



# AIRCREW SURVIVAL EQUIPMENTMEN: “THE LAST TO LET YOU DOWN”

By JOI Diane Perry and JOSN Dan Ball







Getting an aircraft and crew into the air is a team effort. Every rating in the squadron plays an integral role in ensuring that each mission is safely completed. Some personnel are visible on the flight deck of an aircraft carrier, while behind the scenes others stand ready to fulfill their essential roles.

Aircrew Survival Equipmentman (PR) First Class Johnny Ridling, of Fighter Attack Squadron (VFA) 204 with Reserve Carrier Air Wing 20 on board *Nimitz* (CVN 68), said his job comes into play when something fails, if a plane is shot down or experiences mechanical failure. "I make sure the pilot or aircrew can survive," he said. "I handle all the survival gear worn, ensuring that a person can live for at least 72 hours after being on the ground or in the water." For his current deployment Ridling built 150 floatation devices that downed pilots or flight crew personnel wear to remain afloat in the ocean.

There are about 90 items of flight gear that Ridling maintains, including the parachute, torso harness, seat pan, G-suit and helmet. Each item goes through rigorous checks and rechecks in addition to regular inspection cycles. The green flight suit that protects the crew's skin from severe burns must also be carefully examined.

The parachute is inspected every 448 days, and the climate in the packing room must be perfect. "If it's too humid in the room, the parachute will be too damp when you pack it and it will mildew. If it's too dry, static electricity can burn a hole in the chute's canopy," Ridling said.

The torso harness that the pilot puts on before getting into the aircraft attaches to the parachute inside the headrest through a fitting designed to release the parachute from the pilot automatically. "The Koch fitting sends an electrical charge to release the parachute and must be checked every 28 days to make sure it has enough voltage," Ridling explained. "The whole harness

is inspected every 90 days to ensure that the webbing is not going to give way or fray."

PRs also deal with special warfare gear, such as bulletproof vests for Sea-Air-Land team support and combat missions.

Years ago, aircrew survival equipmentmen (then called parachute riggers) were required to attend parachute jump school after completing A school. Ridling would love an opportunity to attend the jump school at Fort Story, Va. "I don't think you really know the whole scope of your job until you pack your own parachute and jump," he said.

PR1(AW) Patrick S. Oglivie, an instructor in the aviation physiology course at NAS Patuxent River, Md., had the opportunity to pack his own chute and jump with it. A parachute rigger with 14 years in the Navy, he says this instilled confidence in the aviators for whom he rigged chutes, as well as confidence in his own abilities. He worked with many platforms before becoming an instructor. Now he teaches anyone who is going to fly in a naval aircraft the tools and techniques of the mishap survival trade, including project specialists, scientists, journalists, admirals, the Secretary of the Navy and other VIPs, all of whom are required to take and pass the course.

Oglivie's job has some unique facets. A low pressure chamber simulates varying altitude and oxygen levels to teach students how different conditions affect their brain functions. Questionnaires ask simple things like "How many degrees are in a circle?" and "What are the letters of the alphabet?" Physical tasks bring the lesson home. Oglivie chuckles as he holds up a child's toy—a hollow, plastic, multicolored ball with slots for different shaped pegs. During the exercise, the student's job is to fit pegs into the proper holes. This usually goes without a hitch until the final round peg. With the peg in one hand, the student rotates the ball with the other hand until he's sure there is no open hole. Then Oglivie gives him a jolt of oxygen. Almost



**Facing page, during this 1980 catapult shot on *Saratoga* (CV 60), the bridle broke before this Fighter Squadron 103 F-4J *Phantom II* could reach flying speed. The pilot and radar intercept officer (in this case, Lt. Jim Carlton, later an *NANews* editor) were forced to eject and were safely recovered. Later in the cruise, a party was thrown in Palma de Mallorca in honor of those who contributed to their survival, including the PR who packed their chutes. Above, PR1 Mitch MacKenzie free falls from a U.S. Air Force C-130 transport during training over Apra Harbor, Guam. He is one of the few PRs who packs his own chute and jumps with it. Photo by PH2 Marjorie McNamee**



Photos by PH2 John Collins

Above, PRAN Ryan Montague, NAF Misawa, Japan, tests a life raft locator radio flotation device for leaks during an annual preventive maintenance system check. Right, PR2 Clarence Wassberg reads the technical manual prior to inspecting a parachute as PR2 Greg Majors watches to ensure that proper procedures are followed.



instantly the perplexed student realizes the round hole is where his thumb has been the whole time. The point of this exercise is not to make the student look foolish. It's to point out symptoms of oxygen deprivation. After the training, students are able to recognize the signs in themselves and others.

Next, it's on to the ejection seat chamber with an air-powered mock ejection chair. The student straps in and gets hurled up a track to simulate a real ejection.

This training is just one part of the instruction at Pax River. The course teaches familiarization with various survival equipment such as parachutes, flares and float jackets; tests physical fitness; and teaches about physiological effects on a body in flight.

Every four years, aircrew personnel take a mandatory one-day refresher course in aviation physiology. Project specialists take a two- to three-day course, while the VIP course lasts one day.

A typical day consists of lectures and demonstrations. Students put on and learn the different aspects of the parachute rig and equipment vest, and corpsmen instruct the students on first aid. Students then enact a simulated parachute jump on a virtual reality machine that duplicates many different environments, such as coastal areas, an airport, with rain, without rain, in high winds and other situations.

Next, they work on their "parachute landing falls" from a platform. The landing is similar to an actual parachute jump. Ogilvie said, "Basically, it's a controlled crash. You drop and hit the ground pretty hard."

There are several aviation physiology courses Navywide that are geared toward different missions. A student may be put in a





Left, an aircrew survival vest is laid out to show the amount of survival gear it contains. Below, PRAN Robert Byerley inspects an oxygen valve in his shop at NAS Patuxent River, Md.

Photos this page by JO1 Ed Wright

centrifuge and spun up to a few Gs, in a dunker and have to escape from the upside-down canister underwater, or in the low pressure chamber, where altitudes are simulated and oxygen is reduced. But all teach the same basic concept: the body acts differently on the ground than in flight, and you must know your survival gear to make the best of a bad situation.

PR1(AW) Brian Siddens aboard *Wasp* (LHD 1) summed up what it's like to be a PR, whether assigned to a carrier, squadron or classroom: "The bottom line is attention to detail. The items we inspect and maintain throughout the fleet are only used in an emergency. They must work the first time. That's why our slogan says PRs are 'the last to let you down.'" ✈️



JO1 Perry is assigned to *Nimitz* Public Affairs. JO2 Kory M. Deur of *Wasp* also contributed to this article.



Right, PR1(AW) Patrick S. Ogilvie, in the NAS Patuxent River, Md., low pressure chamber, shows off a child's toy used to stump physiology students in low oxygen situations. Left and below, the physiology course at Pax River uses many different types of demonstration equipment to teach students how to handle an emergency.

