

Flight Design USA

Syllabus for Transition to a



Flight Design CTLS Light Sport Airplane



Introduction

This syllabus will be used as the guide to become a safe competent Flight Design CTLS pilot.

The CTLS is a high performance Light Sport Aircraft designed to be used for travel, training and local flying under VFR conditions. The following document and the supervision from a Flight Design trained Flight Instructor will allow you to understand how to safely use the plane as intended by the Manufacturer.

Before you begin the transition training process please take time to consider what you are about to undertake. The CTLS is made for fun but learning to fly a new type of aircraft is serious business. The hull value of your plane the safety of yourself and others can be affected by the success of the transition training program.

Most pilots should plan to take two or three days to complete the following syllabus. As a light sport aircraft the CTLS has different characteristics than other aircraft and will required a different skill set and individual training time will vary based upon the pilot skill level. The transition will require that you take adequate time to acquaint yourself with things like a transition to an all glass panel, an advanced autopilot, a Garmin GPS or the numerous Rotax powered engine differences. These all will be experienced while flying a low mass, more complex aircraft if you are used to an older part 23 GA aircraft or if you are transitioning from a lighter less capable aircraft the avionics, systems and speed will be the biggest challenge to a speedy transition.

Before the flight a briefing will be done by your instructor and after each lesson you will discuss what you have done, and he will answer any questions. The complete transition training program should be expected to take two full days under most conditions. You should plan on more days to complete this transition training if there are special circumstances or you desire more intensive training.

Each lesson has an objective and completion standards.

An open book written exam must be completed 100% correctly and will be graded by your instructor prior to lesson 1.

Day 1:

Exam completed

Lesson 1	Ground time 2-3 hours	flight - 2 hours
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Day 2:

Review

Lesson 2	Ground one hour	flight - 2 hours
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Lesson 3	Ground one hour	flight one hour
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These times are for guidance only.

Outcome of each Skill will be noted as: Meets Criteria or Needs Practice

Lesson 1

(2 – 2.5 hrs)

Objectives:

Transitioning pilot will become familiar with pre flight, ground handling, engine and cooling systems and to understand required inspections and determine the fitness for proposed flight. He will understand how to care for the airplane.

Pilot will become familiar with normal CTLS aircraft performance, including fuel consumption, appropriate V speeds for flight operations, weight and balance and will have received instruction on the use of the Flight Training supplement and Aircraft Operation Instructions.

Will be able to do normal and cross wind taxi and takeoff along with normal traffic patterns. Will conduct normal climbs, descends, turns and exhibit positive control of the aircraft within a wide range of flaps and speeds. Will be able to conduct stalls, steep turns, slow flight in all flap configurations at proper flap speeds.

Pilot will be proficient doing normal and accelerated stalls and recoveries with and without flaps. Pilot will become familiar with the landing attitude and ground handling characteristics of the CTLS.

Preflight Discussion -

___	AOI and Flight Training Supplement	___	Engine Starting and proper warm up
___	Maintenance and Service requirements	___	Taxiing
___	Engine,	___	Before Takeoff Check
___	Propeller,	___	Normal Takeoff (0. 15 Flaps)
___	Fuel and Fuel System,	___	Climbs, Straight and Level, Descent, Turns
___	Oil system,	___	Slow Flight at all flap settings
___	Coolant used	___	Establishing proper speeds
___	Landing gear, control surfaces, Flaps, Seat adjustments	___	Power Off Stall (Approach to Landing stall)
___	Weight and Balance, Loading and performance	___	Normal Approaches and Landings
___	Preflight Inspection	___	Aborted Landing (35 Flaps)
___	Avionics Briefing	___	Parking and Securing,
	EFIS, EMS, GPS, Radio,	___	Post Flight,
	Transponder, Autopilot	___	Cleaning and Cleaners

Postflight Discussion

Completion Standards

You will have satisfactorily completed this lesson when you can, preflight, start, taxi, takeoff, perform the basic maneuvers and control the aircraft in slow flight with all ranges of flaps and in normal and slight cross wind conditions.

You will be able to find information regarding the aircraft from the documents on board. You will be able to fly the aircraft and operated installed avionics equipment.

Maneuvers will be done to PTS standards for LSA sport pilot rating

Lesson 2 **(1.5- 2 hrs)**

Objective:

For the transitioning pilot to become comfortable with aircraft handling and higher performance conditions including enroute decision making.

This lesson will focus on understanding emergency procedures extreme slow flight, full stalls, incipient stalls, understand limitations and spin awareness.

Understand how to operate safely to and from short field, soft field and high altitude airports in normal and crosswind conditions. . To be able to consistently make take-offs, landings and go-arounds from different airports.

Pilot will understand aircraft limitations, use of avionics and be able to safely operate in VFR to MVFR decision making processes and unusual conditions including distractions. Understand off airport Emergency procedures and use of BRS system. Will show ability to handle aircraft in changeable conditions.

Preflight Discussion

New This Flight

- ___ Power On Stall Departure stall)
- ___ Strong Crosswind Takeoff and
- ___ Landings (-6,0 degrees)
- ___ Go Around, Balked Landing (35
- ___ Flaps)
- ___ Emergency procedures

- ___ Aborted Takeoff
- ___ Short/Soft Field Landing (30-35
- ___ Flaps)
- ___ BRS Parachute Simulation

Improving Your Skills

- ___ Understanding pre-flight weather
- ___ Scenario – failure of systems
- ___ Deciding when to abort and turn around

Postflight Discussion

Completion Standards

You will have completed this lesson satisfactorily by accurately completed the preflight of the the airplane, show control in all basic maneuvers enter and exit slow flight and all stalls. Have shown ability to handle aircraft in crosswinds shown approach to an unfamiliar airport from and enroute

Lesson 3

Final Review and Check

(1-1.5 hrs)

Objective :

To be ready to take the plane in local pattern and cross country and show competence in handling adverse conditions unique to light aircraft. Be able to decide when and how to operate the airplane and be comfortable in operations. Be able to Brief Passengers and others on handling the aircraft safely and efficiently. Should have all questions answered regarding the aircraft and systems prior to taking possession of the aircraft.

Preflight discussion

Improving Your Skills

- Preflight Engine Starting and warm up
- Cold or abnormal weather operations
- Passenger Briefings
- Taxiing

- Before Takeoff Check
- Aborted Landing
- Transition to Cruise
- Enroute procedures
- Normal and Crosswind Takeoff and Landings

Post-flight Discussion

Completion Standards

You have completed this lesson satisfactorily when you have shown your flight Instructor that you can safely control the airplane in all phases of flight by yourself and can transition to and from the enroute flight phase. You also can demonstrate adequate understanding of the Emergency Procedures and safe decision making and conduct passenger briefings. During landings you will be able to touch down at or within 300 feet beyond the point specified by your instructor.

Note: Lesson 3, will be repeated as necessary as to become safe in operating the CTLS

FINAL RECORD

Name : _____

Address : _____

Pilot record : _____

Pilot

Date : _____

Name : _____

Signature : _____

Instructor

Date : _____

Name : _____

Signature : _____

Pilot Registration Record

Date : _____

Student : _____

Address : _____

Phone (H) : _____

Phone (W) : _____

Phone (C) : _____

Email : _____

Fax : _____

Certificate # : _____

Medical : _____

BFR : _____

Drivers License # : _____

Drivers Lic. Exp. : _____

Comments : _____

WRITTEN EXAM CTLS

- 1) The 912 ULS engine has Max. _____ HP at _____ RPM Max. and up to ____ Minutes.
- 2) Where can I find the recommended oil for the Rotax 912 ULS ? _____
- 3) What is the Min. oil Temperature before Take-off ? _____
- 4) What kind of Fuel can be used ? _____
- 5) What type of oil system is in the CTLS ? _____
The procedure to use to check the oil level is _____

- 6) The Max X-Wind component with -6 and 0 degrees flaps is _____ Knots.
- 7) The Max X-Wind component up to 40 degrees of Flaps is _____ Knots.
- 8) What inspections are required to keep the aircraft legal and under Warranty ?

- 9) The usable Fuel is _____ Gallons ?
- 10) When selecting flaps to 30 or 40 degrees, the ailerons _____
and in a strong x-wind are _____ effective.
- 11) What are the following Speeds in Knots ? V_a ____ $V_{I/d}$ ____
 V_{so} ____ V_{s1} ____ V_{fe} with 30-40 flaps ____ Max with 0 degrees ____

Comments: _____

Student

CFI
