

ERA19FA200 | Rans S-6S Coyote II, N661PF

Fletcher, NC | June 26, 2019

Airplane Pilot Operating Handbook Excerpts

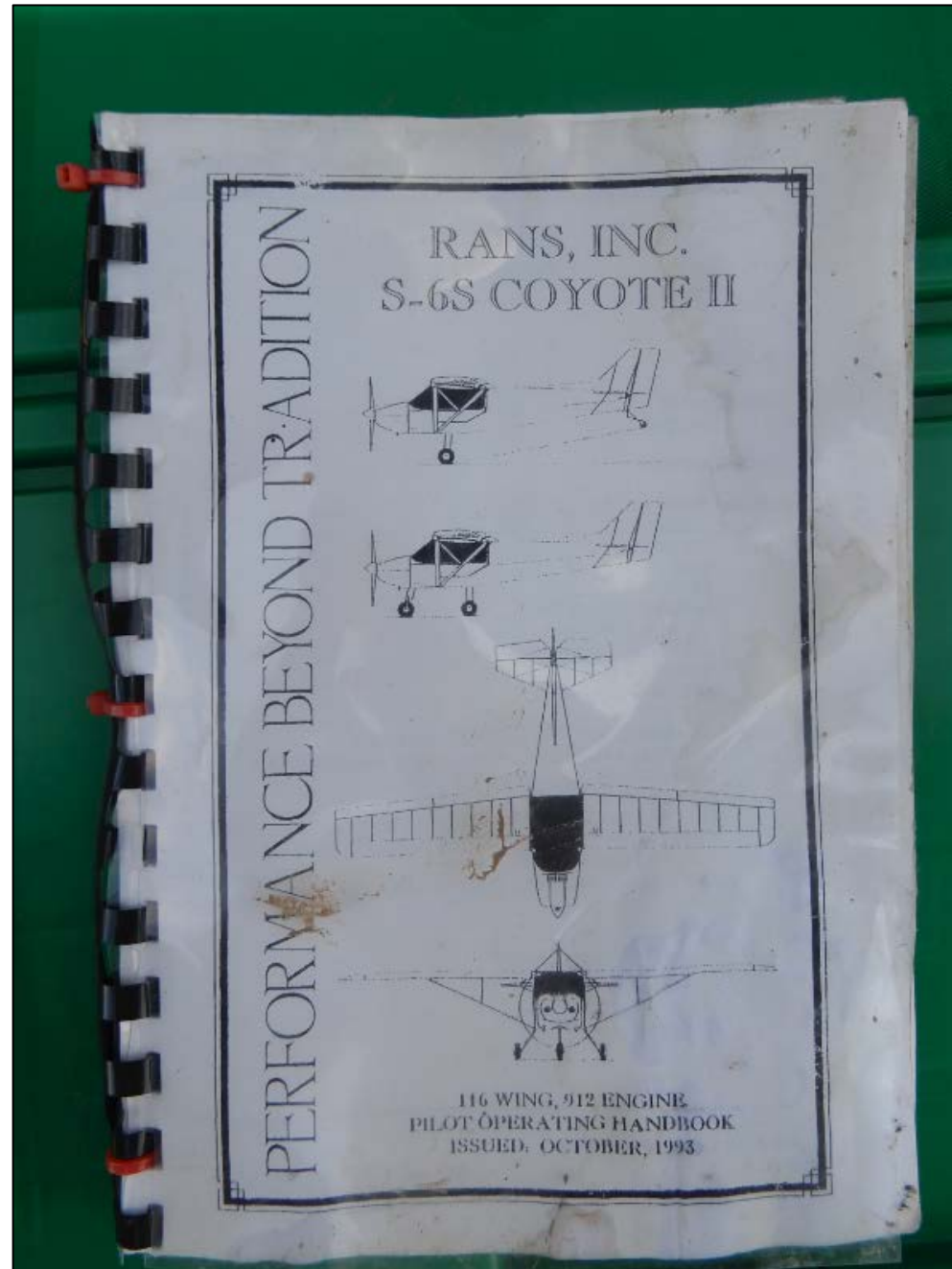
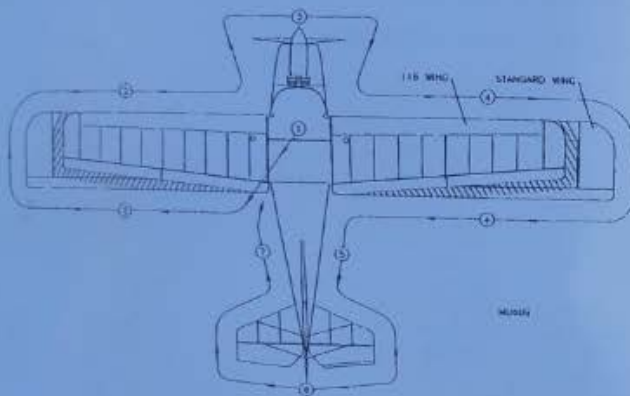


FIGURE 3-1

PRE-FLIGHT INSPECTION

~~RANS S-6S~~ COYOTE II
PRE-FLIGHT INSPECTION



1. COCKPIT
2. LEFT WING
3. NOSE SECTION
4. RIGHT WING
5. FUSELAGE (RIGHT SIDE)
6. FUSELAGE (RIGHT SIDE)
7. FUSELAGE (LEFT SIDE)

AIRSPEEDS FOR NORMAL OPERATIONS

Unless otherwise noted, the following speeds are based on a maximum weight of 1200 lbs (545 kg) and may be used for any lesser weight.

	IAS (MPH)
Best Rate of Climb Speed (V_y)	75
Best Angle of Climb Speed (V_x)	55
Approach Speed :	
Flaps UP	60
Full Flaps DOWN	50
Rotation Speeds	35
Maximum Demonstrated Crosswind Velocity	20
Maximum Flap Speed	76

NORMAL PROCEDURES CHECKLIST

PREPARATION

Airplane Status	Airworthy Papers on Board
Pilot's Operating Handbook	Available
Weather	Suitable
Baggage	Weighed, Stowed, Tied
Weight and C.G.	Within Limits
Navigation	Planned

THE PERFORMANCE NUMBERS PRESENTED IN THIS SECTION ARE
MEASURED FROM FACTORY BUILT AIRCRAFT. YOUR AIRCRAFT
PERFORMANCE MAY VARY.

STALL SPEEDS

STALL SPEEDS POWER OFF

WEIGHT	FLAPS POSITION	BANK ANGLE			
		0°	30°	45°	60°
		IAS			
		MPH (km/h)	MPH (km/h)	MPH (km/h)	MPH (km/h)
1200 lbs (545 kg)	UP	43 (69)	46 (74)	51 (82)	61 (98)
	1 st NOTCH	40 (64)	43 (69)	48 (61)	57 (92)
	2 nd NOTCH	38 (61)	41 (66)	45 (72)	54 (87)
	3 rd NOTCH	36 (58)	39 (63)	43 (69)	51 (82)

NOTES:

1. Maximum altitude loss during stall recovery is approximately 75 ft (23 m)
2. IAS values are approximate

RATE OF CLIMB

WEIGHT	PRESS ALT. ft (m)	CLIMB SPEED (IAS) MPH(Km/h)	RATE OF CLIMB FPM (m/min)
1200 lbs (545 kg)	SL	75 (120)	1000 (305)
	2000 (610)	75 (120)	800 (245)
	4000 (1220)	75 (120)	600 (180)
	6000 (1830)	75 (120)	400 (120)
	8000 (2440)	75 (120)	200 (60)

NOTES:

Full throttle, flaps up, standard conditions
No instrument error correction

CRUISE PERFORMANCE

PRESS. ALT.	RPM	IAS	FUEL CONS
		MPH (Km/h)	Gal/h (l/h)
2000	5300	120 (193)	4.125 (15.6)
4000	5300	118 (190)	4.125 (15.6)
6000	5100	115 (185)	4.1 (15.5)
8000	5000	110 (177)	4.0 (15.1)
10000	4900	100 (161)	3.8 (14.4)

COYOTE II OPERATIONS

INTRODUCTION: Your airplane is unique, the information in this section is based off a factory built aircraft. Do not expect everything to be exact. Proceed with caution and verify the instruments before trusting them. FLY SAFE!

TAXIING: Taxiing the COYOTE II is easy even in a 30 mph wind. The direct linkage to the steerable nosewheel enhances the ground handling making tight turns a snap. If the wind is strong, learn to use it to your advantage. Taxiing into the wind with forward stick will increase nosewheel traction and enhance steering. Taxi slow or you may start flying. During downwind taxiing hold the stick neutral. Make small steering corrections and taxi slow. In the hands of a skillful pilot, the COYOTE II can taxi in winds up to 35 mph. Flying in high winds above 35 mph is also possible. However, this capacity should be used only as a means to get out of a situation not to invite one.

TAKE OFFS: The COYOTE II becomes airborne easily with rotation at 45 mph. Naturally rotation will vary with the gross weight. Normal, short field and soft field take-offs are possible using conventional techniques.

LANDINGS: Special attention to airspeed on approach is vital to making smooth landings. As with any aircraft too little speed and power and the COYOTE II will sink out of the sky. A good way to land the first time is to plant the mains first. Get established over the runway at 50 mph plus about 2 feet off the ground. Once things are stabilized, wings level, pitch smoothed out and flying straight down the runway, slowly reduce the power while gradually easing back on the stick, letting the plane settle onto the runway. **IMPORTANT:** Hold the nose off during landing. Avoid letting it drop once the mains are on. Swerving side to side may result when the nosewheel is dropped in cross winds or high speeds. This will familiarize you with the flare point.

Deadstick landings are done safely and smoothest if at least 60 mph can be maintained on approach. This gives you extra inertia and float, provided you flare at the right time. Lowering the flaps 2 notches in ground effect can give an extra boost to stretch the glide.

AIRWORK: The COYOTE II will perform like a conventional plane. The COYOTE II will tell you what it needs... if you are listening. Flight characteristics of the COYOTE II are similar to planes like the Cessna 140 and 150. Although all have their distinguishing manners, none do anything strange or unpredictable.

STALLS: Stalls have a warning buffet due the turbulent air from the wing root flowing over the elevator. The stall occurs with a definite break. Rudder may be needed to hold the wings level. Recovery is quick with the release of back pressure. Turning, accelerated power on and power off stalls all demonstrate the slight buffet and quick recovery.

TURNS: The COYOTE II banks quite easily with a minimum of adverse yaw. Lead into turns using a little rudder. Avoid steep banks until comfortable with the ship. Due to the quick turn rate, steep 360 degrees or 720 degree turns can be disorienting. Attempt these only after you are familiar with the airplane.

FLYING WITH THE DOORS OPEN OR REMOVED: The COYOTE II can be flown with the doors open up to and including 65 mph. The COYOTE II doors should not be opened at airspeeds above 100 mph. The COYOTE II can be flown with one (1) or both doors removed up to 65 mph. A loss in L & D, climb and cruise speed is to be expected with doors open or off operations.

APPROVED MANEUVERS:

- Stalls, all types except whip stalls.
- Falling leaf at low power settings (below 3000 RPM)
- Chandelles
- Lazy eights
- Spins up to 3 turns at idle power settings and without flaps only!

ALL AEROBATIC MANEUVERS EXCEPT THOSE APPROVED ARE PROHIBITED