

Heli-Max UH-60 *Black Hawk*



Military operations in your backyard!

By Chris Susicke

PHOTOGRAPHY: CHRIS SUSICKE & JENNIFER SUSICKE

The Sikorsky UH-60 *Black Hawk* is quite possibly the most recognizable military helicopter today, thanks to its many appearances in media, video games and cinema. It has proven itself to be incredibly reliable and versatile in its 30 plus years of service, so much so that it was chosen to be one of our Commander-in-chief's steeds (Marine One). The *Black Hawk* has served honorably in many military conflicts so far, most notably in the Middle East.

Civilian versions of the *Black Hawk* (the S-70) are used in varied roles from border patrol and drug enforcement all the way to rescue operations. Needless to say Sikorsky Aircraft created a flying machine worthy of praise and admiration.

Heli-Max, who has gained a reputation for excellence in rotary-wing aircraft of all sizes, shapes and capabilities, decided that the *Black Hawk* deserved a place in their lineup. And not just some "sort of scale" interpretation; we're talking an ultra-detailed, display quality model that flies! And not just that; it is fully 3D capable! Let's take a close-up look at this unique model.

After un-boxing the *Black Hawk*, I was initially surprised at how small the model is. At $\frac{1}{43}$ scale, it is a mere 12.8 inches long (16.73 inches including the rotor blades). Next, I took in all of the detail the *Black Hawk* has to offer. As an occasional builder of plastic display models I was very impressed. Details include sliding doors, real

rubber tires, scale markings, and several antennas that are near human hair in diameter. Heli-Max's *Black Hawk* also features three bright LED anti-collision lights and a scale 4-rotor head. Incredible considering this is a model roughly the size of a shoe.

The mechanics of the *Black Hawk* are amazingly compact to say the least. Four servos, motor, ESC, TAGs (Triple Axis Gyro Stabilization) system, and the shaft and gear driven tail rotor all squeeze within the *Black Hawk's* scale body. The whole nose of the *Black Hawk*, which is attached via magnets, pops off to reveal battery and receiver access.

In terms of flight preparation the *Black Hawk* is basically ready for deployment.



This is everything you get with the transmitter-ready Heli-Max *Black Hawk* (above left). Note the included AC battery charger and foam "training tires". The



Black Hawk is a stunningly scale model right out of the box (above right) with loads of detail to take in. The scale four rotor head is Chris's favorite part.

AT A GLANCE

Type:	R/C scale helicopter
Rotor diameter:	16.7 inches
Length:	12.8 inches
Weight:	7.4 ounces
Battery:	7.4V 2S 600 mAh Li-Po
Radio:	6-channel transmitter with SLT or AnyLink and compatible 6-channel helicopter transmitter
Manufacturer:	Heli-Max
Dist. by:	Hobbico
	P.O. Box 9021
	Champaign, IL 61826
	217-398-3630
	www.helimax-rc.com



Some detail shots of the *Black Hawk*. Everything from the windshield wipers and grab handles (above left) to the scale tail rotor location and working anti-collision lights (above right) are authentically duplicated. Just look at all that surface detailing too!

Two options are available, those being a Ready-to-Fly version with Tactic transmitter and a Transmitter-Ready version, which I was provided. Both include a 7.4V 600 mAh Li-Po and AC balance charger. As to be expected, my first duty was to set up my transmitter to fly the *Black Hawk*. But wait, I fly Spektrum...what is a modeler to do? Enter the AnyLink, a device which allows a non-Tactic transmitter to bind and fly Tx-R Heli-Max and Flyzone models. [See February 2013 *FM*, pg. 44-45, for a complete review of the AnyLink system—Ed.]

With the AnyLink now allowing my radio to communicate with the *Black Hawk* I moved on to programming the model. The instruction manual does include some basic setup information for a few other radios. The only Spektrum radio settings provided are for a DX6i, and I found that a few of the settings are different for my DX8 (swashplate needs to be set to one servo and the Pitch channel needs to be reversed). However, a little trial and error saw my *Black Hawk* ready for the flight line.

It is crucial to mention that if you are new to setting up a helicopter either remove the rotor blades and/or be sure that your throttle hold is set properly to avoid accidents with the model spooling up unexpectedly. If you do not have experience setting up collective pitch CCPM helicopters I highly recommend doing some web research, where there is a plethora of information.


When I was happy with the way my *Black Hawk* was set up I got ready for the maiden flight. I used the included AC charger to top off the 7.4V 600 mAh Li-Po. After unfolding all four rotor blades, slipping the battery into its slot and popping on the nose I stepped back and advanced the throttle. The *Black Hawk* spooled up quickly and as it did I noted the rather high head speed. Lift off was achieved at around 60% throttle.

Once in the air I found the UH-60 to be both stable and mellow with the recommended throws and pitch/throttle curves. The small heli was not twitchy or sensitive and I would say that, set up per the manual, it achieves very scale-like flight. I had set my timer at 5 minutes, also per the manual, and I filled this time with getting a feel for the *Black Hawk* and doing some gentle flybys and pirouettes. The incredible detail of the model really shows in the air, and you'd be forgiven for occasionally mistaking it for the real thing.

After putting several more flights on my *Black Hawk*, I find myself liking it more and more. It's phenomenal presence in the air and gentle characteristics make me want to really rack up the sorties. The *Black Hawk* includes optional larger foam tires to soak up bouncy landings, but I have not found them to be needed. While I would not recommend it as a first heli due to the somewhat fragile nature of the scale body and lack of

training gear, I am confident it would make a great second machine (although a full line of parts is available should the worst happen anyway).

The *Black Hawk* is also fully 3D capable and will do virtually anything you ask of it. As an intermediate heli pilot I was perfectly happy doing some basic loops and rolls after bumping up the throws/curves a little, but I must admit seeing a *Black Hawk* inverted is a bit strange. Maybe I will leave the fancy stuff for my sport helis. The UH-60 is certainly small enough to fly indoors, but I would recommend against it unless you have a large flying area. The high head speed and intricate inner workings would make a blade-contact crash rather damaging. Handling the *Black Hawk* and removing/installing the removable nose does require a bit of attention as it is easy to damage the fragile antennas. Heli-Max was no doubt aware of this as a few spares are included.

The Heli-Max *Black Hawk* is truly an engineering marvel for how much tech was fit into such a small, incredibly scale package. A general rule in the heli world is "bigger flies better," but I can honestly say the UH-60 flies as solid and stable as helis (literally) several times its size. If you are a scale aficionado like me, you will no doubt appreciate what Heli-Max has done here, and love every minute of lifting off to that next clandestine mission! 



Battery access on the *Black Hawk* is gained by the removable nose (above), which is held in place with magnets. Care must be taken when removing and re-installing it due to the small antennas flanking it. The real thing about to make a troop drop or micro R/C model (at right)? With all that incredible detail sometimes it's tough to tell!

PHOTO: JENNIFER SUSICKE

