# CFI Bootcamp Flight Instructor Training

## **Additional Aircraft Authorizations**

Cirrus Training – High Performance Airplanes Life in the Fast Lane



What is a high-performance airplane?

FAA – An airplane with a powerplant of over 200 HP





What is a high-performance airplane?

## General Pilot Population – Fast airplane with a big motor, retractable gear and advance avionics







What is a the SR20 and SR22?

SR 20 – Sometimes High performance – 200 and 215 HP





#### What is a the SR20 and SR22?

### SR 22 – High performance – 310 HP





#### What is a the SR20 and SR22?

#### Not Complex – Fixed gear





#### **FAA requirements for PIC**

### A High-Performance Endorsement – 61.31(f)

(f) Additional training required for operating high-performance airplanes.

- (1) Except as provided in paragraph (f)(2) of this section, no person may act as pilot in command of a high-performance airplane (an airplane with an engine of more than 200 horsepower), unless the person has—
  - (i) Received and logged ground and flight training from an authorized instructor in a highperformance airplane, or in a full flight simulator or flight training device that is representative of a high-performance airplane, and has been found proficient in the operation and systems of the airplane; and
  - (ii) Received a one-time endorsement in the pilot's logbook from an authorized instructor who certifies the person is proficient to operate a high-performance airplane.



**Parachute – CAPS?** 

### The Cirrus did pass the spin recovery tests in Europe





**Parachute – CAPS?** 

"The average pilot may not be able to recover the Cirrus from certain spin conditions – Hence the parachute





**Cuff wing design** 

The incidence between the inboard and outboard wing are separated using a cuff design





**Cuff wing design** 

Allows some aileron effectiveness when the inboard is stalled



#### **Transitioning into Fast Airplanes**

### Power + Attitude = Performance





#### **Transitioning into Fast Airplanes**

### Drag devices available and speed limitations





#### **Transitioning into Fast Airplanes**

#### Approach Category for IFR – A or B?

Aircraft category	Vat	Range of speeds for initial approach (and reversal and racetrack procedures)	Range of final approach speeds	Maximum speeds for circling	Maximum speeds for intermediate missed approach	Maximum speeds for final missed approach
Α	<91	90/150 (110)	70/110	100	100	110
В	91/120	120/180 (110)	85/130	135	130	150
С	121/140	160/240	115/160	180	160	240
D	141/165	185/250	130/185	205	185	265
E	166/210	185/250	155/230	240	230	275



#### **Transitioning into Fast Airplanes**

### Speeds and configurations for VFR pattern and landing

![](_page_15_Picture_3.jpeg)

![](_page_15_Picture_4.jpeg)

#### **Transitioning into Fast Airplanes**

### Go around characteristics – reduced power?

![](_page_16_Picture_3.jpeg)

![](_page_16_Picture_4.jpeg)

**Transitioning into Fast Airplanes** 

Dissipating energy

![](_page_17_Picture_3.jpeg)

**Transitioning into Fast Airplanes** 

Managing an airplane going 250 Kts - VFR

![](_page_18_Picture_3.jpeg)

**Transitioning into Fast Airplanes** 

Managing an airplane going 140 Kts – IFR Approach

![](_page_19_Picture_3.jpeg)

**Transitioning into Fast Airplanes** 

You need to work between 250 and 140 kts.

![](_page_20_Picture_3.jpeg)

**Transitioning into Fast Airplanes** 

Over reliance on the autopilot

![](_page_21_Picture_3.jpeg)

**Transitioning into Fast Airplanes** 

Airline Flight Crew – Are fully capable of hand flying

![](_page_22_Picture_3.jpeg)

**Resources for Cirrus Airplanes – Thanks Kirsh Krithivasan** 

Cirrus iFOM, differs by Avionics. Flight Operations Manual is an interactive book available on Apple Books

Transition courses on Cirrus Approach (official Cirrus portal)

Cirrus Aircraft paid Embark training (any time a Cirrus is bought, including used aircraft)

![](_page_23_Picture_5.jpeg)

**Resources for Cirrus Airplanes** 

COPA Forums - Wealth of knowledge - people eager to help

**CSIPs - Cirrus Standardized Instructor Pilots** 

Cirrus SR Series Systems course on Cirrus Approach

![](_page_24_Picture_5.jpeg)

**Resources for Cirrus Airplanes** 

Cirrus maneuvers course - Mike Goulian on Cirrus Approach

Garmin Avionics Trainer - G1000 Perspective+ systems

Cirrus CAPS course - FREE on Cirrus Approach

Cirrus Icing course - FREE on Cirrus Approach

![](_page_25_Picture_6.jpeg)

## Transitioning to Cirrus

CARRI

Rob Godfrey FAA CFI, IGI UK CAA Multi Instrument SR20 and SR22

## SR20 Vs 22

- Faster 155 vs 185 Kts TAS
- Higher payload, 600 vs 780lbs (full fuel)
- Performance 210 vs 300 HP
- Turbo
- FIKI, TKS
- Fuel Burn and hourly cost, 12 vs 17GPH

![](_page_27_Picture_7.jpeg)

![](_page_28_Figure_0.jpeg)

### Differences

- Advanced Avionics, flight stream, perspective
- AOA
- Traffic
- Speed and Power
- CAPS
- General handling. Side Yoke, Agricultural feel
- Variable Pitch Prop
- Aileron Trim
- Fuel Pump and Hot starts
- Advanced features, IR camera, Air conditioning, Sirius XM
- FIKI
- Room and comfort

![](_page_29_Picture_0.jpeg)

## Training

- Cirrus Transition CSIP
- 10 -20 hours
- Use of SOPs
- Checklists and Flows
- VFR / IFR
- Currency
- Engine leaning ROP/ LOP
- CHTs < 400F
- Correct seat belt placement
- Cirrus training website

![](_page_30_Figure_11.jpeg)

#### **Cirrus Transition Training Course** CIRRUS Flight Training Task List AIRGRAFT Rob Godfrey John McGwyne Syllabus Sulte - Original Issue, Feb 2011 Flight Instructor Name(s) Customer Name Unsatisfactory Attempts Satisfactory Attempts Task Ground Pre-course Briefing Preflight Preparation Engine Start Before Taxi / Taxi Before Takeoff Normal Takeoff Climb Normal Procedures Cruise Descent Traffic Pattern Normal Landing Crosswind Landing After Landing / Shutdown Avionics Management Autopilot Management SRM Single Pilot Resource Mgmt

#### Cirrus Transition Training Course Guidance for Establishing Personal Weather Minimums

![](_page_32_Picture_1.jpeg)

#### Rob Godfrey

Customer Name

#### General Flight Your Rating 1 2 3 4 5 Years Actively Flying > 10 Years 6-10 Years 2-5 Years < 2 Years 1 -Last Recurrent Training Event < 6 Months 6-12 Months > 12 Months 1 -Certificate Held ATP or CFI Com / Inst Pvt / Inst Private Pilot Student Pilot 2 -Total Time > 2000 1000-2000 750-999 500-749 3 -< 500Hours Logged in Last 12 Months > 200 150-200 100-149 50-99 < 50 4 -5 Hours in Cirrus in Last 90 Days > 50 35-50 25-34 10-24 < 10 -Pilot Mishap in Last 24 Months Incident Accident ÷ Cirrus Landings in Last 30 Days > 10 6-9 3-5 1-2 0 2 - I 18 Total

John McGwyne Flight Instructor Name(s)

Time to Complete Transition Trng:

Age: Add 2 points for 65 or older Time to Private License: Add 2 points for 100+ hours Add 2 points for 30+ hours Crew: Subtract 1 point for flying with licensed pilot Training: Add 2 points for not completing Cirrus Transition Training Category: Category 
is not applicable during first 100 hours in type

![](_page_32_Picture_7.jpeg)

Instrument Flight*	1	2	3	4	5	Your Rating	
Years Actively Flying IFR	> 5		1-5		< 1	1 -	
Hours Flown IFR in Last 90 Days	> 35	25-35	10-24	5-9	< 5	5 -	
Simulated/Actual Inst Hours in Cirrus in Last 90 Days	> 3		1-3		< 1	3 -	
Inst Approaches in Last 90 Days (Coupled)	>4		1-4		0	3 -	
Inst Approaches in Last 90 Days (Hand Flown)	>2		1		0	3 -	
Received Avionics-Specific IFR Training from CSIP/CTC	Yes				No	1 -	
					Total	16	

Crew: Subtract 1 point for flying with licensed pilot

Training: Subtract 2 points for completing avionics specific IPC from CSIP/CTC in last 12 months

Category: \*Applicability:

Category 
 is not applicable during first 100 hours in type Instrument flight is strongly discouraged by Cirrus Aircraft unless

the pilot has completed an IPC in type/avionics

![](_page_32_Figure_17.jpeg)

Customer Initial

#### Personal Weather Minimums

Current Pilot	Mind (kto)	VFR Minimums			
Capability	wind (Kts)	Day	Night		
	Total: 15	50001-0-11	50001.0.1		
	X-wind: 5	10 SM Visibility	10 SM Visibility		
	Gust: 5	· · · · · · · · · · · · · · · · · · ·			
	Total: 20	20001 Callina	E000' Callana		
	X-wind: 10	10 SM Visibility	10 SM Visibility		
	Gust: 10	,	·,		
	Total: 35	20001 0	5000' Ceilings 10 SM Visibility		
	X-wind: 20	5 SM Visibility			
•	Gust 15	,,			
Instructor Recommendation (If Different)					

Current Pilot Capability	IFR Approach Minimums
	1500' Ceiling 3 SM Visibility
	500' / 2 SM Above Published Approach Minimums
	Published Approach Minimums
Instructor Recommendation (If Different)	

#### **Cirrus Transition Training Course** Training Course Details

Rob Godfrey			John McGwyne			N925CC				Transition Training		
Customer Name			Flight Instructor Name(s)				Aircraft Registration(s)				Training Course	
							SR22				Avidvne Entegra	
Customer Pilot Certificate #			•	Flight Instructor Certificate #(s)				Aircr	aft Model		Avionics Type	
Date	Hobbs		Training Hours			Landinge	Approaches		Douto	Notes	Instructor	
Date	Start	End	Airplane	Sim	Ground	Instrument	Lanungs	#	Type(s)	Houte		moundetor
7/7/2012	1.0	2.0	1.0				3			EGSX LOCAL	GH CCTS NOTE THIS TRAINING DAY WAS ON SR20 GGCDA Avedyne	JM
9/8/2012	2.0	3.0	1.0				2			EGSX-LFAC	NAV Note this training was on SR20 GGCDA Avedyne	JM
9/8/2012	3.0	4.0	1.0				1			LFAC-EGSX	Nav	JM
1/22/2019	3.0	4.4	1.4				3			EGSX- Wellesbourne	NAV	JM
1/22/2019	5.0	6.9	1.9				3			Wellesbourne - EGSX via Shobden	NAV	JM
Course Totals		6.3	0.0	0.0	0.0	12	0					
		6.3		0.0 0.0		12	0					

![](_page_34_Picture_4.jpeg)

![](_page_35_Picture_0.jpeg)

## **Tips and Takeaways**

- Fast touring aircraft. Great Twin alternative.
- **TAA**
- Easy to fly
- High cross wind capability
- SR22 approx. 17GPH

- Ergonomic design- Designed around PAX
- No FADEC
- More right rudder! Especially on Go Around
- Family and non aviators love it!

![](_page_37_Figure_0.jpeg)

# Thank you

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