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S E A R C H & R E S C U E M A G A Z I N E

Summer 1983

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WHO NOSE A FIRE by Beverly Buggle

When one bell sounds at St. Petersburg's Fire Station No. 5, the first one ready to climb aboard the fire engine truck is Fritz, a three-year old German shepherd, also known as "Arson Dog."

Specially Trained

Fritz and his owner-handler, Fire Lieutenant James Kelly Callahan, 35, are part of a pilot program, which is thought to be the first in the country. Fritz is the Fire Department's K-9 dog, specially trained to sniff flammable liquids. His ability to detect these liquids at the scene of a fire may provide arson investigators with clues they need in solving arson cases, which totaled 160 last year.

Fritz received his special training with Callahan in an eight-week training program at the St. Petersburg Police Department's K-9 compound. In addition to being trained to sniff flammable liquids, Arson Dog was schooled in seek and fetch, obedience and tracking. Unlike police K-9 dogs, he did not receive training in aggression or attack and was kept apart from the other dogs during those sessions. For his part, Callahan was taught how to work and care for the dog.

"Arson Dog" at work

Callahan and Fritz are currently assigned to Fire Station No. 5. They work a 24-hour shift and are off-duty the following 48 hours. While on duty, when he does get an opportunity to respond to a call, the 80-pound dog rides in the fire engine truck cab between the driver and Callahan on a specially-built seat, carpeted for his comfort.

"Fritz doesn't seem to mind the ride at all. He even howls along with the siren," said the lieutenant.

At the fire scene, Arson Dog remains inside the truck until Callahan summons him. Then he goes to work sniffing the area.

During the summer, Arson Dog did not go on all calls. The intense summer heat and lack of air-conditioning in the fire engine truck cab physically tired him, and since he was not needed at all calls, Callahan selected the calls Fritz responded to.

"When he cannot accompany us on a call, Fritz gets quite upset and looks forlorn. He reluctantly stays behind at the station house," said the lieutenant.

At the end of a 24-hour shift, Arson Dog goes home with Callahan, whose household consists of the lieutenant, his wife, three children and another dog. Fritz has been a member of the household for a year and a half and gets along with other family members, but now mostly keeps to himself when not accompanying his handler.

First of it's kind

Whether on or off duty, Callahan reinforces Arson Dog's specialized training with almost daily in-service training.

Callahan has been a firefighter for over 11 years, the past two years as a lieutenant. In this position, he spent a year and a half in the Fire Department's Training Division. While in the division, he thought of the idea of using a dog in arson investigations.

After researching the idea, he found no existence of any other "arson dog." Callahan then drafted a proposal to introduce his personal dog Fritz to a career in the Fire department. His request to attend the K-9 training school and $600 for the dog's food and veterinarian bills was fully supported by Fire Chief Louis Trujillo.

So, at the scene of a fire in St. Petersburg, one expects to see firefighters, paramedics and fire officials and perhaps police officers, media personnel and other citizens. Who nose, maybe Arson Dog is there, too.

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SAR PEOPLE WORKING TOGETHER "THAT OTHERS MAY LIVE" by Bob Christie CAP

A series of joint Emergency Operational Seminars, sponsored by National Capital Wing CAP, are being held quarterly at Bolling, AFB, Washington, D.C.

The object of these seminars is to bring together representatives of various SAR organizations to discuss topics of joint interest and to foster joint coordination, training and communications between these SAR groups and USER organizations within Maryland, Virginia and the National Capital Area.

Response to seminars

Response to these seminars has been excellent with representatives from Appalachian Search and Rescue Conference, Civil Air Patrol, Defense Civil Preparedness Agency, Office of Emergency Preparedness Metropolitan Council of Governments, National Park Service, U.S. Park Police and Virginia Search and Rescue Dog Association all working together.

As a result of these efforts Emergency telephone contact alert rosters, SAR radio frequencies list, and SAR and disaster situations. In addition joint training exercises are in the planning stage to improve joint SAR coordination and training in the National Capital AREA.

By working together the dedicated member SAR organizations have increased their knowledge and cooperation leading to more effective SAR capabilities for the area. If you are having coordination problems why not try this approach. It is not always easy but it works.

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GROUND SEARCH & RESCUE LESS KNOWN by Albert R. Hughes

The capabilities and activities of CAP in ground search and rescue (GSAR) are much less known than their flying activities. Many of CAP's 52 wings have GSAR teams. These teams have been effective in locating lost children, lost or injured hunters, stray mentally disturbed individuals and downed aircraft in bad weather.

Importance of GSAR

CAP is air oriented as it should be, but CAP leadership recognizes the need for close coordination between aircrews and ground teams on search missions. The mission must not become solely oriented toward crash site locating because aircraft alone cannot assist the survivors. The GSAR team, the communicators and the aircrews are equally important partners on the emergency services team.

The growing recognition of the importance of GSAR has led to a request for all interested persons to participate in the development of a basic CAP ground team training/participation program which will emphasize assisting the survivor. (Lt.Col. Robert Mattson, Chief of Search and Rescue Activities, HQ CAP-USAF, Civil Air Patrol News, January 1978, p. 16.) A primary thrust of this development will be to establish the degree of standardization of organization, training, equipment and qualification needed for CAP GSAR teams.

Complete standardization not feasible

Complete standardization of CAP GSAR teams is not feasible. Each GSAR team must be tailored to meet the demands of the geographical and political climate in which it will perform. The geographical influence on GSAR teams is evident.

The needs of a team in Washington are different from those of a team in Florida. Political influence is less tangible. In most states, the responsibility for ground SAR is placed by statute with a state agency. This responsibility may be with state troopers, state militia, county sheriff's departments, forestry service, fish and game department or other state agencies. This great diversity indicates that initiation and control of CAP GSAR teams must rest with the wing commanders.

Standardization of training requirements and documentation of qualification of GSAR team members is one area where CAP is establishing firm ground team polices. If the wing commander desires to have CAP ground as a part of the emergency services force, the ground teams will be organized in accordance with CAP directives. They will conform to standards established by, and in conjunction with, the agency responsible for ground search operations in the state, and standards established in CAP manuals and regulations. If standards conflict, the teams will meet more restrictive requirements. CAP officials are aware that intensive training will be will be required as new GSAR teams are initiated.

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ATLANTIC 21 - THE SEMI-INFLATABLE INSHORE LIFE-BOAT - By Michael Badham

The XIth International Life-Boat Conference in New York had as its theme, "Contemporary Problems in Coastal Rescue." It was there that Britian's Royal National Life-Boat Institution presented a new design concept for an Inshore Life-Boat (ILB), the semi-inflatable 22-ft 9-in ATLANTIC 21. With a rigid hull and inflatable sponson, 30 knots capability and a 50 mile radius at full speed, VHF, highly maneuverable and seakindly, and with continuous free draining, she was an exciting new boat.

Advantages

The advantages of the inflatable rescue craft for "holiday incidents" include ease of launching from a beach, speed, shallow draft, resilient and buoyant topsides for working with small craft or among rocks, low freeboard but good heeled stability, small crew and economy. And despite these initial credentials, the ATLANTIC 21 has been the subject of a continuing program of design modifications in order to meet the ever-widening scope of operational requirements demanded of her. Each advance has been made with great care, however, because with such a high performance vessel even minor changes can affect trim, speed and sea-keeping, particularly if they alter weight distribution.

Improvements needed

It had been found that with the original plywood hull shape, for example, when running on the face of long seas (about 70 feet between crests) at high speeds,

the bow wave was sometimes driven under the boat rather than being parted. This meant that the bow was sucked down, and the boat brought to a standstill. So a step was designed into the bow section, which required it to be built of GRP, and the bow wave was released. But the elimination of this problem introduced another, unacceptable amounts of spray. So the bow section was re-designed again to be deeper and with a finer entry; and the forward deck was raised to maintain the required reserve of buoyancy.

Improvements continued. The original in-line console with saddle seats for the crew was changed to a delta shape and placed on the center-line; and the on-deck flexible fuel tanks were replaced by stainless containers bedded in foamed plastic directly beneath the console in two central longitudinal watertight compartments. This concentrated all the weight amidships, made communications between the three-man crew easier and improved all-round vision.

To increase stability when lying stopped alongside a casualty in a seaway, and to compensate for the weight of fuel used when returning to harbor 'light', two 150 lbs. water ballast tanks were introduced with a hydraulically operated transom water scoop which takes 15 seconds to fill the tanks. A bow trim tank was added to the Blackpool boat which has a long run out through surf at the start of each operation, so that the additional weight forward allows the boat to drive through the sea rather than being thrown vertical as she meets each wave.

GRP hull adopted

Then the full GRP hull was adopted in place of the plywood one in the interests of simplification, making assembly and maintenance quicker, surer and cheaper. The hull skin is a solid laminate bonded to a broad gunwhale with a rebate shaped to carry the flat deck. The gunwhale is molded with a concave curve at its outboard edge radiused to house the sponson, which is attached to the hull by ropes drawn through grooves on each side of this curved section. There are four longitudinal molded 'top-hat' section girders supporting the deck, cross-tied by three frames in the bow, one at the stern, and four deep transverse floors in the pounding area forward. These members form a grillage which is bonded to the hull and spreads the load evenly. The deck is of GRP surfaces sandwiching timber in way of fastenings and foam elsewhere, and is made in two parts which are bolted to the hull. There is a small foredeck, and a maindeck which is molded in one unit with the console in which the marinized 6-channel VHF radio, non-spill batteries and all controls are housed.

The hull unit is divided into five longitudinal watertight compartments, and the sponson into nine.

During operation

For fleet operation, an interchangeability of units is possible. When a boat comes in for maintenance, the outboards are unshipped and taken to the engine shop; the deck, complete with electrical systems and engine controls, is unbolted and removed to the bench, and the hull wheeled away to the shed. All components are then worked on in parallel in the most suitable conditions. If sponson or hull are damaged, replacement takes no more than a day.

Should a capsize occur under way, considerable air will be trapped between the water and the inverted deck. But a further modification has been added in the form of a tubular alloy roll bar, which performs a number of functions. Should

the boat capsize in shoal or rocky waters, the crew is protected. A deflated 25.7 cu. ft. buoyancy bag is secured to the bar, which is inflated with C02 at the tug of a cord and the boat rights herself within 18 seconds. The roll bar also forms a guard fail for anyone attending the engines; it carries the navigation lights, the VHF antenna, the blue flasher identifying a rescue craft, and a snatch block to lead a swimmer's line clear of the props. A sea anchor stowed right forward is automatically released together with its warp, in the event of a capsize

Details taken care of

But simply righting the boat is not all that's required after a capsize on a rescue mission. So such details are taken care of as the non-spill batteries; a mercury switch automatically cutting out the engines; complete waterproofing of the radio, fuel lines, electrics and, of course, of the engines themselves. The twin 55 HP outboards can withstand inversion in water because of gravity valves with minimal mechanical movement protecting the air intake, the exhaust gas idling vents and the motor cover drain. There are also non-return valves in the fuel vents. Trials have shown that the engines will be running within minutes of righting

There is even a tractor propelled launching trolley which takes the boat down the beach and into the sea, and allows the boat to ride safely in her 'dock' warming up the engines connected to built-in cooling water tanks by plastic hoses, until the helmsman judges the right moment has come to launch. When returning to a treacherous beach, the boat can be recovered in an arrester net rigged on the trolley without the boat touching the bottom.

All in all, the ATLANTIC 21 seems to be about as comprehensive an ILB as can be devised.