

# HITEC FLASH 8

Vaughn Entwistle reviews Hitec's newest addition to its mid-range radio control systems

As recently as March of this year RC Model World featured a review of Hitec's new Flash 7 transmitter. Never a company to let the grass grow under their feet, Hitec is now releasing the Flash 8. So why is a new radio being released so soon after the Flash 7, and what's different about it? Well, the name is a dead giveaway as to one of the major changes. But the Hitec Flash 8 is more than just one channel up on the Flash 7, as this review will show.

## Fresh Out Of The Box

Like the Flash 7 the Flash 8 bucks the modern trend of a form-fitting foam box and comes packaged like a Waitrose Avocado in a black plastic lower tray and a clear plastic upper lid (for freshness?). As ours was a sample and amongst the first off the production line, we were missing the outer box, as well as some of the other bits and pieces normally included (heavy-duty switch harness, etc.) But the review kit did include the very nice Optima 7 receiver with BODA aerial and holder (more of that later).

## Face To Interface

The look and feel of a transmitter is always a major factor in deciding to buy a new radio. The Flash 8 is surprisingly light in the hands, yet does not look or feel cheap or flimsy – kudos to Hitec's engineers. Looks are always subjective, but as with an automobile the 'face' of a transmitter has a definite emotional appeal. I find that a few modern transmitters have an 'angry robot' look and I half expect them to transform into a Decepticon at the flip of a switch.

By contrast the Flash 8 has a clean, smooth appearance with a satin-brushed metal upper fascia that would make a Cyberman blush. Tastefully applied red anodising effect on the control sticks and bezels adds contrast and eye appeal.

## Power On

The Flash 8's On/Off switch is different than any I had encountered before. Set in a deep recess just above the neck strap loop, it is a push-on, push-off button. Push the button and the Flash 8 wakes up instantly. And I mean, like – wow – it's fast! My immediate concern was the possibility of accidentally prodding the On/Off switch while groping for a trim switch and turning the transmitter off while flying a model. Thankfully, that's highly unlikely as the On/Off switch must be depressed and held down for a number of seconds before the Flash 8 goes to sleep.

*Right: Clean and uncluttered, the satin silver finish on the Flash 8 would make a Cyberman blush*



*The 1400 mAh LiFe battery pack is accessed through a panel at the rear of the transmitter*



*The top trim switches, marked LT and RT, are for additional channels*



The left hand side has a slider and two 2-position and two 3-position switches. All switches are assignable



Flash 8 features the usual digital trims. Push the power button and the Flash 8 wakes up instantly



The right hand side features a slider, plus three 3-position switches and a temporary switch



The Flash 8 has a super bright LCD screen. The radio is programmed via the Jog Dial and Back Button at the right of the screen

Like the Flash 7, the Flash 8 has a super-bright LCD screen and a back-lit Hitec badge at the top of the tranny which changes colour from blue (if it's on standby) to green (to show that the Tx is transmitting). Like many modern computer radios the Flash 8 simplifies programming by providing templates for Acro, Glider or Helicopter models. (Although I wish radio manufacturers would provide a template for electric sailplanes, as this type of model is becoming increasingly popular and requires a conventional throttle capability, as well as advanced glider functions, such as butterfly/crow braking, trailing edge camber control, etc.)

The transmitter is programmed using only two buttons: a Jog Dial and a Back Button. The Jog Dial rotates to scroll through menus and also functions as a button push. Model templates are selected by turning the Jog Dial and then pushing to select. I did have a few initial problems when trying to access the System List in order to bind the Flash 8 to the Optima 7. The manual instructs users to press both

the Back Button and the Jog Dial at the same time to enter the System List. After some frustration, I found that I was hitting both buttons with a quick stab, whereas the correct method is to depress and momentarily HOLD both buttons down. Once I figured that out, I never had a problem again.

Pressing and momentarily holding the Jog Dial brings up the usual functions such as Servo Reverse, Sub Trim, Dual Rates and Exponential, EPA (End Point Adjustment) and three Programmable mixes. Delving deeper into the menus brings up Flight Modes and butterfly/crow braking for gliders or Pitch and Throttle curves for helicopters. Curves are also provided for some airplane functions.

#### A Whole Lotta Shakin'

The Flash 7 is equipped with audible warnings for situations such as low transmitter battery or switching on with the throttle stick above idle. Big brother Flash 8 has the same audible warnings but goes one further with a vibrate feature

that reminded me of a 'stick shaker' on a commercial airliner. The vibrate feature makes warnings even harder to ignore.

#### Choice Of Receivers

The Flash 8 can be configured to work with either Optima or Maxima receivers. (Maxima receivers work only with all-digital servos.) Our review Flash 8 came with the Optima 7 receiver. This slim-line, seven channel receiver is perfect for the narrow fuselages of gliders and small electrics and brings multiple telemetry capabilities, including a low Rx battery warning.

I was at first puzzled to find what I thought was a bind plug in the Optima 7, but it is actually a jumper in an SPC (Supplementary Power Connection) port. The receiver normally gets its power from a receiver battery (4.8 – 6.0 V), BEC or ESC. However, the jumper can be removed and the receiver powered separately from the servos by a dedicated receiver battery of up to 35 V. Clever.

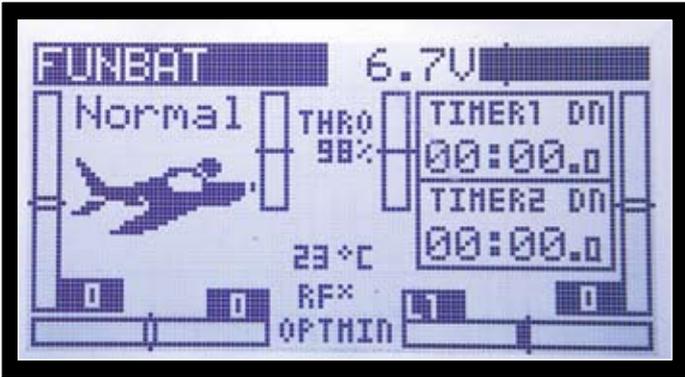
Rather than the usual twin aerials found on most 2.4 receivers the Optima 7 features



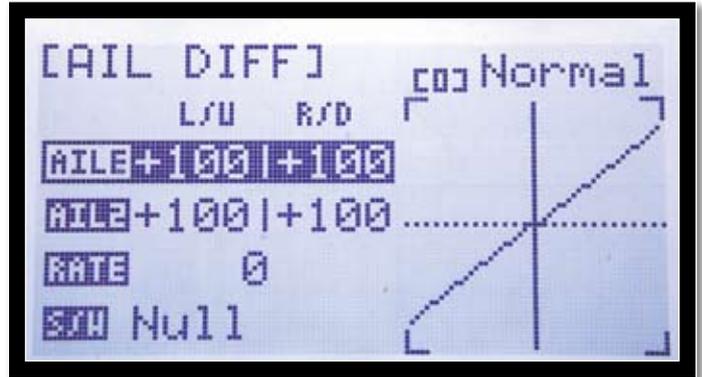
Rear ports for PC Data Interface (top), Trainer Socket (middle) and DCS port (bottom) for powering accessories like FPV goggles



The scanning screen lets you see which frequencies are the most congested



The Normal screen for an aeroplane. At a glance you can see the model name (up to 8 characters) and which model type (Acro/Glider/Heli) has been selected. Timers and trims are also displayed here



Aileron differential screen with curves

Hitec's BODA (Boosted Omni Directional Antenna System), where the thick end of the single aerial houses the BODA wizardry. Once again, by eliminating the need to set two aerials positioned at 90 degrees to one another (often difficult to achieve in the narrow fuselages of moulded gliders) the single BODA aerial simplifies installation. Hitec even thoughtfully includes an antenna holder for mounting in the model.

*(STOP PRESS – J.Pekins have just informed us that they will be selling the Flash 8 with an Optima 9 receiver)*

### SLT

Following Horizon's successful Bind-N-Fly series of models, SLT (Secure Link Technology) is being used by companies such as Hobbico to produce a line of Tx-ready models that are ready to fly straight out of the box (after binding to a compatible transmitter). On the Flash 8, the SLT mode can be accessed by entering the System Menu List, selecting Spectra, and then scrolling through the list of compatible receivers to find and select SLT. The transmitter must then be bound to the SLT receiver following the procedure in the manual.

### Scan Mode

Like its Flash 7 cousin, the new radio boasts a unique scan feature that allows the Flash 8 to monitor frequencies in use at a flying site and choose the least busy. Scan Mode is a highly useful capability at flying sites with frequency congestion, such as indoor model meets and FPV events where the air is sizzling with signals. The only downside is that you will then have to rebind the transmitter to the receiver. Still,

I hope other radio manufacturers follow Hitec's lead on this one.

### Breathing LiFe Into The Flash 8

I must admit that I groaned when I read the Flash 7 review and found that it came with just an empty battery box. While this does allow Flash 7 owners to choose their own battery chemistry, it reminded me of my first radio transmitter purchased back in the 1980s, which also came with just an empty battery box. The battery box was sized for AA disposables and it was difficult to squeeze in rechargeable nicads. Because of that experience, selling a radio without a battery seemed like a step backward to me.

However, I was ecstatic to learn that the Flash 8 comes with a charger and a 1400 mAh 6.4 V LiFe pack already installed! Owners have the option of swapping the LiFe pack for other battery types, but will then have to program the radio accordingly through the System Menu.

I'm a big fan of LiFe batteries and am slowly transitioning my large sailplanes from NiMH batteries to LiFe packs. LiFe batteries are one of the newest battery choices available and the advantages are many. LiFe packs charge up quickly and have a low self-discharge rate so they hold a charge between flying sessions. And LiFe's are less pyrotechnically inclined than LiPo cells.

Modern computer radios with LCD screens really guzzle the electrons, especially during a programming session, so the extra oomph provided by the LiFe pack is a welcome advance. During a normal flying session power consumption is much less, as the LCD backlight shuts off to prolong battery life.

I was impressed by the thought that went into the Flash 8 battery compartment. Easily accessible through a panel on the back of the radio, the 1400 mAh LiFe is restrained by a foam pad that provides shock absorption and keeps it firmly in place. This is a big change from some of my early transmitters, where the NiCad pack lounged unrestrained in acres of empty space and would ominously clunk from side to side as I walked across the flying field.

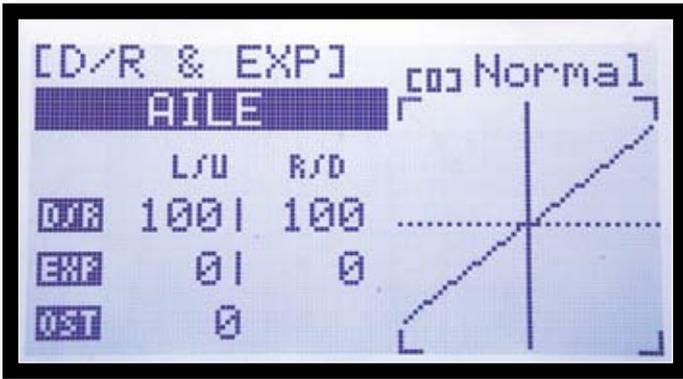
### A Nice Manual

I would be remiss if failed to mention the manual that accompanies the Flash 8. Clear, concise and easy to follow, I liked the format and simple line art drawings of the programming screens. As computer radios become more complex and increasingly capable, a decent manual is greatly appreciated. As I typically end up sitting on the lounge floor, model set up in front of me, transmitter at my knees, it's very nice to have a real printed manual to page through rather than trying to squint at a laptop or pad device (plus a paper manual better tolerates coffee stains and drips!)

### System List

Like many other modern radios the Flash 8 uses two menus to program a model: System List and Function List.

System List is accessed by pressing the Jog button and Back Button at the same time. As I already mentioned, I had difficulty with this because I was pouncing on the buttons and expecting the System List to appear (based on prior experience with other manufacturers' radios). To get to the System Menu you have to press both buttons simultaneously and HOLD until



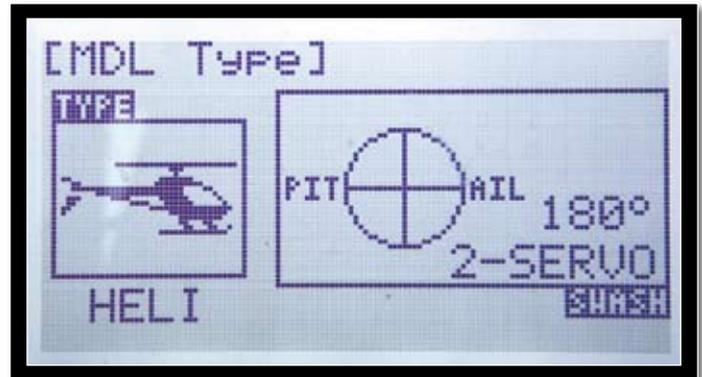
A similar screen displays Dual Rates and Exponential



The Flash 8 also supports programming for delta/flying wing models



Templates, such as this one for glider wings, help speed up programming



Flash 8 supports all the popular swashplate types for model helicopters

the System Menu appears. I noticed that the Flash 7 reviewer had the same problem with that radio, so I feel less of a nonce.

After turning on the radio, press both buttons to enter the System List where a model memory can be selected and named. Here you can also copy, reset, or delete a model. The Flash 8 has a 30 model memory capacity, up ten from the Flash 7. (Does anyone really have 30 flight-ready models at one time?)

The Flash 8 has three basic templates (Acro/Glider/Helicopter) to help speed programming. Choose your wing type (number of flaps, ailerons, spoilers, etc.) and then your tail type (V-tail, X-tail, ruddervators, etc.) The helicopter template provides a list of popular swash plate types.

**Function List**

The Function List is accessed by a single push of the Jog Dial (quicker to access because it will be used more often).

For Acro and Glider models the Function List includes the usual basic set up functions such as Servo Reverse, Sub Trim, EPA (End

Point Adjustment), Dual Rates, Exponential and three Programmable Mixes.

Without regurgitating the entire manual, scrolling further through the Function List takes you to things like Aileron/Rudder mixing, Throttle Curve, Flight Conditions (what most people call Flight Modes), etc. The use of only two buttons and the clear menus help simplify the programming experience and, unlike some radios I have owned, I never felt like I was getting irretrievably lost in a maze of menus and sub-menus.

**The Final Word**

The Flash 8 is a lot of transmitter for a reasonable price. It's suitable for a beginner but has enough channels, programming capabilities and telemetry to take a modeller from beginner to advanced, and it can handle any model from a two-channel foamie to a jet. With its eight channels and thirty model memory, it will take a long time to outgrow. I think it's going to find a home in a lot of flight boxes.

**RCMW**



An Optima 7 receiver was supplied with the sample radio, but just before this issue went to print JP informed us that their sets will be supplied with an Optima 9 Rx

**RC MODEL WORLD**  
**DETAILS**  
**PRODUCT INFORMATION**

<b>NAME:</b>	Flash 8
<b>MANUFACTURER:</b>	Hitec
<b>DISTRIBUTOR:</b>	J Perkins
<b>WEBSITE:</b>	www.jperkins.com
<b>PRICE:</b>	£229.99 SRP (inc. an Optima 9 Rx)
<b>PARTS SUPPLIED:</b>	Optima 9 receiver, switch harness, charging adapter, manual, LiFe battery
<b>OPERATING FREQUENCY:</b>	2.4 GHz
<b>CHARGING ADAPTER:</b>	9 Volt 600 mAh
<b>TRANSMITTER BATTERY:</b>	6.4 V, 2-cell 1400 mAh LiFe
<b>FEATURES:</b>	Generation 2 AFHSS/SLT flexibility 4096 resolution 7ms frame rate with Maxima receivers 30 model memory 10 character model names Acro/Glider/Helicopter programming
<b>DISLIKES</b>	Manual could be clearer about pressing and holding both Jog Dial and Back Button to enter System Menu
<b>LIKES</b>	Lightweight • Quality feel • Clean styling • Clear manual