



ESPCI
Laboratoire PMMH
10 rue Vauquelin, 75231 Paris Cedex 05



Séminaire café - PMMH

Bureau d'Études, Batiment L, 2^{ème} étage

Jeudi 09 mars 2017, 13h30

Adam Anglart

Stagiaire au PMMH

Flow around the wing of Cessna 150 aircraft. How to land safe and sound without an engine ?

Take-off and landing are said to be the critical phases of flight. It becomes even more dangerous when there is an engine failure. All modern commercial aircrafts are designed to maintain a steady flight even without one of the engines. But what if all of the engines fail or the aircraft has only one engine which cannot be longer operated ? Is the catastrophe bound to happen ?

The goal of this project is to analyse the possibilities of landing safely when the aircraft is deprived of the engine power. Stall speed characteristics for different flap configuration and roll angles as well as lift-to-drag ratio and the polar curve are studied experimentally for Cessna 150 aircraft. The Thin Aerofoil Theory is used to establish the influence of flaps and ailerons on the low-speed subsonic flow around the wing of the aircraft. The experimental results are compared to the theoretical ones.

Prochain séminaire : jeudi 16 mars 2017 à **13h30**,

Leïla Frouillou, post-doctorante équipe ESCOL du CIRCEFT, Paris 8 Vincennes-Saint-Denis.

Programme des séminaires café : <https://www.pmmh.espci.fr/?-Seminaire-Cafe-Interne->

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