

**CIRRUS PILOT**

**TURBOCHARGED DIFFERENCES SYLLABUS**



PLANE GENIUS™

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# Turbocharged Differences Syllabus

## Cirrus SR22 Turbo

**Edition 8  
July, 2008**

**Course Pending FITS Acceptance**

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Table of Contents

Introduction ..... 1

Pre-Training Checklist ..... 2

Syllabus Overview ..... 2

    Course Overview ..... 2

    Course Completion Standards ..... 3

    Reference Materials ..... 3

How to Use this Course ..... 5

    Desired Outcomes ..... 5

    Task Checklist ..... 7

    Assessment Items ..... 7

    Lesson Completion Standards ..... 8

Learning Considerations ..... 9

    Preflight Briefing ..... 9

    Flight Training ..... 10

    Post Flight Critique ..... 10

List of Assessment Items ..... 11

    Ground Briefing ..... 11

    Preflight Briefing ..... 12

    Risk Management ..... 13

    Single Pilot Resource Management / Overall Flight ..... 13

    Pre-Takeoff ..... 15

    Takeoff and Climb ..... 16

    Cruise ..... 17

    Descent and Landing ..... 18

    Instrument Procedures ..... 20

    Post Flight Briefing ..... 23

    Abnormal / Emergency Procedures ..... 23

Ground Lesson 1 ..... 25

    Lesson Objectives ..... 25

    Lesson Content ..... 25

    Task Checklist ..... 26

    Lesson Completion Standards ..... 26

Flight Lesson 2 ..... 27

    Lesson Objectives ..... 27

    Scenario ..... 27

    Scenario Summary ..... 28

    Task Checklist ..... 29

    Lesson Completion Standards ..... 31

Biennial Flight Review ..... 32

Instrument Proficiency Check ..... 33

Course Summary: Turbocharged Differences Training ..... 34

Acknowledgments for Course Development ..... 35

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## Introduction

Welcome to the Cirrus Turbo Differences course. This course is designed to transition Cirrus pilots into a turbonormalized Cirrus from a normally aspirated SR22. Pilots that have previously completed transition training in a normally aspirated SR22 equipped with a glass cockpit should use this course to learn the operational differences of the turbonormalized SR22.

The Turbo Differences course is designed to familiarize operators with the unique operating procedures for the turbonormalized engine. Normal and abnormal procedures will be covered. In addition to operating procedures, the course will cover high altitude operations and physiology. Upon successful completion of all course objectives, your instructor will issue a certificate of completion and a course summary detailing flight and ground time acquired during this course.

Specific differences training prerequisites are detailed in this document. It is important to complete all prerequisites prior to starting differences training to ensure a timely and successful completion of the course.

The Turbo Differences course is designed to take approximately one (1) day to complete. Timely completion of this course is dependent on the performance and proficiency of the Cirrus pilot and completion of the required prerequisites. The Cirrus pilot must be aware that the Turbo Differences course does not include a test or a check ride, but each lesson is an instructional service designed to assess and further improve the pilot's knowledge and skills.

All Cirrus pilots should follow the recurrent training schedule outlined in the Cirrus Pilot Learning Plan after successful completion of this training event.

The course incorporates effective and proven training techniques developed in conjunction with the FAA Industry Training Standards (FITS). Emphasis is placed on improving judgment, aeronautical decision making, risk management and single pilot resource management throughout the entire course through the use of scenario based training.

## Pre-Training Checklist

While the turbo Cirrus SR22 will be very familiar to the proficient Cirrus pilot, there will be significant differences in engine operation as well as some subtle changes in avionics and engine indicating. Proper preparation is required to make the transition into the turbo SR22 as smooth and efficient as possible.

Please review the material you have received in your training kit and as listed in the “*References*” section of this document.

## Syllabus Overview

The training program includes differences training on normal and emergency procedures as well as proven standard operating procedures developed by UNDAF and Cirrus Design. Aeronautical decision making and effective risk management will be major emphasis areas, while maintaining the highest level of safety.

## Course Overview

*Lesson 1:* This ground lesson is an introduction to scenario based training and Cirrus Turbo Training. It will include a review of pre-training materials, analysis of decision making processes, and ADM concepts and risk factors in relation to scenarios.

*Lesson 2:* This flight lesson will familiarize the pilot with turbo operations in the Cirrus aircraft. It is a three leg cross country with emphasis on normal, abnormal, and emergency procedures.

*Optional:* Biennial Flight Review

*Optional:* Instrument Proficiency Check

### Course Completion Standards

A Certificate of Completion will be awarded at the satisfactory completion of lesson 2 when the Cirrus Pilot has met the required desired outcomes for all required tasks while demonstrating judgment, aeronautical decision making abilities, single-pilot resource management and risk management skills to safely fly a turbo Cirrus aircraft.

The Cirrus pilot shall perform the maneuvers and procedures at the standard defined in the FAA Practical Test Standards for the pilot certificate held.

The following table lists the minimum amount of time, landings, and cross country legs that are required to complete the course. Instructors and Cirrus pilots should keep in mind that these are the absolute minimums, and that successful completion of the course is dependent on meeting the required desired outcomes.

Course Minimums					
Flight Hours			Landings	Cross Country Legs	Ground/Pre Post Time
Total	Airplane	FTD			
2.5	2.5	0.0	3	3	3.5

\*\* The time noted under Ground/Pre Post Time is approximate and may vary based on experience and scenario.

### Reference Materials

All instructional procedures, materials, and training activities will conform to the guidelines established for standardized instruction and scenario-based training as outlined in the Instructor Supplement. All guidelines are in compliance with FAA Industry Training Standards (FITS).

- **Interactive Pre-training**
  - Cirrus Perspective Avionics Package
  - Avidyne Avionics Package
- **Training Publications**
  - Cirrus Flight Operations Manual (FOM)
  - Cirrus Pilot Learning Plan
  - Cirrus Aircraft Workbook
  - Cirrus Standardized Instructor Supplement
- **Aircraft Publications**
  - Aircraft Pilot's Operating Handbook and Supplement
  - Appropriate avionics manuals
- **Additional Training Resources**
  - Resource Center for Cirrus Training (eZ LMS)

- <http://cirrus.aero.und.edu/resources.php>
- Cirrus Aircraft Training Software (CATS)
- Pilot's World
  - <http://www.cirrusdesign.com:4515/pilotsworld>
- Aerosim Avionics System Training (Avidyne Avionics)
- FAA Industry Training Standards (FITS)
  - [http://www.faa.gov/education\\_research/training/fits](http://www.faa.gov/education_research/training/fits)
- **FAA Publications**
  - Appropriate Practical Test Standards (PTS)

### EZ LMS

EZ LMS is a web-based learning management system with a wealth of resources available to Cirrus pilots and instructors. Pilots can find the latest presentations, publications, and tools for most of the equipment installed in Cirrus airplanes.

### Pilot's World

Pilots World is an online resource created by Cirrus Design to communicate important training issues and operating techniques for Cirrus pilots. A new topic is posted each month consisting of a ground and flight segment. The ground segment contains discussion, information and activities pertinent to that month's topic. The flight segment provides suggested flight training activities related to the ground segment. Topics on Pilots World have ranged from "Preventing Controlled Flight into Terrain" to "Single Pilot IFR Operations."

## How to Use this Course

This syllabus is designed for the following elements to be used in conjunction with the overall course completion standards.

*Note:* Each element will be described in detail throughout this section.

- **Desired Outcome:** This is the grade the Cirrus pilot has achieved for the particular task. (Describe, Explain, Practice, Perform, Manage/Decide)
- **Task Checklist:** These items need to be completed by the Cirrus pilot to the appropriate desired outcome.
- **List of Assessment Items:** Explanation of what needs to be observed by the instructor for the Cirrus pilot to meet the desired outcome for each task.
- **Lesson Completion Standards:** Explanation of the requirements to consider each lesson complete or incomplete.

Within each lesson the instructor and Cirrus pilot will reference the task checklist for each lesson and the appropriate assessment items to determine whether each task is completed to the minimum desired outcome needed to meet the lesson completion standards.

### Desired Outcomes

The objective of scenario-based training is to improve the thought processes, habits, and behaviors of the Pilot-In-Training (Cirrus pilot) during the planning and execution of the scenario. A key element of this training is learner-centered grading.

The following two lists describe possible desired outcomes that will help measure the success of the training. These desired outcomes describe to which performance level the Cirrus pilot is currently operating. The grading of each task should be conducted independently by the Cirrus pilot and the instructor, and then compared during the post flight critique.

## Maneuver Grades (Tasks)

- **Describe** – At the completion of the scenario, the Cirrus pilot will be able to describe the physical characteristics and cognitive elements of the scenario activities. *Instructor assistance is required to successfully execute the maneuver.*
- **Explain** – At the completion of the scenario the Cirrus pilot will be able to describe the scenario activity and understand the underlying concepts, principles, and procedures that comprise the activity. *Significant instructor effort will be required to successfully execute the maneuver.*
- **Practice** – At the completion of the scenario the pilot in training will be able to plan and execute the scenario. *Coaching, instruction, and/or assistance from the CFI will correct deviations and errors identified by the CFI.*
- **Perform** – At the completion of the scenario, the Cirrus pilot will be able to perform the activity without assistance from the CFI. *Errors and deviations will be identified and corrected by the Cirrus pilot in an expeditious manner.* At no time will the successful completion of the activity be in doubt. (“Perform” will be used to signify that the Cirrus pilot is satisfactorily demonstrating proficiency in traditional piloting and systems operation skills)
- **Not Observed** – Any event not accomplished or required

## Single Pilot Resource Management (SRM) Grades

- **Explain** – The pilot in training can verbally identify, describe, and understand the risks inherent in the flight scenario. *The pilot in training will need to be prompted to identify risks and make decisions.*
- **Practice** – The pilot in training is able to identify, understand, and apply SRM principles to the actual flight situation. *Coaching, instruction, and/or assistance from the CFI will quickly correct minor deviations and errors identified by the CFI.* The pilot in training will be an active decision maker.
- **Manage/Decide** – The pilot in training can correctly gather the most important data available both within and outside the cockpit, identify possible courses of action, evaluate the risk inherent in each course of action, and make the appropriate decision. *Instructor intervention is not required for the safe completion of the flight.*
- **Not Observed** – Any event not accomplished or required

**Task Checklist**

The task checklist is a tool used for tracking the tasks and their associated desired outcomes during each lesson. The syllabus contains both required and optional tasks. As implied, the required tasks must be completed to the shaded desired outcome for the lesson to be complete. Optional tasks may be executed at the request of the instructor or the Cirrus pilot. Any task that is “Not Observed” should receive no check mark.

Below is an example of the task checklist. The left column contains the task. The check boxes provide the Cirrus pilot and instructor a place to record his/her assessment of the flight. The gray shaded box is the required desired outcome for that task for that particular lesson. More information about desired outcomes can be found in the “Desired Outcomes” section of this document.

*Note:* While many tasks will be repeated throughout the lessons in the course, the required desired outcome for those tasks will change throughout the course as the lessons progress.

*Note:* Optional tasks are not shaded.

Task	Desired Outcome	
	Practice	Perform
Steep Turns	<input type="checkbox"/>	<input type="checkbox"/>
Power On Stalls	<input type="checkbox"/>	<input type="checkbox"/>
AP Stall Recognition	<input type="checkbox"/>	<input type="checkbox"/>

**Assessment Items**

Each of the assessment items are given to ensure the appropriate standardized tasks are accomplished to the required desired outcome for each lesson. They are presented in a manner that that assists the qualified instructor in successfully determining whether the Cirrus pilot has met both the lesson completion standards and the course completion standards. The Assessment items are not an exhaustive list in nature; a qualified instructor may determine additional assessment items to ensure the Cirrus pilot has met the completion standards of the course.

At the end of each lesson or lesson segment, the Cirrus pilot will use the listed assessment items to self-critique performance. The instructor will also critique the Cirrus pilot’s performance. From this, a guided

discussion will follow to determine whether the tasks for the lesson were completed to the required desired outcome.

While these assessment items are essential to properly measure the Cirrus pilot’s behavior, instructors are expected to adhere to the Pilot’s Operating Handbook and standardization procedures included in the Flight Operations Manual. Any tasks not performed to the required desired outcome will be reviewed until the appropriate standards have been met for that lesson.

*Note:* Assessment items have been developed for all available options on a current aircraft; therefore, it may be necessary to exclude assessment items if they are not applicable to your aircraft.

*Note:* The flight instructor’s final determination of whether that task has met the required desired outcome should be withheld until the Cirrus pilot is able to self-critique at the end of the flight.

*Note:* The assessment items for all tasks in this course can be found in the “List of Assessment Items” section of this document.

**Lesson Completion Standards**

Each lesson will be complete when the Cirrus pilot satisfactorily demonstrates ADM and critical thinking skills by completing the required tasks using the assessment criteria within this course.

## Learning Considerations

The following learning considerations will aid the instructor and Cirrus pilot in optimizing training for maximum effectiveness and ensuring the greatest amount of learning takes place within the safety constraints outlined within the FOM. This process involves satisfying the overall course completion standards while clearly stating lesson objectives that support these standards. This is achieved by incorporating principles that include proper preflight, in-flight, and post flight training considerations, found in the subsequent sections below.

### Preflight Briefing

In addition to any regulatory requirements, the Cirrus pilot and instructor should discuss the following items prior to beginning this course.

- Amount, recency, and type of previous flight experience  
Review the pilot's experience including total time and recency of experience to effectively evaluate the need for a particular task.
- Type of equipment to be utilized  
Assessment shall be given to the type of equipment installed (such as PFD, MFD, Ice protection, etc.)
- Nature of flight operations  
The instructor should consider the type of flying typically done by the Cirrus pilot to assist in customizing the course content.
- Goals and Objectives  
In addition to the required tasks, Cirrus pilots should have specific goals and objectives to accomplish during the course. Instructors should customize the course to include the requested tasks and verify all required tasks for the course are completed.
- Flight Operations Manual (FOM)  
Review procedures appropriate to the current lesson.
- Additional training resources provided by organizations such as the FAA, COPA, AOPA, UND Aerospace, and electronic resources.  
The instructor should take time to discuss the many training resources available to the Cirrus pilot. These resources provide a vast knowledge base available on the internet.
- Review of Regulations and Aeronautical Information Manual (AIM)  
The instructor should tailor the review of general operating and flight rules that are applicable to the scenario. The objective is to ensure the pilot can comply with all regulatory requirements and operate safely in various types of airspace and weather conditions (in accordance with his/her personal minimums). The instructor should conduct a review that is broad enough to meet areas in which the pilot's knowledge is deficient.

## Flight Training

The instructor will present the material for each lesson in a scenario-based format during a cross country flight. While conducting the differences training the instructor and Cirrus pilot should recognize each individual's role within the differences training:

While performing differences training, the instructor will:

- Be the sole and **final** authority regarding whether or not the desired outcomes and assessment items are considered complete.
- Be the **final** authority in all decisions regarding termination and/or continuation of the differences lesson.

While performing differences training, the Cirrus pilot who is already appropriately rated to operate the aircraft will:

- Act as the pilot-in-command of the aircraft. .
- Transfer controls using positive exchange of flight controls procedures [Reference: "Introduction: Positive Exchange of Flight Controls," Private Pilot for Airplane Single-Engine Land and Sea Practical Test Standards].

### Post Flight Critique

Although a critique may seem intimidating, it is an integral part of the lesson. A good critique closes the chapter on the training event and sets the stage for future learning. The critique is not intended as a barrier to progress, but rather a step that advances the learning process, allowing the learner and the instructor to best evaluate how to proceed. The Cirrus pilot should lead the critique with guidance from the instructor.

At the end of each lesson or lesson segment, the Cirrus pilot should self-critique his or her performance. The Cirrus pilot should review each task in the lesson and use the associated assessment items to determine which desired outcome was achieved for that task. The instructor will also critique the Cirrus pilot's performance. From this, a guided discussion will follow to determine whether the tasks for the lesson were completed to the required desired outcome.

The instructor should keep detailed notes throughout the flight so an effective critique can be accomplished after each lesson. For additional information on performing effective critiques utilize the FAA Aviation Instructor Handbook (FAA-H-8083-9).

## List of Assessment Items

The following list of assessment items will help the instructor determine to which desired outcome the Cirrus pilot is currently performing the tasks associated with each lesson throughout the course. The purpose of these assessment items is to give a clear and detailed explanation of what needs to be accomplished on each task for each lesson.

*Note:* These assessment items are used to evaluate each task. The level at which these tasks are expected to be performed are based on the Desired Outcomes required in the specific lesson.

### Ground Briefing

#### Instructor-Student Relationship

- Cirrus pilot conducted a self assessment related to the safety of flight.
- Cirrus pilot discussed the importance of maintaining the safety culture.
- Cirrus pilot discussed the instructor/pilot training (Cirrus pilot) relationship in regards to interaction in and outside the aircraft.
- Cirrus pilot reviewed his/her personal minimums with the instructor conducting the training.

#### Course Briefing / Overview

- Cirrus pilot discussed the FITS concept of student-led training.
- Cirrus pilot described the requirements for the completion of the course.

#### Review of Pre-Training Material

- Cirrus pilot discussed how the POH relates to the safe operation of the aircraft.
- Cirrus pilot has completed the pre-training material as outlined in the pre-training checklist in the front of this document.

#### Analysis of Cirrus Scenarios (VFR or IFR)

- Cirrus pilot identified the system affected in each scenario.
- Cirrus pilot discussed what risk is acceptable for each scenario.
- Cirrus pilot identified the risk factors associated with operating at higher altitudes and identified ways to reduce those risks.

## Preflight Briefing

### Lesson Objectives

- Cirrus pilot reviewed the objectives of this lesson and the desired outcomes required to meet completion standards.
- Cirrus pilot discussed how lesson objectives relate to overall course completion standards.

### Flight Overview

- Cirrus pilot discussed the lesson content including scenarios that will be presented while in flight.
- Cirrus pilot discussed the importance of a positive exchange of the flight controls.
- Cirrus pilot discussed the relationship of the student and instructor.
- Cirrus pilot discussed circumstances in which the flight will be continued or discontinued.

**Risk Management**

**Manage Risk Using the 5P Checklist**

- Cirrus pilot used this risk management tool to aid in sound judgment, resource management, and risk management.
- Cirrus pilot used the 5P Checklist at the following intervals: flight planning, before takeoff, en route, and top of descent.

The 5P Checklist	
Plan	<ul style="list-style-type: none"> <li>➤ Weather</li> <li>➤ Route</li> <li>➤ Publications</li> <li>➤ ATC Delays</li> <li>➤ Fuel Remaining</li> </ul>
Plane	<ul style="list-style-type: none"> <li>➤ Mechanical Status</li> <li>➤ Automation Status</li> <li>➤ Database Currency</li> <li>➤ Circuit Breakers</li> <li>➤ Backup Systems</li> </ul>
Pilot	<ul style="list-style-type: none"> <li>➤ "I"llness</li> <li>➤ "M"edication</li> <li>➤ "S"tress</li> <li>➤ "A"lcohol</li> <li>➤ "F"atigue</li> <li>➤ "E"motion</li> </ul>
Passengers	<ul style="list-style-type: none"> <li>➤ Pilots or non-pilots</li> <li>➤ Nervous or quiet</li> <li>➤ Experienced or new</li> <li>➤ Helpful or a handful</li> <li>➤ Urgent or optional</li> <li>➤ Business or pleasure</li> </ul>
Programming	<p><i>Preprogram the:</i></p> <ul style="list-style-type: none"> <li>➤ Autopilot</li> <li>➤ GPS</li> <li>➤ MFD/PFD</li> </ul> <p><i>Anticipate:</i></p> <ul style="list-style-type: none"> <li>➤ Likely reroutes and clearances</li> <li>➤ Crunch points</li> <li>➤ Manual backup</li> <li>➤ High terrain encounters</li> </ul>

**Single Pilot Resource Management / Overall Flight**

**Task Management**

- Cirrus pilot prioritized and selected the appropriate tasks (or series of tasks) to ensure successful completion of the training scenario.
- Cirrus pilot managed the resources (both on-board the aircraft and from outside sources) available (prior to and during flight) to ensure that the successful outcome of the flight was never in doubt.

**Automation Management**

- Cirrus pilot programmed and utilized the appropriate modes of cockpit automation to ensure successful completion of the scenario.  
 Cirrus pilot described appropriate times to use automation and recognized when to revert to lower levels of automation or hand-flying.

**Avionics Usage**

- Cirrus pilot used the electronic checklists and other available information on MFD during the appropriate phase of flight.
- Cirrus pilot used the airport diagram to reduce the risk of runway incursions.
- Cirrus pilot entered the route of flight into the flight plan.
- Cirrus pilot utilized the autopilot or flight director (FD) as appropriate for climbs, descents, altitude hold, and course guidance.
- Cirrus pilot used and interpreted available weather information on the MFD to aid in good decision-making and to ensure safe outcome of the flight while applying the 5P checklist. Cirrus pilot effectively conducted instrument cross-checks, proper instrument interpretation, and positive aircraft control while using the PFD and other related avionics.
- Cirrus pilot used the MFD to effectively maintain situational awareness while integrating visual and instrument cues.
- Cirrus pilot properly integrated the normal use of the PFD, MFD, FMS (if installed), autopilot, and related avionics to safely operate the Cirrus aircraft.

**Radio Communication**

- During the flight, the Cirrus pilot obtained clearances from ATC and demonstrated an appropriate response to ATC when those clearances were unclear.
- Cirrus pilot established and maintained proper communication with ATC, tower or UNICOM.
- Cirrus pilot acquired communication and navigation frequencies using appropriate avionics.

**Risk Management and Aeronautical Decision-Making (ADM)**

- Cirrus pilot made informed decisions in a timely manner.
- During low and high work loads the Cirrus pilot evaluated his/her course of action and identified resources he/she could use to reduce risk.
- During the scenarios the Cirrus pilot identified planned and unplanned situations as they occurred.

- During the scenarios the Cirrus pilot effectively assessed alternatives and implemented the appropriate course of action while using the 5P checklist.
- During the scenarios the Cirrus pilot continued to evaluate his/her decisions and identified additional risk using the 5P checklist.

### Situational Awareness

- Cirrus pilot was aware of traffic, weather, fuel state, aircraft mechanical condition, pilot fatigue level, and the related impact on the successful completion of the training scenario.

### Controlled Flight into Terrain (CFIT) Awareness

- Cirrus pilot described and applied techniques to avoid CFIT during inadvertent encounters with IMC during VFR and IFR flight.

### Pre-Takeoff

#### Preflight Preparation

- Cirrus pilot properly acquired, interpreted, and briefed the instructor on the current weather information for the route of flight.
- Cirrus pilot determined that he/she has enough fuel to safely make the flight.
- Cirrus pilot is familiar with the CG limits of the aircraft and has determined the CG is within aircraft limitations.
- Cirrus pilot is familiar with the performance limitations of the aircraft and discussed how density altitude will affect the performance of the aircraft during critical phases of flight.
- Cirrus pilot identified the risks of this flight and related his/her personal minimums to weather conditions encountered.
- Cirrus pilot used the I.M.S.A.F.E checklist and practiced identifying any associated risks that may affect a go/no-go decision.
- Cirrus pilot identified the risk elements appropriate to the differences training scenario and would be able to categorize the risks of the flight into the 5P checklist.
- Cirrus pilot completed the preflight inspection in accordance with the POH.

#### Engine Start

- Cirrus pilot identified the best start procedure.
- Cirrus pilot used the proper clearing procedures prior to engine start.
- Cirrus pilot monitored engine indications after engine start.

### Before Taxi

- Cirrus pilot completed the before taxi checklist.

### Taxi

- Cirrus pilot taxied aircraft while maintaining directional control with minimal use of brakes.
- Cirrus pilot used airport diagram presentation on MFD to aid in situational awareness and to avoid runway incursions (if available).
- Cirrus pilot completed the taxi checklist.

### Before Takeoff

- Cirrus pilot completed the before takeoff checklist.
- Cirrus pilot determined the best type of takeoff and configuration to conduct for each scenario.
- Cirrus pilot used proper clearing procedures when taxiing onto the active runway.
- Cirrus pilot configured the avionics prior to taxiing onto the active runway.
- Cirrus pilot conducted a takeoff briefing on information pertaining to the safety of the flight.

### Takeoff and Climb

#### Normal/Crosswind Takeoff

- Cirrus pilot chose to reduce risk by ensuring a minimum of 2.5 times the runway distance required for takeoff was available.
- Cirrus pilot demonstrated the appropriate techniques to perform a normal/crosswind takeoff.
- Cirrus pilot maintained centerline on takeoff as the power was increased.
- Cirrus pilot monitored engine instruments for abnormalities during the takeoff roll.
- Cirrus pilot aborted the takeoff if any abnormalities were observed.

#### Short-field Takeoff

- Cirrus pilot described the associated conditions related to conducting a short-field takeoff.
- Cirrus pilot demonstrated the appropriate techniques to perform a short-field takeoff.
- Cirrus pilot anticipated the increased left-turning forces on the airplane and maintained centerline.

- Cirrus pilot monitored engine instruments for abnormalities during the takeoff roll.
- Cirrus pilot aborted the takeoff if any abnormalities were observed.
- Cirrus pilot maintained the best angle of climb ( $V_x$ ) airspeed until any obstacles were cleared.

### Soft-field Takeoff

- Cirrus pilot described the associated conditions related to conducting a soft-field takeoff.
- Cirrus pilot considered the recent weather conditions (or simulated) prior to using a soft field for takeoff.
- Cirrus pilot demonstrated the appropriate techniques to perform a soft-field takeoff.
- Cirrus pilot monitored engine instruments for abnormalities during the takeoff roll.
- Cirrus pilot aborted the takeoff if any abnormalities were observed.

### Climb

- Cirrus pilot used the autopilot to assist in climb out.
- Cirrus pilot retracted the flaps at the appropriate time.
- Cirrus pilot selected the appropriate altitude to turn onto course.
- Cirrus pilot used the traffic system to aid in visually acquiring other aircraft while using proper scanning techniques for collision avoidance.
- Cirrus pilot completed the climb checklist.
- Cirrus pilot established the power and mixture settings on climb out.
- Cirrus pilot transitioned to an en route climb and utilized engine monitoring on the MFD to maintain proper engine cooling.
- Cirrus pilot turned on the oxygen system and donned the mask/cannula prior to reaching an altitude where oxygen is required or needed.

### Cruise

#### Initial Cruise

- Cirrus pilot followed the proper leaning procedure as outlined in the POH.
- Cirrus pilot completed the cruise checklist.

#### En Route Cruise

- Cirrus pilot maintained situational awareness using available resources.

- Cirrus pilot used the appropriate modes of the autopilot for cruise flight.
- Cirrus pilot continued to use oxygen at altitudes where it is required or needed.
- Cirrus pilot assessed possible alternatives for final destination airports and selected the appropriate destination using available resources including weather information available in the cockpit.

### Descent and Landing

#### Descent and Arrival Procedures

- Cirrus pilot used the correct arrival and approach procedure needed to safely transition from en route to arrival.
- Cirrus pilot used the satellite weather to aid in determining the active runway and/or traffic pattern entry.
- Cirrus pilot conducted descent planning to avoid unnecessary high rates of descent which could lead to passenger discomfort or excessive engine cooling.
- Cirrus pilot chose a safe, alternate course of action for approach and arrival for the given the conditions.
- Cirrus pilot established a stabilized descent and arrival.
- Cirrus pilot can identify the primary hazards of partial power while operating the autopilot.
- Cirrus pilot chose a safe course of action to transition from arrival to a safe landing.
- Cirrus pilot properly adjusted airspeed for arrival at the airport.
- Cirrus pilot used available internal and external resources to choose a safe runway for landing and properly entered the airport area of the arrival airport.

#### Traffic Pattern

- Cirrus pilot maintained the appropriate altitude and airspeed during traffic pattern operations.
- Cirrus pilot configured aircraft correctly for the landing being conducted.
- Cirrus pilot completed the before landing checklist prior to entering the traffic pattern.
- Cirrus pilot disconnected the autopilot prior to entering the traffic pattern.

**Normal/Crosswind Landing**

- Cirrus pilot demonstrated the appropriate techniques to perform a normal/crosswind landing.
- Cirrus pilot established appropriate approach, landing configuration, and airspeed in accordance with the SOP's.
- Cirrus pilot conducted a stabilized approach which included:
  - Proper airspeed
  - Correct flight path
  - Correct landing configuration
  - Power setting appropriate for aircraft configuration
  - Normal sink rate
  - Checklists complete
- Cirrus pilot made smooth, timely, and correct control application during roundout and touchdown.
- Cirrus pilot executed a go-around when a stabilized approach could not be obtained and maintained by 500 ft. AGL.
- Cirrus pilot maintained directional control and centerline throughout approach and landing sequence.

**Short-field Landing**

- Cirrus pilot demonstrated the appropriate techniques to perform a short-field landing.
- Cirrus pilot conducted a stabilized approach which included:
  - Proper airspeed
  - Correct flight path
  - Correct landing configuration
  - Power setting appropriate for aircraft configuration
  - Normal sink rate
  - Checklists complete
- Cirrus pilot identified touchdown and go-around points prior to performing landings.
- Cirrus pilot executed a go-around when a stabilized approach could not be obtained by 500 ft AGL.
- Cirrus pilot maintained directional control and centerline throughout approach and landing sequence.

**Soft-field Landing**

- Cirrus pilot demonstrated the appropriate techniques to perform a soft-field landing.
- Cirrus pilot conducted a stabilized approach which included:
  - Proper airspeed
  - Correct flight path
  - Correct landing configuration

- Power setting appropriate for aircraft configuration
- Normal sink rate
- Checklists complete

- Cirrus pilot adequately surveyed the runway environment prior to landing on a soft-field runway.
- Cirrus pilot considered the recent weather conditions when deciding the safety of landing on the soft-field runway.
- Cirrus pilot used the appropriate resources to ensure the runway was suitable to land on.
- Cirrus pilot made smooth, timely, and correct control application during roundout and touchdown.
- Cirrus pilot executed a go-around when a stabilized approach could not be obtained and maintained by 500 ft. AGL.
- Cirrus pilot maintained directional control and centerline throughout approach and landing sequence.

**After Landing**

- Cirrus pilot conducted the after landing checklists when clear of the active runway.
- Cirrus pilot used the airport diagram on the MFD to aid in situational awareness while taxiing.

**Shutdown**

- Cirrus pilot completed the shutdown checklist.
- Cirrus pilot secured the aircraft properly with chocks and/or the parking brake.

**Instrument Procedures****Basic Attitude Instrument Flying**

- Cirrus pilot controlled the aircraft solely by reference to the flight instruments during straight-and-level flight, climbs, turns, and descents.
- Cirrus pilot used a proper instrument crosscheck and interpretation while applying the appropriate pitch, bank, power, and trim corrections when applicable.
- Cirrus pilot can perform basic attitude instrument flying within the standards set forth by the current edition of the Instrument Rating Practical Test Standards.

### Instrument Approach Procedures

- Cirrus Pilot loaded and activated the approach using the GPS/FMS and navigated vertically and horizontally using the automation available.
- Cirrus Pilot confirms the operational status of the navigation equipment to be used for the approach procedure. (Identify navaid, verify appropriate GPS approach mode)
- Cirrus Pilot executed the approach using the appropriate automation for the type of approach flown.
- Cirrus Pilot made a stabilized transition from simulated/actual IMC conditions to visual conditions at the decision altitude on the approach.
- Cirrus Pilot executed a missed approach upon reaching the MDA or DA with no runway environment in sight or when allowing a three-quarter scale deflection on the course guidance indicators.
- Cirrus pilot maintained altitude, heading, speed, and course guidance within the standards set forth in the current edition of the Instrument Rating Practical Test Standards.

### Missed Approach Procedures

- Cirrus pilot initiated a missed approach when necessary by promptly disconnecting the autopilot, applying power, establishing a climb attitude, retracting the flaps at the appropriate time, and navigating via the missed approach procedure.
- Cirrus pilot used the GPS to follow the missed approach procedure by changing the CDI to “GPS” if applicable and by deselecting “suspend” at the appropriate time.
- Cirrus pilot advised ATC of beginning the missed approach procedure.
- Cirrus pilot completed the appropriate checklist once the aircraft was stabilized in a climb and on course.
- Cirrus pilot maintained altitude, heading, speed, and course guidance within the standards set forth in the current edition of the Instrument Rating Practical Test Standards.

### Holding Procedures

- Cirrus pilot slowed to the recommended holding airspeed when within 3 minutes, but prior to reaching the holding fix.
- Cirrus pilot uses the correct entry for the holding pattern.
- Cirrus pilot recognized arrival at the holding fix and initiates the holding pattern.
- Cirrus pilot uses proper timing criteria or distances for the hold where applicable.

- Cirrus pilot used proper wind correction procedures to maintain the desired pattern and to arrive over the fix as close as possible to the specified time.
- Cirrus pilot maintained altitude, heading, speed, and course guidance within the standards set forth in the current edition of the Instrument Rating Practical Test Standards.

### Departure Procedures

- Cirrus pilot explains and complies with the assigned departure procedure.
- Cirrus pilot complies in a timely manner with all ATC instructions and airspace restrictions.
- Cirrus pilot intercepts in a timely manner all courses, radials, and bearings appropriate to the departure procedure.

### Circling Approach

- Cirrus pilot recognized the need to do a circling approach.
- Cirrus pilot selected and complied with the appropriate circling approach procedure considering turbulence and wind shear and considered the maneuvering capabilities of the aircraft.
- Cirrus pilot confirms the direction of the traffic and adheres to all restrictions and instructions issued by ATC.
- Cirrus pilot does not exceed the visibility criteria or descend below the appropriate circling altitude until in a position from which a descent to a normal landing can be made.
- Cirrus pilot maintained altitude, heading, speed, and course guidance within the standards set forth in the current edition of the Instrument Rating Practical Test Standards.

### Partial Panel Approach

- Cirrus pilot recognized if primary flight instruments were inaccurate or inoperative and advised ATC.
- Cirrus pilot advised ATC anytime that the aircraft was unable to comply with a clearance.
- Cirrus pilot demonstrated an instrument approach without the use of the primary flight instruments using the criteria set forth in the Instrument Approach Procedures assessment item and in the current edition of the Instrument Rating Practical Test Standards.

**Unusual Attitudes**

- Cirrus pilot demonstrated knowledge of flight situations that could lead to unusual attitudes.
- Cirrus pilot recovered from an unusual attitude properly and used the autopilot as appropriate to keep the aircraft stabilized.
- Cirrus pilot identified the possible alternative of using the CAPS with regards to an unusual attitude.

**Post Flight Briefing****Post Flight Discussion and Critique**

- Cirrus pilot discussed the decisions made and related them to an analysis of factual information, the aircraft capabilities, pilot experience and skill.
- Cirrus pilot discussed the process used to make good decisions.
- Cirrus pilot identified performance deficiencies encountered during the flight.
- Cirrus pilot discussed possible methods and alternatives for improvement on outcomes of the scenarios.

**Abnormal / Emergency Procedures****Inadvertent Ice Encounter**

- Cirrus pilot discussed conditions that could contribute to the formation of ice.
- Cirrus pilot exited the simulated icing encounter in a manner that is consistent with FAA regulations and the POH.
- Cirrus pilot followed the proper checklist procedure as outlined in the POH and ice protection supplement.

**Turbo System Malfunction**

- Cirrus pilot promptly recognized loss of manifold pressure.
- Cirrus pilot completed the emergency checklist for an unexplained loss of manifold pressure.
- Cirrus pilot used available resources to reduce workload.
- Cirrus pilot discussed the difficulties of trying to distinguish between an induction system leak and an exhaust system leak.
- Cirrus pilot discussed the need to expedite the descent and land at the nearest airport.

**Oxygen System Malfunction**

- Cirrus pilot identified which systems were malfunctioning, properly troubleshoot, and took action to reduce risk to an acceptable level.
- Cirrus pilot used available resources to reduce additional workload.
- Cirrus pilot discussed symptoms associated with hypoxia. Cirrus pilot also demonstrated the use of the pulse oximeter (if available) and discussed how this device can provide enhanced safety when operating at higher altitudes.
- Cirrus pilot followed proper procedures for an oxygen system malfunction.
- Cirrus pilot recognized oxygen was not flowing to the masks and initiated an emergency decent to a safe altitude. (Below 10,000 ft)
- Cirrus pilot discussed the risks associated with hypoxia and the need to get to a safe altitude.

**Ground Lesson 1**

*Introduction to Cirrus Turbocharged Training*

Approximate time:.....2.0 Hours

**Lesson Objectives**

- Establish instructor-student relationship and develop the safety culture expected throughout the training.
- Review course content, objectives, and completion standards.
- Review pre-training material and study assignments.
- Define personal capabilities and weather minimums.
- Practice using risk management tools and techniques to reduce the overall risk associated with flying.
- Review scenarios specific turbo operations and high altitude flight.

**Lesson Content**

The instructor will begin the training by developing the instructor/learner relationship. The instructor should conduct a brief interview with the Cirrus pilot in order to determine prior flight experience, learning styles, and any additional goals of training beyond course objectives. The first meeting will create the safety culture expected throughout the training. This includes an assessment done by the Cirrus pilot to determine personal readiness to safely begin training.

The instructor will lead a discussion on FAA Industry Training Standards (FITS) and the concepts of a FITS accepted course. An overview of the course content will also be discussed at this time.

The Cirrus pilot should be given an opportunity to ask any questions regarding the pre-training material and from this, a discussion should develop to solidify and evaluate the Cirrus pilot’s knowledge of Cirrus aircraft.

The instructor should spend an adequate amount of time with the Cirrus pilot to ensure the Cirrus pilot has a foundation in the systems and procedures of the turbo system that is installed in the aircraft. The time spent on the ground will greatly improve the ability of the Cirrus pilot to

concentrate on flying the aircraft and correlate systems and procedures into scenarios that he or she will face while flying.

**Task Checklist**

Within the context of the training event, the instructor should reference the “*List of Assessment Items*” section to determine if the Cirrus pilot has met the required desired outcome for each task in the lesson.

Task	Desired Outcome	
	Describe	Explain
Instructor-Student Relationship	<input type="checkbox"/>	<input type="checkbox"/>
Course Briefing / Overview	<input type="checkbox"/>	<input type="checkbox"/>
Review of Pre-Training Material	<input type="checkbox"/>	<input type="checkbox"/>
Analysis of Scenarios (VFR or IFR)	<input type="checkbox"/>	<input type="checkbox"/>

**Lesson Completion Standards**

This lesson will be complete when the Cirrus pilot satisfactorily demonstrates ADM and critical thinking skills by completing the required tasks using the assessment criteria within this course.

## Flight Lesson 2

*Introduction to Turbo Operations and System Malfunctions*

Equipment: .....Aircraft

Approximate Pre and Post Briefing:.....1.5 Hours

Approximate Flight Time: .....3.5 Hours

Cross Country Legs Required: .....3

Takeoffs/Landings Required: .....3

### Lesson Objectives

- Conduct normal operations for VFR and/or IFR flight at high altitude.
- Demonstrate ADM skills to generate acceptable solutions and alternatives to normal and abnormal procedures while performing a cross country flight.

### Scenario

This lesson will consist of a 3-leg cross country flight conducted at high altitude. The legs of the cross country should be such that the Cirrus pilot has ample time to conduct normal procedures such as checklists, en route, arrival, and approach procedures, and any scenario the instructor presents. 60 – 90 minutes in duration for each leg is preferred. Flight should be conducted at an altitude no lower than 12,500 ft MSL if weather permits.

*Leg 1* – The Cirrus pilot should focus on conducting all of the normal procedures associated with turbo operations, with emphasis placed on climb, cruise, and descent procedures and use of supplemental oxygen. The instructor shall present an inadvertent icing encounter during the leg.

*Leg 2* – The Cirrus pilot should continue to gain proficiency in normal operations associated with turbo aircraft. During cruise flight, the instructor should simulate an unexplained loss of manifold pressure. The Cirrus pilot should take the appropriate actions and make a diversion to the nearest airport. (Avoid prolonged periods of time with power at idle.)

*Leg 3* – The Cirrus pilot should continue to gain proficiency in normal operations associated with turbo aircraft. During cruise flight the instructor should simulate an oxygen system malfunction. The Cirrus pilot should take the appropriate actions to descend to an altitude that does not require oxygen if necessary.

At the completion of each leg, the Cirrus pilot will conduct a brief review of the decisions made on that leg and possible alternative solutions that could have been used to operate more effectively, efficiently and safely. During the lesson, the Cirrus pilot shall demonstrate the ability to control the aircraft manually and demonstrate automation management.

### Scenario Summary

#### *Leg 1 – Autopilot*

- Normal Operations
  - Turbo operations and engine management
  - Oxygen system operation
- Inadvertent Icing Encounter

#### *Leg 2 – Autopilot*

- Emergency Operations
  - Turbo system malfunction

#### *Leg 3 – Autopilot*

- System Malfunction
  - Oxygen system malfunction

**Task Checklist**

Within the context of the training event, the instructor should reference the “List of Assessment Items” section to determine if the Cirrus pilot has met the required desired outcome for each task in the lesson.

Preflight Briefing

Task	Desired Outcome	
	Describe	Explain
Lesson Objectives	<input type="checkbox"/>	<input type="checkbox"/>
Flight Overview	<input type="checkbox"/>	<input type="checkbox"/>

Risk Management

Task	Desired Outcome	
	Practice	Manage/Decide
Manage Risk Before the Flight Using the 5P Checklist	<input type="checkbox"/>	<input type="checkbox"/>
Manage Risk During the Flight Using the 5P Checklist	<input type="checkbox"/>	<input type="checkbox"/>

Single Pilot Resource Management / Overall Flight

Task	Desired Outcome	
	Practice	Manage/Decide
Task Management	<input type="checkbox"/>	<input type="checkbox"/>
Automation Management	<input type="checkbox"/>	<input type="checkbox"/>
Avionics Usage	<input type="checkbox"/>	<input type="checkbox"/>
Radio Communication	<input type="checkbox"/>	<input type="checkbox"/>
Risk Management and ADM	<input type="checkbox"/>	<input type="checkbox"/>
Situational Awareness	<input type="checkbox"/>	<input type="checkbox"/>
CFIT Awareness	<input type="checkbox"/>	<input type="checkbox"/>

Pre-Takeoff

Task	Desired Outcome	
	Practice	Perform
Preflight Preparation	<input type="checkbox"/>	<input type="checkbox"/>
Engine Start	<input type="checkbox"/>	<input type="checkbox"/>
Before Taxi	<input type="checkbox"/>	<input type="checkbox"/>
Taxi	<input type="checkbox"/>	<input type="checkbox"/>
Before Takeoff	<input type="checkbox"/>	<input type="checkbox"/>

Takeoff and Climb

Task	Desired Outcome	
	Practice	Perform
Normal/Crosswind Takeoff	<input type="checkbox"/>	<input type="checkbox"/>
Climb	<input type="checkbox"/>	<input type="checkbox"/>

Cruise

Task	Desired Outcome	
	Practice	Perform
Initial Cruise	<input type="checkbox"/>	<input type="checkbox"/>
En route Cruise	<input type="checkbox"/>	<input type="checkbox"/>

Abnormal / Emergency Procedures

Task	Desired Outcome	
	Practice	Manage/Decide
Inadvertent Ice Encounter	<input type="checkbox"/>	<input type="checkbox"/>
Turbo System Malfunction	<input type="checkbox"/>	<input type="checkbox"/>
Oxygen System Malfunction	<input type="checkbox"/>	<input type="checkbox"/>

Descent and Landing

Task	Desired Outcome	
	Practice	Perform
Descent and Arrival Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Traffic pattern	<input type="checkbox"/>	<input type="checkbox"/>
Landing	<input type="checkbox"/>	<input type="checkbox"/>
After Landing	<input type="checkbox"/>	<input type="checkbox"/>
Shutdown	<input type="checkbox"/>	<input type="checkbox"/>

Instrument Procedures

Task	Desired Outcome	
	Practice	Perform
Basic Attitude Instrument Flying	<input type="checkbox"/>	<input type="checkbox"/>
Arrival Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Instrument Approach Procedures (Precision - ILS)	<input type="checkbox"/>	<input type="checkbox"/>
Instrument Approach Procedures (Non-precision)	<input type="checkbox"/>	<input type="checkbox"/>
Visual Approach Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Missed Approach Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Holding Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Departure Procedures	<input type="checkbox"/>	<input type="checkbox"/>
Circling Approach	<input type="checkbox"/>	<input type="checkbox"/>
DME Arc Procedures	<input type="checkbox"/>	<input type="checkbox"/>

Partial Panel Approach	<input type="checkbox"/>	<input type="checkbox"/>
Unusual Attitudes	<input type="checkbox"/>	<input type="checkbox"/>

Post Flight Briefing

Task	Desired Outcome	
	Describe	Explain
Post Flight Discussion and Critique	<input type="checkbox"/>	<input type="checkbox"/>

**Lesson Completion Standards**

This flight lesson will be complete when the Cirrus pilot satisfactorily demonstrates ADM and critical thinking skills by completing the required tasks using the assessment criteria within this course.

**Biennial Flight Review**

*Optional*

Equipment: Aircraft

Approximate Time: 4.0 Hours

**Lesson Objectives**

- Complete items required by FAR 61.56 to satisfy requirements of a Biennial Flight Review

*Note:* A Biennial Flight Review is not a part of the turbo training, but is a requirement of the Federal Aviation Regulations which should be accomplished in accordance with the guidelines set forth by FAR 61.56 and the supporting advisory circular (AC 61-98A).

*Note:* BFR training can only be conducted after satisfactory completion of the turbo course. An additional half-day of training may be required to cover information required by the regulations.

**Task Checklist**

Ground Items Required by FAR 61.56 and Advisory Circular

Task	Desired Outcome	
	Describe	Explain
BFR Ground Segment	<input type="checkbox"/>	<input type="checkbox"/>

Flight Items Required by FAR 61.56 and Advisory Circular

Task	Desired Outcome	
	Practice	Perform
BFR Flight Segment	<input type="checkbox"/>	<input type="checkbox"/>

**Completion Standards**

The Biennial Flight Review will be complete when the Cirrus pilot has satisfactorily demonstrated to a Perform level those maneuvers and procedures that, at the discretion of the person giving the review, are necessary for the Cirrus pilot to safely exercise the privileges of the pilot certificate he/she holds and has been given the appropriate logbook endorsement.

### Instrument Proficiency Check

*Optional*

Equipment: FTD or Aircraft

Approximate Time: 4.0 Hours

#### Lesson Objectives

- Complete items required by the current Instrument Rating PTS to satisfy FAR requirements.

**Note:** An Instrument Proficiency Check is not a part of the turbo training, but is a requirement of the Federal Aviation Regulations which should be accomplished in accordance with the guidelines provided in the FAR's and the current instrument PTS.

**Note:** The Instrument proficiency check should be conducted after satisfactory completion of the turbo course. An additional half day of training may be required to cover ground and flight segments required by the FAR's and the current instrument PTS.

#### Task Checklist

Ground Items Required by Instrument PTS

Task	Desired Outcome	
	Describe	Explain
IPC Ground Segment	<input type="checkbox"/>	<input type="checkbox"/>

Flight Items Required by Instrument PTS

Task	Desired Outcome	
	Practice	Perform
IPC Flight Segment	<input type="checkbox"/>	<input type="checkbox"/>

#### Completion Standards

The instrument proficiency check will be complete when the PT has satisfactorily demonstrated to a Perform level the ground and flight requirements for the instrument proficiency check as prescribed in the instrument rating practical test standards and has been given the appropriate logbook endorsement.

### Course Summary: Turbocharged Differences Training

**Customer:** \_\_\_\_\_

**Aircraft Type:** \_\_\_\_\_

**Aircraft Registration:** \_\_\_\_\_

**Date:** \_\_\_\_\_

#### Flight Time Summary

Ground Time	FTD/Flight Time	Instrument Time	Landings

#### Course Summary

**Note:** "C" indicates items is complete

"I" indicates item is incomplete or not attempted

- C I**  
  Completion Certificate Awarded (VFR Only)  
 If Incomplete, please provide explanation:  
 \_\_\_\_\_

- High Performance Logbook Endorsement  
  Biennial Flight Review  
 Logbook Endorsed  
  Instrument Proficiency Check  
 Logbook Endorsed

Because the dangers of flight at higher altitudes it is recommended you complete the high altitude chamber training.

Please initial one of the following boxes:

- I will be participating the high altitude chamber training immediately after aircraft training.  
 I will not be participating in the high altitude chamber training at this time.

I understand the following training is provided as differences training for the SR22 Turbocharged aircraft and I (pilot) must continue to comply with FAR's, exercise sound judgment and maintain a high level of flying proficiency in order to minimize the risk associated with flight.

Because of the complexity of the avionics, the certificate of completion is issued as a VFR completion certificate, and the only way to be proficient in IMC is to complete an IPC.

I have reviewed and accept the course summary and agree with the above statements.

\_\_\_\_\_  
 Customer Signature                      Instructor Signature                      Date

### Acknowledgments for Course Development

This training guide has been developed through a collaborative effort between Cirrus Design, University of North Dakota Aerospace Foundation (UNDAF), and the FAA/Industry Training Standards (FITS) research team.



Flying within the Envelope of Safety will not guarantee a safe flight. Pilots must comply with FARs, exercise sound judgment and maintain a high level of flying proficiency in order to minimize the risks associated with flight.

QUALIFICATION	DAY		NIGHT		MAX WIND: T0&LND
	DAY	NIGHT	DAY	NIGHT	
NON-INSTRUMENT RATED -OR- INSTRUMENT RATED [NON-PROFICIENT]	 Operate at or Above 3000' Ceilings 5 SM Visibility	 Operate at or Above 5000' Ceilings 10 SM Visibility	25 knots total sustained 15 knot crosswind	25 knots total sustained 10 knot crosswind	
INSTRUMENT RATED [PROFICIENT]  Note: File IFR anytime the weather is below 3000/ 5 SM	Less than 100 hours in Type Operate at or Above 1000' Ceilings 3 SM Visibility	Greater than 100 hours in Type Operate at or Above 500' Ceilings 1 SM Visibility	Less than 100 hours in Type Operate at or Above 1000' Ceilings 3 SM Visibility	Greater than 100 hours in Type Operate at or Above 600' Ceilings 2 SM Visibility	DAY 30 knots total sustained 15 knot crosswind  NIGHT 25 knots total sustained 15 knot crosswind
	Less than 100 hours in Type Operate at or Above 500' Ceilings 1 SM Visibility	Greater than 100 hours in Type Operate at or Above 200' Ceilings 1/2 SM Visibility	Less than 100 hours in Type Operate at or Above 500' Ceilings 1 SM Visibility	Greater than 100 hours in Type Operate at or Above 200' Ceilings 1/2 SM Visibility	DAY 35 knots total sustained 20 knot crosswind or max demonstrated  NIGHT 35 knots total sustained 20 knot crosswind or max demonstrated
<b>ICING CONDITIONS: Flight into known icing conditions is prohibited.</b>					Minimum runway is 2.5 times the expected T-O or LND distance

www.cirrusdesign.com

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