

Diving Safety Lines

Fall Edition

2007

Diving Safety Lines is a semi-annual release by the Afloat Safety Directorate of the Naval Safety Center. The information contained herein is a summary of research from selected reports of diving hazards to assist you in your mishap prevention program. *Diving Safety Lines* is intended to give advance coverage of safety-related information while reducing individual reading time. This bulletin does not, in itself, constitute authority but will cite authoritative references when available. It is recommended that this bulletin be made available to all hands.

Farewell From The Diving Safety Division Head

LCDR R. Crouch

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It has been a distinct pleasure serving you for the last several years. I've enjoyed traveling the world to various dive lockers and seeing the can-do professionals that make up this community. I will be relieved by LT Sarah Wilson and will report to COMOPTEVFOR, Norfolk, Virginia in October. As I leave the Naval Safety Center, I would like to leave you with some thoughts on how you can make diving safety surveys a little easier on your command and the new Dive/Jump Reporting System:

1. Pull the checklists from our website www.safetycenter.navy.mil and go through them before the surveyors arrive. The checklists are the answers to an open book test and a successful survey.

Hint: they are also used for your DORA now and should be used periodically for performing self-assessments.

2. The Naval Safety Center has put a lot of effort into the new Dive/Jump reporting System program and we haven't done it alone. I especially thank the following people:

MDV Rood for his extra effort in getting us the funding to pursue this project.

MARMC divers for their continued input to the process

MDV Brown for his help with saturation diving

MDV Hall, NDC Turner, ND1 Doolittle for their help with SDV requirements

MSGT Raybon for his assistance with USMC diving.

NDC R. Leete for assistance with MK 25 ops

And those at the WDC that took the time to give input (about two of you).

3. DRS 5.1.5 will come to a close at the end of the year. There will be a cut-off date to submit all your dives to the Naval Safety Center and begin use of DJRS. There will be a steep learning curve and admin requirements to get your commands ready. Be on the lookout for a Naval message to guide you.

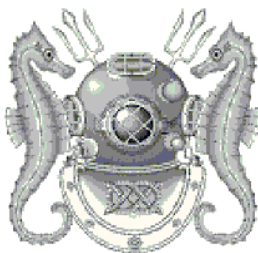
4. USE DJRS when it comes out. Again a lot of effort went into this system to make it easy on the fleet to log dives and give divers an opportunity to view your personnel dive history.

Thanks again for the opportunity to serve our diving community's readiness through safety.

V/R

LCDR Crouch

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Master Diver's Corner

Commitment to Diving Community

MMCM(MDV/SW) Mallet

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This past August I was fortunate enough to be asked to participate in Master Diver Grimm's retirement ceremony. I say fortunate not only because it was an honor to do it for a friend and shipmate, but was able to hear a well thought out and written speech from his guest speaker.

The following is an excerpt from Commander E. Eidson's speech, some may like and I'm sure some will not.

Influence is defined by Webster's dictionary as "the act or power of producing an effect without apparent exertion of force or direct exercise of command."

I do not subscribe to the philosophical approach the Navy has adopted towards the designation of Master Diver. After making chief it has become a requirement to make yourself eligible to attend master diver evaluations. Hidden in this philosophy is the implication that it can be done by anyone given enough effort.

I do not subscribe to this belief, and in my experience, have seen the contrary borne out more often than not. When someone achieves the designation of Master Diver, it signifies the demonstration of an amalgamation of unique attributes that is extremely rare, yet requisite to perform in this capacity. A Master Diver must possess a combination of attributes that are uncommon even within the ranks of those select few that can actually call themselves Navy divers. They must be intelligent enough to memorize thousands of pages of a manual that upon complete the memorization simply serves as the foundation from which to deviate. That deviation occurs at the worst possible time, when one of your own is badly hurt, the consequence of your decision is life and death, all eyes are on you and nothing in the manual is working. There are no second chances, and there are no acceptable mistakes. They must be confident enough to be heard and stand their ground even if it means that they may lose it all in the effort. What they wear on their collar and the career they have endeavored to develop must be disposable at the expense of their men. They must not be so dogmatic as to refuse good advice in order to be right. Even if the person offering the advice is the same person they may have trained. They must be hard enough to snap a young diver out of his fear of being under a carrier with three feet between the bottom and the hull, but compassionate enough to cradle the head of the young sailor who has just brought his first body up from the ocean floor and sage enough to know the difference in how to handle it. These attributes are exceedingly rare by themselves, but the combination is exceptionally rare in a single person, yet these are the prerequisites for a Master Diver. Effort does not create these traits. No matter how hard you try, you either have them or you don't.

Those that have served in this capacity understand the solitude. The reunions and camaraderie that comes from endeavoring and achieving this designation is known only to those that have been there. Much like combat, it unifies those that have experienced the total and absolute weight of the watches around their neck with no one behind them to back them up.

There are many exceptional divers, technically and intellectually proficient, that have great purpose and can provide great service. Yet they will never be able to shoulder the responsibility nor do they desire to walk the potentially solitary path of the Master Diver. This is not an indictment, but rather as recognition of the fact that there are but a few people in this world that can aspire to perform as a Navy Master Diver successfully.

Master Diver's Corner

Commitment to Diving Community

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Continued.

Those that do not, are not lacking in effort, but rather simply do not possess the unique characteristics requisite of a Master Diver. You are either born with these attributes or not. Master Divers are few and far between. And maybe that is the way it should be.

We all know this, although we may be reluctant to admit it. No matter how much we try to front load the classes, the same number comes out the other end. Those that strive to be a Master Diver will measure up to this metric or be satisfied to perform in a lesser capacity. That is simply the way it is.

We all know those that had it: Hy Spalding, Byron Howell, Bobby Van Dyne, Jack Delaughter, Glenn Wyatt, George Gilson, Ragman Rodecky, Derryl Williams, John Monday, Rich Campbell and Danny Saulmon, to name a few. They had it. We all knew it. You knew it when they walked into the room. They didn't need to yell it. It was something about them... the way they carried themselves...a way they moved...they owned it...It isn't quantifiable, but we all recognize it when we see it.

The commander went on to say it was evident to him long before Master Chief Grimm had even been designated as a master diver, that he had it.

Not bad ha? I'm sure it stimulates some thought and possibly opens it up for discussion.

Stay Safe

Russell Mallet NDCM (MDV/SW)

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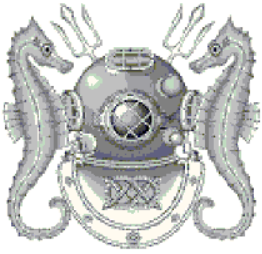
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DRS 5.15



Issues with DRS?

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Having trouble with DRS? Here are problems we have been seeing lately. This article was in the last issue and I have added on to this since we are still getting the same errors and requests.

1. We are finding a lot of dive reports continue to be dropped from your e-mails, therefore we are not able to upload your dives. We are not sure if the problem is with NMCI or it's the firewall at your command.
If you get an e-mail from us or your administrator saying: "A MIME attachment of type <application/octet-stream> was removed here by a drop-attachments-by-name filter rule on the host," then the e-mail attachment was dropped. This is what we are doing to get around the problem for now: The file is a compression file and has a extension of .LZH, we need you to rename the file extension to .doc so the firewalls will think it's a Word document and let the attachment through. Leave the first part of the file name alone. It starts with your UIC, a date code (A is for January), and the day you compressed the file (e.g.,63393C02.doc). We will e-mail you when we receive your dives and they have been uploaded in the database. Don't expect a return right away , we do travel.
2. We are getting a lot of calls saying "I compressed my dives but I don't know where they went." The dives all go into the drive in which your DRS program has been loaded. The problem is that you cannot see the LZH file extension. This can be corrected by opening the host drive such as the " C": drive and going to program files/Dive Reporting System. Once there go to tools then folder options then view and make sure that the show hidden files option is selected then apply. This will enable you to see all the DRS program files and extensions especially the .LZH extensions you need to send to us here at the Naval Safety Center via e-mail.
3. Sending dive information: I suggest you send your dives by going into your DRS system files located on your C:\ drive by default installation, and copying the compression file (.LZH) change the extension (as per para 1 above). Then send it as an e-mail attachment vice using the DRS program to send your dives. The e-mail address in the DRS program is incorrect.
4. The program's e-mail function: There seems to be a number of people using the e-mail function in the administration area of the program, after they have approved and compressed their dives. One word. **STOP!** This function has not worked for quite some time. The worst part is that the calls we are receiving are from senior divers that have been around long enough to know better. Follow the procedures for attaching your dives to an e-mail in item three of this article and send them to us here at the Naval Safety Center.
5. Back up your database! DRS programs are being lost during the NMCI tech refresh operations. The Naval Safety Center does not maintain copies of your command's database. We can provide you with a command diving history, but not a copy of your database so that you may reload your command information.
6. Finally NDC Greg Barnett has transferred from the Naval Safety Center. Those of you that were sending your dives directly to him need to stop and instead send them to the Safety Center group e-mail. safe-divesalvage@navy.mil



From the Fleet

KNOW WHO IS RESPONSIBLE FOR DIVER SAFETY, QUESTION ALL ASSUMPTIONS, AND RECOGNIZE A “BAD OPERATION” EARLY; BEFORE SOMEONE PAYS THE PRICE.

Before we start, I need to explain the length of this article. Our modern Navy writing style places way too much emphasis on bulletizing and summarizing complex information for the ease of the reader. Often at the expense of important details, discussions, and deck plate lessons learned that are required fix the issue. This article is not going to be an executive summary; for that, I am sorry. Here is the problem; we do a superb job executing thousands of safe dives each year. Our danger factor to safety incident rate sets the standard for any trade. What we are failing at is this; chasing down a solution to reduce the very small, often deadly percentage of dives that go wrong. For the rest of this discussion, I only want to focus on the small percent of our dives that end in disaster. Specifically, the not so tangible human issues that we all know are at the root of the problems.

OK here we go... Given the last 100 years worth of lessons learned (all written in blood) and our continuous technical, procedural and training process improvements; by now we should have driven our safety incident rate to practically zero (ate by shark, hit by meteor). Why does this keep happening like clockwork? Are safety incidents the result of a simple math problem that we have no control over, “The rule is; every 2,000 dives someone is going to get hurt or killed.” Is Murphy’s Law, really true? Or is Charles Darwin to be blamed, “The stupid will be weeded out?” None of these comments are true. Our equipment is sound, our procedures are proven, our training is superb. Time and time again; it is human error that bites us in the rear. Considering the last few serious diving incidents and the unknown number of close calls that are not reported, we all need to take a harder look at resolving the human factors involved in diving. Let’s explore this:

The work we do as Navy divers is dangerous enough to cause 90% of the U.S. population to need traumatic stress counseling. Body recoveries, deep SAT/HeO2 and salvage work, demolition work, night diving, ballast tank work, chamber treatments, going inside wrecks, special diving, SPECWAR/EOD ops, and lets not forget SDV operations....! Day after day, big dive job after big job, we make the hard look easy and confidently stare danger in the eye. How each diver is able to face the danger and still function is the topic for another paper. For me personally, my ability to face fear and complete a critical task at depth has always come from a solid confidence in my fellow divers (humans), not a check sheet or instruction. For the really scary dives, my confidence has always come from the knowledge that the master diver would be able to recover me from any situation, even if it involved re-starting my heart and pressing me to 165 FSW.

Over the last 21 years I have experienced our diver’s safety program from all angles. As a young Sailor, I ignored safety regulations and was hurt. I have also done stupid things that resulted in other Sailors getting hurt. As a senior Sailor, I have had post - incident safety investigations conducted on my Sailors and I have conducted safety investigations on other folk’s Sailors. If you take out the incidents where a Sailor was drunk or intentionally tried to screw up, (very rare) the end result after a fact-finding, critique or official command investigation is very similar for each incident. We had a problem and someone either did, or could have been seriously injured.

Leadership can not be on every dive side to prevent all problems; but, we are almost always tasked with providing solutions. I have found three distinctly different leadership solutions that stem from post incident inquiries. All three are valuable tools, Number 1 and 2 have the best chance of reducing problems, Unfortunately number three is the easiest and most often used solution.

1. Some leaders strongly believe we need more check sheets, instructions, regulations and engineering analysis to resolve the problem.
2. Other leaders believe that given all the variables, external factors, and the diversity of jobs, some part of the system will always be flawed. Drawings will have inaccuracies, instructions will not perfectly fit the job and systems experts will always have the potential to be wrong. When problems arise, these leaders tend to blame themselves, or the process they have in place to execute the work. Their solutions revolve around fixing the Sailor to resolve the problem.

3. A few leaders strongly believe in the established system and tend to want to punish the offender. e.g., “Enforce the standard and hold Sailors accountable.” “Lets pull his/her dive pin and make an example so other divers will be motivated to follow the rules”

A good simple example of the difference between the three camps is; If you lock your keys in your car, do you punish yourself by not driving your car for a week? Or , do you establish a routine to prevent it from happening again?

Another great example, one that ties all three camps together is our master diver qualification process. Knowing all the rules and regulations in diving is required to pass the MDV written exam and will get you to “The show” but it won’t get you “the MDV pin.” During the graded diving drills, it is the candidate’s ability to factor in all the variables, external stresses, and regulations to come up with the safest way to recover from a casualty that earns “the MDV pin.” This process needs to be fostered at every level.

The following paragraphs discuss some of the human factors that impact safe diving for our divers on the side;

1. Know who is responsible for safe diving operations. Ask any random sampling of young divers “Who is really responsible for diver safety?” and you will get a shotgun blast of answers that is all over the place; the commanding officer, the master diver, the safety officer, the dive supervisor, and even, “Everyone is responsible for diver safety.” The sharp diver will recognize the above listed people can not be at all places at all times and will reply “I am responsible for diver safety”. This is the attitude we need to foster in all of our divers and for every dive no matter how routine. Push responsibility to the lowest level and ensure each member of the team is empowered not just to voice safety concerns, but is trained to search them out. Even with each diver 100% focused on safety, other human or technical factors may result in an incident.

2. Challenge all assumptions and know the limitations of all personnel involved in diving operations. The first step in challenging assumptions is to train divers to recognize what an assumption is and make them comfortable with demonstrating a challenging attitude toward diving tasks that rely on technical documentation or outside “technical experts” This takes courage. Have them ask “What is the worse case scenario for this dive and what is our plan to mitigate it?” Know the limitations of your divers. For example, even if the dive supervisor is a chief petty officer, it should be OK to ask “Have you worked on this class of ship/sub before?” or, “have you conducted ice diving, salvage, demo..... before?” Just looking at the uniform or NEC and blindly following orders is a recipe for disaster.

Challenge other personnel involved in executing dive operations, specifically, the maintenance activity’s planning and engineering personnel, lead trade, ship’s force, and even the RADCON folks are not perfect.

3. Put the right person in the right job. Looking back on the majority of our fleet-wide safety incidents that resulted in serious injury or death, one common completely avoidable factor strikes me straight in the face; if we had just swapped out one or two key personnel on the dive side for that day the event most likely would not have happened. Use ORM to ensure the right people are filling the key positions in the dive team. Know the experience level and limitations of your people both up and down the chain of command.

4. Recognize a bad operation before someone gets hurt. The ability to recognize, and more importantly the courage, to call off a bad dive before a problem, is the single most important factor in reducing our safety incidents. Pushing that confidence to the lowest level is second. All other safety programs and tools follow. When a something is not right, we call it a “soup sandwich.” That dive side looked like a soup sandwich, as soon that diver left surface he turned into a soup sandwich, Ships Force is a bunch of soup sandwiches. Our Special Forces have a better term for situations that are “not quite right” they call it a “bad op.” What is the difference between a “soup sandwich” and a “bad op”? The soup sandwich tends to focus on an individual, or event. The bad op covers the entire mission and everyone involved from cradle to grave.

5. Command Climate. This issue is so important, I intentionally left it for last. We rarely use this term in our daily business and it is probably the least understood and hardest safety issue to manage. Mostly, because it can’t really be measured and the term is normally used to place blame after a serious incident. Command climate is the culmination of all the above discussed issues, specifically, the bad op. If we don’t consider the overall human issue (command climate); some of our dive lockers could have a climate that is a ticking bad op waiting to happen. Again, I am not trying to lecture the reader on our overall safety program, we are discussing the small percent of dives that go wrong. Leadership determines the command climate of a dive locker. The CO is responsible and accountable for it, but in our business dive teams have very little interface with senior officers. It is normally the master diver who sets the dive locker climate and the E-6 and above who manage it. Two very dangerous command climates have caused problems in our community; arrogant dive teams and coercive dive-team leadership.

1. Over confident, arrogant, bullet proof, we are special, and the rules don't really apply to us attitude. All the hoo-yah deep sea, USN diver body like rambo, mind like MacGyver stuff is great for recruiting or staying motivated but, some folks take it way too far. This climate has resulted in serious safety incidents both on and off duty. Lax dive sides, taking shortcuts, pushing way past limits, partying like rock stars, and getting in trouble. This is the most dangerous climate that effects Navy divers, only because it is the most prevalent The good news is, it is easy to sniff out and correct. If the dive team smacks of arrogance and their dive side is less than perfect; then it is, what it is. This climate can be corrected at the lowest level.
2. Coercive working environment. In my opinion, this is the most dangerous command climate facing divers. This demon hides under the radar causing serious damage over time and is often not recognized until after disaster strikes. Let's face it, some folks are born with fewer people skills than others. These folks tend to compensate for this shortcoming by working much harder and achieving much more than their "touchy feely" peers. Because our promotion system is based on technical expertise and superior performance, inevitably these divers end up in charge. Here is the problem; leaders who lack people skills, most importantly compassion, tend to not respond well to any kind of failure in the divers who work for them. They take it personal, yell and scream a lot, take pleasure in developing unique punishments and like to use the threat of pulling a Sailor's dive pin as a leadership tool. The sad thing is they don't even know the damage they are causing. Many commanding officers have an open door policy; however, once the coercion has set into a dive locker the sailors under that leader really have no recourse. After seeing or hearing about the swift ramifications the last diver who "spoke up" was subjected, the team goes into "survive – this – tour – mode." This is a disaster waiting to happen. Not only does it damage morale, retention, and overall safety; divers working under this cloud are afraid to speak up when things are not right. Because these leaders "talk the talk" and are normally very squared away, senior officers are lulled into a false sense that everything is great. Only the senior officer leadership in a diving organization can identify and correct this climate.

In closing, please take a hard 360 degree look at your own dive locker safety program. Train your divers to maintain their professionalism 24/7/365, question all assumptions, and recognize a bad op. Most importantly, ensure they understand that regardless of the situation they are personally responsible to have the courage to standup for their own safety and the safety of the dive team.

CWO3 Eric MacDonald
PHNSY&IMF Diving Officer \





FROM THE FLEET

Pearl Harbor Naval Shipyard & IMF Tag-out violation

Pearl Harbor Naval Shipyard recently experienced a tag-out violation that I would like to share with the fleet in the spirit of SUPSAL's latest "Faceplate" article in the hope that more lockers will do the same.

In early March, we experienced a tag-out violation on one of our home ported CGs. The scheduled dive was the routine installation of a cofferdam on a sea chest for the Aegis cooling system.

Typically, ships force (SF) was in the middle of a major engineering inspection, the work package was late, and our schedule was full for the week leaving no room for unnecessary delays or the rescheduling of work. The assigned tag-out technician that day was an experienced ND2 (NEC 5343) with over three years of experience. The diving supervisor, ND1 (NEC 5342), is one of our most professional and technically sound supervisors. The dive safe sheet was delivered the day before so SF could isolate the system and hang diver's tags.

Early the next day, our tag-out technician reviewed the tag-out with SF and waited for them to finish hanging the required tags for system isolation. While waiting, he noted some confusion between the weapons representative and the engineering duty officer (EDO) over what valves needed to be tagged. Our tag-out technician repeatedly questioned SF until he was convinced the tag-out was sufficient. This was done after reviewing three sets of drawings confirming the sea chest was isolated; DC plates, docking plans, and EOSS drawings.

The tag-out technician notified the diving supervisor about the confusion once the tag-out was complete and the diving supervisor personally reviewed the tag-out and drawings to ensure it was safe for the divers. The EDO, CDO, and CSO all signed the Dive Safe Sheet and the team was cleared to dive. Having completed all pre-requisites, the lead trade briefed the job and the diving supervisor conducted the dive brief. Divers left surface at 12:35 to install the cofferdam.

To ensure the divers were on the correct sea chest, the onboard man and SF used the normal "Shave and a haircut" tapping process on the sea chest so divers could find the correct hull opening. The divers reported the tapping sound as faint and a considerable distance from where the team thought the sea chest was located. This report combined with the earlier tag-out issues made him question if SF was tapping on the wrong sea chest. He brought the divers to the surface until he could get it sorted out. At the same time, our onboard man figured out that SF had taken him to the wrong sea chest as the diving supervisor suspected; they were on number 6 fire pump sea chest and not the Aegis cooling water sea chest.

While all this was going on, a senior diver from the dive locker showed up on the side to conduct a random shipyard surveillance. Leadership (E7 and above) are required to conduct three random surveillances a week. Satisfied that all was well on the side with the team and briefed on the job up to that point, the surveyor went onboard to verify the tag-out and see what was going on in engineering. The tag-out looked good and matched the information provided by the ships drawings. However, the attitude of the engineers combined with the confusion of the day, left him feeling something was wrong.

Specifically, no one in CCS, including the EDO could answer the question, "Does this sea chest share a common header with other systems?" The surveyor then asked for the chief engineer. As a crew member went to get him, the onboard man and his assigned SF "system expert" arrived to re-verify which sea chest they were supposed to be tapping on. Surprised to see one of our senior divers, the onboard man said, "Something didn't seem right and SF had taken him to the wrong sea chest." The senior diver then directed the onboard man to tell the diving supervisor to secure dive station until they figured out what was happening.

Shortly after, the chief engineer arrived and commenced reviewing the drawings with the senior diver and the tag-out technician for the third time. Again, the tag out was deemed to be correct. Then the EDO (E6) mentioned under his breath that he thought

the gas turbine generator (GTG) may draw suction from the same sea chest, but not to worry because it is a small pump and they never used it in port.

There it was. Everyone immediately went down to the engineering space to physically look at the sea chest and see what was connected to it. Guess what was hiding under the deck plates? You guessed it, the GTG cooling water pump the EDO mentioned. It was not tagged and draws suction directly from the same sea chest as the cooling system. Not a single drawing on the ship showed this configuration. The engineer's drawing showed the sea chest as a stand alone for the GTG. The weapon's division drawings showed the sea chest as a stand alone for Aegis cooling water pump and the DC plate/docking plan did not show the common header.

We train our divers to listen to their instincts and if something doesn't seem right, it probably isn't. Our master diver's standing policy is this; if you make a mistake, report it and you will be OK; lie about that mistake and hide it so you can get the job done on time and go home on liberty and you will find yourself in a world of hurt! So...the correct decision was made to stop diving and report the incident. We would rather deal with rescheduling work vice getting someone hurt.

The next day the command conducted a full critique with the divers and SF. The root cause mapping and critique revealed three significant problems.

1. The ships drawings where incomplete.
2. Two work centers where involved in the tag out (ENG/WEPS) and according to the Tag Out User's Manual (TUMS) they should have coordinated prior to deciding what systems needed to be tagged out.
3. Why did two Sailors and a diver who placed and signed the sea chest tags not notice the common header? Ships force blamed the drawings and the tag-out technician insisted he could not be expected to know every valve on every class ship. Neither argument excuses the fact that none of them looked at each pipe coming off the sea chest and looking to see if everything was tagged. If they had, they would have quickly seen the GTG suction valve with no tag on it. It was in plain sight.

Our post investigation action items for the dive locker was to brief all tag-out technicians to have a more questioning attitude and to visually confirm the valves and piping coming off any sea chest. Additionally, we are reviewing our tag-out technician qualification process for improvements to include Shift Operations Management System (SOMS).

So...given all the safety programs, policies, instructions, equipment, check sheets, double check sheets and leadership oversight involved in diving, why do we still have incidents like this? One would think that our continuous technical, procedural and training process improvements would have driven our safety incident rate to practically zero. This question may never be completely answered. However, it is our duty to the Navy and to our shipmates to continuously strive for zero safety problems. This is what motivated us to write this Diving Safety Line article.

CWO3 Eric MacDonald
PHNSY&IMF Diving Officer

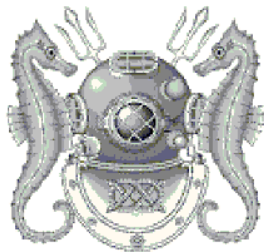
**** *Thanks to PHNSY & IMF for their submission of Articles for the From The Fleet section of this issue of the Diving Safety Lines. If you would like to submit an article you may contact the Safety Center Diving Staff at 757-444-3520 ext. 7837(DSN 564) or via e-mail at safe-divesalvage@navy.mil*



Here's a list of Recent Changes or updates to Diving Instructions and Publications.

1. OPNVINST 5100.19 updated to 5100.19E, Navy Safety And Occupational Health (SOH) Program Manual for Forces Afloat volumes I, II, and III. This replaces the 5100.19D.
2. OPNVINST 5100.23 updated to 5100.23G, Navy Safety And Occupational Health Program Manual (SOH) . This replaces the 5100.23F. This was updated in 2005 but we are still finding a lot of 5100.23F manuals in use.
3. The COMNAVSURFORINST 3501.1 Diving Operational Readiness Assessment (DORA), has been revised and changed to COMUSFLTFORCOM Instruction 3501.1
4. U. S. Navy Diving and Manned Hyperbaric Systems Certification Manual SS521-AA-MAN-010 was updated in November 2006 from REV 1 to REV 2.
5. U.S. Navy Cutting and Welding Manual was updated back in 2002 but we are still finding a lot of the outdated versions being used.
6. FACEPLATE Magazine April 2007
7. NAVEDTRA 43910-B Diving Salvage Warfare Specialist February 2007 replaces NAVEDTRA 43910 September 2002 edition.





1ST and 2ND Quarter Diving Safety Survey Schedule For FY 2008

CWO3 JEFF ANNON

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Attention diving commands! COMNAVSAFECEN 101524Z was released and outlines the FY 08 diving safety survey schedule. I need a representative from each of those commands or appropriate squadron (Subs) representative, to contact with me. Once again, if you have any changes in your command information, I will need a brief email stating the following: command name, UIC, phone number (commercial and DSN), POC, email address, and message PLAD. If responses are not received in a timely manner (at least one qtr prior) then we will schedule surveys to fit the needs of our travel. Thanks to those who have responded and aided in the first quarter scheduling.

***Commands highlighted are scheduled with firm dates**

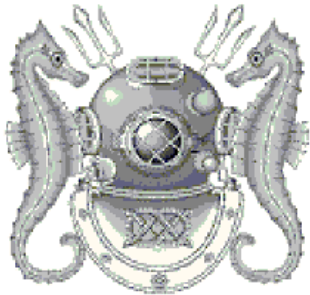
Month	Command	Location	UIC
OCT	MARMC	NORFOLK, VA	40025
OCT	USS TUCSON	NORFOLK, VA	21816
NOV	NAVAL SPECIAL WARFARE GROUP TWO	NAB LTL CRK	39587
NOV	4TH RECON BATT, 4TH MARINES	SAN ANTONIO, TX	84240
NOV	SCRMC INGLESIDE	INGLESIDE, TX	47316
DEC	NAVAL OCEANOGRAPHIC OFFICE	BAY ST LOUIS, MS	62306
DEC	NAVAL RESEARCH LAB	BAY ST LOUIS, MS	68462
DEC	SRF SASEBO JAPAN	SASEBO, JAPAN	45598
DEC	EODMU 5 DET 51	SASEBO, JAPAN	32232
DEC	EODMU 5 DET JAPAN	YOKOSUKA, JAPAN	30217
DEC	NAVAL SHIP REPAIR FACILITY	YOKOSUKA, JAPAN	62758
DEC	USS FLORIDA	MAYPORT, FL	35957
2008			
JAN	DET 4TH RECON COMPANY ALEMEDA	ALEMEDA, CA	14704
JAN	MDSU 1 SAN DIEGO	SAN DIEGO, CA	49974
FEB	USS ALEXANDRIA	GROTON, CT	21465
FEB	USS SAN JUAN	GROTON, CT	21312
FEB	USS CONNECTICUT	GROTON, CT	21859
FEB	NAVAL SUBMARINE SCHOOL	GROTON, CT	42135
FEB	USS SEAWOLF	GROTON, CT	21834
FEB	EODMU 6 DET KINGS BAY	KINGS BAY, GA	42970
FEB	TRF KINGS BAY	KINGS BAY, GA	44466
FEB	SOUTHEAST RMC	MAYPORT, FL	40027
FEB	AVIATION SURVIVAL JAX	JACKSONVILLE, FL	39681
FEB	MDSU 2	NAB LTL CRK	55496

Schedule continued:

Month	Command	Location	UIC
FEB	3RD RECON BATT OKINAWA	OKINAWA, JAPAN	13004
MAR	USS OHIO	BREMERTON, WA	21036
MAR	USS JIMMY CARTER	BREMERTON, WA	41718
MAR	USS MICHIGAN	BREMERTON, WA	21037
MAR	USS SEAWOLF	BREMERTON WA	21834
MAR	USS ALBANY	NORFOLK, VA	21462
MAR	EODMU 5 DET MARIANAS	GUAM	30208
MAR	USS SAN FRANCISCO	GUAM	20887
MAR	USS FRANK CABLE	GUAM	45255
MAR	COMNAVMAR DIVE LOCKER	GUAM	61755
MAR	NAVAL UNDERSEA WARFARE CENTER	KEYPORT, WA	52861
MAR	NAVAL IMF PACNORWEST BANGOR	BANGOR, WA	49769
MAR	NAVSHIPYD AND IMF PUGET SOUND	BREMERTON, WA	00251
MAR	AVIATION SURVIVAL CENTER	PAX RIVER, MD	39679
MAR	NAVAL IMF PACNORWEST DET EVERETT	EVERETT, WA	49769
MAR	EODMU 6 DET 2	INGLESIDE, TX	35000
MAR	EODMU 6 DET 4	INGLESIDE, TX	35000

2. The following commands are past due for diving safety surveys. Request ISICs provide specific dates via email. If you have any questions, contact the Naval Safety Center at DSN 564-3520 ext. 7837 to discuss.

Command	Location	Last Survey
USS HOUSTON	GUAM	08/14/2003
USS COLUMBIA	PEARL HARBOR	02/11/2004
USS SPRINGFIELD	GROTON	02/17/2004
USS GREENEVILLE	PEARL HARBOR	05/10/2004
USS SANTA FE	PEARL HARBOR	05/14/2004
USS LOUISVILLE	PEARL HARBOR	05/19/2004
USS MEMPHIS	GROTON	06/24/2004
USS HONOLULU	PEARL HARBOR	11/30/2004
USS LA JOLLA	PEARL HARBOR	12/02/2004
USS MIAMI	GROTON	12/09/2004
USS PHILADELPHIA	GROTON	12/10/2004
NAVSHIPYD AND IMF	PEARL HARBOR	09/24/2004
USS OKLAHOMA CITY	NORFOLK	02/23/2005
USS KEY WEST	PEARL HARBOR	03/15/2005
USS VIRGINIA	GROTON	08/09/2005
USS EMORY S. LAND	BREMERTON	09/10/2005



Submarine Diving Surveys

NDC (DSW/SW) J. Hordinski Ext. 7103

**This article is a re-print from March 2006 with updates.

Since July 2005, we have begun to notice a trend when it comes to submarine diving lockers. I have conducted 35 surveys of submarine dive lockers myself. In this time we have discovered that a vast majority of discrepancies found are the same from boat to boat. Submariners filling billets as divers for their respective commands need to take it upon themselves to better prepare for their upcoming surveys. There are several things you can do prior to us showing up on the quarterdeck to minimize the discrepancies for your command and to ensure a smooth survey and safer diving environment. Follow the recommendations below and it will most definitely minimize the amount of explaining you will have to do to your commanding officer.

1. Go to the Naval Safety Center's web site and download a copy of the current submarine diving checklist well in advance of our arrival. (See note) (<http://safetycenter.navy.mil>)
2. Contact us here at the center to verify your scheduled survey.
3. Ensure you have been sending your dives semi-annually to us as required. The e-mail address is safe-divesalvage@navy.mil
4. Make sure you have implemented the applicable PQS from the Diving Salvage Warfare Specialist PQS (NAVEDTRA 43910) for your training plan.
5. Finally, have all medical and service records available for on-site review.

These five steps will ensure a much more favorable out brief to your commanding officer. Please feel free to contact me with any questions, as we are here to help. james.hordinski@navy.mil

Note: Submarine Dive Lockers will no longer have a separate checklist. You can pull down the appropriate checklists from the Naval Safety Center web site. Divers will need Administration and Training checklists in addition to the type of dive apparatus you use (e.g., SCUBA, MK 20), as well as any special checklists you may need (e.g., Air Systems and Stowage).



A Submarine Divers Tale

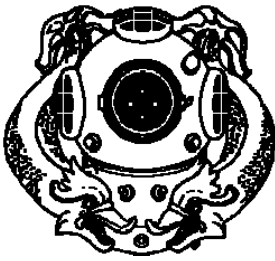
Fellow divers, I ran across this article written by a former submariner diver and deep sea diver who retired from the Naval Safety Center. He wrote this article several years ago and I think it rings as true today as it did then. To be a Navy diver means that you go the extra mile, do the extra step, and most of all be a professional in all that you do. This article just happens to be written by a submariners experience onboard a submarine. This applies to every dive locker in the fleet. Take the time to read it and understand the meaning behind what the author is saying. CWO3 Annon

Having spent the first 5 1/2 years of my career as a submariner, and the last two of that as a scuba diver, I know the challenge of being a dive locker LPO onboard a submarine. Divers aboard the USS Sargo, the boat where I cut my teeth as a young A-ganger, were plagued by trials common to most commands: inadequate storage, too few divers, and a schedule that robbed the best opportunities for diving. It felt like a family reunion on the rare occasions that the entire dive locker could get together for training. And I'm sure some of you have experienced the frustration of a "mobile" tech-library: "Where's the dive manual?" "I think it's in Mike's rack, he's the only one who has room." When you're on cruise, does your wetsuit ever really dry out? We usually had to take them off the hanger in the shower and stuff them in a locker before they got a chance to stop dripping. How about security-swims just prior to getting underway? As soon as the maneuvering detail secured, everyone in the dive locker went on watch and all the wet gear got shoved in a locker until we were relieved, just around midnight.

However, the hardships of being a diver onboard a submarine are not an excuse for a poorly run dive locker; instead, they are the reason divers must be motivated, and above all else, they must be professional. Commands looking for dive school candidates should look for individuals who display a desire to stay physically fit without being pushed, because there'll be long periods when a couple sets of pushups and sit-ups before and after watch is all they'll get to stay in shape. Self-starters that finish their submarine qualifications ahead of schedule will more likely meet the demands of dive school studies, which include physics and medicine, and afterwards stay proficient by consistent review of the U.S. Navy Dive Manual and the periodic publications that NAVSEA and the Naval Safety Center publish.

Finally, the greatest asset of any dive locker is professionalism. The fact of life aboard almost every submarine is that you will always be undermanned, and diving will always be a collateral duty that plays second fiddle to every other evolution, yet few duties aboard a submarine ride the edge of danger as close as diving. I can guarantee that there will be days that you'll be tired and want to take shortcuts, that training seems non-essential, and external pressures drive you to rush through things that should be carefully considered. It's professionalism that steers you past these obstacles, even when you're tired. Yes, the job would be a breeze if not for the fact that you're a submariner, but you're not just a submariner, you're a submarine scuba diver, and every time you train, and every time you maintain your gear you or your buddy's life could hang in the balance. It's with that understanding that when I see a dive locker doing the business right it makes me proud to say that those are my roots.

Written by
Retired Navy Diver
MMC (DV/SS) Kevin Gest
Submitted by: CWO3 Jeff Annon



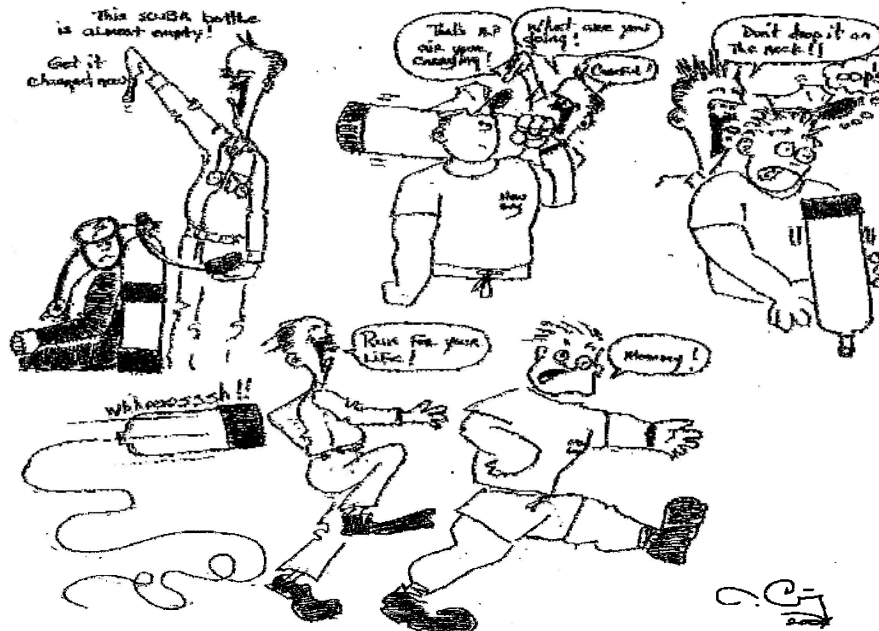
NDC (DSW/SW) Mike Smith
E-mail: michael.j.smith7@navy.mil

Checking On Board

I am NDC(DSW/SW) Mike Smith. I have just transferred here to the Naval Safety Center from EODMU FOUR Bahrain. I have relieved NDC Greg Barnett in the diving division. As Navy divers we all know how important it is to keep up on training, and the Diving Safety Lines is an essential part of that. I would like to solicit from all services that conduct one form of diving or another to submit articles for Diving Safety Lines publication after editing. Just e-mail your articles to of us here at safe-divesalvage@navy.mil and we will be happy to include them after editing in the following issue. If you would like to remain anonymous, that's OK. I volunteered for this assignment, so I look forward to seeing you in my travels around the fleet and serving all of you in the community with your diving needs and requests.

DIVE SAFE!

SMITTY



Is Your Dive Boat Ready To Get Underway??

NDC J. Hordinski

e-mail: james.hordinski@navy.mil \

** This article was originally printed in the September 2004 Safety Lines

Written By: MMC(DV) Kevin Gest (Retired)

“Is there a diving boat safety checklist posted (locally generated)?”

If your command uses a boat and uses it as a diving platform, with or without a diver’s air system, then this question from our Diving Boat Survey checklist applies to you. If you question the application, then take this geography test:

You surface from a dive and have to be assisted back in the boat because your right side is feeling weak. When the dive supervisor finally gets your buddy in the boat and tells the coxswain to put the peddle to the metal, the engine will not start – you can’t feel your legs. The supervisor grabs the radio and tries to call home plate to let them know he’s got a diver down, only to find the batteries are dead – you’re having a hard time catching your breath but can’t unzip your wetsuit because your hands aren’t responding to your brain. As the supervisor grabs the empty oxygen bottle, he directs your tender and the boat coxswain to get the paddles and row the boat over to the pier, a mere 100 yards away. As you slip into unconsciousness you hear them both say that there are no paddles on board. **What creek are you up?**

OPNAVINST 3120.32C and NSTM 583 (Boats and Small Craft): direct commands to post boat checklists, but leave it up to individual commands to create their own; a wise decision considering all the different types of commands and boats. The problem is, we aren’t seeing enough good boat checklists. So, we put our heads together at the Naval Safety Center and brainstormed a baseline checklist. The checklist at the end of this DSL is the result. We provide it as a starting point, something that you can tailor to your command’s needs. It looks great when printed as a two-sided document laminated and posted either in a binder or on a clip board. Contact us if you would like us to e-mail you a copy in word format, or if you have suggestions to improve it.

This article was written three years ago by a member of the Safety Center team and yet still today we come across commands that do not use a boat safety checklist. It is hard to believe that as smart as we have become in the community we still overlook the simple things that could save our bacon in an emergency or even in a regular everyday operation. We cannot afford to ever become complacent in our line of work even with what we may believe to be SOP. Two wise divers, Master Chief Master Diver Scott Heineman and Chief Warrant Officer Tom Ross both now retired used to always say “*Diving is inherently dangerous.*” This is a term we should remember and understand that the dive is from start to finish, from casting off lines until the divers are up and over and the boat is secured until the next diving day. Following is a copy of a boat safety checklist previously published.

DIVE SAFE!

NDC (DSW/SW) Jim Hordinski



DIVING BOAT SAFETY CHECKLIST

Engineering

Check fuel, engine oil, and coolant level.

Outboard motor kill-switch in place.

Secondary propulsion onboard and operational (second motor/engine or paddles as applicable).

Engine shutdowns operational.

Emergency fuel cut offs operational.

Emergency lighting onboard and operational (secondary lighting or battle lanterns).

Emergency steering onboard and operational (tiller or paddle as applicable).

Emergency bilge pump operational.

Appropriate fire extinguishers onboard.

- Good condition/properly charged.
- Date PMS was accomplished _____.

Bilges free of excessive dirt, debris, oil, fuel, and water.

Test operate steering system.

Navigation

Test operate running lights, dive lights, and horn.

Test operate windshield wipers.

Appropriate charts onboard.

Compass is operational and has been swung IAW PMS.

Appropriate flags and day shapes onboard.

Flares.

Deck

Appropriate mooring lines onboard and in good condition.

Appropriate heaving lines onboard.

Appropriate anchors and anchor lines onboard.

Appropriate fenders onboard and in good condition.

Cleats in good condition.

Ladders and platforms going over the side to divers are in good condition.

	Boat hook onboard.	
	Appropriate number of life rings onboard.	
	<ul style="list-style-type: none"> • Good condition. 	
	<ul style="list-style-type: none"> • Appropriate line attached. 	
	<ul style="list-style-type: none"> • Properly stowed. 	
	<ul style="list-style-type: none"> • Flashing beacon. 	
	Life preservers.	
	<ul style="list-style-type: none"> • Enough for 100% of crew. 	
	<ul style="list-style-type: none"> • Properly stowed. 	
	<ul style="list-style-type: none"> • Good condition, with whistle, reflective tape, beacon. 	
	Foul weather gear available as necessary.	
Communications		
	Test operate radio and mobile phone.	
	List of radio channels and phone numbers onhand:	
	<ul style="list-style-type: none"> • Port Ops/Harbor Control: _____. 	
	<ul style="list-style-type: none"> • Chamber: _____. 	
	<ul style="list-style-type: none"> • Home base: _____. 	
Medical Equipment		
	Stretcher.	
	First Aid kit.	
	O2 respirator, cylinder PSI _____.	
	Sunscreen.	
Crew Preparation/Manning		
	Appropriately qualified crew is onboard.	
	Check with Diving Supervisor that all necessary gear for diving load-out is onboard.	
	Submit sailing list to home base prior to getting underway.	
Comments:		
Boat Engineer Name/Signature:		Date: _____
Diving Supervisor Name/Signature:		Date: _____
Boat Coxswain Name/Signature:		Date: _____

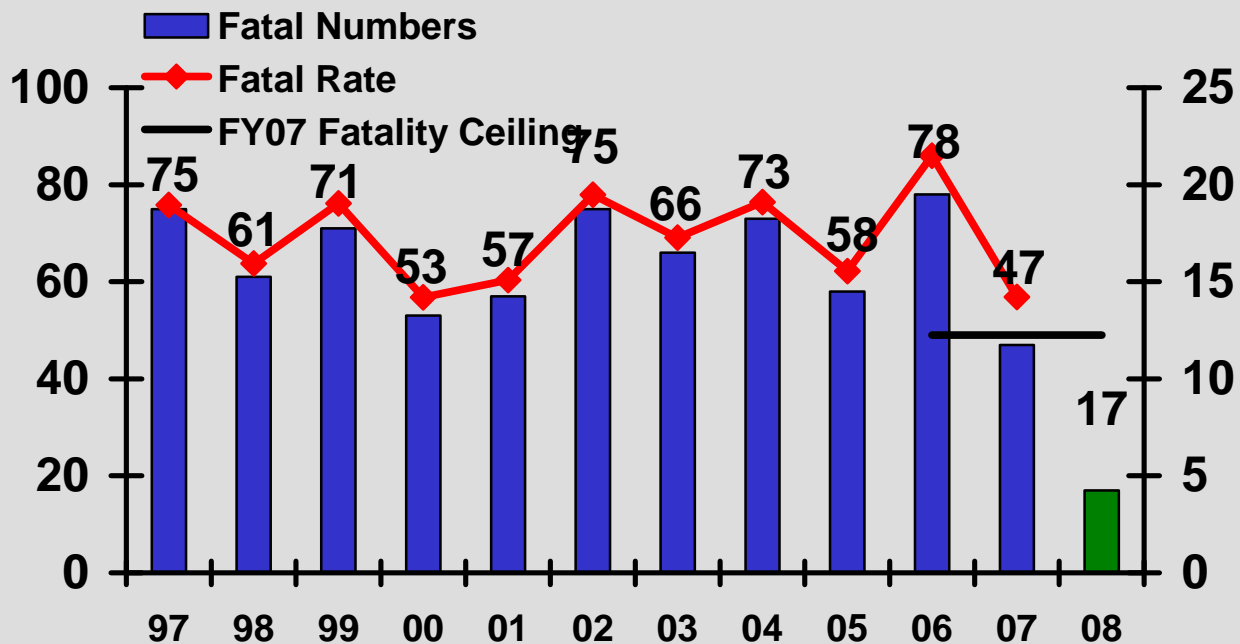


Traffic Safety

Fatigued Driving Kills

Nearly every year, as more and more Sailors and Marines hit the road on leave and liberty, the incidence of personal motor vehicle crashes increases. With the holiday season approaching we feel that this is an appropriate article. Everyone knows the dangers of getting behind the wheel after a night of drinking, but fewer people recognize other limits. Driving while tired can be just as impairing and just as deadly as driving under the influence of alcohol. The National Highway Traffic Safety Administration (NHTSA) reports that drowsiness is reported as a factor in approximately 100,000 automobile crashes every year. Danger signs to be aware of include: eyes that close or go out of focus by themselves, you have trouble keeping your head up, you can't stop yawning, and you don't remember driving the last few miles. Those at highest risk are young people, especially males, between the ages of 16 and 29, those who work at night or work irregular hours, and anyone with untreated sleep apnea. All of us want to enjoy the holidays and nobody wants to hear about a mishap or fatality. So, as the season approaches, take the extra time to plan your trips. A good source for planning is the Travel Risk Planning System (TRiPS) on the Naval Safety Center web site. <http://www.safetycenter.navy.mil>

PMV FATALITIES





Hunters Education and Safety

NDC J. Hordinski
CWO3 J. Annon

The fall season reminds us of many things. The temperatures start to drop, along with the leaves, and we start to think about upcoming holidays, leave, and where did I put my cold weather gear for dive station? For many in our community hunting season. I would bet that there is either a hunter in your locker or you have a friend or family member that takes part in this fall tradition somewhere in the world. Keeping that in mind has prompted us to write this article. Many of us have heard of someone being injured or killed while on a hunting trip either through idle chatter or via the news or internet. The statistics that we found from previous years were excessive to say the least and in most cases the mishaps that prompted them were avoidable. There are several things you can do to make sure you, your friends, or family have a safe experience out in woods this fall. Here are some suggestions to help mitigate your chances of becoming a statistic this year;

1. Hunters Safety and Education Class. If you haven't taken this class in the last five years take one. This is a great way to clear some cobwebs and get the current information on changes to requirements in your area. Regulations change every year and ignorance of current changes is no excuse.
2. Check your equipment out from top to bottom. Make sure your stand is safe, your gun is clean and functions properly, your broad heads are sharp, and your stand is in good repair. Batteries!!! Do not forget the new batteries for your light or GPS.
3. When using a tree stand, wear your safety harness. Preferably a four-point version that is rated for your size and weight. They really do come in all sizes.
4. Blaze orange works! Even bow hunters should utilize this when transiting to and from their stands or blinds.
5. Finally make sure someone knows where you will be and when you plan on being back. Every year you hear of hunters getting turned around and lost in the woods. **DON'T BE A STATISTIC!!!**

Hunting Accident Statistics by Year Nationwide:

Year	Number of Mishaps
2002	850 Mishaps
2003	584 Mishaps
2004	445 Mishaps
2005	344 Mishaps (however not all states had reported)
2006	Not yet available

These statistics are from the International Hunter Education Association website and are available there in more detail.
<http://www.ihea.com/>

"There can be no greater issue than that of conservation in this country."
President Theodore Roosevelt, Confession of Faith Speech, Progressive National Convention, Chicago, IL, August 6, 1912.