FORWARD AIR CONTROLLER

A day in the life of a USAF O-2 pilot.

By Don Sims

The mid-day sun silhouettes an O-2 banking over to monitor an A-10 at lower level.

Measured by certain standards the fighter pilot is a folk hero, a daring adventurer who leads an exciting life while dashing about the sky. Taken as a flying assignment, the prospect of being posted from an F-4 squadron to a unit flying the Cessna O-2A probably seems considerably less glamorous than jockying a Mach 2 fighter through combat maneuvers. There is no roar of jet exhaust blasting, only the vibrating twist of props fore and aft. You won't need oxygen because all your flight time will be logged well below 10,000 ft., in fact more often below 500 ft. than not and aerial combat doctrine is dedicated to dodging enemy ground fire.

Viewed in another context, that of being a component in the complex arena of modern aerial combat there is a difference in performance between the two aircraft types but that's all. Each has a specific duty, each is necessary in combat.

Officially, Cessna O-2A aircraft perform the Forward Air Control (FAC) role, a somewhat perilous form of flight activity that calls for long duration loiter time over a battlefield directing, cajoling, and, at times, cursing fighter or attack aircraft onto enemy positions and targets. The

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electronic world notwithstanding there is no substitute for a human observer up close, continually evaluating progress of aerial assault or calling in aid for beleaguered ground forces. Between the lofty perch of incoming combatants at altitude and the dusty overcast of battle fronts the FAC, serving as middleman, is an all-seeing eye, coolly ordering a strike from a naked bird unprotected by either speed or more than just a hint of armor plate in the cockpit.

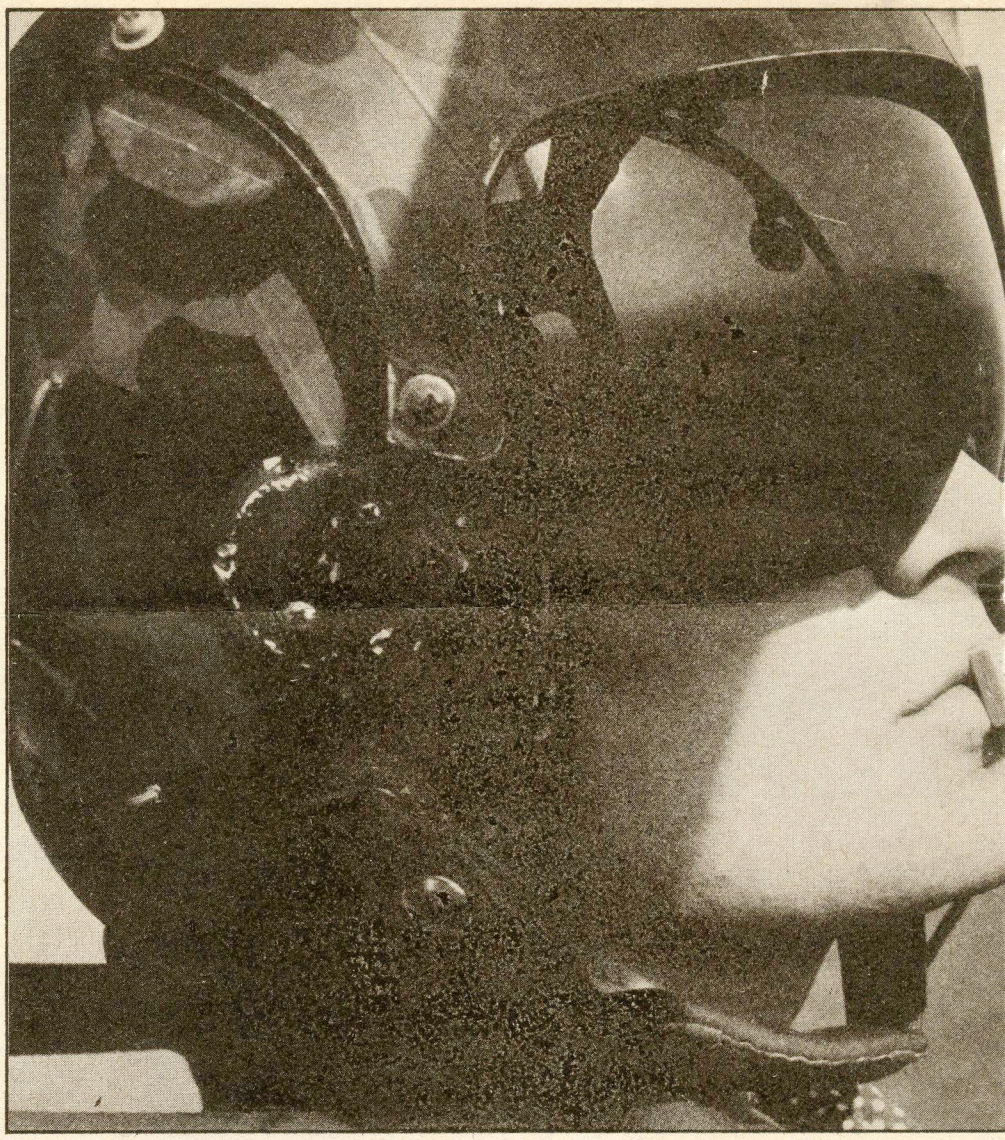
Useful and necessary is a better approach to the modest fleet of USAF O-2s than trying to pin them with labels such as glamorous or exciting.

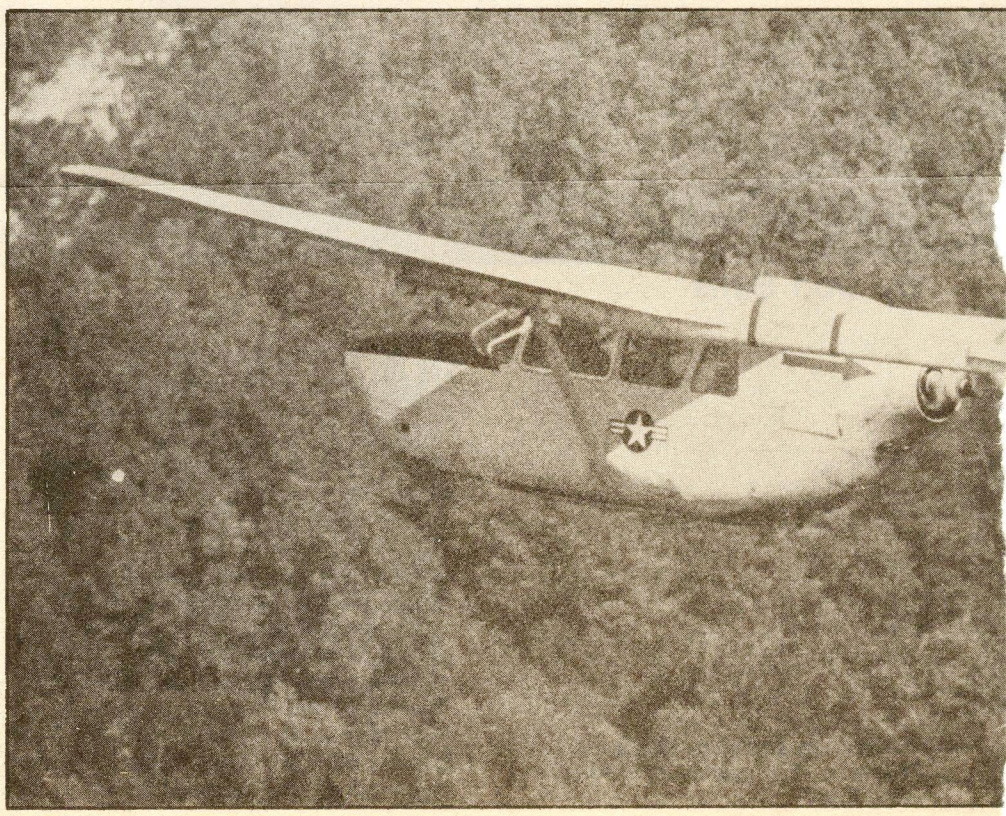
Perhaps an O-2A's best testimonial came from the enemy for, in Vietnam, so onerous did the buzzing Cessnas become that a literal bonus for downing one was offered to the troops. FAC crews represented such a constant threat that a bounty was placed on their heads. This unusual situation illustrates how important the FAC has become.

Dramatics aside a Forward Air Controller is a vital cog in the machine controlled pace of contemporary battle. The huge fleet-like formations of World War Two along with their area bombing techniques are relegated to historians' discussion. Today's radar, infrared scanning plus missiles and rapid fire antiaircraft artillery have made ground attack a terribly complex, sophisticated and technical technique. In Vietnam, even with its frequently immobile enemy, the FAC mission became vital. Future conflict, especially with an industrialized foe, should call for just as much FAC input since it would probably be fast paced, perhaps fragmented in multiple directions, and certainly fluid. These elements set out conditions for the utmost in control and communication between warriors on the ground and their air force backing.

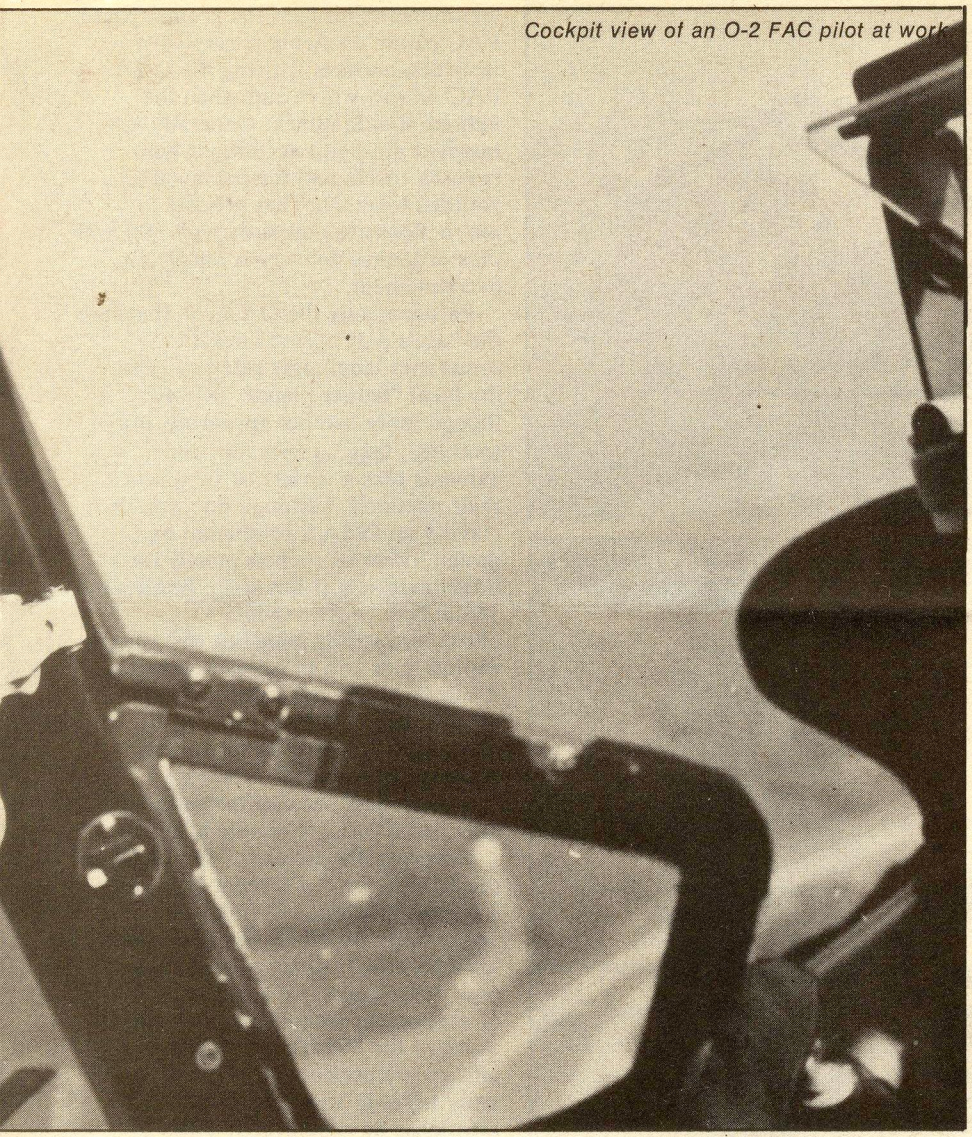
Enter a rather slow, pedestrian type of high winged monoplane along with a crew of two whose responsibility is to help create an orderly flow of information on what's happening in a battle down below while coordinating calls for air support. The battlefield will be poorly delineated, continual improvisation a norm and trained judgment the catalytic ingredient that may dictate success or failure.

In today's USAF where attention focuses on an "F" something or the B "that," an O-2A suffers from a totally unwarranted shyness in image. Derived from Cessna's popular civil push-pull twin Skymaster, O-2As—the O-2B is a psychological warfare derivitive—aren't expected to expand any kind of performance threshold, just be reliable and on hand when needed, coordinating air strikes

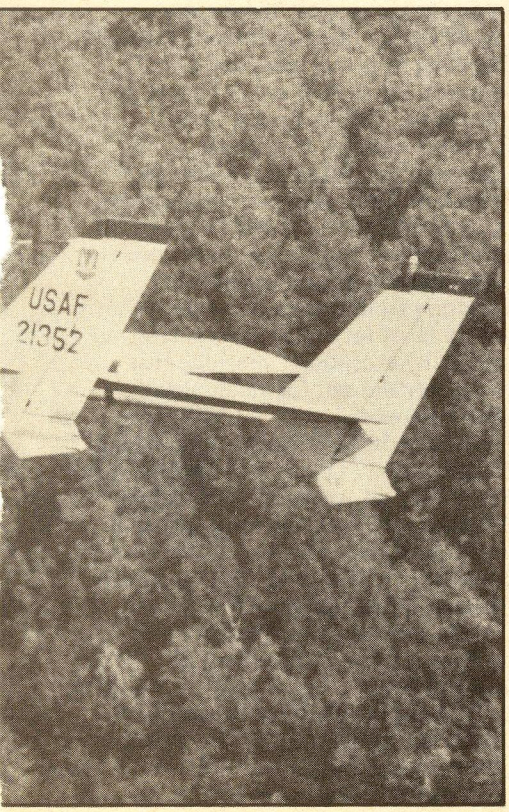


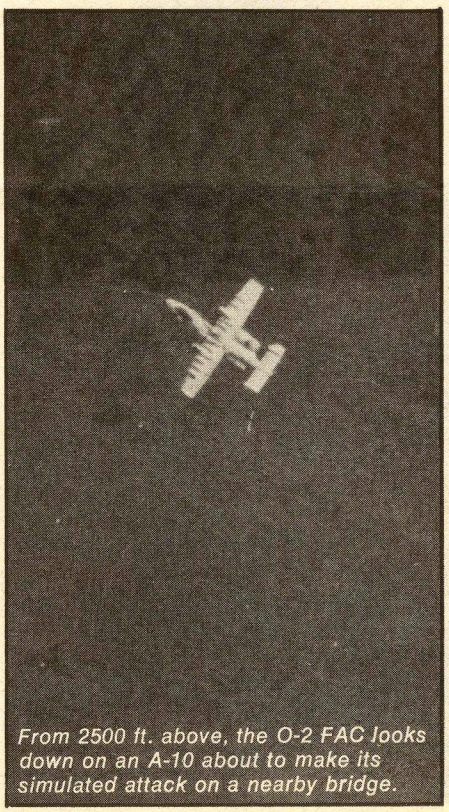


An O-2 banks low over the South Carolina forests as it works a pair of A-10s.



Cockpit view of an O-2 FAC pilot at work.





From 2500 ft. above, the O-2 FAC looks down on an A-10 about to make its simulated attack on a nearby bridge.

between ground command and attacking aircraft.

Shaw Air Force Base in tree-studded South Carolina is home of the Ninth Air Force's 507th Tactical Air Control Wing, a composite outfit which incorporates a great deal of ground based activity along with flying elements. Flight line space is shared with the 363rd Tactical Reconnaissance Wing, an organization whose activities are geared for world-wide deployment. The slow, squarish O-2s mix their modest performance with Mach 2 RF-4Cs in a daily training grind that warms up with dawn's first light, stilled only in late evening as midnight is a foreseeable event.

Air controllers must play a continual chess game of blending comparatively slow FAC flights with numerous training missions generated by the recon wing in their high speed jets. An element of fine judgment has to be developed in Shaw's glass-lined tower.

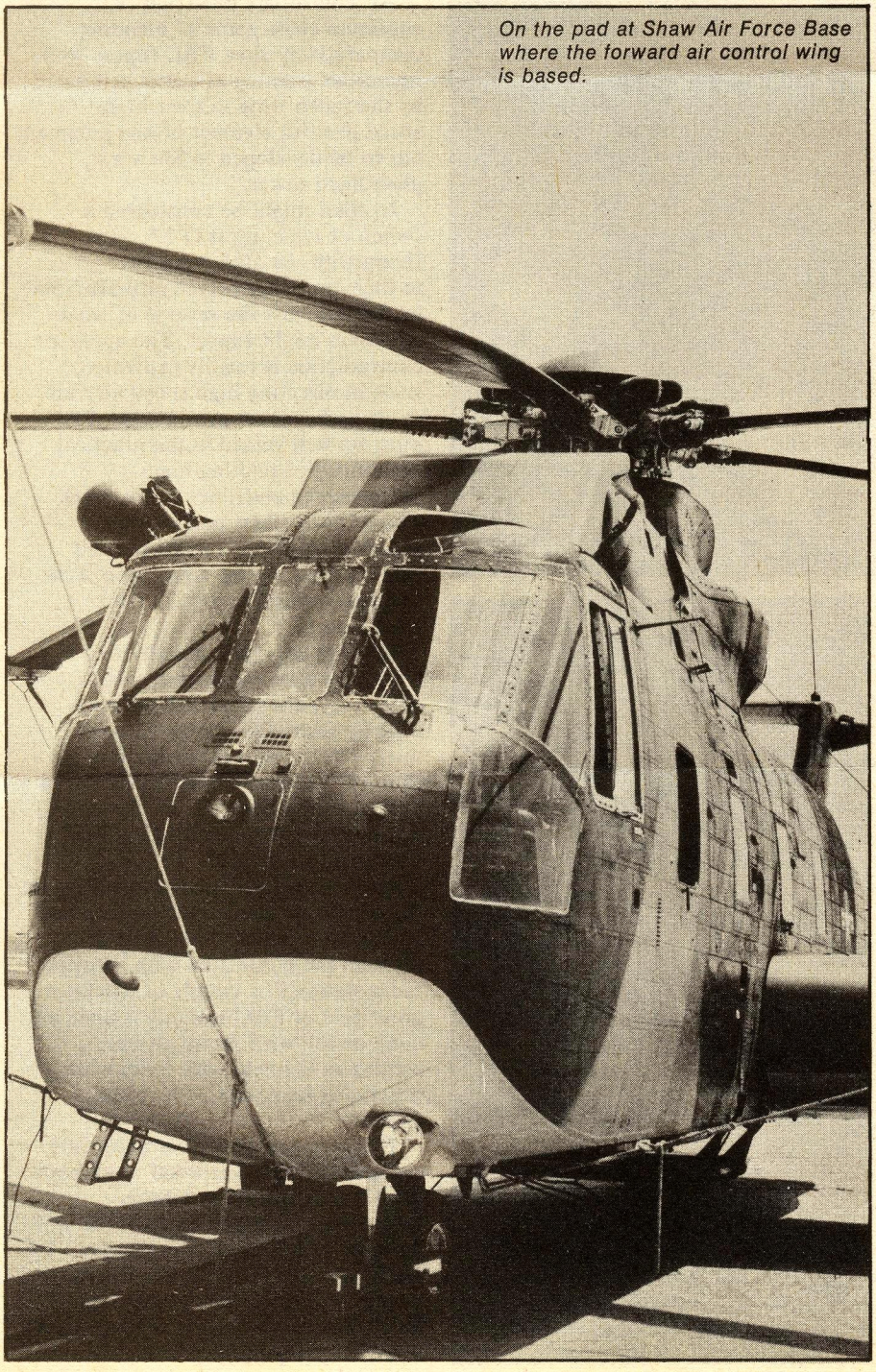
In what might be considered a switch of logic, most O-2A pilots flying with the 50th wing have come to their propeller-driven aircraft from jet fighters, just the reverse of what a layman might expect. The apparent contradiction is readily explained, since in directing high speed aircraft in ground support missions the FAC must be well versed in the practical limitations of piloting high-performance machines at low level. There is a further, more visible, aspect of the FAC's multi-faceted role as most flying crews also wear paratroop wings alongside their pilot's wings.

Trading the ejection seat of an F-4 for a slow moving machine where you don't even wear a parachute may initially seem like a letdown until the night you set sail from a low flying C-130 into a totally black void. Only a flimsy umbrella of cloth stands between you and whatever is below.

Or, if flying isn't enough excitement, there's always the ground observer role with an Army unit, crawling through the battle area with a virtual radio station in a couple of trucks. A great deal of FAC training is done in conjunction with Army groups, serving in the field with them while practicing hook-ups with circling Cessnas.

Essential for control of battlefield air space—it gets crowded when both USAF combatants and Army helicopters get together—is what is designated a Tactical Air Control Party (TACP). This unit is posted to Army units from the level of battalion headquarters up to field army centers when they deploy for battle.

The tactical air control wing at Shaw utilizes basically the O-2 fixed wing model but the mission role incorporates a few helicopters as well.



On the pad at Shaw Air Force Base where the forward air control wing is based.

Incorporating a varied array of radio communications gear the ground based FAC passes on Army requests for tactical air strikes, clueing the O-2A FAC on just where and when the fighters should attack. Generally this involves pin-point accuracy where friendly forces and the enemy are jammed together. That precise instructions are necessary with 500 mph plus ordnance delivery is hardly an overstatement.

Paradoxically the O-2As at Shaw are the base's only armed aircraft, sometimes laughingly referred to as the local "fighter planes." RF-4Cs, though more combat appearing, are toothless, lugging only film and cameras plus a variety of sensors on their missions. Although one wouldn't classify an O-2A a combatant by design, using its rockets mostly for target marking, it can sting. Besides the Willie Pete rockets (white phosphorous) the pods can carry high explosive or anti-personnel rockets or it can be fitted with light machine gun housings. Outside the target marking role, there are legions of Vietnam tales where O-2s were aggressors just because they were the only aerial support readily available.

Carrying the acronym of TAIRCW, the 507th is one of three world-wide Tactical Air Control Wings on active duty. Beside its flying element it includes a tactical air control center, nine radar units plus a large number of supporting organizations. A small cadre of the 507th's air support officers are permanently housed at five army bases in southeast U.S. locations. So whatever it takes to provide air support liaison when working with ground forces is brought together in this one organic unit. In combat, air strikes would initiate by request at the battalion level or possibly even by a company commander. Corps or division HQ monitors air-ground communications, overriding the call if felt necessary. If within a three- to five-minute time span there is no countermanding decision from higher authority the air strike is set for "GO." This is referred to as "by exception," meaning that routinely the call for an air strike will be honored.

Within 507th Wing the basic flying element of 27 O-2As is designated the 21st Tactical Air Support Squadron (TASS) supplemented by a four-ship helicopter squadron, the 703rd Tactical Air Support Squadron. Equipped with Sikorsky CH-3Es, its act includes airlift, logistical support along with general mobility for tactical air control ops.

Besides the complement at Shaw AFB, the 507th controls the 549th TacAir Training Group at Patrick AFB in Florida plus monitoring five National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Over South Carolina the O-2 is control for two A-10s from the Myrtle Beach base.

The modest variety of stores and/or armament which an O-2 might go out with can be listed on the side panel just ahead of the forward lower window.

Guard air support groups scattered along the eastern half of the United States. All fall under general command of Ninth Air Force whose headquarters is located at Shaw Air Force Base too.

Until mid-1978 the 50th Wing included a contingent of North American OV-10s but those aircraft have been committed to the European theatre in support of NATO forces.

Early morning on the 21st TASS flight line is like any air base scene gearing for a day's aerial work, only more densely packed for the O-2As with their modest dimensions can be jammed together. Depending on the mission role some will be fitted with rocket pods, others flying with 7.62mm machine gun containers, or with no armament.

Yelling a loud "Clear" just like any conscientious prop pilot is expected to do, the FAC starts his rear engine first, then the front one. A peculiarity of this push/pull design is that the rear power plant, while working in the front engine's slipstream, will operate on a slightly higher fuel flow rate. The twin 210 hp Continental 10-360C flat sixes give an O-2A a maximum cruise performance of 195 mph with an all-out range under full fuel load of roughly 1,300 miles.

Designed in civilian garb to tote up to six passengers, the USAF version comes with two seats while the rear space accommodates a large complement of radio gear. Normally the all-up weight is limited to 4,630 lbs. but overweight provisions can top out to 5,400 lb.

The South Carolina area like many southern states has a generous complement of military installations. The resultant mix of military and civil air traffic keeps regional air traffic controllers quite busy. Air route maps depict several restricted air space zones south and southeast of Shaw AFB, working areas for O-2As and fighter aircraft which they control.

Taking a brief orientation flight aboard an O-2A offers an insight into the world of tactical air control and what FAC crews of 21st TASS do to polish their combat proficiency. RF-4C pilots at Shaw average 15-20 hours of flight time per month while, by comparison, a FAC crew of pilot and observer doubles that figure. On occasion when Army units are in the field that figure may rise to 70-80 hours in a four-week span.

Admittedly an O-2A waiting for take-off, flanked by a couple of RF-4Cs is a curious contrast. Though based together and mingling on runways, their roles rarely cross in the air since their designated functions are totally unrelated. O-2s normally involve themselves with fighter units from other bases, notably A-10s, A-7s

and F-4s. This runs a gamut from active duty Air Force units to any of the Air National Guard outfits which draw upon Ninth Air Force for control experience. There's only one thought in mind, to maintain air support proficiency.

The lengthy runway that launches RF-4s is a limitless sea to the modest requirements of tiny O-2As. A twin set of recon jets is hardly airborne when the FAC plane drifts out from an adjacent taxiway, straightens out and, with throttles open, takes off quickly with no worry about any traffic up ahead. When at 3,000 ft. the 21st TASS craft checks in with the Jacksonville Air Traffic Controller for IFR guidance out to the range area where a couple of A-10s from Myrtle Beach are waiting directions to run on mock targets. Cancelling ATC once in the range area, the FAC dives down to tree top level for a couple of passes then climbs out to 2,000 ft. to pick up the gunships.

The chatter of radio talk is incessant, each O-2A is linked to several channels for different purposes. Specialized hook-ups join the O-2s to attack aircraft, to ground forces and to general air traffic control functions. It's said to take anywhere from three to four months for a fledgling FAC crew, pilot or observer, to become competent at filtering out instructions from the constant babble of radio talk. Like some jugglers you've got to be able to take and give instructions across many radio channels almost continually.

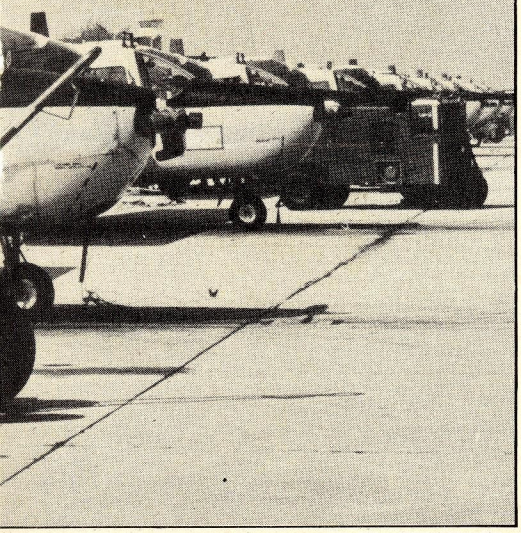
Were this for real it would be called the forward edge of the battlefield, a term implicit of confusion and change for it is here that a FAC plane's usefulness is at its zenith. It would also probably be a "heavy threat area," a term that refers to a heavy concentration of SAM missiles along with rapid fire antiaircraft artillery.

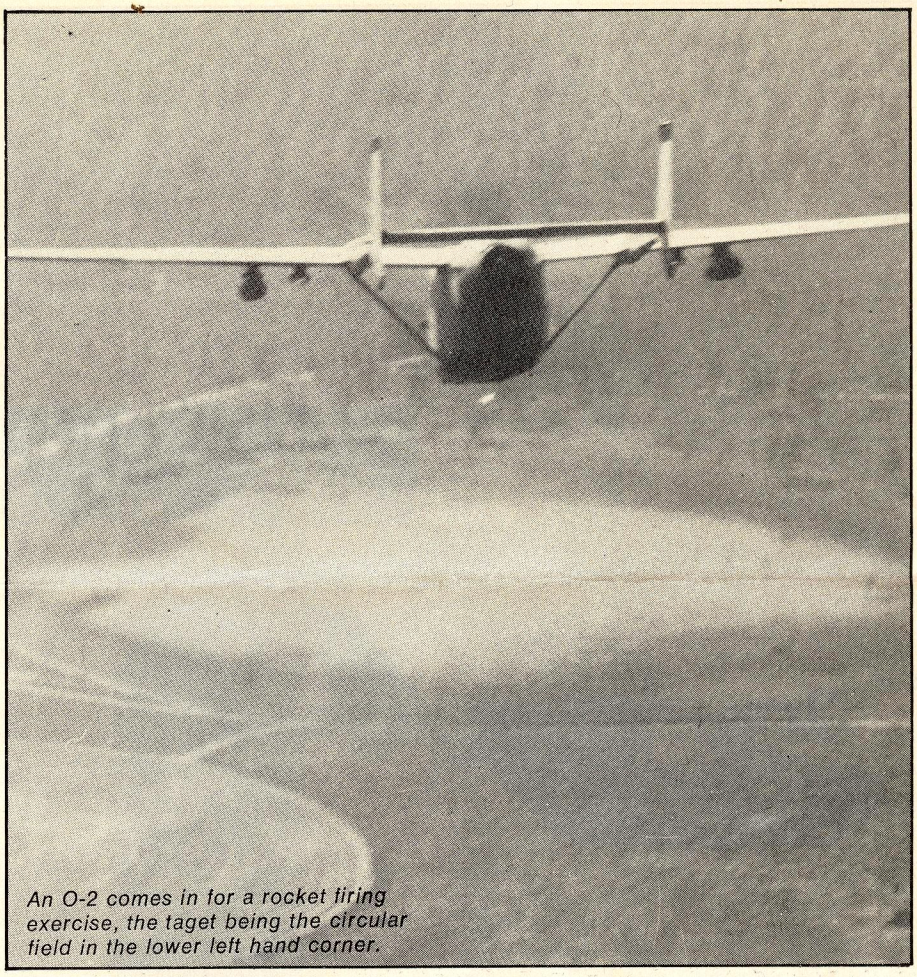
A story is told, one of hundreds of similar nature, in which a mud-begrimed, fatigued infantry officer checked into the Vietnam airfield where a few FAC planes were based. He asked if the people there were the ones who a couple of days earlier had been circling over a certain piece of jungle. Uncertain as to just what he had in mind one of the crews responded hesitatingly that yes, they had been controlling ground strikes in that area. On learning this was the unit he was seeking the officer offered profuse thanks for saving the skins of his platoon. It seems the FAC had spotted an enemy ambush and radioed the ground troops so that the ambushers became the ambushed.

Controlling attack aircraft is a finely tuned affair as the jets draw a bead on their potential targets at the

One convenient way of keeping track of radioed data is to use a grease pencil on the windshield.

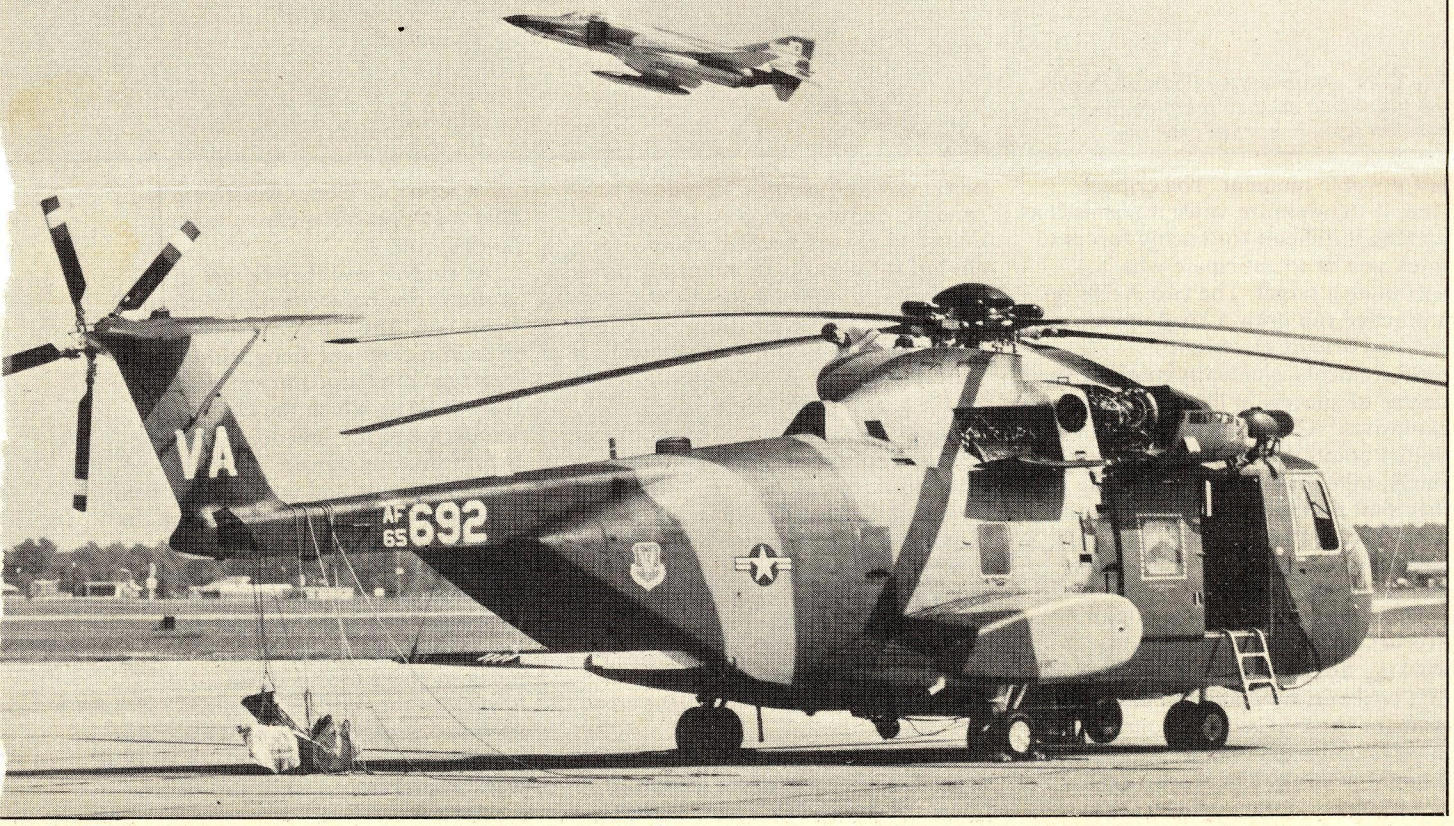
Early morning scene on the flight line where a long row of O-2s is being readied for their day's operations out of Shaw AFB.

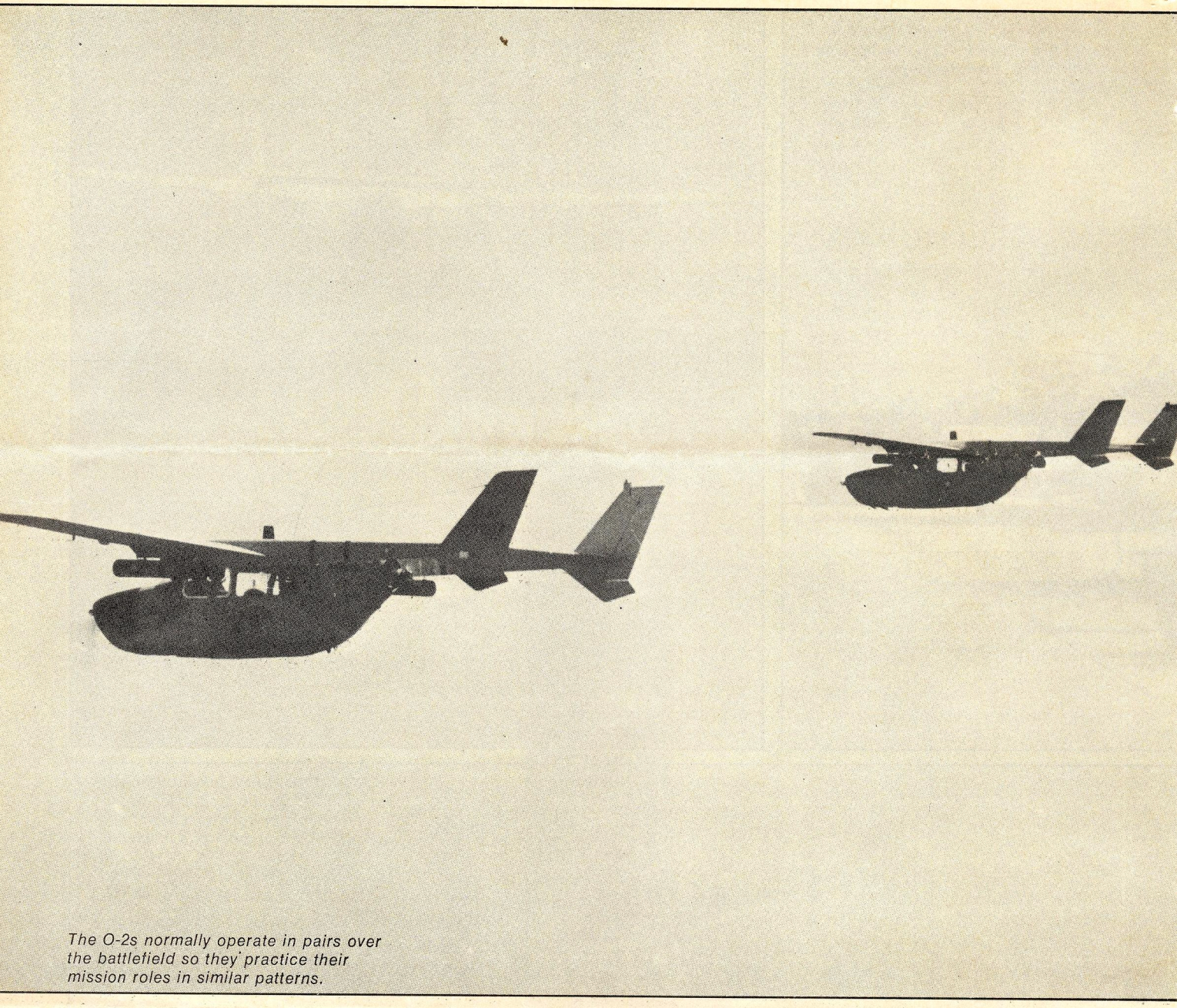




An O-2 comes in for a rocket firing exercise, the taget being the circular field in the lower left hand corner.

An RF-4C from Shaw takes off on a recon mission while a chopper which has just come in from a mission has the rotor covers strung over its tail section.





The O-2s normally operate in pairs over the battlefield so they practice their mission roles in similar patterns.

last possible moment. The critical issue is to minimize voice transmissions, making it difficult for enemy forces to track you or to anticipate what's becoming a target. The two A-10s on a practice run draw a bead upon a railroad bridge, electronic measurements eventually marking their degree of success in lieu of actual explosives. As they approach the IP (initial point) the A-10s arrive singly, take their compass heading then pull a snap roll as they go into a dive. The A-10 has a rapid yaw rate and the roll is over in a split second and the attack complete.

Meantime the O-2A flits about overhead watching, commenting, working its end of the team. Don't let that civil version definition cloud the issue for the FACs dart about the sky in ways no casual pilot of a Skymaster thought possible. The work effort at low altitudes is tremendous, always working with throttles, keeping a running chatter with ground and air units and always keeping one eye cocked for enemy ground or air threats.

Mission completed the A-10s return to Myrtle Beach while the FAC joins another group of O-2As practicing their rocket firing techniques. While 21st TASS aircraft usually work solo there are times when two or more join together. In this instance a group of four aircraft are practicing formation flying while devoting some effort to improving their rocket attacks. From moderate altitude the target is a circular patch of ground carved from the woods. As each aircraft dives in it spits out a single 2.75 in. flame from each pod, small puffs of dirt indicating how close each flight crew has scored.

Once all the rockets have been expended, the four-plane section of Shaw's "fighter force" joins together for a return to base. Over-flying the field they peel off one by one for a landing roll.

At runway end they're met by a ground crew before taxiing back to the flight line. The crew puts a safety pin in each rocket pod along with an electrical discharge pin for safety reasons, after which the O-2s go wandering past a few dozen RF-4Cs before shutting down.

It's just noon and odds will probably put some of the air crews back on the runway after lunch. That kind of activity for a Forward Air Control squadron has become standard.

For the jet jockey who felt that being posted to a FAC squadron was going to prove a comedown in adventure the result is always a surprise, a pleasant one. Where else can you fly, parachute or claim kinship with ground troops while just being a pilot?