



SIKORSKY
S-76DTM SEARCH AND RESCUE
HELICOPTER







A HERITAGE OF TRUST: S-76D™ HELICOPTER: PERFORMANCE, RELIABILITY, CAPACITY

The aircraft must be ready when lives are on the line. Winds are gusting to 30 knots. Freezing rain and snow are falling at the pickup point that is 140 nautical miles away over open ocean. There is no time for delays.

This is a typical assignment for search and rescue crews relying on the S-76® helicopter for a successful mission. These difficult missions demand maximum performance from the men and women who perform them and from the equipment on which they rely. Flexibility, reliability and capability are the watchwords of those engaged in search and rescue, homeland security and airborne law enforcement missions. Mission readiness is the number one priority. The S-76D™ helicopter answers the call.

Sikorsky, the innovative company that pioneered the helicopter industry and takes a leading role in developing and delivering the most advanced rotorcraft available, understands these demands and accepts no less from the products and services it offers.

Professional rescue teams have counted on Sikorsky for more than 50 years. When performance, reliability and capacity are unconditional requirements, the S-76 helicopter is the aircraft emergency service professionals select to ensure they are successful in their mission.

Now, there is a new high performing helicopter from Sikorsky, equipped with the most capable and technologically advanced engines and avionics in its class: the S-76D helicopter. The S-76 series aircraft have been the workhorses for multi-mission operators. The modern S-76D helicopter is based on more than 6.8 million flight hours of mission experience from the routine to the most critical in every environmental condition found on earth. S-76 helicopter operators are the helicopter's best spokespersons, heaping praise for its performance, reliability and capacity.

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DESIGNED FOR THE MISSION

Ready. Willing. Able.

The S-76D helicopter is the latest version in the highly successful S-76 aircraft series, continuing Sikorsky's long and successful history of providing advanced and capable rotorcraft for those having the critical responsibilities of saving lives, providing homeland security or performing airborne law enforcement missions.

With more than 800 S-76 helicopters delivered the series has registered a consistently high reliable launch availability rating – earning the series high praise from operators worldwide.

In an industry where mission effectiveness is continually evaluated, the S-76 aircraft is the standard by which all other helicopters are compared.

The new S-76D helicopter promises even more:

- Powerful engines and an improved rotor system for greater lifting capacity
- Low fuel consumption and operational efficiency for longer range travel
- A state-of-the-art cockpit derived from the latest commercial airliners
- New safety features
- And much more for greater mission effectiveness.





SAFE, POWERFUL, RELIABLE

The Pratt & Whitney Canada PW210S engine has been optimized for the S-76D aircraft. The PW210S has best-in-class power to weight, low fuel consumption, dual channel FADEC, rapid take-off capability, and ease of maintenance. The PW210S engines and improved rotor system gives the S-76D helicopter operator additional confidence in performance and payload capacity, an important feature when selecting mission enhancing options* such as rescue hoists, Night Sun searchlights, FLIR, external cameras and weather radar.

Along with other technological advancements, the S-76D helicopter qualifies for Category A, hot-day take-off performance and extended endurance of up to four hours. The result is a helicopter with improved power to weight ratio and best-in-class fuel burn.

With the PW210S, based on the proven PW207, Pratt & Whitney Canada has brought turboshaft engine technology into the 21st century. This engine delivers more power with less fuel flow than the S-76 helicopter has experienced before. The result: greater performance, greater payload, lower operating cost and world-class reliability.

New all composite main and tail rotor blades incorporate Sikorsky's optional Rotor Ice Protection System[†] (RIPS). Integrated tip caps are included to reduce maintenance requirements.

The newly designed wider chord tail rotor ensures positive handling characteristics in cross winds up to 35 kts, another critical performance feature of the S-76D aircraft flown in search and rescue and law enforcement missions.

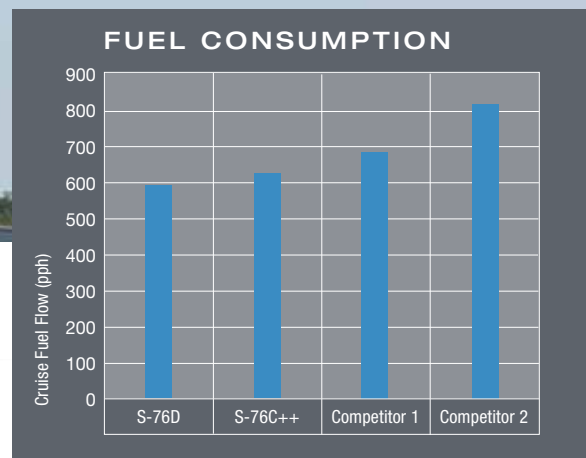
The aircraft's main rotor hub is a derivative of the hub on UH-60 BLACK HAWK helicopters, a system that has flown successfully for millions of hours in every imaginable flight environment.

Sikorsky's exclusive active vibration control and Quiet Zone™ transmission technology assure that flights are extraordinarily smooth and quiet in the cabin with acoustic enhancements that allow normal conversations.

The S-76D brings it all together, a clean airframe, low drag rotor system and efficient, 21st century technology engines. A best-in-class rating for low fuel consumption.



*Subject to ITAR/EAR regulations †Under Development



S-76D – THE “GREEN” CHOICE

SMOOTH RIDE. ADAPTABLE CABIN.

Multi-Mission Flexibility

The large, rectangular cabin provides ample space for special equipment and the crew members necessary to complete the mission. When needed, the cabin can be configured for up to 12 passengers. Optional sliding doors capable of opening in flight accommodate hoist retrieval and litter patients with ease.

Flexibility and capacity are mission advantages key to the S-76D helicopter. The open cabin area will accommodate personnel and a vast array of support equipment. The aircraft is also easily reconfigured to support various search profiles and rescue operations from hoist rescue to multi-victim evacuations in response to natural disasters. It has the power required to assist in flying in and out of tight spaces, over water, and in the most challenging environments while carrying equipment, crew and passengers.

Customized to meet the mission, the S-76D helicopter can have any of the following items added to meet your demands (subject to export regulations):

- Forward looking infra-red (FLIR)*
- CCD cameras, multi-sensor imaging devices*
- SX-7 or Thommen HSL-1600 searchlights
- Sliding cabin doors
- Rescue hoists
- Rappelling and/or fast rope system*
- Auxiliary fuel tanks (50 or 102 gallons)
- SAR coupled autopilot

**Subject to ITC regulations*





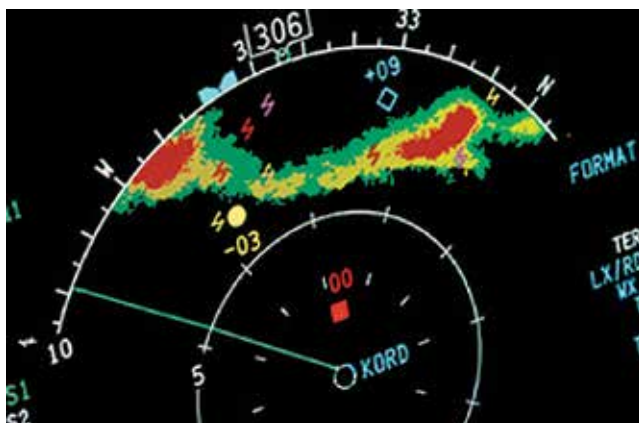
MODERN COCKPIT TECHNOLOGY

Advanced Technology Ready When You Are

The S-76D helicopter features state-of-the-art cockpit technology from Thales that is equal to today's leading commercial jets. In fact the S-76D helicopter is the only aircraft to offer the Thales TopDeck® avionics suite specifically designed for helicopters. Components are designed for upgrading to ensure the S-76D helicopter's avionics suite keeps pace with new, emerging technologies. The technology allows single or dual pilot Instrument Flight Rule (IFR) operations, a feature critical to flight operations in deteriorating weather. The cockpit is optionally configurable for Night Vision Goggles (NVG).

The sophisticated Thales TopDeck avionics package includes a four-axis, fully coupled autopilot to reduce workload and provide additional margins of safety. Large format liquid crystal displays have been consolidated in an efficiently designed console for improved visibility and greater field of view.

The easy to read screens and intuitive displays provide additional situational awareness for the pilots, reducing workload and maximizing safety. The "two click" approach to presentation layering allows pilots to access required information quickly and without unnecessary searching. Additional features include satellite flight following and satellite voice and data communications.





*Actual avionics displays shown in non-flight conditions.

SAFETY YOU EXPECT FROM SIKORSKY

Safe, Reliable Flight in All Weather Situations

After more than 30 years of continuous improvement and 6.8 million plus hours in flight, the S-76 aircraft series has an outstanding and enviable record for safety and reliability. The S-76D helicopter builds on that legacy with leading edge safety features, including redundant systems for flight controls, avionics, cockpit displays and a Health Usage Monitoring System (HUMS) that captures and records operational data. This data enables technicians to proactively monitor aircraft maintenance trends.

In addition to HUMS, the S-76D aircraft's flight data can be integrated with a Helicopter Flight Data Management System (HFDM) that presents aircraft data in the flight tracking profile for training and flight operations quality assurance.

An Enhanced Ground Proximity Warning System (EGPWS), optimized for helicopter operations is standard on the S-76D, as are a combined Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR). Traffic Collision Avoidance System (TCAS1) is available as an option.

The S-76D helicopter is designed and equipped for safe, reliable flight in all weather situations and is protected against lightning strikes and sensitive avionics are shielded against electromagnetic interference.

Additionally, passengers and crew survivability equipment includes an integrated and certified Emergency Flotation System (EFS), with an optional Automatic Flotation Deployment System (AFDS), single action cabin door releases, larger pop-out cabin windows and an Emergency Locator Transmitter (ELT).

These safety features and high reliability components designed into the S-76D helicopter contribute to the aircraft's safety.



SAFETY COMES FIRST

The S-76D is the result of years of continuous improvement based on real operational experience. We bring 21st century technology and improvements to a proven airframe that is supported by our broad experience with other Sikorsky products such as the UH-60 BLACK HAWK and the S-92. The S-76's outstanding safety record is further augmented with the excellence of Flight Safety International training and the talent and dedication of our customers.



CUTTING EDGE FEATURES INCLUDE

- | | |
|--|---|
| 1 Honeywell EGPWS | 5 PW210S engines |
| 2 Thales TopDeck® avionics solution | 6 Dual Channel FADEC with diagnostics |
| 3 Rotor Ice Protection System (Optional) | 7 Goodrich Vigor™ HUMS |
| 4 Ice diverting engine inlets | 8 Cockpit voice recorder / flight data recorder |

EXCEPTIONAL SERVICE

At Sikorsky, our mission is to provide the best aircraft service in the industry.

We have over 90 years of experience supporting rotorcraft deployed globally in some of the most remote locations on earth. From battlefields to offshore oil platforms, Sikorsky has proven itself year over year to be a reliable and committed source for all services needed to keep your aircraft flying and safe.

Wherever your mission takes you, Sikorsky will be there with you.

We pride ourselves on gaining a deep understanding of your operations, aircraft, and missions so we can provide proactive service and solutions to maximize your aircraft availability.

Our support begins even before you purchase your Sikorsky aircraft. We engage with your team, understand your business needs and help you choose the appropriate aircraft and provisioning based on your mission. Our comprehensive service offering include:

Pre-Operation Services

TO ENSURE YOU HAVE WHAT YOU NEED

Facility Planning Services

- Infrastructure
- Spares Planning
- Tooling and GSE

Pilot/Maintenance Training

Aircraft Delivery

In-Operation Services

TO ENSURE CONTINUED AIRCRAFT AVAILABILITY AND SAFETY

Flight Hour based Warranty Programs

(Total Assurance Program and Powertrain Assurance Program)

AOG Resolution

On Site Support

Spares/Depot Management

Overhaul & Repair

Aircraft Modification/Upgrade Services

Publications

Product Alerts and Bulletins

Engineering Services

Pilot/Maintenance Training



Help is Just a Call Away 1-800-WINGED-S

Our new state-of-the-art Customer Care Center is the heart of our customer support.

Open around the clock, fully staffed with technical and logistics experts, the center is ready to receive your call for assistance. All customer needs are logged, assigned and rapidly solved. Solutions are communicated as fast as possible and cases remain open until the customer confirms resolution. This center is staffed with the sole purpose of solving your needs to keep your aircraft available and flying.

The Customer Care Center is also home to our fleet analytics team that provides pro-active fleet management services. Using the daily fleet HUMS data and proprietary advanced analytics, Sikorsky measures aircraft component wear very precisely. Predicting when a spare will be needed before its needed allows us to pre-position spares at forward stocking locations near the point of usage keeping your aircraft in the air.



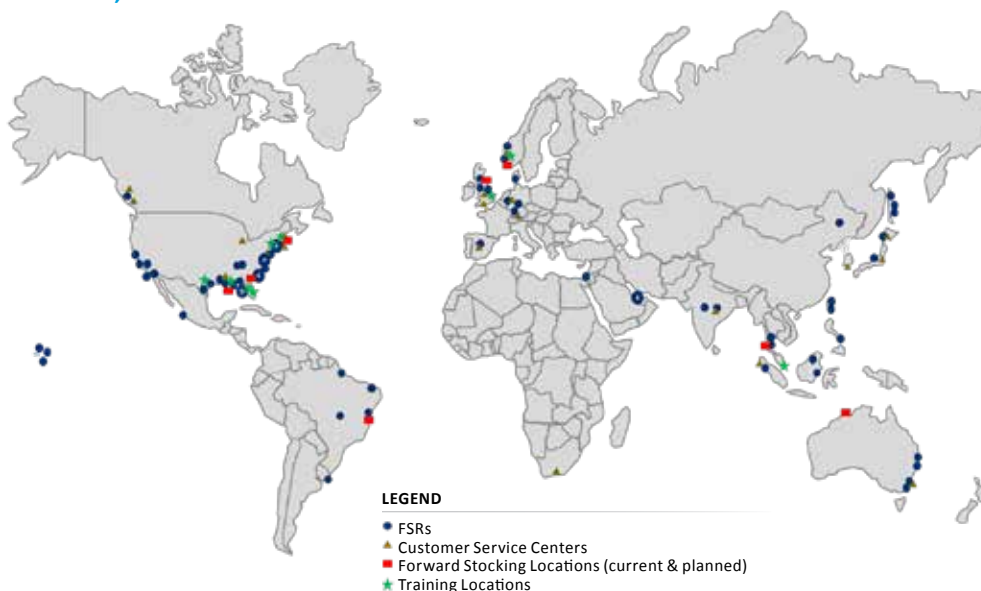
State-of-the-Art Customer Care Center is open 24/7/365 to support your aircraft from Fleet Management to AOG Resolution

Our Expanding Global Support Network provides improved access to services and rapid response to urgent customer needs



Providing global support regionally through Sikorsky-authorized service centers

Sikorsky Global Support OVER 6,700 AIRCRAFT SUPPORTED



S-76D SAR CABIN OPTIONS

Search and tactical operations require a large flexible working space. The S-76 helicopter cabin options make maximum use of its large, open cabin. Seating options for from four to twelve people can be quickly changed to suit the mission requirements. An observer's station allows a scene manager or SAR crew member to control and see the output from the day-night imaging system. Sliding cabin doors and rappelling or fast roping kits provide for rapid insertion of a tactical team.



← FORWARD



S-76D SAR EQUIPMENT AND OPTIONS

Basic Configuration

The new S-76D helicopter builds on the proven success of over 800 S-76 series aircraft delivered. Propulsion is supplied by two Pratt & Whitney Canada PW210S engines with dual FADEC and expanded diagnostics.

The redesigned instrument panel features the integrated Thales TopDeck® avionics system with four large format flat panel displays. The open architecture panels can display attitude indicator, navigation, digital map, flight plan management, systems data monitoring, warning advisory system and other performance management elements. The Collins Pro Line 21 dual nav/comm and Goodrich Vigor™ HUMS complete the suite. Cockpit data is provided by a solid state air data system featuring dual AHRS and dual air data computers. The S-76D aircraft can be certified for single pilot IFR and, to ensure safety, all S-76D helicopters are equipped with EGPWS, combined cockpit voice recorder / flight data recorder, and 406 MHz ELT. TCAS1 is also available as an option.

The four, flaw tolerant main rotor blades feature an all-composite spar, wider chord, enhanced air-foil and integrated tip caps. Quiet Aircraft Technology Designation standards are achieved through a new tail rotor blade design.

The large, rectangular cabin and 38-cubic foot baggage compartment can be custom configured for many mission applications. Speed, long range and a smooth level ride are ensured by the fully articulated rotor system and Active Vibration Control system. The elegantly clean airframe, retractable landing gear and 284 gallons of usable fuel complete the basic configuration.

S-76D SAR EQUIPMENT	STANDARD	OPTIONS
SAR AFCS with second radio altimeter system	●	
Cabin audio selector panel & ICS jacks	●	
Additional cabin ICS jacks	●	
VHF/UHF/AM/FM	●	
Flight following and voice communications system, Sky Connect MMU-II	●	
HF Comm (Rockwell Collins HF-9000 or Honeywell Primus HF-1050)	●	
Guard receiver/tone	●	
Six-passenger interior	●	
Search/weather radar-Primus 700A	●	
Coupled approach with auto-hover	●	
Sliding cabin door (right-side)	●	
Sliding cabin door (left-side)		▲
Directional finding system (may be subject to export restrictions)*	●	
Cargo hook - 3,300 lb capacity	●	
Searchlight system (Starsun SX-7 or Thommen HSL-1600)	●	
Cabin LCD monitor for imaging system*	●	
Emergency Flotation System with auto deployment	●	
Utility Hoist, variable speed- 76m (250ft), 600-lb capacity	●	
Traffic Advisory System (TCAS1)	●	
Automatically Deployable ELT (ADELT)	●	
NVG compatible lighting system		▲
EO/IO imaging system (may be subject to export restrictions)*		▲
HEELS		▲
600-Watt Loudhailer system		▲
Two FAR/JAR-OPS life rafts w/ ELTs & survival kits for utility interior		▲

This is not a comprehensive list of options; please consult with your sales specialist to develop a configuration and interior plan to meet your mission needs.

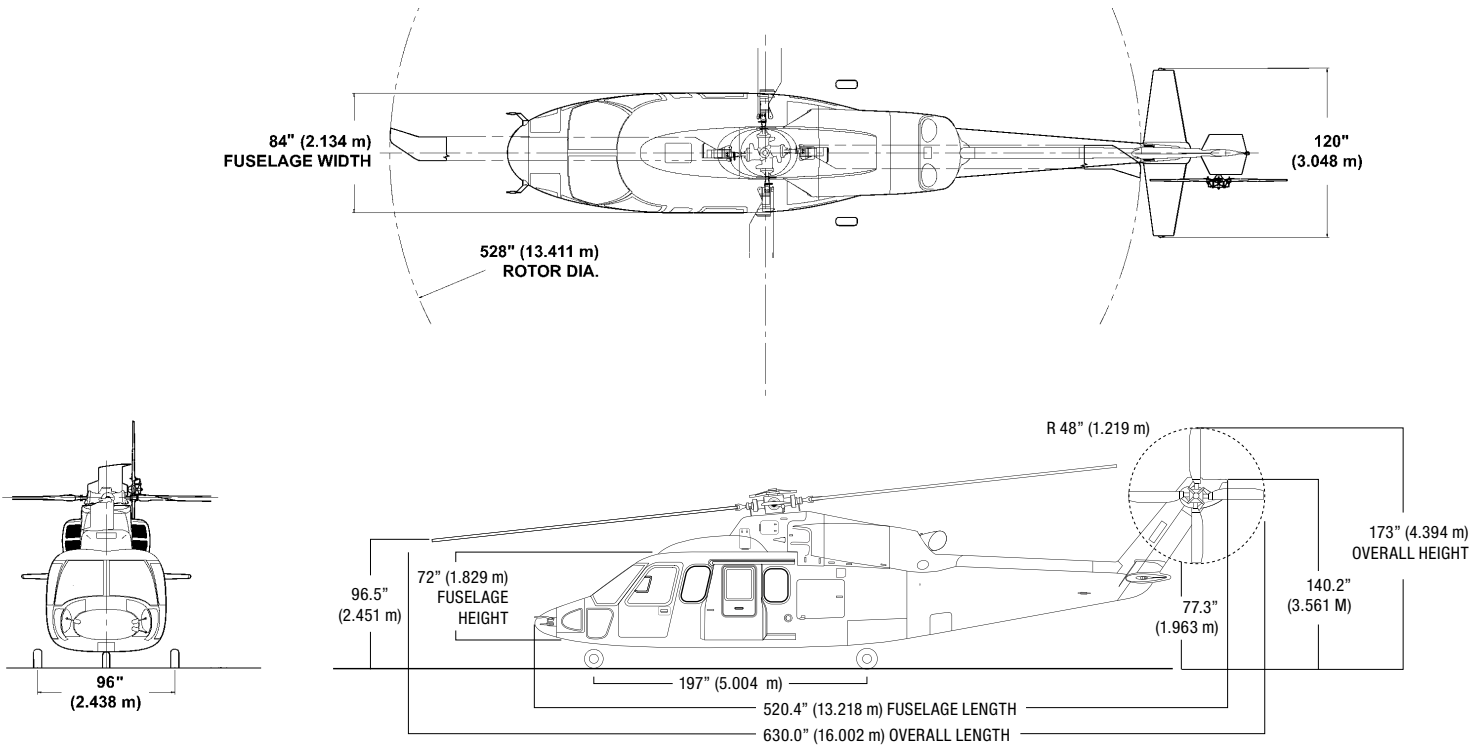
*Export controlled item, license required.

S-76D SAR SPECIFICATIONS

Standard Day, Sea Level at maximum gross weight unless otherwise noted

Maximum speed (V _{NE})	155 kts	287 km/hr
Maximum cruise speed (V _H)	155 kts	287 km/hr
Long Range Cruise Speed (V _{BR})	152 kts	282 km/hr
Hover ceiling, In-Ground Effect	10,540 ft	3,213 m
Hover ceiling, Out-of-Ground Effect	4,930 ft	1,503 m
One Engine Inoperative Service Ceiling	8,235 ft	2,510 m
Range - long range cruise speed @ 4,000 feet		
- with 30 minute reserve	398 nm	737 km
- no reserve	472 nm	874 km
- average speed	152 kts	282 km/hr
- average fuel flow	600 lb/hr	272 kg/hr
Maximum takeoff gross weight	11,875 lb	5,386 kg
Empty weight, base aircraft*	6,963 lb	3,165 kg
Useful load, internal*	4,912 lb	2,233 kg

*Weights will vary by specific mission configuration



WE'RE ENGINEERING A BETTER TOMORROW

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