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

**Day 2:**
Review
Lesson 2 Ground one hour flight - 2 hours
Lesson 3 Ground one hour flight one hour

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
___ Maintenance and Service requirements
___ Engine,
___ Propeller,
___ Fuel and Fuel System,
___ Oil system,
___ Coolant used
___ Landing gear, control surfaces, Flaps, Seat adjustments
___ Weight and Balance, Loading and performance
___ Preflight Inspection
___ Avionics Briefing
    EFIS, EMS, GPS, Radio, Transponder, Autopilot
___ Engine Starting and proper warm up
___ Taxiing
___ Before Takeoff Check
___ Normal Takeoff (0.15 Flaps)
___ Climbs, Straight and Level, Descent, Turns
___ Slow Flight at all flap settings
___ Establishing proper speeds
___ Power Off Stall (Approach to Landing stall)
___ Normal Approaches and Landings
___ Aborted Landing (35 Flaps)
___ Parking and Securing,
___ Post Flight,
___ 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 ) ___ Aborted Takeoff
___ Strong Crosswind Takeoff and ___ Short/Soft Field Landing (30-35
Landings (-6,0 degrees) Flaps)
___ Go Around, Balked Landing (35 ___ BRS Parachute Simulation
Flaps)
___ Emergency procedures

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 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: __________________________________________

____________________________________________________

____________________________________________________
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 ?   Va ___   Vl/d ___

    Vso ___   Vs1 ___   Vfe with 30-40 flaps ___   Max with 0 degrees ___

    Comments: ________________________________________________________________

    _________________________________________________________________________

Student  ___________________________   CFI  ___________________________