

# R66 *TURBINE* POLICE HELICOPTER



ROBINSON HELICOPTER COMPANY



# R66 *TURBINE* POLICE HELICOPTER

The **R66 TURBINE POLICE HELICOPTER** combines increased reserve power, improved altitude performance and greater capacity with state-of-the-art surveillance technology. The R66 offers law enforcement a reliable, high-performance turbine helicopter that is economical and easy to maintain.

The four-place R66 Police helicopter meets the latest FAA crashworthiness regulations. Its aerodynamic fuselage optimizes airspeed and fuel economy, enabling the helicopter to remain on station for up to three hours. Unobstructed views allow for better tactical support and a spacious cargo compartment provides ample storage for additional gear. Turn-key ready, the R66 is equipped with FAA-approved technologies that include an infrared imaging system, a fold-down monitor, a powerful searchlight, and a dual-audio controller.

## TURBINE

**ROLLS ROYCE RR300 TURBOSHAFT ENGINE** is a derivative of the RR250 series and designed specifically for the R66. The RR300 turbine engine operates on readily available jet A fuel delivering excellent power and responsiveness in a lightweight, compact installation.

**SIMPLIFIED STARTING PROCEDURE** features a latching starter and a fuel cutoff control, which is separate from the collective twistgrip, reducing the chance of over-tempering during start-up.

**ENGINE MONITORING UNIT (EMU)** continuously records gas generator/compressor rpm, turbine rpm, engine torque, and measured gas temperature (MGT). An engine anti-ice system is also standard.

## MAINTENANCE

Downtime is reduced with a simplified maintenance schedule that requires only oil changes between 100-hour inspections. Properly maintained, the TBO (time between overhaul) is 2000 hours or 12 years for the airframe, and 2000 hours or 3000 start cycles for the engine. All life-limited components have approved service lives of at least 2000 hours.

## UPGRADES

- **AIR CONDITIONING** system features front and rear vents that circulate cool air throughout the cabin. The air conditioning system weighs 42 pounds and has a 17,000 Btu/hr cooling capacity.
- **PILOT'S AVIONICS CONSOLE** places a GPS unit in an easy-to-see and reach position, minimizing time spent looking down. The console can accommodate a GPS, GPS/COM, or GPS/NAV/COM.



## POLICE EQUIPMENT

### FACTORY-INSTALLED, GYRO-STABILIZED FLIR THERMAL IMAGING SYSTEM

FLIR Systems' Ultra 8000 Thermal Imaging Camera is a multi-sensor, compact, lightweight turret with excellent infrared sensitivity. The Ultra 8000 incorporates an infrared sensor with 10x optical zoom and a daylight sensor with 18x optical zoom. The gimbal rotates 360 degrees and its stabilization technology enables crisp, detailed images. Optional auto tracker and extended range camera versions are available.

### POWERFUL SEARCHLIGHT

A 750-watt xenon lamp emits a 30 million candlepower high-intensity, focusable beam. The light can be directed by either the hand controller or, as an option, by slaving it to the nose-mounted gimbal. The searchlight is positioned below the right rear seat to allow left-banked turns without the light beam being obstructed by the skid.

### FOLD-DOWN MONITOR

A 10-inch, sunlight-visible color LCD screen easily switches between the FLIR and optional moving maps, and can be lowered when the system is not in use. The monitor mount accommodates various single/multi-band, Project 25 compliant FM police radios.

### OPTIONAL EQUIPMENT

A variety of optional equipment is available including: five-point shoulder harness system (front seats); P/A speaker and siren (100 watt); microwave downlink capability; LoJack; moving map systems; and a selection of UHF, VHF, and 800 MHz police radios.



*FLIR Ultra 8000 Thermal Imaging Camera.*



*Image captured by the FLIR Ultra 8000.*

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## SPECIFICATIONS

Engine Type	Rolls Royce RR300 300 shp turboshaft derated to 270 shp for takeoff and 224 shp continuous
Max Gross Weight	2700 lb (1225 kg)
Approx Empty Weight ((including oil, avionics and std police package )	1405 lb (637 kg)
Fuel Capacity (73.6 gal)	493 lb (224 kg)
Passengers and Cargo with Max Fuel	802 lb (364 kg)
Cruise Speed	up to 120 kts (138 mph)
Max Range (no reserve)	approx 325 nm (375 sm)
Hover Ceiling IGE at Max Gross Weight	over 10,000 ft
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Rate of Climb	over 1000 fpm
Max Operating Altitude	14,000 ft
7-Hole Instrument Panel	standard
Electrical System	28 volt

## STANDARD INSTRUMENTS

- Airspeed indicator
- Altimeter
- Digital OAT gage/voltmeter
- Hourmeter
- Magnetic compass
- Oil temperature & pressure gages
- Quartz clock
- Rotor/engine dual tachometer
- Vertical speed indicator
- N1 Tachometer
- Torque meter
- Turbine gas temperature gage
- Fuel quantity gage
- Ammeter

## ANNUNCIATOR LIGHT PANEL

- Engine fire
- Low fuel
- Low oil pressure
- Low rotor RPM
- Main gearbox temperature
- Main gearbox chip
- Tail gearbox chip
- Engine chip
- Anti ice
- Generator
- Fuel filter
- Cowl door
- Air filter
- EMU

## STANDARD EQUIPMENT

- Leather seats
- Dual HID landing lights
- LED anti-collision & navigation lights
- Panel and map lights
- Cabin heater and defogger
- Door locks
- Floor and hand intercom switches
- Integrated oil filter w/bypass indicator
- Engine air filter w/bypass indicator
- 160 amp starter/generator
- Pilot-side adjustable pedals
- Tinted windows
- Engine compressor rinse nozzle
- Rotor blade tie downs
- Belly hard point
- Windshield cover
- Robinson travel bag

## ROBINSON HELICOPTER COMPANY

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## DIMENSIONS

