Sikorsky CH-53K Helicopter
A heavy lift capability above all others
Leading the Way

The next generation heavy lift helicopter is here. Vertical heavy lift is critical to successful 21st century operations in anti-access, area-denial environments globally, enabling force application and focused logistics within the joint operating concepts. The CH-53K helicopter provides the assault support function in support of Expeditionary Maneuver Warfare, and significantly improves operational capabilities and reduces life-cycle costs.

• Double the lift in USMC hot day conditions at 110 nm
• 45% reduction in direct maintenance cost
• Increased survivability
• 20 knot increase in speed

Multi-mission versatility
Designed for the transport of equipment, supplies and personnel during amphibious assault operations and sustained operations ashore. Capable of both internal and external transport of supplies, the CH-53K is shipboard compatible and capable of operating in adverse weather conditions both day and night. It recovers disabled aircraft and helicopters and performs long-range rescues.

Superior performance
The CH-53K helicopter will conduct an unrefueled mission of 110 nm radius with a 27,000 pound (12,247 kg) external payload. The aircraft meets the stringent performance parameters on a “high-hot” Navy day (a pressure altitude of 3000 feet and 91.5˚ F/915 meters/33˚ C).

Precise shipboard compatibility
The CH-53K has full shipboard compatibility, including automatic blade fold and pylon fold, deck-edge power compatibility, fuel storage safety, HERO compatibility, deck strength compatibility, and shipboard buoyancy effects. The blades and pylon are capable of folding and spreading in winds of 45 knots from any direction.

Outstanding aircraft readiness
The CH-53K logistics system is functional, effective and aimed at ensuring operational readiness/availability and reducing overall Life Cycle Costs (LCC).
Outstanding Effectiveness. Going where others cannot.

The CH-53K provides Joint Task Force and MAGTF Commanders with a vertical heavy lift capability to project, sustain and reconstitute combat forces. The CH-53K operates at distances, airspeeds, and gross weights to support Expeditionary Maneuver Warfare (EMW), Operational Maneuver From the Sea (OMFTS) and Seabasing concepts. The aircraft affordably optimizes performance, survivability, maintainability and supportability in a “best value” solution to provide an effective heavy lift assault support platform for Joint Force Commanders.

The CH-53K supports OMFTS missions with the seamless maneuver of MAGTF assault forces and equipment from a ship directly to an inland objective without operational pause. This typical OMFTS scenario requires the CH-53K to have the capability of an over-the-horizon shipboard launch, at night, in low visibility or adverse weather.

The CH-53K provides extended range of 110 nm enabling coalition forces to project and sustain combat forces.

Capable of rapidly embarking aboard and operating from Amphibious Assault Aviation Ships (LHA/LHD/LHR), Air Capable Ships, and CV/CVN Vessels. The CH-53K has the capability in an unfueled mission to externally carry a payload of 36,000 lbs (16,363 kg).
Integrated Forward Looking Infrared (FLIR) system with helmet mounted navigational displays

Advanced Digital Cockpit
Provides compatibility with the battlefield and decreases pilot workload by integrating the flight critical data into four multi-functional displays.

OMFTS External Payload/RoA

Increased Payload and Range
6,000 shp engines and new dynamic systems enables the CH-53K to meet all USMC heavy lift replacement mission requirements including the critical operational maneuver from the sea (OMFTS) mission.

Advanced drive system incorporating multiple path split torque gearbox with load sharing capability

Auxiliary Power Unit (APU) with pneumatic start

Integral Engine air particle separator (EAPS) designed for maintenance improvements

Elastomeric main rotor head reduces O&S costs and increases flight readiness

Fly-by-Wire (FBW) electronic flight controls for improved mission capability with reduced weight and lower life cycle costs

Integrated Forward Looking Infrared (FLIR) system with helmet mounted navigational displays

Advanced light weight armor
Lower Operating Costs.

Direct Maintenance Cost Efficiencies
Technology is the enabler to reduce cost of ownership. Result of this is seen in the decrease of direct maintenance cost to the CH-53K operator.

Maintenance Man-Hours Reduced
Improved reliability & maintenance (R&M) promotes “on condition” maintenance which reduces the need for scheduled maintenance and special inspections.

Composite main rotor blades with advanced airfoil section

Bearingless tail rotor hub with advanced airfoil and reduced part count

Long range, crashworthy and ballistic tolerant 2,286 gal (8,653 l) main fuel system

(3) 6,000 shp class engines

Hybrid composite airframe structure that provides lighter weight and lower vibration throughout aircraft life

Integral cargo handling system with rated capacity for (2) two 463 l pallets

Crashworthy retracting landing gear

Crashworthy troop seats

Aircraft Survivability Equipment (ASE)

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Aircraft Survivability Equipment (ASE)
There are those who fly.

And those who fly Sikorsky.