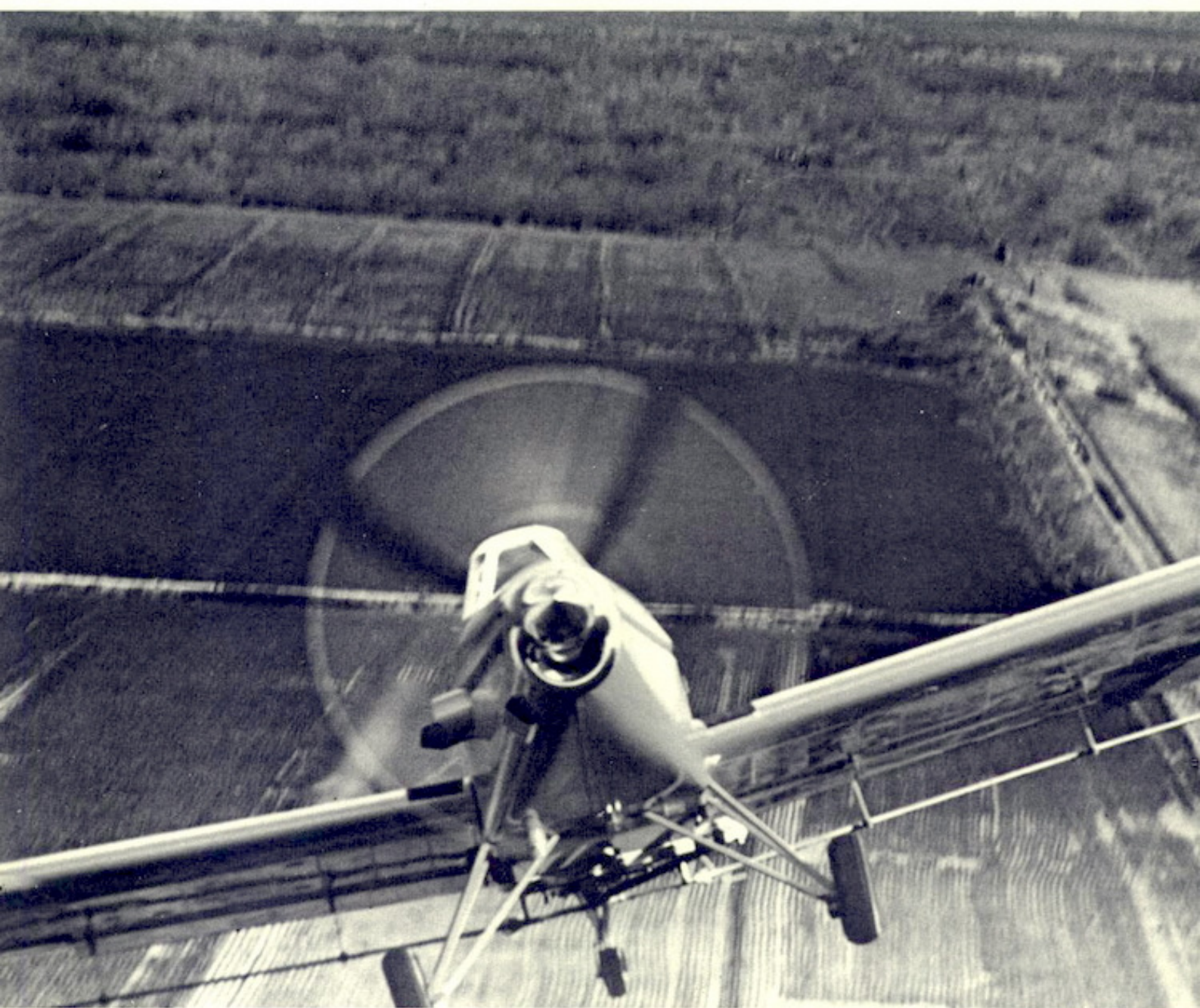


The Exciting

Turbo Thrush MODEL S2R-T

From ***Marsh Aviation***



AT MARSH WE TAKE PRIDE IN OUR WORK

Each Marsh turbo conversion is built to exacting standards. Close inspection will reveal the level of engineering design and precise construction seldom seen in these days of mass production short cuts. As opposed to many aircraft conversions where the prime

consideration was only to change the power plant, the Marsh Turbo Thrush is a complete conversion to turbo prop power in which every mode of operation and detail has been considered.





HERE ARE THE FACTS:

LOWER OPERATING COSTS THROUGH THE USE OF DIESEL FUEL.

The ability to utilize low cost diesel fuel in the Marsh Turbo Thrush, along with its lower fuel consumption (approximately 25% less than competitive aircraft) make it possible for Marsh Turbo Thrush operators to realize tremendous savings in fuel costs.

OPERATES ON THE GROUND INDEFINITELY

We have chosen to cool the oil by means of jet eductor which enables the pilot to operate on the ground indefinitely with no fear of overheating. The exhaust exits on the right side only so that it will not impinge on a wing man loading dry material.

To promote the best possible handling, the length of the nose was designed to be only 18 inches longer than the piston Thrush.



BALLAST NOT REQUIRED, CLEAR VISION

The aircraft was also engineered so that it does not require the use of ballast.

You will find no air scoops on the nose of the Turbo Thrush to obstruct the pilot's vision.

FAST, RELIABLE STARTS

Care has been taken to provide an excess of onboard electrical power for fast, reliable starts without the use of ground power. For ease of servicing, all electrical regulators, relays and switching are contained in one easily accessible box. Instrument panels are well designed and lighted with all switches conveniently placed in front of the pilot.

DESIGNED FOR EASY MAINTENANCE

All systems in the Marsh turbo conversions are designed to be rugged, simple and easy to maintain in the off airport environment of agricultural operations. It has been constructed with only the finest components available.

EXCELLENT POWER, RUGGED, ECONOMICAL

The heart of the Marsh conversion is the Garrett AiResearch TPE331 turboprop engine which was originally designed to power the Army's OV-10 forward air control aircraft. While most small turboprop engines were designed to power commuter airlines, the 331 has the unique distinction of being the only turboprop engine on the market specifically designed as prime propulsion power for S.T.O.L. aircraft operating in hostile off airport conditions.

The extremely rugged engine gives excellent power economically and instant power response from any configuration while requiring an absolute minimum of maintenance. The Garrett

engine was designed so that it **does not** require the use of inlet filtering devices. Instead, the use of centrifugal compressors in the 331 allow it to operate in the harshest environments without damage from sand, dust, chemicals or other foreign matters. These features, combined with Garrett's product support system and extremely long time between overhauls (up to 9000 hrs. in some cases) make the TPE331 the ideal choice to power an agricultural aircraft.



A PERFECT BALANCE OF DESIGN, ENGINEERING, EXPERIENCE

The Marsh Turbo Thrush is the result of many years of research and painstaking development that involved all aspects of its design and modes of operation.

It is the perfect balance of clean aerodynamic design and the application of sound engineering principles combined with Marsh Aviation's 36 years experience in agricultural aircraft operations. The result is a well proportioned, extremely rugged, high performance conversion of the Rockwell Thrush Commander that combines excellent flight characteristics with the utmost reliability, while requiring a minimum of maintenance. The quality of our work is borne out by the fact that over 90% of our previous Marsh Turbo Thrush customers have already placed additional orders.

AT MARSH WE'RE PROUD OF OUR AIRPLANES

and one look will tell you why!

PERFORMANCE DATA

Fuel Capacity [useable]	100 gal.	378.5 Liters
Type Certified Gross Weight	6000 lbs	2721.0 Kg
Empty Weight	3600 lbs	1632.9 Kg
Typical Operating Weight [Part 8]	7800 lbs	3537.4 Kg
Hopper Capacity [53 cu. ft.]	400 gal	1514 Liters
Length	30'5"	9.296 Metric
Height	9'2"	2.796 Metric
Wing Span	44'5"	13.547 Metric
Wing Area	326.6 sq. ft.	30.047 M2
Tread	8'11"	2.719 Metric
Service Ceiling [gross Weight]	25,000 ft.	7620 Metric

MAXIMUM SPEED WITH SPRAY EQUIPMENT

Cruise - 50% Power	146 mph	234.9 KPH
Ferry Range - 60% Power	600 Miles	965 Km
Working Speed - 50% Power	125 mph	201 kph
Stall Speed, Gross wt. Flaps up	48 mph	77.2 kph
Stall Speed, Gross wt. Flaps down	44 mph	70.8 kph
Stall Speed as usually landed [Flaps up]	45 mph	72.4 kph
Stall Speed as usually landed [Flaps down]	43 mph	69.1 kph
Sea Level Rate of Climb [Gross wt.]	3000 fpm	914.4 mpm
Fuel Consumption	20-40 gph	78 lph

Take Off Roll [W/400 gal insecticide/100 gal fuel]	600 ft.	182 meters
Landing Distance	300 ft.	91 meters
Cruise 50% power 10,000 feet Density Alt. 171 MPH Grnd Spd.		
Instantaneous Power Response - rugged fixed shaft engine		
Engine Braking - Ground or in Air		
Increased propeller clearance		
Low engine aerodynamic drag		
Airesearch world wide product support		

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