



Mr. J. R. Sirmons' Grumman FF-1 at Gregg County Airport. Color is light yellow with light green trim. (Celerier)

GRUMMAN FF-1 FLIES AGAIN

By LUIS R. CELERIER

Back in January 1930, the Grumman Aircraft Engineering Company opened its doors in a small garage located at Baldwin, Long Island, New York. Their products, at first, consisted of spare parts for the then popular Loening Amphibian, but as the depression took its toll of the aviation industry, Grumman had to resort to the addition of truck bodies to its production line.

Undiscouraged by the financial chaos of the times, the personnel worked and succeeded in designing a radically-improved float gear which resulted in a large Navy contract that enabled them to produce the first Grumman aircraft. This airplane, the XFF-1, made its debut in 1932, and since that time the U. S. Navy has rarely been without a goodly number of Grumman aircraft in its inventory. Subsequent to the XFF-1, 27 FF-1s were built for the Navy as were 35 similar SF types, and in 1937 the Canadian Car and Foundry Co. Ltd., of Canada, built 52 similar G-23s, mainly for export, with Grumman supplying the fuselage shells.

The Grumman FF-1 was an all-metal, deck reconnaissance fighter whose ruggedness was again proven when, out of the past, an FF-1 type flew into the Gregg County Airport at Longview, Texas on February 10, 1966. Where did it come from and how did it get there? The story has the background typical of many antique aircraft flying today.

It is reported that after service with the U. S. Navy, 14 FF-1 aircraft were sold, in 1935, to the fledgling Nicaraguan Air Force which also received at least one CCF G-23 in 1938. The planes remained first line fighters until the early 1940s. They were then declared obsolete, and the remaining FF-1/G-23's were sent to the junk heap.

In 1961 Mr. J. R. Sirmons of Atoka, Oklahoma ran into the last battered and torn FF-1 type as it sat on a junk heap in Managua, waiting to be melted down for the aluminum in its airframe. For the previous four years,

and since, Mr. Sirmons had been going to Nicaragua in the wintertime to fly a fertilizer and spraying plane for the owner of a 4,000 acre banana plantation. When he found the aircraft he could not identify it as to model, but he knew it was a Grumman and not a very common one. He paid the junk dealer \$150.00 for the machine and then wrote Grumman Aircraft. He described the plane and asked for identification, parts and information. Grumman identified it as an FF-1 and informed him that parts for the type had long been extinct. However, an original instruction book on the plane was furnished and using this, Sirmons set to work on the restoration job.

His immediate need was for flying wires. Using the specification from the Grumman manual, he contacted McWhite, Inc. of Kenosha, Wisconsin, and they made him a set for \$750.00. His wife, Norma, and his daughter, Diana, helped by sewing new fabric on the unusually new-looking wing frames. But that was only a start. During the four years after the discovery, Sirmons traveled approximately 10,000 miles looking for nuts, bolts and screws and spent about eight thousand dollars in cash to bring the plane back to a flyable condition. Some parts of the plane had to be made anew. When found it was minus elevators and, with reference to the Grumman manual, a set of old Stearman elevators was reworked. Parts of the cockpit frame were refashioned by hand and the center portion glass was replaced by metal. Also, the stabilizer supports had to be hand-made, and all new or "borrowed" instruments were installed. Rigging and erection was done according to the Grumman manual and the figure at the top of page 181, and upon its maiden flight it was found that only a small adjustment to the right on the rudder trim tab was necessary.

The original engine, a Wright R-1820 model of about 750 hp, was beyond repair with the means available in Managua, so he borrowed a 600 hp Pratt & Whitney engine

in order to fly the airplane back to the United States and his home town. Although the manually-operated, retractable landing gear functioned, it had a kinked bushing (the plane had been belly-landed once) which might have jammed the gear in either the up or down position. Consequently, the wheels were locked in the down position, with the wheel wells sealed over, for the flight back to the 'States.

With the 600 hp engine and the gear down, the plane cruises at 130 mph, handles very well, is stable and has a good solid feeling on all controls. It is very hard to land in cross-winds, however, and visibility during taxiing is quite limited.

Now that he has the plane back home, Mr. Sirmons is tackling the job of bringing it up to its original form in all details. He also has an invitation from Grumman to fly the plane to Long Island.

Some details of the FF-1 follow:

Top Speed: At Sea Level - 233 mph
At 8000 Ft - 261 mph
Engine: Wright R-1820-F
Starter: Hand inertia, with Integral Booster Magneto (Series II)
Wheels/Brakes: Standard 32" x 6" wheel and brake, operated by pressing top of rudder pedals.
Shock Absorber Struts: Two type X-362 and one type CV20.
Tail Wheel: Rubber-tired, 2 1/2" x 6".
Propeller: Hub--Hamilton Standard
Blade--The Fay-Egan Mfg. Co.
Emergency Flotation Equipment: Located in compartments built into the underside of wing. CO₂ inflated. To be released immediately after emergency landing, these bags will keep plane afloat with the water line approximately 6" under upper wing.
Fuel System: One main tank of 82 gals and one reserve tank of 38 gals located in the fuselage with motor-driven pump.
Oil System: Consists of a single tank, an oil cooler and oil lines. Tank capacity--8.5 gals.
Instruments: 1 compass (mounted under upper wing)
1 Bank and Turn Indicator
1 Airspeed Indicator
1 Altimeter (sensitive type)
1 Clock
1 Tachometer

1 Engine Gauge Unit
1 Fuel Gauge (Main Tank)
1 Thermocouple Gauge (for 2 cylinders)
1 Accelerometer
(Ammeter and Voltmeter installed in the observer's cockpit.)

Landing Gear: Retracted and extended manually. Approximately 20 turns of the crank are required to raise or lower wheels. A positive lock automatically engages on the "fully down" position. A buzzer in the cockpit will operate when the throttle is closed if the wheels are not in landing position.

Armament: Two .30 cal. M-2 Browning machine guns mounted in fuselage forward of the instrument board. Necessary brackets and fittings have been provided to allow the installation of a .50 cal. Browning gun in place of the right hand .30 cal. gun. Sight can be the Mark I telescope or the open type.

One .30 cal. Browning, with flexible mounting, is provided in the rear cockpit.

Pyrotechnics: a. "Very" pistol with 12 rounds of ammo.
b. Two smoke candles with handle.
c. Provisions for installation of two M-3 parachute landing flares in fuselage.

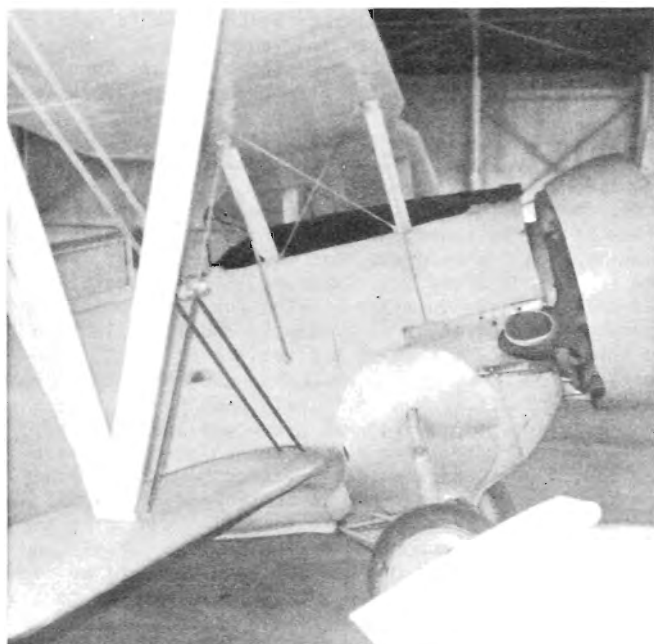
Camera Gun: Provision is made for the installation of a camera gun on top of upper wing approximately 2 1/2" off-center. (See opposite)

Communications Equipment: 6M radio set in observer's cockpit. Radio direction finding loop in right hand wing cell.

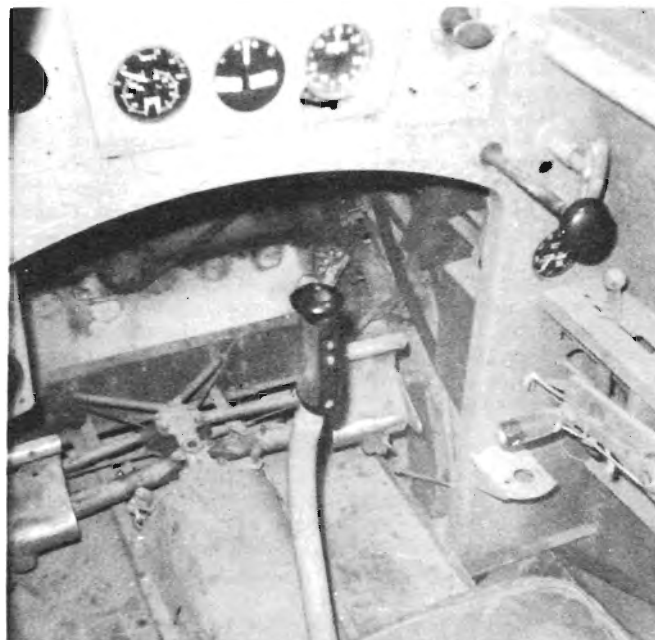
Navigating Equipment: Chart Board 15" x 11". Set of charts. Aircraft plotter.

Miscellaneous: a. Tool kit directly behind engine.
b. Hand fire extinguisher, pilot's ckpt.
c. First Air kit, observer's cockpit.
d. Log Book, pilot's cockpit.
e. Two man life raft aft of rear cockpit.
f. Safety belts.
g. Oxygen equipment installation.

Editor's Note: The author, of 1203 East Pine St, Longview, Texas, and Mr. Sirmons are still attempting to determine the c/n and full background of this plane.



Landing gear faired over for return to U. S. (Celerier)



Cockpit detail of the FF-1, February 1966. (Celerier)

