

CSA Winch Syllabus

Pilot Training

Training Summary

- ground instruction
- flight instruction
- winch quiz
- solo flights
- PIC endorsement per FAR 61.31(j); CSA pilot card endorsement

Ground Instruction

Recommended reading: *CSA Winch Procedures; Ground Launches* by Derek Piggott

General Topics:

- checklists
- the launch environment
- minimum and maximum speeds
- launch signals: from flags
- wire breaks or winch failures
- crosswinds and other wind effects
- weak links: importance and selection
- wing angles during climb
- thermaling from a winch launch
- lightning, wind shear, and other weather hazards
- airborne signals
- altitude/attitude trade-off
- release procedures
- observe other pilots' launches
- load factors
- symptoms of nearing the end of the launch
- ground operations

Emergency Procedures:

- porpoising
- too fast or too slow
- release failure
- launch failure or cable break
- cable overrun on launch
- low patterns

Seven Rules of Ground Launch:

1. Use the correct weak link.
1. Don't launch in a tailwind.
2. Don't hook up until ready to fly.
3. Begin the takeoff with the stick forward.
4. Ease cable tension before release.
5. If airspeed is out of limits (high or low), lower the nose and release.
6. Be ready for a failure! Never be too slow or steep to recover.

Flight Instruction

First Flight: Instructor demonstrates, pointing out ground signals, stick forward on takeoff, smooth rotation, confirmation of speeds, reference to ground features, release procedure.

Basic Flights: Student practices.

Advanced Flights: Simulated cable breaks/winch failures: below 50'; below 300'; below 600'.

Winch Quiz

Complete the *CSA Winch Operations Quiz*.

Solo Flights

Before receiving the FAA endorsement, your instructor should endorse you for solo flights and observe and critique at least six solo flights.

PIC Endorsement

See FAR 61.31(j) for logbook endorsement. CSA pilot card must be endorsed.

CSA Winch Syllabus

Driver Training

Training Summary

- observe 20 launches
- perform 20 supervised launches
- winch quiz
- CSA pilot card endorsement

Ground Instruction

Recommended reading: *CSA Winch Procedures*; *Ground Launches* by Derek Piggott

General Topics:

- checklists
- winch controls
- winch deployment
- winch environment
- walking the cable
- minimum and maximum speeds
- launch signals by flags
- launch signals by radio
- wire breaks or winch failures

- crosswinds and other wind effects
- airborne signals
- concurrent operations
- lightning, wind shear, and other weather hazards
- release procedures
- guillotine / bolt cutters
- symptoms of nearing the end of the launch
- wire retrieval
- wire repair

Emergency Procedures:

- porpoising
- too fast or too slow
- release failure
- launch failure or cable break
- cable overrun on launch
- stalled winch

Driver Instruction

- Demonstrated Flights: Instructor demonstrates, pointing out ground signals, control usage, power application, speed cues, release procedure.
- Supervised Flights: Trainee practices.

Winch Quiz

- Complete the *CSA Winch Operations Quiz*.

Standards

These standards must be met before acting as Winch Operator or Retrieve Driver.

- observe 20 launches
- perform 20 supervised launches
- winch quiz
- CSA pilot card endorsement

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