Seagull E-Pioneer

ANDY AND DAN ELLISON CHECK OUT THE £55 TRAINER THAT'LL TAKE YOU FROM RAW BEGINNER TO 'B' CERTIFICATE SUPREMO

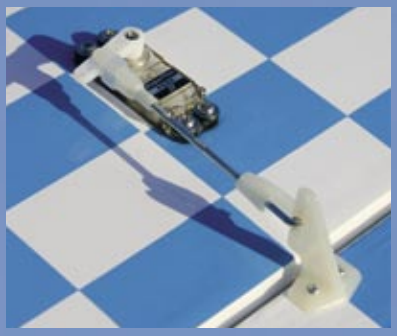
The price is significant, indeed the E-Pioneer represents a lot of model for the money.

A better trainer you'd be hard pressed to find - electric or i.c.

The electric revolution marches on and with the new E-Pioneer, Seagull have addressed the needs of the R/C flyer who wants a trainer that actually looks like a typical i.c. job. Even electric flight cynics and die-hard petrol heads like Barnstorming Bertie will have to admit that the gulf is narrowing ever closer.

Aside from a few tweaks to reduce a little airframe weight, the E-Pioneer could just as easily have been intended for i.c., but isn't. From the outset this model has been designed as a proper electric powered trainer and despite the built-up construction, it lacks the fragility I've come to associate with electric powered models of this class.

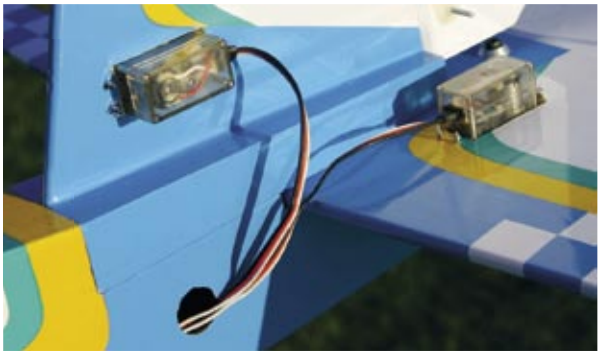
I might have expected a foam veneered wing and an option for i.c.



These GWS 'Park' servos have been just fine in the Pioneer , you'll need 5 of them mind.

power but no, there's a dedicated space for the battery (and a big one at that) but no provision for a fuel tank. It's electric right from the word go, though as you open the box you'd be forgiven for thinking that the kit had undergone some terrible transit accident. It hasn't! Instead, it's intended that the model can be broken down into its component parts and returned to the box for transport or future storage. In this respect the design reflects some innovative thinking, like the way the whole front-end of the fuselage (forward of the wing seat) can be removed. Moreover, the rudder and elevator servos sit housed within the bolt-on fin and tailplane, whilst the two-piece bolt-on wing panels and the large central fuselage access hatch all contribute to one of the most easy-build aircraft to have crossed my bench.

So confident was I that the E-Pioneer would virtually flirt together, I decided it was finally time for my eight year old lad Daniel to step up to the plate and put together his first proper R/C model aircraft.



The EnErG Pro motor from Perkins has plenty of grunt - sufficient to provide an impressive aerobatic performance.

The unusual servo locations are a result of the design remit that allows disassembly for transportation and storage.

SCREW-FIX

Distributor J. Perkins had included for the review, one of the motors from their EnErG range - a C4220-12 to be precise, and a chunky lump it is too. At 900 rpm per volt, some careful thought was going to be needed when fixing a propeller of sufficient size to soak up the energy from the 3100mAh 4s Li-Po that was also provided. I eventually settled on an APC-E 12 x 6.

A set of pre-fabricated motor mounts are supplied to suit an inrunner or, as in this case, outrunner motor. Actually, if you don't count the drop of cyano' on the hinges, fitting this motor mount to the front bulkhead is the one and only gluing experience in the entire build.

The lightweight wide chord wing measures over 61" in span so the E-Pioneer has a certain presence. I was also pleased to note that the heavy undercarriage wires, decent size wheels and steerable nose leg mechanism all feel right for the model. There's a reassuring absence of fragility in these key areas and consequently the builder is left with a model fit for purpose, be it bumpy grass strip or tarmac runway.

Granted, the removable front section, two-piece wing and tail mounted servos mean that you're going to be looking at a fair amount of additional wiring. A servo reverser may also be required if you're not careful with servo selection, especially if you want to operate the rudder and nose-leg servos together without trick-mixing at the transmitter.

Holes for the plastic control horns are pre-drilled and hidden under the covering (which sadly is of the sticky-backed printed plastic variety, rather than heat-shrink film) so you'll need to look closely to find them. With the captive nuts for the tailplane pre-fitted and the top fuselage centre-section dropping nicely onto the supplied magnetic catch, the model can be rigged in a little less than five minutes. This can be speeded further by chopping off a large proportion of the plastic bolt threads, confining them to the part that you actually need.

POWER PACKAGE

We used 2.8kg torque, GWS Super Tec 'Park' servos from the J. Perkins range and though fairly small, even these were a little oversize for the pre-cut holes in the airframe. Opening them up with a utility knife wasn't such an easy task especially as the mounting plates in the wing and tailplane are plywood - 6mm ply at that! A good

The colour scheme is good, a checker underside providing superb visibility.

The curious plug-in nose section means she'll pack away to practically nothing.

The flying qualities are pretty sprightly on a 4s pack although a 3s would be better for beginners.

level of care has to be taken here to avoid damage to the tailplane and fin so Dad took over much to the annoyance of lad. Still, I made peace by letting him loose with the drill to make the servo screw pilot holes.

A four-cell Li-Po and a 12 x 6" prop would be churning out some amps so I needed a speed controller that could handle the job. A few of the lads at the club had been benefiting from the global economy with punts on eBay for Dynam speed controllers. Here, then, I found a 70 amp ESC with one minute to go and no bids, snapping it up for £19.95, plus a tenner postage. It arrived from Hong Kong in 3 days, three days! Heck, it even came with a set of 4mm gold connectors and a decent set of instructions.

A four-cell pack meant that the ESC shouldn't have BEC circuitry so I fitted a separate 800mAh receiver battery to drive the plethora of servos secreted about the model. With the battery tucked under the wing, no gear shuffling or additional ballast was required to achieve the correct balance point.

The stated flying weight of 4 - 4.5 lbs underestimated our set-up. Truth is, complete with two batteries, five servos, a switch, receiver and ESC, the review model weighed in at exactly 5 lbs, although the 600+ square inches of wing still make the E-Pioneer a bit of a floater.

PIONEERING

It was abundantly clear by the way the E-Pioneer jumped into the air and shot vertically skywards that there's just no need for the extra power a four cell Li-Po provides. There's a lot of grunt in this little package and that is not always a good thing for a novice pilot. The model is far more sedate on three-cells and this would be my battery recommendation.

The light weight and the low inertia means the E-Pioneer can be really flung around and a pilot will have no difficulty in transgressing from the first flight at the patch right up to 'B' certificate level. There are, of course, cons associated with this low weight and the biggest I've come across is the effect of low level turbulence in higher winds. Here the somewhat sluggish aileron authority afforded by the narrow control surfaces mean the requirement to suddenly pick up a wing can cause moments of consternation when landing. Conversely the yaw and pitch controls are very crisp, so the rate switches were required for Daniel's first flights.

The model tracks well and is easy to land even with an approach comprised of short, abrupt, speed scrubbing turns. It's a little more flighty than an equivalent i.c. powered model which is down to the lower weight, but the smooth reliability of the electric powertrain generates confidence by the bucket-load. The flare can float on forever in a zero headwind and the vulnerability of the externally mounted elevator servo to runway water spray is an unexpected nuisance. Other than that the Seagull E-Pioneer is a fantastic model for the newcomer who doesn't want to follow the gas guzzler route. You'll not go far wrong by sticking with three cells and sensible servos.

DATAFILE

Name:	Seagull E-Pioneer
Aircraft type:	ARTF electric trainer
Manufactured by:	Seagull
UK distributor:	J. Perkins Distribution Ltd. Tel. 01622 854300 www.jperkinsdistribution.co.uk
RRP:	£54.99
Wingspan:	$6^1/_2$" (1560mm)
Wing area:	606 sq. in.
All-up weight:	5 lbs
Wing loading:	19oz / sq. ft.
Functions (servos):	Aileron (2); elevator (1); rudder (1); nose wheel steering (1); throttle (0)
Rec'd motor:	JP EnErG 4220-12 900Kv
Rec'd ESC:	60 amp (70 amp used with 4s battery)
Rec'd battery:	3100mAh 3s 11.1V Li-Po (4s used)