

SECTION IV

NORMAL PROCEDURES

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4-9. PRACTICE AUTOROTATION

WARNING

Perform throttle rigging check prior to attempting practice autorotations (paragraph 4-4). Misrigging of the throttle control may result in inadvertent flameout during rapid closing of the twistgrip to the ground idle position.

Uncoordinated turns/maneuvers may cause fuel starvation with less than 35 LBS of fuel. Do not practice autorotations if the FUEL LEVEL LOW caution indicator is ON.

CAUTION

Do not perform intentional full touchdown autorotation with blade tracking reflectors installed on blade tips.

Make practice autorotation landings as follows:

For autorotation descent, the twistgrip should be in the full open or ground idle position. However, if a practice autorotation landing (minimum engine power) is desired, rotate the twistgrip to the ground idle position.

Increase collective pitch after establishing autorotation to prevent rotor overspeed if flight is at high gross weight or high density altitude. To reduce rate of descent or to extend gliding distance, operate at minimum rotor rpm. Restore ROTOR RPM (N_R) by lowering collective prior to flareout.

If a power recovery is desired, lower collective to full down, rotate the twistgrip to the full open position, verify that N_2 is between 102 and 103 percent and that full engine power is available prior to increasing collective.

Conduct practice autorotation at 131 knots IAS or below (see V_{NE} placards). Maintain rotor between 420 and 523 by use of the collective control.

NOTE: Keeping the rotor above 420 RPM will place the engine above the N_2 speed avoid range.

CAUTION

Refer to Section II "Power turbine (N_2) speed avoid range".

NOTE: Glide distances attained during an actual engine out autorotation may be less than the glide distances achieved during practice autorotations when operating at reduced RPM (N_2/N_R needles joined).

Touchdown in a level attitude.

Avoid use of aft cyclic control or rapid lowering of collective pitch during initial ground contact or during ground slide.

Autorotation RPM:

Normal rotor RPM (collective fully down) is 485 ± 5 RPM at 2250 pounds gross weight at sea level, 60 knots. Rotor speed will decrease approximately 10 RPM for each 100 pound reduction in gross weight and increase approximately 6.5 RPM for each 1000 foot increase in density altitude. For gross weights greater than 2250 pounds, increase collective control as required to maintain approximately 485 RPM.

4-10. DOORS OFF FLIGHT

Doors off flight is permitted in accordance with the restrictions noted in Section II.

WARNING

Any object that is not properly secured may exit the aircraft during flight.

Items secured with Velcro (i.e., first aid kit, seat cushions) should not be considered properly secured.

Secure or stow in the baggage compartment all loose equipment.

Secure or remove unoccupied seat cushions.

Use ear protection.

4-11. LANDING APPROACH

Set N_2 at 103 percent.

Set SCAV-AIR (if installed) as desired.

4-12. RUNNING LANDING

Maximum recommended ground contact speed is 30 knots for smooth hard surface.

Avoid rapid lowering of the collective after ground contact.

Avoid the use of aft cyclic after ground contact.