

ON SCENE

The Journal of U. S. Coast Guard Search and Rescue



*Homing In on 121.5 MHz Homers...
...Getting to the Scene Faster!*



ON SCENE

The Journal of U.S. Coast Guard Search and Rescue
Fall 2003

Table of Contents

RADM David S. Belz
Assistant Commandant for Operations

RADM Jeffrey J. Hathaway
Director of Operations Policy

CAPT Steve M. Sawyer
Chief, Office of Search and Rescue

Dana A. Goward
Chief, Policy Division

Richard R. Schaefer
Editor

ON SCENE is a semi-annual, authorized special interest publication produced by the Office of Search and Rescue for members of the U.S. Coast Guard and the SAR community. Editorial content is not to be considered authority for official action nor record material. Individual views and opinions do not necessarily reflect those of the Department of Homeland Security or the U.S. Coast Guard.

We strongly encourage readers to submit articles or letters to the editor. Though we make every effort to publish all submissions, we do reserve the right to refuse publishing articles that are not consistent with our objectives. Furthermore, we reserve the right to edit articles for length, accuracy and grammar.

If you prepare an article for publication, please submit an electronic copy either on disk (3 1/2", CD-ROM, ZIP) or via electronic mail. Please send photos or graphics if possible. Indicate if you wish us to return your material.

Notice to librarians:
The last issue published was the Spring 2003 edition.

<i>A Note from the Chief of Search and Rescue</i>	1
<i>From the Director Of Operations Policy</i>	2
<i>Letters to the Editor</i>	3
<i>Remembering Our Shipmate - LCDR John Homan</i>	5
<i>Dawn of a New Era; The Operations Specialists</i>	6
<i>Where the Hover Meets the Boat</i>	7
<i>MEDEVAC - Lessons Learned in Southeast Alaska</i>	10
<i>12/11/02 Great Crew Resource Management</i>	12
<i>Around the World with Amver</i>	13
<i>The SAR System - Continuous Improvement</i>	15
<i>Search and Rescue Success Story: 406 MHz EPIRB and CG HH-65</i> <i>F/V STILL CRAZY XII lessons learned</i>	16
SPECIAL SECTION - SAR Case Studies: A Review	18
<i>Search and Rescue Awards</i>	
<i>SAR Heroes and Awards</i>	29
<i>RCC Controller of the Year 2002</i>	30
<i>Group SAR Controller of the Year 2002</i>	31
<i>Association For Rescue At Sea (AFRAS) Awards</i>	32
<i>Admiral Of The Ocean Sea (AOTOS) Awards</i>	35
<i>Conferences - Workshops - Events</i>	36
<i>U.S. Coast Guard SAR Program Information</i>	37
<i>U.S. Coast Guard SAR Summary Statistics with Performance</i> <i>Measures; Fiscal Years 2000 thru 2003</i>	38

Front Cover: A 406MHz EPIRB brought the Coast Guard HH-65 close enough to spot the partially sunken F/V STILL CRAZY XII; the crew had drifted away, but the 121.5 MHz homing signal led rescuers to their location. Read more starting on page 16. Photo provided by Gregory Johnson, MSO Charleston.

Send articles or photographs for publication in ON SCENE to:

Editor, ON SCENE Magazine
Commandant (G-OPR)
2100 Second Stree SW
Washington, DC 20593-0001

Phone: (202) 267-1089
Facsimile: (202) 267-4418
Email: rschaefer@comdt.uscg.mil
<http://www.uscg.mil/hq/g-o/g-opr/sar.htm>

A Note from the Chief of Search and Rescue...



SAR HAPPENS WHEN EVERYTHING ELSE FAILS

Greetings shipmates!

Have you ever considered what we in the Coast Guard do on a daily basis to **prevent** a SAR case from ever happening? We do so much to proactively maintain a safe and secure maritime environment that it's a wonder that we have to maintain a fleet of small boats, aircraft and cutters to respond to the large number of distress calls that we get. For example, our initiatives with the International Maritime Organization help set worldwide standards for safety, standardization and communications; our black hull fleet marks the channels to ensure safe transits; our Office of Boating Safety works with State Boating Law Administrators to fund grants and to support state-led efforts to ensure safe boating; our Auxiliarists provide public education and voluntary courtesy motorboat exams to interested boaters; our law enforcement boardings yield compliance with mandatory carriage requirements; our marine inspectors site vessel discrepancies requiring resolution; our licensing requirements ensure professional mariners know their trade and are properly credentialed; our broadcasts of National Weather Service updates keeps the prudent mariner informed of impending storms and advisories; and our general enforcement of rules and regulations help keep the waterways safe from negligent and unsafe boaters.

With all we're doing behind the scenes to prevent SAR, it's hard to imagine that we've run 31,562 cases in FY 03, with 655 unfortunate souls losing their life and another 481 still missing. What it often comes down to, in an open and free society, are the personal choices made by mariners themselves...forecasts for foul weather are useless unless heard and heeded, training and education only benefits those who make a point to attend, lifejackets are only able to keep a potential victim afloat if worn, and those who choose to use alcohol while boating serve only to further impair their judgment in an already unforgiving environment.

One of our biggest challenges, then, is influencing human behavior — to ensure our substantial prevention interventions and strategies are given a fair shake to work as intended...SAR happens when everything else fails. Which brings me to my next point...what type of person makes for a better life guard? The one who maintains a vigilant stance at his post, their eyes constantly trained on the water, maintaining a constant watch for a swimmer in distress...or the lifeguard who walks up and down the beach, chatting with families, cajoling weak swimmers to stay close to shore, and otherwise interacting with those they come in contact with? The fact is, using the lifeguard analogy...our Coast Guard needs both — ready to respond without hesitation, and constantly in the public's eye as an extension of our numerous prevention strategies. Our boat crews (to include our Stations, ANTs, MSSTs, and Auxiliarists) are our windows to the world...they see everything going on in our inshore maritime environment — and are in the best place to have a positive influence on the behavior of all mariners. Let's use them to that end...to prevent their own middle-of-the-night response to boaters who have gotten themselves into distress.

Captain Steve Sawyer, USCG
Chief, Office of Search and Rescue

From the Director of Operations Policy

Operation of maritime command centers is a core USCG competency. What began in many instances as a single duty officer or petty officer charged with monitoring on-going operations, evolved first into district Rescue Coordination Centers (RCCs) and then into command centers at both the district and group level that monitor, support and coordinate operations in all mission areas. We are now poised for the next stage in the development of this critical capability.

Most Group/MSO command centers will evolve into Integrated Maritime Command Centers (IMCCs). Acting as the single point of contact for all Coast Guard operations within their AOR, IMCCs will benefit from an extensive network of sensors, communications circuits, and intelligence information that will provide quantum increases in their ability to monitor and respond to conditions within their coastal (<24nm) and port zones. They will have the ability to both plan and execute on-going tactical operations, and will be able to incorporate other “Blue Force” partners, such as harbor police, state agencies, and other DHS agencies, in both their planning and operational sphere.

District command centers (DCCs) will also grow and evolve with greater capabilities than they have now. With strong links to the DHS regional director, DCCs will monitor and coordinate operations offshore between 25 and 200nm, as well as supporting and coordinating between IMCCs when necessary. While exact tasking has yet to be determined, DCCs will probably also serve as our internationally recognized RCCs.

Leadership of these transformations will be critical. At the headquarters level, the Maritime Domain Awareness Directorate, reporting to RADM James Olson, has been given the responsibility of developing the requirements and implementing the new IMCC and RMCC concepts. Additionally, the Office of Search and Rescue (G-OPR), has recently been designated the service’s program manager for command centers, and has hired Mr. D. A. Goward to take the lead in this endeavor. G-OPR will be intimately involved in IMCC/RMCC development, and will assume HQ program management of them as they come on line.

Effecting this transition will involve an incredibly complex and extensive array of additions and changes to our staffing, training, equipment, and methods of operation. We have already begun in some areas. These include:

- Additional billets at command centers for improved watch schedules.
- Inclusion of civilian positions to improve continuity and experience, and offset current and forecast long term OS shortages.
- Numerous field initiatives to improve C4ISR such as JHOCs, JMOC, and CHOC.
- Designation of IMCC Miami as the Coast Guard’s prototype site. This has resulted in the investment of significant DHS and USCG funds there to identify the correct C4ISR, personnel, and ConOp for IMCCs.
- Establishment of the headquarters MDA staff and shifting command center program managership from G-OPF to G-OPR.
- Publishing an ALCOAST to outline the status of our IMCC efforts and identify responsible staffs for various portions of the project.

There has been much activity in the last two years to improve both our MDA and shore-side C4ISR capability. I expect that the near future will see even greater coordination of these efforts and improved definition of IMCCs and RMCCs as a cohesive, articulated long term Coast Guard project.

Rear Admiral Jeffrey J. Hathaway
Director of Operations Policy

Letters to the Editor

Re: Article In On Scene edition spring 2003, page 17 "Can You Hear Me Now" By LT. Arturo Perez

Dear Editor,

I recently got your latest edition of On Scene magazine and I came across this article "Can You Hear Me Now" about pin-pointing cellular distress calls, it is very sad that this technology was not in place this January 24th of this year of 2003 when one of four boys made a frantic call for assistance to the New York Police Dept. 911 system on his cellular phone at 10:00 PM in which the caller stated to the 911 operator: "Hello ... uh ... we're ... listen ... we're on the Long Island Sound in a boat off the coast of City I ... we're gonna die," one of the teens says, according to the transcript of the 12-second call. Even after the this distress call was received a search was started 13 hours later still the Coast Guard was kept in the dark about this maritime SAR incident by the NYPD marine unit. As designated by the National SAR Plan it is the USCG that has the delegated authority to direct the search effort. The Coast Guard had no say in how the search effort was to proceed, which was directed by the NYPD marine unit. They did not have even CASP available to them. Quite clearly that this 911 operator had knowledge of a maritime distress, and nothing was done about it till it was to late for the three boys, who died a lonely cold death in Long Island Sound as their boat swamped. Until this system is in place as described in this article all OPCENs and all Groups are going to have to reach out to the 911 systems in there operations areas and make sure there is a Standard protocol for 911 operators in handling Maritime Distress Calls received by 911. I believe there was an article written in the "SAR Watch" newsletter asking OPCENs

and Groups to reach out to the there areas 911 systems and to inform them that it is Coast Guard designated by the National SAR Plan that they are the SMC for SAR on the waters of the Pacific Coast and Atlantic Coast and Great Lakes, as well as the Gulf Of Mexico. At the various 911 operations centers through out the US there is a high turn over rate of staff. As SAR professionals we must not let a maritime distress incident like this to ever happen again on our watches.

Ken White
Powell River, B.C.
Canada

The incident with the teenagers in New York was indeed tragic. It clearly demonstrates the problems with communications by cellular phones without location capabilities. Cell phones must rely on the person in distress to accurately passing their position, something that is often difficult to do on the water, particularly when in an emergency situation. In this case the difficulties were compounded by the distress call not being aggressively passed forward to the NYPD marine unit and the Coast Guard. This incident also shows the importance of maintaining a strong liaison with any other agency or service which will be receiving and passing distress alerts to your unit. o/s

A letter to the Coast Guard SAR System.
The ALICE OLDENDORFF is an Amver participant, the message is about the help provided her AND how the USCG/USA is viewed.

Good Morning,
Sorry for the delay in sending this

message, as this ship keeps me very busy. Finally I managed to write the following:

On 30th April 2003, a seaman Mr. Jalbuna Aldrin got severely injured when steel plates fell over his lower half of body. At that time this good ship was near Cape Cod proceeding from bayside to New York as per our good New York Agent Mr. Carlo Ruggieros advise I contacted New York USCG, which advised me to contact USCG Boston and within an hour there was a USCG helicopter that picked up the injured seaman. It was a big relief to see an injured person being evacuated because we all felt certain that Americans will take good care of him.

Also, I appreciate very much the professionalism of the helicopter pilot who kept it hovering stationary near the starboard midships shipside and enabled injured person to be lifted up. All this was done without altering course or speed even though helicopter was dangerously close to obstructions on deck.

Next day, after berthing at New York, I phoned Mr. Jalbuna and enquired about his welfare. It was great feeling to hear that he was operated upon well and his fractured bones were reset properly. He was happy to inform me that within few days he should be walking. On 13th May 2003, he departed to home.

Similar cases have been experienced by my friends, colleagues sailing upon high seas and all appreciate the timely help provided by USCG in all kind of situations.

After hearing from all and my own experience I conclude: When your God fails you, call the Americans for help.

Best Regards,
CAPT. P.S. Rawat
ALICE OLDENDORFF

Continued on next page

Letters to the Editor

Subject: Search & Rescue Today- St. Petersburg, FL

We are family members of Jennifer Kelly who was rescued earlier today from a kayaking mishap. We live in Hernando Co. and have just got home. We would like to THANK THE ST. PETERSBURG COAST GUARD FOR THEIR CONTINUED SEARCH & RESCUE OF OUR NIECE!!! Their valiant efforts of searching all night & all day resulted in Jennifer's safe return to us. We tried to call but were unable to get through to them, so we hope that you can help us to relay to them our gratitude for everything they have done!! We did not want the day to end without their knowing how THANKFUL & HAPPY We Are Because of THEM! Due to lack of sleep & being worried, we apologize that this was not done immediately. We hope they understand and forgive our tardiness. Please let us know if this can be forwarded to them. It is very important to us that they know that they are at the top of our list to thank.

Sincerely,
J. & S. Fayer

Re: Responding to the Uncorrelated Mayday; On Scene Spring 2003, pg 20; letter to the author:

Norm,

Thanks for the article in On Scene about using VHF-FM range patterns for investigating MAYDAY transmissions. I was talking to a number of our controllers here a couple of weeks ago on this very issue, and they were all looking at me like I had three heads. I hear things like "but C2PC doesn't show radio coverage there!"

The specific case we were discussing was one where a group picked up a transmission on two high levels. The C2PC plot, using the "standard" 25nm rings showed that the two high levels (Dunkirk and Ashtabula) didn't intersect, so there's no way of using the transmission info in developing a search area, I was told. Well,

think about it I said, if the range is just a little more than 25nm on either or both high levels, they intersect at or close to Presque Isle Bay/State Park, the biggest concentration of boats for a 100 mile stretch of Lake Erie shoreline. Is it possible/probable that the transmission came from there?

Your article will help bolster the point that I was trying to make with them, namely that the "standard" ring is an imprecise, generic thing, and that you have to think about what's actually happening in the "real world." The case turned out to be a probable hoax, but I think illustrated the point well.

Thanks again!

Jerry

Jerome A. Popiel
*Senior Controller
Ninth Coast Guard District*

Right on target Norm and Jerry; the range rings are not accurate depiction of actual coverage range of the high sites, rather a guide. Actual coverage of course depends on antenna height, transmitter power, obstacles and atmospheric at the time of transmission. o/s

The following was passed to On Scene as a point of interest to many in the SAR and Boating Safety fields. The legislation in Hawaii followed several incidents with persons overdue and lost following what should have been a short, safe trip out onto the water. Strong currents and lack of communications capabilities have proven a deadly combination. The CG Auxiliary in Hawaii has geared up to include this as part of their vessel examinations. o/s

Hawaii

"Boaters that venture more than a mile out in the ocean are now required to carry emergency radio equipment under a bill recently signed into law by Gov. Linda Lingle.

The law requires any watercraft that goes more than a mile offshore to carry an EPIRB or VHF-FM radio. Violators will be subject to a fine of \$100.

The law applies to any vessel that is

required to be registered with the State or the Coast Guard as well as manual or sail-propelled boats. Canoes, PWCs, surfboards and paddleboards are exempt. Kayaks and training sailboats must comply and will only be exempt if accompanied by at least one vessel that complies with the law...." published in Hawaii Tribune Herald (Hilo) 19MAY03:

Key points:

- a) All vessels operating more than 1 mile offshore must carry VHF or EPIRB
- b) Exceptions are surfboards, paddleboards, canoes, PWCs.
- c) Kayaks and training sailboats must comply or have an accompanying craft which is in compliance.

The new law and Vessel Safety Examinations:

Please refer to COMDINST M16796.8 p26. To pass a USCGAUX Vessel Safety Check, the subject vessel must comply with State requirements: "The requirements of the state where the VSC is conducted will be included in the VSC." As such, all vessels in Hawaii presented for a safety examination will now need to exhibit an EPIRB or VHF radio. If this equipment is not present, a VSC decal cannot be issued. (For purposes of examination, we will assume that all vessels covered by the law will be operating more than a mile offshore.)

I will prepare a training memorandum later this week for circulation to all qualified Vessel Examiners. Please contact me with any questions

Harvey Egna
*District Staff Officer -
Vessel Examinations
District 14 USCGAUX*

Remembering our Shipmate

LCDR John Homan

Colleagues: The sudden death of a shipmate is hard for all to understand. Yet, in reflecting on John's life, we realize that he left a legacy of professionalism and quiet, dedicated leadership that will continue to inspire those who were fortunate enough to serve with him or work for him. He impacted hundreds of young Coast Guardsmen who are better prepared for their duties because of his interest in developing, coaching and mentoring them. Others of us relied on him for steady advice and guidance, which he willingly provided. We are sad for ourselves at this time of loss; however, this is also a time to celebrate his remarkable career and personal achievements that have made us all richer. I've appended two writings which might help each of us draw strength from our memories of LCDR Homan.

Father Jim Finley was the Chaplain at TRACEN Yorktown when John was assigned to the UTB Systems Center. He spoke without notes at the funeral, but did provide this synopsis of his remarks upon our request:

"This is a very sad occasion. Too soon. Too young. John's death came too soon. He died too young. When I think of John, I think of him as the quintessential boatswain's mate. Boatswain's mates are rough and tumble, no polish, no airs, no ego- but with plenty of self confidence. They are honest, dependable and hard working. You give him a job to do and he gets it done. He doesn't need anyone looking over his shoulder, micro-managing things. If he has a problem with the job, he'll figure out how to do it. The solution may not always be by the book. But it probably works as well or better than the standard procedure. When he's in charge, he doesn't nit-pick. He doesn't meddle. He trusts his people to get the job done and if they have questions, they'll ask them.

If a boatswain's mate wants emotion or passion or drama in his life, he gets married. Marrying Vickie, John found emotion and passion. Chris, Shawn and Magan, I'm sure, have provided him with plenty of drama.

Virginia and Gerry, I congratulate you. You can be proud of the son whom you have raised. He was a good man. You gave him your values of hard work and honesty. He shared your priorities in life. June, your love for your brother and his for you have made a lasting impression for the good in both your lives. Arthur and Alice, you knew your daughter, Vickie, was in good hands when she married John.

Too soon and too young, John was taken from his wife Vickie and their children, Chris, Shawn and Magan. But John is living before God. Searching the Scriptures, I don't find any reference to "Afterlife" or "the here-after". I find much that refers to life, not afterlife. "This is eternal life; to know Him (God) and Him whom He has sent, Jesus." Jesus doesn't speak of the here-after. He says: "Where I am, my servant shall be." John is living before God, Whenever you need him, you'll find him where God is - right here. As you reach out in prayer, you'll find not only God, but his servant John with Him to console you and to challenge you. No pomp, no airs, John, the quintessential boatswains mate will get the job done. Peace."

And from another officer with whom he served, CDR Bob Desh, this:

"I came across this great quote delivered at the funeral of Joshua James (famous Life-Saving Station Keeper) by the Superintendent of the Life-Saving Service, Sumner Kimball. Thought it worth sharing as we pause to reflect and remember the passing our friend and shipmate, LCDR John Homan..."

"Here and there may be found men in all walks of life who neither wonder or care how much or how little the world thinks of them. They pursue life's pathway, doing their appointed tasks without ostentation, loving their work for the works sake, content to live and do in the present rather than look for the uncertain rewards of the future. To them notoriety, distinction, or even fame, acts neither as a spur nor a check to endeavor, yet they are really among the foremost of those who do the world's work. Joshua James was one of these."

I think it safe to say, so was John Homan.

Respectfully,
RADM Sally Brice-O'Hara

Dawn of a new era;

The Operations Specialists commence taking of the Group Operations Center Watches

By OSCM Richard Hughes

On 01 July 2003 the Coast Guard stood up a new enlisted rate...the Operations Specialist (OS). They are the Tactical Command, Control, Communications, Computer, and Intelligence Rating for the U.S. Coast Guard. From the moment they enter OS Class "A" School, located at CG Training Center Petaluma, they will start acquiring the skill sets required in order to man all watch positions within the Coast Guard Command Centers, both afloat and ashore. These basic skill sets include the following: gathering information from sensors, processing the information, displaying the information, evaluating the information, and disseminating the information out to the response units. In past years up to four different enlisted ratings stood watch in the different command centers throughout the Coast Guard, to include QMs, BMs and a few RDs and TCs; all bring a different skill sets to the Command Center environment. With this change the Coast Guard now has one true enlisted Command and Control rate, thereby ensuring the professional boat drivers and enlisted deck watch officers are in fact back where they are truly needed.

In the OS Class A school they will learn GMDSS, Rescue 21, Navigation Chart work, SAR communications watch procedures, Shipboard Command and Control System operations, and Radar Navigation. Whether the situation is Search and Rescue, Law Enforcement, Maritime Safety and Security, or General Defense Operations, these OS's will have the basic skill sets needed to accomplish the Coast Guard's work. From the moment the OS graduates from OS Class A school, until he/she departs the service, they will be manning every type of Command Center in the Coast Guard. At the apprentice level

the OS will maintain communications duties, Vessel Traffic Service controller duties, or command and control watches aboard the cutter fleet. At the Journeyman level, the OS will either continue to conduct afloat operations, VTS duties, Communications watch, and acquire more skill sets that will them to successfully serve as a Group Search and Rescue Duty Officer. At the Masters level they will be able to serve as the Group Operations Center Supervisor, Joint Harbor Operation Center Watch supervisor, Vessel Traffic Center Watch Supervisor and as the OSIC aboard our major cutter fleet.

Based upon concerns raised by the SAR program (since new SAR controllers will be billeted by the OS rate as opposed BMs and QMs who filled the majority of the enlisted SAR Controller billets), I can tell you that this change will not be without consequences...some of which I've noted below.

√ BMs and QMs used to be boat coxswains and underway OODs – they have real life UTB/MLB/WPB "sea spray in the face" experience in the maritime environment from running their share of SAR cases onboard a SRU or serving as the OSC. **Most OS's won't have that...**so it'll be important to do a little more than area familiarization during the SAR Controller qualification process. Get them on the water and keep them there for a while; so that, from a SAR perspective, they understand boats, boaters and waterways; and how our boat crews work together with our SRU assets. On the other hand, I would believe that at least half of the OS1's would have a better understanding of the duties of a OSC

(aboard a major cutter) than those who have filled the BM/QM ratings, since most OSC duties aboard our larger class of cutters are, in fact, conducted within the CIC and Commcen.

√ Being a BM/QM isn't necessarily a pre-requisite to being a good SAR Controller...one former Group Commander opined to me that one of the best SAR controllers who ever worked for him (before the days of having a cadre of dedicated SAR Controllers) was a Storekeeper. What's most important? Organizational skills, communication skills, critical thinking skills, judgment, focus, professional presence and a bulldog's tenacity to never let go until the case is closed – intangibles not inherent to any specialty.

√ Most BM's would rather be doing something besides working the Command Center beat...with aspirations to become an XPO and an OinC. The OS world of work, however, will focus on the Command Center environment. The first several years will be the toughest, as we bring this new rating along and acclimate them to the SAR mission. After that, we've got them for keeps...they will be our Command Center gurus from E-4 to E-9; and they will have gone from the voice position to SAR Controller to Supervisor to OS School Chief.

Master Chief Hughes is the OS Rating Force Manager in the Office of Workforce Management at USCG Headquarters. o/s

Where the Hover Meets the Boat

By LT Russ Hellstern

“Now, put the ready helo on the line!” You are buckling into a Coast Guard helicopter to search for a motor vessel somewhere in your operating area. Of course it is nighttime so imagine darkness. The kind of darkness the phrase “inside of a cow” was meant to describe and yet still somehow fails to characterize. On this particular night, the moon illumination is reported to be in the single digits and whatever quark-sized particles of light that were attempting to make the journey are completely blocked by a broken layer of clouds. The weather is surprisingly good for this time of year with the ceilings reported as broken at 3000 feet 10 miles of visibility. The winds are almost non-existent so as they would say in flight school, launch the solos!

You have been up since 8am; it is now 8 pm so to say you are operating at peak performance is stretching it a little so you run through your I’M SAFE checklist:

- Illness: Feeling good - GO.
- Medication: Coffee this morning but nothing since then - GO. Yes, I know coffee is not “medication” but caffeine does alter the body chemistry and may affect heart rate, vision, and other factors that can affect flight performance.
- Stress: First child is due to arrive any day now, credit cards maxed.. GO
- Alcohol: None in 12 hours - GO.
- Fatigue: It has been twelve hours since I had any real rest, but by the book I have 30 minutes of crew mission time and zero flight time. I feel ‘as fresh as a daisy’ - GO.
- Eating: Good dinner in the galley...a well-balanced meal - GO.

OK...the personal checklist is complete. So you spool up the Global Positioning System, check the Navigation solutions, Engine, flight instruments, controls, torque, radar...check. And you’re off.

The vessel description as given in the pre-flight brief is a motor vessel approx fifty feet long. There is limited hoisting area at the stern and even less at the bow. Thankfully, you have onboard a crew experienced in this type of mission; at least one of the vessel occupants has been through hoist evolutions in the past. As the senior (read old) guy and the Aircraft Commander (AC) for this flight, you elect to take the left seat to ensure the transit goes as planned. Besides, how else are the Nuggets going to learn anything without getting their hands in the pie every once in a while? The Co-pilot is a second tour AC so you figure his stick and rudder skills are at least up to par. You momentarily wonder how long it has been since he has hoisted at night (or even if he’s done this at all) but then press on with the checklist. Now airborne and well inside the “cow”, you begin to pick up a single radar target...One O’clock at five nautical miles. “Rescue Checklist pert one, please.”

A quick check of the chart shows that unless Mother Nature burped up a rock in the last 56 days, that is indeed your target. Due to the limited visibility, light winds, and the necessity of facing offshore (i.e. no land-based lights to provide a hovering reference) you elect to use the on-board computer to assist you in flying a precision approach to a coupled hover. The “Old Guy” whips up the mental math and programs in a great approach. There is the vessel, 1000 feet off your nose. It is your only hover reference so you keep your eyes

fixated on it. Here is where the fun begins.

Using excellent CRM, you ORM’d the situation and called for Rescue Checklist Part Two for a basket delivery to the stern of the vessel. In essence, therefore, you discussed the situation amongst the crew, seeking all viewpoints thereby making certain to capitalize on experience and proficiency Crew resource Management (CRM). You then updated any risk management factors that may have changed during the transit to scene and identified all other possible hazards lurking in the shadows Operational Risk Management (ORM). You then scanned the engine and flight instruments again before calling for the next rescue checklist.

Recall that the vessel’s stern provides a very small hoisting area for the deck crew. There are multiple snag hazards quite common to fishing vessels in this area; railings, whip antennas, riggings, and a mast that sits about 25 feet above the waterline loaded with more stuff. You opt for the lowest hover altitude that will get you over the stern (about 45 feet), around the mast, and yet may still leave you a tip of the bow to look at during the hoist for a reference.

Some of you may be asking yourselves, “What is the big deal with a hover reference?... can’t you just use the computer?” Good questions, and valid up to a point. During the hoisting evolution, someone (i.e. the steely-eyed chopper pilot) has to make hundreds of control inputs in the horizontal, vertical, and longitudinal axes to compensate for the thousands of changes in relative position between the vessel and the helo. You need everything ‘arcing and sparking’ in to pull off a “no-reference, night hover.” What about using Night Vision Goggles (NVGs)? You remember that moon illumination on this

night is in the single digits with a broken layer of clouds. NVGs in such conditions are practically useless. You start to slide forward and left to close the gap between you and the boat. About 10 feet from the stern, you begin to see the mast come into view. It takes a roll from right to left pushing the boat up and left, thus doubling the rate of closure. This causes you to quickly yank back of the cyclic (stick). You think to yourself, “gee it would have been nice to have seen that one coming.”

You dropped back a bit; you not really sure why, as your brain is telling you to move forward and left. The Flight Mechanic/hoist operator has repeated forward and left 25 now for about the past 20 seconds and still you can’t close the gap. Finally in a brazened act of desperation, you push hard forward on the cyclic stick in the hopes of doing two things: first you would like to hear something come out of the hoist operators mouth other than “forward and right 25”. Secondly, you pray that after you have closed the gap, something is left on the bow of the boat for you to look at for a visual reference. You know that as soon as you loose sight of the boat, your inner ear is going to tell your brain that you are not straight and level with the horizon. As much as you try to fight it, your body will force the controls into what it believes is a level hovering attitude. Remember that helicopters hover nose up and left wing down (opposite for my Eurocopter friends) and straight and level on the artificial horizon is actually an accelerating attitude.

But I digress; back to the hoist. You go ‘lost target’ but don’t call it for two reasons. The first is out of the visceral reaction to avoid professional embarrassment, and secondly, because you are hoping, in vain, that you will regain visual reference with the boat. Neither happens, and now everyone is holding on for dear life (including those on the boat). The hoist cable you sent down has wrapped itself (actually you wrapped it but maybe we can blame it on the hoist operator later) around the mast. In true Indiana Jones fashion, it is solid enough to swing on and

isn’t coming off. The Flight Mechanic calls, “Back and left...up, up, up...easy back and left.... shear, shear, shear!” After muttering a few choice expletives, you scamper off for home wondering into which folder the Safety Officer put the mishap form template.

The scenario you have just read is a compilation of several mishaps related to actual Coast Guard 47-foot Motor Life Boat (MLB) mishaps dating from 1998 to 2003. The 47-foot MLB is quite similar to many of the fishing/charter vessels you can expect to see on any dark night. They all have masts, rigging, railings, antennae, etc. What it really comes down to is that we (Coast Guard Helo Bubbas) are feeling the effects of change. We would like to blame the physical characteristics of the MLB for the mishaps. However, of the 15 most recent Coast Guard mishaps involving hoisting evolutions with a 47-foot MLB, 53% are directly attributed to low pilot proficiency. Another 60% were in some way caused by Spatial Disorientation; that is, hovering in the “milk-bowl,” getting the “leans,” “vertigo,” and a host of other human factors mixed together to upset the delicate balance of hovering flight. It doesn’t matter how long you have been flying, if you haven’t practiced hovering at night, on instruments in a while, you will invariably be a bit rusty when it comes time to do some of that “pilot stuff.”

A careful analysis of the “Human” element can ferret out some good lessons learned. You Aviation Safety Officers (ASOs) have a wealth of resources to help you do this. They include the Naval School of Aviation Safety’s Human Factors Checklist, the Naval Safety Center’s Human Factors Classification taxonomy (HFACS), and a host of other excellent aircrew risk management guides. The Checklist is an outstanding; easy-to-use tool that allows the ASO to identify what human factors issues may be impacting a mission. The Coast Guard Operational Risk Management Checklist is derived from the Human Factors Checklist, and is a great tool to ‘proactively’ identify potential hazards as part of the risk management process. HFACS gives the ASO the statistics and

sanitized narratives of past mishaps, and identifies some of the critical areas of concern that may be contributing to mishap causal and/or contributing factors. It is an excellent resource for use at Safety Standdowns and other venues where mishap causal/contributing factors are to be discussed. The key to these and other flight risk management resources is the awareness that aviation safety directly impacts all levels and aspects of your command’s performance, and, in turn, your unit’s overall operational readiness.

One vital aspect of using these Aviation Risk Management tools is that they require the ASO and the rest of your mission planning team to ask critical questions. For instance:

“What organizational issues are lurking in the shadows?” Generally speaking, the most elusive of latent failures resolve around issues related to resource management, organizational climate, and operational processes.¹

“Were there any overarching organizational issues at play in these mishaps?” Maybe there was an increased operational tempo, staffing shortages, or changes to norms and rules. Indeed, Mishap Board investigations concluded that there were distinct scheduling oversights that allowed a pilot to go approximately 10 months without a practice night over-water evolution.

The mishap report noted that, “The NPIC (not pilot in command) completed a transition course in Aug 2001. Since that time, the NPIC completed zero night rescue swimmer deployments....The PAC (Pilot at the controls) had performed few previous night offshore hoists and it had been four months since his last one (night hoist).... The limited night training opportunities went to the duty standing Aircraft Commanders and he (the mishap co-pilot) went to the bottom of the training pile.” Clearly, the training and scheduling departments are contributory participants for allowing these latent failures to propagate through the organization.

The decision made by upper level management sets the tone for the

¹ The Human Factors Analysis and Classification System-HFACS, Shappell, S.A., Wiegmann, D.A., February 2000, DOT/FAA/AM-00/7, pg 11.

Supervisory element in the chain. The Supervisor arguably has the greatest ability to effect change in an organization as he/she is a direct link between policy and production, i.e. upper management and the workforce. Examples of unsafe supervision are characterized in terms of directly “failing” to do something. For instance, the supervisor failed to; provide guidance, oversight, training, correct data, opportunity for adequate crew rest, report unsafe tendencies, initiate corrective actions, enforce rules and regulations, and the list goes on.

Pre-conditions for unsafe acts can be directly linked to nearly 80% of all aviation accidents. However, simply focusing on unsafe acts is like focusing on a fever without understanding the underlying disease causing it.² To better understand this element in the “Swiss cheese” model, it is helpful to preconditions into the condition of the operator (mental and physiological) and the substandard practices of the operator. Examples of substandard mental and physiological conditions include; complacency, mental/physical fatigue, lost situational awareness, and medical illness. Likewise,

substandard practices can be characterized by a series of failures, i.e. failed to provide back up, failed to conduct an adequate brief, excessive physical training, and self medication. These single events by themselves do not create the “trigger event” that directly causes the mishap in question but certainly may be causal in nature and should not be ignored.

Most of what people see on the surface are the ‘Delta Sierras’ ...the unsafe

acts that can loosely be classified into two categories; errors and violations.³ Errors are commonly referred to as “honest mistakes” and are decision, skilled based and/or perceptual in nature. Common errors are; omitted step in procedure, exceeded ability, visual illusions, and spatial disorientation. In general, we have seen that through inadequate training opportunities (latent organizational failures), poor pilot proficiency (latent supervisory failure), pilot’s experienced spatial disorientation, lost situational awareness, and vertigo (active failures). Violations, on the other hand, represent a

limits, and violating training rules. Although these violations happen from time to time, they are less likely than the “honest mistake” variety.

Even the most skilled and proficient pilots are susceptible to the effects of spatial disorientation, vertigo, and other perceptual problems. Maintaining a sharp training program, reviewing lessons learned, and high professional/personal standards may help to plug some of the holes in Reason’s Swiss cheese model’ of death and professional embarrassment. Hopefully you have practiced night operations recently and in difficult, but controlled scenarios. The question is, how do you measure yourself with other pilots? The answer: practice until perfect is “proficiency.”

Webster’s II dictionary calls it “performing in a given art, skill, or branch of learning with correctness and facility. You may never be able to fully “master” night hovering without the use of a visual horizon as a reference, but the more you practice under those conditions, there is a greater likelihood of success during an actual live hoist. The key is to learn as much as you can about your current organizational climate, spatial disorientation and overall human factors. If flying was like the game of Black Jack, sage advice would lead you to avoid the table that advertised an 80% failure average and head for the table with better odds. Except in this game, we can lower the odds with training, diligence, and an unending quest for

proficiency. One thing is for certain; your artistic talents will degrade over time and will require constant attention over the course of your flying career.

LT Russell Hellstern is a Flight Safety Officer assigned to Coast Guard Air Station Sitka, Alaska o/s

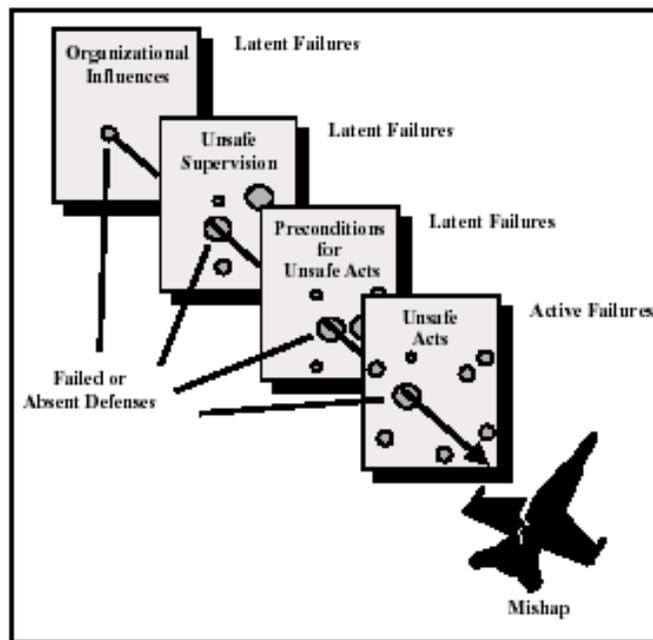


Figure 1. The “Swiss cheese” model of human error causation (adapted from Reason, 1990).

willful disregard for standards, rules, and regulations. Many violations, termed routine, are often tolerated by the organizational leadership or even overlooked as minor bending of the rules whereas exceptional violations are the type that are neither typical of the individual nor condoned by the organization. An example of this would be flying under a bridge, aggressive maneuvering beyond known

² The Human Factors Analysis and Classification System-HFACS, Shappell, S.A., Wiegmann, D.A., February 2000, DOT/FAA/AM-00/7, pg 6.

³ The Human Factors Analysis and Classification System-HFACS, Shappell, S.A., Wiegmann, D.A., February 2000, DOT/FAA/AM-00/7, pg 3.

MEDEVAC

Lessons Learned in Southeast Alaska

By LTJG Douglas Atkins

Due to the unique nature of its AOR Air Station Sitka is tasked with numerous MEDEVACs. The mountainous, rain soaked islands of Southeast Alaska are dotted with numerous small villages, logging camps and cabins that have no road connections to medical facilities. In fiscal Year 2002, out of 123 SAR cases conducted by Air Station Sitka, 65 were for MEDEVACs. Launching a helicopter for a MEDEVAC is expensive and sometimes dangerous, particularly in Southeast Alaska. Due to the size of the AOR, and the long distances involved in responding to a case, it is rare to complete a case in less than 2 hours. Virtually all cases involve navigating in narrow, mountain-lined waterways, often in bad weather. For a case that is not truly urgent such a launch is not only financially wasteful but also needless endangers the crew. From the lessons learned in dealing with MEDEVACs in this challenging AOR Air Station Sitka and the D17 Command Center have developed guidelines for evaluating MEDEVAC requests based on three key questions:

1. Is an evacuation medically necessary?
2. Is a Coast Guard helicopter the only available resource to conduct the MEDEVAC?
3. Can the Coast Guard complete the mission with the resources available?

Medical Necessity?

A typical case begins with a phone or radio call to the D17 Command Center.

These calls come from people with the greatly varying levels of medical training. Calls from vessels or remote cabins are often made by people with no medical training what so ever. Smaller villages in Southeast Alaska may have an EMT available while larger villages generally have a physician's assistant or doctor. It is beyond the training of the Command Center SAR controller to judge the medical urgency of the case, particularly when considering the varying degrees of training of the callers. Therefore, the duty Flight Surgeon will be contacted to evaluate the medical urgency of the case. The Flight Surgeon will often be put in direct contact with the requesting party to gather detailed information on the patient's condition and consult/advise any medical personnel on hand. In evaluating the medical necessity of a MEDEVAC the Flight Surgeon will answer 5 questions:

1. What does the patient have?
2. What does he need?
3. When does he need it?
4. Where can he get it?
5. Do we have the resources available to get him there?

With these questions answered, the Flight Surgeon will then provide his recommendation. This will range from "A MEDEVAC is not required" to "The patient needs a MEDEVAC within the next 6 hours" or "The patient needs a MEDEVAC to the nearest hospital as soon as possible." His recommendation will also include the level

of care that should be provided during the flight. Typically an EMT is sufficient, but in some cases it is recommended that a doctor, if available, accompany the patient.

Launch the Helo?

Once the Flight Surgeon makes his recommendation, the controller then evaluates the options for transport of the patient. The first option examined will always be a commercial provider. Southeast Alaska has numerous small aviation operators, several run by local hospitals, which transport patients on a regular basis. These resources, however, are limited by weather, range, availability and limited landing areas. Often the Coast Guard is called after these other providers have already turned down the case. If no commercial resource is able to respond to the MEDEVAC within the window for transport determined by the Flight Surgeons, then a Coast Guard asset, typically the ready HH-60J at Air Station Sitka, will be assigned.

Can we do this?

Once the controller directs a launch of the ready HH-60J the Aircraft Commander, in consultation with the Air Station Operations Officer, makes the final determination as to whether the MEDEVAC can be safely accomplished. Factors such as distance to the scene, distance to the hospital, fuel availability on route, weather, darkness, landing options at the scene, and crew familiarity with the scene location are all considered. Typically, it is not a question of "if" the helo can get safely to the scene, but "how" and "when." Often, weather and darkness preclude use of the most

direct route to a scene. In these cases pre-planned routes are used to navigate safely between the mountainous islands. Use of these routes, however, will often involve circumnavigating these islands adding significant time to a response.

A second consideration once tasked with a launch is the level of care to be provided. While carrying non-Coast Guard medical personnel would be considered if necessary, it obviously preferable to have trained crews familiar with the aircraft. To minimize the need for non-Coast Guard medical personnel and still provide adequate patient care, Air Station Sitka augments its training and crews for MEDEVACs. Air Station Rescue Swimmers are the primary care providers during a MEDEVAC. At Air Station Sitka their basic EMT training is supplemented with training

sufficient to qualify them as State of Alaska EMT II. This qualification allows them to use IVs and administer some drugs. In addition, they are trained in Advanced Cardiac Life Support, including the use of an automatic defibrillator/heart rate monitor, and also in Pediatric Advanced Life Support. To assist the Rescue Swimmer, and leave the Flight Mechanic free to assist the pilots with communications and navigation, station corpsmen are also included on MEDEVAC crews. The corpsmen complete medical training similar to the Rescue Swimmers as well as aircraft familiarity and survival training. In situations that require an even greater level of care during transport, the station flight surgeon, if available, may also join the crew.

These planning considerations cannot eliminate all risk to a crew

responding to a MEDEVAC. The systematic approach they provide to evaluating a MEDEVAC request can, however, minimize the chance that a crew will venture in to harms way needlessly.

LTJG Atkins is assigned to Coast Guard Air Station Sitka Alaska. o/s



Air Station Sitka Rescue Swimmer transferring a MEDEVAC patient to Juneau EMS for further transportation

Photo provided by LTJG Doug Atkins, USCG

12/11/02

Great Crew Resource Management

By AVT2 Brain Jerrit

We knew the weather was going to be bad when we went to bed that night. When we received the call, I woke up to the SAR alarm at approximately 12:45 a.m. All of us met out at the aircraft and got the word that the commanding officer approved us to go flying in the zero visibility and zero ceiling weather. The crew as a whole accepted the medium risk to go flying for urgent SAR. As we took off we were immediately in the "GEW." We climbed to 3,000ft and began our transit to the vessel in distress the *Hannah Bee*. We decided to shoot a CATCH from 3,000ft to the GPS position that the *Hannah Bee* gave us. We over shot the first CATCH and the vessel ended up at our 3 to 4 o'clock position at about 400 yards away. We decided to do a go around to get a better position to the boat. As we came down and broke out of the fog at about 125ft we located the fishing vessel once again. Yet to all of our surprise the boat was once again at our 3 to 4 o'clock position and 400 yards away. The Safety Pilot transferred the controls to the Pilot at this time. The Pilot stated that he was going to come backwards and then slide right to position the boat to our 12 o'clock. We started to slide back at an acceptable rate for about 10 to 20 seconds. Then the rescue swimmer and myself started to say "you're backing down, you're backing down," the Pilot acknowledged us and stated he was correcting. He then brought us back into a somewhat stable hover. The Pilot then stated he was going to slide right to try to get behind the vessel. At this time the Rescue Swimmer and myself once again observed us backing down at a rapid pace. We announced again several times that we

were backing down. At this time the Pilot said the collective was not responding and seemed confused. We were then backing down at an extremely rapid pace. I would say what seemed like around 80 knots. After hearing the Pilots confusion I called for the Safety Pilot to take the controls. The Safety Pilot, I'm sure, was already on the controls with him and stated he had the controls. The Safety Pilot then put in full collective and all indications on the dash were full scale. We then started an Uncontrolled Left Yaw while we were still backing down. I began to put out a MAYDAY because I was sure we were going down. As I was doing this I felt the Safety Pilot putting in full right pedal to correct the ULY. After spinning at LEAST 180 degrees we suddenly had wings on the horizon and started climbing. At about 400ft we nosed the plane over and continued our climb. As we did this all indications returned to normal. We then discussed as a crew that we could not complete the mission and all agreed. I then called Group Charleston to let them know we were o.k. and returning to base at this time. Group then cancelled our MAYDAY and we filed IFR once again with JAX center. We then realized we still had one mission left and that was to get us back home. We then set up for an ILS approach for 28 receiving commands from JAX center. During our approach we could see the city lights but could not see the rabbit lights or any runway lights. We then called Tower and asked him if the lights were on. He said "no" and turned them on. Tower knew we were out there, yet no runway lights for IFR conditions. We then landed safely on deck; shut down got out and kissed the helicopter and the ground.

I think we all worked well as a crew and that is what saved us. All four of us worked together to get us out of a bad situation. If it wasn't for good Crew Resource Management (CRM) between all of us, I don't think I would be sitting here right now typing this article. I don't quite know how the Safety Pilot was able to recover from our very unusual attitude. I don't think he quite knows how he was able to recover; yet none the less all four of us made it home safely with many good lessons learned.

Here are some things I think we could have done to break the chain of events that lead us down that bad road. The biggest chain breaker I think was not going around a 3rd time to better position ourselves behind the boat. The first CATCH we shot wasn't good enough, so my question to ourselves is why was the second CATCH good enough since we ended up in the very same spot. I believe if we would have executed a 3rd go around to get directly behind the vessel, like we always train to do, would have allowed us to complete the mission. Another thing we could have done was dropping some smoke floats and or some chem. lights to use as a hover reference. The Rescue Swimmer mentioned this on our way down from 3000 ft as we were executing our first CATCH. I'm not quite sure if he was acknowledged or not. We also could have used our first CATCH as a recon to get down below the fog and see what the conditions were to better assess the situation. I think we felt rushed during the case because the victims on the vessel were making conditions a lot worse than what they really were. If we would have had more time we might of made some better decisions to help complete the mission.

In closing, I think it was the right decisions to launch us. If I had to do it all over again, I would still say "lets go." The mission was very possible to do, and up until the point where things went bad we all as a crew felt that we would complete the mission. I will say again it was great CRM and a maybe a little luck is what got us out of a very unfortunate situation.

AVT2 Jerrit is assigned to Coast Guard Air Station Savannah, Georgia. o/s

Around the World with:



By Dave Edwards

The Amver Program moves on many fronts to maintain, and preferably, expand the participation of ships in this voluntary ship reporting system used worldwide by search and rescue authorities. A key element of the Program is the Amver Maritime Relations (AMR) component based out of New York City.

AMR is presently a staff of two on detached duty – Mr. Rick Kenney and Ms. Beverly Howard. Both have been long-time Amver professionals and will soon be augmented with the addition of a third staff member, a GS-13 civilian position, to be on board before the end of 2003. Under the broad tasking of “Amver marketing” they lead the charge of promoting the visibility

of Amver in the eyes of the commercial shipping community as well as a wide range of government and voluntary organizations.

Two of the more critical workloads for the Amver staff are the Amver Awards program and participating in maritime events. Annually, there is keen interest on the part of ship masters and shipping companies as they are recognized for each ship that has sent in Amver reports for at least 128 days in a calendar year. The awards, as discussed on the Amver web page of www.amver.com, can be mailed to the company, or preferably, be part of an Amver Awards ceremony in which senior Coast Guard and U.S. government

representatives present the awards to executives of the shipping companies.

The Amver team set up its Amver Booth in a recent international event, *Seatrade London*. Not only was the Amver Program marketed among the numerous commercial, governmental and volunteer attendees but an awards ceremony was held to recognize the shipping companies from the United Kingdom and the Isle of Man. Throughout the convention/trade show, there was a stream of ship masters and prior Radio Officers who checked on the health of Amver and shared their sea stories and warm respect for Amver. The event also provided the opportunity for the Amver Team to participate in professional exchanges and meetings to stay current with the maritime industry that we serve.



Amver Maritime Relations Officer **Rick Kenney** holds the attention of **Her Royal Highness Princess Anne** as he explains Amver at the recent **Seatrade London International Maritime Convention and Trade Show**.

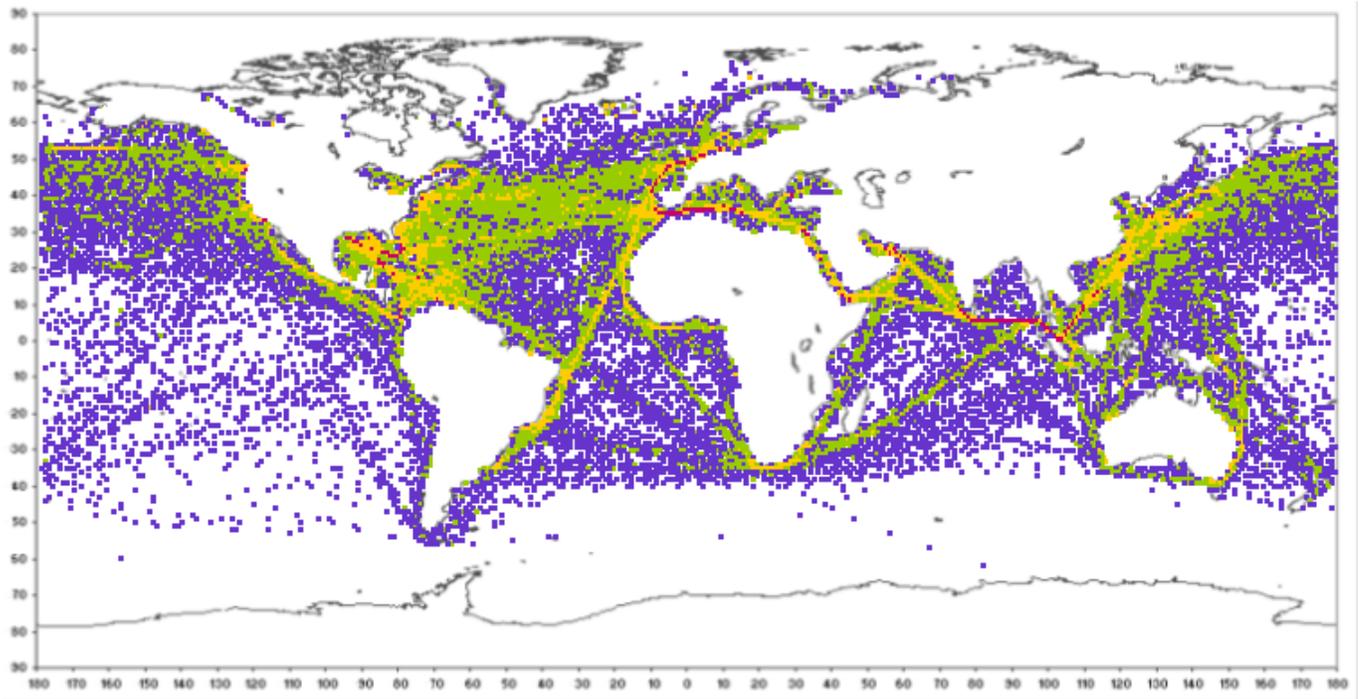
Photo provided by Amver Maritime Relations

Dave Edwards is a program analyst in the Coordination Division, Office of Search and Rescue, USCG Headquarters, and the Amver Program Manager. o/s

Amver...

What's In A Name?

Due to the successful name recognition that Amver has attained, we now refer to it simply as “Amver.” Thus, whenever someone asks what does Amver stand for, we no longer have to remember several words nor explain why the acronym for “Mutual-assistance” does not include “A” in the middle.



Amver Density Plot Display

For trend analysis, the Amver system takes a daily global “snapshot” of vessels participating. Using only the position, latitude and longitude, a density plot is developed. This density plot is a total of all daily vessel positions for a specific month displayed within a global grid of cells. Each cell approximates a one-degree square (60 minutes in latitude and longitude). Major trade routes and highly-traveled coastal and ocean areas of the world become evident, as well as those areas with very few sailings.

Legend

Each colored dot displayed on the chart approximates a one-degree square (60 minutes of latitude by 60 minutes of Longitude) and is referred to as a “cell” in the legend below.

Monthly density plot totals:

- **Red Cells:** The monthly plot totaled over 51 vessels
- **Orange Cells:** The monthly plot totaled between 13 and 51 vessels
- **Green Cells:** The monthly plot totaled between 4 and 12 vessels
- **Blue Cells:** The monthly plot totaled 3 or fewer vessels
- **Empty Cell:** No Vessels

The SAR System - Continuous Improvement

By LCDR Jim Olive

How about a show of hands for those tired of hearing the phrase “continuous improvement”. We’ve certainly gotten some mileage out of the expression in recent years along with “doing more with less” and “not doing it on our people’s backs”. But let’s focus on the concept (and it’s a good one): keeping our edge so we can provide excellent service to the maritime community and save lives. Retaining that edge, however, takes work, and making time to get that work done. We are all task-saturated and time-deprived. But what better area to devote our limited time? Ok, so we need to hone the edge, but how do we do it? You can’t chart an appropriate course without first plotting an accurate fix. In the SAR realm, there are several means of establishing our position. The first, and perhaps the most obvious is the Operations Center Standardization Team (OpStan). Born out of the ashes of a case that did not go so well, the team has grown to nearly optimal state, with two traveling teams that will have completed the first round of visits to every command center in the Coast Guard by this summer. Taken in the appropriate context, the team’s final visit report is an outstanding tool for determining just where your center stands in terms of SAR proficiency. OpStan visits are designed to occur at each center on alternate years. To fill the gap on the off years, district teams have been developed to provide a product similar to the one delivered by OpStan. These annual fixes, provided by outsiders sufficiently distanced from the center and

its crew to remain objective, are invaluable to SAR leadership in keeping the system in safe water. We need to use them to their fullest potential, and incorporate them in our own training systems to maintain proficiency year-round, not just in the weeks before a visit. The second most valuable tool in the continuous improvement navigation suite is the self-assessment tool. Commander, Atlantic Area has established a requirement for an annual SAR self-assessment, and has promulgated a checklist to assist a command center in completing such an assessment (the checklist can be found on pages 56 and 57 of the Atlantic Area SAR Plan, LANTAREAINST 16130.5). Additionally, many commands find it helpful to perform regular reviews of the OpStan’s pre-arrival package (available at their website) as a means of self-assessment.

Ok, so now that we’ve got a decent fix, where do we go from here? The primary vehicle at your disposal is the unit training program. Through a healthy training program you can ensure watchstanders are performing practice solutions to sample scenarios, keeping up-to-date on new policy and developing technology, and generally focusing on maintaining their personal professional edge. Failure to have an active and effective unit training program not only misses outstanding training opportunities, but sends a message to the crew that keeping current and proficient is just not that important. Senior leadership’s time ensuring that a good training program is in place and in

use, and participating in those training sessions, will ensure that all know where the command’s priorities lie. Our people on the front lines of the SAR system, both on the water and in the command centers, need to know that we still care about SAR as much as ever, even as we strive to elevate Ports, Waterways, and Coastal Security (PWCS) to the same level of excellence. Continuous improvement may be a hackneyed phrase, but it essential to providing the public the SAR services they demand and deserve.

LCDR Olive is the Team Leader for the Policy & Training Team of the Policy Division in the Office of Search and Rescue, USCG Headquarters. o/s

Search and Rescue Success story:

406 MHz EPIRB and CG HH-65 F/V STILL CRAZY XII: lessons learned

By Gregory E. Johnson

On the morning of 22 March 2003, at 0620 local, Coast Guard Group Charleston received an urgent distress call from the captain of the F/V STILL CRAZY XII. The message was clear that the vessel was taking on water and going to sink. There were two people and a dog on board. It was a husband and wife team preparing to move from their location in the process of un-anchoring.

The vessel was over 30 miles from shore, off the coast of South Carolina. The vessel was a 33 ft., fiberglass grouper/snapper boat. While running up on the anchor to free it, something happened to the vessel to cause water to enter somewhere in the hull. The bilge alarm sounded and, after assessing the situation, the captain called a mayday on VHF, ch 16. The captain later reported that he believes he may have caught the vessel's transducer with the anchor line and ripped it off.

Group Charleston received the vessel's GPS position via the vessel's VHF radio, but unfortunately in the transfer of information, the captain misread one of the longitude numbers, which eventually sent the CG HH-65 helicopter over 8 miles away from the vessel's location. Immediately after receiving the mayday, Group Charleston dispatched Station Georgetown's 41 footer, CG41500, and an HH-65 helicopter, CG6524 from Air Station Savannah's air facility on Johns Island. Once the mission was underway and things settled down, Group Charleston contacted Marine Safety Office Charleston's Commercial Fishing Vessel Examiner, Mr. Greg Johnson since fishing vessel examiners usually know the owners and operators of the vessels in the area and can contact them immediately. The fishing vessel examiners can also provide the Groups with important information concerning the safety equipment on board the vessel. When Mr. Johnson was

notified, he called the owner and informed him of the situation. The weather was favorable, but the water was cold. The vessel had a current commercial fishing vessel safety decal and was properly equipped with a life raft, survival suits and EPIRB. He then called back to the Group to let them know that the owner had been informed.

In the meantime, the crew had abandoned their vessel and entered the life raft. The vessel had flooded above the decks and was going down. The captain later reported that he was sure that he had given the correct position and didn't think to take the EPIRB with him in the life raft. Soon after everyone was in the raft, the bow of the boat went down and the EPIRB automatically deployed.

Unfortunately, due to the error in passing the vessel's position upon initial report, the helo on-scene was unable to

locate the vessel or any persons in the water or debris. Soon afterwards, Rescue Coordination Center, Miami contacted Group Charleston with new information, and informed them that the EPIRB was transmitting and forwarded the EPIRB's position. Despite the unfortunate initial events of the case, Group Charleston had an expert in EPIRB 121.5 MHz homing capabilities to help them locate the missing crewmember. Mr. Johnson had just returned from Key West that night and had been conducting 121.5 MHz homing signal tests of 406 MHz EPIRBs with one of Air Station Miami's HH-65s. This was a research project that he had been working on for four years. Mr. Johnson explained to the watch stander what he had learned while testing EPIRBs, and asked the Group watch stander to request the helo to raise its search altitude to 1500 ft. The pilot had already increased altitude to approximately



Small Objects in Large Oceans: 406 MHz EPIRBs help search and rescue units to quickly arrive in the immediate area of a distress; the 121.5 homing signals then help bring units right to the scene.

Photo provided by Gregory Johnson

1200 ft., and started receiving a usable 121.5 MHz homing signal. Unfortunately it was a reflected signal and it took the helo 180 degrees away from the EPIRB. The pilot quickly recognized the problem and took the reciprocal course. As the helo got closer to the EPIRB, it picked up a stronger homing signal and the aircraft's Audio Direction Finder (ADF) pointed right to the EPIRB, which was floating near the semi submerged vessel.

Not far away from the beacon and debris, the helo's crew spotted the two fishermen in the life raft. At that time, the helo had logged 48 minutes of "on scene" searching, and was just a few minutes from "Bingo" (low fuel). The pilot did not have time to set up for a hoist. Fortunately he was able to direct a near-by recreational fishing vessel, the DOUBLE D, to pick up the two fishermen and their dog in the life raft. The helo headed back to the beach for fuel. The captain, his wife, and dog were soon safely aboard the Good Samaritan vessel and the helo refueled in Myrtle Beach. Station Georgetown's 41 footer met with the DOUBLE D and took the fishermen and dog back to Georgetown.

There were some important lessons learned in this case:

- ◆ Once it's known that there is an EPIRB transmitting, and the signal is weak or unusable, try increasing altitude.
- ◆ Be on the lookout for a reflected signal, as it can waste a lot of fuel and time if it's not identified quickly. Usually the EPIRB's, 406 MHz position is very close to the debris area and the issue isn't a concern.
- ◆ Search areas with strong currents and high winds may cause the vessel or the floating EPIRB to drift several miles from the EPIRB's position by the time the Coast Guard aircraft is on scene.

From the tests in Key West, it was found that when direction finding on the 121.5 MHz homing signal carried by 406 MHz EPIRBs, the DF 301, ADF's in CG aircraft are limited to approximately 10 miles maximum at 500 ft., 15 miles at 1500 ft. and 20 miles at 3000 ft. He also found that if the



Floating Nearby: The EPIRB floated free and provided an accurate location while human error had resulted in a position 8 miles away.

Photo provided by Gregory Johnson

ADF's squelch is in the "on" position, it reduces the audible signal to a couple miles at 500 ft. Further testing has shown that the strongest portion of the 121.5 MHz homing signal radiates out from the EPIRB's antenna at an angle of 5 to 50 degrees off the water. Doing the math, approximately one mile from the EPIRB, the elevation angle to a helo flying at 500' will be less than 5 degrees. Most helos search PIWs at 500', thus, unless they are within a mile of the EPIRB, they will receive a very degraded (at best), or (worse case), an unusable signal. It's a trade off, since above 500 ft. it's very difficult to spot someone in the water.

Reflections of the 121.5 MHz homing signal are often a problem, worse in some areas, and has caused the ADF to point to radio towers, buildings, and bridges. The F/V STILL CRAZY XII case put two of the homing problems together in one case and supported the concerns initially identified by Mr. Johnson after conducting fishing vessel casualty investigations.

Since the F/V STILL CRAZY XII case, there was another similar case out of Air Station Clearwater on 30 June 2003, where the pilot of a Coast Guard HH -60 helicopter was circling a semi-submerged fishing vessel, the C of Cortez at 100 ft. looking for survivors. After determining no survivors were present, the pilot increased altitude to 300 ft. to confirm the

EPIRB position, but the ADF arrow continued to point to the semi-submerged fishing vessel, C of Cortez. The seasoned pilot questioned the ADF's arrow, and instead of dropping the rescue swimmer near the submerged vessel, flew away from the vessel using a heading where the needle stopped for a brief second. Soon after the life raft was visually located by the crew on that heading, and the fisherman was quickly hoisted. The EPIRB was in the fisherman's hands over a mile away. Apparently, the reflected signal bouncing off the fishing vessel's barely visible radar reflector was stronger than the EPIRB's direct signal to the helo.

The homing signal research project has been conducted with a joint agency team consisting of Coast Guard, NOAA, and NASA personnel. Mr. Greg Johnson would appreciate any feedback from similar cases to identify areas with 121.5 MHz reflected signal problems, and cases that have had homing signal problems. He can be contacted at MSO Charleston, at 843 720-3267 or by e-mail; gjohnson@msocharleston.uscg.mil

Gregory Johnson is on the Commercial Fishing Vessel Examiner at Coast Guard Marine Safety Office Charleston, South Carolina. o/s

SAR Case Studies:

A Review

By Richard Schaefer

Search and rescue (SAR) case studies are a valuable tool for making improvements within a SAR System. This is done by identifying successes and failures in responses to SAR incidents and seeking out those elements of the SAR response which were contributors to those successes and failures. Studies conducted within the Coast Guard have resulted in the development of policies, procedures, new equipment, redesign of boats and aircraft used for SAR, and development of technological innovations to assist in planning and responding to SAR incidents.

The Coast Guard's SAR Program specifically *requires* a case study be conducted when:

- Survivors are found inside a search area, after a search has been suspended;
- Survivors are found by someone not involved in the search, outside the search area; or
- Directed by higher authority.

This does not preclude individual commands from conducting a SAR case study when they recognize or suspect a particular case to have interesting circumstances or outcomes; SAR case studies are strongly encouraged. Information on how to do SAR case studies can be found in both the Coast Guard's SAR Addendum and the International Aeronautical and Maritime Search and Rescue Manual.

Studies of SAR cases are also often provided as a result of investigations by the National Transportation Safety Board, other agencies studies/investigations, or Coast Guard investigations (safety, administrative, Marine Safety). These investigations generally are broader in reach and may not provide the same depth of examination of key SAR issues as a dedicated SAR case study. They have, however, spurred

significant changes in the SAR System; the way in which we prepare for and respond to SAR incidents.

The following pages contain a sampling of the SAR case studies that have been submitted to the SAR Program over the years. On file in the Office of Search and Rescue there are hundreds of case studies reaching as far back as 1974. This particular selection reaches back only to 1986. Included on the last page is a listing of most of the case studies that have been reviewed since 1986, the listing does not contain all those received. Some very recently received case studies are being reviewed and if they contain information of a general interest to the SAR community, will appear in future editions of *On Scene*.

Many case studies have been previously presented in *On Scene*, including some very notable cases, and are not repeated in this edition. Two of these notable cases are:

F/V SOL-E-MAR that sunk with loss of life in the Atlantic off New England. The case involved a hoax radio call that was confused with the actual distress call. This case resulted in the law which established significant penalties for making hoax calls (Studds Act), additional recording and direction finding gear for Coast Guard units, and impetus for upgrading the National Distress System (current Rescue 21 project).

S/V MORNING DEW that sunk off Charleston, SC with loss of life. The case involved an uncorrelated MAYDAY call and limited action by the Coast Guard in response. This case resulted in wide ranging changes to our policies in regards to responding to uncorrelated distress alerts, spurred the Rescue 21 project to upgrade the VHF-FM distress network (including direction finding and other enhancements),

increased staffing and training for Coast Guard SAR planners, and the establishment of the Operations Center Standardization Team.

Provided for each study that follows is a synopsis, comments and actions. We would welcome any comments from readers, particularly any insights from persons who may have participated in these cases or cases with similar outcomes and concerns.

Rich Schaefer is a program analyst in the Policy Division of the Office of Search and Rescue, USCG Headquarters and Editor of *On Scene*. o/s

Some of the less widely known acronyms used in the case study summaries:

A/C - aircraft
 CASP - computer-aided search planning
 DMB - datum marker buoy
 EXCOMMS - extended communications check
 F/V - fishing vessel
 JRSC - Joint Rescue Sub-Center
 MLB - CG motor life boat
 M/V - merchant vessel
 NM - nautical miles
 NVG - night vision goggles
 P/C - pleasure craft
 PIW - person in the water
 POB - persons on board
 POD - probability of detection
 POS - probability of success
 PRECOMMS - preliminary communications check
 R/V - research vessel
 SLDMB - self-locating datum marker buoy
 SMC - SAR Mission Coordinator
 SQNM - square nautical miles
 SRU - search and rescue unit
 S/V - sailing vessel
 UMIB - Urgent Marine Information Broadcast
 UTB - CG utility boat

SEARCH AND RESCUE CASE STUDIES

OVERDUE P/C, 6-7 AUG 86 – OVERDUE - 08/08/1986 - Seventh CG District (D7)

Synopsis: Station Fort Myers received report of an overdue 21-foot outboard fishing vessel at 1835 on August 6, 1986. The reporting source indicated the 3 POB went out day fishing on the west coast of Florida, but did not know location of preferred fishing spots. Group St. Petersburg assumed SMC, issued UMIB, and assigned two boat stations to patrol throughout the night. District assumed SMC due to large area/location uncertainty, and planned the first light search with C-130 and H-3 aircraft. Coast Guard Auxiliary air and surface assets were also added. On the second morning of the search, a Coast Guard C-130 sighted a flare on the fourth leg of its search. The three POB were recovered by an H-3, after clinging to debris from their overturned boat for over 24 hours.

Comments:

- The use of the flare to attract the search aircraft on the second morning indicates the likely possibility that a night aerial search would have drawn such a flare earlier in the case.
- The current and offshore breezes quickly carried the P/C out of a reasonably sized UTB search area.
- The case complexity magnified with time, and the flare was instrumental in visually sighting the PIW. Had they not shot the flare, detection of PIW with 4NM track spacing (a reasonable track spacing for a boat) may not have been possible.
- SMCs need to be aggressive in application of resources, take better advantage of existing daylight early in the case, and consider a night search looking for visual distress signals.

Actions:

- CG SAR Addendum now includes guidance for night searches and associated search objects.

19-FOOT KOSRAEAN F/V – OVERDUE - 07/15/1988 - CG Marianas Section (MARSEC)

Synopsis: JRSC received notification on 14 May 88 of a fishing vessel with 2 POB overdue on a day fishing trip off the coast of Kosrae. The vessel had no survival equipment, extra fuel, or food. Local Kosrae efforts included a search from 14 -17 May with no sightings. Coast Guard assistance was requested on 17 May. The search was eventually suspended on 24 May 88 without success. Total area searched by USCG was 10,174 SQNM. Total area searched was 12,674 SQNM. On June 8, 1988, the vessel was located on Kuop Island Atoll by Trukese fishermen. Both POB were in good condition, having captured rainwater and fish to survive. The survivors reported seeing a local PMA search aircraft fly overhead on 15 May but were unable to signal it.

Comments:

- Local authorities did not request USCG assistance until the third day, and then provided no information to the SMC on areas already searched. Need exists for greater USCG liaison with local islander SAR personnel.
- Both the manual and CASP generated search areas were too large to effectively cover with the limited SRUs available (no Coast Guard C-130s available).
- Two Coast Guard DMBs failed during the search—one ceased transmission after 90 minutes and the other was never relocated.
- DMBs need to be more reliable.
- No radios, navigation equipment, lifesaving equipment, or emergency equipment/gear were available on the vessel.
- No float plan was submitted.
- Need more accurate sea current and wind current information in this area. Three sources produced three very different current predictions.

Actions:

- The SLDMB program evolved because of cases like this; SLDMB system is available for SAR planning.
- Liaison with local nations has improved; SMC training has been provided for many Pacific Island nations.

14-FOOT JON BOAT – OVERDUE - 12/22/1988 - Seventh CG District (D7)

Synopsis: At 1645 on 29 March 1988, Coast Guard Group St. Petersburg was notified of an overdue 14 foot Jon Boat with 2 POB. The Jon Boat departed Fort Richey, FL, and landed at North Anclote Key. Two males left two females on the key and set out to obtain

SEARCH AND RESCUE CASE STUDIES

matches from nearby vessels in order to build a beach fire . Their boat became disabled and started to drift. They had no radio, signaling devices, or emergency equipment. The Coast Guard searched from 29 -31 March without success, and suspended search efforts on 31 March. The Jon Boat was subsequently located by passing fishing vessel approximately 35 NM north of Anclote Key on 9 April with the owner/operator dehydrated & sunburned, and passenger deceased. The survivor stated he identified a Coast Guard helo on 29 March (probably a H3 training flight as no aircraft were used to search on 29 March). He also sighted a jet aircraft on 30 March, but could not ID it.

Comments:

- CASP and manual drift solutions were utilized and the highest probability cells were searched. All available documentation on the currents of West Florida was consulted, although no DMB was utilized. More credence was given to manual solution than CASP, due to limited environmental database for CASP in West Coast of Florida. DMBs should have been employed.
- Coast Guard resources used in the search were adequate. Search conditions were generally good with moderate to high probabilities of detection noted. Earlier use of aircraft to search would have improved POS for first search effort.
- The search object was most likely within the search areas of 30 March but went undetected. Contributing to lack of detection were: No visual or electronic signaling equipment, No radios, and the Aqua blue hull with white interior of the vessel
- This case reemphasizes how difficult it is to detect an object that blends into the ocean environment.

Actions:

- The SLDMB program evolved because of cases like this; SLDMB system is available for SAR planning.
- Guidance has been provided in SAR School courses and in the CG SAR Addendum emphasizing dispatch of resources early and in sufficient numbers to achieve success early.
- Efforts continue to develop advanced sensors for search.

S/V LARA – OVERDUE - 10/18/1989 - Eleventh CG District (D11)

Synopsis: S/V LARA departed Sausalito, CA on 22 Aug 89 on single-handed voyage, attempting to qualify for San Francisco to Honolulu Trans-Pac sailboat race. The owner/operator, Mr. Fred Walker, had ten years sailing experience, but had never single-handed offshore. The S/V was reported overdue on 30 Aug 89. The Single Handed Sailing Society sponsored this qualification process but required no radio or position checks. A large-scale search was conducted from 1 Sept to 5 Sept with no success. A NW track was assumed, based on input of friend who had completed the qualification process and assisted Mr. Walker with preparations. Daylight and night searches were unsuccessful, no response to UMIB, no related SRSAT information was received. The R/V NEW HORIZON subsequently located the S/V on 10 Sept in seaworthy condition with the jib up, mainsail partially reefed, tiller lashed to starboard, and no one on board.

Comments:

- Search plans were predicated on a NW heading, although no sail plan was established. Vessel log indicated that the vessel did not take a NW heading upon departure. Prevailing weather conditions were unfavorable for a NW transit. This, along with the fact that no sail plan was filed, should have been considered and an area versus a trackline drifted to encompass other possible routes taken by the vessel.
- Coast Guard Auxiliary courses should stress the importance of filing a float plan.
- Boating organizations and event organizers should require mandatory safety equipment appropriate for the location of the event, including radios, as part of participation in their events.

Actions:

- Float plans are highly publicized across the boating safety spectrum. Several commercial outfits offer electronic float plan services.
- Event organizers are strongly encouraged to require sufficient safety gear when contacting CG officials for safety advice.

SPECIAL SECTION

SEARCH AND RESCUE CASE STUDIES

S/V GREAT AMERICAN - CAPSIZED - 12/15/1990 - CG Atlantic Area (LANTAREA)

Synopsis: On 22 November 1990, LANTAREA was notified by ARGOS (US Agent) that the S/V GREAT AMERICAN had activated an ARGOS distress beacon, 330NM west of Cape Horn, South America. During PRECOMMS, it was learned that this ARGOS beacon was related to an unlocated 406 EPIRB alert received in error by the AFRCC, Scott AFB. AFRCC forwarded this info to RCC Boston, (location of emergency POCs). LANTAREA notified RCC Valparaiso, Chile but retained SMC due to language barrier. Amver SURPIC determined the M/V NEW ZEALAND PACIFIC to be only 70NM away. M/V was contacted via INMARSAT and diverted. The M/V was on scene within six hours in 55-knot winds with 40 - 50 foot seas, located the strobe of vessel EPIRB, and rescued two people in good condition. RCC Valparaiso was aware of the distress when called by LANTAREA and had sent a search aircraft to the scene without success. The S/V had capsized in heavy seas, and then righted itself. Both the ARGOS beacon and EPIRB had activated.

Comments:

- This case is credited as a 406 EPIRB save, but believed to be a significant failure of the 406 MHz sorting criteria used by NOAA - USMCC. No unlocated alert message was ever received by LANTAREA until the First District was briefed for Public Affairs reasons. In addition, no 406 MHz notification message was received by LANTAREA. This is believed to be because the beacon was registered as a "serial survivor" and not a "maritime" beacon. Only amplifying info indicated that the vessel in distress was a sail sloop. Without activation of the ARGOS beacon, LANTAREA may never have been notified of the distress. Recommend liaison with NOAA - USMCC to improve sorting criteria of 406 MHz system.
- Comms between LANTAREA and South American SAR authorities is cumbersome at best: language barrier and outdated info in IMO SAR facilities pub. Recommend semi-annual/annual update of IMO SAR Facilities pub.

Actions:

- EPIRB sorting processes were improved.
- Liaison with other nations continues to improve working relationships.

12FT BAHAMIAN DINGHY – OVERDUE - 01/10/1991 - Seventh CG District (D7)

Synopsis: At 1415 on 15 November 1990, the D7 RCC was notified that a 12ft dinghy with one person on board (POB) was overdue. The vessel departed Dead Man's Reef near Freeport on the morning of 14 Nov and was to return during the morning of 15 Nov. A search was conducted that afternoon (15 Nov) and for the next two days. 7384 SQNM were searched using 2 H-65 helicopters, 2 Falcon jets, 1 C-130 and 1 P-3. The search was suspended the evening of 17 Nov. The dinghy was subsequently located by the M/V PECOS with the POB in good condition. The dinghy had a white hull, grey interior, and small outboard. No safety, signaling, or survival gear was on board. The vessel was assumed to have broken down and drifted into the Gulf Stream. It actually had drifted 174 NM in 108 hours, averaging 1.6 knots. The POB reported seeing a Coast Guard helo on evening of 15 Nov (far away), and at 1100 on 16 Nov (about 600ft away), and a Navy aircraft, which over flew and illuminated him the night of the 19th of Nov.

Comments:

- Planning resulted in search areas which contained the search object during all three days of searching. CASP results were consistent with observed drift.
- Poor weather and dinghy characteristics (white/grey) limited ability of searchers to see this vessel amidst whitecaps.
- Some search units did not fly their assigned track spacing and did not notify the SMC of the deviation from the search plan. Reasoning given was some aircraft commanders do not like to fly track spacing, which is less than the aircraft's turn diameter.
- CASP total POS was 30.3%

Actions:

- Emphasis is placed in search plans on any deviations to be reported to the SMC per CG SAR Addendum.
- Efforts continue to develop advanced sensors for search.

SEARCH AND RESCUE CASE STUDIES

F/V SILVER LINING – OVERDUE - 10/02/1991 - CG Greater Antilles Section (GANTSEC)

Synopsis: On 9 Jun 91, GANTSEC received report of an overdue 25 ft fishing vessel with 2 POB, which had departed Grenada during the morning of 7 Jun for a day fishing trip approximately 15NM WSW of Grenada. The Grenada Coast Guard received the initial report and conducted the initial search on 8 June, before reporting the incident to GANTSEC. GANTSEC forwarded the call to the Trinidad and Tobago Coast Guard (TTCG), as the case fell within their AOR. TTCG assumed SMC and GANTSEC offered a C-130 for long-range air support, which was declined. 9 June GANTSEC issued UMIB. On 11 June TTCG reported they were not actively searched for the vessel and on 14 June TTCG suspended their search. On 16 June D7 directed GANTSEC to reopen the case and supplied search areas for Alpha and Bravo searches, covering 12,300 SQNM with NEGRES. F/V SILVER LINING was located by M/T LAGOVEN INCIARTE approx. 500NM west of Grenada with both POB in fair condition on 23 June.

Comments:

- Probability of success was extremely low due to elapsed time before the USCG search began and large uncertainties with datum.
- On scene weather (4-6 ft seas and 5NM visibility) contributed to low POD. Vessel was very likely in the alpha search area, and one survivor reports he may have seen a Coast Guard aircraft (date unknown).
- Early notification and initial response are of monumental importance. There is a need to nurture Caribbean SAR agreements, but not at the expense of human lives. The appropriate MRCC in this case failed to take any appropriate action, despite offers of assistance and assets. GANTSEC must be pro-active in assuming SMC when appropriate. More liaisons are needed with Caribbean MRCCs.
- Recommend G-OPR promulgate/update IMO agreements.

Actions:

- Policy has been added to the CG SAR Addendum for cases suspended when other nations or agencies are SMC.
- The SAR Program has worked hard to expand the relations with Caribbean nations. Several conferences have been held and SMC/SAR capabilities continue to improve in the region.

PACIFIC ISLANDERS – OVERDUE - 10/21/1991 - CG Marianas Section (MARSEC)/Fourteenth CG District (D14)

Synopsis: Three Pacific Islanders in a 23-foot fiberglass runabout with a 40HP outboard were reported overdue on a day trip from Nomwin Atoll to Weno Island. The vessel departed on 2 September with no signaling devices and minimal food and water. Tropical Storm Ivy caused rapidly deteriorating weather in their path, which, with the loss of their compass, disoriented the Islanders. They stopped their engine to conserve fuel, fished and collected rainwater for 20 days before making landfall in the outer island of the Ponope Lagoon. US Embassy notified Rescue Sub Center Marianas on 6 September. Searches were conducted from 5 - 9 September with local ships and Navy P-3 aircraft, covering over 25,000 square NM. CASP was utilized. Search object was not located and survivors indicated that no search aircraft were sighted. Case study sites faulty CASP environmental data as underlying cause for searches being conducted in the wrong area and no sightings being made.

Comments:

- Utilize DMBs to obtain on scene current data when other sources are suspect or lacking.

Actions:

- The SLDMB program evolved because of cases like this; SLDMB system is available for SAR planning.

S/V MOORINGS 38 – OVERDUE - 11/29/1991 - Fifth CG District (D5)/CG Atlantic Area (LANTAREA)

Synopsis: On 23 Aug 91, S/V MORRINGS 38 was reported overdue on a contract yacht delivery from Little River, SC to Newport, RI. The vessel had an experienced crew of three (1 female was 5 months pregnant), but no EPIRB. They had departed South Carolina on 16 Aug. Tropical Storm Bob reached hurricane force off the coast of Florida (shortly after vessel departed) and transited northward off Cape Hatteras on 18 Aug, continuing north to Newport, RI on 19 Aug 91. D5 assumed SMC, conducted PRECOMMs, EXCOMMs and

initial C-130 search with no success. LANTAREA assumed SMC on 26 Aug, and searches were conducted for the next three days—over 20 sorties and 143,300 SQNM of ocean searched. During Delta searches on 28 Aug, a USCG C-130 located a liferaft with three POB in its assigned search area. All were in fair condition and eventually recovered fully. The sailing vessel sank during Hurricane Bob on 18 Aug off the Virginia Capes.

Comments:

- This successful search would have been less of an ordeal for the survivors if they had carried an EPIRB. The survivors are quite fortunate to be alive. As with any tool, it is no substitute for prudent seamanship. The entire situation could have been avoided entirely had they delayed departure or sought refuge from the Hurricane Bob along the NC coast.
- A well-written sail plan would have helped search planners tremendously.
- Good initial assumptions—crew would have made best possible speed on an off shore Rhumb line course, search planners DR'd vessel's most likely course with speed of 4.5 knots (3 knot rule + favorable winds and current from tropical storm), assumed datum east of Cape Hatteras where Hurricane Bob overtook vessel's intended route.
- The successful results in this low POS search were a direct result of thorough and conscientious search planning, accurate and logical initial assumptions, and a diligent search effort including multiple searches. CASP proved to be a valuable search planning tool, and the target was located in a planned search area.

Actions: None.

SUFFOLKANG MH-60G - DITCHED AIRCRAFT/PIW - 01/28/1992 - First CG District (D1)

Synopsis: On the evening of 30 October 1991, D1 RCC was notified by Scott AFB RCC of a Suffolk Air National Guard MH-60G encountering low fuel and midair refueling problems in severe weather 64NM southeast of Shinnecock, NY. The helo was returning from a failed attempt to hoist a crewmember from the S/V BOSARA, and had conducted a mid air refuel three times before encountering difficulty in refueling due to weather. Weather conditions included 75mph wind gusts, 40-60ft sea swells, with visibility 1NM in rain showers. The MH-60G conducted a controlled hover and all crewmembers egressed and then ditched the aircraft. Meanwhile, a Coast Guard HH-65 and CGC TAMEROA were dispatched. Five hours later, TAMEROA recovered four of the five crewmembers, having been vectored in by the Coast Guard helo. A massive 8-day search was conducted for the missing pararescueman by USCG, USAF, USN, and ANG units without success. The active search was suspended on 7 November.

Comments:

- The search effort, from time to notification to active search suspension, was professionally and properly handled by all Coast Guard units. Helicopter crews attempting to hoist the survivors displayed heroism, and exceptional seamanship displayed by the TAMEROA in recovering four survivors.
- D1 RCC was pro-active, utilized all available resources, and displayed outstanding judgment in planning and carrying out this search.
- Under the circumstances, it is extremely fortunate that four survivors were recovered. Severe weather was the most significant factor in this case.
- It is likely the missing crewman either: 1) Lost consciousness on impact and drowned, 2) Impact caused injuries which caused him to fail to locate/move to recovery positions, leading to eventual drowning in heavy seas, or 3) Was struck by either fellow crewmembers or the 9 man liferaft, causing him to lose consciousness and drown.
- Primary concern was careful weather forecasting when prosecuting severe weather SAR, and obtaining alternate route around severe weather.
- Care must be taken by SMC to ensure SRUs have maximum weather input, including possible alternate routes to and from the scene.

Actions:

- Risk management guidance added to CG SAR Addendum addressing selection of SAR assets, weather, locations, and other variables in relation to risk to crews and mission.

SEARCH AND RESCUE CASE STUDIES

F/V CAROLINE - SUNK/PIW/MEDEVAC - 04/28/1992 - CG Group Astoria

Synopsis: On 3 January 1992, Group Astoria received word from RCC Seattle of a SARSAT composite alert. CG6551 launched to respond. While enroute, the crew of the F/V FANTA SEA reported that the F/V CAROLINE had sunk, and they were picking up two PIWs. CG6551 detected a third PIW, deployed their rescue swimmer, and departed the scene while the two air crewmen conducted CPR. CG6535 was launched to recover the two victims from the F/V FANTA SEA. One of these victims was also receiving CPR from the fishing vessel crew. CG6551 delivered the first victim to the hospital, returned to the scene, and recovered a second. CG6535 recovered the third victim. The first victim was pronounced dead on arrival. The second dies several days later. The third was treated and released.

Comments:

- The media and the public were quick to criticize the relatively small cabin space of the H-65, thinking it was only designed to carry one victim. Not true, but to administer two person CPR, only one victim can be carried. The aircraft commander made the correct decision to take one victim, administer CPR, and deploy second helo to recover remaining victims.
- UMIB should be issued immediately upon receipt of SARSAT alert. It is likely that nearby fishing vessels will be in the best position to respond. In this case, a F/V responded before a UMIB was issued.

Actions:

- Requirement for UMIB following EPIRB alerts added to the CG SAR Addendum.
- CPR and MEDEVACs actively being reviewed for policy/guidance necessary to best serve patients.

S/V COYOTE – OVERDUE - 03/09/1993 - USCG HQ Office of Search and Rescue (G-OPR)

Synopsis: The S/V COYOTE case (6 Nov - 26 Nov 92) resulted in a major search that was initially suspended after six days and then reopened. The object of the search was a 60ft single handed transoceanic racing sloop, blunt bow, white hull, white sails with 1 POB—Mr. Michael Plant, probably the most experienced American transoceanic sailor. COYOTE departed New York on 16 October bound for France and the start of the 2nd Vendee Globe around the world race. Initial overdue report was received on 6 Nov by LANTAREA. Pressure on the Coast Guard to search mounted from family, friends, media, and congress. Two bursts from COYOTE's unregistered EPIRB were received by SARSAT on 27 October but software design prohibited forwarding to USMCC. Searches conducted from 13-18 November, focusing northeast of Bermuda, were based on a VHF-FM radio call made by Mr. Plant to a passing freighter in which he mentioned possibly sailing further south of his intended great circle route. Suspended 18 November. CASP, AMVER SURPICs, RDF DMBs and SLDMBs were utilized. Case reopened 21 Nov. Capsized hull was located on 22 Nov. in a position that indicated he had continued along the great circle route. Mr. Plant or the EPIRB were never found.

Comments:

- Nothing the CG did or did not do worsened Plant's condition or contributed to his loss at sea.
- The earliest the Coast Guard would have known that Plant's EPIRB had been activated was 7 November, IF they had known how to read/interpret the information the O-Plot provided. This was 16 days after COYOTE's last radio contact, and 10 days after the EPIRB activated.
- SARSAT system performed as designed. A two-burst hit from an unregistered EPIRB would not have been forwarded to USMCC or the Coast Guard.
- Training and experience of SAR controllers on equipment and systems are inadequate.
- Controllers need education/experience and not just performance based training.
- Controllers need to ask questions/be detectives/seek clues/be aggressive.
- The SAR program needs to speed up the process by which it provides updated guidance on sensors, systems, platforms, and drift and leeway factors to search planners.
- Replace POD with POS as the measure of search effectiveness.
- Review process is inadequate, no follow-on training is provided for SAR planners, CASP is not user friendly, and Coast Guard has no in-house "search experts"

Actions:

- SAR school curriculum was modified to include more CASP, Amver, SARSAT, & “aggressive pursuit of cases.” Emphasizing CASP can drift multiple targets, explaining all capabilities of Amver, and institutionalizing POS over POD as measure of search effectiveness.
- SARSAT session added to CASP-Amver workshops, SARSAT policy updated for CG SAR Addendum, and SARSAT/RCC coordination and oversight staff member added to G-OPR.
- USMCC policy on passing alert info was changed — all beacon information now passed.
- Corrected CASP discrepancies identified during this study.
- Added future major SAR case reviews should include G-OPR participation in CG SAR Addendum.
- One of the cases that led to the establishment of an Operations Center Standardization Team.
- Search measures portion of CG SAR Addendum updated to include POS as the primary measure of search effectiveness

S/V TAO – OVERDUE - 03/02/1995 - CG Atlantic Area (LANTAREA)

Synopsis: On 12 OCT 94 the S/V TAO departed Boston, MA in company with S/V TAI with intended arrival in San Juan PR on 2 NOV 94. The two vessels ran into a storm that began 14 OCT 94 during which S/V TAI was disabled and subsequently towed into port on 19 OCT 94. S/V TAI then reported their last contact with S/V TAO was 12 OCT 94. D1 assumed SMC on 19 OCT 94 and handed off SMC to LANTAREA on 26 OCT 94, assuming S/V TAO had departed D1’s AOR. Once S/V TAO became overdue on 2 NOV 94, LANTAREA conducted 28 searches over 6 days using significant number of aircraft with no success. The search was suspended on 7 NOV 94. The S/V TAO was located by a fishing vessel on 10 NOV 94 underway off of Bermuda in no distress.

Comments:

- Search planners were hamstrung by sketchy and sometimes conflicting information from the reporting source as well as the S/V TAO’s failure to follow any of the contingency planning as discussed with the reporting source.
- Search planning was not in error.
- Case highlights the difficulty in planning and carrying out searches with huge search areas.
- Consider inserting advice/guidance in the CG Addendum, Section 3.1 Search Planning. Do in conjunction with other examples of extended open-ocean searches to see if there is a common thread regarding examples of why/why not commence such searches (similar to the idea of risk assessment).

Actions:

- Risk assessment added to CG SAR Addendum and SAR School curriculum.
- Specific issue of why/why not commence a search remains unresolved.

TUG SCANDIA/BARGE NORTH CAPE - FIRE/GROUNDING/PIW - 05/14/1996 - First CG District (D1)

Synopsis: On 19 January, 1996, the tug SCANDIA towing the barge NORTH CAPE with 94,000 barrels of #2 diesel fuel aboard caught fire off the coast of Rhode Island. Group Woods Hole copied the Mayday transmission and dispatched a MLB from Station Point Judith, Station Castle Hill, and a helo from Air Station Cape Cod. The Point Judith MLB arrived shortly before all six crewmembers of the SCANDIA abandoned ship. The MLB swimmer quickly recovered all. After returning to the station, the group commander authorized a request by two of the tug crew to board the barge North Cape and attempt to set its anchor before it grounded itself off the shore of Rhode Island. CG44352 returned the two crewmembers to the barge, who failed in their attempt to set the anchor. One crewmember was removed as the barge approached shallow water. The MLB was not able to recover the second due to smoke and water depth. A CG HH-60J hoisted the man off almost two hours later.

Comments:

- The decision to re-board was made by the operational commander based on available facts and an understanding of the environmental, personal, and property damage that could be caused by a loaded oil barge going aground with the tug afire attached.
- The ultimate decision to place the two men aboard the barge was made by the coxswain. He showed good judgment in attempting to remove both men after only being on board for 9 minutes, based on visibility, water depth, and distance to beach.
- The three senior crew from the tug did not impart any specific information regarding a temporary layout of the ground tackle to the Coast Guard. The decision to place the crew aboard was made without knowledge of the temporary ground tackle arrangement.
- Dropping the barge's anchor would not necessarily have prevented the grounding.
- The crew of the tug should have attempted to set the anchor prior to abandoning ship.
- Risk assessment criteria for minimizing environmental damage must be weighed in order to minimize damage to Coast Guard personnel and property.
- Recommend Team Coordination Training and risk management be stressed at all levels.
- Any decision requiring putting people in harm's way require one backup unit on scene.

Actions:

- Risk assessment added to training requirements at all levels of the SAR organization.
- Risk assessment added to CG SAR Addendum and other publications for SAR unit crews.

S/V GOODSPEED - OVERDUE/UNREPORTED - 07/21/1999 - Eleventh CG District (D11)

Synopsis: On 20 June 1999 the 27' S/V GOODSPEED departed Ventura, CA en route to Hilo, HI. A detailed log was kept of the journey that was later recovered at sea. The last entry in the log was made on 6 July 1999 when the S/V GOODSPEED was reportedly less than 500 NM from Hilo. On 21 July 1999 a friend of the lone sailor called the District 11 RCC and reported him overdue since 11 July to Hilo. D11 RCC determined that the vessel was unreported and would not be overdue until 30 July 1999. This was based on an average speed of advance (SOA) of 3 knots for 18 hours per day. It was later discovered that the GOODSPEED was sailing 24 hours per day using an autopilot and the average speed was more than that originally assumed. On 30 July 1999 PAC Area assumed SMC. On 3 August 1999 active search began for the GOODSPEED, concentrating on the planned rhumb line track from Ventura to Hilo. Subsequent searches on 4 and 7 Aug yielded no sightings or other information about the GOODSPEED, and the active search was suspended on 8 Aug 1999. On 13 Aug, the M/V CHETUMAL happened across the S/V GOODSPEED in a position approximately 1000 NM north of HI. CHETUMAL crewmen boarded GOODSPEED and found no one aboard and recovered some small items. On 14 Aug 1999, a final search was conducted along the line connecting the 13 Aug 1999 position for GOODSPEED to the last logged position on 6 July 1999. On 14 Aug 1999 the search was again suspended, with the S/V GOODSPEED unmanned and adrift and Mr. Goodspeed missing.

Comments:

- The distinction between an overdue vessel vs. unreported vessel can be difficult, but is critical to establish a reasonable ETA for the vessel in question. Definitions between overdue vessels and unreported vessel should be clear to all watchstanders.
- Realistic planning is required to establish the SOA of the vessel in question. The rule of thumb of 3 knots for a S/V SOA is just that a rule of thumb.

Actions:

- SAR planners are provided reminders in the CG SAR Addendum, in SAR School and at workshops that there are many tools, rules of thumb, and other aids used in search planning are not absolute answers; critical thinking and investigation are needed and within reason should challenge results provided by the various tools to ensure they are "reasonable" in light of the facts.

SEARCH AND RESCUE CASE STUDIES

P/C SECOND WIND - OVERDUE/DISABLED - 08/15/1999 - CG Group Fort Macon

Synopsis: On 14 Aug 1999 P/C SECOND WIND became disabled about 10.6 nm ESE off buoy R14 SSE of Cape Lookout Shoal, NC. After fishing the engine failed to start. The radio was in fine working order, but the batteries were low causing the radio to have limited range. Their position was reported by two good sams, MISS NELL and HYDROSPORT. In addition to the position, the good sams relayed that the SECOND WIND requested SEATOW be contacted for a tow job. SEATOW responded to the scene, but was unable to locate SECOND WIND and its crew. The CG initiated a search. Early on the evening of 14 AUG 1999, three freighters passed near SECOND WIND. The distressed vessel fired flares attempting to gain some assistance. One of the freighters acknowledged seeing the SECOND WIND by waving at them, but did not provide any assistance. Vessel was located 15 Aug 1999 by Navy P-3 fixed wing A/C. P-3 was requested by RCC. A Marine Corps CH-47 assisted by placing swimmer O/B the SECOND WIND after being located by Navy P-3. Both individuals on the distress vessel were in good condition. Vessel was adrift for about 24 hours.

Comments:

- Having a request for a tow job does not always release CG's responsibility for timely and effective assistance

Actions:

- CG SAR Addendum has requirements for the monitoring of handed off cases.

15 FT SAILING VESSEL - OVERDUE - 09/26/2001 - Fifth CG District (D5)

Synopsis: On the afternoon of 5 May 2001, four people set sail in a 15ft day sailor from Kiptopeake State Park. Their intentions were to sail for the afternoon and launched at about 1610 local. They were reported overdue 45 minutes following sunset by the husband/father of two of the POB. He thought they were sailing out to Fisherman's Island and back. Night searches yielded negative results. In the morning, a passing merchant vessel sighted the vessel. A Coast Guard Jayhawk hoisted two survivors; the other two persons were recovered deceased by the CGC COCHITO. An interview of one of the survivors stated they had capsized at 1715 local approximately 1000 yards north of the Cement Ships approximately 0.5NM north from the park, whereas Fisherman's Island is approximately 4 NM south of the park. The sailboat was not equipped with any lights, flashlights or other signaling devices. All POB were wearing flotation devices but only a tee shirt and shorts. The first victim stopped breathing around 0130 and the second victim around 0215 local. Two local weather warnings were issued on 5 May: (a) a thunderstorm warning effective 1800 until 2100 local and (b) a small craft warning 0001 until 1000 local. On scene conditions at the time of the initial call were recorded on the SAR Check Sheet as winds 5-10kts, seas 1-2 feet and visibility 4-5NM. The reported weather during the searches was winds NE at 15kts, seas 3 feet and visibility at 4NM. The water temperature ranged from 54-64 degrees F.

Comments:

- The search object was within the search area. The survivors stated that the helicopter passed twice within "50 feet". The primary search object was the vessel and the secondary search object was a PIW.
- On scene weather was reported as 4NM visibility; winds at 15kts; and seas at 3 feet. The corrected sweep width should have been 1.2NM. That is for visual daylight searches. All the searches were done at night and the Jayhawk is equipped with NVGs. The CG SAR Addendum lists the sweep width for visibility of less than 8NM as 0.8NM. The track spacing of 2NM was insufficient as per either the calculation (day or NVG), given the reported on scene conditions.
- The Jayhawk notified Group Hampton Roads, in the clear, that 2 of the 4 victims were deceased and the COCHITO should recover the bodies. Shortly thereafter the Group was inundated with calls from news organizations. This type of information should not be passed over an open channel.
- No direct communication with the local hospitals hindered proper medical attention, difficulty in passing information to the attending physician or to receive direction from the Emergency room, and landing procedures. Eventually, after being diverted to another hospital the helo returned to the original hospital to land on a grassy area across from the hospital because the landing pad had not been cleared as requested.

Actions:

- Guidance for night searches and appropriate search objects has been added to the CG SAR Addendum.
- Guidance for coordination and agreements with other agencies/entities within the SAR System is in the CG SAR Addendum.

**OFFICE OF SEARCH AND RESCUE
SAR CASE STUDY FILE DATABASE
1986 - PRESENT***

<i>CASE NAME</i>	<i>INCIDENT TYPE</i>	<i>DATE</i>	<i>STUDY BY</i>
<i>P/C</i>	<i>OVERDUE</i>	<i>08-Aug-86</i>	<i>D7</i>
<i>M/V WEST I</i>	<i>OVERDUE</i>	<i>10-Oct-86</i>	<i>D14</i>
<i>19 FOOT KOSRAEAN F/V</i>	<i>OVERDUE</i>	<i>15-Jul-88</i>	<i>MARIANAS SECTION</i>
<i>14 FOOT JON BOAT</i>	<i>OVERDUE</i>	<i>22-Dec-88</i>	<i>D7</i>
<i>S/V LARA</i>	<i>OVERDUE</i>	<i>18-Oct-89</i>	<i>D11</i>
<i>CESSNA 206</i>	<i>OVERDUE</i>	<i>28-Dec-89</i>	<i>D11</i>
<i>S/V ANAULIS</i>	<i>OVERDUE</i>	<i>20-Mar-90</i>	<i>LANTAREA</i>
<i>F/V SOL E MAR</i>	<i>MAYDAY</i>	<i>16-Apr-90</i>	<i>D1</i>
<i>F/V F171</i>	<i>OVERDUE</i>	<i>07-May-90</i>	<i>LANTAREA</i>
<i>CESSNA 172</i>	<i>DITCHED AIRCRAFT/ PIW</i>	<i>05-Jun-90</i>	<i>D7</i>
<i>JETSKI</i>	<i>OVERDUE</i>	<i>20-Aug-90</i>	<i>D5</i>
<i>M/V ALPHA PHOENIX</i>	<i>OVERDUE</i>	<i>04-Sep-90</i>	<i>D7</i>
<i>S/V GREAT AMERICAN</i>	<i>CAPSIZED</i>	<i>15-Dec-90</i>	<i>LANTAREA</i>
<i>M/V CORAZON</i>	<i>SINKING/PIW RECOVERY</i>	<i>24-Dec-90</i>	<i>LANTAREA</i>
<i>12FT BAHAMIAN DINGHY</i>	<i>OVERDUE</i>	<i>10-Jan-91</i>	<i>D7</i>
<i>F/V GALLIANO</i>	<i>SUNK/PIW</i>	<i>04-Apr-91</i>	<i>D11</i>
<i>F/V SILVER LINING</i>	<i>OVERDUE</i>	<i>02-Oct-91</i>	<i>GANTSEC</i>
<i>PACIFIC ISLANDERS</i>	<i>OVERDUE</i>	<i>21-Oct-91</i>	<i>MARIANAS SECTION</i>
<i>S/V MOORINGS 38</i>	<i>OVERDUE</i>	<i>29-Nov-91</i>	<i>D5/LANTAREA</i>
<i>SUFFOLK ANG MH-60G</i>	<i>DITCHED AIRCRAFT/PIW</i>	<i>28-Jan-92</i>	<i>D1</i>
<i>F/V KRAZY GLUE</i>	<i>OVERDUE</i>	<i>27-Mar-92</i>	<i>GANTSEC</i>
<i>F/V CAROLINE</i>	<i>SUNK/PIW/MEDIVAC</i>	<i>28-Apr-92</i>	<i>GROUP ASTORIA</i>
<i>FF/V JERA I</i>	<i>OVERDUE</i>	<i>30-Apr-92</i>	<i>D14</i>
<i>9 FOOT DINGHY</i>	<i>OVERDUE</i>	<i>30-Aug-92</i>	<i>GANTSEC</i>
<i>S/V COYOTE</i>	<i>OVERDUE</i>	<i>09-Mar-93</i>	<i>HQ (G-OPR)/LANTAREA</i>
<i>F/V AZIELIS 406 MHZ EPIRB</i>	<i>406 MHZ EPIRB ALERT</i>	<i>31-Jan-94</i>	<i>LANTAREA</i>
<i>18 FOOT YOLA</i>	<i>OVERDUE</i>	<i>26-Jul-94</i>	<i>GANTSEC</i>
<i>S/V RUPI</i>	<i>OVERDUE</i>	<i>13-Jan-95</i>	<i>D13</i>
<i>S/V TAO</i>	<i>OVERDUE</i>	<i>02-Mar-95</i>	<i>LANTAREA</i>
<i>S/V MIRAGE</i>	<i>PIW RECOVERY</i>	<i>22-Mar-95</i>	<i>LANTAREA</i>
<i>P/C LEX-TA-SEA</i>	<i>OVERDUE</i>	<i>23-Jul-95</i>	<i>D9</i>
<i>P/C LAMINGA</i>	<i>OVERDUE</i>	<i>17-Oct-95</i>	<i>GANTSEC</i>
<i>OVERDUE DUCK HUNTERS</i>	<i>OVERDUE</i>	<i>29-Dec-95</i>	<i>D9</i>
<i>TUG SCANDIA/BARGE N. CAPE</i>	<i>FIRE/GROUNDING/PIW</i>	<i>14-May-96</i>	<i>D1</i>
<i>F/V LINDY JANE</i>	<i>EPIRB/TOW/SUNK</i>	<i>22-May-97</i>	<i>PACAREA</i>
<i>S/V GOODSPEED</i>	<i>OVERDUE/UNREPORTED</i>	<i>21-Jul-99</i>	<i>D11</i>
<i>P/C SECOND WIND</i>	<i>OVERDUE/DISABLED</i>	<i>15-Aug-99</i>	<i>GRU FT MACON</i>
<i>SKIFF, CHUUK, FSM</i>	<i>OVERDUE</i>	<i>30-May-00</i>	<i>D14</i>
<i>P/C MARY-C – ROCKAWAY NY</i>	<i>OVERDUE</i>	<i>08-Jul-01</i>	<i>D1</i>
<i>15FT SAILING VESSEL</i>	<i>OVERDUE</i>	<i>26-Sep-01</i>	<i>D5</i>

* Several case studies have not yet been added to the database; those with interest to the wider SAR community will be included in future editions of *On Scene*.

Case listings in *Italics* are presented in this edition of *On Scene*.

SAR Heroes and Awards

By LCDR Jeff Ovaska

During the past couple weeks I have spent quite a bit of time considering SAR heroes. As you read through this fall edition of On Scene magazine you will see copies of the citations for the recently awarded 2002 SAR Controller of the Year awards. Also, the Association for Rescue at Sea (AFRAS) Gold Medal was presented recently at a ceremony hosted by the Transportation and Infrastructure Committee on Capitol Hill for a heroic rescue performed by a Coast Guard enlisted member in 2002. At the same ceremony, we recognized some of our friends in the Air Force and an AMVER participant for their SAR efforts. Copies of those citations are also published in this magazine. In selecting winners for the 2002 AFRAS and 2002 SAR Controller of the Year awards, nominations describing the rescues that took place around the globe were carefully reviewed. While only a certain number of nominations made the final selection, and were put into the spotlight, it is clear we have more SAR heroes out there to recognize.

In addition to the AFRAS Gold and Silver Awards (Silver is for Auxiliary nominees) and the SAR Controller awards, there are many other awards, which recognize SAR heroes. The Commandant awards the Gold Lifesaving Medal or the Silver Lifesaving Medal to any person who rescues or endeavors to rescue any other person from drowning, shipwreck, or other perils of the water. If such rescue is made at the risk of one's own life, and evidences extreme and heroic daring, the medal is GOLD; otherwise the individual may be eligible for the SILVER. The Lifesaving Medal is normally reserved for civilians (military personnel are normally awarded military personal decorations as outlined in the Awards and Recognition manual,

Auxiliarists under orders normally receive Auxiliary awards as per the Auxiliary Manual), however military personnel may be recommended for a Lifesaving Medal if the act of heroism was performed while the member was in a leave or liberty status. Since establishment in 1874, 686 Gold and 2,090 Silver Lifesaving Metals have been awarded. Eleven Silver Medals were awarded in 2002, and 8 Silver and 2 Gold Medals so far in 2003. The Coast Guard Auxiliary also has a similar award called the Plaque of Merit. It is awarded to Auxiliary members in recognition of extreme skill in performing an assist or rescue that involves risk to the Auxiliarist's life. The award is intended to recognize heroism in the face of grave personal risk and which clearly stands out as above normal expectations. This award must be approved by a Coast Guard Flag Officer. Since the award was created in 1953 there have been over thirty Plaques of Merit awarded. Two Plaques of Merit were awarded to Auxiliary members at the Auxiliary's National Conference in 2002.

Talking about the Auxiliary, I also just reviewed an article on the Auxiliary website regarding an Auxiliarist who was operating a radio facility out of his home and ended up providing, due to unusual solar conditions which had disrupted normal communications, the means of communication between Coast Guard aircraft and the District Seven RCC during a distress case. While monitoring the case, the Auxiliarist realized the communications problems between the SAR Mission Coordinator and SAR Resource, and having clear communications, offered his services to relay all communications. This of course greatly enhanced the Coast Guard's SAR response. The Auxiliarist received the Auxiliary Commandant's Letter



of Commendation for his service. Another SAR hero recognized.

Please take a few moments to read through the award citations published in this edition of On Scene magazine. Some of the persons receiving awards put their lives on the line, some did not, but all are deserving of the spotlight. Unfortunately, not everyone who contributes to a successful rescue is or can be recognized. We have many SAR heroes who out there who are not on the water or in the air or in the Operations Center, but are doing the behind the scenes work, from those working to design and develop future SAR software and tools, to the BMC teaching SAR school and repeatedly striving to impress the critical steps to student SAR planners "HIT it Hard...Hit it Fast" (UMIB! Dispatch assets! Drop DMB upon arrival on scene!). Lets continue to do our best to recognize all our SAR heroes who contribute to our lifesaving mission, Active duty, Reserve, Auxiliary and Civilian.

Note: An ALCOAST message is sent out annually soliciting nominations for the AFRAS and SAR Controller awards. More information on the AFRAS award can be found at: www.afras.org Lifesaving, Military and Auxiliary awards information can be found at: <http://www.uscg.mil/hq/g-w/g-wp/g-wpm/g-wpm-3/MedalsAndAwards.htm>.

LCDR Ovaska is a SAR Analyst on the Budget, Command & Comms Team of the Policy Division in the Office of Search and Rescue, USCG Headquarters. o/s

SEARCH AND RESCUE AWARDS

The Rescue Coordination Center Controller and Group SAR Controller of the year awards are awarded annually to Coast Guard SAR planners that demonstrated the highest caliber of search and rescue expertise in the areas of investigation, search planning and search coordination. Selections are made based on performance during a single case with emphasis on: investigation and planning efforts, resource management, difficulties encountered and surmounted, and results of search planning efforts.

RCC CONTROLLER OF THE YEAR AWARD

2002

COAST GUARD MARIANAS SECTION

LT Lee Putnam, LTJG Joyce Cruz, QMC Mark Pearson, QM1 James Armstrong, QM2 Zachary Graham, QM2 Julie Mayzak, QM2 John Jennings, and TC2 Michael Munoz are commended for demonstrating exceptional judgment and excellent investigative, search planning and effort allocation skills while serving as SAR controllers for a search for a 23-foot skiff reported overdue by the government of the Federated States of Micronesia (FSM). On November 17th, 2002 the skiff, powered by two outboard engines, had attempted a sixty nautical mile open ocean journey between Losap Atoll and Weno, Chuuk Atoll. Aboard the skiff were eight persons, of which two were children. Other than a days worth of food and water, the skiff had no navigation, signaling or survival equipment aboard. Skillful and aggressive search planning would result in the safe rescue of all eight persons nearly five days later.

Islanders routinely travel long distances between islands and atolls within the Federated States of Micronesia. However, on November 18th, the Coast Guard Marianas Section received a request for assistance from the Federated States of Micronesia to help locate a particular vessel after it had not arrived at its intended destination. With little information available, Marianas Section SAR controllers liaised with the Chuuk State SAR coordinator to gather information from islanders on the overdue boat itself, the people and equipment onboard, and its intended route. Using the information gathered, as well as information learned from similar past cases, the controllers correctly hypothesized that the skiff had most likely lost its way due to low visibility associated with passing rain squalls, and then ran out of gas and drifted.

During this case, Marianas Section SAR controllers directed the search efforts of a patrol boat and other small boats belonging to the Chuuk State and the Federated States of Micronesia. However, due to other ongoing SAR cases, and aircraft mechanical problems, no search aircraft were available to conduct a search in the area until the vessel had been missing for six days. During this period, Marianas Section SAR controllers continued to run Computer Assisted Search Planning (CASP) projections daily as they waited for air assets. To facilitate the arrival of search aircraft into the area, the SAR team overcame logistical challenges such as arranging for lodging, transportation and other needs for the aircrews on Guam and Chuuk. They also helped arranged for repair equipment and fuel at remote locations. Finally, six days after the vessel had originally departed on its journey, two Coast Guard and one Marine Corps C-130 aircraft were to commence search. However, just prior to takeoff one of the three aircraft encountered mechanical problems and could not be used. To compensate, the search areas were quickly readjusted for two aircraft. One of the aircraft then later located the skiff approximately seventy nautical miles northwest of its intended destination. Using CASP, the controllers had accurately bounded the problem given the information available to them. By continually and successfully updating datum the overdue skiff had been located on the first day aircraft had become available.

This SAR case required extensive multi-agency and international coordination. The SAR planners successfully utilized the CASP program, conducted over the phone investigations, and coordinated Federated States of Micronesia surface search assets, and U.S Coast Guard and Marine Corps air assets. The search spanned five days and covered 3,585 square nautical miles of ocean. Working as a team, the SAR controllers expertly used all SAR planning tools available to them, and aggressively sought out resources. The result was eight lives saved. The professionalism, dedication, and aggressive SAR coordination exhibited by the Coast Guard Marianas Section SAR team is in keeping with the highest traditions of the United States Coast Guard.

JEFFREY J. HATHAWAY
Rear Admiral, U. S. Coast Guard
Director of Operations Policy

SEARCH AND RESCUE AWARDS

GROUP SAR CONTROLLER OF THE YEAR AWARD

2002

GROUP WOODS HOLE

CAPT James Murray, LCDR John Kondratowicz, LT Kati Sundland, QM1 Shannon Sloan, TC2 Nathaniel Roberts, TC3 Grace Welsh and TC3 David Candelaria of Coast Guard Group Woods Hole are commended for demonstrating exceptional judgment and excellent investigative, search planning and effort allocation skills, while serving as SAR controllers for a search for a person in the water. The individual, a solo sailor who fell overboard from his sailing vessel without any floatation device, was successfully recovered from the water before he succumbed to exhaustion and hypothermia after being in the water for over nineteen hours.

During the evening hours of July 20th, 2002 a commercial ferry operating in Nantucket Sound contacted Coast Guard Station Brant Point to report the S/V RUM DRINK under sail and maneuvering erratically in circles and apparently unmanned. Station Brant Point immediately contacted Group Woods Hole Operations Center which assumed Search and Rescue Mission Coordinator (SMC), and with nightfall approaching, immediately issued an Urgent Marine Information Broadcast and requested air support from Air Station Cape Cod. Group Woods Hole controllers also dispatched small boats from Stations Brant Point and Chatham, and began an urgent investigation to identify the vessel's owner and to determine the circumstances which led to the vessel being unoccupied.

It would later be learned that the operator of the sailing vessel had lost his footing earlier that morning when the boat was heeled over by a large swell and he fell overboard into four to five foot seas. Although without a floatation device, the individual was an experienced sailor who had attended Navy basic water survival training. He was also a good swimmer and triathlon participant. While in the water, he unsuccessfully attempted to gain the attention of passing vessels, and then tried to swim to a light ashore and a buoy, but was prevented by strong currents. With nothing to cling to, but in top physical condition, the individual managed to survive by treading water and remaining calm, and employing survival techniques such as the survivors float.

With initial assets under their control dispatched and searching, Group Woods Hole controllers liaised with local law enforcement authorities to identify the vessel's owner, and then contacted the individual's family to gather personal information and confirm he had been out on a day sail by himself. In addition, search planners used information entered in the sail vessel's logbook found by Station Brant Point personnel to estimate the time and position where he could have fallen overboard. After the first searches were conducted with negative results, search planners prepared revised Bravo searches to be conducted during the night. With the logbook information indicating the individual may have fallen overboard earlier than initially thought, the search area was expanded allowing for additional drift. The next morning, July 21st, an aircraft from Air Station Cape Cod spotted the individual splashing in the water in the search area, and directed a nearby Good Samaritan to recover the individual from the water.

The timely and textbook investigation of facts and execution of standard SAR procedures by the SAR controllers of Group Woods Hole resulted in this individual's life being saved. A letter of thanks from the individual's father to Admiral Collins clearly conveys the family's gratitude not only for the Coast Guard saving his son's life, but also for the Coast Guard keeping the family advised on the progress of the search and outlining to them the efforts being made. The dedication and professionalism of all members of the Group Woods Hole SAR team are in keeping with the highest traditions of the United States Coast Guard.

JEFFREY J. HATHAWAY
Rear Admiral, U. S. Coast Guard
Director of Operations Policy

SEARCH AND RESCUE AWARDS

ASSOCIATION FOR RESCUE AT SEA (AFRAS) AWARDS

The **Gold Medal Award** is given by AFRAS annually to an enlisted member of the U.S. Coast Guard who is involved in a rescue of life at sea, and who demonstrates uniquely distinguishable heroic actions. The **Silver Medal Award** is given by AFRAS annually to members of the Coast Guard Auxiliary who meet the same criteria. AFRAS has bestowed the Gold Medal Award for 2002 on AST2 Roman Baligad of Coast Guard Air Station North Bend, Oregon. There was no Silver Medal Awardee for 2002. The skills, valor, and judgement of Petty Officer Baligad directly resulted in the saving of a mariner's life. The Gold Medal Award, Amver Award and a special Team Award were presented at a ceremony hosted by the Transportation and Infrastructure Committee on Capitol Hill in October 2003.

AFRAS Gold Medal Award

Petty Officer Baligad earned the Gold Medal award for his heroic efforts while serving as the rescue swimmer on board CG-6533 during the rescue of a crew member from the *Tug Primo Brusco*. On the afternoon of December 30, 2002, a swift low pressure system gripped the Oregon Coast, producing heavy rain, wind gust to 70 knots and 20 - 30 foot seas. The *Tug Primo Brusco* was unable to weather the severe storm and eventually sank 25 miles off the Oregon coast. After transiting to the scene through dark and turbulent conditions, the crew of CG-6533 made an approach to the water where three strobe lights had been spotted by another helicopter working the same case. Investigating the strobes the crew of CG-6533 determined the first to be a life ring, the second to be the vessel's Emergency Position-Indicating Radio Beacon (EPIRB), and the third to emanate from a surviving crew member. Due to the severe wind and sea conditions the CG-6533 crew was forced to conduct a hoist from 60 -75 feet above the water. As Petty Officer Baligad was lowered below the helicopter, he began to swing violently in the wind only a few feet above the storm tossed seas, where he dangled helplessly for 12 minutes as the crew attempted to deliver him to the survivor. On four occasions Petty Officer Baligad was hit by 30-foot waves, and each

time he came close, the wind and seas kept him away from the survivor. With only minutes of on-scene time remaining before CG-6533 would be forced to depart for fuel, Petty Officer Baligad made a heroic and selfless decision. Recognizing the opportunity to safely enter the water on the peak of a large wave, and fully understanding that he may be left on scene with the tug

crewman, Petty Officer Baligad disconnected from the hoist cable and swam through the heavy seas to reach him. Fighting the wind and waves, he skillfully placed the survivor into the rescue basket and, within moments, they were both safely aboard CG-6533. The crewman was delivered safely to shore and transferred to the care of emergency medical services.



AFRAS Gold Medal Award winner AST2 Roman Baligad with VADM Roger Rufe, USCG (Ret.), Chairman AFRAS, and ADM Thomas H. Collins, Commandant, U.S. Coast Guard.

Photo provided by AFRAS

Other Nominees:

BMC Darrin Wallace (Sta Golden Gate), BM1 Christopher Sheppard (Sta Golden Gate), MK1 Shane Blackwood (Sta Golden Gate), MK2 Corey Malloy (Sta Golden Gate), BM2 Chad Johnson (Sta Boothbay Harbor), DC3 Ronald Cooper (CGC Harriet Lane (WMEC 903)), AMT3 Craig Davis (Airsta Elizabeth City), AST3 William Johnson (Airsta Elizabeth City), AST1 Anthony Trout (Airstation Kodiak), FA Robert Brown (Sta South Padre Island), AST3 Jason Quinn (Airsta Kodiak), AMT2 Michael Simone (Airsta Kodiak).

SEARCH AND RESCUE AWARDS

AFRAS Amver Award

Association For Rescue At Sea, Inc.

presents the

2003

International Rescue At Sea Award

For

Exceptional Humanitarian Service

To

M/V AUTOMOBIL ACE

(Seiwa Navigation Corporation, Ltd.)

For diverting seven hours on 12 August 2002, accomplishing a medical evacuation of (2) sailors from S/V ALCYONE (US), recovering (4) U.S. Air Force medical parajumpers, coordinating a rendezvous with USCGC STEADFAST, and rigging for a helicopter hoist, resulting in the Bosun as victim of the first Amver fatal accident.

Mr. Rick Kenney, Chief, Amver Maritime Relations Staff accepts the AMVER Award on behalf of the M/V Automobil Ace with VADM Roger Rufe, USCG (Ret.), Chairman AFRAS, and ADM Thomas H. Collins, Commandant, U.S. Coast Guard.

Photo provided by AFRAS



SEARCH AND RESCUE AWARDS

USCG/USAF Team Award presented at the AFRAS Award Ceremony:

The Commandant of the Coast Guard takes pleasure in presenting the **COAST GUARD MERITORIOUS TEAM COMMENDATION** to:

U. S. COAST GUARD / U. S. AIR FORCE SEARCH AND RESCUE TEAM

for service as set forth in the following

CITATION:

“For exceptionally meritorious service from 12-15 August 2002 while executing a high-risk MEDEVAC involving the S/V *ALCYONE* located 800 nautical miles southwest of San Francisco, California. During this period, Controllers from Coast Guard Rescue Coordination Center (RCC) Alameda and Air Force parajumpers (PJ’s) from the 342nd Training Squadron at Kirtland Air Force Base, cohesively pooled their specialized skills to save two critically ill crewmembers who suffered from life-threatening abdominal injuries and dehydration. Due to the tremendous distance offshore, an additional aircraft with in-flight refueling capabilities was necessary to accompany the Air Force MC-130H, resulting in extensive mission planning and coordination. Controllers at RCC Alameda contacted an Amver resource, the M/V *AUTOMOBIL ACE*, which agreed to divert course to assist and embark the ailing crewmen. Meanwhile, after flying for more than five hours, the four PJ’s parachuted directly into the water with an extensive array of medical supplies and an inflatable boat. Once onboard, while in direct contact with an airborne flight surgeon, they provided immediate and comprehensive medical treatment to the two gravely ill victims, while concurrently rendering aid to two M/V *AUTOMOBIL ACE* crewmen who had fallen overboard, thus requiring two of the PJ’s to once again risk their lives by entering the water to recover them. As before, the PJ’s unique medical skills were employed to resuscitate and save one of the two crewmen. Through a variety of well-planned transfer evolutions involving a Coast Guard cutter and multiple aircraft, the four PJ’s and their three patients arrived in stable condition at the Stanford Medical Center in California on August 15th. This unique, dangerous and long-range case could not have been performed without the determination and total cooperation between team members. The dedication, pride and professionalism displayed by the U. S. Coast Guard Rescue Coordination Center and the U. S. Air Force parajumpers reflect great credit upon themselves, their units, and the United States Coast Guard.”

The Operational Distinguishing Device is authorized.

THOMAS H. COLLINS
Admiral, U. S. Coast Guard
Commandant



U. S. Air Force award recipients
Photo provided by AFRAS

SEARCH AND RESCUE AWARDS

Admiral Of The Ocean Sea Awards



More than 500 years ago, Christopher Columbus, the first Admiral of the Ocean Sea, discovered America...

The Admiral of the Ocean Sea Award recognizes that the Western hemisphere owes its discovery to great seafarers and to the seafarers who transported the colonists, the privateers who helped win its freedom, and the people and ships that opened the world trade for our commerce. With 78 per cent of the world made up of bodies of water, this event is a continuing affirmation that this country will maintain its historic destiny with the great oceans, the ships that fly its flag, and the seafarers of all nations who serve in freedom.

AOTOSMARINER'S ROSETTE

Petty Officer Anthony R. Trout
Aviation Survival Technician Second Class
United States Coast Guard
Gulf of Alaska
September 14, 2002



Petty Officer Anthony R. Trout with his Mariner's Rosette and plaque.

Photo provided by United Seaman's Service

On September 14, 2002 Petty Officer Anthony R. Trout, on board Coast Guard helicopter CGNR 6036, sped to the aid of two fishermen aboard the BLIGH REEF, a 52-foot salmon tender foundering in an arctic storm near Cordova, Alaska. After arriving on the scene the Coast Guard helicopter tried repeatedly to deliver a trail line to the fishing boat but all attempts failed and the fishermen began to exhibit symptoms of exhaustion and hypothermia. With the fishing boat teetering on 30-foot waves, the two fishermen were directed to enter their life raft and drift clear of the BLIGH REEF. As 60 knot winds pounded the helicopter, Petty Officer Trout descended into the darkness and raging seas to reach the fishermen and prepare them for the hoist. He fought his way through the mountainous swells to the raft and towed the men to a clear area to be lifted to safety. He then rode the cable up himself and proceeded to treat the fishermen for hypothermia and check them for injuries. Minutes later the BLIGH REEF took several waves over the pilot house and sank.

Petty Officer Trout's skill, stamina and physical strength saved the lives of the two Alaskan fishermen and his courage and devotion to duty are highly commended and in keeping with the highest traditions of the United States Coast Guard.

Petty Officer Trout being congratulated by General John Handy, Commander, USTRANSCOM.

Photo provided by United Seaman's Service



CONFERENCES - WORKSHOPS - EVENTS



NASAR • 4500 Southgate Place, Suite 100 • Chantilly, VA 20151

SAR 2004

June 2 - 5, 2004

National Conference Center
Lansdowne, VA

Highlights:

- Three full meals per day included in registration!
- Exciting General Session and Awards Ceremony
- Classroom and Hands-on Workshops
- Newcomers Orientation
- Exhibition
- Demonstrations
- Special Interest Group Meetings
- And much more!!

Conference Details:

Phone: 703-222-6277

<http://www.nasar.org>

<http://www.conferencecenter.com>

Educational Tracks:

- Water
- Management
- General/Medical
- Government Interface
- Technical
- SAR Dogs
- USAR

U. S. COAST GUARD SAR PROGRAM INFORMATION

ON THE WEB

The SAR Watch - Office of Search and Rescue Newsletter (monthly)

The SAR Watch is a monthly newsletter designed to provide accurate, up-to-date highlights about important SAR program initiatives, along with other news and announcements of interest to our community of SAR professionals. From time to time, the newsletter will also include practical material for use by field SAR personnel. The SAR Watch compliments On Scene by providing a means to pass time sensitive information in a less formal format. The SAR Watch is accessible via the SAR home page via a link on the left side navigation bar.

SAR Publications:

SAR publications currently available via the SAR Program's web site include:

U.S. National SAR Plan (NSP) - The federal plan for coordinating civil search and rescue services to meet domestic needs and international commitments.

U.S. National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual - Provides guidance to federal agencies concerning implementation of the NSP and builds on the baseline established by the IAMSAR Manual. The NSS provides guidance to all federal forces, military and civilian, that support civil search and rescue operations.

U.S. Coast Guard Addendum (CGADD) to the U.S. National SAR Supplement - Establishes policy, guidelines, procedures and general information for Coast Guard use in search and rescue operations. The CGADD both compliments and supplements the NSS and IAMSAR.

SAR PROGRAM POINTS OF CONTACT

USCG Headquarters Room 3106
Phone: 202-267-1943 / Fax: 202-267-4418
www.uscg.mil/hq/g-o/g-opr/sar.htm

CAPT Steve Sawyer	202-267-1943
Chief, Office of Search and Rescue	SSawyer@comdt.uscg.mil
Ms. Ruby Carter	202-267-1943
Office Administration	RCarter@comdt.uscg.mil
Mr. Dana Goward	202-267-1559
Chief, Policy Division	DGoward@comdt.uscg.mil
Integrated Maritime Command Center (IMCC) Project	
CDR Brad Clark	202-267-2275
Command Center Issues, Budget Planning	BDClark@comdt.uscg.mil
Mr. Rich Schaefer	202-267-1089
Search Planning, SAR Data Analysis, Editor On Scene	RSchaefer@comdt.uscg.mil
LCDR Jim Olive	202-267-
SAR Policies, SAR School/Stan Team, Training	JOlive@comdt.uscg.mil
LCDR Jeff Ovaska	202-267-0420
Budget Coordinator, Program Improvement	JOvaska2comdt.uscg.mil
Ms. Kathryn Ebner	202-267-0810
RESCUE21 Project Specialist, GMDSS, Communications	KEbner@comdt.uscg.mil
LT Mick Mulligan	202-267-1586
Mass Rescue Operations, Medical Issues	MMulligan@comdt.uscg.mil
LT Tom Robinson	202-267-2275
General SAR Policies, Special Awards, FOIA	TJRobinson@comdt.uscg.mil
Mr. Jack Frost	202-267-6702
SAR Planning Tools, SAR Planning, R&D requirements/oversight	JFrost@comdt.uscg.mil
Mr. Dan Lemon	202-267-1582
Chief, Coordination Division	DLemon@comdt.uscg.mil
National Search And Rescue Committee (NSARC) Secretariat	
Mr. Dave Edwards	202-267-1552
Amver, U.S. National SAR Supplement	DEdwards@comdt.uscg.mil
LCDR Jay Dell	202-267-4936
Cospas-Sarsat Program, DASS, NSARC R&D	JDell@comdt.uscg.mil
Ms. Willie Foster	202-267-1580
NSARC Liaison and Support, Budget	WFoster@comdt.uscg.mil
Mr. Rick Kenney	212-668-7764
Amver Maritime Relations - New York, NY	RKenney@battery.ny.uscg.mil
Ms. Beverly Howard	212-668-7764
Amver Maritime Relations - New York, NY	BHoward@battery.ny.uscg.mil

United States Coast Guard
Search and Rescue Summary Statistics with Performance Measures
Fiscal Years 2000 through 2003

Fiscal Year	2000	2001	2002	2003
Cases	40,214	39,457	36,763	31,562
Responses	48,226	49,502	46,643	-
Sorties	57,697	59,015	54,609	36,471
Lives Saved (1)	3,400	4,010	3661	5104
Lives Lost Before CG Notification (2)	779	413	399	409
Lives Lost After CG Notification	239	297	236	246
Lives Unaccounted For (3)	304	515	339	481
Persons Otherwise Assisted	54,866	59,910	46,503	36,735
SAR Program Effectiveness for Lives Saved (93%)(4)	93.4%	92.7%	93.9%	95.0%
CG Preventing Loss of Life Goal (85%)(4)	82.7%	84.2%	84.5%	87.7%
Value Property Loss Prevented (\$ million) (5)	84	73	68	106
Value Property Lost (\$ million) (5)	415	441	76	19
Value Property Assisted (\$ million)	778	1,501	1,589	468
SAR Program Effectiveness for Property Saved (80%) (6)	63.1%	65.9%	61.5%	80.6%

(1) FY2001 included 2 large AMIO incidents with a total of 226 lives saved. FY2002 included 7 incidents AMIO & other with 439 lives saved. FY2003 included 8 incidents AMIO & other with 439 lives saved.

(2) 2000 the Egypt Air (217) and Alaska Air (88) crashes account for the increase (305 total lives increase).

(3) Lives Unaccounted For is not currently considered in Lives Goals; under review and consideration for inclusion. In FY2001, 173 of the unaccounted for lives were from two large AMIO incidents. In FY2002 105 unaccounted for lives were from three large incidents.

(4) Large lives saved/lost events (notes 1 & 2) are not included in effectiveness goal calculation (do not represent the "normal" trend)

(5) Includes several out of the normal high cost incidents:

FY2000

Property Lost: Egypt Air \$150,000,000; Alaska Air \$128,000,000; Navy F18 Bailout/Crash \$50,000,000; Lift Barge "Atlas" Capsized \$15,000,000; M/V John M Donnelly \$17,675,000; 6 Barges Adrift Lower Mississippi River \$5,153,000

FY2001

Property Lost: Downed F-18 \$18,000,000; M/V JA Halloway T.O.W. \$50,000,000; M/V Fox Island fire/sank \$34,000,000; C/S Sea Breeze sunk \$8,000,000; F/V Miss Maria T.O.W. \$12,250,000; F/V Ehime Marun sunk \$98,000,000; 14 incidents Grp LMR apparent entry error (category) corrections pend \$183,000,000

FY2002

Property Loss Prevented: S/V Ernestina Taking on Water \$10,000,000;

Property Lost: F-16 Downed \$30,000,000; A/F C-130 downed \$5,000,000; Navy Training drone \$5,000,000

FY2003

Property Loss Prevented: Tuna Purse Seiner Taking on Water \$20,000,000; P/V Safari Rose aground \$5,000,000

(6) Large property events (note 5) are not included in effectiveness goal calculation (do not represent "normal" trend)

SHARE YOUR ON SCENE

When you have finished reading your copy of On Scene, please take the opportunity to share it with someone interested in Search and Rescue. **o/s**

DISTRIBUTION -SDL No. 140

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A	3	3	3		3	3	1		2	2		1	3	2	1	1	1		1		3					
B		5	25	1	25	10	10	10	3	2	2	10	5	25	5	5		20	1		5	5		1	5	2
C	5	5			2	1	1	1	5		3	1	1	8	1	3	1			1	1	1	1	1	1	6
D	5	1	1	8	1			10		1	1	1	1						1		1		2			1
E	3									10	10	10	1	1					3	1						
F																										
G			3	2	2																					
H																										

NON-STANDARD DISTRIBUTION: CG-39

FAQS from the U. S. Coast Guard Historian's Office

□

What is the origin of the saying “You have to go out, but you do not have to come back”?

A: □A letter to the editor of the old *Coast Guard Magazine* written by CBM Clarence P. Brady, USCG (Ret.) which was published in the March 1954 (page 2) issue, states that the first person to make this remark was Patrick Etheridge. □Brady knew him when both were stationed at the Cape Hatteras LSS. □Brady tells the story as follows:

“A ship was stranded off Cape Hatteras on the Diamond Shoals and one of the life saving crew reported the fact that this ship had run ashore on the dangerous shoals. The old skipper gave the command to man the lifeboat and one of the men shouted out that we might make it out to the wreck but we would never make it back. The old skipper looked around and said, ‘The Blue Book says we’ve got to go out and it doesn’t say a damn thing about having to come back.’”

Etheridge was not exaggerating. □The *Regulations of the Life-Saving Service* of 1899, Article VI “Action at Wrecks,” Section 252, page 58, state that:

“In attempting a rescue the keeper will select either the boat, breeches buoy, or life car, as in his judgement is best suited to effectively cope with the existing conditions. If the device first selected fails after such trial as satisfies him that no further attempt with it is feasible, he will resort to one of the others, and if that fails, then to the remaining one, and he will not desist from his efforts until by actual trial the impossibility of effecting a rescue is demonstrated. The statement of the keeper that he did not try to use the boat because the sea or surf was too heavy will not be accepted unless attempts to launch it were actually made and failed [underlining added], or unless the conformation of the coast—as bluffs, precipitous banks, etc.—is such as to unquestionable preclude the use of a boat.”

This section of the *Regulations* remained in force after the creation of the Coast Guard in 1915. □The new *Instructions for United States Coast Guard Stations, 1934* edition, copied Section 252 word for word as it appeared in 1899. □[1934 *Instructions for United States Coast Guard Stations*, Paragraph 28, page 4].