



Sikorsky S-76C++ Multi-Mission Helicopter

A perfect fit for the most demanding missions







The multi-mission helicopter you can count on

The S-76C++ helicopter delivers the perfect combination of performance and reliability, plus an impressive useful load, for the most demanding missions, including Helicopter Emergency Medical Services (HEMS), Search and Rescue (SAR) and Airborne Law Enforcement (ALE).

This proven platform for emergency response will rise to the occasion – mission after mission and hour after hour – delivering consistent, reliable performance when lives are on the line and when every second matters. Crews can count on the versatile S-76C++ to function seamlessly with room to work and the right equipment for the mission they are performing, even if that mission changes from day to day.

For more than 60 years, Sikorsky has been a driving force in creating aircraft that save lives. Sikorsky pioneered the concept of the aerial rescue and has perfected it with an ever-evolving product line featuring advanced rotorcraft technology.

The S-76C++ helicopter, an advanced version of the S-76C+, is the perfect fit and an exceptional value for a range of public, civil and paramilitary operators with the most demanding missions and the most demanding requirements.

THE BOTTOM LINE

*Multi-mission flexibility. Outstanding Performance. Proven reliability.
Sikorsky S-76C++.*

The Air Medical Expert



Sikorsky's S-76C++ helicopter is ideally designed and configured to perform the HEMS mission with maximum flexibility and effectiveness.

Its superior speed, range, and payload distinguish it as a top performer, and its 98% dispatch reliability ensures that the S-76C++ is ready to perform when and where it is needed. In addition, the S-76C++ features a large, rectangular cabin, spacious enough to accommodate patients, medical personnel, and

all necessary equipment. This flying intensive care unit can accommodate a range of emergency requirements – from neonatal transfers in one or two isolettes to the transfer of critical cardiac care patients and more. Sliding doors on both sides of the aircraft accommodate safe and easy litter and specialty team equipment loading.

When it comes to performance, the Sikorsky S-76C++ is a workhorse that really delivers. First, there's more power – the S-76C++ features two Arriel 2S2 engines with six percent additional power compared to the previous model, fuz burn chip detectors, new oil seals, and the ability to carry a passenger in each position for extended ranges. This enables HEMS operators to carry large medical teams, advanced life support and critical care devices and equipment such as a hoist, searchlight, and more.

A new engine barrier filtration system protects valuable engines from dirt and foreign object damage (FOD), an important benefit for on-scene work or when landing in unimproved areas. The filtration system reduces maintenance requirements with no loss of power.



The S-76C++ provides a rotor brake capable of completely stopping the main and tail rotors with engines running. This unique feature significantly enhances on-scene safety, expedites patient care and loading, and prevents aerosol contamination.

Because HEMS providers must respond in all weather and any time of the day or night, the S-76C++ has many features such as weather radar to ensure mission success in all conditions. The S-76C++ is certified for single- and dual-pilot instrument flight rules. It also features a fully coupled four-axis autopilot for safe flight and reduced pilot workload in sub-par weather.

A four-blade flexbeam tail rotor ensures positive handling characteristics in 35-knot crosswinds, providing safe operations when the pilot has little or no choice in selecting a landing zone. Dual Full Authority Digital Engine Control (FADEC) systems further enhance performance and safety in a high-consequence environment. Computerized engine control also allows the availability of “Blow Away Power.” This allows a pilot the use of engine power greater-than-normal twin-

engine limits for a short period of time to escape from a potentially dangerous situation. The Automated Flight Control System and Enhanced Ground Proximity Warning System (EGPWS) are also critically important for HEMS mission success and safety.

THE BOTTOM LINE *The S-76C++ has the right combination of capabilities, performance and value for the HEMS mission. You can count on it.*

Search and Rescue and Airborne Law Enforcement



Rescuing those in need and protecting the public is a tremendous responsibility — and one for which the S-76C++ helicopter is ideally suited.

Rugged and reliable, the S-76C++ is an important member of a family of Sikorsky helicopters that have been delivering hope around the world for six decades, fulfilling Igor Sikorsky's vision of the helicopter as a tool that would alter the course of human lives.

For the challenging requirements of search and rescue, homeland security, and airborne law enforcement among others, customers continue

to turn to Sikorsky and its unmatched legacy of experience and effectiveness.

Technology that delivers a mission advantage is key to the S-76C++. Speed, agility and responsiveness are all important components to SAR and ALE effectiveness, and the S-76C++ delivers on all counts. It features electronic instruments that will accommodate important options such as satellite flight following and SATComm. It has the power required to fly in and out of tight spaces, over water, and in the most challenging environments while carrying equipment, crew and passengers. It even



meets the single-engine inoperative requirements for JAR Ops 3, with approved Class 2e performance procedures.

The aircraft also features an array of standard optional equipment to enhance the effectiveness of the SAR and ALE missions, including EGPWS, four-axis autopilot with auto hover features, hoist, FLIR, search light, and camera options.

The S-76C++ provides excellent range with an effective operating range of 345 nm (639 km) or three-plus hours of loiter time using standard fuel,

as well as available internal auxiliary fuel, which is optional for increased search and rescue time on station. More time on station is a critically important capability for emergency response operations because it gives crews the time they need to employ the hoist, winch or other equipment for a safe, effective mission, and the S-76C++ excels in this regard.

THE BOTTOM LINE *It's a powerful and reliable tool, so when people are counting on you, you can count on the S-76C++.*

The Right Capabilities for the Mission

The highly capable S-76C++ helicopter is based on the proven S-76C+ platform, but has significant improvements that make it even more effective for demanding multi-mission operators.

New, more powerful Arriel 2S2 engines deliver improved performance in hot or high conditions, including 350-450 pounds of additional payload capacity. The addition of an inlet barrier filter provides outstanding engine protection for enhanced reliability with no loss of power and reduced maintenance costs.

The S-76C++ also adds Quiet Zone™ technology to the main transmission, which create a more comfortable working and flying environment for crews and passengers.

An optional enhancement to S-76C++ safety is the Honeywell VXP vibration monitoring system. The VXP HUMS is an invaluable tool that automatically checks the health and status the helicopter's key systems and components, alerting crews to any potential problems or concerns.

Cockpit enhancements include a new, more user-friendly quadrant, barrier filter monitor panel, and a “beeper” switch on the collective stick that enables direct control of an engine in case of a dual FADEC failure.

THE BOTTOM LINE *A range of capabilities, when coupled with the right mission equipment, performance, and overall capacity, add up to the S-76C++ as the best-value solution for the HEMS, SAR and ALE missions.*





When Safety Matters Most

Safety is designed into the S-76C++

The safety of the crew and passengers — on the ground and in the air — is a top priority for HEMS, SAR and ALE operators. Sikorsky shares that concern for safety, and safety features have been designed in to the S-76C++ at every turn.

Sikorsky knows that the only successful mission is a safe mission, and designed the S-76C++ to keep you safe from launch to landing.

Safety features include:

- ① New Arriel 2S2 engines
- ② Dual FADEC
- ③ Engine inlet barrier filters
- ④ Sikorsky QUIET ZONE™ gear box
- ⑤ Large cabin doors with pop-out windows
- ⑥ Honeywell VXP HUMS (optional)
- ⑦ EGPWS terrain awareness
- ⑧ Cockpit Voice Recorder (CVR)
- ⑨ Emergency float system (optional)
- ⑩ Auto deployable Emergency Location Transmitter (ELT) (optional)





Above All, Safety.

Designed with a multitude of safety features, the S-76C++ helicopter is a proven aircraft you can fly anywhere, anytime, with peace of mind and total confidence.

Sikorsky's S-76 helicopters feature an outstanding and enviable safety record over 26 years and 4 million-plus flight hours. Today's S-76C++ is building on this legacy with an array of preventive safety features, including redundant systems for flight controls, avionics, cockpit displays and hydraulic systems.

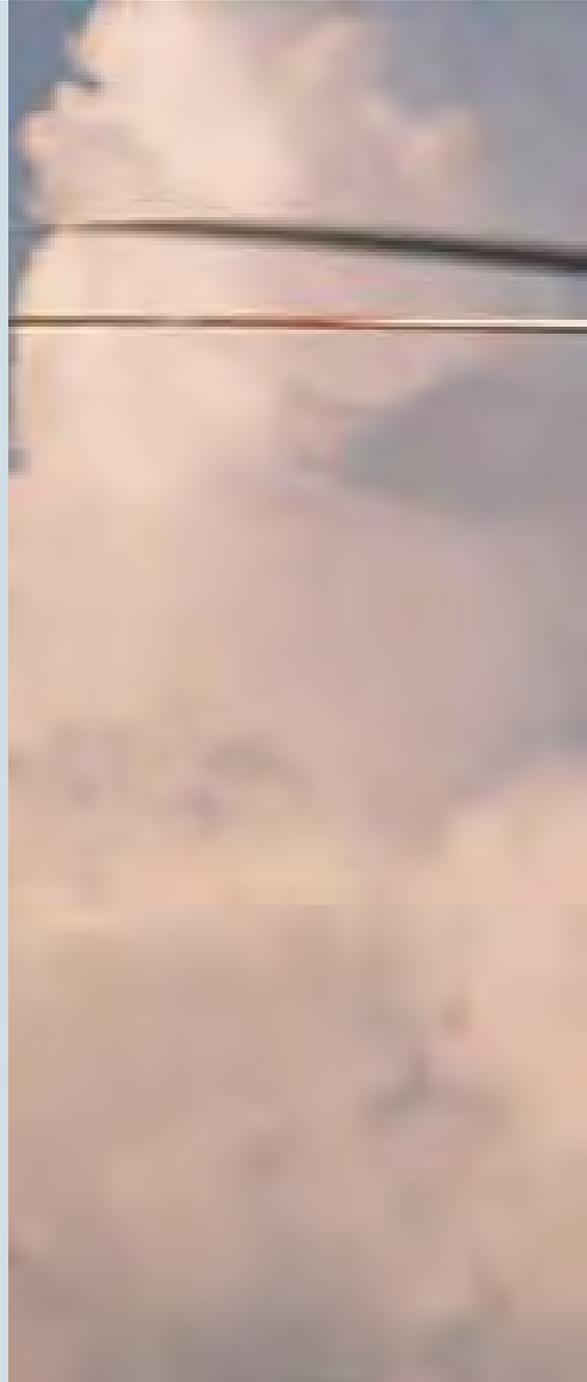
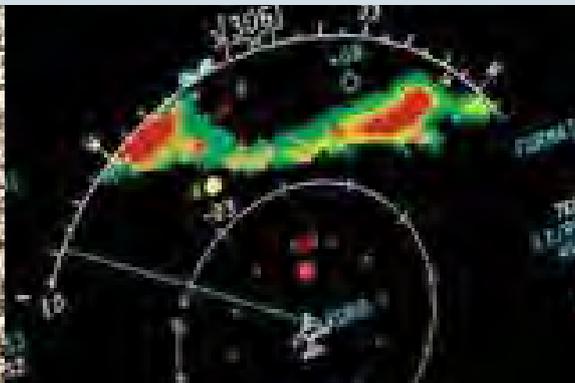
In addition, a Helicopter Operations Monitoring Program (HOMP) and optional Vibration Monitoring System capture, monitor and record operational flight data. Of course, the S-76C++'s improved performance, with new more powerful engines, also delivers an enhanced margin of safety.

The Enhanced Ground Proximity Warning Systems (EGPWS) is an advanced terrain avoidance warning system that is standard equipment on the S-76C++, contributing to all-weather safety in changing conditions or unfamiliar territory – so when duty calls you may fly with peace of mind day and night.

Additionally, a full suite of optional equipment designed to enhance crew and passenger survivability in the unlikely event of an emergency water landing are offered. These options include an Emergency Flotation System (EFS) and Automatic Flotation Deployment System (AFDS).

THE BOTTOM LINE *When you fly the most demanding missions in the world, you want a helicopter that is as focused on safety as you are. You want the S-76C++.*

S-76C++ safety features include weather radar, a fully instrumented cockpit, retractable landing gear for ground taxi operations, large cabin doors, wire strike protection (standard on HEMS and ALE), and a rotor brake capable of completely stopping the main and tail rotors with the engines running.





Reliability When and Where it Matters



When the call for help comes, you need to be ready to fly.

With more than 4 million flight hours and a 98% launch availability, the S-76C++ is a helicopter that inspires confidence. First, it is the newest version of a mature platform that has set the standard for helicopters in its class. It was an excellent helicopter to begin with, and we have made it better and, specifically, even more reliable with robust components, redundant systems, and more.

The aircraft's new engine inlet barrier filtration system significantly reduces the potential for FOD damage and contributes to reliability and ease of maintenance, reducing operating costs. Further contributing to reliability is the redundant FADEC system and a health and usage monitoring system that actively identifies issues before they become problems.



And when it comes to cost-effective performance, the S-76C++ really delivers. There is no better value among HEMS/SAR or ALE helicopters. The S-76C++ delivers low direct operating costs — the best in its class — and much more, including long range and a large cabin at an affordable price.

Enhanced performance, which enables operators increase productivity, further enhances the overall value of this remarkable helicopter.

THE BOTTOM LINE *It's the complete package of reliability and value that is tailor-made for the HEMS, SAR and ALE mission.*

Support That Exceeds Your Expectations

A forward-thinking support program that caters to the needs of high-tempo operations makes owning an S-76C++ helicopter just as rewarding as flying one.

Only Sikorsky combines solid support systems, based on long-standing and proven maintenance programs, with state-of-the-art capabilities that are unique to the industry.

We keep you flying, with around the world and around-the-clock service and a comprehensive program that includes spare parts, overhaul and repair, training, on-site technical and logistics representatives, ground support equipment, publications and more.

Sikorsky, through our partners at Flight Safety International and Worldwide Customer Support, also offers full-motion Level D flight simulation, engineering support, and will assign your program a single point-of-contact to simplify the support process across-the-board.

THE BOTTOM LINE *Anytime and anywhere, the S-76C++ worldwide customer service team will work with you to increase flight readiness, improve ease-of-use, and reduce costs.*





Among the many programs of Sikorsky's outstanding customer service are a 24-7-365 help desk, flight training on super-realistic Level-D flight simulators, a full aircraft maintenance trainer, overhaul and repair facilities, field service representatives and an ample spare parts inventory.



S-76C++ Configuration and Options

Basic configuration

The enhanced S-76 C++ helicopter builds on the proven legacy of over 600 S-76 helicopters delivered with two updated, dual-FADEC-controlled Turbomeca Arriel 2S2 engines and a full-coverage inlet barrier filter.

The basic cockpit features a four-axis, fully coupled autopilot, Integrated Instrument Display System (IIDS), Honeywell 4-tube EFIS and a Collins Proline II avionics suite with dual comm/nav, ADF, transponder, DME and a

radio altimeter with an expanded scale indicator. Cockpit data is provided by a solid state air data system featuring dual AHRS and dual air data computers. The S-76C++ can be certified for single pilot IFR operations and, to ensure increased safety, it is equipped with Enhanced Ground Proximity Warning System and a Cockpit Voice Recorder.

For cockpit environmental control there is a bleed air heating defogging system and dual windshield wipers. The pilot

and copilot seats come with a five point restraint system.

The large, rectangular cabin and 38-cubic foot baggage compartment can be custom configured for any application.

Speed, long range and a smooth ride are ensured by the fully articulated rotor system derived from the U.S. Army's BLACK HAWK, the elegantly clean airframe, retractable landing gear, and 281 gallons of usable fuel.

Multi-mission standard configurations

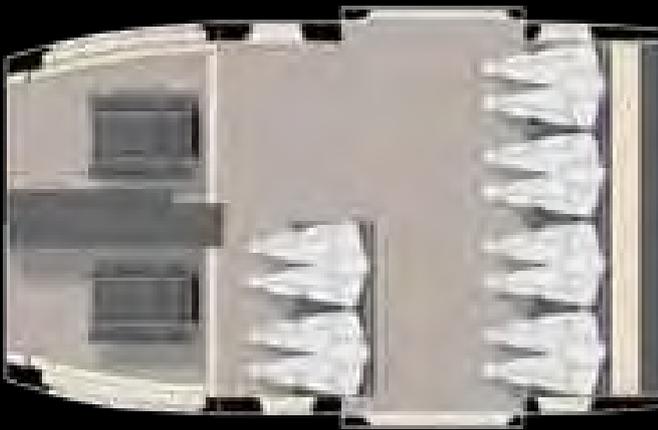
	HEMS	SAR	ALE
Second radio altimeter system		•	•
Cabin audio selector pane		•	•
HEMS audio/ICS system	•		
Additional cabin ICS jacks		•	•
VHF/UHF/AM/FM	•	•	•
HF Comm		•	
Satellite comm system	•		
Loudhailer system			•
Guard receiver/tone		•	
GPS moving map	•		•
FMS - UNS with go-around		•	•
Search/weather radar		•	•
Couple approach with auto-hover		•	
Directional finding system*		•	•
Traffic Advisory System (TCAS)	•		•
Flight following and tracking	•		
Single pilot IFR	•		
HEMS custom interior (dual patient)	•		
SAR/ALE custom interior		•	•
Cabin monitor for imaging system		•	
Sliding cabin door (right-side)		•	
Sliding cabin doors (right-side and left-side)	•		•
Snow kit	•	•	•
Air conditioning system	•		•
Searchlight systems	•	•	•
Main rotor recognition light	•		
Floats completion		•	•
Wire strike protection system	•		•
Cargo hook - 3,300 lb capacity		•	•
Utility hoist		•	•
Rappelling capability*			•
Two sensor imaging system*		•	•
Video/audio downlink transmission			•

* May be subject to export restrictions

S-76C++ Cabin Options

Multiple Cabin Configuration Options

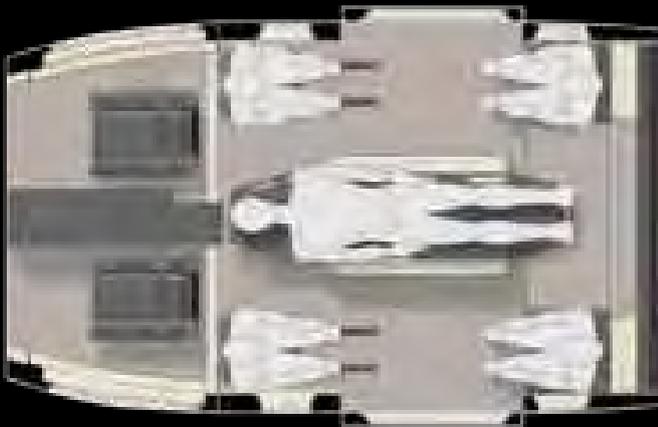
The S-76C++ helicopter's large rectangular cabin optimizes flexibility to meet mission requirements. Search and Rescue, Airborne Law Enforcement and Helicopter Emergency Medical Services are illustrated below. Our design and engineering experts will work to maximize cabin capabilities and functionality.



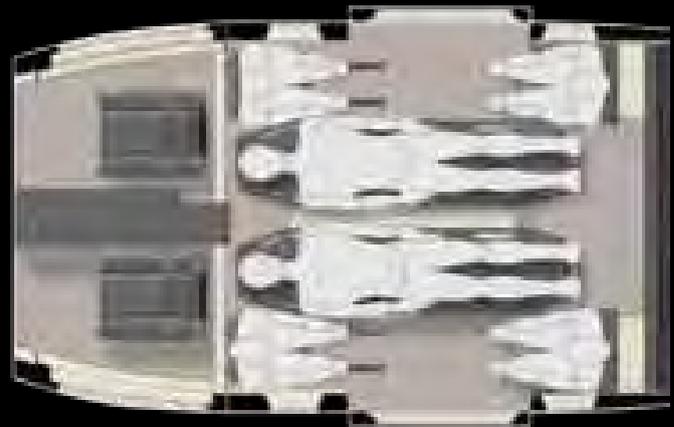
Standard Search and Rescue and
Airborne Law Enforcement
6-passenger configuration



Optional Search and Rescue and
Airborne Law Enforcement
6-passenger configuration



Helicopter Emergency Medical Services
One litter and four attendants



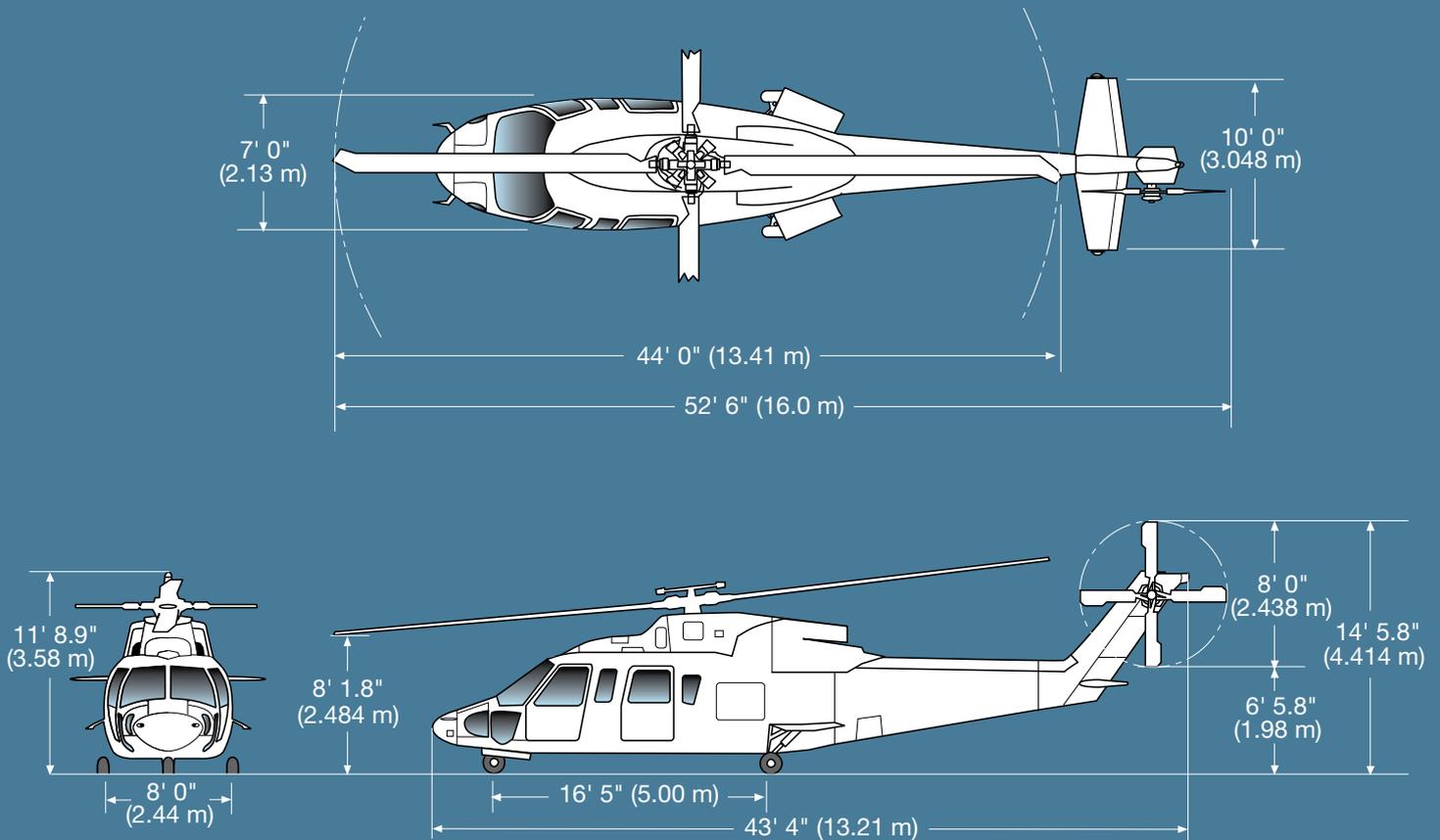
Helicopter Emergency Medical Services
Two litters and four attendants

S-76C++ Specifications

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

Maximum speed (VNE)	155 kts	287 km/hr
Maximum cruise speed (VH)	155 kts	287 km/hr
Hover ceiling, In-Ground Effect (TOP)	7,050 ft	2,149 m
Hover ceiling, Out-of-Ground Effect (TOP)	3,300 ft	1,006 m
Single engine service ceiling	4,900 ft	1,493 m
Range - long range cruise speed @ 4,000 feet		
- with 30 minute reserve	345 nm	639 km
- no reserve	411 nm	762 km
- average speed	137 kts	254 km/hr
- average fuel flow	620 pph	281 kg/hr
Maximum takeoff gross weight	11,700 lb	5,306 kg
Empty weight, utility configuration*	7,005 lb	3,177 kg
Useful load, utility configuration*	4,695 lb	2,129 kg

**Weights will vary by specific mission configuration*



There are those who fly. And those who fly Sikorsky.

Operators with demanding missions know that Sikorsky is the only way to fly. As the world's premier provider of HEMS, SAR and ALE helicopters, Sikorsky goes above and beyond to deliver a complete helicopter experience. Sikorsky not only sets the standard for rotorcraft excellence and safety — we exceed it with:

- Innovative solutions
- A proven family of high-performing helicopters
- Superior value
- Unparalleled service and support.

In the world of vertical flight, one name stands above the rest. Sikorsky.

For a confidential consultation, demonstration, or for more information about the S-76C++ helicopter, please contact our sales specialist.

There are those who fly.
And those who fly Sikorsky.



Sikorsky

A United Technologies Company

6900 Main Street, Stratford, Connecticut 06615 USA
+1 (800) WINGED-S (946-4337) or +1 (203) 386-4282
www.sikorsky.com