

Cirrus SR22
Quick Reference Guide
X-Plane 12 (Non-Turbo)



Introduction to the Cirrus SR22 in X-Plane 12

What:
The **Cirrus SR22** is a high-performance, single-engine, four- or five-seat general aviation aircraft, known for its sleek design, advanced avionics, and built-in safety features—most notably the Cirrus Air frame Parachute System (CAPS). In **X-Plane 12**, the SR22 is modelled with high fidelity, showcasing realistic flight dynamics, modern glass cockpit instrumentation, and detailed 3D visuals.

SECTION 1: TAKEOFF DATA

Takeoff Performance (ISA, Sea Level, Dry Runway)

Weight	Ground Roll Over 50 ft Obstacle	
Max Gross (~3,400 lbs)	~1,500 ft	~2,100 ft
Light Load (~2,800 lbs)	~1,000 ft	~1,600 ft

Takeoff Speeds

Phase	IAS (KIAS)	Notes
Rotate	70	Smooth rotation, no over-pitch
Liftoff	75–80	Pitch for 7–10° nose up
Vy (Best Rate)	92	Cruise climb
Vx (Best Angle)	78	Short field/obstacle clearance

SECTION 2: CLIMB & CRUISE PERFORMANCE

Climb Settings

Altitude	IAS (KIAS)	ROC (fpm)	Notes
SL–5,000 ft	110	~1,000–1,200	Normal cruise climb
5,000–10,000 ft	105	~800–1,000	Use mixture leaning
Above 10,000 ft	100	~500–700	Use oxygen if available

Cruise Power Settings

Altitude	% Power	MP (inHg)	RPM	IAS (KIAS)	Fuel Burn (gph)
3,000 ft	75%	25.0	2,500	~160–165	~16–17
6,000 ft	70%	23.0	2,500	~155	~14–15
8,000 ft	65%	21.0	2,500	~150	~13–14
10,000 ft	60%	20.0	2,500	~145	~12–13

Cruise Tips:

- Lean mixture for peak EGT or 50°F ROP
- Best economy: Lean of Peak (LOP) operation
- Best power: Rich of Peak (ROP) operation
- Monitor CHT (< 380°F) and EGT balance

SECTION 3: DESCENT SETTINGS

Phase	IAS (KIAS)	MP (inHg)	Notes
Cruise Descent	150–160	~18–20	Smooth pitch/MP change
Approach Descent	120–130	~15–17	Begin slowing to approach speed
Final Configuration	90–100	~13	Gear fixed; use flaps for drag

SECTION 4: PATTERN / LANDING

Segment	IAS (KIAS)	Configuration	Notes
Downwind	100–105	Flaps Up	Pattern altitude ~1,000 ft AGL
Abeam Numbers	90–95	Flaps 50% (1 notch)	Start gentle descent
Base Turn	85–90	Flaps 50%	Begin to align with runway
Final	78–85	Full Flaps	Stable approach
Over Threshold	75	Full Flaps	Power to idle, flare ~70 KIAS
Touchdown	65–70	Full Flaps	Nose wheel gently lowered

Limitations & V-Speeds:

Speed	KIAS	Description
V _{so}	60	Stall landing config (full flaps)
V _{s1}	70	Stall clean
V _r	70	Rotate
V _x	78	Best angle climb
V _y	92	Best rate climb
V _{fe} (50%)	119	Max flaps 50%
V _{fe} (100%)	104	Max full flaps
V _a	111–133	Manoeuvring (depends on weight)
V _{no}	165	Max structural cruise
V _{ne}	200	Never exceed

SECTION 5: EMERGENCIES / ENGINE OUT

Best Glide: ~88 KIAS

Engine Failure (General)

Step	Action
Airspeed	Pitch for 88 KIAS
Best Field / Heading	Select & turn
Mixture / Fuel Pump	Full rich / On
Fuel Selector	Switch tanks
Master / Ignition	Confirm On
Restart or Declare	If unsuccessful, prepare to land

Engine Out Landing

- Flaps as needed
 - Final approach: 80 KIAS (50% flaps), 75 KIAS (full flaps)
 - Use CAPS if no safe landing spot
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CAPS Deployment Parachute Guidelines

- **Min Altitude (Straight & Level):** 600 ft AGL
 - **Min Altitude (Spin or Uncontrolled):** 2,000 ft AGL
 - **Pull handle with two hands, full-arm motion**
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NOTE: All performance is approximate for X-Plane 12 and Cirrus SR22 G3 simulated model. Conditions, sim version, and aircraft loading may affect actual behaviour.

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