load. The seat cushion firmly was planted you know where as the swinging two-pack of missiles shook the airframe. To top it off, we had a hard time keeping up with our playmates as they pressed through to the beach. Because we had to go through the controlled airspace of several amphibs, my trusty copilot was busy tuning TACANs and center freqs to deconflict in the congested airspace of the NAG.

Halfway to the drop zone, our playmate queried, "You must've got one of the spinning ones, huh?"

I thought, "Thanks for the info." Talk about being a day late and a dollar short.

Our playmate guided us into the drop zone, and my copilot backed me up on the gauges as we dropped the load. We briefed the potential for brownout but maintained good reference with no problems. The helo sure flew better without that 5,500-pound monster hanging

onto our hook. The ride back was going to be tight with the gas situation.

On the way, we had to deconflict with the sea of ships operating in the NAG, and we were going to a ship with a down TACAN. I also needed to remove that seat cushion. On a positive note, we were able to beg some deck time from one of the amphibs. A fellow HC-bubba was working the tower and gladly gave us a drink after he recovered his harriers.

Here's what we learned:

1. If the load is not flying right, set it down, and have the deck guys rerig it. Apparently, five of the seven loads flew great. Better comms between the helo pilots would have settled this issue.
2. Divide responsibilities in the high op-tempo environments. While I concentrated on flying, my copilot could focus on other details.
3. Never pass up gas. We could have put ourselves in a bad position by going to a boat with no TACAN and relying on them to be where they were.
4. Brief contingencies. We were ready for the mission, and the FCF-and-go was planned, and ORM was covered. 🦅

Lt. Carron currently flies with HC-5

# Who's Seen the T-HANDLE?

By Lt. Mike Meeks

Our crew was tasked to turnover the airborne-command-post (ABNCP) primary alert that included a plane swap of our E-6B. Our six-hour mission was scheduled to depart Offutt AFB, Neb., and relocate to Travis AFB, Calif.

At 1415, our relief arrived for the primary-alert turnover. Unfortunately, around 1445, after the battle staff had arrived for turnover, our relief was told the aircraft was down for FOD. After a FOD search, their aircraft was back up. We swapped planes, refueled, and, following relief from the other crew, started to preflight at 1615. At 1645, we started engines to cool the aircraft and to assist communication preflight. The chocks were removed, and engines three and four were started.

The E-6B is equipped with a removable downlock that keeps the nosegear locked down after hydraulic pressure is removed. This downlock is called the T-handle. According to our before-start checklist, the T-handle is to be removed before engine starts. After engines three and four were started, the T-handle remained in place. To the best of our recollection, the aircraft was ready to taxi at 1730.

With our engines running, we received a call from maintenance control, telling us our new aircraft was down for a FOD inspection because of a missing tool from the Travis detachment. The aircraft was inspected thoroughly, but the tool was not found on board. The aircraft was determined to be safe for flight. We again reviewed the "Before Start Checklist" and the "After Start Checklist" to make sure all items were covered. We then told ground of our intentions to taxi to the holdshort, and we awaited final confirmation of the maintenance action form (MAF) sign-off of our relief. A visual confirmation of T-handle removal was made.

After reaching the holdshort, we were told we were not safe for flight unless our flight engineer (FE) signed off the corrected portion of the MAF. We taxied back so the FE could sign the MAF. While taxiing, I coordinated with the ground crew for a follow-me vehicle and for a plane captain

to recover us. I made it clear to ground and our crew we were not going to shut down and would be in the spot only 10 minutes.

Once parked, the plane captain (PC) signaled his trainee was going under the aircraft. The trainee hooked up the long cord and exited from under the aircraft. We again clarified with the ground crew we would not be shutting down, and all we were doing was waiting for the FE to sign off the MAF. I told the PC not to chock the nose; we were "only going to be here for 10 minutes." He rogered up.

We did not know the PC had reinstalled our T-handle because no T-handle hand signal was given to the flight deck, nor did we hear anyone say the T-handle was inserted. As soon as the FE returned to the jet, ground personnel checked us in taxi configuration. We taxied to the holdshort and departed at 1904.

Another interesting fact about the E-6B is that the nosegear will not retract with the T-handle installed.

Immediately after takeoff, it became obvious that the T-handle was installed in the nosegear. Because our gross weight was about 40,000 pounds above max-landing gross weight, we continued, gear down, to Colorado Springs. We landed and performed one "T-handle-ectomy," then took off with enough fuel to complete our training mission.

Although a little embarrassing, this was a "no harm, no foul" mistake, with many good lessons learned. Thorough communication is a must if we're to fly safely. When we had returned to our parking spot for our FE to sign off the MAF, I should have been more directive in what I did and did not want the PC to do. A direct "Do not install the T-handle" would have saved some embarrassment.

Another important lesson focuses on attention to detail. When the PC releases me with a salute, it means, "I'm the last set of eyes on your jet, and you are safe to fly." We, as leaders, must let our troops know that attention to detail is as important to them on the ground as it is to us in the cockpit. 

Lt. Meeks flies with VQ-3.

# Best Practices

## Information for Continual Improvement

**W**hat are we doing right? Much of what you read about safety usually focuses on mishaps, near-mishaps, and what our Sailors and Marines are doing wrong. As professionals, we need to continually improve the way we do business. As the articles in *Approach* are meant to share experiences so others learn (the “There I was” concept you’re familiar with), we also need to share practices that can prevent mishaps. Here are several “best practices” we want to share.

### **From safety surveys at MCAS Beaufort:**

A VMFA squadron has instituted a daily ops brief before flight operations each morning. One of the featured items is a short systems lecture presented by a squadron subject-matter expert. This initiative is part of MAG-31’s effort to get back to basics and make sure aircrew have the in-depth systems knowledge needed to conduct routine aircraft operations. All pilots also are required to complete a monthly emergency-procedure simulator event, regardless of their experience level or amount of flight time completed during the month. Repeated training in aircraft systems and emergency procedures increases the likelihood of correct responses in critical situations and makes sure pilots have a firm grasp of the basics as a foundation for more advanced tactical training.

### **From safety surveys at NAS Lemoore:**

VFA-14 employs a safety-petty-officer-of-the-day program (SPOD). This is a rotating duty between the shops. When it is your shop’s day, a petty officer is selected to watch selected maintenance evolutions (basically the same duties as the safety petty officer in the squadron). However, this program gives confidence to every member of the squadron and underlines the “everyone is a safety officer” mantra. A grade sheet is filled out and sent up the chain.

### **From VPU-2’s December safety gram:**

The CO asked the ASO to analyze P-3 historical A, B, and C mishap summaries from 1990 to 2003 to identify the most likely cause of the next mishap, and then to identify steps the squadron can take to mitigate the risks. The result: a determination that the most likely scenario would be a ground mishap caused by human factors, specifically poor procedural execution and supervisory error. Having picked a scenario, the squadron then used AMI preparations to refocus on following proper procedures the first time and making sure maintenance actions are conducted and documented “by the book.” The result was improved aircraft availability and mission effectiveness. They also were able to schedule a dedicated training day for maintainers, as well as aircrew. Leadership makes sure the steps remain in place and are effective; the efforts are paying dividends.

### **From VAW-126’s November best-practices message:**

This squadron has adapted the human-factors council (HFC), long used by aviators, to include all the squadron’s enlisted personnel, becoming the EHFC. The EHFC gives the squadron an opportunity to identify and mitigate potential problems among the troops. The program includes an initial risk assessment of personnel upon check-in, including a review of records and interviews. The EHFC convenes before underway or detachment periods and as determined by the CO. Individuals identified as high risk by the EHFC will be the subject of a follow-on human-factors board. “The goal is to provide the CO with the tools needed to make an educated and evaluated decision whether or not the individual may work on the flight line, flight-deck-hazardous area, or may demonstrate qualities posing social risk to the individual.” The squadron has had the program in place for seven months and now feels “this intervention is critical to meeting FRP requirements, and to continually assess the well being of the command from a personnel standpoint.”

# Ready Room Gouge



Photo by Matthew J. Thomas. Composite

In flying I have learned that **carelessness** and **overconfidence** are usually far more **dangerous** than **deliberately accepted risks**.

*-Wilbur Wright in a letter to his father, September 1900*

Visit: [www.safetycenter.navy.mil](http://www.safetycenter.navy.mil)

