## Lockheed Martin Your Mission Is Ours.



SIKORSKY

# ARMED BLACK HAWK®

Multi-mission Lethality for the Attack

6900 Main Street, Stratford, Connecticut 06615 USA +1 (800) WINGED-S (946-4337) International +1 (203) 386-3029 www.lockheedmartin.com/sikorsky







# ARMED BLACK HAWK

# Multi-mission Flexibility and Firepower with BLACK HAWK Dependability

The aircraft the world depends on as the preeminent multi-mission utility helicopter can now be equipped by the Original Equipment Manufacturer to provide ATTACK helicopter missions.

We believe that the Black Hawk helicopter can provide a valuable resource to customers who have important, day-to-day vertical-lift needs. The Black Hawk was designed to meet a variety of missions. Now, we can provide a variety of Attack capabilities in an integrated solution.

#### **BLACK HAWK:**

More missions, more value than any other medium-class tactical helicopter.





### **VERSATILE**

#### Armament Kit Enhances the BLACK HAWK's Multi-mission Capability

Versatile, dependable and rugged are just three reasons why 33+ nations depend on BLACK HAWK helicopters for multi-mission support.

Today's complex and fast-changing operating environments demand an aircraft that is multi-role with proven logistics that meets your budget. Attack-only aircraft are sophisticated platforms designed to fulfill a single mission at a very high-cost; whether you apply that mission or not.

The Armed Black Hawk helicopter's multi-mission lethality enables commanders to utilize 100% of its inherent capability, no matter the mission. Armed or Un-Armed, BLACK HAWKs will work for you.

#### ARMED BLACK HAWK HELICOPTER

- Flexible firepower configurations that are scalable to meet your threats
- Capability to transport armed vehicles (9000 lbs 4082 kg)
- Capability to insert and extract teams
- Capability to transport troops and supplies as well as provide the fire power to complete mission
- Safe, Reliable, Survivable, Crashworthy and Ballistically tolerant
- Capable of supporting aircraft self defense & survivability equipment (radar/laser warning) completion



### **SOLDIER READY**

Our helicopters support soldiers and aircraft operators world-wide. They rely upon the Black Hawk for missions, for support and sometimes survival. It's why we ensure, validate, qualify and certify every aircraft and every option installed so that it will perform when you need it most.

#### STATE OF THE ART MISSION SYSTEM

On the attack, the soldier is provided a state of the art mission system combined with the best armament in the industry. On the defense, the soldiers are provided with equipment that enhances situational awareness on the battle-field, from an unmatched platform that is engineered to be crashworthy and tolerant of ballistic impact.



#### **DUAL M-134 MINI-GUNS**

- Electrically powered 3000/4000 RPM
- Capability to be mounted in a fixed forward position or controlled independently for all ranges of motion



#### **DUAL M3M .50 CALIBER GUN**

- High firing rate (1025 RPM)
- Capability to be controlled independently for all ranges of motion



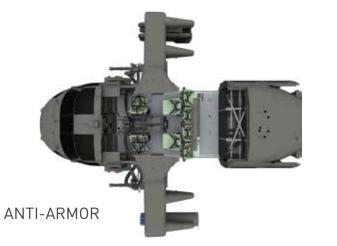


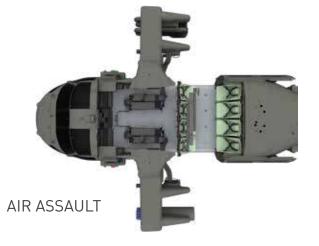
State-of-the-art Optics. Thermal imaging with data overlay, range finder and laser designation

GAU-19 - Area suppression and point targets in both air and ground missions

> Hellfire Missiles - precision guided for lock-on target flexibility. 2/4 rail capacity/16 max load

Unguided & Laser Guided 70mm Hydra rockets with 5000m range. Highly accurate -76 max capacity







### **ATTACK MISSIONS**



#### SURVEILLANCE/ ARMED RECONNAISSANCE

Employ the power of the EO/IR sensor during scout missions. Armed with 70mm rockets and fixed-forward or crew-served .50 caliber and 7.62mm machine guns.



Fill the cabin with 11 troops and two gunners armed with 7.62mm machine guns. Or remove all the seats and load the cabin with cargo. Provide external sling-load operations on the move.



#### **SUPPRESSIVE FIRE**

Suppress combatant ground threats with a high-rate of sustained firing from 70mm (2.75in) rockets and .50 caliber forward firing guns.



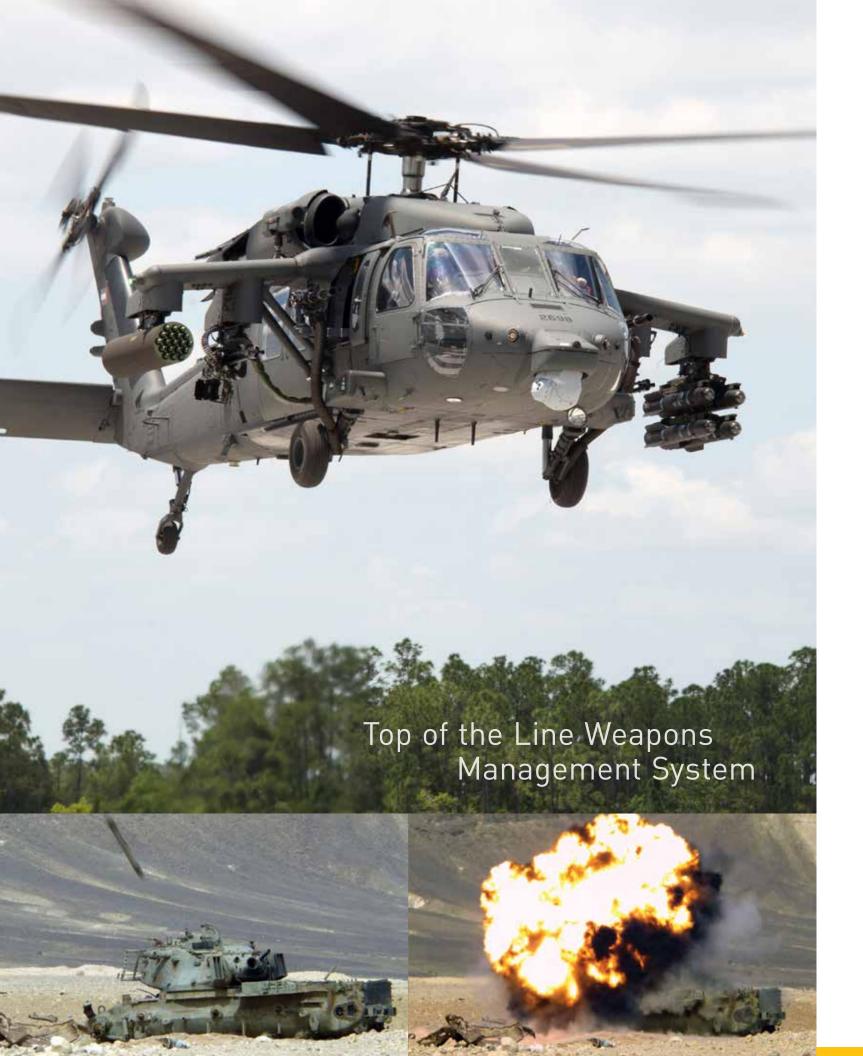
#### **ARMED ESCORT**

Protect ground convoys or coastal boat traffic with 70mm rockets and fixed-forward or crew-served .50 caliber and 7.62mm machine guns.



#### **ANTI-ARMOR**

Terminate tanks and other armored vehicles from stand-off distances or on the move. Up to 16 Hellfire missiles.



### MISSION READY

#### An easy to use weapons management system that is integrated, not added

Sikorsky has seamlessly integrated a highly-functional, easy to use and maintain Weapons Management System, EO/IR Sensor and Helmet Display and Tracking system. The WMS is integrated directly into the existing Multifunction displays and Flight Management System, providing both pilots control of the weapons system. Pilot and Co-pilot situational awareness is enhanced through the EO/IR sensor and advanced Heads-up-display and Head tracking system that enables any Black Hawk Pilot to put first rounds on target.



#### **WEAPONS MANAGEMENT SYSTEM**

- Control and firing of various weapons
- Viewing and managing weapons inventory during flight
- Loading of pre-defined weapons configuration
- Target designations and target paging
- Weapons ballistic calculation



#### **ELECTRO-OPTICAL AND INFRARED SENSOR**

- State-of-the-art optics for surveillance to armed reconnaissance missions
- Thermal imaging with data overlay, range finder & laser designation
- Digital video recording integrated into the WMS



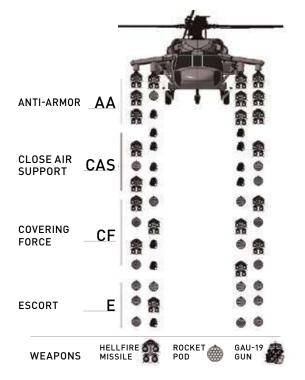
#### HEADS-UP DISPLAY AND HELMET TRACKER SYSTEM

- Presents primary weapons cueing for day and night operations
- Weapon fire control symbology for targeting capability
- Improved crew coordination and communication due to head movement communication between pilots









### **COMBAT READY**

#### Scalable Weapons Configurations to Achieve Your Objective

Designed for combat versatility, the Armed BLACK HAWK helicopter deploys an effective combination of armament systems that are available today. Sikorsky has qualified weapons for the Armed Black Hawk ranging from small to large caliber machine guns, rockets and air to surface missiles.

#### **GAU-19**

- 50 caliber, 1300 rounds per minute
- Lightweight, highly reliable, and requires minimal maintenance
- Highly effective against area suppression and point targets, in both air-to-air and air-to-ground missions



#### **HELLFIRE® MISSILES**

- Precision guided weapons provide target flexibility and lock-on capability
- Self or third party designation
- 2/4 rail carrying capacity allows for maximum loading of 16 missiles



#### **UNGUIDED & LASER GUIDED ROCKETS**

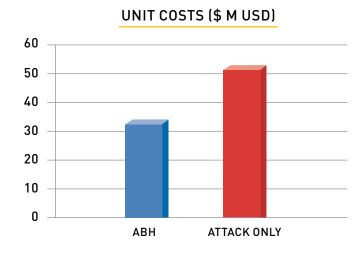
- Supports 70mm Hydra rockets with range up to 5000 meters
- 7/19 shot pods allows for maximum carrying capacity of 76 rockets
- MIL-STD-1760 interface for carrying multiple, highly accurate and cost effective laser guided rockets

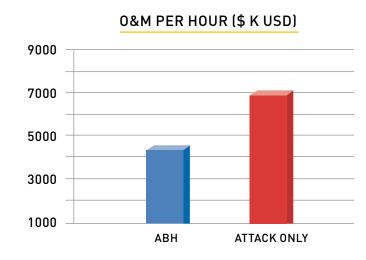


### THE VALUE OF MULTI-MISSION LETHALITY

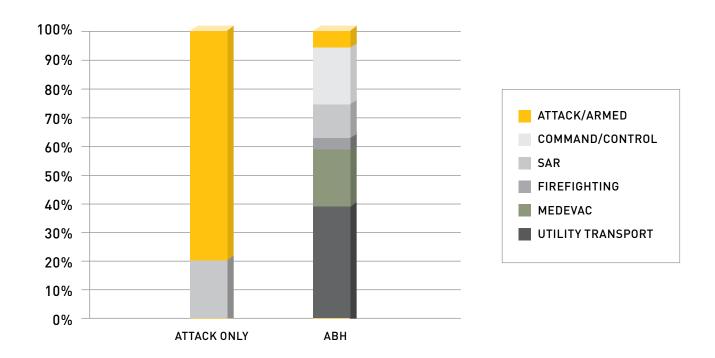
The Value of the Armed Black Hawk is in the utilization of a multi-mission helicopter that also has Attack capability. Over 40 years of continuous improvement that has enabled more performance, more capability and more operational cost savings. By selecting a multi-mission Armed Black Hawk, you chose Value. Value that will provide reliable multi-mission support and operational readiness that Attack-only aircraft cannot achieve.

But Value doesn't stop there. Customers that select the multi- mission ABH, also benefit from common logistics, common pilot and aircrew training and a robust maintenance program that is straight forward, accessible and focused on availability and readiness.





# TYPICAL MISSION DISTRIBUTION BY AIRCRAFT MODEL REPRESENTS 30 YEARS OF HELO-SUPPORT







M28 AERONAVE DOBLE TURBOHÉLICE

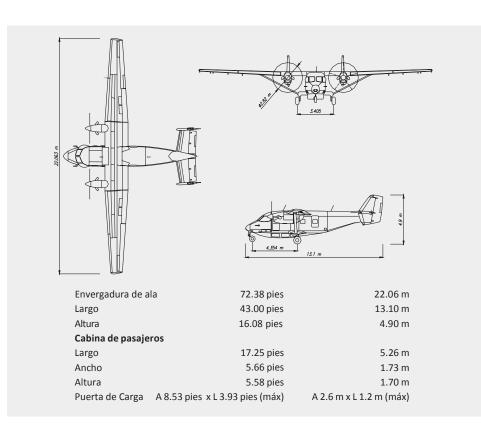


# M28 AERONAVE DOBLE TURBOHÉLICE

#### QUÉ PODRIA SIGNIFICAR ACCESO PARA USTED?

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#### **DESEMPEÑO**

Nivel de mar, día estandard, peso bruto máximo de despegue, a menos que indicado de otra manera

Peso Bruto Max	16,534 lb	7,500 kg
Peso Vacío	9,601 lb	4,354 kg
Carga Útil	5,070 lb	2,300 kg
Carga Max de Combustible	3,894 lb/602 US Gal	1,766 kg/2,278 l
Potencia de Despegue	2 x 1100 shp	2 x 820 kw
Flujo Medio de Combustible (10,000 ft)	591 lb/hr	268 kg/hr
Velocidad Operacional Max	192 kts	355 km/h
Velocidad Stall (MTOW)	64 kts	118 km/h
Velocidad de Crucero de Largo Alcance	132 kts	244 km/h
Tasa Máxima de Subida (MTOW)	2,420 pies/min	12.29 m/s
Distancia de Despegue	1,800 pies	548 m
Distancia de Aterrizaje	1,640 pies	499 m
Techo de Servicio	25,000 pies	7,620 m
Alcance Máximo (10.000 pies, reserva de 45 min.)	860 nm	1,592 km
Resistencia (10.000 pies, reserva de 45 min.)	6.2 hrs	

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The Ultimate in Short Takeoff & Landing (STOL) Versatility Indispensable to Keep You Safe



# M28° UTILITY AIRCRAFT

## Shortest Takeoff. Widest Mission Range.

#### **KEY ADVANTAGES**



PAX TO CARGO RECONFIGURATION TIME 7 Minutes



#### STOL PERFORMANCE

Take-off Distance = 1800 ft/548m Landing Distance = 1640 ft/499m

Max Rate of Climb 2,420 ft min / 12.29 m/s



PAYLOAD 5,070 lb / 2,300 kg



CABIN HEIGHT 5.63 ft / 1.72 m



CABIN VOLUME 485 ft<sup>3</sup> / 13.73 m<sup>3</sup>



PASSENGERS

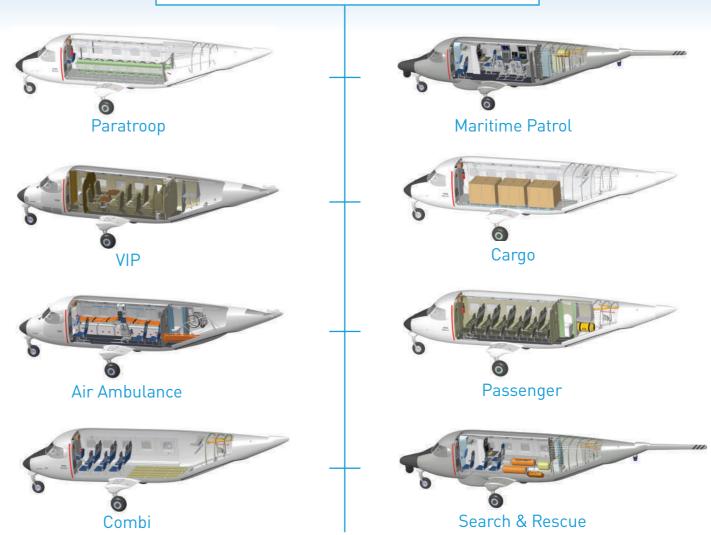


MAX OPERATING SPEED 192 kts / 355 km/h



MAX RANGE 860 nm - 1,592 km

#### DESIGNED FOR RAPID ROLE CHANGE



Additional configurations available www.m28aircraft.com

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# MH-BOR SEAHAWK

#### **KEY ADVANTAGES**



#### LOW RISK

Off-the-Shelf 100% On-time Delivery



# SIMULTANEOUS PRIMARY MISSION OPERATIONS

Game Changing Capability



#### U.S. NAVY ROADMAP TO 2040+

Maintains Operational Edge



#### ADVANCED SENSORS & WEAPONS

Designed and Built for Maritime Dominance



#### **SAFE & SURVIVABLE**

in the Most Rigorous Missions and Extreme Conditions



# MULTI-MISSION MARITIME HELICOPTER



Multi-mode Radar
 Electro-optical/Infra-red Sensors (EO/IR)
 Electronic Support Measures (ESM)
 Airborne Low Frequency Sonar (ALFS)
 Sonobuoys

Torpedoes
 Hellfire Missiles
 Advanced Precision Kill
 Weapon System (APKWS)

#### PROVEN PERFORMANCE

- Over 300 MH-60R Seahawk helicopters worldwide with over 600,00 flight hours accumulated
- International Operations for the U.S. Navy, Royal Danish Navy, Royal Australian Navy and Royal Saudi Naval Forces

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#### UNMATCHED MULTI-MISSION CAPABILITY

- Anti-Submarine Warfare (ASW)/Anti-Surface (ASuW)
- Special Operations/Search & Rescue (SAR)
- Utility/Vertical Replenishment (VERTREP)
- Command and Control (C2)



#### **SUPERIOR MARITIME CAPABILITES**

Fully Integrated Mission System builds complete situational awareness and actionable knowledge, enabling target engagement both close-in and over-the-horizon.



#### MOST RELIABLE, COST EFFECTIVE

- 98% Availability (Ready Basic Aircraft)
- Less than \$5K (USD) cost per flight hour
- Lowest life-cycle cost in its class





S-70 BLACK HAWK MULTI-MISSION HELICOPTER

When Versatility & Survivability Matter





#### **KEY ADVANTAGES**



USEFUL LOAD 10,350 lbs (4,695 kg)



MAX CRUISE SPEED 145 kts - 268 km/hr



**RANGE** 281 nm - 520 km



HOT TEMP/ HIGH ALTITUDE Superior Performance



EXTERNAL LOAD 9,000 lbs - 4,082 kg



AIR TRANSPORTABLE C-5, C-17, C-130, IL76



CABIN PASSENGERS
12 +2 Aircrew



#### **SURVIVABLE**

Every BLACK HAWK is built to Military Standards for High Mass Retention which ensures cabin volume integrity with 20G forward, 20G down, 10G up, 18G lateral forces applied. Making the BLACK HAWK survivable in the most rigorous combat conditions.



### **VERSATILE**

One Helicopter. Many Missions. Every BLACK HAWK includes a multitude of configurations so when the mission suddenly changes, the BLACK HAWK can adapt, quickly.



### **DEPENDABLE**

BLACK HAWKs have flown over 2.4 million hours in recent combat. 365, 24/7 you can count on the BLACK HAWK to be MISSION READY! Day or Night, Rain or Snow, Extreme Hot or Severe Cold, Anytime, Anywhere. Proven.

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#### Additional Configurations Available

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# WK CUANDO LOS MINUTOS CUENTAN





De una variedad de fuentes



#### LLENADO RÁPIDO

Reabastece el tanque en < 60 segundos



#### DESCARGA PRECISA DE AGUA

Patrón uniforme



#### ALCANCE SÚBITO DE ALTA VELOCIDAD

155 kts (287 km/hr)



#### RENDIMIENTO EN ALTITUDES Y TEMPERATURAS ELEVADAS

Desempeño superior



## **OPERACIONES NOCTURNAS**



### PASAJEROS/TRIPULACIÓN

**VUELO ESTACIONARIO DE PRECISION** con GPS/INS integrados



### TRANSPORTA **CARGAS MIXTAS**

de Tripulación/Equipo/Aqua.



### **FLEXIBLE** MULTI-MISIÓN

Reconfiguración rápida para transporte, búsqueda y rescate o MedEvac.



### MEJOR EN SU CLASE CAPACICAD DE AGUA

1000gal (3,785 L) + 30gal (114 L) de espuma. Sobrepasa 2-3 veces más el volumen de la competencia. El mejor para respuesta de primer impacto.

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# CONTROL DE VUELO

Control superior de vuelo estacionario, respuesta immediata y maniobrabilidad.





# S-70 FIRFHAWK<sup>®</sup>

# WHEN MINUTES MATTER





#### RAPID REFILL Refill Tank < 60 Seconds



ACCURATE WATER DROP Uniform Pattern



HIGH DASH SPEED 155 kts (287 km/hr)



HIGH ALTITUDE/HOT TEMP Superior Performance



NIGHT OPERATIONS
Canable



PASSENGERS/CREW





# CARRY MIXED LOADS of Crew/Equipment/Water.









# FLEXIBLE MULTI-MISSION

Quickly reconfigure for Crew Transport, Search and Rescue, Medevac.



# WATER CAPACITY

1000gal (3,785 L) + 30gal (114 L) foam. 2-3x Volume of Competition. Best for first strike response.



# FLIGHT CONTROL

Superior hover control, responsiveness and manueverability.



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SIKORSKY

S-92° MULTI-MISSION HELICOPTER

When Reliability and Safety Matter.



# SIKORSKY S-92° Multi-Mission



#### **KEY ADVANTAGES**



AVAILABILITY
Approaching 95%



CABIN HEIGHT 6.0 ft - 1.83 m



PASSENGERS 22



CABIN VOLUME 700 ft<sup>3</sup> - 19.83 m<sup>3</sup>



USEFUL LOAD 12,125 lbs - 5,500 kg



HOVER ALTITUDE 9,200 ft - 2,804 m



CRUISE SPEED 151 kts - 280 km/hr



**RANGE** 547 nm- 1013 km

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### Designed for Rapid Role Change



Passenger Transport



Medical Evacuation





Supply and Emergency Relief

Additional Configurations Available

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# Lockheed Martin Your Mission Is Ours.

Please contact the Sikorsky Colombia General Management office in Bogota, Colombia. We Are Ready to Support You.

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# SIKORSKY COLOMBIA SUPPORT CENTER

Ready to Support Your Black Hawk & Sikorsky Fleet





Established in 2012, Sikorsky Colombia provides product support directly from Sikorsky, the OEM of the iconic Black Hawk helicopter - the gold standard in military and paramilitary utility rotary wing aircraft.

### REGIONAL, FULL SPECTRUM SUPPORT









Sikorsky Colombia was established to support the Colombian Armed Forces Black Hawk fleet – the fourth largest in the world outside of the United States. Our dedicated team provides OEM expertise in maintenance, support, and training at our modern facility, while also offering the capability of deploying a team to your location.

#### Some of the available services at Sikorsky Colombia:

- Maintenance Support
- Inspections
- Depot work
- Research spare parts
- Repairs
- Pilot Training
- Forward deployment of a technical team to your facilities to provide OEM support

### **DEPOT MAINTENANCE & PERIODIC INSPECTIONS**





Operating at a 3,250m2 hangar on the Colombian Army Aviation Air Field Base in Colombia, the Sikorsky Colombia Maintenance Repair and Overhaul team consists of 28 trained, multi-lingual employees (Spanish, Portuguese & English) with decades of experience working on A, L and I Black Hawk aircraft.

When you have made an investment to operate the greatest and most capable military utility helicopter ever built, you owe it to yourself and your organization to ensure it is properly maintained and cared for by the OEM itself at competitive pricing.

### FULL MOTION FLIGHT TRAINING SIMULATOR





Operating at our state of the art facility in Melgar, Colombia – built to house the level D Black Hawk simulator; Sikorsky Colombia's Team is trained, qualified and works closely with Flight Safety International and CIAC (Corporación de la Industria Aeronáutica Colombiana) to facilitate first-class OEM based Black Hawk training.

Sikorsky Colombia's simulator is the only full motion Level D Black Hawk simulator in Latin America.