

600N TECHNICAL DESCRIPTION



Marketing and Sales
4555 E. McDowell Road
Mesa, Arizona 85215-9734

Comments and/or questions may be directed to:

Sales: (480) 346-6344
Fax: (480) 346-6339
E-mail: sales@mdhelicopters.com

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This Technical Description is not subject to a revision service. It is the manufacturer's practice to continuously improve its products and therefore the right is reserved to make changes without notice in the design or manufacture of the MD 600N® helicopter which may be considered necessary.



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MD 600N

FEATURES AND BENEFITS

1.0 FEATURES AND BENEFITS.

Advanced design for superior performance and value.

The MD 600N® is a light, single-turbine engine helicopter that provides high performance and increased capacity to give the customer greater versatility. All with low operating costs. It flies faster, hovers higher, and provides the agility and exceptional handling for which the MD 500® Series is known. With its advanced NOTAR® anti-torque system, the MD 600N® is a member of an exclusive class of the safest, quietest helicopters in the world.

Greater room and versatility.

A versatile performer, the MD 600N® may be configured for a wide variety of uses. With its wide, double, center-opening doors measuring 157 cm (62 in), both passengers and cargo may be loaded with ease. The aft cabin features 1.83 m (6 ft) of flat floor for carrying cargo, an advantage no other helicopter in its class provides.

A workhorse that can carry 2000 lbs of useful load, this six-bladed helicopter features room for up to seven passengers, in a variety of seating configurations. It also offers other advantages for both pilots and passengers, including new flight instruments that are internally lit, and new seating for versatility.

Enhanced safety and power.

The airframe structure features clean, aerodynamic lines. A rigid, three-dimensional truss-type structure increases crew safety by means of its “A-frame” design.

A Rolls-Royce 250-C47M engine with FADEC powers the MD 600N® and has a thermodynamic rating of 808 shp. The engine is derated to 600 shp for takeoff and 530 shp for maximum continuous operation. Derating provides substantial horsepower at sea level, and reserve power for hot day and high altitude operations.



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FEATURES AND BENEFITS

A revolution in directional control.

The patented NOTAR® (No-Tail-Rotor) anti-torque system has revolutionized helicopter design by eliminating the tail rotor. The system consists of an enclosed variable-pitch fan driven by the main transmission, a circulation control tailboom, direct jet thruster and vertical stabilizers.

In hover flight, the circulation control tailboom provides a significant amount of the required main rotor anti-torque. The thruster provides the remaining anti-torque and maneuverability for yaw control and directional changes.

In forward flight, the vertical stabilizers, in conjunction with thruster, provide the required anti-torque and directional control.

NOTAR® Anti-torque System.

Revolutionary in thinking and design, the NOTAR® system is a patented innovation for helicopter anti-torque control. The NOTAR® system eliminates the tail rotor, and along with it, the negative characteristics associated with the tail rotor. Specifically, the NOTAR® system eliminates the hazards associated with tail rotor strikes, both in flight and on the ground; the objectionable noise found in conventional tail rotor systems; and the vibrations generated by tail rotors which reduce component life, increase maintenance costs and add to pilot fatigue.

Since the NOTAR® system uses low pressure air in the tailboom, this air has less sensitivity to air leaks, pressure loss and low temperatures. With few high speed moving parts and low pressures, field experience has shown the NOTAR® system to be virtually unaffected by rain, snow or erosion.

Studies have shown that the NOTAR® system is less vulnerable to foreign object damage than the tail rotors of conventional helicopters.

NOTAR® is a registered trademark of The Boeing Company.



MD 600N

FEATURES AND BENEFITS

Best-performing in its class.

With the elimination of the exposed tail rotor, the MD 600N® is fun to fly. It provides superior speed and hovering performance, exceptional handling and payload capability and a smoother ride.

The NOTAR® system also reduces overall helicopter vibrations, which lowers pilot fatigue and increase passenger comfort. In addition, the six-bladed main rotor adds to the smooth performance of the MD 600N®.

NOTAR® system means safety.

U.S. FAA and NTSB data studies have shown as much as 21% of all accidents are due to tail rotor strikes and loss of tail rotor effectiveness. The NOTAR® system eliminates accidents caused by the exposed tail rotor striking objects in flight and significantly reduces ground incidents with people or equipment.



MD 600N

FEATURES AND BENEFITS

The quietest helicopters in the world.

NOTAR® system-equipped helicopters are not only the safest in the world; they're also the quietest – up to 50 percent quieter than the competition. This lower noise signature makes the MD 600N® a “good neighbor” when used in areas where noise is objectionable. The MD 600N® exhibits a measured 79.0 dbA (SEL) noise signature during a 500-foot AGL fly-over, with a maximum level of 71.5 dbA, per FAA Appendix J.

Ease of maintenance.

The MD 600N® incorporates improvements to a proven design, and retains the state-of-the-art features that are unsurpassed for design simplicity, safety, reliability and ease of maintenance. The MD 600N® retains the mechanical control system of the MD 500® Series. The same design approach applies to the NOTAR® anti-torque system. The fan is located inside the fuselage, away from hazards such as foreign object damage.

The mechanical simplicity of the six-bladed main rotor system provides high reliability at low opportunity cost. Main rotor blades are retained by an exclusive strap pack system that accommodates main rotor blade flapping and feathering. Fewer parts result in higher reliability. The simple blade retention system has no grease fittings. Individual blades are easily replaced. The new 600-shp-rated main transmission has only four gears and two gear meshes. It is rugged for maximum reliability. The transmission can be changed without removing any other component on the rotor head.

All this adds up to the MD 600N® having the lowest direct operating cost of any helicopter in its class.

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MULTI-MISSION CAPABILITY



2.0 MULTI-MISSION CAPABILITY.

The MD 600N® is designed for a variety of uses, and can be rapidly converted from a personnel carrier to a utility transport or a combination of the two. Typical uses include: utility operations, electronic news gathering, executive transport.

2.1. For Utility Operators: A Capable Workhorse.

This light, single-turbine helicopter is a workhorse that is certified to lift 907 kg (2,000 lb) of internal payload or 1179 kg (2,600 lb) for external payload operations. For outsized, bulky loads, the cargo hook is currently certified to carry up to 970 kg (2,134 lb).

It's also easy to load both passengers and cargo. The large, center-opening doors open to a full 157 cm across (62 in). The aft cabin is exceptionally spacious, offering more room for cargo. With its 1.83 m (6 ft) of flat floor space, the MD 600N® gives you an advantage the competition can't match.

The superior hovering performance of the MD 600N® provides one of the best HIGE and HOGE statistics in the industry: 3383 m (11,100 ft) HIGE and 1829 m (6,000 ft) HOGE. What's more, the MD 600N® has a maximum operating altitude of 6097 m (20,000 ft).

This helicopter's direct operating costs, the lowest in its class, is another important benefit to utility operators. As you'll find, it performs just as well on a balance sheet as it does in the air.



MULTI-MISSION CAPABILITY

2.2. For Electronic News Gathering: Versatility And Speed.

The MD 600N® is the fastest helicopter in its class with a cruising speed of 134 knots (248 kph, 154 mph). This gives electronic news gathering operations an edge in responding to late-breaking news. The MD 600N® will get you to the scene faster, with a smoother platform for camera stability and crew comfort.

With its larger cabin, this helicopter may be configured to handle special equipment such as monitors.

For news gathering operations working in urban areas or flying over state parks or tourist sites, the MD 600N's NOTAR® anti-torque system offers a significantly reduced noise signature, making it the quietest in its class.

2.3. For Corporate Owners: The Safer, Quieter Helicopter.

The MD 600N® is a smart business investment, from its low operating costs to its superior safety and quietness. Its advanced NOTAR® system makes it a member of an exclusive family of the safest, quietest helicopters in the world. The reduced noise signature qualifies it as a "good neighbor," something that's important to business owners who operate in urban areas.

With the elimination of the conventional tail rotor, the NOTAR® system provides a smoother, more comfortable ride. The six-bladed design of the MD 600N® also reduces vibrations.

The aft cabin provides room for executive seating with a choice of forward-facing coach or club configurations, while the large windows provide excellent visibility for passengers.

The ease of maintenance, low direct operating costs and superior performance add up to an exceptional form of business transportation. Executives will appreciate its ability to fly faster than the competition, allowing them to spend more time on the job and less time in the air.

2.4. Air Medical Services: Safety, Low Operating Costs.

The MD 600N® helicopter provides versatile configurations for air medical services. The configuration is a single litter kit for one patient, and is capable of advanced cardiac life support (ACLS) level of medical care.

With its NOTAR® system and small main rotor diameter, the MD 600N® has the ability to land in confined areas. For air medical services, this is an important advantage when picking up patients in tight places or on residential streets.



MD 600N

MULTI-MISSION CAPABILITY

2.5. For Law Enforcement: A Quiet, Versatile Tool.

In the field of airborne law enforcement, the MD 600N® speed, payload and low operating cost are just a few of its benefits. As a member of the NOTAR® system-equipped family of helicopters, it's also quieter by far than conventional helicopters. For law enforcement, this is a powerful advantage when pursuing suspects. The MD 600N® is so quiet suspects aren't usually aware of this craft until it's virtually on top of them. What's more, its quiet performance makes it a "good neighbor" to residents of the community.

With its enhanced maneuverability and small rotor diameter, the MD 600N® can negotiate landings in confined areas. Its tail rotor-less system also helps when police are performing rescues on city streets or rough terrain.

The MD 600N's 115-gallon (435 l) standard fuel tank provides the ability to conduct longer-range missions, while the aft cabin provides room for more seating and special equipment. A versatile ally, gives police departments the option to expand their mission capabilities to include rescue, surveillance and SWAT operations.

The MD 600N® is authorized to fly with its doors off in several configurations. In addition, it offers an expanded center of gravity envelope for almost any combination of loading. The helicopter has exceptional control power enabling the helicopter to remain stable during rescue missions. With its large windows, the MD 600N® also provides greater visibility for rescuing victims, pursuing suspects or locating accident scenes.

Vulnerability analyses have shown that the NOTAR® system is 60 percent less vulnerable to ballistic damage from small arms, an increasingly important advantage for airborne law enforcers.

600N SYSTEM DESCRIPTION

3.0 SYSTEM DESCRIPTION.

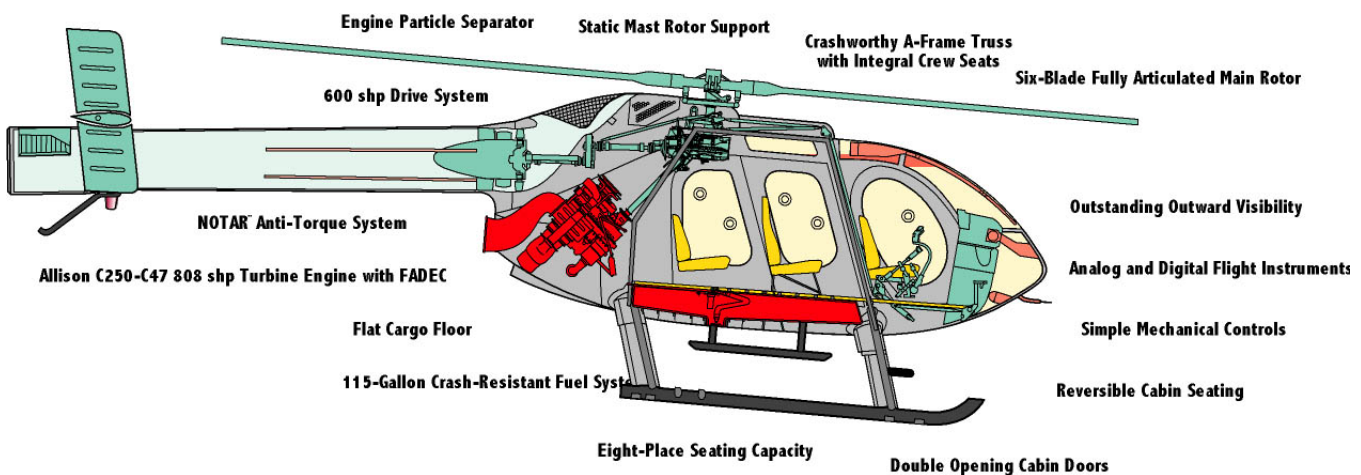
The MD Helicopters MD 600N® is a single turbine-engine, rotary-wing aircraft. The fuselage is constructed primarily of aluminum alloy while the NOTAR® anti-torque system components are primarily carbon epoxy composite structure.

Simplicity, low operating cost and maximum commonality with MD 500® Series helicopters were the primary design criteria for the MD 600N® development.

The main rotor is a fully articulated six-blade system with excellent control and maneuverability characteristics. It shares many rotor system components with other MD 500® Series helicopters. The small diameter of the main rotor also gives the MD 600N® the ability to land safely in confined areas.

Power from the 808 shp Rolls-Royce 250-C47M turboshaft engine is transmitted through the engine drive shaft to the main rotor transmission. The main rotor transmission, through a second drive shaft, drives a gearbox for the NOTAR® system fan. An overrunning clutch between the engine and the main rotor transmission permits freewheeling of the rotor system during autorotation. All drive shafts are fitted with fail-safe couplings at both ends.

The airframe consists of faired sections which provide clean aerodynamic lines. This contributes to good handling qualities, low vibration levels and high-speed flight capability. The air frame structure is designed to be energy-absorbing while maintaining rotor hub integrity. A rigid, three-dimensional truss-type structure increases crew and passenger safety by means of its roll-over structure design.





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SYSTEM DESCRIPTION

3.1. Performance Statistics.

The MD 600N® has a cruising speed of 134 knots (248 kph/154 mph). Useful internal load, at maximum gross weight, is 907 kg (2,000 lb) or a mix of internal and external useful loads up to 1179 kg (2,600 lb). Hover Out of Ground Effect (HOGE) at ISA is 1829 m (6,000 ft) and Hover In Ground Effect (HIGE) at ISA is 3383 m (11,100 ft). The rate of climb, at maximum gross weight, is 6.9 m/sec (1,350 feet per minute).

The helicopter has a maximum operating altitude of 6097 m (20,000 ft) and a temperature operating range of -40 degrees C to +52 degrees C. Slope landings of up to 10 degrees are possible, due to the articulated rotor system and landing gear design.

3.2. Airframe.

The MD 600N® fuselage is a semi-monocoque aluminum structure. The crew and passenger compartments are protected by an “A-frame” truss that also acts as an integral seat structure. The aircraft forward belly is a double-walled keel beam that supports the front landing gear struts and provides energy absorption in the event of a hard landing.

The aft cabin belly is also a double-wall design, providing space for a newly-designed, two-cell, crash-resistant fuel system.

The MD 600N® floor is rated at 1350 pounds (not to exceed 115 pounds per square foot) and offers cargo tie down points for virtually any shape of cargo.

The NOTAR® tailboom is carbon composite structure with a horizontal stabilizer constructed of carbon composite and Kevlar. The vertical stabilizers are made of fiberglass.

The forward canopy transparencies are secured with screws, easing removal for maintenance and access to the aft side of the instrument panel.



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SYSTEM DESCRIPTION

3.3. Engine.

The engine used in the MD 600N® is the Rolls-Royce 250-C47M gas turbine engine. The 250-C47M produces 808 shaft horsepower, derated in the MD 600N® to 600 shaft horsepower for takeoff and 530 horsepower at maximum continuous operation. Derating the engine extends its service life and reduces maintenance while offering increased performance at higher-density altitudes.

The 250-C47M engine is equipped with a full authority digital engine control (FADEC) unit. This system greatly enhances engine control and provides several features and benefits that reduce pilot workload, improve flight safety and decrease maintenance requirements. A separate hydro-pneumatic fuel control system is provided for manual backup.

The engine control unit records all important engine parameters and provides maintenance information to the customer through a system of maintenance lights. Also available is an optional maintenance package that includes software and hardware to allow downloading of the recorded parameters from the ECU onto a standard personal computer.

Pilot workload is simplified with automatic starting and turbine temperature limiting. Provisions for main rotor and NOTAR® fan load anticipation provides stable rotor speed throughout the flight envelope.

Maintainability is enhanced by removing the requirement for PTG rigging, and by eliminating pneumatic control lines, accumulators and connections. No field authorized adjustments are required. Control system features allow temperature limiting, further reducing the potential for engine damage. The standard analog/digital TOT gauge records one-time exceedances.

The engine compartment is located aft of the mid-compartment, separated by a firewall. Access to the engine compartment is through two doors contoured to the aerodynamic lines of the fuselage. The engine arrangement provides access for inspection and maintenance without the need for ladders or work platforms. An engine compartment fire detection system is standard on the MD 600N®.

3.4. Drive System.

The main transmission in the MD 600N® is a new design based on the proven concepts of the MD 500® Series transmissions. The transmission power limit is 600 shaft horsepower for takeoff and 530 shaft horsepower continuous. It has been designed to achieve a life of 3,000 hours before overhaul, and can be removed from the aircraft without removing any of the main rotor components.

An overrunning clutch transmits power from the engine to the engine drive shaft. The clutch has no external controls and disengages automatically during autorotation and engine shutdown. The engine oil cooler blower is belt-driven off the main drive shaft and draws its cooling air from the air inlet fairing to supply ambient air to the engine and transmission oil coolers and to the engine compartment.

This transmission is common with the MD 600N® and all other new MD 500® Series helicopters.



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3.5. Main Rotor System.

Unique to MD Helicopters products is the static mast-hub support system. This hub support system uses a static mast, rigidly attached to the fuselage. All dynamic loads are transmitted through this mast, rather than through the transmission. A separate, inner drive shaft transmits engine torque to the main rotor hub.

This feature offers improved flight control integrity and helps retain rotor system components in the event of a main rotor blade strike. Additionally, this approach allows for the design of a main transmission that is lighter in weight, and can be removed without disturbing the hub or control systems.

The MD 600N® features a six-blade, fully articulated main rotor assembly. The blade retention system is a unique “strap pack” design which provides restraint and allows all three degrees of freedom for rotor blade travel. The system has redundant load paths for an added measure of safety.

Elastomeric lead/lag dampers are standard in the MD 600N® main rotor system. The blades are of all metal construction and utilize nickel abrasion strips to minimize the effects of erosion from airborne particulate matter. The blades are secured to the hub with quick-release lever-type pins that facilitate rapid blade removal.

The main rotor system of the MD 600N® provides handling qualities with direct control responses. In addition, the six-blade design reduces vibrations, providing an exceptionally smooth ride. Transient positive load factors of 3.5 g's and negative load factors of 0.0 g's are attainable in the MD 600N®.

3.6. Flight Controls

Primary flight controls in the MD 600N® are designed to be lightweight, simple to use and easy to maintain. Equally important, they are designed to eliminate the need for hydraulic controls. All main rotor controls in the MD 600N® are of the push tube type. There are no grease fittings in the controls and required maintenance is minimized.

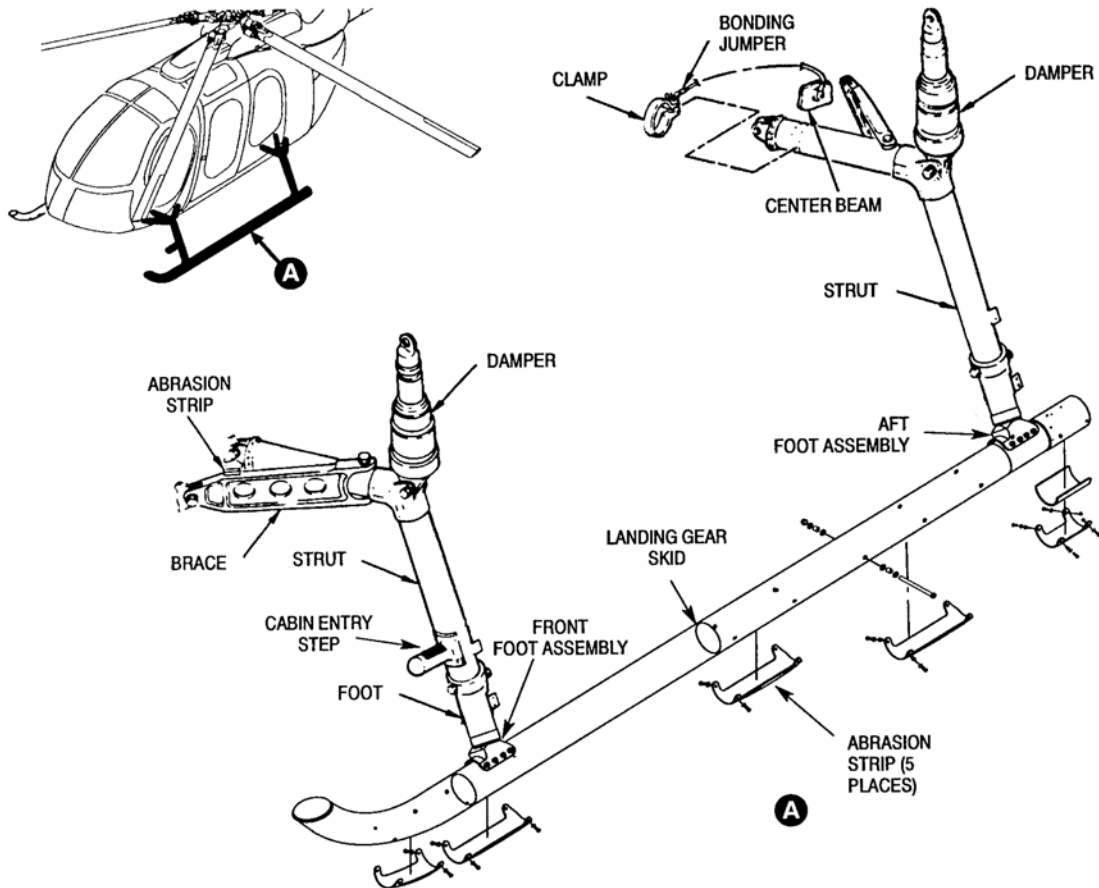
The anti-torque pedals control vertical stabilizer and rotating thruster motion using a combination of push rods and push-pull cables. The anti-torque pedals are adjustable, fore and aft, through approximately 4 inches of travel to accommodate the fifth through 95th percentile aviator.

Adjustable friction devices are incorporated in the cyclic, collective and throttle controls. In addition, electrical cyclic trim actuators allow flight loads to be trimmed out.

600N SYSTEM DESCRIPTION

3.7. Landing Gear System.

The landing gear on the MD 600N® is of the skid type with replaceable shoes. The gear is fixed to the fuselage and is not retractable. Aerodynamic fairings cover the struts. Heavy duty, nitrogen-charged landing gear dampers, with a larger piston diameter, are embedded in the fuselage belly section. These act as shock absorbers and provide ground resonance stability. Provisions for ground handling wheels are incorporated on the skid tubes



3.8. Electrical System.

The standard system consists of a 28 volt DC system powered by the aircraft's 200 amp. heavy duty starter generator. The system is rated for 150 amps at maximum continuous power, thus providing the capability to power virtually any kind of configuration. A 28 volt, 17 amp., NICAD heavy duty battery is standard equipment. An auxiliary power receptacle inside the right crew door, is also provided for ground APU operations.

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3.9. Fuel System.

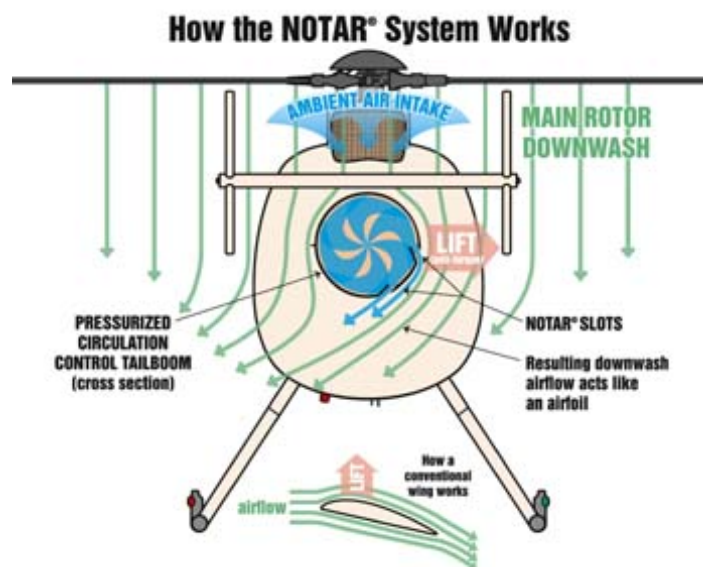
The fuel system for the MD 600N® includes 115 US gallons (435 lb) of fuel in two baffled fuel bladders, located in compartments in the belly section. The fuel system does not require boost fuel pumps, and is designed to FAR part 27 criteria for crash-resistance. Puncture-resistant bladders and frangible, breakaway connections are incorporated to prevent fuel spillage in the event of a hard landing.

An engine suction-type fuel pump is used for fuel transfer to the engine. The suction pump increases system safety by eliminating pressurized fuel lines. In the forward tank area is an ejector-type scavenge pump that transfers fuel to the aft fuel pick-up area. All common turbine fuels are approved for use in the 250-C47M engine.

3.10. NOTAR® anti-torque system description.

The NOTAR® system used in the MD 600N® is derived from an already-proven system used in the MD 520N® helicopter. Total NOTAR® fleet time for all MD Helicopters exceeds 750,000 hours. The concepts, hardware and system operation for the MD 600N® utilize these proven concepts and components.

The function of the NOTAR® system is simpler than it appears. It consists of an enclosed fan driven by the main rotor transmission; a circulation control tailboom; a direct thruster and horizontal stabilizer with two vertical stabilizers.



The NOTAR® system fan, shown here is a 13-blade variable pitch, ducted fan driven by the main rotor transmission through a step-up gear box. Pitch on the fan blades is controlled by the pilot's anti-torque pedals. The NOTAR® system fan pressurizes the circulation control tailboom with low pressure air, part of which is ducted out the slots and part of which exits through the thruster to provide differential anti-torque control as well as directional control.



SYSTEM DESCRIPTION

The circulation control boom, though round in cross section, acts as a vertical airfoil. Lift on the right (anti-torque) side of the boom is created by main rotor downwash which adheres to the boom through the use of two circulation control slots.

This system is self-compensating: When the rotor system is producing higher torque it is also producing higher downwash with resultant lift (anti-torque). At low torque, less downwash is present and the tailboom produces less lift at a time when less anti-torque is required.

The horizontal stabilizer on the MD 600N® is set at a fixed angle of incidence and attaches atop the tail-boom just forward of the thruster. At each end of the horizontal stabilizer is a vertical stabilizer.

The left and right vertical stabilizers are connected to the pilot's anti-torque pedals (rudder pedals). These stabilizers move through approximately 29 degrees of motion and provide sufficient control power for autorotation. They serve the additional purpose of unloading the thruster during forward flight which permits optimum cruise performance.

In hover flight, the circulation control tailboom provides the majority of the required main rotor anti-torque. During forward flight, the vertical stabilizer, in conjunction with the thruster, provides the required anti-torque and directional control.

The direct jet thruster is located at the aft end of the circulation control tailboom and consists of an exterior cylinder with an open cutaway section which rotates over an interior cylinder. The interior cylinder contains ducts that, when aligned with the cutaway in the exterior cylinder, vary the volume and direction of ducted air from the boom's interior. The resulting variable thrust provides additional anti-torque effect and assists in directional control.



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SYSTEM DESCRIPTION

3.11. Interior.

The forward cabin provides space for the pilot and co-pilot in either a right or left-hand command configuration. In the left hand command configuration, with single pilot controls installed, space for two passengers is provided.

Crew seats are either the cushion type or optionally, a tubular structure with mesh-type covering. Both attach to the energy-absorbing airframe structure. The standard crew and passenger seats have been redesigned to provide improved comfort and more headroom.

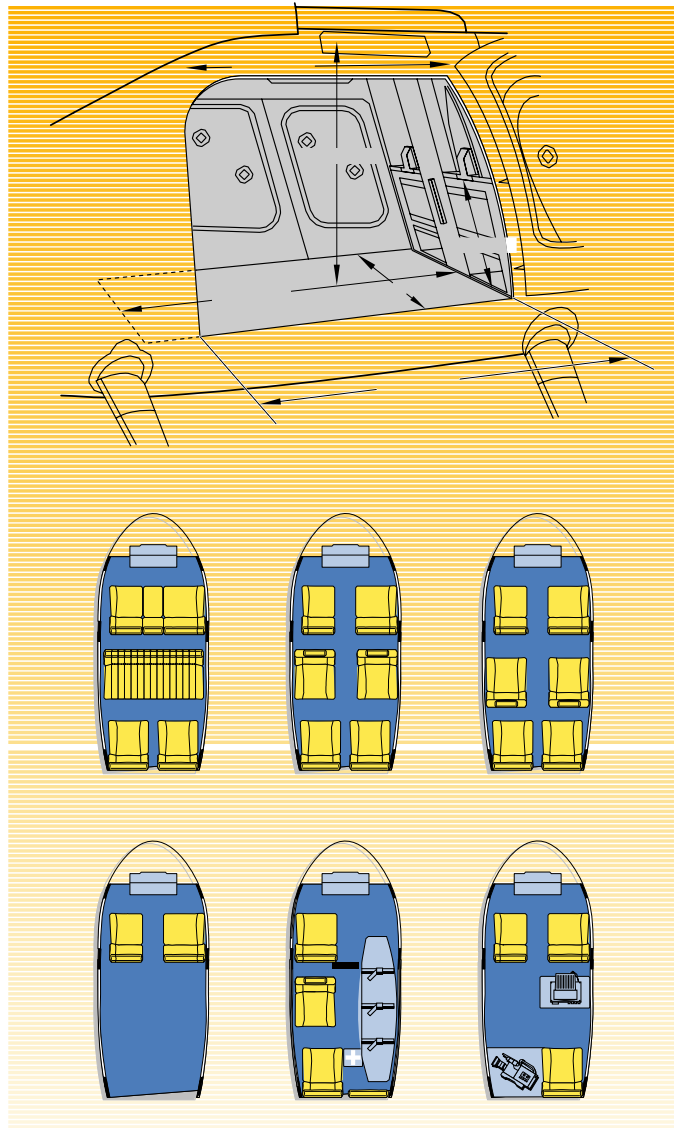
The MD 600N® instrument panel, is a “T” configuration providing space for engine and flight instruments in the upper portion and for avionics/communications in the lower portion. This instrument panel incorporates internally-lighted instruments for easier reading. A slant panel that provides additional space for avionics is available as an option, and custom avionics arrangements are also available.

- Digital engine oil temperature/oil pressure
- Slip indicator
- Analog engine torque/turbine outlet temperature
- Fuel quantity indicator
- Digital engine torque/outside air temperature
- Digital volt/ampere meter
- Digital turbine outlet temperature/N1 tachometer
- Digital chronometer
- Airspeed indicator
- Dual tachometer, NR and N2
- Barometric altimeter
- Magnetic compass

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3.12. Cabin Doors.

Four removable doors provide access to the aft cabin. The doors, two on either side, are center opening and contain transparent acrylic windows. The mid- door overlaps the aft door for greater safety. The aft door contains a second set of fuselage closing pins. The doors open to provide 157 cm (62 in) of room for loading cargo or passengers. Flight with doors on or off is approved. When the seats are removed, the aft cabin provides 1.83 m (6 ft) of flat floor space. Cargo, passengers or a combination of cargo and passengers may be carried in the aft cabin. Five passengers can be seated in the cabin, and a variety of seating configurations are possible, as illustrated on the facing page. The quick-release, reversible-center seating provides for either club seating or all forward-facing seating.

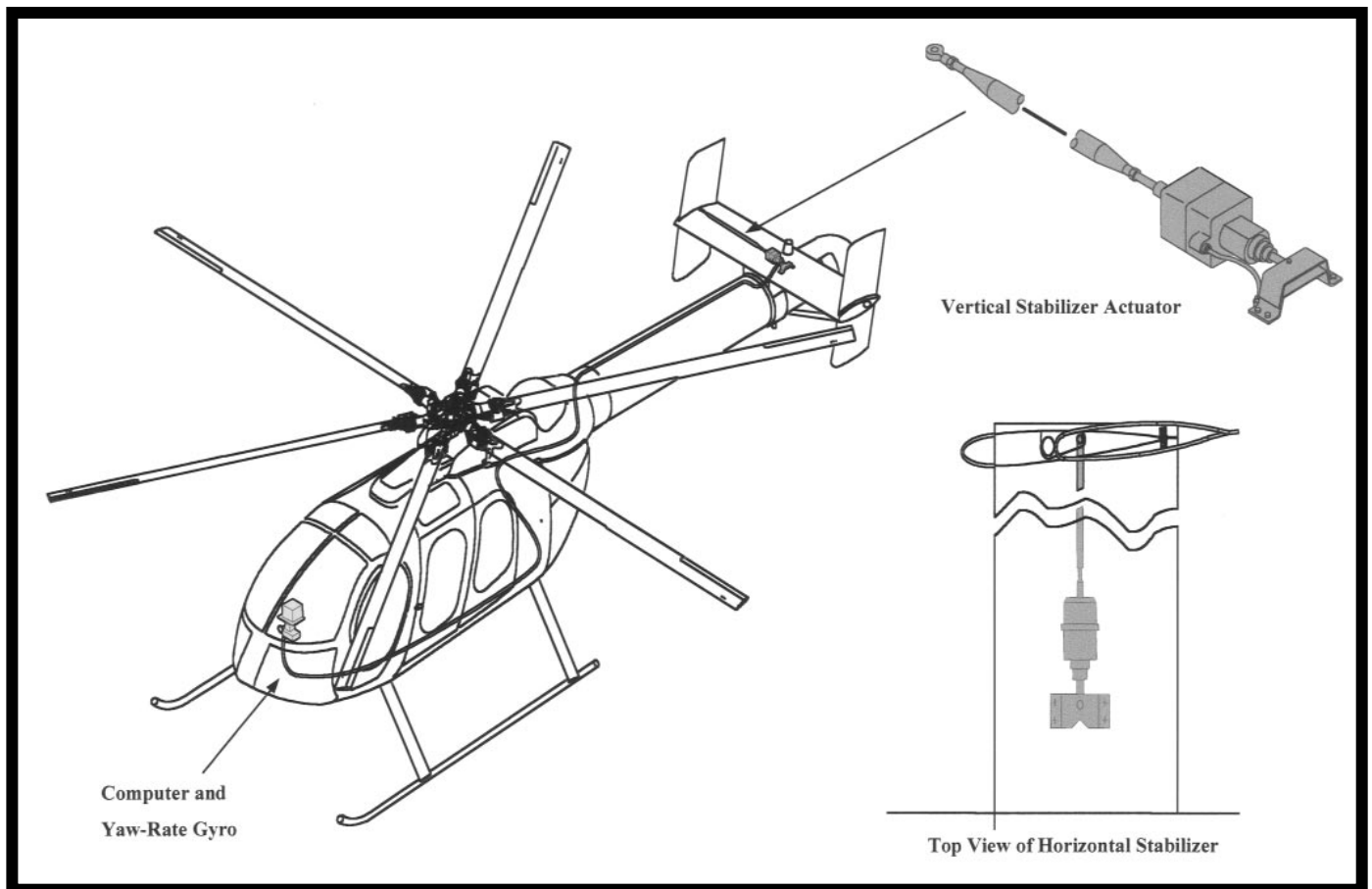


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3.13. Yaw Stability Augmentation System (Yaw-SAS).

MD Helicopters, Inc. has developed and installed as standard MD 600N® yaw stability augmentation system (Yaw-SAS). The system significantly reduces pilot workload throughout the flight envelope, especially in gusty/turbulent weather conditions.

The Yaw-SAS is based on the proven MD 520N® configuration. Yaw rate data drives the right-side vertical stabilizer, which corrects out-of-trim flight. Pilot inputs during maneuvers and level flight a significantly reduced. The left-side vertical stabilizer is not connected to the Yaw-SAS.





MD 600N
STANDARD EQUIPMENT

4.0 STANDARD EQUIPMENT AND FEATURES.

*Airframe Options Included as of 2008

4.1 Airframe

- **Rapid Door Removal Hinges (Crew Doors)***
- Tinted Canopy Panels
- Tinted Door/Window Panels (6)
- Rain Gutter Set
- Paravion Cabin Door Openers (4)
- Extended Landing Gear, MD 600N
- Keyed Locks (4)
- Fuselage Hard Points
- Jacking Fittings
- Passenger Steps
- Anti-Collision Lights (2)
- Landing Light, Nose Mounted
- Position Lights
- Dual, Center-Opening, Double Doors – aft cabin
- 1-color Dupont Imron Polyurethane Exterior Paint

4.2 Interior

- **Engine Particle Separator ***
- **LH Rotor Brake ***
- **Heater defogger system ***
- Crew Seats with 4-point Harness Restraint
- Passenger Seats with 3-point Harness Restraint
- Vinyl and Fabric Cushions - 8 seats
- Vinyl Interior Trim Panels
- Crew and Cabin Compartment Floor Carpet
- Map Case
- Fire Extinguisher
- First Aid Kit
- Crew Ashtray and Lighter/28-volt Utility Outlet
- Cabin Lighter/28-volt Utility Outlet
- Battery-Heavy Duty Marathon 17-ampere-hour
- Fresh Air Ventilation System
- Reversible Bench Seat, aft cabin
- Cockpit Utility Light
- Cabin Convenience Light
- Instrument Lighting
- Cargo Tie-Down Fittings



MD 600N

STANDARD EQUIPMENT

4.3 Engine & Electrical

- Rolls-Royce 250-C47M Engine, 808 shp (603 kw)
- Automatic Engine Reignition
- Engine Wash kit, MD 600 series
- Engine Compressor Anti-Ice
- Engine Compartment Fire Detection System
- 115 Gallon (435 L) Fuel System
- Heavy Duty Starter/Generator – 200 amp
- Filter Assembly for Fuel and Engine Scavenge Oil
- External Power Receptacle

4.4 Rotor and Controls

- **Flight Controls – dual, left hand command***
- **Yaw Stabilization Augmentation System (YSAS)***

4.5 Flight and Engine Instruments

- **Collective Hobbs Meter ***
- Dual Tachometer, NR and N2
- Engine Oil Pressure Indicator
- Engine Torque Meter
- N1 Tachometer
- Hobbs Engine Running Time Meter
- Fuel Quantity Indicator
- Digital Chronometer
- Airspeed Indicator
- Barometric Altimeter
- Digital Volt and Ammeter
- Outside Air Temperature Indicator
- Magnetic Compass
- Digital/Analog Turbine Outlet Temperature Indicator
- Engine Oil Temperature Indicator

4.6 Avionics New for 2008

- **GNS-430W NAV/COM/GPS***
- **GTX-330 Transponder Mode A,C,S with TIS***
- **GNC-420 COMM/GPS***
- **GAE-43 Altitude Encoder***
- **GMA-347 Audio Panel***
- **GI-106A CDI***
- **IVSI***
- **Attitude Indicator***
- **GCF-328 Cooling fan***
- **Avionics Master Switch***
- **Co-Pilots ICS Footswitch***
- **Artex C406-2HM ELT***



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STANDARD EQUIPMENT

4.7 Annunciator Panel

- Battery Overtemp Warning Light
- Engine Chip Detector Warning Light
- Engine Out Warning Light
- Fan Transmission Chip Detector Warning Light
- Fuel Filter Obstruction Warning Light
- Fuel Low Warning Light
- Generator Out Warning Light
- Low Rotor rpm Warning Light
- Main Transmission Chip Detector Warning Light
- Main Transmission Oil Pressure Warning Light
- Main Transmission Oil Temp Warning Light
- FADEC and ECU Caution Lights
- Voice Warning Audio System

4.8 Miscellaneous

- Ground Handling Wheels
- Engine and Airframe Log Books
- Engine Maintenance Manual
- Battery Manual
- Flight Log Book
- Handbook of Maintenance Instructions
- Illustrated Parts Catalog
- Engine Exhaust Cover
- Engine Inlet Cover
- Pitot Tube Cover
- Main Rotor Blade Tie-Downs
- NOTAR® Inlet, Thruster and Tailboom Cover



600N
STANDARD EQUIPMENT

4.9 Airframe Features

- Semi-Monocoque Aluminum Fuselage
- Composite Tailboom and Empennage
- Extended Tubular Skid Landing Gear
- Hydraulic Landing Gear Dampers

4.10 Interior Features

- 6-Foot, Flat Cabin Cargo Floor
- Flow-Through Positive Ventilation System

4.11 Engine and Electrical Features

- Full Authority Digital Engine Control (FADEC)
- Hydro-Mechanical Backup Engine Control
- Engine Driven Fuel Pump
- 28-Volt DC Electrical System

4.12 Rotor and Controls Features

- Fully Articulated, 6-Bladed Main Rotor System
- Static and Rotating Main Rotor Mast System
- 600 shp (447 kw) Drive-Train System
- NOTAR Anti-Torque System
- Mechanical Flight Control System



PERFORMANCE SPECIFICATIONS

5.0 PERFORMANCE SPECIFICATIONS.

		3,100 lb	3,600 lb	4,100 lb
Maximum Cruise Speed	KTAS Sea Level ISA	144	139	134 kt (154 mph)
	KTAS 5,000 ft. ISA	148	143	134 kt (154 mph)
Maximum Permitted Speed	Vne (KCAS) at Sea Level	152 (175)	152 (175)	135 kt (155 mph)
Maximum Range	Sea Level ISA	347 (430)	357 (411)	257 (296)
	5,000 ft. ISA	423 (487)	401 (461)	293 (337)
Maximum Endurance	Sea Level ISA	3.9	3.8	3.6 hr
	5,000 ft. ISA	4.4	4.1	3.9 hr
Maximum Rate-of-Climb	Sea Level Standard ISA	2,100	1,700	1,350 ft/min
	ISA +20°C Day	1,900	1,500	1,150 ft./min
Maximum Operating Altitude	Density Altitude	20,000	20,000	20,000
Service Ceiling	ISA @ 100 ft/min	20,000+	20,000+	13,500
HIGE (Hover-in-Ground Effect)	Standard Day	14,500+	14,500+	11,100 ft
	Day	12,200+	11,600	7,000 FT
HOGE (Hover Out-of-Ground Effect)	Standard Day	14,500+	11,700	6,000 ft
	Day	12,200+	8,000	3,200 ft

Certification Limits:

Standard Weight	Normal Category	4,100 lb
	Maximum Internal	4,500 lb*
Empty Weight	Standard Configuration	2,100 lb
	Industrial Configuration	2,036 lb
Useful Load	Internal	2,000 lb
	External	2,400 lb**
Cargo Hook Structural Rating		3,000 lb
Fuel Capacity		115 gal

Powerplant: Rolls-Royce Engine Company Model 250-C47M gas turbine, rated at 603 kw (808 shp), derated for reliability and safety to: Takeoff 447 kw (600 shp) Max Continuous Power 395 kw (530 shp)



PERFORMANCE SPECIFICATIONS

		1406 kg	1633 kg	1860 kg
Maximum Cruise Speed	KTAS Sea Level ISA	267	257	248 kph
	KTSA 1524 m, ISA	274	255	248 kph
Maximum Permitted Speed	Vne (KCAS) at Sea Level	282	282	250 kph
Maximum Range	Sea Level ISA	693	661	633 km
	1524 m, ISA	783	743	704 km
Maximum Endurance	Sea Level ISA	3.9	3.8	3.6 hr
	1524 m, ISA	4.4	4.1	3.9 hr
Maximum Rate-of-Climb (AEO)	Sea Level Standard ISA	10.7	8.6	6.9 m/s
	ISA +20°C Day	9.6	7.6	5.8 m/s
Maximum Operating Altitude	Density Altitude	6096	6096	6096 m
Service Ceiling	ISA @ 30.5 m/min	6096+	5639	4115m
HIGE (Hover-in-Ground Effect)	Standard Day	4420+	4420+	3383 m
	ISA +20°C Day	3719+	3536	2134 m
HOGE (Hover Out-of-Ground Effect)	Standard Day	4420+	3566	1829 m
	ISA +20°C Day	3719+	2438	975 m

Certification Limits

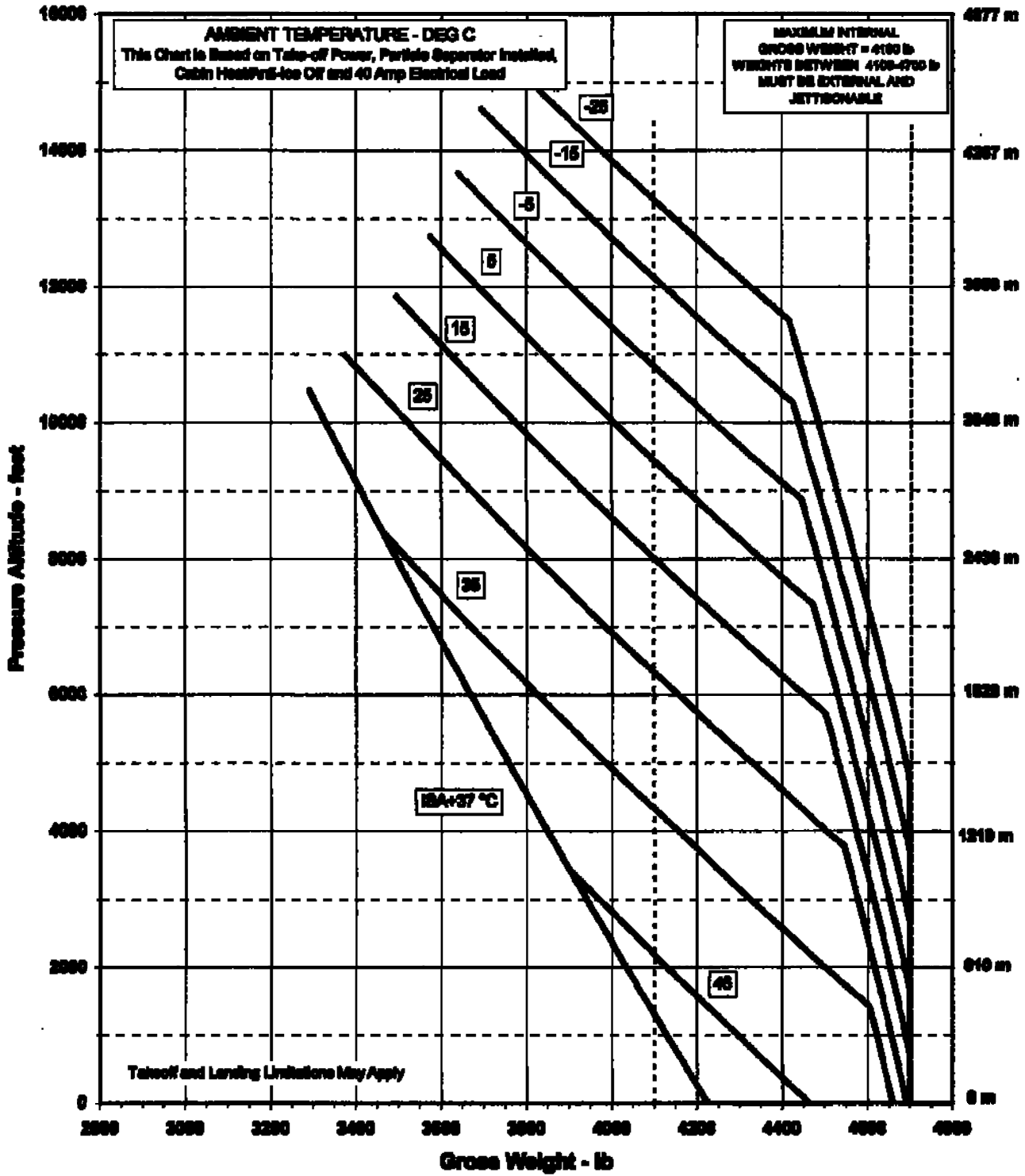
Standard Weight	Normal Category	1859 kg
	External Load	2131 kg*
Empty Weight	Standard Configuration	962 kg
	Industrial Configuration	923 kg
Useful Load	Internal	907 kg
	External	1179 kg**
Cargo Hook Structural Rating		1360 kg
Fuel Capacity		4351

Powerplant: Rolls-Royce Engine Company Model 250-C47M gas turbine, rated at 603 kw (808 shp), derated for reliability and safety to: Takeoff 447 kw (600 shp) Max Continuous Power 395 kw (530 shp)

600N

PERFORMANCE SPECIFICATIONS

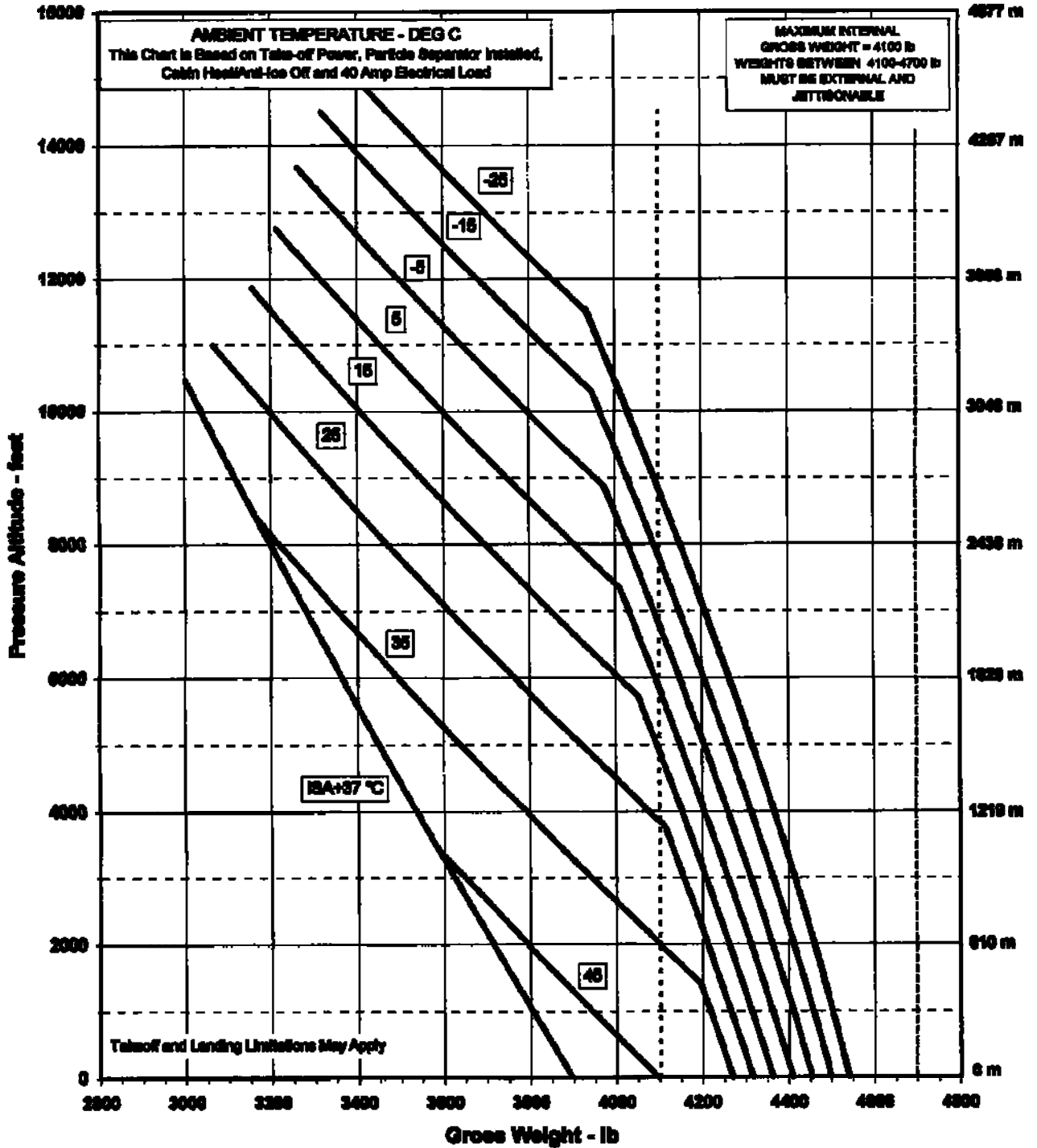
5.1. Hover-In-Ground-Effect.





PERFORMANCE SPECIFICATIONS

5.2. Hover-Out of-Ground-Effect.





600N

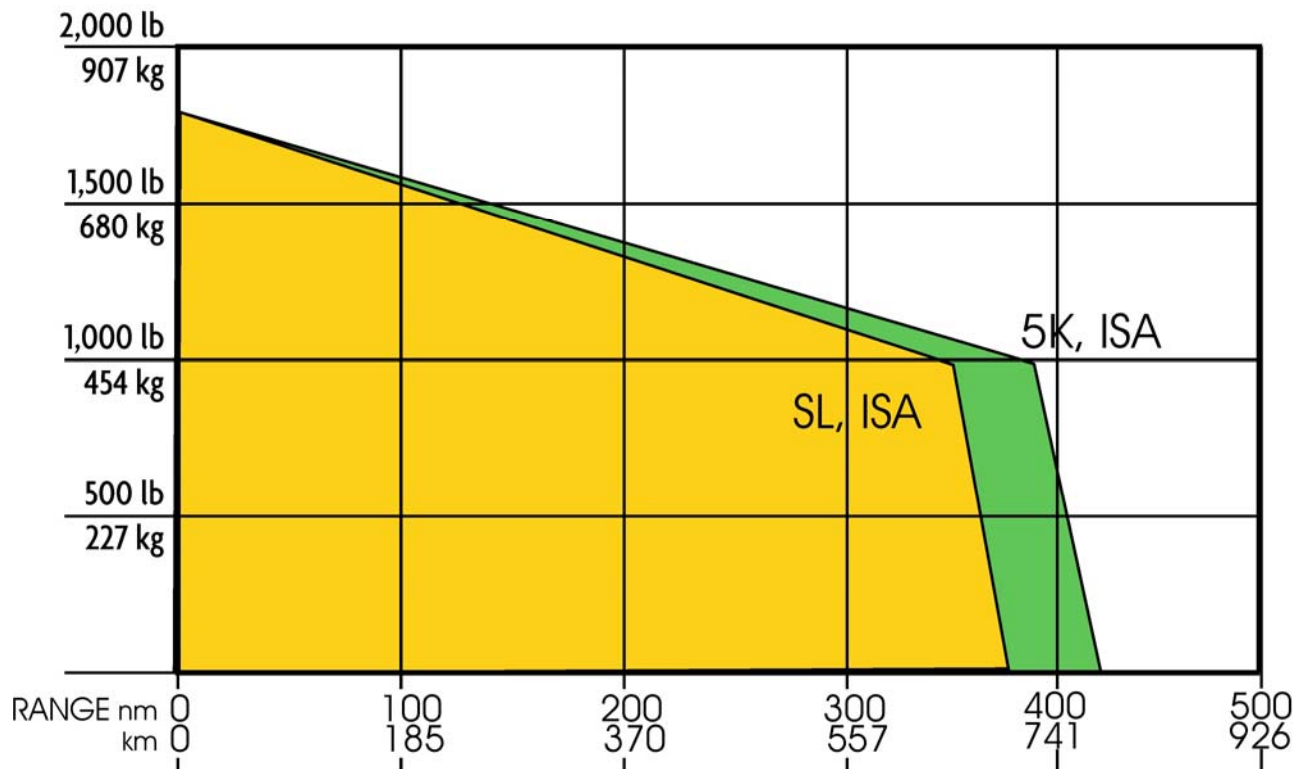
PERFORMANCE SPECIFICATIONS

5.3. Gross Weight Worksheet

	Example	Mission #1	Mission #2
Empty Weight	2,100 lb (952 kg)		
Pilot	170 lb (77 kg)		
Fuel	782 lb (355 kg)		
Payload	1,048 lb (476 kg)		
Takeoff GW	4,100 lb (1860 kg)		

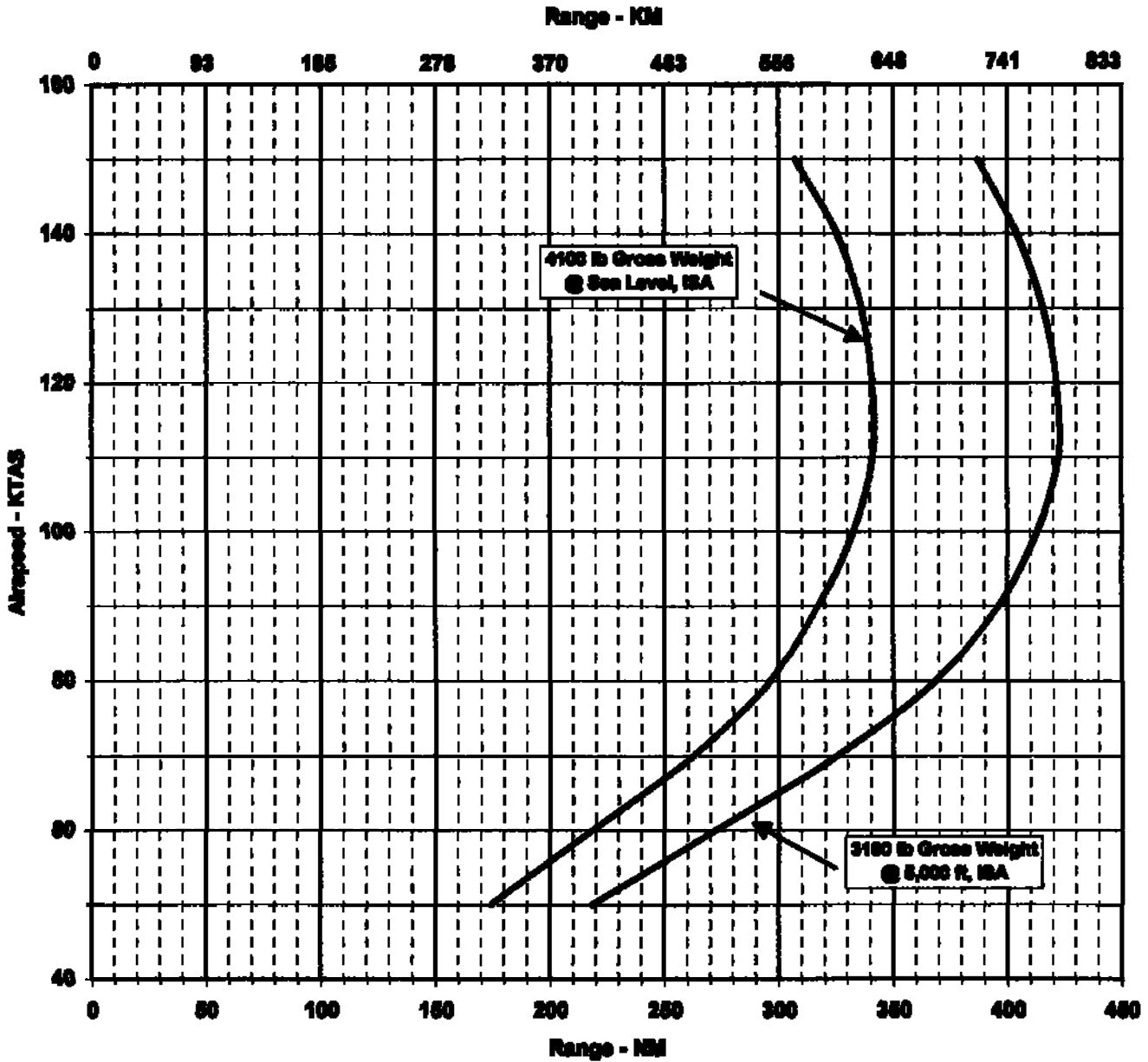
5.4. Payload vs Range.

PAYLOAD & RANGE



600N PERFORMANCE SPECIFICATIONS

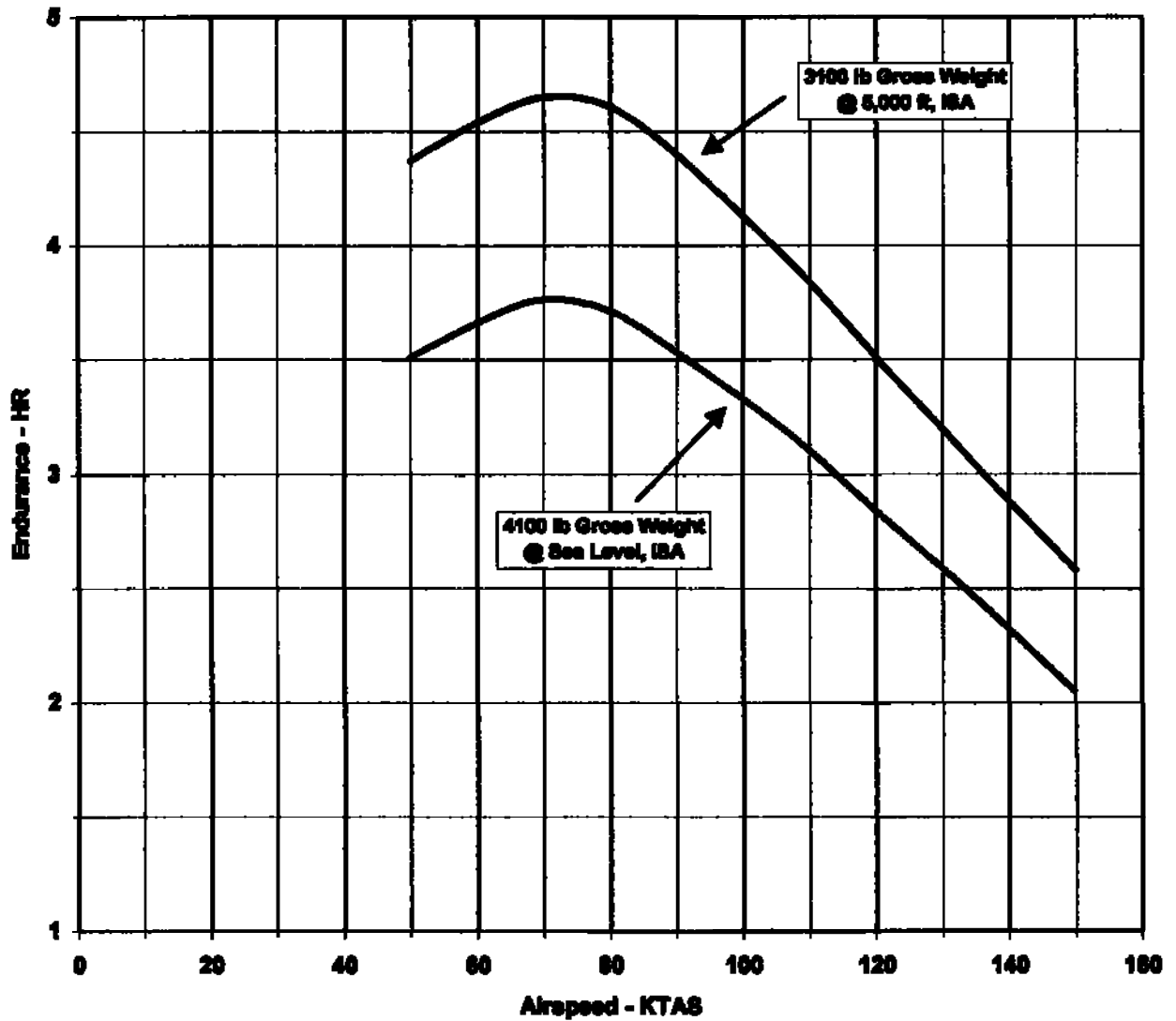
5.5. Speed for Best Range.



Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.

PERFORMANCE SPECIFICATIONS

5.6. Speed for Best Endurance.

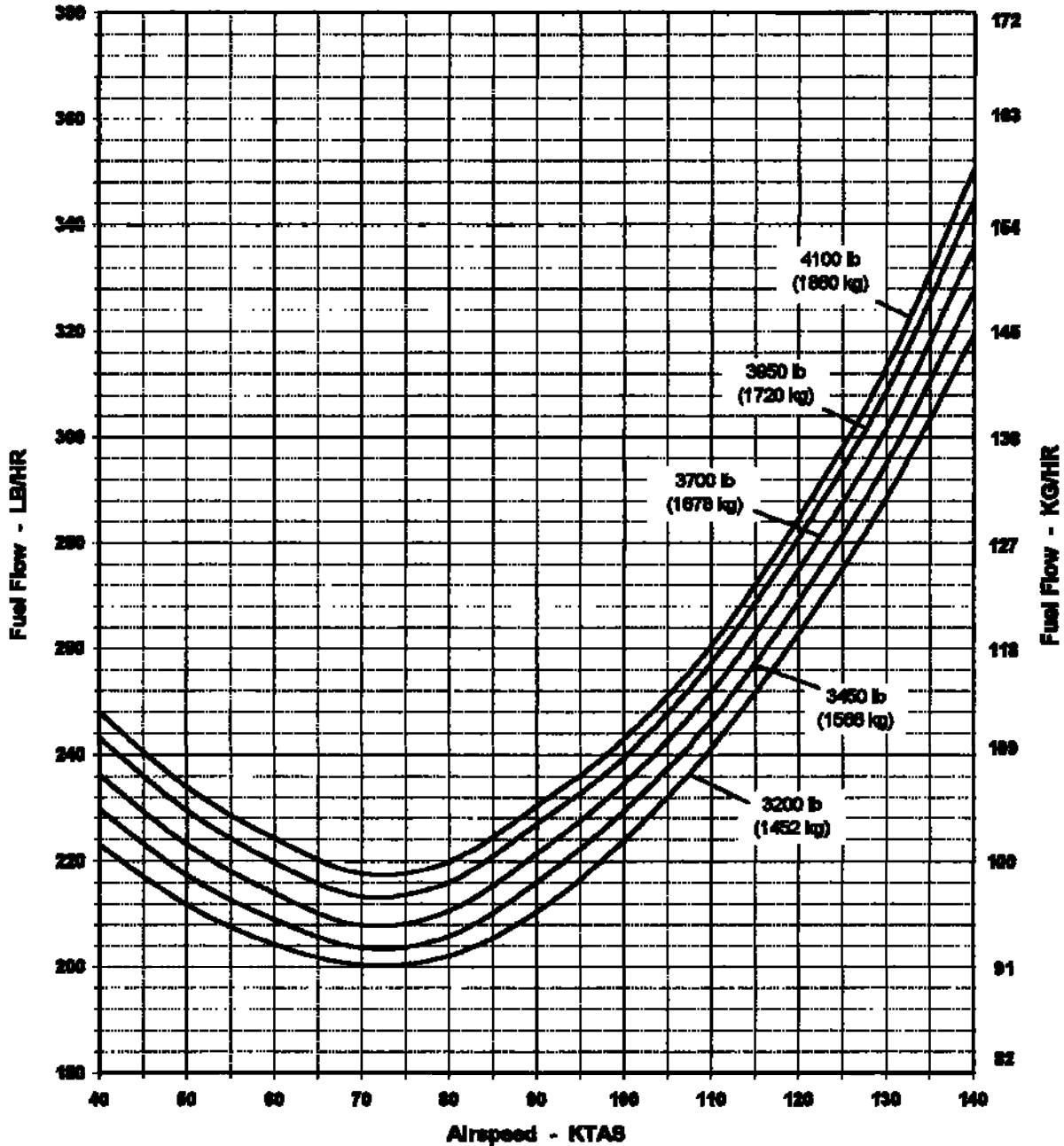


Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.

600N PERFORMANCE SPECIFICATIONS

5.7. Fuel Consumption

5.7.1. Fuel Flow, Sea Level, ISA (15°C).

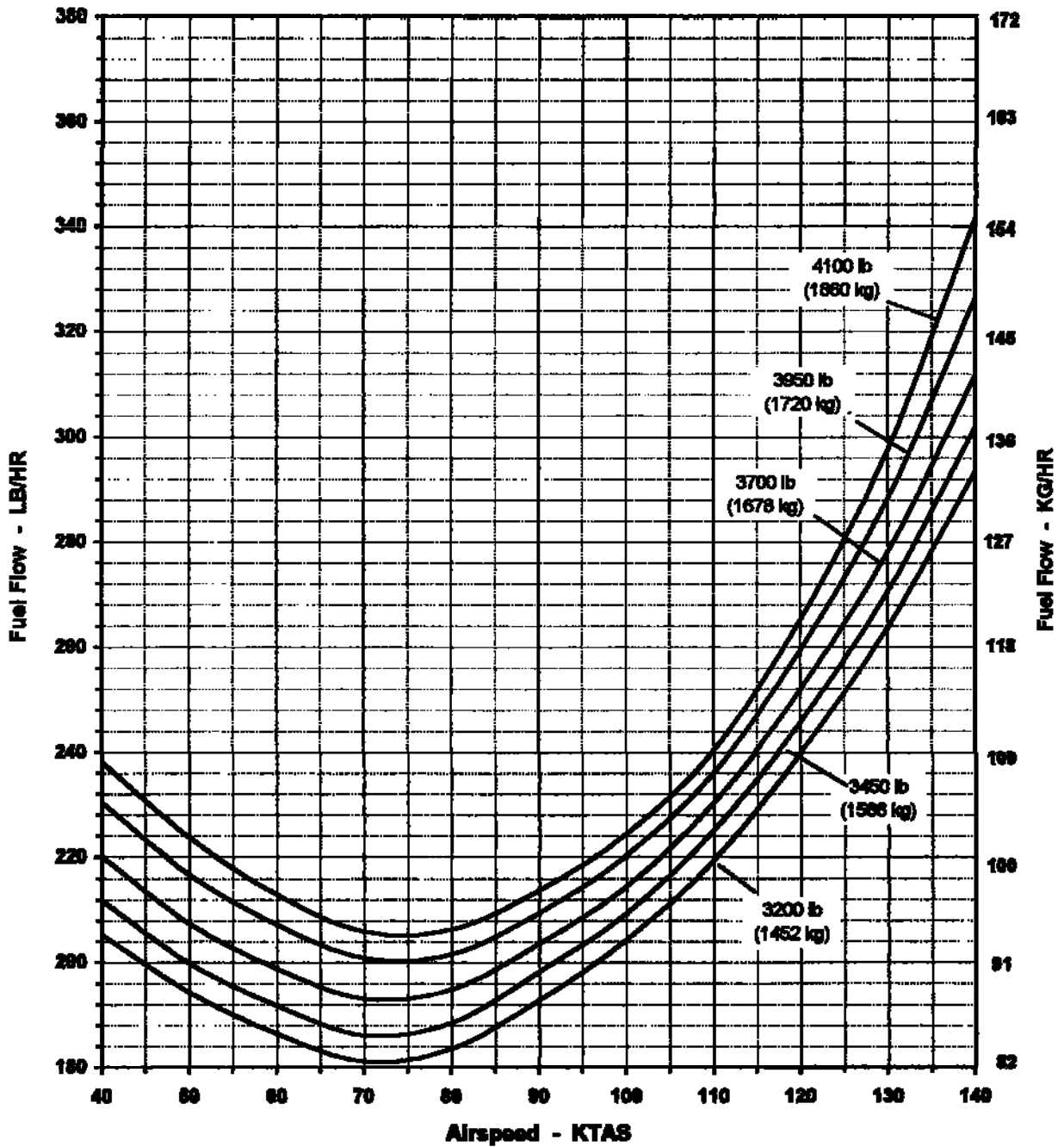


Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.



PERFORMANCE SPECIFICATIONS

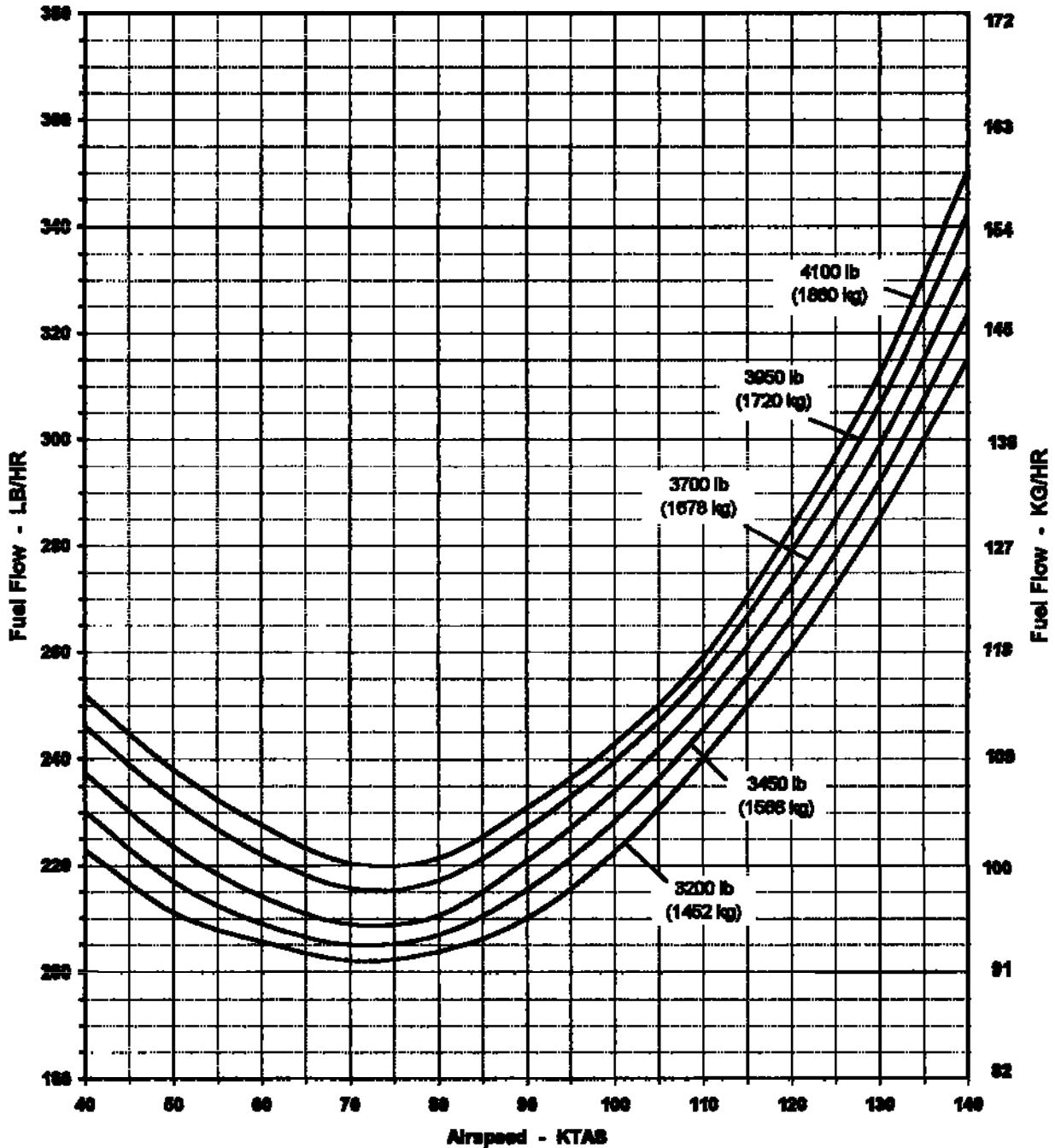
5.7.2. Fuel Flow, 4000 ft, ISA (7°C).



Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.

600N PERFORMANCE SPECIFICATIONS

5.7.3. Fuel Flow, Sea Level, ISA +20 (35°C).

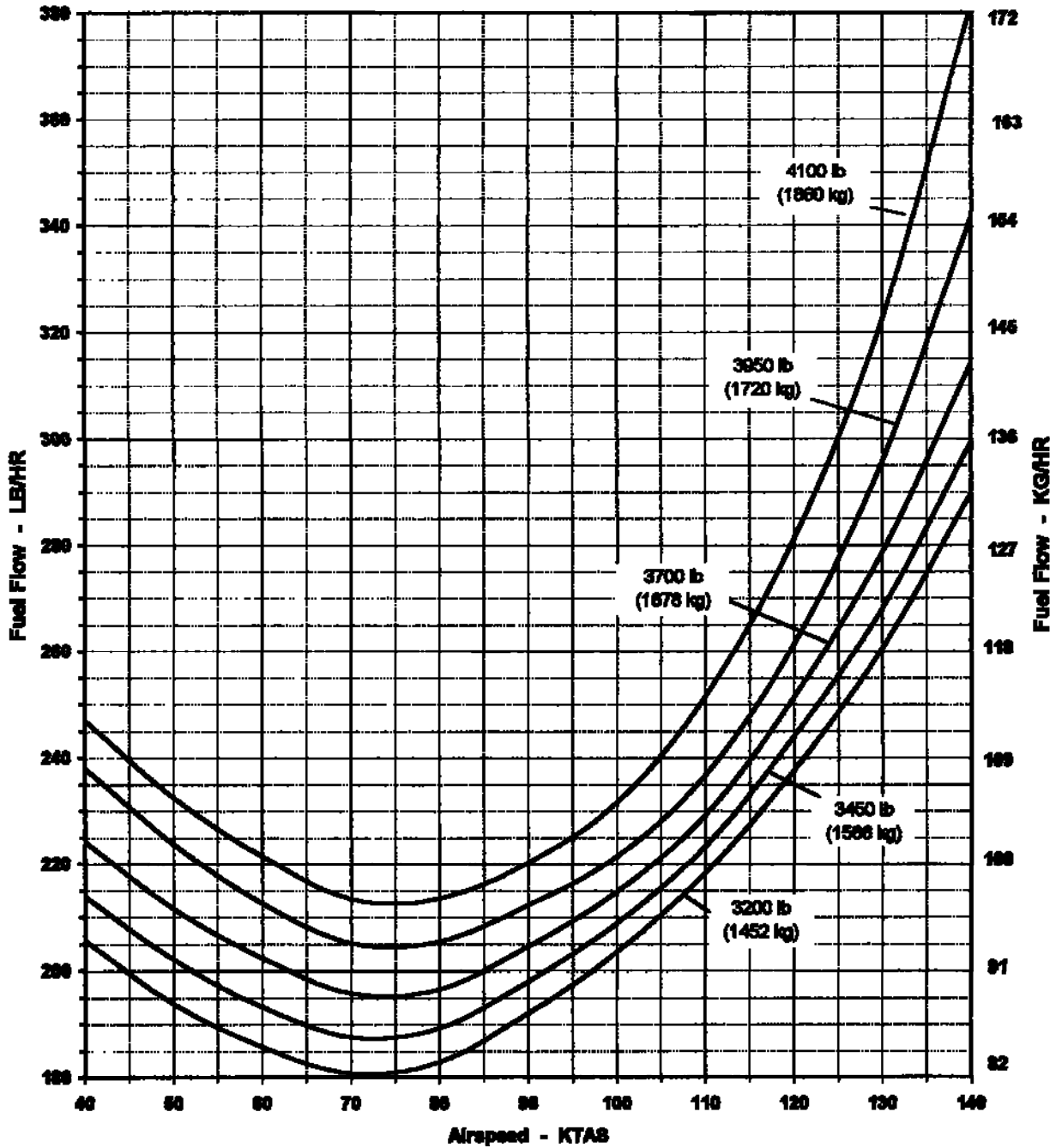


Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.



PERFORMANCE SPECIFICATIONS

5.7.4. Fuel Flow, 4000 ft, ISA +20 (27°C).



Note: Use for Estimates Only. Not FAA Approved. Based on clean aircraft, level flight performance, minimum specification engine, particle separator and 40 ampere electrical load.



DIRECT OPERATING COST

6.0 DIRECT OPERATING COST.

MD 600N

Estimated Direct Operating Cost Per Hour

(Based Upon Year 2008 \$5.80 gal US)

	<u>C47M Engine</u>
Fuel and Lubricants¹	
Fuel @ \$5.80* per gallon @ approximately 41 gallons/hour	\$237.80
Lubricants @ 3% of fuel	\$ 7.13
	<u>\$244.93</u>
 Airframe Maintenance and Spares²	
<u>Maintenance Labor Costs:</u>	
Scheduled (.15 Manhours/Flight Hour) @ \$75.00/Hour*	\$ 11.25
Unscheduled (.26 Manhours/Flight Hour) @ \$75.00/Hour*	\$ 19.50
	\$
<u>30.75</u>	
<u>Spares Cost:</u>	
Scheduled (Inspection) Parts: Used during Periodic Inspection i.e., filters, seals, o-rings, etc.	\$ 5.78
On-Condition/Unscheduled Part	\$ 23.89
Reserves: Component Overhaul (TBO)	\$ 59.28
Reserves: Limited Life Parts	\$ 55.29
	<u>\$144.24</u>
 Engine³	
Scheduled maintenance labor & parts	\$ 3.00
Reserve for engine overhaul, spares and accessories	\$ 74.82
	<u>\$ 77.82</u>
 Total Direct Operating Cost⁴	<u><u>\$497.74</u></u>

¹ Fuel Cost and labor rate* is based on U.S. Average Average cost while operating under the following conditions:
Gross Weight: 10% less than maximum certified
Speed: Maximum Range Speed, 117 KIAS
Altitude: 1,000 feet on a standard day

² Overhaul costs are based on participation in factory exchange program

³ Engine fleet maintenance costs provided by Rolls Royce Engine Company

⁴ Indirect costs such as insurance, hangar, salary, etc., are excluded

Cost figures shown are extrapolated from a broad database and are intended for example purposes only. Actual costs will vary, depending on local operating conditions, pricing and supplier practices. We encourage you to compare these figures with other manufacturers, using the same unit costs for fuel, labor, etc.



DIRECT OPERATING COST

DIRECT OPERATING COST WORKSHEET

Fuel and Lubricants

Fuel @ \$ per gallon @ approx. gallons per hour..... \$ _____

Lubricants @ _____ % of fuel \$ _____

Total Fuel and Lubricants Cost..... \$ _____(A)

Airframe Maintenance and Spares

Scheduled maintenance labor rate @ \$ _____ per hour

(Maintenance man-hour/flight hour=\$ _____)..... \$ _____

Unscheduled maintenance labor rate @ \$ _____ per hour

(Maintenance man-hour/flight hour=\$ _____) \$ _____

Scheduled (Inspection) Parts \$ _____

On-Condition/Unscheduled Part \$ _____

Reserves: Component Overhaul (TBO) \$ _____

Reserves: Limited-Life Parts \$ _____

Total Airframe Maintenance and Spares Cost..... \$ _____(B)

Engine

Scheduled maintenance labor rate @ \$ _____ per hour

(Maintenance man-hour/flight hour=\$ _____) \$ _____

Unscheduled maintenance labor rate @ \$ _____ per hour

(Maintenance man-hour/flight hour=\$ _____) \$ _____

Reserves for engine overhaul and spares \$ _____

Total Engine Cost \$ _____(C)

TOTAL DIRECT OPERATING COST (A+B+C) \$ _____(D)

FIXED OPERATING COST

Depreciation

Hull insurance \$ _____

Liability insurance \$ _____

Pilot salary \$ _____

Hangar rental \$ _____

Total Annual Fixed Operating Cost \$ _____(E)

Total Hours (_____) flown annually (F) \$ _____(F)

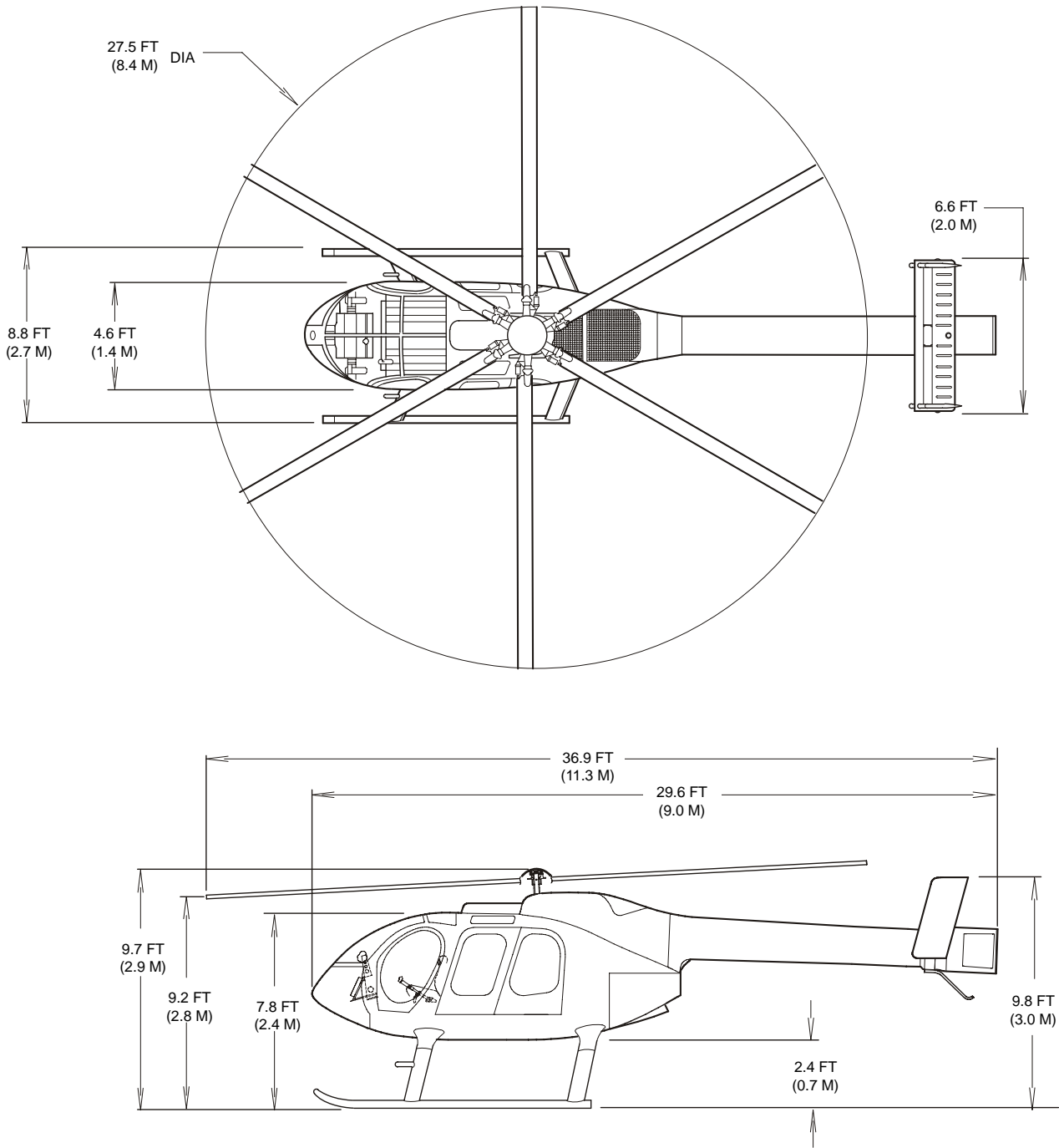
TOTAL FIXED OPERATING COST PER HOUR (E+F) \$ _____(G)

Total Direct Operating Cost Per Hour (from above) \$ _____(D)

TOTAL HOURLY FIXED OPERATING COST (D+G)..... \$ _____

DIMENSIONS

7.0 DIMENSIONS



600N0100--010101 6G06-043D



OPTIONAL EQUIPMENT

8.0 MD600® OPTIONAL EQUIPMENT

<i>Airspeed/Time</i>	<i>lb</i>	<i>kg</i>
▪ Davtron 877 Digital Clock	0.2	0.1
▪ Heated Pitot Tube	0.4	0.2

<i>Altitude</i>	<i>lb</i>	<i>kg</i>
▪ Blind Encoder Garmin GAE-43	2.0	0.9
▪ Encoding Altimeter 3-inch	3.7	1.7
▪ Instantaneous Vertical Speed Indicator	2.5	1.1
▪ KRA 10-00 Radar Alt W/KI250 Indicator	4.4	2.0
▪ KRA405B-15 Radar Alt W/KNI416 Indicator	10.5	4.8
▪ TRA 3000 Radar Alt with TRI 40 Indicator	2.6	1.2

<i>Altitude/Heading</i>	<i>lb</i>	<i>kg</i>
▪ Attitude Gyro Indicator 3-inch	3.1	1.4
▪ Directional Gyro-Panel Mounted	3.0	1.4
▪ KCS55A-01 Compass System	10.3	4.7
▪ KI229-00 Radio Magnetic Indicator	2.0	0.9
▪ Turn and Bank Indicator, 2-inch	1.4	0.6
▪ Turn and Bank Indicator, 3-inch (mid continent 1394T100-7Z)	1.6	0.7
▪ Turn and Bank Indicator, 3-inch United Instruments	1.6	0.7

<i>Avionics</i>	<i>lb</i>	<i>kg</i>
▪ GNS-430W NAV/COM/GPS	7.8	3.5
▪ GNS-430AW NAV/COM/GPS	7.8	3.5
▪ GNS-530W NAV/COM/GPS	9.8	4.4
▪ GNS-530AW NAV/COM/GPS	9.8	4.4
▪ GPS-400-GPS		
▪ GPS-500-GPS		
▪ GNC-420-COM/GPS		
▪ GMA-340 Audio Panel – Stereo		
▪ GMA-347 Audio Panel – Stereo, with Panel IPOD Unit		
▪ GTX-330D Transponder-Modes A,C,S with TIS Capability and Diversity Isolation (2 antenna)	4.3	2.0
▪ GTX-330 Transponder-Modes A,C,S w/o TIS Capability and Diversity	4.3	2.0
▪ GTX-327 Transponder-Modes A,C	4.3	2.0
▪ GMX-200 Multi Function Display Unit		
▪ GNC-250 XL – COMM/GPS		
▪ GDL-69 Satellite WX – w/o display		
▪ GDL-69A Satellite WX with XM radio – w/o display		
▪ KLN90B		
▪ KT76A Modes A,C Transponder	4.2	1.9
▪ KT76C Modes A,C Transponder	4.2	1.9
▪ KT-70 Modes A,C,S Transponder	5.2	2.4
▪ KDR510 Satellite Weather		
▪ Pointer 3000 ELT		



600N

OPTIONAL EQUIPMENT

<i>Comm/Intercom</i>	<i>lb</i>	<i>kg</i>
▪ A711 Audio Panel	5.0	2.2
▪ AA97 Audio Panel System	2.8	1.3
▪ AMS-42F Dual Channel Audio Panel	2.8	1.3
▪ AMS-44 Dual Channel Audio Panel	5.7	2.6
▪ CD Player AM/FM Radio Stereo PS ENG PXE7300	4.7	2.1
▪ Cyclic Remote Frequency Switch	0.3	0.1
▪ Garmin GNA-340 Audio Panel	3.3	1.5
▪ Hand Held Comm Radio Provisions to include AA-34 Universal	1.1	0.5
▪ Headset Bose Series X Noise Canceling Stereo	1.1	0.5
▪ Headset David Clark H10-56	1.5	0.7
▪ Headset David Clark Noise Canceling H10-56HXP	2.3	1.0
▪ KMA24H-71 Audio Panel	6.2	2.8
▪ KMA24H-71 Dual Audio Control/Intercom		
▪ KTR908 COMM		
▪ KX165-25 10-watt COM/NAV Transceiver w/ KI-206 NAV Indicator	5.2	2.4
	5.5	2.5
▪ KY196A-30 16-watt VHF COM Transceiver	3.1	1.4
▪ KY-96A-61 10-watt VHF COM Transceiver		
▪ NPX-138N – FM Transceiver 138-174 MHZ	21.4	9.7
▪ PA Siren System, External w/ AA-22 controller and TS-100WR speaker—with recessed mount	2.5	1.1
▪ Provisions Motorola Spectra 800 MHZ Radio		
▪ Rear Seat Transmit Capability, includes AA-12S rear seat audio panel and 4-each rear lapel cords. NOTE: Compatible with NAT audio panels	5.1	2.3
▪ SL-30 COM/NAV	5.1	2.3
▪ TDFM-6148 VHF HI/UHF LO/800 (136-174/403-512/800)	3.1	1.4
▪ TDFM-7000 Series 4 R/T System	27.2	12.3
▪ TFM-550 VHF Low/VHF/UHF High 30-50/138-174/403-512	4.2	1.9
▪ Wulfsberg RT5000 Transceiver		
▪ Wulfsberg C5000 Flex Comm Control Head		

<i>Controls</i>	<i>lb</i>	<i>kg</i>
▪ Mason Grip Installed – on pilot side only	1.0	0.5
▪ Right Side Pilot in Command		

<i>Electrical System</i>	<i>lb</i>	<i>kg</i>
▪ KA-22 Avionics Cooling Fan		
▪ Lead Acid Battery G641S-17 amp hour	2.2	1.0
▪ 28-volt Cabin and Cockpit Receptacles	23.0	10.4
	1.6	0.7



600N

OPTIONAL EQUIPMENT

<i>Environmental</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> Air Conditioning R-134 with Forward Evaporator 	88.8	40.3

<i>Exterior Accessories</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> Breeze Eastern Cargo Hook – require factory hard point Cargo Hook Load Weigh System – model E51 Cargo Hook with Hard Point Dual Side Mount – FLR/NightSun – mount only Exterior Crew Handles (4 each) Meeker Engine Bay Quick Release Hinges Skid Mirror Wire Strike Kit 	7.0 20.0 5.0 2.1 2.0 15.4	3.2 9.1 2.3 7.0 0.9 7.0

<i>Exterior Lights</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> Provisions for Side Mounted SX-16 NightSun Pulse System for Existing Landing Light Provisions for SX-16 NightSun and Thermal Imager Mounted on Meeker Dual Side Mount SX-16 NightSun Side Mounted with Gold Reflector SX-16 Side Mounted w/o Gold Reflector SX-5 NightSun – Side Mounted Night Scanner – 400 Candle Power – Belly Mounted Super Night Scanner – 800 Candle Power – Belly Mounted 	19.5 65.0 65.0 23.0 23.0	8.8 29.5 29.5 10.4 10.4

<i>Fuel System</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> Airframe Fuel Filter Robertson 33.5 GAL (127 L) AUX Tank 	6.7	3.0

<i>Gear/Handling</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> Carbide Skid Shoes 		

<i>Infrared Cameras</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> FLIR 8500 IR Camera System – Basic No Options – Side Mounted with Avalex 10-inch Monitor (For Domestic Use Only) FLIR Equipment – 8500 Provisions for FLIR 7000/8000 Series Nose Mounted, includes turret mount and monitor; and all cables and wiring. NOTE: Does not include vibration isolation mount Slass System for use with FLIR 7000/8000 Series and Wescam FLIR's Only 		



600N

OPTIONAL EQUIPMENT

<i>Interior/Trim/Lights</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> ▪ Instrument Panel Face Plate Modification ▪ Leather Covered Interior Panels ▪ Leather Covered Seats ▪ Mesh Seats ▪ NVG Compatible Lighting External and Internal ▪ Slant Panel Pedestal 	0 6.0 3.0	0 6.0 3.0

<i>Mapping Systems</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> ▪ Aero Computers LE-5000 Mapping Systems ▪ Metamap Inc. 		

<i>Windows/Doors</i>	<i>lb</i>	<i>kg</i>
<ul style="list-style-type: none"> ▪ Comfort Windows – 2 each Cabin, 4 each Cockpit; with slides ▪ Comfort Windwos – 2 each Cabin, 4 each Cockpit; with pop out vents ▪ Paravion Left Front Door Opener ▪ Paravion Right Front Door Opener 	 1.5 1.5	 0.7 0.7



MD 600N
PRODUCT SUPPORT PLAN

9.0 PRODUCT SUPPORT PLAN

MD Helicopters, Inc. is dedicated to a successful fielding of its new helicopters and to improve the support it currently offers operators of its commercial helicopters. In 2008, MD Helicopters, Inc. introduced the MD Power™ program. This comprehensive support plan provides customers the opportunity to level budget operating cost. An outline of the plan is presented below. Please contact a Region Sales Manager or MD Helicopters, Inc. Customer Support for additional details.

MD Power™:

- MD Power™ is designed to provide an owner / operator of a new or pre-owned MD Helicopter with the ability to budget the cost for airframe parts based upon usage, for the life of the contract.
- Under MD Power™ the hourly fixed rate covers all inclusive parts replacement at no additional charge.
- MD Power™ removes risk, and provides budget stability and predictability
- MD Power™ protects cash flow and profits from being affected by unexpected repair expenses

Added Value, ensuring peace of mind:

- MD provides single point of contact by coordinating
 - *Rolls Royce Engine Programs*
- Removes risk, and provides budget stability and predictability
- Smooths maintenance costs by reducing the high risk / high cost unscheduled maintenance events
- Protects cash flow and profits from being affected by unexpected repair expenses

Other Benefits:

- Factory maintenance support through MD Authorized Service Center network
- Provides higher market value upon helicopter resale
- Transferable at time of sale to MDHI approved operator



MD 600N
PRODUCT SUPPORT PLAN

MD Power™ Inclusions - Systems and Parts Covered:

The following airframe systems, subsystems, components and/or parts and other systems are included under MD Power™ unless otherwise excluded:

- MD Drive Train:
 - *Flight controls, Drive systems, Main rotors, NOTAR system, Hydraulics*
- Life-limited parts
- Repair and Overhaul Components
- Main and Tail Rotor Blades
- Airframe electrical systems
- Landing gear
- Mandatory MDHI Service Bulletins or FAA Airworthiness directives
- Rolls Royce 250 or C47 engines under the Rolls Royce Customer Care Elite Program

Operator Input:

Input from many of our existing fleet operators has been actively solicited by our support team. We have created Customer Satisfaction Advisory Teams, composed of operators from all over the world who are chartered to work together with MD Helicopters, Inc. technical representatives to lower operating costs, and to improve our products and the way we support them. As a result of this improved level of two-way communication, many improvements suggested by our customers are being included in our production, publications, and maintenance procedures.

Initial Fielding:

All new aircraft customers will be greeted at their facility by a Customer Support Technical Representative who is trained specifically on the operation and maintenance of MD Helicopters, Inc. These Technical Representatives are backed up by a factory team of MD Product Support Engineers who can be called upon at any time to support specific technical issues or questions that may arise.



600N
PRODUCT SUPPORT PLAN

Regular Maintenance:

Follow-up visits by MDHI Customer Support Technical Representatives will be performed as required at the regularly scheduled maintenance periods. This provides the customer with the latest maintenance information, and provides the factory with feedback on the operation, reliability and maintainability of their new aircraft. In addition, maintenance, rotorcraft flight and parts manuals are available on the MDHI website (www.mdhelicopters.com) free of charge.

Direct Operating Cost:

The operating cost of MD Helicopters, Inc. are planned to be the lowest in their classes. The plan is to keep the parts costs down, maximize the reliability of the helicopter systems, and minimize maintenance hours. Every part, system and maintenance procedure has undergone scrutiny before being incorporated on new production aircraft.

Spare Parts:

MD Helicopters, Inc. recognizes the importance of timely deliveries of spare parts to our customers. A thorough review of spare parts utilization has been conducted with the intent to significantly improve turnaround time of AOG spares. Additionally, MDHI will increase activities in using customer advanced spares requirement notification to eliminate known spare part requirements. MD Support Center has been established in Europe, where a significant inventory of spare parts, exchange components and tools are maintained.



10.0 TRAINING

The MDHI Commercial Training Center offers cost-effective factory designed training courses for MD600N® pilots and maintenance crews. This training, given by senior instructors with extensive experience in MDHI products, provides customers/students with the detailed knowledge of MDHI products that will increase safety, reduce insurance costs and result in more efficient operation of the aircraft. Training is customarily conducted at the MDHI facility in Mesa, but offsite training at the customer's facility can also be arranged. Training in customer aircraft can also be arranged.

Pilot Training:

The transition flight training course is designed to familiarize a rated helicopter pilot with the operation of the 600N. This five-day course introduces the student to all the associated company publications as well as detailed explanations of all aircraft systems and daily/preflight inspection procedures. The ground school, including the exam and exam review, requires 16 to 20 hours to complete. The student will be expected to pass an exam demonstrating basic knowledge of the aircraft. The flight training syllabus includes five hours of instructor time and is broken down into four flight lessons:

- Normal Operations (pattern and hover work)
- Normal Operations and emergency procedures
- Heavy Weight Performance
- Emergency Procedures (autorotations)

Recurrent pilot training consists of a two-day refresher course for any pilot who has previously attended the transition flight training course. Ground school includes a closed-book exam, review of AD's and notices, and a daily/preflight inspection review. A BFR (biennial flight review) can also be given in conjunction with this course and includes review of FAR Part 91 and an open book exam. Flight training consists of three hours of intensive emergency procedures review.



MD 600N

TRAINING

Maintenance Training:

The Airframe Maintenance Course is designed to familiarize a licensed A & P mechanic with the maintenance and inspection of all major systems on the aircraft. This 2-week course will require the student to learn and demonstrate the skill and knowledge required to safely perform selected maintenance tasks on the 600N. The 1-week course is available to selected students with prior knowledge of MD products (the 500 series aircraft). The 80-hour syllabus is comprised of the following sections:

- Intro to helicopter design
- Landing gear
- Fan assembly
- Rotor assembly, controls and rigging
- Lubrication/fuel
- Engine controls
- Airframe
- Drive system
- Anti-torque
- Track and balance
- Power plant
- Electrical systems

Spare Parts:

The other types of training that are currently available to 600N customers are:

- Instructor pilot training
- Maintenance test flight pilot training