FAASTeam presents:

Helicopter Aerodynamics

Airfoils are used to create lift on airplanes, and the same is true for helicopters. On the helicopter, the airfoil is the rotor blade, and the spinning rotors create their own relative wind. At the airfoil level, much of aerodynamics is the same for both categories of aircraft, but when you look at the aerodynamics of the entire helicopter in flight substantial differences appear.

Join us for a discussion of the aerodynamics associated with a helicopter in flight. Topics will include: induced downwash, translating tendency, gyroscopic precession, dissymmetry of lift, ETL, retreating blade stall, and transverse flow effect. We'll end with a brief discussion about the aerodynamics of autorotation - the ability of a helicopter to glide to the ground without engine power and touch down in a very small landing area.

Interestingly, the material covered in the Private Pilot ground school course offered at San Carlos Flight Center is almost entirely aircraft unspecific. Although most of the students are going for an ASEL rating, nearly all of the content applies to both airplane pilots and helicopter pilots. The one noticeable difference is the lesson on aerodynamics. This free safety seminar contains

Event Details

Sat, Apr 16, 2016 - 12:00 PST

San Carlos Flight Center

655 Skyway Rd.

Suite #215

San Carlos, CA 94070

FAAST

FAA SAFETY TEAM

Contact: San Carlos Flight Center

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Representative Jonathan Slocum

the helicopter specific aerodynamics that supplements the Lesson #1 class of ground school - Airplanes and Aerodynamics.

Directions: Pilots who fly in should park in transient parking on the opposite side of the field and expect to walk about 10 minutes (.5 mile) to the Flight Center. Suite 215 is upstairs in the northwest corner. On occasion, rides may be prearranged through San Carlos Aviation and Supply.

A message from the National FAASTeam Manager

Invite a fellow pilot to the next WINGS Safety Seminar in your area.

Sign up for the FAA's safety services at www.FAASafety.gov!