

skin diver



diving action around the world

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CAYMAN ISLAND DIVE GUIDE

COFFEE BREAK
at 130 feet!

COMBAT CAMERA
Navy eyes under the sea

SCUBA USA-Cape Ann Shores

skin diver

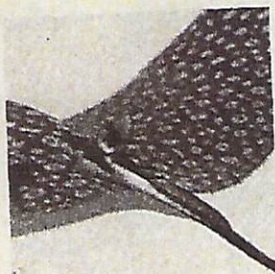
VOLUME TWENTY-FOUR NUMBER EIGHT



30/Ready, Aim...



48/Ice Fog Pause



66/Cayman Guide

FEATURES

PHOTOGRAPHY

28 U/W PHOTOGRAPHY QUICK AND EASY • JIM AND CATHY CHURCH
Part LV – Automatic exposure controls with rangefinder cameras

ADVENTURE

30 COMBAT CAMERA • ELLSWORTH BOYD
Have a look at the Navy's eyes under the sea...

EQUIPMENT

36 THE DACOR SEACHUTE • NANCY ACKERMAN
An exclusive SDM Product Report on a new buoyancy compensator

DIVER EDUCATION

40 THE BERGWALL STUDY PROGRAM • NANCY ACKERMAN
Skin & Scuba Diving: Scientific Principles and Techniques

SCUBA USA

44 CAPE ANN • FRED CALHOUN
An island in Massachusetts isolated by the Annisquam, a river-gone-to-sea

INDUSTRY NEWS

47 PARKWAY FABRICATORS • NANCY ACKERMAN
The 18-year veteran in the wet suit business

WRECK DIVING

48 COFFEE BREAK AT 130 FEET • BOB SMITH
Share a coffee break on the Ice Fog, a tug in 130 feet of water!

DIVING MEDICINE

54 DRUG ABUSE • J. MICHAEL WALSH, Ph.D.
A close look at the effects of pills under pressure

CONSERVATION

60 POISONED SEA • DR. LEE TEPLY
An ecological study of the Palos Verdes Peninsula waters

TRAVEL

66 CAYMAN ISLANDS • JACK MCKENNEY
An SDM Scuba Guide to the Cayman Islands

DEPARTMENTS

6 DRIFTWOOD
10 INSTRUCTION
16 CALENDAR

19 SCUBA EXAM
20 TECHNIFACTS
38 OCEAN GALLERY
52 NEWS BRIEFS

57 NEW GEAR
58 FISH OF THE MONTH
84 DIVE TOUR NEWS

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Cover—Model Pat McKenney is shown feeding sergeant majors on the popular wreck, the Balboa, in a harbor off Georgetown on Grand Cayman Island. Jack McKenney took this photograph in 35 feet of water with a Nikonos 21mm, Kodachrome 64, and a Subsea strobe.

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COMBAT CAMERA

The Navy's Eyes Under The Sea

photograph by Ken Hess

By Ellsworth Boyd

Most people like to save the best till last, like the olive in a martini, dessert after the main course, or a snack at bedtime. For me, diving with the underwater team of the U.S. Navy's Atlantic Fleet Combat Camera Group was a subsea smorgasbord, serving the best from beginning to end.

As an aperitif we dived the shallow waters of Trumpet Reef, baring majestic formations of elkhorn coral unequaled in size and beauty. For hors d'oeuvres I had my choice of two enticing shipwrecks. Gluttonous guest that I am, I chose them both! The main dish was a 180-foot dive on the illustrious Andros Wall, while dessert consisted of a ride on the diver support vehicle, *Pegasus*. The midnight snack was just that — a night dive on one of the wrecks where gregarious groupers, trained to eat from your hand, swarm in for freebies. Like us, they enjoy a snack before bedtime, too!

The chef of this extraordinary Bahamian smorgasbord was Chief Richard Johnson, connoisseur of the best in underwater treats. Diving with him and the men of the Atlantic Fleet Combat Camera Group was like dying and going to heaven!

If I were a few years younger, recruiters would have little difficulty signing me up. Where else, except in heaven, can you do what your heart desires? In this case it's a full-time occupation of diving and photography, with good pay and fringe benefits. Few people realize that the Navy has a worldwide Combat Camera Group, including a specialized team of underwater photographers.

Naval combat photography goes back to the Civil War when Mathew Brady, standing on the deck of the *Monitor*, photographed one of the most celebrated battles at sea — the famous *Monitor-Merimack* skirmish. During World War II the Navy commissioned four-man crews to document Navy and Marine Corps action in both the Atlantic and Pacific theatres of war. Reactivated for Korea and Vietnam, the Combat Camera Teams went into action again, expanding their role to reconnaissance, surveillance and intelligence operations, as well as historical and public information coverage.

Today the group covers millions of square miles, from the Mississippi River to the Indian Ocean and from the North Pole to the South Pole. But contrary to their "Combat Camera" name, soon to be called Atlantic Fleet Audio-Visual Command, these Navy men are not engaged in assignments involving conflict. Motion picture crews and photojournalists cover space launchings, astronaut recoveries, presidential visits, fleet exercises, research projects and other assignments indicative of the peace-keeping Navy.

In addition, there's an elite group that works in a totally different environment. They are the photographers who man the Navy's basic school of observation — its "eyes under the sea." A specialized unit, they are some of the best trained, best equipped underwater cameramen in the world. These men combine the professional skills of still and motion picture photography with special techniques for U/W coverage.

"Action ready — anytime, anywhere," is one of their mottos and AFCCG's diving team remains on call for any assignment that needs man and camera under the sea. They photograph U/W habitats, submersibles, marine life, ordnance disposal, ship salvage and varied oceanographic projects and studies.

Research and development are two of this unit's major objectives. New men and new equipment must be tested, therefore the team leaves its home base, Norfolk, Virginia, in the middle of winter and heads for sunny Andros in the Bahamas. This four-week test and evaluation assignment is a yearly trek and needless to say, one the men savor. They schedule two dives a day, everyday for one month.

Last January, eight men and 5000 pounds of equipment, packed into a Lockheed C-130, landed at Andros Town. It took

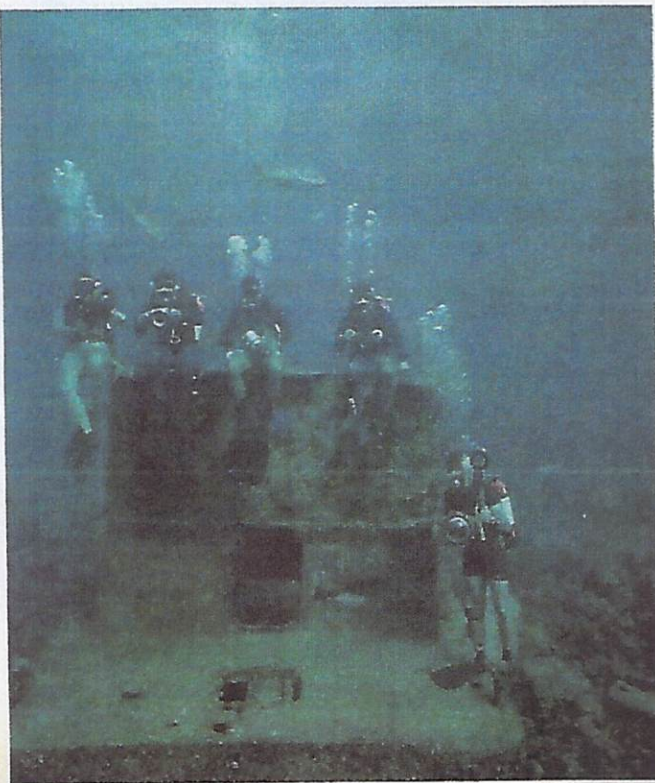


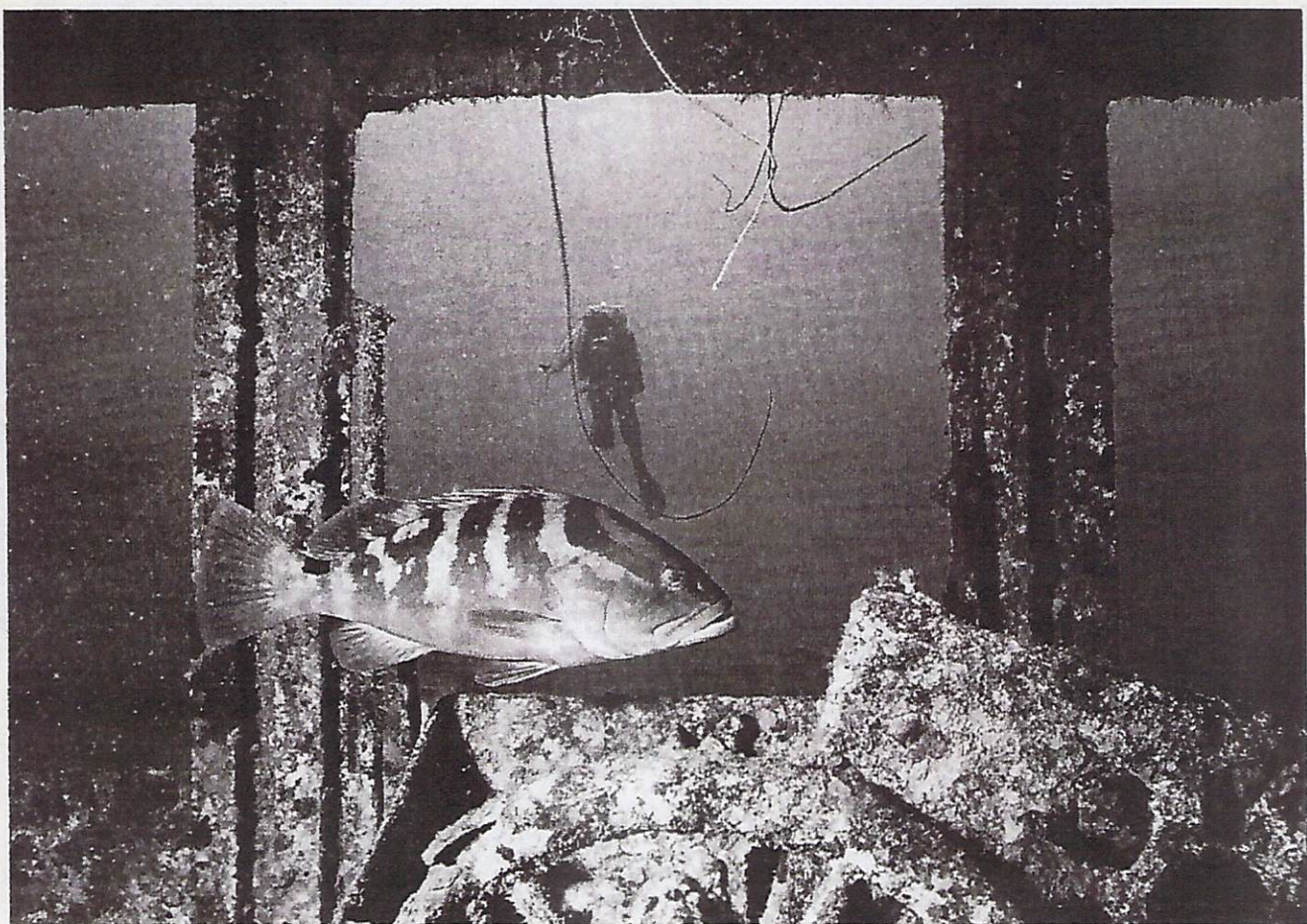
photograph by Mac McCraw



photograph by Steve Waterman

Naval photography goes back to the Civil War. During World War II the Navy commissioned four-man crews to document Navy and Marine action in both the Atlantic and Pacific. Reactivated for Korea and Vietnam, the Combat Camera Teams went into action, expanding their role to reconnaissance, surveillance and intelligence operations.





photograph by Steve Waterman

A test and evaluation of new men and equipment takes the team to the Bahamas. Above, a grouper swims through a wreck.

them just one day to establish a beachhead in a building a stone's throw from the water's edge and five minutes from the nearest reef. AFCCG's diving team took Andros like Sitting Bull took Custer, only their warpath was the deep-sea terrain of the third largest barrier reef in the world. They shot everything in sight, including me, which was definitely a big mistake to begin with.

"We plan our dive, Boyd," the Chief explained, "well in advance. This afternoon we plan to put you down on a shipwreck and take some pictures of you feeding the fish."

The midday sun blazed down on a flat, calm sea whose dark parallel reef line ran as far as the eye could see. The Chief at the helm, our 20-foot Zodiak with a 40 h.p. outboard took off, hell-bent for Goat Cay. The diver back-up boat, a smaller Zodiak with a 20 h.p. motor, plodded behind in our wake, PH1/DV Eugene "Mac" McCraw in command. Divers in both boats maintain contact with each other and the Andros base through citizen's band walkie-talkies. We had close to 2000 pounds of men and equipment in our boat alone, including over \$50,000 worth of camera gear nestled snugly in a waterproof plastic instrument case that looked to me like a giant beer cooler.

The Andros reefs are like the Chief's backyard. He's been diving them for over ten years. Triangulating Goat Cay with two towers on shore, he dropped the anchor right on target. The back-up boat caught up and anchored into the wreck 70 feet below.

Buddying with PH1/DV Steve Waterman, McCraw took a

Nikonos from the instrument case. Waterman chose the underwater Leica, a fixed focus prototype test camera. PH1/DV Dave Graver used a Nikon-F in an Oceaneye housing. His buddy, PH3/DV Ike Johnson chose the Hasselblad. PHAN/DV Ken Hess took a 16 mm movie camera — the Rebikoff-Milliken DBM-5, while PH1 Bob "Woody" Woods worked with another Leica. Woods, a photo-journalist based in Norfolk, accompanied the team to write a story for a fleet publication. The Chief manned a Milliken-DBM-9-1, another 16 mm movie camera. Each diver carried a Sekonic light meter. Good at all light levels, the compact Sekonic accommodates both still and motion picture cameras. PH1/DV Dave Harris, the topside supervisor, remained in the boat.

"You're center-stage, Boyd," the Chief reminded. "Don't disappoint us." The rest of the men were waiting on the bottom. He thrust a can into my hands and commanded, "Feed the fish these goodies. I'm going down 20 feet with the DBM-9. Do a back-roll-out and kick to the bottom. I'll get it on film."

I couldn't believe it. I had seven of the best underwater photographers in the whole U.S. Navy waiting to take my picture! Fleeting, I envisioned myself as Jacques Cousteau, Lloyd Bridges and James Bond, all rolled into one. Majestically I would glide into the focal plane of the camera, unfurling graceful flutter kicks and fluid downward movements. But my fantasy faded when Harris broke the silence with, "Boyd, your mask is upside down. You better fix it or you'll be trying to clear your eyeballs!" His words fell upon deaf ears.

I rolled backward out of the boat, flooded my mask, dropped

my weight belt and bobbed to the surface. The Chief gave me a Jack Benny gesture underwater. With palm on cheek, he shook his head in disbelief. Finally I got straightened out and settled in on the catwalk of the LCM. An 80 foot by 20 foot medium landing craft, she was very well preserved and looked like a ghost ship sailing a phantom course.

Before I could pop the lid off the can, they descended upon me — dozens of fish, mostly groupers, a 30-pounder named "Old Duke" leading the school. I remembered asking Harris, "How to you feed a grouper?" Verrry carefully," he cautioned, "they do have teeth! Ike Johnson had his whole hand ensconced by 'Old Duke' on this same wreck. He smacked the fish with his Leica and it spat his hand back!"

Gingerly I offered the gluttons meat scraps and sardines. Voraciously they devoured them as the cameramen, working from every angle possible, shot the entire feeding frenzy. When I ran out of goodies some of the small groupers snapped at the straps on my BC vest and the string on the tin can. One nibbled at my elbow while another nipped at the hair on my legs! I looked toward Waterman for help, but he just grinned through his mouthpiece. The goodies gone, the groupers left me like a cast-off lover. More at ease now, I remained on the catwalk and watched the team in action.

Clad in wet suit jackets for warmth and Levi's for protection from sharp coral, each photographer did his own thing. They call it free-lancing. Graver took his fins off and tiptoed on the sandy bottom, careful not to stir it up as he stalked a green moray hiding in the well deck. The Chief swam into the pilot house and framed me through one of the port holes. Hess was perched on the stern shooting diagonally into the pilot house. Ike hovered 20 feet above the wreck, securing the entire panorama. Like a trapshooter gauging the flight of a game bird, Waterman panned "Old Duke" as he returned looking for another treat. Mac broke a sea urchin open and drew over a dozen different marine tropicals in for a handout. Woody moved from diver to diver, snapping a variety of shots.

Suddenly a deafening explosion — the damndest noise I've ever heard underwater — broke the eerie silence. It was Harris, demonstrating the team's emergency procedure for recalling divers to the boat. The diving supervisor always carries an M-80 waterproof firecracker taped to a bolt so it will sink easily. Divers can hear it a half-mile from the boat. One time McCraw tossed an M-80 overboard and a barracuda, cruising the bottom at 110 feet, almost swallowed it. When it went off the 'cuda shot to the surface like a rocket, leaped four feet out of the water and disappeared down the reef. I told Harris I thought he threw a grenade overboard instead of a firecracker. He just grinned all the way back to the base.

I was most impressed by the group's unwritten, unspoken, tenacious dedication to teamwork, both above and below the sea. When we returned to team headquarters, each man pitched in with a fervor, unloading gear, recharging tanks, cleaning equipment and automatically going about the myriad tasks of the after-dive. Each diver strings his gear on a lanyard. This way it's easy to keep track of things. One man grabs two or three lanyards of gear and dips them into a large drum of fresh water, while another strings them on a line to dry. Nobody looks after his individual gear. They just grab what's near in an all-for-one and one-for-all effort.

"This is a damn good group, a close-knit bunch," Chief Dick Johnson explained, "and it's team spirit that makes it work. You may hear us bitching, sometimes see us badgering each other, but this is all part of the esprit de corps. Like a team sport, we work together for success. Our major concept is, 'look out for your shipmate — be concerned about his safety and well-being.' There's a common bond here, securing this area, as well as on maneuvers in the open sea. Everybody pitches in. We can't afford to have one guy standing back daydreaming. You may need your buddy to save your life, so



photograph by R. Woods

photograph by Steve Waterman



The top picture shows Chief Dick Johnson, head of the AFCCG diving team. Above, Dave Harris used the DBM-9-1 on the shipwreck. Below, the men are loading gear for a dive.



photograph by Dave Graver

being aware and alert are prerequisites for this outfit."

The Chief practices what he preaches. Commander W. R. Kemp, CO of the unit, told me that long before I met the Chief. "Johnson never asks his men to tackle anything he wouldn't do himself," Commander Kemp lauded. "Soft-spoken and dedicated, he sets a fine example. He relates well to everybody, especially the youngsters, who ardently admire him."

A native of Seattle who grew up in California, and a 22-year veteran, the Chief reminds me of movie actor Jack Palance, especially when he smiles or laughs. Bulging biceps jut out from a sinewy but solid frame. (They all have 16 to 18 inch biceps from toting twin 72's around.) He says very little yet does a hell of a lot. When everything was secured for the day and the divers finally sat back to relax, the Chief was usually puttering around with the diver support vehicle or troubleshooting a temperamental camera.

He has what a few leaders possess, the ability to chew men out, soothe them, rib them or command them, depending on the person, time and circumstance. He offers praise when it's due, but lets them know in no uncertain terms when they've goofed. One man put a filter in a DBM-9 movie camera when he shouldn't have. It wasn't discovered until we were ready for our dive, so the camera had to be opened to remove the filter. In a small boat in rough seas this is definitely an AFCCG "no-no!" The Chief's choice words were indelible reminders not to make that mistake again.

Just as an infantryman babies his rifle, so does the Navy diver care for his camera. After everything has been washed down, each man, working on a clean, cushioned workbench, dries and unloads the camera he used. Strobos are dried, checked and recharged, O-rings are cleaned and the entire camera is carefully inspected. Each dive is individually recorded in a master log book. The diver includes his main objective, the camera, film, depth, date, visibility and other pertinent information. Prior to every dive, each man shoots the first exposure of a slate with his name, date, film and camera grease-penciled on it. After the film is processed, it can be matched to the master log and evaluated according to depth, visibility, objectives and other beneficial data.

Records of individual cameras are important, too, especially if there are prototypes still being tested and evaluated. The underwater Leica, for instance, is a prototype the team has been testing for several years. It has an f2.8 water contact lens. The front element of the lens is in contact with the water and can't be used topside. The divers are fond of it because they don't have to worry about critical focusing or depth of field due to its fixed focus feature. Everything from 18 inches to infinity is in focus with this camera! Its 90-degree angle of coverage decreases the diffusion of plankton and algae in the water and enables the diver to get in close to the subject. Compact and lightweight, the camera can be operated with one hand if necessary, while the film is advanced with just a flick of the thumb.

Divers record everything they learn about a camera, whether or not it's easy to use underwater, what they like and dislike about it and suggestions for design modification. These are the men who will have to live and work with these cameras in the future. Their feelings and intuitions are valuable tools in camera design. They'll be using them in every possible underwater location, including some dangerous situations.

For most divers, the prospect of being run over by a ship, 600 feet long, roaring in at 30 knots, is nothing short of a nightmare. But for the Chief, Dave Graver and Steve Waterman, it was all in a day's work. Using 16 mm cameras they shot the hull at various angles for cavitation study. Cavitation is the air cushion formed between the hull of the ship and the water as the screw bites and churns to propel the tremendous weight above it. The movies provide designers with valuable information pertaining to the ship's performance underwater.



photograph by Mac McCraw



photograph by R. Woods

More action photos of the Combat Action Group: Above, one of the men aims for a close-up of a grouper on top of the wheelhouse of an old wreck. Right, a diver prepares to use his U/W camera in a cavern on the Andros reef. Left, cameras are checked and cleaned after a day's dive.

"We were ten feet below the *USS California*," Graver explained, "as she made a half-dozen runs starting at five knots, working up to 30. In the beginning we hardly knew she was overhead, but by the time she got to 30 knots all hell broke loose! We could hear it before we could see it. Then, like a freight train rolling out of the fog, she kept coming, all 600 feet of her. At 30 knots the force from the prop drove us head over fins, 20 feet straight down! It was a scary, unique experience."

Waterman, a 6'3", 220-pound human squid, has experienced his share of unique dives, many of them humorous. Deployed from a submarine during the Vietnam war, he was photographing the underwater contours of a Viet Cong harbor. This was, as he tells it, "BS — Before Strobe," and he couldn't figure out what to do with his flash bulbs. "If the bulbs bobbed to the surface they might have revealed our presence in enemy waters," he explained, "so I just broke them against the hull of the sub, not realizing what it sounded like inside the ship." When he returned, the "Squid" saw men scrambling all over the place. The captain had sounded general quarters and the crew was preparing for a defense against small arms fire. "How was I to know that inside the sub my bulbs sounded like mortar shells?" Waterman smiled.

The Andros trip is important for testing and evaluating new camera gear, but it's also an important training ground for new men. Ken Hess, 19-year-old former all-state football star from Curwensville, Pennsylvania, was the only trainee this trip. The husky former defensive end gave up a full scholarship to Penn State in exchange for a shot at a position on AFCCG's elite diving team.

"This is more than I ever dreamed it would be," Hess revealed. "These are the best people in the fleet, close-knit, with common interests — diving and photography. There's unbelievable dependence upon one another, both underwater and above. I get lots of hints and tips from everybody. They



don't always agree with each other, but the good part is they let me do my own thing. I can try all their suggestions and draw my own opinions and conclusions. The opportunities for creativity in this outfit and on these reefs are infinite. If you just use your imagination, the camera can become an extension of your inner self.

"I'm learning more here in actual on-the-job work, than at Norfolk in the swimming pool. The ocean is a lot different. There are currents, buoyancy adjustments, extensive care and cleaning of equipment and other problems alien to the environment. And in a pool you can't back into a sea urchin or a coral head!

"The Chief instills the need for checking little things, often easily overlooked," Hess continued. "He stresses taking the time to do them, both underwater and topside, to avoid a leaking camera or poor photo results. For instance, he showed me how air bubbles sometimes collect in the pocket of the lens of the DBM-5 movie camera, distorting the picture. Now I watch for it and correct it. Graver showed me how to squeeze the grease between your fingers and pull the O-ring through it so you can feel the sand or dirt that's undetectable by sight. I've learned about fill-in flash, bracketing shots, water contact lens, light values and the care and maintenance of a variety of cameras. But I've also learned other things, from throwing a line to the dock to repairing an outboard motor."

Although each member of the AFCCG diving team is a rugged individualist, a team spirit prevails in everything they do. There's an intrinsic talent for every situation. The Chief pilots an airplane, Graver is a mechanical genius, McGraw is a gourmet cook, Harris is a logistics expert, Waterman is a business manager and entertainer, Hess is a heavy equipment specialist and Ike Johnson has a special literary talent. Each complements the others.

In order to qualify for AFCCG a Navyman must be a

Photographer's Mate. He must complete "A" school, a basic photo curriculum that includes training in black and white photography, introduction to color, beginning photo composition, various cameras and their uses, aerial photography, and other fundamentals. "B" school is more advanced. It includes photojournalism, audio-visual techniques, color and quality control, physics, chemistry and other in-depth studies. "C" school specializes in camera repair and motion pictures. The men are not required to attend "B" and "C" school, but most will eventually try to enroll in them.

All are second class Navy divers, skilled in the fundamentals of scuba and hard hat diving, including cutting, welding and underwater demolitions. In addition, Chief Johnson has graduated from first class divers school and McCraw is a saturation diver. Once he joins the diving team a candidate must fulfill five PQS — Personal Qualification Standards. These include underwater still cameraman, underwater motion picture cameraman, diver support vehicle operator, seamanship and diving supervisor.

The team can't separate diving and photography. One naturally follows the other. Thoroughly trained and physically fit for any assignment, these men can travel and sustain themselves virtually anywhere. Tough, observant and tenacious, they're "action ready" at all times. Because of the special efforts and dedicated spirit of these cameramen, the Navy's role in peace and war is being recorded for all time. If you would like more information about this or other Navy groups, call this toll free number: (800) 841-8000.

My last day, on the way to the Andros airport, I passed a sign pointing inland toward the town of Hard Bargain. Maybe it should have pointed the other way, toward the awesome Andros reefs. That's where the AFCCG divers drive their own "hard bargain" with the sea, capturing her innermost secrets for eternity.