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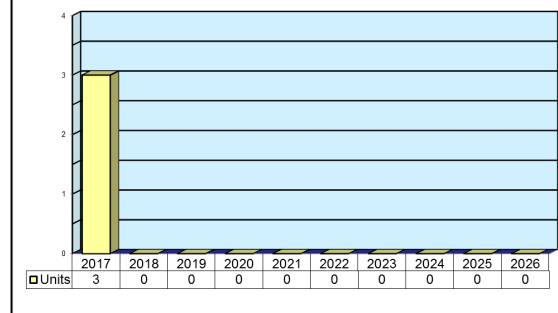
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## Sikorsky S-300

### Outlook

- Sikorsky has stopped taking orders for the S-300
- Sikorsky management indicated at Heli-Expo 2016 that a few aircraft remained in the backlog
- No deliveries reported in 2015 or 2016

Unit Production Forecast  
2017-2026



### Orientation

**Description.** Single-main-rotor, piston-powered light utility and training helicopter.

**Status.** Intermittent production.

**Total Produced.** Sikorsky/Schweizer produced an estimated 1,260 Model S-300 series helicopters through 2016.

**Application.** Personal and business transportation, flight training, law enforcement/observation.

**Price Range.** 300C, \$385,000.



Sikorsky S-300C

Source: Sikorsky

**Sikorsky S-300****Contractors****Prime**

<b>Sikorsky, a Lockheed Martin Company</b>	<a href="http://www.lockheedmartin.com/us/what-we-do/aerospace-defense/sikorsky.html">http://www.lockheedmartin.com/us/what-we-do/aerospace-defense/sikorsky.html</a> , 6900 Main St, Stratford, CT 06614 United States, Tel: + 1 (203) 386-4000, Fax: + 1 (203) 386-7300, Prime
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**Subcontractor**

<b>Concorde Battery Corp</b>	2009 San Bernardino Rd, West Covina, CA 91790 United States, Tel: + 1 (626) 813-1234, Fax: + 1 (626) 813-1235 (CB24/CB25 Aftermarket Battery)
<b>Textron Systems, Lycoming Engines</b>	<a href="http://www.lycoming.com">http://www.lycoming.com</a> , 652 Oliver St, Williamsport, PA 17701 United States, Tel: + 1 (570) 323-6181 (HIO-360-D1A Piston)
<b>UTC Aerospace Systems</b>	<a href="http://utcaerospacesystems.com">http://utcaerospacesystems.com</a> , Four Coliseum Centre, 2730 W Tyvola Rd, Charlotte, NC 28217-4578 United States, Tel: + 1 (704) 423-7000, Fax: + 1 (704) 423-7002 (Main Rotor Gearbox)

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; [rich.pettibone@forecast1.com](mailto:rich.pettibone@forecast1.com)

**Technical Data****S-300C**

	<u>Metric</u>	<u>U.S.</u>
<b>Dimensions</b>		
Length overall, rotors turning	9.40 m	30.8 ft
Height overall, top of rotor head	2.66 m	8.7 ft
Main rotor diameter	8.18 m	26.8 ft
Tail rotor diameter	1.3 m	4.25 ft
Fuselage width	1.3 m	4.25 ft
<b>Weight</b>		
Max gross weight	930 kg	2,050 lb
Operating weight, empty	475 kg	1,046 lb
Max baggage compartment payload	45 kg	100 lb
<b>Performance</b>		
Max cruise speed	159 km/h	86 kt
Service ceiling	4,450 m	14,600 ft
Hover performance (IGE)	3,292 m	10,800 ft
Hover performance (OGE)	2,621 m	8,600 ft
Range, max, S/L, MTOW	416 km	225 nm

**Propulsion**

- (1) Textron Lycoming HIO-360-D1A direct-drive, four-cylinder, gasoline-fueled, fuel-injected piston engine derated to 141 kW (190 shp).

**Seating**

Two side-by-side standard, with provision for a third seat just aft and centered between the pilot and second seats.

**Sikorsky S-300****Variants/Upgrades**

**269.** Initial variant of the 300 family. The 269 first flew in 1956.

**TH-55A.** The U.S. Army purchased this military version of the 269, known as the Osage, during the late 1950s and early 1960s. The Army bought a total of 792, 40 of which were supplied to Japan.

**S-300C.** Baseline production model based on the Hughes helicopter certificated in 1970. The S-300C offers a range of options and accessories. Among these are a crash-resistant fuel tank, dual controls, heating and ventilation kits, heavy-duty skid plates, single or dual exhaust mufflers, an aluminum auxiliary tank, amphibious floats, door locks, a dual oil cooler, tinted glass for cabin windows, a night flight kit, an all-weather cover, cargo racks, cargo hooks, litter kits for medevac units, and agricultural spray or dry powder dispersal kits.

**S-300CB/CBi.** Lower-cost training variant of the 300C. The CB has a different cockpit layout and a derated Lycoming HIO-360 engine. By running the engine at 500 rpm slower than the 300C, the lifespan of certain parts is expanded, engine overhaul times

are extended, and fuel economy is improved. It offers reduced operating costs and incorporates several previously optional items as standard features. Initial deliveries were made in 1995. The upgraded 300CBi was introduced in 2002 featuring fuel injection, a new main rotor drive shaft, and the new automatic (rotor) engagement system. Sikorsky discontinued this model in 2013 to simplify its production line in an effort to reduce costs.

**S-300C Sky Knight.** Special version targeting law enforcement operators. Features ballistic fiberglass armor beneath the seats, safety mesh nets with inertia-reel shoulder harnesses, a high-intensity searchlight, a high-powered public address/siren system, a cabin heater, a fire extinguisher, a first aid and map case, a heavy-duty 28-volt 100A electrical system, night lights with strobe beacons, and an external power socket.

**TH-300C Military.** Specially configured models of the S-300C are offered for a variety of dedicated military missions, including introductory pilot training and scouting/observation.

**Program Review**

**Background.** The Sikorsky S-300 helicopter is the latest in the original Hughes Helicopter Model 269/300 family of light utility and flight training helicopters. The Hughes 300C made its first flight in 1969.

Production of the Model 300C shifted from Hughes to Schweizer Aircraft Corp in July 1983. Hughes had produced approximately 2,830 Model 269/300s by this time.

In addition to the helicopter's production rights, the Elmira, New York-based firm inherited the task of supporting the 2,500-plus 269/TH-55/300C helicopters in worldwide commercial and military fleets. Schweizer subsequently acquired the entire program in November 1986.

Schweizer developed the Model 300CB variant in the mid-1990s for the primary helicopter flight training market. The upgraded CBi model was introduced in 2002.

In August 2004, Schweizer agreed to be acquired by Sikorsky, and the deal was completed later that year.

Sikorsky selected Jiangxi Changhe Aircraft Company to supply airframe components and assemblies for the 300CBi in 2006. A Memorandum of Understanding

announced on June 1, 2006, between Sikorsky and China Aviation Industry Corporation II (AVIC II) called for collaboration on the development and manufacture of civil helicopters (AVIC II is the parent company of Jiangxi Changhe).

A deal finalized during 2006 called for Changhe to ship the airframe and detail parts that it manufactured to Elmira, New York, for assembly, test flights, and delivery to customers. However, it is not clear how far the arrangement progressed. Sikorsky subsequently moved production of the S-300 to its Coatesville, Pennsylvania, facility.

A company executive told *Vertical* magazine in 2013 that the business case for continued production of the S-300 was "under review" because it cost more to make the S-300 than customers were willing to pay for it. Sikorsky discontinued production of the CBi trainer in 2013 to streamline and simplify the production line in order to make the S-300 program profitable.

In February 2016, a company executive told trade press that Sikorsky had stopped taking orders for the Schweizer family of light singles. He said that the company still had some orders on backlog and would complete production in 2017.

## Sikorsky S-300

### Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
	1956	First flight of Hughes Model 269
Aug	1969	First flight of Model 300
May	1970	FAA certification of 300
Jul	1981	Production suspended by Hughes
Jun	1982	Production restarted
Jul	1983	Schweizer Aircraft Co acquires Model 300C facilities
Nov	1983	Schweizer-Hughes agreement signed
Jun	1984	First flight of Schweizer-produced 300C
Mid	1995	300CB certificated; initial deliveries
Mid	2002	Initial 300C <i>Bi</i> deliveries
Late	2004	Sikorsky acquires Schweizer
	2013	Sikorsky discontinues S-300C <i>Bi</i> model

### Worldwide Distribution/Inventories

<b>Operator</b>	<b>Designation</b>	<b>Quantity</b>
Argentina Coast Guard	300C	4
El Salvador Air Force	300C	6
Greece Army	300C	16
Indonesia Army	300C	6
Mexico Navy	300C	5
Pakistan Army	300C	1
Peru Air Force	300C	6
Thailand Army	TH-300C	40
Turkey Army	300C	28

### Forecast Rationale

The S-300 has a decades-long history as a trainer and light patrol/observation helicopter. It typically operates in a two-seat configuration but can seat three in a pinch. The S-300C is more powerful than Robinson's competing two-seat R22 but lacks the fourth seat of the bigger Robinson R44. It once occupied a niche between the two models, but Sikorsky's acquisition of the helicopter's prior manufacturer, Schweizer Aircraft, altered its position in the market.

The S-300's list price soared after Sikorsky took over Schweizer. The price of the aircraft became comparable to that of the R44, which offers more seats, more payload, and higher performance. It is hard for the S-300C to compete in these circumstances.

Unlike its competitors in the piston segment, Robinson and Enstrom, Sikorsky is not focused on the piston and

light turbine helicopter segment. Sikorsky does not try to cover the full size range of the commercial market, so the S-300 does not serve as an entry point to the Sikorsky product line; the jump from piston aircraft to the company's S-76D medium twin is too high. Sikorsky can drop the S-300C without affecting its wider marketing efforts.

A Sikorsky executive said in February 2016 that the company has stopped taking new orders for the S-300 and its turbine-powered sibling, the S-333, and that it would complete production of the remaining orders during 2017.

Production of a few aircraft is shown in our forecast, but it is possible that the orders have been canceled and that production of the S-300 has already ended.

**Sikorsky S-300**

**Ten-Year Outlook**

<b>ESTIMATED CALENDAR YEAR UNIT PRODUCTION</b>												
Designation or Program	High Confidence					Good Confidence			Speculative			Total
	Thru 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
<b>Sikorsky</b>												
<b>S-300 &lt;&gt; Includes both 300CBi and 300C models &lt;&gt; HIO-360 -D1A</b>												
	32	3	0	0	0	0	0	0	0	0	0	3
<b>Total</b>	32	3	0	0	0	0	0	0	0	0	0	3