Special Operations forces, rebuilt in the aftermath of "Desert One," are learning to function together in their new unified command.

ANY TIME ANY PLACE

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IT WAS the "Desert One" fiasco more than anything else that led to the revitalization of US Special Forces. That hastily mounted operation in April 1980 not only failed to rescue American hostages held in Iran but also turned into a disaster of even wider dimensions.

Eight US servicemen died when a mission helicopter collided with a tanker aircraft. Several other helicopters malfunctioned, with the result that some were ditched and some turned back. Evacuation of the disaster site was so hurried that the raiding force left behind the bodies of the servicemen who were killed, and information found in the wreckage helped the Iranians track down people who had been secretly aiding the US in preparing for the assault.

Congress and the nation demanded better preparation than this for low-intensity conflict and action against terrorism. A year ago this month, US Special Operations Command (USSOCOM) was activated to carry on in the tradition of the famed Office of Strategic Services in World War II and the counterinsurgency forces in the Vietnam War.

The Air Force component of USSOCOM is Twenty-third Air Force, and its cutting edge is the 1st

Quite a bit of what the 1st Special Operations Wing does is classified, but one element that is highly visible is the unit's Lockheed AC-130H Spectre gunships. With a combination of sensors and the plane's one 40-mm and two 20-mm guns, and, as shown here, one 105-mm cannon, the gunships can lay devastating firepower on ground targets with surgical precision, even in the dark.

—USAF photo by TSgt. Kit Thompson

Special Operations Wing (SOW). Both are located at Hurlburt Field, Fla.

"Before Desert One, we were on the tail end of the equipment dog," said Col. Carl Anderson, the wing's Deputy Commander for Operations. "Now we're up near the snout so far as new equipment goes, and that's important." Indeed, the 1st SOW's three flying squadrons are to get a huge expansion of major assets.

The 1st SOW was heavily involved in Vietnam and has been part of almost every special operation undertaken since—the assault on the Son Tay prison in North Vietnam, the aborted Iranian hostage rescue, and the Grenada operation.

Today, using stock aircraft equipped with not-so-stock avionics and systems, Twenty-third Air Force crews have the ability to penetrate long distances behind enemy lines at night and at low altitudes, arrive precisely anywhere in the world within seconds of a target time, and airdrop, airland, recover, hover, or shoot with their MC-130E, MH-53H, and AC-130H aircraft. "We train to the hardest mission," said Col. Byron R. Hooten, the 1st SOW Vice Commander. "If we can do the hardest thing, everything else becomes relatively easy."

The SOFs, and especially 1st SOW, have to be good at what they do. In anything short of an all-out war, the 1st SOW has to be perfect, with no casualties to themselves. "If we lose an AC-130 in wartime, it is a tragedy," said Brig. Gen. Hanson L. Scott, Vice Commander of Twenty-third Air Force. "But if we lose one in a peacetime operation, it is front-page news."

"There is a lot more of the Air Force involved in special ops than 1st SOW," said Col. Dale Stovall, 1st SOW Commander. "Other units use their capability to augment us and help us get where we are going. We have to work closely with other MAC units all the time. SAC tankers are invaluable to us."

New and Improved

The possibility of a second Iranian rescue attempt brought the assignment of long-range MH-53 Pave Low helicopters in 1980 to 1st SOW. Also since Desert One, incremental improvements in equipment—secure voice transmission and electronic countermeasures, for example—have been added to the fixed-wing aircraft on a continuing basis.

The 20th Special Operations Squadron (the "Green Hornets") flies the MH-53s on missions that last more than eight hours, using terrain-following radar at night and in bad weather. The helicopters, used for troop infiltration/exfiltration and resupply behind enemy lines, also have the capability to hover and descend automatically to two feet above the ground. Present plans call for forty-one HH-53B/C aircraft (and the eight MH-53H Pave Low IIs currently at Hurlburt) to be reengined, modified, and brought up to the much improved MH-53J Pave Low III standard by 1992, although not all of these aircraft will be assigned to Hurlburt.

The 8th SOS (the "Black Birds") does basically the same mission as the 20th SOS, except that the squadron's MC-130E Combat Talons have much longer range and greater payload, can refuel the helicopters in midair, and can't hover. The fourteen MC-130Es worldwide are heavily tasked. They will be augmented by up to twenty-four improved MC-130H Combat Talon IIs currently being funded.

The only active-duty squadron in MAC to use guns and bullets as part of its job description is the 16th SOS. The squadron flies the AC-130H Spectre, which has two 20-mm M61 Vulcan cannons, a Bofors 40-mm cannon, and a 105-mm howitzer firing from the aircraft's port side. The gunships, which first gained public attention in Vietnam, are used for close air

The business end of the AC-130H's 105-mm cannon. The standard that the load crews strive for is to have one of the gun's fifty-five-pound shells striking the target, one on the way, and one in the breech at any given time. When this gun is fired, the entire AC-130 fishtails to the right from the recoil.

—Staff photo by Guy Aceto

support, interdiction, armed reconnaissance, air base defense, and other missions. Twelve new AC-130U gunships are currently being procured, and the first aircraft is expected at Hurlburt in 1991.

When the new aircraft arrive, so will more people. From a base population of 3,700 in FY '86, the authorization takes a huge leap to 6,025 people by the end of FY '91. This population explosion brings its own set of problems.

Parking places will have to be made for the nearly fifty aircraft expected at Hurlburt by FY '92. Of the twenty-five construction projects planned through FY '91, twenty of them are solely for the special operations mission.

"We don't have one square foot of empty space," said Lt. Col. Carl Tickel, the base's civil engineer. "We are also probably already two years behind in getting what is needed. When the new aircraft start arriving, those facilities have to be in place, or we'll really be behind."

Busy All the Time

"We work in almost every JCS [Joint Chiefs of Staff] exercise around," said Colonel Stovall. "'Joint operations' is not just a buzzword with us. We work continuously with Navy SEALs and Army Rangers and Special Forces. We always have a customer."

Between February 18 and October 18 this year, for example, 1st SOW assets and crews will be involved in forty-eight deployments ranging for periods of from one day to five weeks. These trips involve anywhere from one to eleven aircraft going to places like Panama, Korea, the Middle East, Europe, and points all over the continental US.

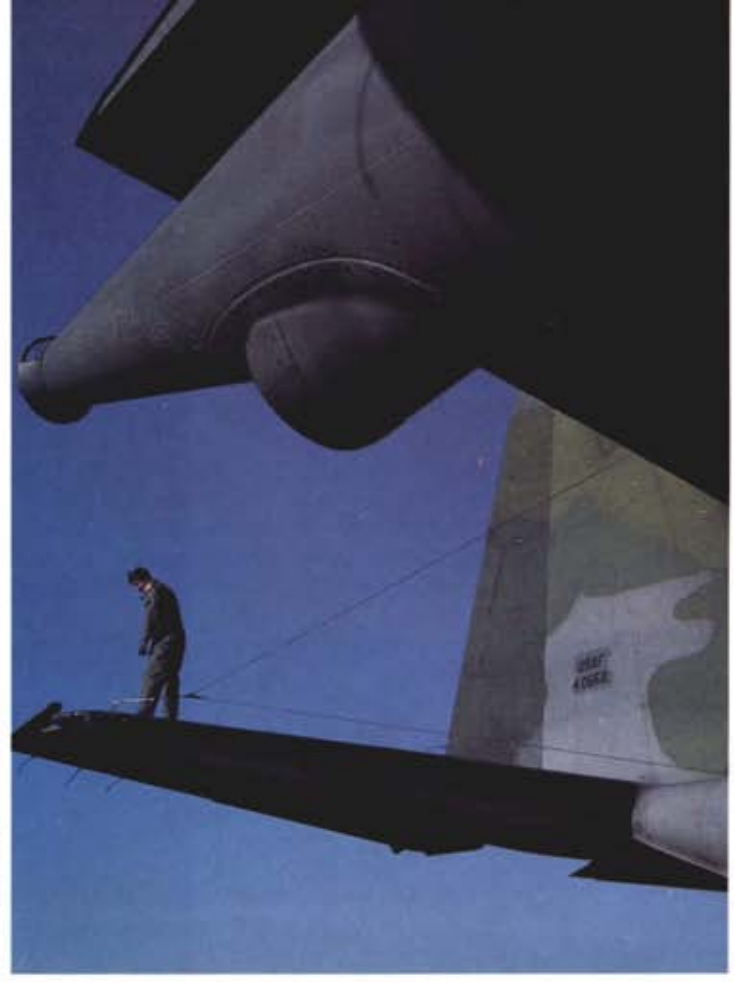
"We are on the road quite a bit," said Capt. Dennis Jones, a pilot on one of the 20th SOS's MH-53Hs. "It varies from year to year, but on average, we are away from Hurlburt about four months a year."

It's not just the aircrews who travel, either. At any one time, up to 100 people are off base. "With every aircraft launched off station, a minimum of two crew chiefs go, too. And depending on the amount of time away, a number of avionics technicians also go along," said Lt. Col. David Rauhecker, the 834th Component Repair Squadron Commander.

The large amount of time that the planes and crews are off base creates certain problems. Along with the burgeoning number of aircraft coming to Hurlburt, there will have to be an increased number of flight and maintenance crews trained to operate and work on the aircraft. However, with aircraft away so often and thus unavailable to train on, finding the opportunity to train is tough.

"We're getting a lot of new crews, and we've got to train them," said Colonel Hooten. "We're not getting any new aircraft right now, and we've got to hit the ones we have pretty hard to get the crews trained. Otherwise, we're going to have the new aircraft and nobody to fly them." Added Lt. Col. Fred Martin, the wing's Assistant Deputy Commander for Maintenance, "It's tough to fix aircraft and train at the same time. It takes a lot of manpower and resources to do that."

The handful of aircraft assigned to 1st SOW *is* pushed hard. On average, the AC-130s are flown fifty hours per month per airplane, and the MC-130s are airborne roughly sixty hours per month per plane—



—Staff photo by Guy Aceto

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The 1st SOW's aircraft are outfitted with some very specialized systems, and proper function of all the aircraft's equipment is essential. Above, an MC-130E Combat Talon I loadmaster readies his plane for a twilight takeoff. The 1st SOW is never lacking for a customer to take somewhere. These sinister-looking characters are part of a Marine Force Recon team (left).

totals that pass those of the average "slick" (unmodified) C-130 unit, which has many more aircraft, by ten to twenty hours per month. The MH-53s are flown upwards of thirty-five hours per month. That's higher than the rate at which the helicopters were flown in Vietnam.

And flown in Vietnam they were. All of the 1st SOW's aircraft are combat veterans, and that's why modernization of the SOF fleet is so critical.

Not only will the aircraft be on the leading edge of technology so far as sensors and radar systems go, but those systems and the aircraft themselves will be far more reliable and easier to maintain. Many of those systems will be digital and in the form of line-replaceable units, and the aircraft will be new-build or completely reworked.

"It is expensive and time-consuming to keep the aircraft flying," said Colonel Rauhecker. "There have been constant changes made in the basic technologies to keep up with the threat."

Conglomeration of Systems

Those changes have produced a whole conglomeration of systems in the same aircraft. "All of the hardware on the gunships was built in the mid-1960s," said Maj. Emmett "Otis" Redding, an AC-130 Fire Control Officer (FCO) evaluator. "As they were modified, they'd pull one box out and put another one in, so now there is a whole mishmash of systems. It drives maintenance crazy—they hurt themselves working so hard."

Not all of the aircraft have even had the same modifications. Several of the MC-130s have undergone a special operations enhancement program, and the first gunship recently left the base for a one-year-plus avionics modernization effort, with more AC-130s to follow.

With three different types of aircraft all equipped with systems of a broad technological age, the 834th Component Repair Squadron has to be ready for just about anything. "We have to fix everything from vacuum tubes to lasers, and fiber optics are coming [on the MH-53J Pave Low IIIs]," said Colonel Rauhecker.

A case in point can be found on the MC-130Es, where the Morse code key sits just beneath the space where the satellite communications gear will go.

The 1st SOW is organized under the Combat Oriented Maintenance Organization (COMO) concept, in which there is an aircraft generation squadron, an equipment maintenance squadron, and a component repair squadron. This organization makes it simpler for the wing to deploy, but the combination of old aircraft and eclectic systems doesn't help. As with most flying units, a War Readiness Spares Kit (WRSK) also has to deploy with the 1st SOW in most cases. A WRSK means that an outside airlift capability is needed, too.

An average large deployment requires ten to twenty pallets of transport space, and ammunition for the gunships requires even more pallet space. "We try to go lean and mean. We can't take one of each part, so we look at failure data [for the parts] and take only some of them," said Colonel Martin. "They are all tailor-made packages. Maintenance, supply, and operations get together and decide what is needed and build a package from there."

Getting parts that are available for the aircraft and the WRSK is not a considerable problem for the maintenance troops. The unit's twenty-four-hour-a-day readiness posture—the 1st SOW's motto is "Any Time, Any Place"—entitles it to a Force Activity Designator 1 classification. That designator gives

—Staff photo by Guy Aceto

The 1st SOW's specialized rotary-wing assets are the Sikorsky MH-53H Pave Low II helicopters. The Pave Low IIs tend to operate closer to the ground more often than their fixed-wing brethren, so the helicopters are beefed up with 1,000 pounds of armor plate and are able to hover automatically. The helicopter in the background is a transient CH-53B.

the unit first priority for parts. "We rarely see an airplane down [inoperative] because of parts," said Col. Wayne Smith, the wing's Deputy Commander for Resource Management.

Getting the Job Done

Despite all of the advanced systems, the MC- and AC-130s and the helicopters still make inviting targets. Consequently, most of the 1st SOW's training is done at night since that would be the expected pattern in actual operations.

"We set up the flights, so we sure aren't going to take off at Oh-Dark-Thirty," said Major Redding. "But the maintenance troops have to be there whenever we land, and they get the job done."

While the 13,000 hours flown by the three squadrons last year demonstrate that maintenance does get its "real" job done, the fact that 834th CRS technicians added 4,000 square feet to their building themselves also says something about motivation. The squadron, which has grown from 245 to 400 people in the last year, is also remodeling the interior of the building themselves.

Self-help activities are not limited to the 834th CRS, either. All the squadrons are doing self-help of some kind. For instance, the 1st SOW does not have an aerial port squadron on base. So supplies from a C-141 on Monday get unloaded by the same people who work in personnel and finance the rest of the week. Four or five people in every one of the load crews who work on a weekly basis also work daily in some other functional area. The base budget planner got the job of planning cargo loads because he was familiar with the computer program.

Innovation thrives among the 1st SOW's people. The ball that contains the Low-Light-Level Television (LLLTV) camera for the AC-130s is not a standard piece of equipment for most of the Air Force, so there is no standard ground-handling equipment when the camera has to be fixed. Taking a screwjack type of car jack and a safing pin, one member of the 834th CRS went to the base's welding shop and had a custom lift made. It was promptly approved for use.

Innovation also extends to operational exercises. Overseas recently, there were specialized SOF assets and some C-12 operational support aircraft present. One day, all of the SOF assets were committed, but some special operations teams still had to be delivered. The teams were stuffed into the King Airs, and the crews went on to accomplish the mission. "It looked just like the movie *Goldfinger,*" said Colonel Stiles.

Other instances of innovation abound. For example, the fire-control system in the AC-130 uses most of the components from the A-7 attack plane, and the AC-130's first-generation fire-control computers were breaking down. MSgt. Rick

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—Staff photo by Guy Aceto

The AC-130s carry a crew of fourteen, and it takes a team effort to find targets and destroy them. The pilot (above) uses the gunsight from an A-7 to find the targets the Fire Control Officer locates for him. After the boss gives the word, the load crews (at left loading the 40-mm cannon) go to work.

Fields, a member of the 834th CRS, knew that the A-7s were getting new computers, so he had the computers that were removed from the aircraft tested and approved for use in the gunships. This action provided a bonanza of spare parts at a time when it looked as though the computers would have to be completely replaced with another model.

"There is not a lot of bureaucracy between the guy driving the airplane and the President," said Colonel Anderson. "The people here are aware of what's going on in the world and are concerned about it. They know they could be involved tonight."

Two groups of people essential to the 1st SOW mission are found in the 1723d Combat Control Squadron assigned to the base and the Special Operations Weather Teams (SOWT).

The 1723d CCS's teams, like all combat controllers, are airdropped into an area to set up and operate either a drop zone or a landing strip. These small, commando-type units are also invaluable for such things as performing forward air guide services, positioning navigational aids and target designation equipment, and, when called on, providing air base defense.

Wartime special operations are usually conducted far behind enemy lines. Pinpoint delivery (to the top of a mountain, for instance) is essential, which is why having a meteorologist along to give accurate readings of wind, temperature, and pressure is so critical. "It is vitally important to have accurate data," said Lt. Col. Tom Utley, the 6th Weather Squadron commander. "We are just as much a part of the team."

The four-man SOWTs have the capability to do clandestine entry, data gathering, and transmittal of data. The special weathermen have to go through parachute, small arms, mountain, and SCUBA training, and they carry a Belt Weather Kit (BWK) that contains a complete but miniaturized set of weather observing equipment.

—Staff photo by Guy Aceto

The MC-130Es have a unique way of picking up people and packages from the ground—the Fulton STAR (Surface-to-Air Recovery) system mounted on the airplane's nose.

—USAF photos by TSgt. Kit Thompson

The AC-130s are occasionally called on to do such things as look for lost boaters or illuminate the area of an airplane crash with their sensors and searchlight. The Spectre above is cruising over the Gulf of Mexico. At right, the MH-53Hs also have the ability to defend themselves with either 7.62-mm miniguns or, as shown here, .50-caliber machine guns.

Tough Training

Interestingly, a high percentage of the current operational crews have been flying special operations since Vietnam, while, conversely, a large majority of the members of the 834th Combat Support Group are recent tech school graduates led by senior NCOs. But the system seems to be working well, and retention of

—Staff photo by Guy Aceto

The Combat Talons fill a unique role. They can deliver or pick up after traveling long distances at low altitude, and they can refuel the MH-53s in midair. The ramp at Hurlburt is always this empty, because 1st SOW is called on for nearly every exercise.

pilots (up to eighty or eighty-five percent for all squadrons) and ground crews as well is very high.

"We have to bring the maintenance people up to speed pretty fast," noted Colonel Martin. "We try to recruit experienced people, but it's not always possible."

Many people are needed to fly the 1st SOW's aircraft, but few of the pilots or navigators come to the 1st SOW's squadrons right out of school. The newer pilots coming into the squadrons have a minimum of 1,000 or 1,500 hours in "slicks" and must be volunteers. The line of volunteers is pretty long.

Once the crews take shape at Hurlburt, most of what they learn about their new aircraft and its peculiar systems comes from on-the-job training.

In addition, the nature of the mission necessarily shrinks the envelope of safety that the crews must work in. Flying at night, at low level, and at high gross weights for long ranges in hostile environments calls for a higher level of expertise. The margin for error is small, and experience is needed to help keep the margin of safety as wide as possible.

There are no simulators to duplicate terrain-following or to practice midair retrieval with the Fulton STAR (Surface-to-Air Recovery) system. Those things have to be learned by flying in an MC-130. It takes up to two years to season an MH-53 pilot fully because of the highly complex cockpit operation.

Once fully trained, the crew members are valuable resources for operations and for future leadership roles. "There are much greater opportunities for special operators now," said Capt. Curt Ross, a pilot with the 8th SOS. "Special operations needs warm bodies now for operations, and later on, we can move to staff jobs in MAC, SOCOM, or Twenty-third Air Force—all of which didn't exist in 1980. Now there is a career path for special ops."

But getting trained and staying finely tuned are crucial.

In an ideal world, the 1st SOW would be given several days' warning before conducting an operation in an unconventional scenario. This period would give the unit time to tweak up the aircraft mechanically, collect intelligence, do detailed planning, and deploy. It's unlikely to happen that way, though, so the unit has plans for every contingency and updates them regularly.

One of the training methods that the wing has found works best is to get the crews involved with the planning of operations. "We give them a complete package with intelligence and other elements, and we want to see how they do. It's almost like the old 'Mission: Impossible' TV show—here's your tape and here's your mission," said Colonel Stovall. "They do the planning for a tactical effort while considering the political overtones. International politics is part of anything we do."

At the end of the planning period, the crew's plan is presented to the other crews and reviewed. Sometimes two crews are given the same problem to work separately. The answers are then compared and contrasted in the review session. A lot of good information comes out of these sessions, but there are never any completely right answers.

The wing also plays "what-if" with the enemy, too. "When we got to Grenada and encountered heavy antiaircraft artillery fire, it was certainly more than we expected," noted Colonel Hooten. "You can never eliminate any possibility." ■