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Report to Congressional Requesters

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NAVY TRAINING

Safety Has Been Improved, but More Still Needs to Be Done

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GAO

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National Security and
International Affairs Division

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March 7, 1989

The Honorable Robert W. Kasten, Jr.
The Honorable Herb Kohl
United States Senate

The Honorable Les Aspin
The Honorable Steve Gunderson
The Honorable Robert W. Kastenmeier
The Honorable Gerald D. Kleczka
The Honorable Jim Moody
The Honorable David Obey
The Honorable Thomas E. Petri
The Honorable Toby Roth
The Honorable Jim Sensenbrenner, Jr.
House of Representatives

This report is in response to requests from the Honorable Toby Roth and the Wisconsin congressional delegation. It discusses the events surrounding the death of Lee Mirecki in the Navy's Rescue Swimmer School.

This report makes specific recommendations to the Chief of Naval Education and Training and the Secretary of the Navy to improve training safety and the death investigation process.

As agreed, unless you publicly announce its contents earlier, we plan no further distribution of this report until 5 days from the date of this letter. At that time, we will send copies to the Chairmen, House and Senate Committees on Armed Services, House Committee on Government Operations, Senate Committee on Governmental Affairs, House and Senate Committees on Appropriations; the Secretary of Defense; the Secretary of the Navy; and the Director, Office of Management and Budget. We will also make copies available to other interested parties upon request.

This report was prepared under the direction of Louis J. Rodrigues, Associate Director. Other major contributors are listed in appendix II.

Frank C. Conahan
Assistant Comptroller General

Executive Summary

Purpose

On March 2, 1988, Airman Recruit Lee Mirecki died while undergoing training at the Navy's Rescue Swimmer School in Pensacola, Florida. Since January 1986, 16 other Navy personnel have died while involved in training activities. Annually, about 800,000 Navy personnel receive formal training.

The Wisconsin congressional delegation requested that GAO answer the following questions:

- How and why did the Mirecki incident occur?
- Has the Navy done enough to see that such an incident cannot reoccur?
- How adequately was the Mirecki incident investigated?
- Were safety problems present in the other Navy training deaths?

Background

Lee Mirecki entered the Navy under a program that guaranteed him training as an aviation anti-submarine warfare operator. When he arrived at Aircrew Candidate School after recruit training, he was informed that he had to complete the Rescue Swimmer School.

After panicking during a lifesaving exercise, Mirecki decided to withdraw from the school. He then underwent some medical reviews to determine his fitness to continue the training. Although a flight surgeon determined that he was unfit to continue because of a water-related fear, he was re-enrolled in the course.

During the same lifesaving exercise, Mirecki again panicked. This time, the instructors forced him to continue. He became unconscious, and the instructors removed him from the water and began resuscitation efforts. Subsequent medical treatment failed to revive him.

The cause of death was diagnosed as heart failure brought on by extreme fright, fatigue, and lack of air. This incident led to a series of investigations and resulted in a variety of disciplinary actions against 10 individuals.

Results in Brief

An intimidating, nonvolunteer atmosphere and inadequate internal controls at the school and its superior commands contributed to Mirecki's death. In addition, the initial investigations were flawed, although subsequent investigations produced information that allowed action to be taken against those involved. Two later training reviews helped to improve training safety, but weaknesses remain.

Safety concerns were involved in several of the other 16 training-related deaths. The Navy did not always perform the required investigations into these deaths.

GAO's Analysis

An Intimidating Atmosphere Existed at the Rescue Swimmer School

Because of command pressure to produce more graduates, the Rescue Swimmer School became less selective of the students it enrolled and increased the importance of discouraging voluntary attrition. These factors helped to create an intimidating, nonvolunteer atmosphere at the school. As a result, it enrolled students who had little chance of success and then intimidated them into remaining in the course by reminding students of the negative career consequences that would result if they withdrew.

A Lack of Effective Internal Controls

The atmosphere at the school combined with inadequate internal controls allowed a series of events to occur that led to the death of Lee Mirecki.

First, Mirecki was not a good candidate for rescue swimmer training. He did not volunteer, did not receive any psychological screening for duty as a rescue swimmer, and was not a strong swimmer. In addition, he was not informed that rescue swimmer training was required until he arrived at the Aircrew Candidate School. Second, Mirecki was pressured into remaining in the Rescue Swimmer School after he panicked in his first class. Third, he was allowed to re-enroll after a flight surgeon had determined that he was not physically qualified. Fourth, the instructors forced Mirecki to continue the training exercise, despite his pleas to quit.

Those events occurred because the school did not effectively manage its operations and staff. For example, the school did not adequately supervise and train instructors, had an inadequate student feedback system, inadequately screened students, and did not have a system for alerting instructors to special student problems.

The lack of effective internal controls at the school was compounded by inadequate command oversight. Higher level commands did not (1) pay sufficient attention to high attrition and rollback rates, (2) follow up on

injury and medical incidents, (3) establish safety audit/inspection responsibilities, and (4) provide adequate curriculum review.

Initial Investigations Into the Mirecki Incident Were Inadequate

The Mirecki incident triggered a number of investigations. The Chief of Naval Air Training convened a Judge Advocate General Manual investigation. This initial investigation was hastily done and narrowly focused and did not thoroughly analyze the circumstances of Mirecki's death.

A Naval Investigative Service investigation began after a tip was received alleging that the death may have been caused by instructor misconduct and the Navy was attempting to cover it up. GAO found that the investigation did not sufficiently address the issue of an alleged cover-up and contained numerous flaws.

Navy officials found both investigations to be inadequate and directed a supplemental Judge Advocate General Manual investigation and reopened the Naval Investigative Service investigation. The results of these later investigations were used as the basis for disciplinary charges and actions against those involved.

Command Actions Have Improved Safety, but More Needs to Be Done

The actions resulting from the Rescue Swimmer School review and the commandwide review contributed to improving training safety. However, GAO concluded that additional changes are still needed to clarify policies, eliminate coercion, improve instructor selection and training, and improve internal controls.

Death Investigations Need to Be Improved

Navy regulations call for up to three independent investigations of a death to determine whether safety issues were involved and identify needed corrective actions, determine accountability, and ensure that the death is not due to criminal action. GAO found that these investigations were not always performed as required. Also, the ability of these investigations, as presently conducted, to identify and address safety issues is questionable. In addition, the system for disseminating information learned from death investigations needs improvement.

Recommendations

GAO recommends that the Chief of Naval Education and Training take several specific steps to address the issues raised in this report.

GAO also recommends that the Secretary of the Navy review the regulations and procedures applicable to death investigations to clarify under what circumstances investigations should be performed, who should perform them, what their focus should be, and how the results should be disseminated.

Agency Comments

As requested, GAO did not obtain agency comments on its report. However, GAO did discuss its findings with Navy and Department of Defense officials and incorporated their comments where appropriate. They generally agreed with the findings and were receptive to suggestions on how to improve training safety and death and mishap investigations. Naval Education and Training Command officials began making changes based on findings brought to their attention during the course of GAO's review.

Contents

Abbreviations

AEATS	Aviation Enlisted Aircrew Training School
AW	Aviation Anti-submarine Warfare Operator
CNATRA	Chief of Naval Air Training
CNET	Chief of Naval Education and Training
DOR	Drop on Request
FBI	Federal Bureau of Investigation
JAG	Judge Advocate General
NAMI	Naval Aerospace Medical Institute
NASC	Naval Aviation Schools Command
NIS	Naval Investigative Service
NLSO	Naval Legal Services Office
NSC	Naval Safety Center
RSS	Rescue Swimmer School
TTO	Training Time Out
UCMJ	Uniform Code of Military Justice

Introduction

The Naval Education and Training Command, with more than 200 subordinate bases and activities and a budget of over $1 billion a year, is the Navy's largest shore-based command. It is commanded by the Chief of Naval Education and Training (CNET), whose headquarters is located at Naval Air Station Pensacola, Florida. CNET is responsible for the education and training of over 800,000 Navy personnel annually. This mission is accomplished through five subordinate functional commanders:

- The Chief of Naval Technical Training is responsible for recruit training through various levels of technical skill training.
- The Chief of Naval Air Training is responsible for training aviation and flight personnel.
- The Commander, Training Command, Atlantic Fleet and Commander, Training Command, Pacific Fleet are responsible to the fleet commanders for on-ship training.
- The Naval Education and Training Center is responsible for providing entry officer training.

CNET's basic responsibility is to train personnel on shore to provide the knowledge and skills to fulfill the needs of the fleet. The fleet commanders receive trained personnel from shore-based training and further train them to be integral team members in the operational unit.

In fiscal year 1988, CNET trained about 100,000 recruits at three recruit training centers. About 25 percent went directly to the fleet following graduation, the rest entered initial skill training at one of the Navy's 328 "A" schools, which teach basic principles and applications to various equipment. In addition, it provided more advanced technical training to over 148,000 personnel in 3,545 "C" schools, which teach specific systems and equipment. It also trained over 450,000 personnel in 1,831 "F" schools, which provide team training and advanced equipment training. The rest of CNET's training and education efforts involved various officer accession and other programs. On an average day, more than 80,000 officer and enlisted students are in training in over 3,200 different courses.

Given its mission, there are certain inherent risks involved in CNET's efforts. Of its 3,200 courses, CNET has identified 109 that have segments where the students and instructors necessarily face risk due to the nature of the training objectives. Included in this category are courses such as water survival, diving, fire-fighting, ordnance disposal, and flight training.

Navy officials identified 17 Navy personnel who died while involved in training activities within the Naval Education and Training Command between January 1, 1986, and December 31, 1988 (see app. I).

One of those deaths occurred on March 2, 1988, when Airman Recruit Lee Mirecki died while undergoing rescue swimmer training at the Rescue Swimmer School (RSS) at Naval Air Station Pensacola. RSS is part of the Aviation Enlisted Aircrew Training School (AEATS) which is under the Naval Aviation Schools Command (NASC). The commander of NASC reports to the Chief of Naval Air Training (CNATRA) in Corpus Christi, Texas, who in turn reports to CNET.

Chronology of Events in the Lee Mirecki Incident

On May 29, 1987, Lee Mirecki enlisted in the Naval Reserve under the Delayed Entry Program[1] and entered active duty with the Navy on September 21, 1987. He signed a Five Year Obligor School Guarantee Program agreement, which extended the normal 4-year enlistment term by an additional 12 months, to be guaranteed specialized training as an aviation anti-submarine warfare operator. According to the agreement, if he became ineligible to continue the specialized training, because of a personal fact of which he was unaware, he could choose to either be reassigned to a program that had a vacancy for which he was qualified or be separated from the Navy. After completing recruit training at Orlando, Florida, he entered the Naval Aircrew Candidate School at Pensacola, with continuing orders to the Naval Technical Training Command in Memphis, Tennessee.

Mirecki reported to Aircrew Candidate School on November 23, 1987. The next day the Navy informed him that RSS was a part of his specialized training, and required him to sign an acknowledgement of that fact. He had a flight physical on December 2, 1987, and was found to be medically qualified for duty involving flight as a search and rescue/helicopter crewman.

After graduating from Aircrew Candidate School on January 29, 1988, Mirecki enrolled in RSS and began training on February 1, 1988. On February 3, Mirecki experienced difficulties with lifesaving procedures in a drill referred to as "sharks and daisies." This drill required the students to escape from and then control and rescue an instructor who was simulating a panicking drowning person. Because of his fear of being held

[1]The Delayed Entry Program allows an enlistee to choose a particular military specialty before actually entering the service.

while in the water, he panicked and said he wanted to voluntarily withdraw from training, generally referred to as "drop-on-request" (DOR).

Mirecki then underwent a series of counseling sessions and examinations at RSS, AEATS, the medical branch clinic, and the Naval Aerospace Medical Institute (NAMI). The primary purpose of these actions was to evaluate his physical and psychological ability to continue in RSS. On February 12, 1988, after apparently changing his mind about withdrawing, an RSS staffmember enrolled him in another RSS class and he began training again on February 29. This occurred even though a flight surgeon had classified him as "not physically qualified."

On March 2, 1988, at about 2:00 p.m., Lee Mirecki and his classmates began the sharks and daisies lifesaving drill. Approximately 15 minutes into the drill, Mirecki had trouble performing the escape procedures and again began to panic. He grabbed on to the edge of the pool, stating he was tired and dizzy and wanted to quit. Three instructors removed him from the wall and took him to the center of the pool to continue with the exercise. He still could not perform the required escape procedure, but after receiving intensive individual instruction, he eventually performed the correct procedure. However, after completing the procedure and momentarily rejoining the circle of students, he swam to the side of the pool and climbed out of the water.

An instructor spotted Mirecki getting out of the pool and yelled for the other instructors to stop him. Several instructors converged on Mirecki, who had crawled approximately 5 feet to a stationary equipment rack and wrapped his arms around it. While holding on to the rack, Mirecki was in a state of panic and shouted such things as "I quit," "I DOR," and "please don't put me back in the water."

Four instructors eventually broke Mirecki's hold on the equipment rack and put him back into the water. Around this time, one of the instructors directed the student class leader to have the class, who had been ordered out of the water, to turn away from Mirecki and sing a song. The class began singing "The Star-Spangled Banner."

Mirecki next swam away and grabbed the floating rope that divided the shallow end of the pool from the deep end. Several instructors again converged on him. When he refused to let go of the rope, one of the instructors swam to the side of the pool and released the end of the rope, but Mirecki continued to cling to it. Eventually, using a combination of dunking and prying his hands, the instructors got him off the

rope. The students and the instructors had different accounts of the ensuing events after this point.

According to the instructors, Mirecki was towed to the deep end and put into a rear head hold. Although he managed to escape, his procedure was poor. Another instructor then placed him in a rear head hold. Reportedly, he performed the correct procedure but gave up while trying to tow the instructor to the side of the pool. The instructor proceeded to place him in another rear head hold and he eventually went limp. An instructor on the pool deck then gave the sign to get him out of the water.

According to the students, Mirecki may have been unconscious by the time the instructors pried him from the rope. Nine students reported seeing him towed from the center of the pool by the instructor rather than Mirecki towing the instructor.

From this point, both student and instructor accounts agree. An instructor ordered the students to the bleachers. When Mirecki was removed from the pool, he appeared to be unconscious and his lips and face were blue. The instructor who brought Mirecki to the side attempted to revive him by slapping him a couple of times. He then began to administer mouth-to-mouth resuscitation. An instructor summoned the RSS corpsman while another instructor went to call an ambulance. Upon arriving at poolside, the corpsman assisted with the first aid procedures.

At about 2:50 p.m., the Naval Air Station Pensacola Branch Medical Clinic dispatched an ambulance. It arrived at the RSS building at 2:53. Mouth-to-mouth resuscitation efforts were continued throughout the time Mirecki was transported from the pool deck to the ambulance and on the way to the emergency room at the Naval Hospital, where they arrived at 3:06.

The emergency room response team immediately began advanced cardiac life support procedures and continued them for about 1-1/2 hours. Lee Mirecki was pronounced dead at 4:35 p.m.

Diagnosed Cause of Death

Although medical authorities could not be certain, based on the results of a forensic autopsy, they believe that Lee Mirecki died from a heart arrhythmia (an irregularity in the normal heartbeat) brought on by a combination of extreme fear, extreme fatigue and exhaustion, and decreased oxygen. All three of these conditions can cause the body to

release various chemicals that can sensitize the heart and make it more susceptible to heart arrhythmia.

Disciplinary Actions Taken

The Mirecki incident led to a series of investigations: an internal NASC inquiry, an initial Naval Investigative Service (NIS) investigation, and an initial Judge Advocate General (JAG) Manual investigation. Subsequently, a supplemental JAG Manual investigation was conducted and the NIS investigation was reopened. The investigations culminated with a variety of disciplinary actions being brought against 10 individuals. The acting lead instructor was found guilty by a general court-martial of negligent homicide and sentenced to a reduction in grade and confinement for 90 days. In a special court-martial, the officer in charge of RSS was acquitted of the charge of dereliction of duty. Eight other individuals received administrative punishments, including reduction in grade, forfeiture of pay, reprimands, and letters of caution.

Command Reviews Initiated

In response to Lee Mirecki's death and the information which emerged from the various investigations, CNATRA temporarily closed down RSS and conducted an administrative review of the school's training methods and safety procedures. In addition, CNET directed a commandwide assessment of training safety in all courses involving risk.

Objectives, Scope, and Methodology

The Wisconsin congressional delegation requested us to conduct this review. Our objectives were to answer the following questions:

- How and why did the Mirecki incident occur?
- Has the Navy done enough to see that such an incident cannot reoccur?
- How adequately was the Mirecki incident investigated?
- Were safety problems present in the other Navy training deaths that have occurred since January 1986?

We conducted our review at the Rescue Swimmer School, Aviation Enlisted Aircrew Training School, Naval Aviation Schools Command, Naval Education and Training Command, and other offices at Naval Air Station Pensacola, Florida; Naval Air Training Command, Corpus Christi, Texas; Naval Safety Center, Norfolk, Virginia; and other Navy investigative and management organizations in Washington, D.C., and other locations.

We interviewed key officials and examined regulations, policy statements, and other documents and records. In the Mirecki case, we attended the courts-martial, examined the case files and hearing transcripts (which provided much of the factual information used in our report), and interviewed key investigators. We also examined the case files of the Navy investigations of 16 other Navy training-related deaths that occurred between January 1, 1986, and December 31, 1988.

As requested, we did not obtain agency comments on this report. However, we discussed our findings with Department of Defense and Navy officials. We have incorporated their comments where appropriate.

We conducted our review from August 1988 to February 1989 in accordance with generally accepted government auditing standards.

What Went Wrong in the Mirecki Incident?

Many factors contributed to Lee Mirecki's death. We believe that pressure on RSS to graduate more rescue swimmers helped to develop an intimidating, nonvolunteer atmosphere at the school. This atmosphere, coupled with inadequate internal controls both at the school and its superior commands, allowed a series of events to occur that contributed to Lee Mirecki's death. We believe that Mirecki was

- not a good candidate for rescue swimmer training,
- pressured into remaining in RSS after he declared his intent to withdraw,
- improperly allowed to return to training after he was declared "not physically qualified," and
- forced to continue the sharks and daisies drill after he expressed his desire to quit.

Much of the factual material upon which our analysis and conclusions are based came from the Navy's investigative reports and legal proceedings.

Increased Demand for Rescue Swimmers Contributes to Intimidating Atmosphere at RSS

In fiscal year 1987, RSS had a total enrollment of 395 students and graduated 252 rescue swimmers. In mid-1987, the Navy Military Personnel Command sent a message to NASC directing that no less than six rescue swimmers be graduated per class. However, the RSS staff later learned that the Personnel Command based its target on the belief that the school graduated a class every week. Since it actually graduated a class every other week, the real target was 12 rescue swimmers per class. Given the historical attrition and rollback (re-enrollment in another class) rates of RSS students, school officials believed the revised target would be difficult to achieve.

Because of the increased pressure on the school to graduate more rescue swimmers, RSS became less selective about the quality and motivation of the students it brought in, and increased the importance of discouraging voluntary attrition. The combination of these factors contributed to the development of an atmosphere at RSS where some individuals were enrolled who had little chance of success and then were intimidated into not withdrawing from the course.

RSS Selection Standards Relaxed

Until December 1987, RSS supervisory personnel, in conjunction with Aircrew Candidate School personnel, selected rescue swimmer candidates based on the students' performance on several physical training and swimming tests administered while they were in Aircrew Candidate

School. Four tests were used for this screening: a mile swim, a 440-yard swim, an obstacle course run, and a 1.5 mile cross-country run. The students' times in each of these tests was converted to a score of 0 to 6 based on a table developed by the supervisors. An individual had to have an overall average above 3.0 to be selected. The staff selected those with the highest average scores as being most likely to succeed in RSS.

In December 1987, the selection process changed in response to pressure to increase the number of rescue swimmers. This change required all aviation anti-submarine warfare operator (AW rating) candidates who met the medical qualifications for helicopter aircrewman, to enter RSS regardless of swimming or physical test times. As a result, more candidates who had little chance to succeed entered RSS. This also increased the number of students who were enrolled as nonvolunteers.

Some RSS staff believed the relaxed standards would only increase the attrition rate and cause instructors to spend time on students who should not have been in the school. One instructor indicated that the instructors distinguished between two types of students. For students who were trying but were unable to succeed, the instructors wanted to release them without causing them to lose their option for further specialized training. However, if the instructors considered someone a "nonhacker," which they defined as a person who did not want to be in the school because he wanted to fly in fixed-wing aircraft rather than helicopters, then they wanted to release him with prejudice. This meant he would lose his aircrew status, lose his guarantee for specialized training, and be assigned to the fleet in an undesignated status which would increase his potential to be assigned menial and undesirable tasks.

RSS Staff Discouraged Voluntary Attrition

The RSS staff actively discouraged voluntary withdrawal. Instructors reminded the students of the consequences of withdrawing through a series of "counseling" sessions that focused on the negative effects on a student's future assignments. The primary goal of these sessions appears to have been an attempt to intimidate students into continuing rather than an effort to identify what was best for the student.

RSS also had a formal written policy called "ringing out." According to the school's standard operating procedures, the entire class would be called to formation. Then, the student would be called out of formation and instructed that if he still wished to withdraw, he must ring the RSS bell three times. According to the lead chief petty officer at the school,

the intent of the policy was to use peer pressure to prevent students from withdrawing.

Vague DOR Policy

The DOR policy in effect at the time of Lee Mirecki's death was vague and, as implemented, was used to discourage students from withdrawing. It simply stated that a DOR was a "voluntary request by students when they decide that they no longer want to be a rescue swimmer." Because the policy was vague, different RSS staff perceived it differently. For example, according to the lead chief petty officer at RSS, the policy was that if an individual grabbed on to the side wall of the pool twice during a training exercise he would be considered to be withdrawing. Another instructor stated that this "twice-to-the-wall" policy was only an "informal policy," while some of the other instructors denied knowing about this policy.

Another unclear aspect of the DOR policy was whether a student could withdraw during an exercise. In January 1988, the student control chief petty officer communicated a verbal policy that a student had to complete the exercise before he could withdraw. His intent was to reduce attrition since once a student completed the exercise, he would have no reason to withdraw, since he would have passed the course segment.

Regardless of the DOR policy actually in effect at the time of Mirecki's death, most of the instructors stated that it was up to them to decide if and when a student could withdraw, and their intent was to keep students in the pool and in the program.

Indications of the Intimidating, Nonvolunteer Atmosphere

Evidence of the intimidating, nonvolunteer atmosphere at RSS can be seen in the exercises and methods used by instructors, the treatment of marginally qualified nonvolunteers, and the conditioning of instructors to be suspicious of medical problems reported by students.

Benefits of the Sharks and Daisies Drill Were Questionable

In the 2-hour sharks and daisies drill, students, wearing only swim fins and no safety equipment, swam in a circle with their hands behind their backs. Instructors, who acted as panicking victims, would grab the students in either a front or rear head hold. If the student correctly performed the release procedure, he would continue swimming in a circle

and other instructors repeated the scenario. If a student failed to perform successfully, he would be taken aside for intensive individual instruction.

After the Mirecki incident, a Navy water survival expert evaluated RSS training. He concluded that the sharks and daisies drill was more like hazing than training. Among the specific problems he identified were the following:

- The students were not wearing masks, snorkels, or life vests that are approved rescue swimmer equipment, required to be worn on all rescues.
- Instructors did not follow standard Red Cross lifesaving practices. For example, they did not give students an emergency release signal. Also, students practiced on instructors rather than on other students. Having students practice on students would have allowed the instructors to direct, supervise, and provide safety.
- The requirement for students to swim with their hands behind their backs led to exhaustion and possible inhalation of water.
- The instructors were intimidating and aggressive.
- The drill overemphasized skills, such as how to approach a victim, how to escape a victim's grasp, and how to carry a victim to safety. These are skills that are more appropriate to pool lifeguards who are not wearing inflatable vests and have only a short distance to swim with a victim. Instead, the instructors should have been teaching the students to use their life preservers as a rescue device and inflate their vests when approaching a panicking victim or when grabbed by a victim.
- The instructors' simulation of a belligerent and aggressive victim was a poor teaching method and an ineffective way to mentally condition students to perform under stress.

Another Navy expert also questioned the realism of the sharks and daisies drill. In a study of 300 actual rescues, rescuers had to deal with a panicking victim only 6 times. In 270 cases, the victim was alert and able to help in his own rescue. He also stated that the use of force had no value in water survival training.

In addition to the instructors' methods, the timing of the drill in the training cycle was also questionable. The sharks and daisies drill, which was a physically demanding activity, occurred in the afternoon of the third day of the 4-week RSS course, when only limited training and conditioning had taken place. According to a former officer in charge of RSS,

having it in the first week allowed the school to identify and release poor swimmers or poorly motivated students.

Nonvolunteers Only Marginally Qualified

After the selection process was changed for RSS, nonvolunteers, many of whom were only marginally qualified, had to enter RSS, only to have sanctions imposed on them if they were unable to succeed. Once a student signed the acknowledgement of the consequences of voluntary withdrawal, he had to try to finish the program or lose his aircrew status and his right to further advanced training and be sent to the fleet in an undesignated status. In the absence of an injury or medical problem, the only other option for being released from RSS training without incurring negative consequences would be for a student to continue to rollback until the school staff decided he could not succeed and released him "involuntarily."

Instructors Suspicious of Student Medical Problems

Because of the negative consequences of voluntarily withdrawing, many of the nonvolunteers were motivated to get "involuntarily" released from training. Several RSS staffmembers and instructors stated that students sometimes faked a medical problem to get out of training. For example, a former head of RSS said that during lifesaving drills students, particularly nonvolunteers, often pretended to faint. The chief corpsman at AEATS stated that 60 percent of the students did not want to be at RSS and instructors tended to be skeptical of reasons students had for getting out of training. It is likely that, over time, this skepticism about student motivation made instructors and medical personnel less sensitive to real student problems and emergencies.

Lack of Effective Internal Controls

A major contributing factor to the Mirecki incident was a lack of effective internal controls at RSS. The school's management did not maintain effective control over its operations and staff. In particular, RSS management did not

- effectively supervise, train, and evaluate instructors,
- establish an adequate student feedback system,
- define the roles and responsibilities of key personnel,
- establish an adequate student screening process,
- establish adequate administrative processing controls,
- establish a system for alerting instructors to special student problems, and
- develop and implement an adequate safety program.

and other instructors repeated the scenario. If a student failed to perform successfully, he would be taken aside for intensive individual instruction.

After the Mirecki incident, a Navy water survival expert evaluated RSS training. He concluded that the sharks and daisies drill was more like hazing than training. Among the specific problems he identified were the following:

- The students were not wearing masks, snorkels, or life vests that are approved rescue swimmer equipment, required to be worn on all rescues.
- Instructors did not follow standard Red Cross lifesaving practices. For example, they did not give students an emergency release signal. Also, students practiced on instructors rather than on other students. Having students practice on students would have allowed the instructors to direct, supervise, and provide safety.
- The requirement for students to swim with their hands behind their backs led to exhaustion and possible inhalation of water.
- The instructors were intimidating and aggressive.
- The drill overemphasized skills, such as how to approach a victim, how to escape a victim's grasp, and how to carry a victim to safety. These are skills that are more appropriate to pool lifeguards who are not wearing inflatable vests and have only a short distance to swim with a victim. Instead, the instructors should have been teaching the students to use their life preservers as a rescue device and inflate their vests when approaching a panicking victim or when grabbed by a victim.
- The instructors' simulation of a belligerent and aggressive victim was a poor teaching method and an ineffective way to mentally condition students to perform under stress.

Another Navy expert also questioned the realism of the sharks and daisies drill. In a study of 300 actual rescues, rescuers had to deal with a panicking victim only 6 times. In 270 cases, the victim was alert and able to help in his own rescue. He also stated that the use of force had no value in water survival training.

In addition to the instructors' methods, the timing of the drill in the training cycle was also questionable. The sharks and daisies drill, which was a physically demanding activity, occurred in the afternoon of the third day of the 4-week RSS course, when only limited training and conditioning had taken place. According to a former officer in charge of RSS,

The section of the RSS standard operating procedures dealing with instructor techniques listed only one item. That item prohibited instructors from adding weights to their wetsuits or flight suits to counteract the natural buoyancy of their suits.

An example of the consequences of inadequate training was the inappropriate methods used in the stressful lifesaving and multi-rescue exercises. Ironically, although the sharks and daisies drill was ostensibly intended to teach students to deal with a panicking survivor, it showed that the instructors did not know how to deal with panicking students. Their approach, when faced with such a student, was to reason with him by saying, for example, "calm down, think about the procedure." According to a flight surgeon from NAMI, however, a panicking person is likely to forget learned procedures and should not be forced to remain in the situation that triggered the panic.

Instructors Inadequately Evaluated

Evaluating staff is another important element of supervision. However, RSS management failed to adequately evaluate the instructors. The only systematic assessment of instructors was an annual evaluation and recertification of their lifesaving skills. We found no evidence of any formal assessment of their teaching skills.

Inadequate Student Feedback System

Students who have gone through training are a good source of information about how a training course is actually being conducted. RSS had an inadequate student evaluation system at the time of Lee Mirecki's death because of the following:

- The evaluations were not anonymous.
- The evaluations were only completed by graduates and not by students who had withdrawn or been released.
- The evaluation form was poorly designed. First, questionnaire items were evaluated on a 5-point scale: unsatisfactory, satisfactory, good, excellent, and outstanding. This scale was unbalanced because it had four adjectives with positive connotations and only one adjective with a negative connotation.

Second, the wording of many of the questions could only produce a general reaction rather than specific feedback. For example, one question asked students to evaluate whether "training met stated objectives," without listing or allowing comment on individual objectives. Also, some questions asked about issues that students did not have adequate

Instructors Inadequately Supervised

A basic management responsibility is to effectively supervise staff, especially in critical or potentially dangerous operations. A former officer-in-charge of RSS said that a hostile environment existed at RSS for some time and instructors needed a great deal of close supervision to keep them from becoming too aggressive. However, despite this apparent need for close supervision, the school had no requirement for an officer or chief petty officer to be on the pool deck during in-pool exercises when much of the intense face-to-face training occurred.

During the Mirecki incident, the lead chief petty officer was on leave, the student control chief was out of the building, and the officer in charge of RSS had been called away to his office for a phone call. Also, the regular instructor team leader, who had allowed Mirecki to quit the drill following the February incident, was on emergency leave.

Inadequate Selection and Training of Instructors

A key management responsibility is to ensure that staff members are competent and well trained. However, RSS did not have a formal approach for selecting and training instructors. The instructors were not screened to ensure they were suited for training students in a high-risk setting. Also, in many cases they did not have any formal instructor training.

The main selection criteria for RSS instructors was that they were certified search and rescue swimmers. The only evaluation of their capability to be an instructor was a recommendation from their former supervisor, who may not have known what duty as an RSS instructor required. The Navy did not conduct a psychological assessment of a potential instructor to evaluate his suitability for a demanding and potentially risky training program.

This selection process was compounded by the school's informal approach to training. The RSS instructors did not attend any formal RSS-specific instructor training program. Instead, RSS ran an informal "instructor-under-training" program. In this program, new instructors went through the 4-week RSS program as participants and learned by observing the current instructors. Thus, they learned by example rather than by formal instruction on learning objectives and teaching methods. Such an informal approach tends to perpetuate any questionable teaching methods that may have become part of the program over time.

The Naval Investigative Service (NIS) contacted some former students who had withdrawn. In a sworn statement, one former student said he withdrew after instructors nearly drowned him in a situation similar to the Mirecki incident. He named two of the instructors who were also present at the time of the Mirecki incident. According to another former student's sworn statement, he withdrew because he feared going back into the water with the instructors, three of whom were also involved in the Mirecki incident. Seven other former students also described instances of excessively aggressive behavior by the same five instructors who were present at the time of the Mirecki incident.

Roles and Responsibilities of Key Personnel Not Defined

An important function of management is to clearly define the roles and responsibilities of key personnel. However, at RSS, the roles and duties of supervisors and instructors were not adequately defined.

At RSS, teams of instructors ran the class activities. They had an "A" team and a "B" team, each consisting of a team leader and five team members. The teams alternated being in charge of successive classes. When any of the training exercises required more instructors than either team had available, the other team members assisted. However, the school did not define role assignments for the exercises and had no planned rotations or procedures to ensure that a sufficient number of instructors was present at all times.

RSS had provisions for a safety observer to be on the pool deck during in-pool exercises. However, the role and authority of this observer were unclear. During the Mirecki incident, the pool deck safety observer was the petty officer in charge of maintaining the school's training equipment. He testified that he had performed the observer role 8-10 times in the 8 months he had been at RSS prior to the Mirecki incident. He was not a rescue swimmer and had received no special water safety instruction. He was fully dressed in dungarees and boots and stated that he had no intention of going into the water. He stated that his job was to ensure the safety of students who were not under the direct control of an instructor. If a student was in trouble, he said he would have notified an instructor.

Students Inadequately Screened

Rescue swimmer duty is potentially hazardous. However, RSS had no procedures in place for screening students to ensure that they were psychologically suited to this occupation.

experience in, such as whether "first aid training was adequate" or "multi-rescue scenarios were realistic."

Third, the form did not ask students to evaluate nonclassroom, in-water instructor activities, even though about half of the time in the 4-week course was spent in the pool.

Fourth, the form did not ask for feedback on each instructor. The team of six instructors was assessed as a group.

Fifth, the form had no questions on safety, even though RSS had a fairly high rate of injury causing students to withdraw or re-enroll in a later class. Also, many of those who withdrew expressed fear of some of the in-water exercises.

We believe that the shortcomings of the student evaluation system helped to shield the questionable RSS practices. A review of all the student evaluation forms for classes from September 1987 through March 1988 by the supplemental Judge Advocate General (JAG) Manual investigators found that the evaluations were generally favorable and contained many positive comments on various instructors and only a few critical comments.

Even though the evaluations were generally favorable, they raised some critical points on physical training and pool conditioning. A majority of the students said they were rushed into training, were not sufficiently conditioned for the demanding swimming activity, and needed more training time and practice before various drills. A large number of the students said they should have had a preconditioning program or the course should be lengthened to 5-6 weeks.

If those who were released or withdrew had been queried, a different picture could have emerged. This group is important not only because of its size, but also because it could help determine the reasons for the high attrition and rollback rates (40 percent and 63 percent, respectively). From September 1987 through January 1988, 12 students out of a total enrollment of about 100 voluntarily withdrew, more than half after having problems in lifesaving drills. Although, according to the lead chief petty officer's testimony, these students met with him and the division and department heads after they withdrew, no written record was made of these interviews and no course critiques were obtained from them.

Inadequate Administrative Controls

Inadequate administrative internal controls played a direct role in the Mirecki incident. Breakdowns in internal controls allowed Mirecki to re-enroll in another RSS class, although he had been officially classified as "not physically qualified."

After Mirecki panicked in the sharks and daisies drill on February 3, he wanted to withdraw. He signed an acknowledgement of his intent to DOR and stated that he was

> "... not willing to go back into the water. I believe that being a rescue swimmer is a great job but not for me. I'm not a good swimmer anyway and I've had bad experiences in the water as a child. I'm scared to have to go through that again."

Mirecki was "counseled" and offered remedial training on the lifesaving procedures but still declined to continue training. The team leader then recommended a progress review board to determine whether he was qualified to continue in RSS or aircrew training.

The next day, Mirecki went on "sick call" at AEATS and the chief corpsman examined him. Mirecki complained of fears he encountered in the sharks and daisies drill, resulting from a near-drowning he had experienced as a child. The chief corpsman stated on the medical record sheet that Mirecki had not volunteered for RSS and that he definitely did not want to return. The corpsman diagnosed Mirecki as having a true fear of the RSS water-related procedures and was not just trying to avoid the rigorous training. He put Mirecki on "medical hold" status and referred him to a flight surgeon to determine if he was fit to continue training and retain his aircrew status.

On February 8, a flight surgeon examined Mirecki at the Naval Air Station Pensacola Branch Medical Clinic. He concluded that Mirecki suffered from a phobia triggered by being held while in the water. He declared Mirecki to be "not physically qualified" but "aeronautically adaptable" (mentally and temperamentally capable) for duty as an aircrewman and authorized a fitness-to-continue exam. Mirecki went back to AEATS with his medical record annotated as "not physically qualified."

When Mirecki returned to AEATS, the chief corpsman consulted the flight surgeon at NAMI regarding the procedures to conduct a fitness-to-continue exam given that Mirecki had already been found medically unqualified. The flight surgeon said Mirecki needed a psychological

Although Lee Mirecki had received a medical exam to determine that he was physically qualified for service as a helicopter crewman, the exam did not include a psychological assessment or screening. The only questions that dealt with psychological issues asked whether he had ever attempted suicide and whether he had ever been treated for a mental disorder. Consequently, his fear of being held while in the water went undetected.

In addition to the lack of psychological screening, even before the selection criteria was relaxed, RSS did not have a validated method to evaluate the potential of Aircrew Candidate School graduates to complete rescue swimmer training. Up until late 1987, RSS based the selection process on the student's performance in various swim and physical conditioning tests. However, RSS had no empirical data to support the use of those tests or the scoring method used as predictors of success. The Navy has since directed that a validated screening process be developed.

Lee Mirecki entered RSS after the selection criteria had been relaxed. However, if he had graduated from Aircrew Candidate School before the change, he would have been considered qualified even though he was not a strong swimmer. Based on the RSS scoring system, Mirecki's scores would have been a "3" (low average) on the 440-yard swim and only a "2" (fair) on the mile swim. He also scored a "3" on the obstacle course run and a "6" (excellent) on the cross-country run. While his performance would have produced an average score of 3.5, which was within the selection range, his average would have been the result of his ability to run rather than his swimming ability.

The system in place at the time Mirecki enlisted made it difficult for people to screen themselves out of rescue swimmer training because they were not fully informed of the requirements when they selected guaranteed training. Although, since March 1984, the Navy Military Personnel Center required that aviation anti-submarine warfare candidates also volunteer for rescue swimmer training, Mirecki was not informed that RSS was a required part of the AW curriculum until the day after he arrived at Aircrew Candidate School. He then had to sign an agreement acknowledging that if he voluntarily withdrew, he would waive his guarantee to further specialized training. The record does not indicate whether he knew what RSS training entailed at the time he signed this agreement.

(a document explicitly stating that a person has been grounded) as is the case for active aircrewmen. Therefore, Mirecki had nothing to prevent him from returning to training.

Second, the NAMI clinical psychologist who evaluated Mirecki did not discuss his findings with the flight surgeon, nor was he required to, although he disagreed with the flight surgeon's assessment. The results of the psychological consultation were sent only to AEATS since it had requested it.

Third, the term "aeronautically adaptable" was not completely clear. The flight surgeon and clinical psychologist had different interpretations of what the term meant and what its consequences were. Other medical personnel have also indicated that "aeronautical adaptability" is one of the most ambiguous concepts in Naval aviation medicine.

Fourth, Mirecki was reclassified out of "medical hold" status without authority from a flight surgeon.

Fifth, the RSS junior medical corpsman at RSS thought the clinical psychologist, because he was a specialist, had the final authority to determine whether a student was qualified to continue. Therefore, he saw no reason not to change Mirecki's status from "administrative hold" to training.

Sixth, although Mirecki was still scheduled for a fitness-to-continue exam March 3, the computerized AEATS "holds" roster did not reflect that fact after Mirecki's status was changed to training since an individual could only be on one roster at a time.

All of these problems can be attributed to weak internal controls. Although four separate organizations (the branch clinic, RSS, AEATS, and NAMI) were involved in Mirecki's evaluation and processing, they had no procedures to ensure coordination among them. Also, the roles and responsibilities among the medical authorities were unclear, which allowed for confusion about who made the final decision. In addition, the system did not require a clear, documented record of the current decision on a student's medical status.

consultation before the exam. The corpsman scheduled the consultation for February 11 and the exam for March 3.

According to the NAMI psychologist, a request for a consultation would normally be turned down if the student was already considered not physically qualified. However, NAMI was training flight surgeons and needed subjects for psychological evaluations and accepted Mirecki's case.

On February 11, a clinical psychologist examined Mirecki twice, once in the presence of the training flight surgeons and once alone. He concluded, although Mirecki's fear was genuine, it was not the result of mental illness and was neither "irrational nor disproportional." The psychologist believed that Mirecki wanted to be found not physically qualified for search and rescue duty so that he could continue in the training rating as a fixed-wing aircrewman. The psychologist concluded that Mirecki's desire to withdraw from the RSS program was "largely occupational." He recommended that Mirecki be classified as "physically qualified/aeronautically adaptable." However, if he showed no improvement in mastering his fear, he should be classified as "not aeronautically adaptable" (mentally or temperamentally incapable). If Mirecki refused further training, the psychologist concluded that his case should be handled administratively rather than punitively. The psychologist stated that he discussed his diagnosis and the options with Mirecki, who was going to consider his options and then decide whether to try again or to withdraw.

When Mirecki returned to AEATS from NAMI, he had decided to withdraw from training. Because of Mirecki's decision, the chief corpsman saw no need to send him back to the flight surgeon, so he executed a status change from "medical hold" to "administrative hold." Later, Mirecki apparently changed his mind and saw the RSS corpsman on February 12 to change his status from "administrative hold" and enroll him in the next class.

We found several problems in the administrative processing of Mirecki's case that contributed to Mirecki, AEATS, and RSS all believing that Mirecki was considered able to return to training. In fact, he was still officially classified as "not physically qualified."

First, the Naval Air Station Pensacola Branch Clinic flight surgeon noted his diagnosis of "not physically qualified" on the medical record sheet but procedures did not require him to fill out a special "grounding chit"

notification, class control, and other responsibilities were not specifically assigned at RSS.

In the Mirecki incident, the school did not have the ambulance telephone number clearly posted and the instructors had to look it up in the telephone book. Also, the instructor who called for the ambulance did not communicate the urgency of the situation to the ambulance team. The ambulance team was told that someone was "choking on water." Since they were not expecting to find an unconscious victim, the ambulance corpsman did not prepare the resuscitation equipment and could not stop doing the cardiopulmonary resuscitation to prepare the equipment once they became aware of the urgency of the situation.

RSS management also failed to establish effective poolside safety precautions. For example, the role and responsibility of the pool deck safety observer was unclear and the RSS pool had no emergency resuscitation equipment. Although RSS had a standard operating procedure dealing with safety, it dealt primarily with standard pool rules such as "no running" and "no glass containers."

Inadequate Command Oversight

Potentially, the lack of effective internal controls at one level could be detected by effective internal controls at higher commands. However, the school's higher commands did not adequately carry out their oversight responsibilities. We believe a number of indications should have alerted higher management to the situation at RSS, if the commands had had effective internal controls in place to monitor and detect these warning signals. Specifically, we found

- a lack of attention to high attrition and rollback rates,
- a lack of follow-up on injury and medical incidents,
- a failure to establish safety audit/inspection responsibilities, and
- inadequate curriculum review.

Inattention to Attrition and Rollback Rates

One potential warning signal was the high rate of attrition and rollbacks at RSS. From April 1987 to April 1988, the school experienced a rollback rate of 63 percent. In addition, from October 1987 to April 1988 the attrition rate was over 40 percent. In endorsing the supplemental JAG Manual investigation, the Chief of Naval Air Training called the attrition and rollback rates "startling." Had these statistics been monitored, higher level management may have discovered the conditions that prevailed at RSS.

No System to Inform Instructors of Earlier Student Problems

RSS classes usually started with about 24 students. Training rollbacks often occurred when students fell behind their original classmates because they had difficulty mastering the material or had medical problems. However, RSS had no system to inform instructors about any earlier problems experienced by the students. Although instructors could review the training folders, none of them did. Such a review could have been helpful because a student might be a rollback into a class taught by a different team of instructors or may have been in a class for too short a time to become known by all the instructors. Without knowledge of a student's past history, instructors could not provide additional remedial training or watch for a reoccurrence of a student's earlier problems.

In Mirecki's case, the same team of instructors taught both of his classes. At least two of the instructors present on the day Mirecki died should have known about his previous problem. One of those instructors initialed the counseling sheet prepared when Mirecki decided to drop-on-request and another had been the one working with Mirecki when he panicked in that earlier class. However, all the instructors stated, in sworn statements made to NIS, that they were unaware of Mirecki's earlier problems until after his death.

No Safety Program Implemented at RSS

The NASC instruction on safety assigns each department head and school director the responsibility to provide safe working conditions and maintain an aggressive internal safety program. A 1985 AEATS policy guidance statement stresses the importance of safety. It states the following:

> "Safety is an attitude born out of respect for the many hazards that present potential injury or damage to personnel or equipment. Though removed from the high optempo [pace of activity] of fleet aviation where disaster is never more than inches or seconds away, our training and other activities hold significant potential for injury. It is the responsibility of every member of AEATS to maintain an attitude of safety awareness and by word and action, impart this attitude to others. Above all, you should be ready to stop any evolution when there is potential for injury to personnel or damage to equipment."

Even though safety was considered an important objective, RSS management did not develop and implement a program to ensure that this objective was achieved. Particular problems included the failure to develop a mishap plan and the lack of effective poolside safety precautions.

A mishap plan ensures that everyone involved in a water training exercise knows his role and can perform emergency duties without hesitation. The duties for cardiopulmonary resuscitation, ambulance

and were revived without external medical assistance, yet no personal injury/accident notifications were prepared.

The conditions at RSS could also potentially have been detected outside the RSS chain of command. External medical authorities became aware of a May 1986 incident when a student nearly drowned during the sharks and daisies drill and required 2 days of hospitalization, yet no action was taken. In July 1986, while reviewing the student's fitness-to-continue physical and psychological evaluation, a NAMI review committee became concerned that the RSS training may be conducted "in an unprofessional manner with excessive zeal and machismo." The committee recommended that the NAMI commanding officer request a board of inquiry to investigate the incident.

The commanding officer told the JAG Manual investigators that he did not request a board of inquiry because he did not believe there was sufficient justification, since the committee's recommendation was based on only one incident. He also stated that he did not tell the NASC commander of either the incident or the committee's recommendation.

Another possible warning signal was NAMI's records on the frequency of psychiatric consultations from RSS. A Navy doctor reviewed the psychiatric records for an article he was writing on another subject. He estimated that, of the 95 aircrew psychiatric consultations in fiscal year 1987, 20 had problems coming out of RSS, a rate which was disproportionately high compared to other programs. He stated that a common thread in these medical records was that the sharks and daisies drill intimidated students and triggered fears of being drowned.

No Safety Audit/ Inspection Responsibility Established

Although NASC had established instructions for a general safety program, it did not ensure that those instructions were complied with. It had no system to detect RSS's failure to prepare personnel injury/accident notifications as required.

Neither AEATS nor NASC had a system in place to ensure that RSS implemented a safety program. The lead chief petty officer at RSS testified that he had been at the school since September 1985 and no inspector general inspections had occurred in that time. Even though an inspector general inspection would not typically focus on safety, the lack of implementation of the NASC safety directive may have been discovered.

No Follow-Up on Injury/ Medical Problems

RSS also had a high incidence of injuries and medical problems. The NASC instruction on safety requires that a personal injury/accident notification be completed on all training injuries and be sent to the commanding officer at NASC.

During fiscal years 1986 and 1987, RSS submitted four reports on students injured during the sharks and daisies drill, three of them within 1-1/2 months.

1. In December 1986, RSS reported that a student "sank to the bottom of the pool" during a lifesaving drill. The student cited a fear of drowning. The department head at AEATS stated that it was a "suspected sham to avoid RSS training."

2. In August 1987, RSS reported that a student hyperventilated during the lifesaving drills and required treatment at the hospital.

3. In early September 1987, RSS reported that a student had difficulty during a lifesaving drill when he "was unable to escape from his instructor." His case was diagnosed as exhaustion.

4. In late September 1987, RSS reported another student who had difficulty during lifesaving drills when he could not perform an escape from a rear head hold. The student began to hyperventilate and apparently lost consciousness for a short time. The AEATS department head commented that the training team leaders were briefed on preventing and watching out for similar situations. (This particular report was prepared by the instructor who was acting team leader during the Mirecki incident.)

Despite these warning signals of similar problems in lifesaving exercises, higher levels did not become alert to potential problems.

A factor which may have contributed to higher level management not being able to detect the conditions at RSS was the failure of RSS supervisors to prepare personal injury/accident notifications as required on all injuries at the school. Higher commands, however, had no system to detect this lack of compliance. A review by the supplemental JAG Manual investigation team of the Naval Air Station Pensacola personnel injury/death reports for the 1986-1988 time frame showed the school did not prepare reports for at least two student injuries. In addition, the JAG Manual investigation team's random review of RSS training folders showed other students had become unconscious during in-pool training

Finally, the instructors forced Lee Mirecki to continue the sharks and daisies drill. We believe this occurred because of inadequate instructor training, a vague DOR policy, the absence of a poolside safety program, inadequate direct supervision of instructors, and the pressure to produce more rescue swimmers, all of which resulted in insufficient emphasis on safety.

The lack of effective oversight at the school's superior commands helped create the opportunity for error. If superior commands had monitored attrition and rollback rates, followed up on injury and medical reports, established safety audit/inspection responsibilities, and adequately reviewed the RSS curriculum, the problems at RSS may have been detected.

Inadequate Review of RSS Curriculum

The Navy assigns a person called a "model manager" to be in charge of each course. The model manager, who is independent of the school, provides oversight of the training in the areas of curriculum and instructor qualifications and training, and conducts on-site inspections.

The model manager responsible for the RSS curriculum at the time of the Mirecki incident was Helicopter Combat Support Squadron 16. This organization, although experienced in the area of search and rescue, did not provide adequate oversight of the RSS curriculum. The RSS curriculum in place in March 1988 had been recently revised but had not yet been approved by CNATRA. Adequate curriculum review would likely have discovered the problems in the design and conduct of the course such as those identified by the Navy water survival training expert.

Conclusions

We believe that the pressure to graduate more rescue swimmers contributed to an intimidating, nonvolunteer atmosphere at RSS. The school became less selective regarding the candidates entering the program and strongly discouraged voluntary withdrawal. This atmosphere at RSS, combined with inadequate controls at the school and its superior commands, allowed a series of events to occur that ultimately led to Lee Mirecki's death.

In our opinion, Mirecki was not a good candidate for rescue swimmer training. He was not a volunteer for search and rescue or helicopter duty, he did not receive adequate psychological screening for that duty, and he was not a good swimmer. In addition, there is no evidence that he was adequately preinformed that rescue swimmer training was a part of the aviation anti-submarine warfare operator curriculum or of the physical demands of the RSS curriculum.

Mirecki should not have been pressured into remaining in the program after the first incident in which he panicked. The emphasis on the negative career consequences of voluntary withdrawal in the "counseling" sessions pressured him to complete the training, despite his fears.

Because a flight surgeon had determined that Mirecki was not physically qualified, he should not have returned to training without the specific approval of a flight surgeon. However, due to ineffective internal controls in the administrative and medical processing systems, he was allowed to re-enroll in another class.

this policy and are required to sign a statement acknowledging their understanding.

- A "training-time-out" (TTO) policy, allowing for cessation of training exercises for additional explanation or instruction, has also been implemented.
- The "sharks and daisies" type of training scenario has been specifically prohibited.
- Periodic safety standdowns, where operations are suspended to review safety, are now required. These are one-day reviews of the curriculum, instructional techniques, training environment, and other safety matters.
- Emergency oxygen and resuscitation equipment for poolside use are now in place.
- The duties and responsibilities of the pool deck safety observer have been revised and documented.
- A detailed plan for handling emergency situations, which identifies roles and responsibilities, has been implemented.
- A new NASC directive revised the procedures for determining students' medical status and a system of checks was put into place to prevent a student from entering training in the absence of specific medical documentation that specifies he is medically approved.
- The Chief of Naval Operations established a Rescue Swimmer School Model Manager independent of the school.
- A 3-week RSS instructor training course was developed, validated and approved by the Chief of Naval Operations.
- All instructor candidates must now complete a 4-week classroom instructor training course before entering the RSS instructor course.
- Supervisors evaluate instructors on a regular basis and the model manager is required to ensure that these evaluations are performed and to perform his own independent evaluations.
- The enlisted contract for aviation anti-submarine warfare (AW) candidates has been revised to inform prospective recruits of the physical and swim requirements of this rating, the requirement to complete Aircrew Candidate School, and the potential requirement to complete RSS.
- The NASC organizational manual was revised to include descriptions of the duties and responsibilities of key AEATS and RSS personnel.
- Aircrew Candidate School student screening procedures for follow-on RSS training were revised.
- A flight surgeon position has been established at NASC.
- The Catalog of Navy Training Courses has been revised to include more detailed information regarding prerequisites for assignment to both aircrew candidate school and RSS, including physical fitness and swimming requirements.

Command Actions Improve Safety, but More Should Be Done

In response to the Mirecki incident and its subsequent investigations CNATRA directed a thorough review of RSS, and CNET directed a commandwide assessment of training safety. Although the results of these reviews have significantly improved safety at RSS and other Navy training courses, more still needs to be done.

RSS Review Indicates Need for Changes

One of the recommendations from the supplemental JAG Manual investigation and approved by CNATRA called for the formation of a committee of specialists to conduct an in-depth review of RSS. The NASC commander had already directed the Naval Aviation Water Survival Training Program Model Manager to conduct an administrative review of RSS training methods and safety procedures. RSS was closed down on March 29, 1988 to facilitate this review.

CNATRA directed that the review receive support and resources from several sources including: the Naval Safety Center (rescue data); the Search and Rescue and Water Survival model managers (aviation physiologist and training specialist); the Naval Aerospace Medical Research Laboratory (exercise physiologist); Naval Aerospace Medical Institute (aviation psychologist); the U.S. Coast Guard's Aviation Life Support Branch and Rescue Swimmer Standardization Division; the Naval Hospital, Pensacola (flight surgeons); and rescue airmen.

Changes Implemented at RSS

The review group established new or revised standard operating procedures, course training schedules, and instructional techniques. In addition, a formal instructor training program was developed to ensure standardized instructor qualifications, teaching methods, swim skills, medical emergencies, and curriculum policies. RSS was reopened in June 1988.

The revised curriculum was validated between June 20 and July 15, 1988, and additional revisions were made. Among the key changes were the following:

- Poolside supervision by an officer or chief petty officer is now required.
- Fellow students, instead of the instructors, now act as victims in lifesaving drills.
- New physical and swim conditioning regimens, developed with the assistance of physiologists, were incorporated into the curriculum.
- Detailed DOR procedures have been developed and incorporated into student and instructor guides. The students are also verbally briefed on

Too Much Discretion in Implementing DOR and TTO Policies

In June 1988 the Naval Education and Training Command issued new DOR and TTO policies after a 2-month effort to revise and refine the RSS curriculum and training methods. The new commandwide DOR policy allows students to request to withdraw from voluntary training by saying such things as "I quit" or "DOR", or to call a TTO anytime they have apprehensions about their personal safety or another person's. The guidance specified that the DOR and TTO policy statements were to be included in the curriculum, instructor lesson topic guides, and the student guide. It further stipulated that appropriate signals for a TTO, other than verbal, be clearly indicated in these documents, and that the students are to receive briefings on these policies prior to the start of training.

While steps have been taken to implement CNET's DOR and TTO policies at the RSS, the methods of conveying these policies to both instructors and students still leaves too much room for individual discretion. Also, nonverbal signals to stop training are not always specified or clearly indicated in RSS training documents.

The RSS curriculum and instructor guides incorporate the new DOR and TTO policies and call for them to be briefed to students before starting training. A pinch, as a nonverbal signal for a TTO, has also been added to the instructor lesson topic guides for lifesaving drills. Not as much emphasis is placed on the policies in the new student guide, however, and the TTO pinch signal was not included at all.

According to the RSS division officer, he briefs his instructors on the DOR and TTO policies on a regular basis, although there is no written requirement in RSS documents requiring him to do so. With the Mirecki tragedy still fresh in mind and with the unusual attention focused on the RSS, it is reasonable to assume that the safety of students is currently receiving high emphasis at RSS. However, as time goes by, memories fade, and officers and instructors turnover, unwritten policies may cease to exist. Therefore, we believe such a requirement should be issued in a written instruction.

In addition, course guides do not address how to effect a DOR or TTO when exercises involve student-on-student activities. For example, although students play the roles of both "rescuer" and "victim" in lifesaving drills without instructor involvement, the written guidance does not address to whom the student communicates his request.

- Aircrew Candidate School graduation requirements for physical fitness and swimming were matched to RSS entrance requirements.
- A new Navy Enlisted Classification for surface rescue swimmers is being established in order to improve personnel assignment procedures. This will eventually reduce the number of AW-trained personnel that are required to be trained as rescue swimmers.

Some Problem Areas Remain

While we support the changes made by the Navy and believe they make a significant contribution to increasing the safety at RSS, we are concerned that some of these changes do not go far enough and some other needed changes are, as yet, unaddressed. In particular, we are concerned that:

- The way in which the new DOR and TTO policies are conveyed to instructors and students, and the mechanics of how these actions are to be signalled, still leave too much room for individual discretion.
- The new enlistment contract does not provide a clear enough description of RSS training and RSS will still be getting a large number of nonvolunteers.
- Although policy clearly states that students will not be coerced to return to training following a DOR, the negative consequences associated with a DOR are implicitly coercive.
- The problem of ensuring that schools comply with requirements to submit accident/injury reports on all reportable incidents has not been specifically addressed.
- Problems with the student critique system and the lack of a system to alert instructors to student histories have not been specifically addressed.
- Training instructors on how to teach in high risk/high stress environments has not been incorporated into the instructor training curriculum.
- The lack of psychological screening of students and instructors has not been adequately addressed.
- The course safety review teams do not require safety experts as members.
- The controls in the medical/administrative processing area, although improved, still have weaknesses.

Enlistment Contract Does Not Adequately Inform Enlistees About RSS Training

The Chief of Naval Operations, in August 1988, approved an annex to the AW program enlistment contract recommended by CNET. Although a step in the right direction, the contract does not provide a complete description of RSS training.

The contract informs enlistees that they "may be selected for helicopter training and to attend Rescue Swimmer School," depending on the needs of the Navy, as a part of their AW program. However, it does not inform enlistees that the present policy requires all AW candidates to attend the school.

Although the contract lists physical exercises and four timed swim events required for graduation, it does not explain the nature of the training done at RSS prior to graduation. For example, it does not describe the lifesaving drills, in which students are held under water and must escape from front and rear head holds. Without specific knowledge of the nature of the training and the various types of drills they will have to perform, there is a strong likelihood that some enlistees will end up in RSS when, if they had known that RSS training was definitely required and the specifics of it, they may not have volunteered for aviation anti-submarine warfare training at all.

DOR Policy Is Implicitly Coercive

Although the CNET policy is clear that threats and coercion may not be used to induce a student to return to training following a DOR, the negative consequences associated with a DOR are implicitly coercive, particularly for those students who wish to become aviation anti-submarine warfare crewmen.

A 1984 Naval Military Personnel Command message to NASC reaffirmed a standing policy that all candidates for AW "A" School must volunteer for aircrewman duty, and that rescue swimmer training was a necessary part of that training pipeline. The policy goes on to say that any student who is dropped on request from the training is considered a nonvolunteer for aircrewman and is not eligible for AW "A" School. The policy states that if a student who enlisted with an AW "A" School guarantee withdraws from RSS, he would not have an option for alternate guaranteed training or discharge. What this policy means is that a student who withdraws would be sent to the fleet without a designated rating and would probably be assigned to an undesirable job.

The negative consequences of a DOR, established as a policy by the Naval Military Personnel Command, are not formalized in the RSS curriculum,

instructor guide, or student guide. They are, however, told to students in an indoctrination session on the first day at RSS. We sat in on one of the indoctrination sessions to learn how the DOR policy is typically briefed. The lecturer, in explaining the policy, emphasized that the AW rating field was an attractive one in the Navy and that the students would not be able to retain the rating or their aircrew status if they did not graduate from RSS. He further stated that anyone who withdrew from RSS would automatically lose their guarantee for further AW training and would spend the rest of their Navy career in some less desirable rating field. While these types of statements are not overtly coercive, in that they do not involve threats, they are implicitly coercive because they emphasize the unattractive alternatives available to students who drop out.

The intent of the negative consequences associated with DOR is to ensure that students do not take withdrawing lightly. However, there is no evidence to indicate that DOR rates would go up substantially if the negative sanctions were removed. Also, imposing negative career sanctions on those who choose to withdraw from voluntary training, essentially negates the safety purpose of the DOR policy. Rather than focusing on disincentives to withdrawing, we believe that, from a safety standpoint, the Navy should develop positive incentives to remain. A CNET official suggested that it may be possible to establish a special pay for rescue swimmers.

Accident/Injury Reporting Problems Have Not Been Addressed

The Navy has not specifically addressed the problem of making sure schools comply with the requirement to submit accident/injury reports on all reportable incidents. A Navy regulation requires that mishap investigation reports, independent of investigative reports required by the JAG Manual, be submitted to the Naval Safety Center (NSC) on all incidents meeting certain criteria, such as one or more lost workdays.

The regulation also states that minor mishaps should be investigated as well as major ones. It encourages the reporting of all mishaps, "no matter how small, as well as the 'near-misses' where only chance prevented a mishap," and requires an "informal" investigation of every mishap, major or minor.

NASC requires that an internal report, called a "personnel injury/accident notification" report, be prepared and sent to the NASC safety office within 5 days of an injury or accident. The NASC safety office then sends these reports to the Pensacola Naval Air Station safety office, which is

responsible for preparing and submitting a "personal injury/death" report to NSC for those mishaps meeting the reporting criteria. We found discrepancies in the way these reports were prepared and processed at all levels.

We examined 43 personnel injury/accident notifications on file at RSS that were prepared from the beginning of 1986 through November 4, 1988. The NASC safety office did not have a record of 8 of these notifications. In addition, we examined 48 personnel injury/accident notifications at the NASC safety office that were submitted by RSS during the same period, and RSS had no record of 13 of these. We were unable to reconcile the differences between the RSS and NASC records. It is possible that the RSS did not submit reports to NASC in some cases, and it is also possible that copies of some of the reports submitted were not retained.

Another problem we found was that the forms we were not always complete. For example, it was impossible to determine, in many cases, whether the injured person missed any work, one of the criteria for submitting a personal injury/death report to NSC.

We selected a sample of 15 personnel injury/accident notifications from the NASC safety office files to compare with the personal injury/death reports prepared and submitted by the Pensacola Naval Air Station safety office. Of this sample of 15 notifications, the Air Station safety office had prepared only two personal injury/death reports, and submitted only one of these to NSC. Because the personnel injury/accident notifications were not always complete, we could not tell whether some of them met the criteria for submitting a personal injury/death report to NSC. However, at least seven of the other notifications appeared to clearly meet the reporting criteria (e.g., hospitalized for 1 day), but personal injury/death reports were not prepared. Still other mishaps (e.g., student losing consciousness or in shock after in-water exercises), in our opinion, should have been reported to appropriate managers and NSC. The Navy's safety regulation encourages reporting all incidents, regardless of severity. These data would help managers evaluate the frequency and location of such incidents and alert them to potentially serious problems and dangerous situations.

We found no evidence of systematic reviews and/or analyses of accident/injury reports within NASC. The NASC Safety Officer duties are a collateral duty assigned to a full-time instructor. This position is little more than a repository and conduit for accident notifications submitted to him. We also could not find any evidence that independent safety

investigations have ever been done on mishaps within NASC, even in the case of Lee Mirecki's death.

Improved Procedures for Student Critiques Needed

The RSS review did not address the adequacy of the student critique system. Critiques are a good source of data to determine the effectiveness of a course and its instructors. However, an important and fairly large segment of the RSS student population, those who withdraw or are released, do not complete critiques. Critiques from these students might offer insight into problem areas that critiques from graduating students would not. The evaluation instrument has not been redesigned to eliminate the problems we identified. It (1) is not anonymous, (2) contains an unbalanced and biased response scale, (3) seeks only general reactions rather than specific assessments, (4) does not assess nonclassroom instructor activities or solicit individualized feedback on each instructor, and (5) asks no questions about safety.

System Needed to Inform Instructors of Special Student Needs

RSS still has no system to inform instructors about previous problems experienced by students, particularly those who were rolled back from one class to another. Although instructors may take the initiative to review student training jackets, there is no requirement for them to do so and no formalized method of informing them of particular student problems that might require some form of tailored assistance.

Instructors Need to Be Trained to Teach in High Risk/High Stress Training Environments

Since the RSS program involves high risk and stressful training, instructors may be faced with students who panic because of fear, stress, and fatigue. The present training that instructors receive does not teach them how to cope with such a situation.

Since the Mirecki incident, personnel selected to be RSS instructors must complete a basic instructor training course, an RSS-specific instructor course, and must go through the RSS course as an "instructor-under-training" before they are certified to be instructors. These courses teach instructors how to deliver classroom material and how to teach the physical training routines. They do not include any specific training on how to cope with stress in a training environment. According to one RSS instructor, such training is offered to Marine Corps drill instructors and he believes it should be required of RSS instructors. We agree that such training should be required of all RSS instructors.

Psychological Screening of Students and Instructors Still Needs to Be Addressed

Navy regulations require that RSS instructors and students have a clearance from a flight surgeon before beginning training. The physical examination administered by the flight surgeon, however, does not entail any type of psychological testing. A NAMI flight surgeon told us that aviators and naval flight officers are given a psychological test battery to determine if they are aeronautically adaptable. This battery, however, is not administered to enlisted aircrewmen.

As an outgrowth of the Mirecki incident, CNET directed line commanders to pay particular attention to the medical qualifications of instructors. However, psychological evaluations to determine fitness for teaching or training in high risk/high stress courses are not required.

CNET described the new screening process as a review of a potential instructor's personnel and medical record by the commanding officer, executive officer, or department head of the school. The review would examine interviews from the previous command and note comments on past stability and performance. Following this review, a personal interview is to be conducted to determine if there are any indications of emotional instability and/or poor judgment or performance. If the review and interview process raises questions, the guidance calls for the potential instructor to be referred to the medical department for "additional" psychological evaluation.

With regard to student screening, CNET directed its subordinate commands to ensure that mechanisms exist to preclude high risk training if there is a question concerning the medical or psychological fitness of a student. It did not, however, prescribe any psychological screening for these students.

CNET's directives do not require psychological screening of students, and do not require adequate screening of instructors. The Navy currently administers psychological tests to aviators and flight officers to determine their suitability for flight duty. We believe that the Navy should consider whether others involved in high risk training or occupations should also be tested. Such testing could potentially detect conditions, such as phobias or personality characteristics, that could disqualify a candidate or instructor from hazardous or stressful training.

We raised the question of additional psychological screening with CNET officials. They indicated that more extensive screening would involve some logistical problems for personnel selected as instructors since the testing might not be practicable until after they arrive at their new

assignment. However, they indicated they would reexamine whether more could be done regarding both student and instructor screening.

Safety Experts Not Included on Safety Review Teams

Since the Mirecki incident, both CNET and CNATRA have issued directives emphasizing the importance of safety in high risk training courses. A team of experts conducted a review of the RSS curriculum and training methods, and CNET directed a commandwide assessment of safety in all its courses involving elements of risk. However, safety specialists were not included on the review teams. We believe that, when training safety is the primary focus of a review, safety experts should be an integral part of the reviewing team.

In June 1988, the Chief of Naval Operations directed that the RSS program be placed under the Naval Aviation Water Survival Model Manager. The model manager was assigned several responsibilities related to RSS, including annual inspections. The model manager told us that, during annual inspections, his team will observe and actually participate in training exercises to make sure the curriculum is being followed and that it is safe.

The inspection team will also review student critiques, counseling sheets, and class statistics and look for trends in anything that may be safety oriented (e.g., large number of student complaints about particular aspects of the program). However, we found no plans for inspectors to examine school personnel injury/accident notification forms as an indicator of safety deficiencies.

The model manager inspection teams are usually comprised of one officer and one chief petty officer, who are regular staff members of the organization assigned model manager responsibility. No safety specialist is brought in to help conduct these inspections. Because safety specialists are trained to notice unsafe conditions and practices, we believe they should be a requisite part of any team inspecting high risk training courses. We also believe that safety expertise should be an integral part of all other review and inspection teams.

Medical/Administrative Processing Controls Still Have Weaknesses

Administrative and medical processing controls for students have been improved at RSS but could be strengthened further. Administrative controls on the results of initial medical screening appear to be adequate, but controls over medical processing procedures for students who are injured or have other medical problems still have some weaknesses.

Before a student goes to the medical clinic for an injury or other medical problem, the RSS corpsman gives him an appointment slip and a "walking chit." The student then reports to the student control section of the Aviation Enlisted Aircrew Training School (AEATS) to log out and proceeds to the clinic with the forms.

If the clinic finds no problems that would hinder training and imposes no limitations on the student, it annotates the "walking chit" and the student returns to training.

If limitations are imposed, the clinic completes other paperwork. For example, the clinic may issue the student a "limited duty" or a "down chit," depending on the nature and extent of the injury or other medical problem. The clinic returns this paperwork to the student, who then returns to the student control section of AEATS and is checked in and out again.

If a student receives a "limited duty chit," he would be returned to training with certain restrictions as specified on the chit. If a "down chit" is issued to the student, this information is entered in a computerized medical tracking system at AEATS that generates a daily report showing the medical status and restrictions of all students. A copy of this report is sent to the NASC commanding officer and to the branch medical clinic and serves as a cross-check.

When the student with a "limited duty" or "down chit" returns to RSS, the corpsman or student control section initiates whatever change is necessary on a status change sheet. The status change sheet and chit are placed in the student's RSS training folder, the folder is sealed, and the student returns it to AEATS student control. AEATS enters the change into another computer system which generates daily class rosters, medical hold lists, and other reports. The roster and medical hold list for the next day is sent to RSS every afternoon. Responsible personnel at RSS check the medical hold roster every day and compare it to the previous day's roster to make sure that no student is inappropriately returned to training.

While the Navy has tightened controls in this area, we believe that more improvements need to be made. We believe a procedure should be formalized requiring telephone communication between AEATS and RSS as soon as a student is determined to be medically unqualified. Also, we believe the medical hold roster system should be revised so that an

exception report, showing changes between one day's medical hold roster and the next, is generated. This would lessen the chance of a medically unqualified person being returned to training through an inadvertent omission from the roster or an oversight by RSS personnel who review these rosters on a daily basis.

The CNET-Wide Safety Assessment Identifies Some Problems

On May 19, 1988, CNET ordered a thorough review of all training that involved risk within the Naval Education and Training Command, with the results reported back to him by June 17, 1988. Commands were to include studies of policy, administrative procedures, curriculum specifics, and training of instructors. During this review, 3,200 courses of instruction were considered, although most of these courses received only cursory attention since they were classroom-based and did not involve risk. Most of CNET's attention was focused on 109 courses judged to involve significant risk.

The review applied four basic criteria regarding the adequacy of CNET quality assurance programs:

1. Standardized command policies and oversight mechanisms delineated in formal directives must be in place at all levels of the chain of command.

2. Curriculum must be properly developed to include clear guidance for both instructors and students regarding the conduct of potentially hazardous training.

3. Instructors must be adequately trained and their performance standardized through assessment and feedback mechanisms.

4. Facilities and training equipment must be properly maintained and operated to maximize safety.

This assessment was conducted informally and the results were not documented in a formal report. Subordinate commands essentially did a self-assessment of safety. The depth of these assessments and the degree of safety expertise involved is unknown. For example, the CNATRA input consisted of an oral briefing provided to CNET on June 17, 1988. When we asked for documentation of the CNATRA safety review we were provided a 2 page summary of the results of the review and 9 pages of briefing charts.

The assessment used the list of things that went wrong in the Mirecki incident as a checklist. This methodology could fail to identify problems that may exist at RSS or in other training programs but were not factors in the Mirecki incident.

According to a summary report later prepared for the Congress, the review showed that although there were some problems, they were not severe, and training was generally being conducted in a safe and proper manner. Other than at RSS, CNET saw no training areas in which the cumulative effects of improper supervision, incorrect practices, and poor administration were degrading the safety of training. No major systemic problems were identified.

The report identified five areas where improvements would further reduce risk while retaining required realism:

1. Training safety policies.
2. Curriculum adequacy with respect to safety.
3. Personnel manning and qualification.
4. Medical screening procedures.
5. Materiel support.

In the area of training safety policies, changes were made to (1) implement a specific DOR policy for all voluntary training, (2) establish a specific TTO policy for all training where potential for personal risk exists, (3) require mandatory safety standdowns across the board to review safety precautions and practices, and (4) require the development (and annual review for currency) of premishap plans for high risk training, including location and telephone numbers of emergency response agencies, and personnel qualified in first aid and cardiopulmonary resuscitation. Commanding officers were also directed to ensure that their personal involvement in the actual training being conducted is adequate to ensure that appropriate curriculum safety standards are in place and followed.

To ensure the adequacy of curriculum in courses with risk potential, the CNET-wide review identified a need for instructions to be revised to

- ensure that safety regulations, precautions, personnel qualification standards, preventive maintenance standards, and technical manuals are included in curriculum as well as course management plans;

- require instructors to complete all unique course and safety indoctrination programs, in addition to Instructor Training School, prior to being certified to teach;
- require evaluation of instructors to validate their attitude toward, and visible concern for, maintaining a safe training environment;
- provide students an opportunity, in their course critiques, to comment on unsafe training practices or conditions, the extent to which safety was emphasized in the course, and the attention to safety issues demonstrated by the instructor, as well as the condition of the training classroom and equipment; and
- ensure that, through mandatory course reviews, appropriate safety concerns are examined on a recurring basis for all courses of instruction.

The review also identified a need to strengthen adherence to personnel assignment policies and procedures to ensure that the Naval Education and Training Command receives both the quantity and quality of instructors it needs to establish and conduct safe and proper training. This area also includes establishing procedures to ensure that instructors receive appropriate training.

To strengthen medical screening procedures, specific deficiencies in initial physical examinations were referred to the Naval Medical Command for appropriate corrective action. An orientation course has been established at recruit training center clinics to improve awareness among medical support personnel of the physical demands encountered in training. The Naval Medical Command is also working to stabilize personnel turnover at recruit training sites. In addition, formal procedures have been implemented to ensure that commanders are aware of medical circumstances of students undergoing training. The report to the Congress also stated that the Navy program for risk factor screening has been fully implemented to help reduce the incidence of heat injury and cardiac arrest.

In the materiel support area, the main problem identified was funding constraints. This problem has reportedly led to the use of worn equipment, reduced technical training audits, and differences between the configurations of equipment used in the training environment and that used in the fleet which has safety implications for both environments. In addition, the report also identified the lack of emergency electrical cutoff capabilities.

The report was not particularly optimistic about the prospects for solving the funding constraints, However, a bottom line commitment was

made that if materiel conditions ever pose a training safety hazard, training will be terminated until the hazard can be corrected.

Finally, the report identified several other initiatives that should improve training safety. The anticipated implementation of a Training Performance Evaluation Board in April 1989 is aimed at improving training processes and customer (fleet) satisfaction. This board will also be specifically charged with on-site evaluation of safety. In addition, the Chief of Naval Operations issued a revised instruction to provide more fleet oversight of training and established a flag officer level liaison to CNET.

CNET Has Directed Additional Reviews

While the CNET review has contributed to improved training safety, it is only a start. Given the magnitude of CNET's operations and the one-month time frame of the review, an in-depth evaluation of all CNET courses could not be performed. CNET recognizes the need to do more to institutionalize safety throughout its command and has requested NSC to perform a review of 13 high risk courses. In addition, the Navy Inspector General will also examine safety in its reviews of CNET activities.

Conclusions

In response to the Mirecki incident and the investigations and reviews that followed it, the Navy made a number of changes to increase the safety of training operations. While the Navy's efforts to date are commendable, we believe that more still needs to be done.

More Changes Need to Be Made in RSS and Other Navy Training

After the Mirecki incident, CNATRA ordered a thorough review of the RSS curriculum and operations. That review produced a number of significant changes in the design of the training activities, the method of selecting and training instructors, the clarification of policies and staff responsibilities, the oversight of the rescue swimmer program, and the implementation of a safety program.

In a separate, but related, effort, CNET ordered a review of all training that involved potential risk to students or instructors under his command. With their knowledge of the Mirecki incident as a guide, the CNET review identified 109 courses where participants were subject to some risk. It also identified five areas where improvements would further reduce risk while retaining required realism: training safety policies, the training curriculum, personnel manning and qualification, medical screening procedures, and materiel support. Overall, CNET concluded

that while there were some problems, they were not severe, and training was generally being conducted in a safe and proper manner.

While both the RSS and CNET reviews have made contributions to the improvement of safety in Navy training programs, they are only a start. We believe that more needs to be done in order to ensure that training is as safe as it can be given the need to ensure that it is rigorous and realistic.

CNET recognizes that more still needs to be done and has asked NSC to review 13 high risk courses. In addition, CNET has requested that the Inspector General pay particular attention to safety issues in any inspections conducted within the Naval Education and Training Command.

Recommendations

We recommend that the Chief of Naval Education and Training

- clarify the way the "drop on request" and "training time out" policies are communicated to the students and staff and how students are to signal that they are invoking the policies,
- eliminate the negative sanctions imposed on those who drop out of voluntary training programs because of safety concerns,
- clarify the aviation anti-submarine warfare operator enlistment contract to include a better description of the kind of training that is required,
- ensure that schools comply with requirements to submit accident/injury reports and safety officers perform independent safety investigations on those incidents,
- ensure that training course model managers receive information on attrition and accidents/injuries,
- improve the student critique system to ensure that information is also gathered from students who do not complete training courses and that the student evaluation forms be redesigned to provide useful assessments,
- ensure that the selection process for instructors of high risk courses includes an assessment of their suitability for that kind of environment and that instructor training for those courses include preparation on how to deal with students in a high stress/high risk environment,
- ensure that the student selection process also includes some psychological screening of their suitability for high risk occupations,
- ensure that course safety review teams include personnel with safety expertise, and

- ensure that controls on student status changes are sufficient to provide supervisors with a clear indication of what status changes have been made.

When we met with the Chief of Naval Education and Training and his staff to inform them of our findings, we discussed the above recommendations. They were very receptive to our suggestions and stated they would reexamine each point. CNET had already begun making changes based on findings brought to their attention during our review.

Initial Investigations Are Inadequate

Investigations of the Mirecki Incident

The death of Lee Mirecki triggered a number of investigations: an internal Naval Aviation Schools Command (NASC) inquiry, an initial Naval Investigative Service (NIS) investigation, and an initial Navy Judge Advocate General (JAG) Manual investigation. Subsequently, a supplemental JAG Manual investigation was conducted and the NIS investigation was reopened when the earlier investigations were found to be inadequate. Finally, a Uniform Code of Military Justice (UCMJ) Article 32 proceeding, which is similar to a preliminary hearing to determine whether a case warrants prosecution, was convened.

The Initial NASC Inquiry

On the evening of March 2, 1988, Mirecki's classmates were recalled to the RSS building and told that Mirecki had died. Each of the students, instructors, and staff that had been present at any time during the sharks and daisies drill and the later efforts to revive Mirecki were told to write down what they had seen concerning the circumstances of his death. This effort produced 40 handwritten, unsworn statements.

The Initial NIS Investigation

On March 3, 1988, a local Federal Bureau of Investigation (FBI) agent contacted the NIS office at Pensacola. The FBI agent reported that another FBI office had been contacted by the father of one of the RSS students and they were told that Lee Mirecki's death may have been the result of some "foul play" on the part of the RSS instructors and the Navy was attempting to "cover up" the incident. Upon request, the FBI deferred investigative jurisdiction to NIS.

NIS began its investigation on March 3. The focus of the investigation was murder. NIS agents first interviewed the commanding officer at NASC to inform him that NIS was initiating an investigation. He expressed surprise that NIS was interested in the death because, from what he had been told, it was the result of an accident. That afternoon, the officer in charge at RSS visited the NIS office and provided the unsworn student and instructor statements.

The NIS special agent in charge called the NIS regional office to advise them of the investigation. He also informed the regional office that the case agent believed that the cause of death would be proven to be an accident.

NIS agents interviewed the 25 student witnesses (between March 3 and March 7) and prepared typed statements for them to swear to and sign.

On March 8 or 9, NIS requested that a Navy Legal Service Office (NLSO) attorney who served as the liaison official to the U.S. Attorney's Office review the information obtained to date. The purpose of the request was to determine if the information showed that there had been a violation of the UCMJ. The NLSO attorney told NIS that there was nothing indicating that Mirecki had been murdered, but that the possibility existed that other violations of the UCMJ such as assault, battery, or dereliction of duty had been committed.

Between March 8 and March 17, NIS interviewed the remaining witnesses (instructors and staff) and continued to gather information related to the investigation.

According to the NIS investigative report, on March 28, 1988, the case agent again briefed the NLSO attorney on the case. The attorney advised NIS that he found nothing to warrant prosecution under the UCMJ. The results of this meeting, however, were not documented in the case file.

On March 29, 1988, NIS closed its investigation and sent the investigation report to the NIS regional office in Charleston, South Carolina, for review.

The Initial JAG Manual Investigation

On March 4, 1988, CNATRA superseded the internal NASC inquiry and appointed a Marine Corps colonel from the Marine Aviation Training Support Group in Pensacola to conduct a JAG Manual investigation. This is a formal inquiry, to be performed in accordance with the Manual of the Judge Advocate General, by an officer appointed by the commander in which an incident has occurred. The JAG Manual investigator was directed to conduct a thorough investigation into the facts and circumstances surrounding the death of Lee Mirecki and to report his findings and any fault, neglect, or responsibility he determined as well as any recommended administrative or disciplinary action by April 4, 1988.

After learning of the assignment, the designated investigator expressed his concern to the appointing officer about whether he had sufficient time to conduct the investigation since he already had orders assigning him to a promotion board in Washington, D.C., starting on March 19. After listening to the concerns, the appointing officer directed the investigator to proceed with the investigation.

The JAG Manual investigator began his investigation on March 7. He had each of the witnesses prepare a handwritten statement concerning what

they had seen. Between March 7 and March 10 he interviewed each of the 25 student witnesses. He obtained statements from instructors, staff, and other individuals between March 9 and March 14. He also gathered and reviewed various documents and records.

On March 18, 1988, the JAG Manual investigator submitted his report to CNATRA. He recommended that

- no punitive or administrative action be brought against any party,
- administrative procedures at RSS be reviewed to ensure that records are accurate and up-to-date at all times, and
- safety procedures at RSS be reviewed and reemphasized.

Initial Investigations Seen as Inadequate

On March 29, 1988, CNET sent a personal message to CNATRA expressing his concern about the adequacy of the JAG Manual investigation. He directed CNATRA to ensure the investigation properly addressed both training procedures and accountability issues. CNATRA ordered a supplemental JAG Manual investigation. He also called NIS and expressed his concern with their investigation.

On March 29, the NIS Regional Director reviewed the NIS investigation report and determined it did not thoroughly address all possible criminal violations. He directed the Pensacola special agent in charge to reopen the investigation. On April 8, after learning that the supplemental JAG Manual investigation team was having problems with the Pensacola NIS staff, he appointed a member of his own staff to head the reopened investigation.

The Supplemental JAG Manual Investigation

A supplemental JAG Manual investigation started on March 31, 1988, with the Naval Air Training Command Inspector General serving as the new investigator. He was assisted by the CNATRA safety officer, an aviation psychologist, and representatives of the Naval Inspector General and Judge Advocate General.

The team analyzed the original unsworn statements, the first NIS statements, the original JAG Manual statements, the second NIS statements, and the supplemental JAG Manual statements from all the participants. In addition, they gathered documents and records and interviewed a number of experts and other personnel.

During the early stages of the supplemental JAG Manual investigation, the Pensacola NIS office shared information from their investigative files and answered questions about various aspects of the initial NIS investigation. However, the relationship between the supplemental JAG Manual investigation team and the NIS office began to deteriorate and the JAG team started to notice they were not receiving needed information and their calls were not being returned. The JAG Manual investigators raised the problem to a representative of the Navy Inspector General's office who contacted the NIS regional office.

Once NIS appointed a new case agent, the supplemental JAG Manual team was able to coordinate their effort very closely with NIS. Both teams met on a daily basis to share information and exchange questions for witness interviews.

The supplemental JAG Manual report was submitted to CNATRA on May 6, 1988. It recommended:

(1) Establishment of effective procedures to apprise personnel of physical/medical limitations contained in student medical records and ensure that training is conducted in compliance with medical officer recommendations.

(2) Formation of an ad hoc committee of specialists to review and make recommendations regarding the training curriculum for rescue swimmers.

(3) Revision of the NASC organization manual to describe the duties and responsibilities of key AEATS and RSS positions.

(4) Placement of RSS under the NASC Water Survival Department.

(5) Assessment of what emergency equipment should be available at poolside.

(6) Development of written policies on DOR and an Instructor-Under-Training syllabus.

(7) Implementation of procedures to ensure adequate review of RSS policy changes by higher level commands.

(8) Specification of the duties, responsibilities, and required training of the pool deck safety observer.

(9) Implementation of a requirement for proper supervision (E-7 or above) for all water training operations.

(10) Prescreening of aircrew candidate school students for RSS training through a series of qualifying tests.

(11) Establishment of an effective physical conditioning program prior to RSS or lengthening the course to accommodate additional conditioning.

(12) Discontinuance of the practice of having classes face away from a student having difficulty and singing songs.

(13) Discontinuance of the "ringing out" ritual.

(14) Establishment of a flight surgeon position at NASC to provide medical treatment, determine student medical qualification status, and provide overall medical oversight to the various courses.

(15) Review of Navy policies on search and rescue manning and training requirements with a goal of establishing RSS as a truly volunteer program.

(16) Consideration of disciplinary or administrative actions against 9 individuals.

CNATRA approved all but one of the recommendations, some with modification, and noted that some had already been implemented. He did not approve the recommendation to put RSS under the Water Survival Department but instead directed the establishment of a separate Rescue Swimmers Training Model Manager to provide oversight of rescue swimmer training. His endorsement was forwarded to CNET on May 18, 1988.

The Second NIS Investigation

The NIS investigation was reopened on April 8, 1988 with the Assistant Director for Criminal Operations from the NIS regional office in Charleston, South Carolina, in charge. All students and instructors were reinterviewed to clarify their previous statements. Those who were considered potential suspects were informed of their rights. In addition, the new NIS case agent brought in experienced agents with highly developed interrogation skills to interview the instructors.

The second NIS investigation was closed on April 29, 1988. The investigative report contained a narrative summary of the investigation along

with a prosecutive summary of the evidence against specific individuals and the information which various witnesses could provide. The report deferred recommendation of prosecutive or administrative action to CNATRA.

UCMJ Article 32 Hearing

On May 9, 1988, the CNATRA Inspector General brought charges against five instructors and the officer in charge of RSS based on the findings of the supplemental JAG Manual investigation and second NIS investigation. All charges were referred by CNATRA to an Article 32, UCMJ pretrial investigation on May 11.

The Article 32 hearing was convened on May 25, 1988. Seven sessions were held to hear testimony and examine evidence. All of the accused were represented by military provided attorneys and some also engaged civilian attorneys. The Article 32 hearing was adjourned on June 8, 1988.

The Article 32 Investigating Officer found insufficient evidence to warrant the charge of dereliction of duty against the officer in charge of the RSS and recommended no disciplinary action against him. He recommended nonjudicial punishment for three of the instructors on battery and other charges, recommended trial by special court-martial for another instructor, and trial by general court-martial for the acting lead instructor.[1]

After considering the Article 32 Investigating Officer's recommendations and the results of the various investigations, CNATRA decided to court-martial the RSS officer in charge and the acting lead instructor. He gave nonjudicial punishment to the other four instructors and the NASC commanding officer, and issued nonpunitive[2] letters of caution to an officer and two chief petty officers.

[1]Nonjudicial punishment refers to actions, which are primarily corrective in nature, imposed directly by the individual's commanding officer under the provisions of Article 15 of the UCMJ. There are three types of courts-martial, varying in jurisdiction, punishment limits, and procedural rights for the accused. A summary court-martial is the lowest level; a special court-martial is the intermediate level; and a general court-martial is the highest level of military court proceedings.

[2]Nonpunitive measures include such actions as administrative admonitions, reprimands, criticisms, and censures which are imposed by a commander outside the formal military justice system. These actions are intended to serve a remedial purpose by correcting minor incidents before they become more serious.

Problems With the Initial Investigations

The initial NIS and JAG Manual investigations were flawed. The subsequent NIS and JAG Manual investigations were thorough and procedurally sound. The degree to which deficiencies in the earlier investigations affected the final disposition of the case cannot be determined.

Problems With the Initial NIS Investigation

The initial NIS investigation was narrowly focused and lacked an adequate investigative approach and adequate leadership. Also, the issue of the alleged cover-up was not sufficiently investigated. In addition, the case agent did not share all available information with the NLSO attorney. Finally, there were a number of other serious flaws in how this investigation was conducted.

The case agent stated that the only focus of his investigation was to determine whether Mirecki had been murdered. His supervisors, as well as some subordinates, believe he began the investigation with a belief that the death was the result of a training accident. Consequently he did not pursue other possible violations such as assault, battery, and dereliction of duty.

The case agent stated that the investigation proceeded without a written investigative plan. We believe this lack of a plan contributed to an overall lack of guidance being given to the assisting NIS agents. For example, the assisting NIS agents stated that they were not instructed to do anything other than "get statements from the witnesses about what they saw." In addition, neither the special agent in charge nor the case agent provided effective leadership, which resulted in poor communication and information sharing with the assisting agents.

The issue of the alleged cover-up was not aggressively pursued. A review of the investigative case file and agents' notes did not show any indications of an examination into whether the instructors got together to develop a uniform story of the events. Also, the interviews with the instructors were not recorded verbatim so that patterns of similar words being used by the various witnesses could be detected. Some of the agents stated that they discussed the possibility of instructor collusion among themselves and presented their suspicions to the case agent. However, the case agent did not believe there was anything to support their suspicions and the issue was not pursued.

The case agent also failed to share all available information with the NLSO attorney. The case agent gave the attorney only six statements to read, statements which the case agent believed contained sufficient

information. The attorney was not told that the witnesses gave statements to the NASC commander on the night of Mirecki's death. In addition, the attorney stated that he was told there were no visible bruises on the body, which would have been a significant piece of evidence concerning the question of Mirecki being the victim of battery. However, both the autopsy narrative and photos clearly indicated the presence of abrasions. Also, the case agent did not pursue other possible violations as suggested by the attorney.

NIS regulations require that in all cases where federal prosecution has been declined, that the investigators ensure that the prosecutive declination is documented in a manner that encourages, when appropriate, other criminal or administrative remedies. However, neither NIS nor NLSO had any documentation on the decision to decline prosecution. When we raised this point with NIS officials, they told us that the NLSO attorney was acting as a Navy legal advisor and not in his role as liaison to the U.S. Attorney and, therefore, that regulation did not apply.

Finally, the results of the initial NIS investigation were also affected by a number of other flaws. NIS failed to (1) ask detailed follow-up questions of witnesses, (2) review Mirecki's history while in his earlier RSS class, (3) interview some important witnesses (such as the flight surgeon and the psychologist), (4) have all assisting agents visit the scene of the incident, and (5) inquire about the controls placed on the original witness statements given on the night of the death.

Problems With the Initial JAG Manual Investigation

The initial JAG Manual investigation was hastily done and narrowly focused. Consequently, the investigation was not a comprehensive evaluation of the incident. Also, since there is no requirement that notes made during the investigation be retained, the permanent file consists only of the final report.

The stated objective of the JAG effort was to investigate all facts and circumstances surrounding the death. However, the JAG investigating officer had only about 14 days in which to conduct the investigation before he had to report for duty on a promotion board in Washington, D.C. In retrospect, he stated that this did not provide sufficient time to conduct a thorough investigation.

The initial JAG Manual investigator stated that his team took statements from the witnesses and did not ask detailed follow-up questions nor review Mirecki's history while a member of his previous RSS class. Key

personnel such as the flight surgeon, psychologist, and corpsman were not interviewed. Also, significant discrepancies between the student and instructor versions of the events were not aggressively pursued. In addition, the investigation did not pursue the possibility of other violations of law or policy.

The initial JAG investigating officer stated that, in retrospect, his effort was "more of a quick overview of the incident" rather than an investigation of all the facts and circumstances. He stated that his report should never have been submitted as a final report on the death, but merely as a status report.

Subsequent JAG and NIS Investigations Were Well Performed

The supplemental JAG Manual investigation and the reopened NIS investigation were closely coordinated and mutually supportive. Once a new NIS case agent had been assigned, the two investigation teams actively shared information and ideas. They exchanged questions for witnesses and shared the results of interviews.

Both subsequent investigations widened their scope to include looking into other possible UCMJ violations and the adequacy of RSS policies, procedures, and practices. They reviewed policies and regulations of RSS and its superior commands in much greater depth than the earlier investigations. They also interviewed witnesses who were not present at the time of the incident to get their perspective on proper procedures and policies in effect. Finally, they asked detailed follow-up questions about the circumstances and events surrounding the death.

Conclusions

Both the initial NIS and the initial JAG Manual investigations were flawed. They were narrowly focused and failed to ask detailed follow-up questions, get statements from key witnesses, and to inquire into Mirecki's earlier class experience.

We believe that at the completion of the subsequent JAG Manual and NIS investigations, the Navy had a comprehensive analysis of the circumstances surrounding the death of Lee Mirecki. Together, these subsequent investigations addressed the deficiencies in the initial JAG Manual and NIS investigations. The effect that the deficiencies in the earlier investigations had on the final disposition of the case cannot be determined. It is possible that the time delay between the initial and subsequent investigations may have dulled the witnesses' memories or their

recall may have been affected by reading published accounts of the incident.

We also identified two areas of general concern with aspects of the JAG Manual and NIS investigation procedures. We found that there is no requirement for notes prepared by JAG Manual investigators to be submitted with the final report and retained as a part of the file. This could potentially pose problems if the results of a JAG Manual investigation are used in legal proceedings. In addition, there is no requirement that legal opinions received by NIS agents during an investigation be documented. We believe that any legal guidance received that affects the conduct or direction of an investigation should be documented.

Recommendations

We recommend that the Secretary of the Navy require that investigator notes be retained with the JAG Manual investigation file.

We also recommend that the Secretary of the Navy direct that any legal opinions that affect the course of an investigation be documented and made a part of the case file.

Safety Issues in Other Navy Training Deaths

According to Navy officials, 16 Navy personnel besides Lee Mirecki have died while involved in training activities at formal schools since January 1, 1986. However, this does not include personnel who died while training in operational units or who died at a training school while not performing training activities.[1] We examined the files on these other deaths to determine whether safety problems played a role in any of the incidents, how such deaths are investigated when there is not as much media and congressional attention as there was in the Mirecki incident, and the usefulness of the investigations for identifying safety concerns and effecting appropriate changes.

Various Navy directives require up to three separate investigations into the circumstances of the death of service personnel. We found that required investigations were not always done. In addition, we found that the quality of the investigations and the degree to which they focused on safety issues varies significantly.

Navy Policies on Death Investigations

Navy policy directives require up to three types of investigations into the death of Navy personnel. These include a mishap investigation conducted by local safety personnel, a JAG Manual investigation, and an NIS investigation. Each of these investigations are governed by separate directives and have different objectives. However, each of them can potentially help identify and correct safety problems which may have been involved in the death.

Navy safety program directives require an independent safety mishap investigation for any serious injury or accident involving Navy personnel. The purpose of this investigation is to determine the basic cause of the mishap and take corrective action. The nature of the injury or accident determines the extent of the investigation required. At a minimum, a personnel injury/death report must be prepared and submitted to the Naval Safety Center (NSC) within 20 days of the incident. These reports are then reviewed by NSC staff. After the case is closed, NSC enters the relevant information into its data bank to use in trend analysis for identifying safety hazards and providing safety statistics.

Navy directives also require that a JAG Manual investigation be conducted to establish the circumstances of any death occurring from other than natural causes. The JAG Manual investigating officer is appointed

[1] We identified three deaths at training schools where students died while engaged in nontraining activities such as eating the noon meal.

by the local commander and must submit a report to the commander, usually within 30 days. The chain of command reviews the report and its recommendations. The JAG Manual investigation helps determine whether any misconduct by service personnel contributed to the death.

In addition, NIS regulations require them to investigate all medically unattended deaths to determine whether the death resulted from homicide, suicide, natural causes, or an accident. NIS considers a death to be medically attended if it occurred while the person was under medical care where a medical professional was able to determine the cause and manner of death almost immediately. An example would be a patient who died in a hospital following a long term illness. According to NIS regulations, the primary reason that NIS investigates all medically unattended deaths is to determine the circumstances surrounding the death and to fully document foul play or criminal negligence that may have been involved. The NIS must fully investigate only those deaths where criminal activity was involved.

The Other 16 Training Deaths

We examined the available files from the various investigations on the other 16 training deaths occurring since January 1, 1986 (see app. I). Of the 16, 7 died in four aircraft crashes, 1 died in a skydiving accident, 1 drowned in a sailing mishap, 1 died of hypothermia following a 5.5 mile swim, 2 died of heat injury complicated by sickle-cell trait, and 4 died of heart failure. The heat injury and heart failure deaths occurred during physical readiness training, and in three cases the individual was either on a weight control program or had just completed it.

The investigation files on these other deaths revealed that safety issues were present in several of them, such as a delay in emergency medical response, a lack of appropriate medical treatment, or inadequate review of medical or skill qualification records. For example:

- In case K, a unit conducted high-risk training at a site where adequate medical resources and standby emergency evacuation resources were not nearby. Because a helicopter was not readily available, the individual did not reach a fully equipped hospital for 2 hours.
- In case J, a student experienced difficulty during the warm-up period, held his side and indicated he was in pain for much of a 9-lap run until he collapsed. However, instructors and students did not recognize that a medical emergency was developing. Also emergency room cardiac resuscitation equipment did not work and the medical staff had to use manual techniques instead.

- In case A, an ambulance crew member did not give the victim oxygen, even though that was the standard practice.
- In case L, an instructor was allowed to take three physical readiness tests during a one-year period, despite neither turning in his medical record nor undergoing an annual physical examination as required by regulations. The subsequent JAG Manual investigation found that he had an existing medical problem (hypertension) that he had been hiding from the Navy. In addition, one-third of command personnel did not have up-to-date physicals on file.
- In case E, a student died while skydiving during a weekend exercise. Although he was not a member of the unit that was doing the jumps, an instructor who was a long-time acquaintance invited him to jump with the unit. He was allowed to jump although he had not provided the person in charge with written proof of his qualifications. It was later learned that he was qualified.

These cases raise potential safety issues with regard to the way in which the training activities were planned, the training of instructors to recognize medical emergencies, the performance of appropriate medical procedures, the maintenance of emergency equipment, and enforcement of internal controls designed to ensure that personnel are qualified to engage in training. Given such issues, it is important that investigations into deaths and serious injuries are adequate to surface safety problems.

Concerns About the Adequacy of Death Investigations

We reviewed all of the investigation reports prepared on the 16 other deaths. We found that seemingly required investigations were not always performed. In addition, the coverage and quality of the reports that were prepared varied significantly.

Required Investigations Not Always Done

Required personal injury/death reports were not always prepared and forwarded to NSC. NSC had reports on only five of the nine nonaircraft-related deaths, and was unaware that it did not have the other reports until we requested them. Of the four missing reports, we found that no safety investigations were done for two of the deaths, and the investigation reports on two other deaths were either lost in transit or misplaced by NSC. With regard to the investigations that were not done, NSC officials told us that the local commands did not believe that reports were required in those cases (cases E and J in app. I).

JAG Manual investigations were conducted on all but one of the cases. In that case (case F in app. I), the local commander did not initiate a JAG investigation because the death was due to cardiac arrest, which he considered to be a "natural cause" not requiring an investigation. While regulations specify that a JAG Manual investigation has to be done in cases where the death resulted from other than natural causes, in the absence of an investigation, one can not be sure that a death was from natural causes. The three other deaths by cardiac arrest each had a JAG Manual investigation.

NIS conducted investigations in 2 of the 16 deaths. NIS officials could not say why they did not investigate any of the other nonaircraft-related deaths. However, according to one official, NIS is not always informed that a death has occurred because local commanders presume that no criminal activity was involved and, therefore, NIS would not need to be involved.

Our findings indicate that commands are not always aware of the requirements for death investigations. When we discussed our findings with Navy officials, they stated that not every death requires each type of investigation. However, the directives are unclear on whether specific types of deaths are excluded or who is authorized to decide which investigations will or will not be performed.

Quality of Safety Investigations Varies Significantly

The investigations performed under NSC directives are the only ones whose primary purpose is to identify underlying safety concerns. However, depending on the nature of the accident, the extent of these investigations vary. For example, aircraft-related accident investigations are more detailed than nonaircraft-related ones.

Aircraft-related accident investigations are conducted under a separate directive, which requires the chain of command to be involved throughout the reporting and investigating process. A separate aircraft mishap board is appointed to investigate each aircraft accident, identify the cause of the accident, and recommend corrective actions. NSC's staff monitors the progress of the investigation, and NSC often assigns a staff member to the board to provide technical assistance. Frequently, the board does extensive engineering tests on the aircraft wreckage to determine the cause of the accident. NSC is the final approval authority of the board's findings and recommendations and maintains an automated tracking system to ensure the recommendations are implemented. In contrast, for nonaircraft-related mishaps, the chain of command was

generally not involved. Also, we did not find any formal NSC process to review the findings, recommendations, and appropriate corrective actions.

The personal injury/death report, which must be prepared for all Navy deaths, includes a description of the circumstances of the incident, the cause of death, and recommended corrective actions. However, the information tends to be sketchy, particularly in explaining how and why the incident occurred. The reports are usually only two pages in length and are supposed to be filed within 20 days of the incident, when the complete circumstances surrounding the incident may not yet be known. The brevity of these reports and the relatively short time to submit them can limit the usefulness of this information for all but statistical reporting purposes. NSC has no system to update its files once more or better information becomes available.

According to NSC staff, they review the personal injury/death reports after the local safety officials complete their investigations. Then, they evaluate whether the local investigation was completed properly, using the more detailed JAG Manual investigation as a reference, if available. If they believe that more needs to be done, they recommend further action to the local safety office. Such recommendations, however, are advisory and do not have to be accepted by the local safety office. NSC did not recommend further work for any of the training death cases, including the Mirecki incident.

Once they are satisfied with the report, the NSC staff closes the case and enters the pertinent information into the NSC database. NSC does not retain the JAG Manual reports after they have closed the case.

The JAG Manual Investigations Are Not Safety Oriented

The JAG Manual investigation focuses on determining the facts and circumstances surrounding the incident. Individuals assigned to JAG Manual investigations generally come from within the command where the incident occurred, and report to the local commander.

The identification of safety concerns is not a specific objective of JAG Manual investigations. The degree to which a given JAG Manual investigation examines safety issues is a function of the particular investigator's orientation and area of expertise. Also, the JAG Manual team does not necessarily include someone with safety expertise. The ability of JAG Manual investigations to augment the safety mishap investigation in ensuring that safety problems are addressed is therefore limited.

We also found that the Navy has no formally prescribed system for disseminating the JAG Manual investigation's results and recommendations. The JAG Office of Investigations, which acts as the central repository for all completed JAG Manual investigations, routinely forwards copies to interested parties who have expressed interest in specific types of incidents or through a specific request. There are, however, no established or required distribution list.

Although the central repository office used to evaluate all completed investigations for adequacy, appropriateness, and corrective actions, JAG discontinued the central review after it assigned more officers to the local commands. Currently, the local JAG officer monitors the JAG Manual investigation from its beginning to approval at the final level of the chain of command. We found no system or follow-up mechanisms to ensure that recommendations are fully implemented.

Conclusions

The Navy currently has separate regulations which could require up to three independent investigations into the circumstances surrounding the death of Navy personnel. We found that these investigations are not always performed and the regulations are unclear concerning the circumstances under which various investigations would not need to be conducted. In addition, the ability of the investigations, as they are currently performed, to identify and address safety issues is questionable. The safety mishap investigation reports are very brief and may be prepared before full information about the incident is available. The JAG Manual investigation does not focus on safety issues, and is typically done by a member of the command in which the death occurred and who does not necessarily possess safety expertise.

Both safety mishap and JAG Manual investigations generally result in recommendations. However, the JAG central repository office has no system for disseminating the lessons learned from those investigations. There is no set distribution list for JAG Manual investigation reports and no provisions for follow-up on recommendations to ensure that they are responsive and that they are actually implemented.

Recommendations

We believe that the Navy needs to examine its process for conducting death investigations. We recommend that the Secretary of the Navy review the regulations and procedures applicable to death investigations to clarify under what circumstances investigations should be performed, who should perform them, how investigative authorities are informed

that a death has occurred, and how the findings of death investigations should be disseminated.

Circumstances Surrounding Navy Training Deaths Between January 1, 1986 and December 31, 1988

Between January 1, 1986 and December 31, 1988, 17 Navy personnel, including Lee Mirecki, have died in training-related incidents, according to Navy officials. This figure does not include personnel who died during training in operational units or at formal schools but not while engaged in some training activity.

Case A

Cause: Heart failure

Date: February 24, 1986

An officer candidate died after participating in a 3-mile regimental run. During the third mile, he suddenly collapsed, but resuscitation efforts were unsuccessful. The cause of death was diagnosed as sudden cardiac arrest and the autopsy found that his heart was enlarged.

Case B

Cause: Aircraft crash

Date: March 16, 1986

Two flight instructor pilots died in a crash following an engine malfunction. A breakdown of cockpit coordination and discipline followed the engine malfunction, resulting in the pilot failing to maintain flight control and the copilot failing to monitor essential flight indicators.

Case C

Cause: Heat injury

Date: March 26, 1986

A seaman recruit died after taking his final fitness test in his eighth week of recruit training. His condition was complicated by sickle-cell trait, and he also acquired a bacterial infection while being treated in the hospital, which contributed to his death.

Case D

Cause: Aircraft crash

Date: April 18, 1986

A flight instructor and student pilot died in a crash during a "safe-for-solo" check flight. During a simulated low-altitude power loss (initiated

below the minimum altitude for this maneuver), the aircraft stalled and the aircrew could not recover from the resulting spin.

Case E

Cause: Massive blunt force injury

Date: June 8, 1986

A petty officer died when he apparently lost track of altitude and failed to attempt to open his parachute until he was too close to the ground for it to properly deploy. He was not a part of the training unit doing the jumps, but participated at the invitation of a friend.

Case F

Cause: Heart failure

Date: September 3, 1986

A seaman recruit died after collapsing following a one-mile preconditioning run during the initial phase of recruit training. The autopsy revealed evidence of a previous heart attack and severe coronary artery disease.

Case G

Cause: Aircraft crash

Date: October 22, 1986

A flight instructor died in a crash following a mid-air collision during formation flying training. The instructor used an unauthorized maneuver and encountered sudden turbulence. The student pilot successfully ejected, but the instructor pilot received fatal head injuries when his ejection seat struck the spinning plane.

Case H

Cause: Heat injury

Date: January 31, 1987

An airman recruit died after he collapsed following physical training activities consisting of exercises and a run. He was treated at the Navy hospital where he suffered a seizure. His condition was complicated by the presence of sickle-cell trait.

Case I

Cause: Aircraft crash

Date: April 15, 1987

A flight instructor and student pilot died in a crash during a "safe-for-solo" flight check. During a practice approach-turn-stall maneuver, the aircraft went into a spin and the aircrew was unable to recover. Bailout procedures were not initiated.

Case J

Cause: Heart failure

Date: December 15, 1987

A seaman recruit died after collapsing toward the end of a 2.5 mile run. Shortly after the run began, he experienced symptoms that other recruits thought were cramps. Later in the run, he clutched his chest and collapsed. He was transported to the medical clinic, but he could not be revived.

Case K

Cause: Hypothermia

Date: March 14, 1988

A petty officer died after he passed out about 50 meters from completing a 5.5 mile conditioning swim. He was removed from the water and attempts were made to warm his body temperature in a sauna. About 2 hours from the onset of the emergency, he was transported to a hospital, but he never regained consciousness.

Case L

Cause: Heart failure

Date: May 17, 1988

A petty officer collapsed while leading his company in physical training. Resuscitation efforts at the medical clinic and hospital were unsuccessful. Autopsy results revealed he had coronary artery disease and the investigation found that he was taking medication for high blood pressure prescribed by a civilian doctor.

Case M

Cause: Drowning

Date: August 19, 1988

A Naval Reserve Officer Training Corps midshipman died after either jumping or diving overboard after the mast on the sailboat struck a bridge over a canal. A life ring was tossed toward him and the boat maneuvered to recover him, but he disappeared below the surface before he could be reached.

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