

**F28F
Sentinel**



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Closer Than You Think...

It's the ultimate force multiplier. But up until now, you didn't think you could afford a helicopter, right? Think again...because with Enstrom, you're closer than you think. The economical F28F Sentinel from Enstrom is rewriting the rules of airborne law enforcement. Agencies around the world are quickly discovering that the Sentinel's legendary stability and remarkable efficiency make it the ultimate eye in the sky.

With the Sentinel you can worry more about busting bad guys, and less about busting budgets. The Sentinel's low acquisition costs make it an affordable addition to your force, and low operating costs mean you'll be able to afford to keep it there. With only 9 life-limited parts, and Enstrom's rugged, durable design, you'll be racking up flight time, not shop time. Thanks to numbers like these a Sentinel can make getting a new airborne program off the ground a lot more feasible, and it can breathe some life back into budget crunching existing programs as well.

No helicopter is worth a dime if it doesn't perform, and no duty is more demanding than law enforcement. The Sentinel is up to the challenge. Its Lycoming piston engine is turbocharged, providing plenty of power for hot, high, and heavy operations. And it's one of the most stable and easy to fly helicopters ever built, meaning pilots can stay on top of specific targets effortlessly, and fly extended missions without getting fatigued. FLIRs, Nightsun's, PA's...the list of crime fighting tools you can bolt onto an Enstrom is endless, and unlike other helicopters external accessories won't change the flying characteristics of the Sentinel. The extra large cabin provides plenty of room for the pilots, their gear, and all the necessary equipment to do the job. By attaching a cargo hook or external baskets, the Sentinel becomes a cargo carrier. You can even hook a Bambi Bucket on for fire fighting, giving you the ultimate in multi-role capabilities. And with its high inertia rotor head, energy absorbing landing gear, and protected controls, the Sentinel will have your pilots' backs, just like they have yours.

It's time. The F28F Sentinel from Enstrom...you're closer than you think.

www.enstromhelicopter.com

906-863-1200



Percentage of large US police departments involved in litigation resulting from ground pursuits: 49%

Percentage increase in apprehension rate when response is reduced from four minutes to two: 100%

Area that can be patrolled by a police helicopter vs. a police car in one hour: 7.6 square miles vs. 0.5 square miles

Menominee, MI USA



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Performance In The Air

Rotor Hub/Tail Rotor Authority:

The F28F Sentinel features a three-bladed, fully articulated main rotor system that has accumulated over 4,000,000 hours (and counting) without experiencing a catastrophic failure. Besides providing excellent response, the Enstrom design eliminates mast bumping, and allows for slope landings of up to 15 deg. This gives law enforcement pilots more options when choosing landing sites, allowing them to get closer to the scene without risking damage to the aircraft.

The Sentinel's tail rotor is two-bladed, and located on a stinger so that it is completely free and clear of the airframe. This provides excellent tail rotor authority, and eliminates LTE (Loss of Tailrotor Effectiveness) issues common on many other helicopters. The Sentinel doesn't require a wind azimuth chart since it doesn't have any wind limitations like many other helicopters. This type of performance allows the Sentinel to get into the air in conditions that would ground other ships. Once on scene, the Sentinel can carry out search patterns or orbits, and maintain aircraft orientation regardless of wind direction.

Endurance:

The Guardian carries 40 gallons of fuel, and can stay in the air for up to 3.5 hours. At a cruise speed of 74 kts, the helicopter has a maximum range of 229 nm. Thirteen gallon auxiliary fuel tanks can be fitted for additional range and flight time.

Flying Qualities:

The Sentinel has very benign flight characteristics. It is easy to fly, and very stable. Instead of sloppy and complicated hydraulically boosted controls, all F28F models use simple, direct mechanical linkages. This provides crisp, responsive handling and direct feedback to the pilot, which makes flying the Sentinel relatively intuitive even for low time pilots. All of this adds up to a reduced workload and fatigue for the flight crew, and allows the pilots to concentrate on the job instead of just flying the aircraft.

The Sentinel can be fitted with a number of external accessories such as cameras and searchlights, but unlike other helicopters, the Sentinel's flight characteristics remain the same when those accessories are bolted on or taken off. Additionally, the Sentinel can be flown with the doors off without affecting its handling qualities.

Cockpit Flexibility:

The Sentinel's cockpit is roomy with excellent visibility. The wide seats and adjustable controls make it comfortable for long missions. Enstrom offers a large variety of avionics to accommodate the police mission, and a number of audio panels are available to enhance crew communications and interface with optional airborne FM radios, keeping the pilots in touch with their partners on the ground. Finally, the Sentinel's cockpit can be made night vision compatible, for safe and effective night ops.

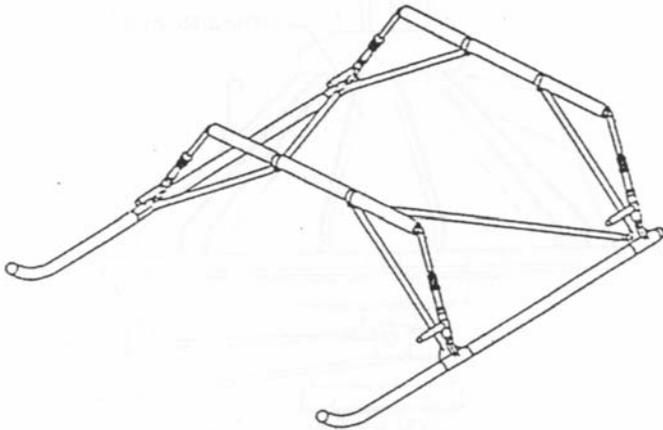


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The F28F Sentinel Airframe

Safety:

The F28F Sentinel is based on the legendary Enstrom F28 series of helicopters. Since production began in 1965, the F28 series of aircraft have been some of the safest helicopters ever produced. The Sentinel's airframe is rugged and built to handle repeated abuse. It starts with a heavy duty oleo-strut landing gear that will compress to absorb excessive landing loads. The landing gear also has extra bracing for sideways and run-on landings. The landing gear bolts to a welded chromoly steel "pylon" that houses the engine, fuel cells, and transmission. A metal firewall separates these components from the composite cockpit. The cockpit floor is made up of a number of crushable keel beams. Along with the seats, these beams are designed to deform in the event of a serious accident, absorbing the load and cushioning the pilots. Four-point inertial reel restraints strike the perfect balance between comfort and safety.



The Sentinel has exceptional autorotational capabilities, with a conservative descent rate. Unlike many other helicopters, in the event of an engine failure in the Sentinel the pilot has ample time to lower the collective. This is due to the Sentinel's high-inertia main rotor system which provides more than sufficient stored energy for safe, uneventful autorotations. Despite its varied uses, the Sentinel has one of the lowest accident rates in the world.

Noise:

The Sentinel is noticeably quieter than most other piston helicopters both inside and out. The main and tail rotors are relatively slow turning, which contributes to the Sentinel's low noise signature. This makes it the ideal aircraft for surveillance, or for patrolling noise sensitive areas.

Maintenance:

The Sentinel was designed with maintenance in mind. There are only 9 life limited parts in the Sentinel, and gearbox overhauls are available on an exchange basis for minimal downtime. Mechanical controls without hydraulic boost are simple to inspect and maintain. Five hinged access doors and five removable access panels provide ample accessibility. Enstrom provides some of the best customer support in the industry. During last year, Enstrom had a next day delivery rate of 94% for AOG parts and 88% for standard parts. Enstrom has even been known to stop the production line to make a part for an AOG aircraft.



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Optional Mission Equipment

Below is sample list of optional law enforcement mission equipment available for the F28F Sentinel helicopter. This list is by no means comprehensive. The Sentinel is a highly flexible aerial platform that can accept a wide array of equipment and modifications. Contact an Enstrom representative for more information.

- **Floats:** For maritime patrol or extensive overwater operations, floats provide the ultimate in flexibility, and an extra measure of security.
- **Public Address System:** Northern Airborne Technology's public address system utilizes a NAT PA250 amplifier, a set of TS9402 speakers, and an AA22-492 audio panel. The system outputs 250w of power, and can interface directly with the crew's headsets for ease of use.
- **Searchlight:** Spectrolab searchlights are perfect for nighttime surveillance. The crew can remotely operate both the focus and the position of the lights, and in some cases the lights can be slaved to a camera for ease of use. The SX-5 Starburst has a useful range of up to 500 meters, while the SX-16 Nightsun can range up to a mile.

- **Camera Systems:** The Sentinel can be fitted with video and IR cameras from both Gyrocam and FLIR. These cameras allow for long distance target recognition, night vision, range finding, and various other features depending on the model. The cameras are remote controllable from the cockpit, and can output to an Avalex display monitor and an optional Avelex digital recorder.
- **Cargo Hook:** The Sentinel can be fitted with a Breeze-Eastern cargo hook for long-line load lifting.
- **Bambi Bucket:** A "Bambi Bucket" or similar device may be attached to the Guardian's cargo hook for fire fighting purposes. The bucket can hold 72 gallons of water or retardant.





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[Any Mission...Any Time](#)



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