



# Accident to HW-335 Kruunupyö 28 September 2006



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# Background

- ◆ Accident flight was part of Training Air Wing's field exercise conducted while deployed to Oulu.
- ◆ Flight's objective was to practice instrument approaches in night conditions.
- ◆ Kruunupyö aerodrome was selected for instrument approaches.





# Flameout

- ◆ Climb was initiated at approximately 50 m height.
- ◆ Pilot reported that 10 s after initiation of climb he heard "recoil-like" bang followed by illumination of several warning and caution lights, smoke in cockpit, and flameout.
- ◆ Height was approximately 100 m and airspeed approximately 250 km/h.
- ◆ Pilot made two relight attempts.





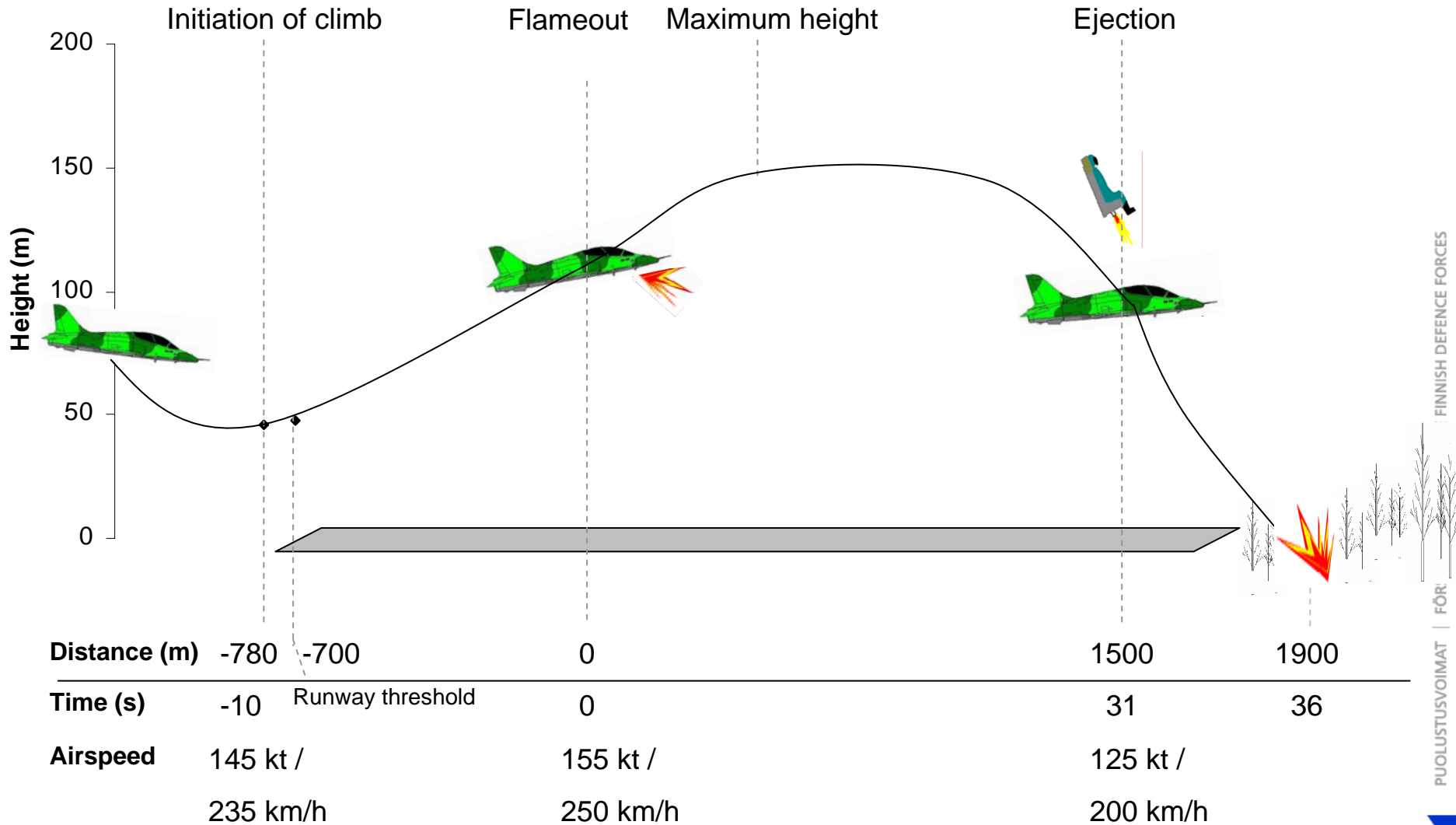
# Flameout

- ◆ Two dead waterfowl were found on runway.
- ◆ Examination of engine showed evidence of ingestion of several birds or remains of birds.
- ◆ Ingestion of birds resulted in flameout.





# Trajectory of HW-335



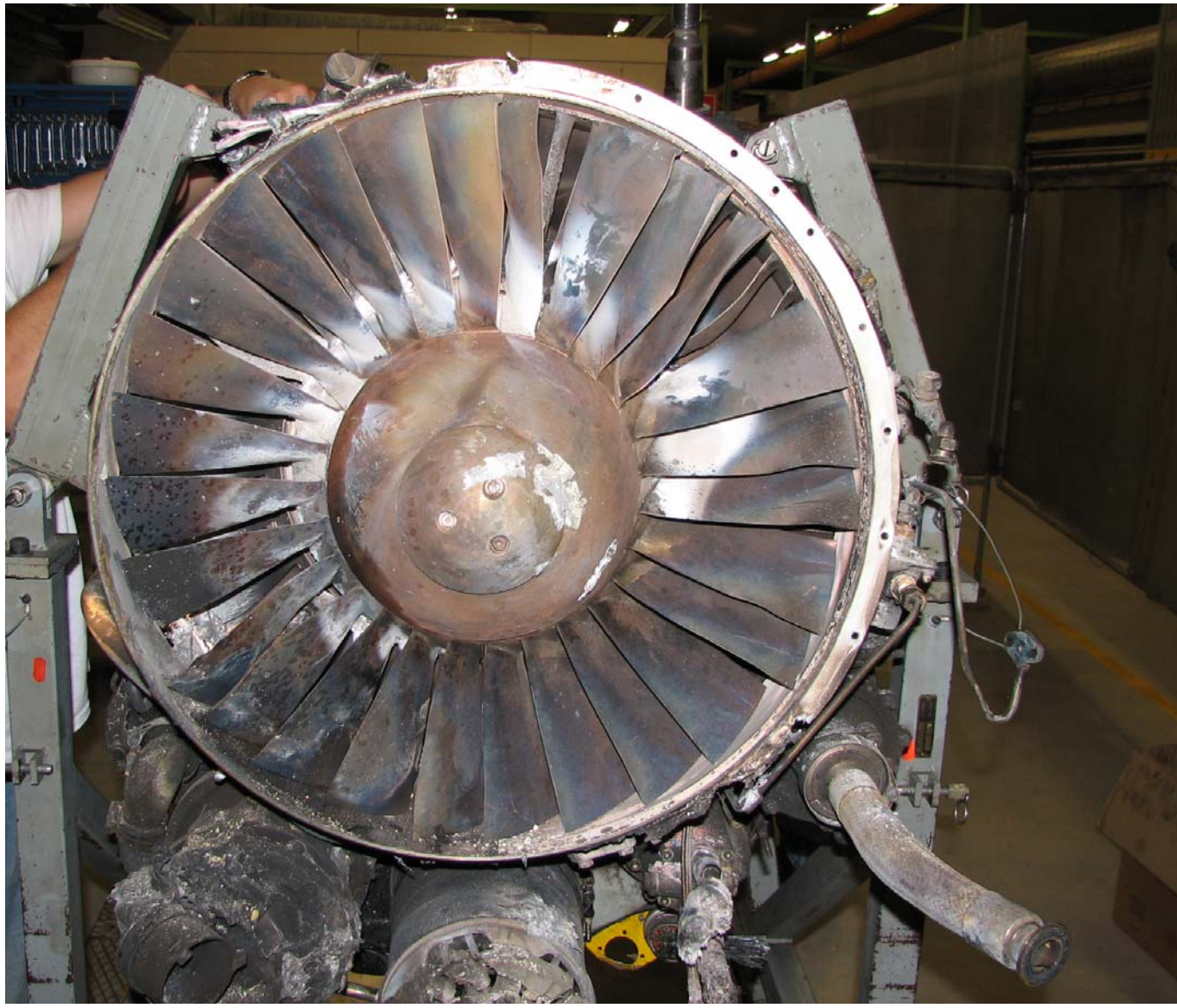


Lentäjän laskuvarjo

Putoamispaikka

Putoamispaikka







# Ejection

- ◆ Ejection was initiated at approximately 90 m height.
- ◆ Ejection took place 31 s after flameout.
- ◆ Aircraft impacted terrain 5 s after ejection.
- ◆ Pilot sustained only bruises and aching muscles during ejection.







# Investigation of Birds

- ◆ Investigation by Zoological Museum identified birds as European wigeons (*anas penelope*), medium-sized anseriforme of 43 to 51 cm length, weighing 600 to 800 g. They fly in rather dense flocks of varying sizes, migrating both at night and in daytime.





# Cause of Accident



- ◆ Aircraft struck flock of European wigeons during climb. Ingestion of birds into engine resulted in flameout, and relight was not possible due to low height and airspeed.





# Investigation Board's Safety Recommendations

- ◆ Bird migration forecasts are improved.
- ◆ Air Force's procedures are reviewed against observed bird migration patterns.
- ◆ Risk analysis for Air Force's field exercises is improved.
- ◆ Authorities review their training procedures and documentation.
- ◆ Flight representative of accident flight is incorporated in Hawk simulator training.

