

## NAVY DEPARTMENT

WASHINGTON

3 August, 1927.

X045.1

From: The Secretary of the Navy.  
 To: The Secretary of War.  
 Subject: Operations of Marine Corps Aviation in  
 Nicaragua.

Reference: (a) Letter, Secretary of War, to Secretary  
 of the Navy, OCS 18520, dated July 26, 1927.

Enclosures: (A) Report of Engagement, Observation Squadron  
 Seven-M, U.S. Marine Corps, Managua, Nica-  
 ragua, 1820, 16 July, 1927.

(B) Report of Air Patrol, Observation Squadron  
 Seven-M, U.S. Marine Corps, Managua, Nica-  
 ragua, 2200, 16 July, 1927.

(C) Report of Air Patrol, Observation Squadron  
 Seven-M, U.S. Marine Corps, Managua, Nica-  
 ragua, 1630, 17 July, 1927.

1. Replying to reference (a), there are enclosed herewith copies of reports received from Marine Corps Observation Squadron Seven-M, attached to the Second Brigade, U.S. Marine Corps, now operating in Nicaragua. At the present time this is all of the information on this subject that is available. However, it is believed that these reports cover most of the points concerning which you make inquiry.

2. Any additional information which may become available at a later date will be supplied for the benefit of the Air Corps of the Army.

X386  
 Foreign Matter  
 X045.3 Marine Corps

EDWARD P. WARNER

Observation Squadron Seven-M,  
U. S. Marine Corps,  
Managua, Nicaragua.  
1320, 16 July, 1927.

Report of Engagement

Map: Map of Nicaragua by Clifford D. Ham, of 1924.

Altitude flown: 500 to 5,000 feet.

1. A formation of four O2EL airplanes and one DH-4B airplane with Major Rowell, pilot, with 1st-Lt. McCullough, observer, Gunnery Sgt. Munsch, pilot, with Capt. Pierce, observer, Capt Archibald, pilot, with 2d Lt. Weir, observer, 2nd Lt. Harmon, pilot, with 2d Lt. Thomas, observer, and Marine Gunner Kodarczyk, pilot, with Corporal Pabst, observer, made a formation flight to OCCOAL to aid the Marine and Guardia Nacional besieged in that place by the bandit Sandino. Each of the five planes carried four 17 pound fragmentation bombs, two guns and 600 rounds of ammunition.

2. 1315 - Managua; Took off.

1400 - one mile northwest of San Isidro; picket up detachment under command of Major Floyd enroute to OCCOAL. Identification panel laid out.

1409 - Esteli; passed at the eastward of town, no panels laid out. (Lt. Thomas called from Leon and stated he saw our pack train five or six miles south of Condega).

1422 - Pueblo Nuevo, town quite, conditions normal.

1430 - Somoto; town quiet, no activities observed in town.

1440-Octotal; reconnoitered outskirts of the town. On the Southeastern edge of the town observed about fifty saddle horses with the men at a house nearby. From the reconnaissance it appeared that the South and Southeastern border of the town was occupied by Sandino's troops. The planes circled in column and dove in turn on Sandino's troops in this part of the town attacking with gun fire and bombs. Several direct hits were observed and the effect was immediate, the men streaming away from the houses and throwing away their arms as they ran. After the planes had bombed these troops the attack was followed by a further attack with fixed and free machine guns completing the rout. The planes repeatedly circled the town and fired on numerous small groups of bandits that were fleeing. Capt. Hatfield had his headquarters in the center of the town. The Nicaraguan flag was laid out in a patio at this point and the detachment identification panel was laid out in the street in the front of the house. The following panel signal was laid out "one killed" This was acknowledged. A little later another panel signal was laid, quote "drop message". Due to the hostile conditions in town it was impracticable to drop a message. At 1515, planes having released all of their bombs, the assembly signal was given and the planes returned to Managua. On the return trip the entire course was enveloped in a heavy storm, and the formation returned via Honduras.

1615 - one mile northwest of Is La Limon; drove into very heavy rain making it necessary for the planes to fly within a few feet of the beach. One O2EL airplane, Lt. Harmon, pilot, with Lt. Thomas, observer, landed at this point.

The balance of this formation continued on down the beach. The rain was so heavy that it was impossible to see more than a few yards until the formation had passed thru the squall, about 5 miles South of Corinto, one other C2B1 airplane, Capt. Archibald, pilot with Lt. Weir, observer, was missing. The remaining three planes continued on to Managua. Later Lt. Harmon and Capt. Archibald landed at Leon out of gasoline. 1745 - Managua, landed at airdrome.

3. From observation, it is estimated that Sandino's force attacking OCOAL numbered about 200 men. The bombing and machine gun attack caused numerous casualties to Sandino's force. The moral effect was exceedingly great, men throwing down their arms and running in all directions away from the town towards wooded country. The machine gun attack which followed completed their defeat. The number of casualties inflicted is unknown, but it is thought from the reports of all observers that Sandino's force suffered heavy losses. One dead mule and several dead bodies were seen in the streets. The combined Marine and Guardia force under Captain Hatfield is located in the center of the town and apparently not in immediate danger, although they are undoubtedly besieged. The planes received three hits. Twenty bombs and about 3,000 rounds of machine gun ammunition were used in the attack.

ROSS E. ROWELL,  
Major, U. S. Marine Corps,  
Commanding.

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Distribution: Chief of Staff.  
B - 2.  
R - 2, 5th Regiment.  
Guardia Nacional.  
Major Floyd.  
C.O., ESTELI.  
File.

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OBSERVATION SQUADRON SEVEN-M.  
U. S. MARINE CORPS.  
MANAGUA, NICARAGUA.  
2200, 16 July, 1927.

REPORT OF AIR PATROL.

Map: Map of Nicaragua by Clifford D. Ham, of 1924.

Altitude flown: 500 to 5,000 feet.

1. Two O2B1 airplanes, 1st-Lt. Boyden, pilot, with Cp. Norris, observer, and Marine Gunner Wodarczyk, pilot, with Captain Sage, passenger, made a transportation of personnel and message dropping flight to OCOTAL.

2. 0840 - MANAGUA - Took off.  
0930 - ESPELI - Fired green star. Dropped message concerning field at that place and continued.  
0950 - CONDIGA - Town quiet. Conditions normal.  
0953 - PALACAGUINA - Town quiet. Conditions normal.  
1010 - OCOTAL - Circled field. One plane, Marine Gunner Wodarczyk, pilot, flew low over field. Then pulled up and regained altitude. The other plane, Lt. Boyden, pilot, then chased three miles off field with planes. He saw no marines on the field and landed at the airdrome. Two natives came running from bushes beside field to plane. They appeared very nervous and said that Sandino was in OCOTAL. They indicated that there had been shooting. When questioned, they said the Marines were still in OCOTAL. They then ran to the bushes. The ship took off immediately. Observed panel message laid in street of town, "SANDINO ATTACKING". In meanwhile the plane piloted by Marine Gunner Wodarczyk attacked a point at the river one mile S.E. of town. The other plane dived in three times attacking with the front gun. Got off 230 shots. After Marine Gunner Wodarczyk had fired all of his ammunition, 350 rounds, he headed for home. The other plane then attacked five times with rear gun, firing five pans of ammunition, 480 rounds, then headed for MANAGUA. Marine Gunner Wodarczyk also attacked the troops in the town.

1110 - Took off for MANAGUA.

1200 - MANAGUA; Marine Gunner Wodarczyk landed at Airdrome.

1215 - MANAGUA; 1st-Lt. Boyden, landed at Airdrome.

3. It was apparent that about two hundred bandits were attacking the town from the southeast. They were in the edge of town in that sector. Captain Hatfield, with the Marines and Guardia were holding a square near the center of the town. Lieutenant Boyden's plane was hit three times.

ROSS E. ROWELL,  
Major, U. S. Marine Corps,  
Commanding.

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Distribution: C of S, B-2, R-2, 5th Reg, Maj. Floyd, Guardia Nacional,  
C.O., OCOTAL, File.

REPORT OF AIR PATROL:

Map: Map of Nicaragua By Clifford D. Ham, of 1924.

Altitude flown: 4,000 feet.

1. A formation of three airplanes, Capt. Archibald, pilot, with Capt. Pierce, observer, 2nd-Lt. Thomas, pilot, with Gy-Sgt. Kildow, observer, and 2nd-Lt. Weir, pilot, with Cpl. Jordan, observer, made a reconnaissance patrol, ESTELI, CONDEGA, PUEBLO NUEVO, YALAGUINA, TOFOGALPA, OCOTAL and return. The aircraft were armed with bombs and guns and had orders to engage the hostile bandit forces should they be found in contact with our troops.

2. 0851 - MANAGUA; Took off,  
0940 - ESTELI; Town quiet, conditions normal. No panels laid out.  
1000 - CONDEGA; Town quiet. Pack train enroute OCOTAL in town.  
1010 - PUEBLO NUEVO; About fifty men in town. Six men in square in white shirts, one waved red flag. They displayed uneasiness but there were no hostile actions. There is reason to suspect that these men were bandits.  
1015 - YALAGUINA; Four bull carts approaching town from the South.  
1020 - TOFOGALPA; Town quiet, Six of eight people in sight.  
1025 - OCOTAL; Approached town from Southeast and circled over town. Town quiet. Detachment identification panel displayed at Marine quarters. Also panel signal "Land have message for you". The same panels were displayed at the Guardia quarters and at the landing field. Circled over field twice and observed several Marines on the field. Acknowledged signal by Very pistol and the planes then landed in order. Captain Hatfield and Lt. Darnell of the Guardia were present at the field. Captain Hatfield stated that he had two wounded men, one Marine and one Guardia, for transportation to MANAGUA. Interviewed Captain Hatfield regarding the engagement of yesterday and he gave the following brief resume: From the demeanor of the people in town it appeared that trouble was brewing and he therefore increased his guard and had the officers stand watch and watch. The telegraph line was cut at 4:00 p.m., on 15 July. Sandino started his attack on the quarters occupied by the Marines and Guardia at about 1:00 a.m. on 16 July. The main bodies of his troops totaling some three hundred men coming into town from the South and East in three columns where they were joined by about one hundred of the townspeople. Sandino posted snipers in the church tower and swept the streets with machine guns. Private Michael A. Obleski was killed just before daylight, next of kin Miss Kay M. Thompson, Hingham, Center, Mass., friend, and one Marine and one Guardia were wounded during the engagement. At 8:10 a.m. Sandino sent in a flage of truce demanding surrender and stating that if their arms were tarown into the street the Marines would be accorded the honors of war.

The truce bearer was accompanied by the Jefe Politico of OCOTAL, Mr. Ramirez, who explained that he, together with the Chief of Police, Mr. Tellez, had been captured and that he wanted to congratulate Captain Hatfield on his magnificent defense. Sandino requested a truce of sixty minutes. Captain Hatfield refused to consider any terms and stated that the truce would last only so long as the white flag bearer was in sight. Fighting was resumed immediately and continued until after the planes staged their attack, after which it ceased except for seven snipers in the church yard, who were surrounded and captured by Lt. Bruce of the Guardia Nacional. The firing ceased at 5:25 p.m. The Guardia had lost five men captured at the outpost on the river but they escaped and rejoined during the air attack. A complete count of Sandino's losses had not been made but he estimates that about one hundred were killed by the Marines and Guardia in town and about two hundred by the planes. He said that thirty bandits were killed at one place by a single bomb. Col. Rufe Marin, Sandino's second in command, was killed. Two townspeople, Senator Paguagua, and Col. Aguz, conservatives, were shot by Sandino. Captain Hatfield reported a confidential matter which has been given to the Commanding General in person. Sandino was reported to have left town in the direction of MOSCOTE and a later report said that he was in that town. The Marine who was killed in action was buried temporarily in the rear of the Marine quarters last evening. Captain Hatfield stated that he was getting a little short of rifle and pistol ammunition and would also like to have some rifle and hand grenades. Left about 1,000 rounds of machine gun ammunition from the planes. Picked up the two wounded men and left Gy-Sgt. Kildow and Cpl. Jordan in OCOTAL.

1125 - OCOTAL; Took off.

1140 - PALACAGUINA; Town quiet. Six men just North of town headed North.

1150 - CONDEGA; Pack train at halt about half mile North of town. Dropped message, advising them to return to CONDEGA and await re-inforcements. The message was received and acknowledged. No panels were displayed.

1203 - ESTELI; Panel displayed "Nothing to report".

1215 - TRINIDAD; Marine detachment under Major Floyd in town. Identification panel displayed.

1300 - MANAGUA; Landed at Airrom.

3. The action of the Guardia under fire was highly commendable, Captain Hatfield stating that they fought like Marines. The attack by planes was entirely unexpected by Sandino and the heavy losses he suffered from bombs and machine gun fire caused the complete rout of his forces, forced their immediate retreat and raised the siege. The number of dead is probably exaggerated as it is based on the statement of townspeople. Captain Hatfield had not yet had time to check up on the casualties but had seen fifty dead while walking casually about and without having inspected the scene of the main air attack. Captain Hatfield also said that his position during the night would have been very serious had not the air attack relieved the situation. Captain Hatfield evidently made a brilliant defense against heavy odds and conducted himself with rare courage and judgement. The men captured were all well dressed in a uniform somewhat

similar to that of the Guardia. It seems to be the consensus of opinion on in OCOTAL that Sandino's troops will never again attack a town occupied by Marines. There were more men than normal in PUEBLO NUEVO.

ROSS B. ROWELL,  
Major, U. S. Marine Corps,  
Commanding.

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Distribution: Chief of Staff.  
B - 2.  
R - 2, 5th Regiment,  
Guardia Nacional.  
C.O., OCOTAL.  
Major Floyd,  
C.O., ESTALI.  
File.

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RER-mas.

HEADQUARTERS, AIRCRAFT SQUADRONS, 2ND BRIGADE, MANAGUA, NICARAGUA.

26 March, 1928.

From: The Commanding Officer.  
To: The Major General Commandant, Headquarters,  
U.S. Marine Corps, Washington, D.C.  
Via: The Commanding General, 2nd Brigade.  
Subject: Marine Corps Operations in Nicaragua.  
Reference: (a) Letter Chief of Air Service, U.S.A.,  
385 dated 21 February, 1928.  
Inclosures: (1).

The attached inclosures are forwarded herewith for transmission to the Chief of the Air Corps, U.S. Army in reply to his queries forwarded with reference (a). The intensity of operations does not permit of more extensive comments at this time. Furthermore, it would be well to await the completion of active operations before reporting in detail on the experience gained.



ROSS E. ROWELL.

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RER-mas.

HEADQUARTERS, AIRCRAFT SQUADRONS, 2ND BRIGADE, MANAGUA, NICARAGUA.

23 March, 1928.

Replies to queries by Chief of Air Service U.S. Army, dated 21 February, 1928.

(a) For a period of ten (10) months the squadrons operated from a two-way field with a 550 yard runway. There were no hangars of any sort and the command and shops were under canvas. After that period a new field about 700 yards square was acquired with permanent shelter for the personnel and shops. Hangars are now being erected. The base airdrome is 200 feet above sea level. Various advanced airdromes are from 300 to 3000 feet above sea level.

The squadrons were transported to Nicaragua on Naval Auxiliary vessels. Airplanes were carried on deck with the wings and tail surfaces removed. The wings were lightly crated and the fuselages were fully equipped with armament etc. Vehicles, wing crates, etc., were also carried on deck. Ammunition, fuel, spares etc., sufficient for three months operations accompanied the squadrons, as well as the usual camp equipage. The supply was maintained thereafter by Naval Transports and local railway facilities to the base airdrome. No serious difficulties have been encountered in maintaining an adequate supply. This is largely a question of efficiency and forethought on part of the engineering and supply officers. All advanced airdromes are supplied by air entirely. Interior guard duty at the base airdrome is performed by the personnel of the squadrons, using Thompson sub-caliber machine guns for this duty. Advanced airdromes are guarded by the local troops, using automatic weapons, properly disposed. Planes in hostile areas land on panel signals only. Ground troops are always in readiness to guard the base airdrome, but the necessity has never arisen.

(b) Originally the squadrons used DH airplanes of the standard Air Corps Type. They were equipped with 110 gallon gasoline tanks, A-3 type bomb racks, with front seat releases, one fixed Browning gun and one Lewis flexible gun. These planes were replaced later with Vought Corsairs and Curtiss Falcons. The Corsairs are the standard Navy O2U planes and the Falcons are of two types, viz; the standard Air Corps observation type and the ground attack planes, except that both types are powered with the Pratt and Whitney Wasp engines. All of these planes use the standard armament equipment except that bomb sights are dispensed with, bomb rack releases installed in the front

cock pits, and the Air Corps type of aerial gun sights installed. All airplanes are equipped and perform the functions of both observation and ground attack aviation. For liaison missions the observers use the standard infantry panel code, augmented to suit local conditions, standard pyrotechnics and the hand line grapnel for picking up messages from the ground. For air transportation, including the supply of advanced airdromes, ambulance service, transportation of infantry troops, supply of troops etc., Fokker tri-engine transport planes are used. One Loening amphibian is also available for utility purposes. Approximately 100,000 pounds of freight and two hundred passengers monthly are being carried by air. This includes ammunition, rations, medical supplies, radio equipment, clothing, sick and wounded men, casuals, armed infantry troops, etc.

(c) The number of man hours per flying hours, etc., is the same as at operating airdromes in the United States. The minor difficulties encountered are the same as are usually met with on cross country flights in America. The planes must be staked down, control surfaces battened, engines and cockpits covered, precautions taken against the ravages of rain, wind and sun, etc. Wing panels only last about three months when exposed to the tropical weather.

(d) Flights from the base airdrome have been made daily throughout the year with one or two exceptions. During the dry season flights can be made throughout the daylight hours on the western side of the continental divide. During this period there are usually three or four days a month when certain mountain areas cannot be penetrated by airplanes due to low misty clouds and fine rain. During the rainy season there are usually four or five days per month when low clouds and rain block off some of the mountain areas. In the rainy season, middle of May to late October, violent local rain squalls prevail in the afternoons. At such times flying conditions are frequently dangerous and cross-country flying in the afternoons is avoided as much as possible. A ceiling of 4000 feet is necessary to penetrate the mountainous areas. Very little heating trouble has been encountered with water cooled engines, although shutters are removed during the hot season. With new, clean radiators, there should be very little trouble with overheating.

(e) The altitudes flown on reconnaissance missions are governed entirely by the strength and distribution of the enemy forces, the nature of the terrain and the attitude of the enemy toward aircraft. When the enemy is in large force and considerable numbers of machine guns are present airplanes penetrating the hostile area are sometimes forced as high as 4000 feet. Under average conditions such flights are best made at about 1500 feet, although the pilots and observers

must be very alert and careful not to fly directly over a large group at that altitude. However, even large groups may be approached to within fairly good reconnaissance distance at an altitude of 1500 feet so long as the planes do not fly over him. When the enemy is in small groups and adopts hiding tactics, air patrols fly at the lowest altitudes possible. Of course great alertness must be exercised on part of the personnel. Such planes practise erratic movements and "S" turns are continually made.. Proper altitudes for ground attack missions cannot be prescribed. They vary widely and are governed by the strength and distribution of the enemy and the terrain. Generally speaking, it is essential to have from 1000 to 1200 feet altitude at the moment an attack begins in order that the plane may gather the high speed necessary for a safe approach and departure, particularly the latter.

(f) Bombs of the fragmentation type are greatly superior to machine guns against ground troops. A few 50 pound demolition bombs can be used to good advantage as they have a very marked moral effect on ground troops. The free guns can be used effectively to dislodge men in deep trenches or pits. The fixed guns are used primarily to cover bombing approaches, and after the bombing attack has been completed both fixed and free guns are used in "mopping up" operations. W.P. hand grenades were tried out also but the success obtained was mediocre. Horses and mules are frequently killed by fragmentation. It has rarely been possible to check up on casualties inflicted by aircraft. Usually ground troops have not been present during air-ground engagements. Even when ground troops are present the Nicaraguan outlaws nearly always succeed in carrying away their own dead.

(g) Rifle fire is effective against airplanes up to 2500 feet altitude. From 2500 to 3500 feet occasional hits are made on planes. At 4000 feet no hits have been registered and this altitude is considered safe for vertical photography. The planes of this organization average about one hit per plane per engagement. At the present writing 83 hits have been made on the planes by ground fire. Nearly every part of the airplanes has been struck, including wing panels, ailerons, spars struts, flying wires, tires, longerons, stabilizers, elevators, fittings, rudders, gasoline tanks, etc. Only one plane has been forced down by rifle fire and that was due to a punctured gasoline tank. One observer has been wounded in action. Machine guns have been used against the planes. They are considered much more dangerous than rifle fire.

(h) Surprise of ground troops by aircraft is very difficult but is accomplished from time to time. Planes are almost invariably met by rifle and machine gun fire on the first attack. Practically the only times when such is not the case are occasions when the enemy thinks that he is well concealed and refrains from firing.

(i) Airplanes operating against small groups work in pairs, against large groups three planes attack in column, and, if the objective is of considerable size, the planes attack in two or more columns simultaneously. Not more than three planes are usually employed on one target, although at Ocotal five planes were used in one column. Planes attack singly, in columns utilizing high speed, diving approaches and erratic departures. Formations are not used and would rarely be practicable.

(j) The targets are usually dismounted men, although mounted troops and pack trains are sometimes attacked. Dismounted troops are usually encountered in small groups who immediately deploy in all directions and take cover with marked skill. Sometimes they are found in buildings but they seldom remain in such cover when they find that they are discovered.

(k) Air patrols usually find their own objectives, but sometimes the targets are located by previous reconnaissance. At Ocotal and Chipote the targets were known in advance. Both situations are certain to occur.

(l) No statistics have been computed relative to the flying time of individuals. The average flying time of an observation pilot is about forty hours per month. The highest flying time for an observation pilot has been 86 hours in one month. The highest time for a transport pilot has been 124 hours in a single month. Transport pilots frequently exceed 100 flying hours per month. Observation pilots frequently have eight hour flying days.

(m) Distinguishing hostile outlaws from innocent citizens is a most difficult problem. Many outlaw groups doubtless are permitted to escape attack because of doubtful identification.. Exceptional skill and continued experience is relied upon to identify hostile groups. The following are some of the signs that are depended upon: Hostile fire, visible arms, number of persons present compared to normal population, proportion of women to men, number of horses and pack animals present, number of cattle seen, actions of individuals in presence of planes, amount of washing observed in area, condition of trails, general appearance of villages and farms, actions of people known to be innocent, ground intelligence reports, character of citizens in the area, occasionally earth works for defense or prepared ambushes are found, etc. etc. The greatest care in the study of details, sharp and well trained eyes, and an intelligent interpretation of signs is necessary to secure results in this work. The pilot and observer must expose themselves to attack at low altitude when the enemy is hiding. Many of our planes have been shot up when engaged on this type of close reconnaissance.

On several occasions the enemy has been discovered by flying so low that saddled mounts could be seen concealed inside of dwelling houses.



ROSS E. ROWELL,  
Major, U.S. Marine Corps,  
Commanding.

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