HALE HALL MODEL CLUB NEWSLETTER

DECEMBER 2022

Club website link - https://hhmac.bmfa.org/

Hale Hall YouTube channel - HH YouTube

Welcome to the December newsletter. This month we have a report on an ARTF transformation and some gentle exercise for your brain. Finally, a few dates for your diary. May I take this opportunity on behalf of the committee to wish you all a happy Christmas and a prosperous new year.

AGM

The AGM was held at the BAE lightning club on 6th December. There was a reasonable turnout of 27 Members. For a detailed record of the meeting read the report distributed by Dave Ringland. Here is a summary of the main points.

- The club subscription has increased slightly to £90 for 2023.
- We held two very successful training days this year, we plan to repeat this again in 2023.
- Recruitment of new members was discussed. Post meeting note - I have contacted the local Scouts and the ATC with a view to collaborating in some way. So far, we have had one enquiry from the Catforth cubs. We are planning something with them in the summer.
- We have the following events planned for 2023. Show and Tell, Scale Day, Summer solstice, Fun Day. Mince pie meet and two training days.

Mince pie meet

Our next club event will be the mince pie meet. It will be in the week between Christmas and the New Year when the weather is suitable (not looking that promising at the moment!). Keep an eye on your e-mails / WhatsApp group. There will be hot soup and an abundance of mince pies to reward you for turning up. A few hardy souls venture out into the cold with a model but the majority of the time is spent putting the world to rights in the hut.

Corsair remodelled

Neil Skinner is well known for his love of all things related to Navy aviation. A year or so ago he acquired a Hanger 9 Corsair when Mr O'Neill got bored with it (since replaced with another Corsair of course! 🙄) Over to Neil for the story of his recreation of Corsair KD431.

The aircraft is a Hanger 9 Corsair, the old ARTF .61 version, wingspan 65-inch. It was given to me by Mr Andrew O'Neill and he had obtained it from somebody else, I think. There were a few bits missing and it was part built in that the wings were joined and ailerons fitted as well as the rudder and tailplane. The old mechanical retracts were part assembled. My plan was to strip off the covering and re-do as the F4U Corsair at the Fleet Air Arm Museum. Type into Google KD431 for pictures and stuff. This 'plan' was to be simple and basically add electric retracts, petrol engine and colour scheme!

The Wings

The wings were started first with the intention of fitting E-Flite electric retracts and it soon became apparent this was not a simple job. After much carving, strengthening and levelling it was discovered that the wings were not level to the centre section! The offending wing was sliced off, a very tough job due the glue binding the razor saw blade. This was re-set level and true and the retract mounts re-jigged again. The wheel wells were opened up to accept 4-inch wheels (near scale) and trimmed. One unhappy effect was that this model has the u/c set just in from the lowest point of the wing making the wheel diameter, width and depth of set critical to avoid the wheels peeking out once retracted. I might yet go for a smaller diameter! The later larger versions have the retracts as per the real ones on the lowest point. Amazing the stuff that you learn along the way. Being who I am, I decided after much looking that I would add lights and more than just the wing tip lights the three navigation lights found on this aircraft (not all versions had them and not always the same light colours).

The ailerons were taken off and rounded and fared to be more like the real aircraft and Robart pin hinges were used. This was only done because the original install was poor with the blade type hinges so remedial work was necessary. (P.S. none of the defects are anything to do with Andrew as he simply passed on the model to me untouched).

The wing centre section bulge (fuselage belly) was missing so some Styrofoam was sent for and this was carefully shaped to fit the fuselage first then sculpted out to sit over the wing.

Next electrical connections were installed with a 'D' connector system for ease of field assembly.

The wing was covered in Solartex and hand painted in US Navy glossy sea blue enamel from Colourcoats who do a range of scale paints. The roundels were also painted in the same enamels and scale RN/RAF colours of the period.

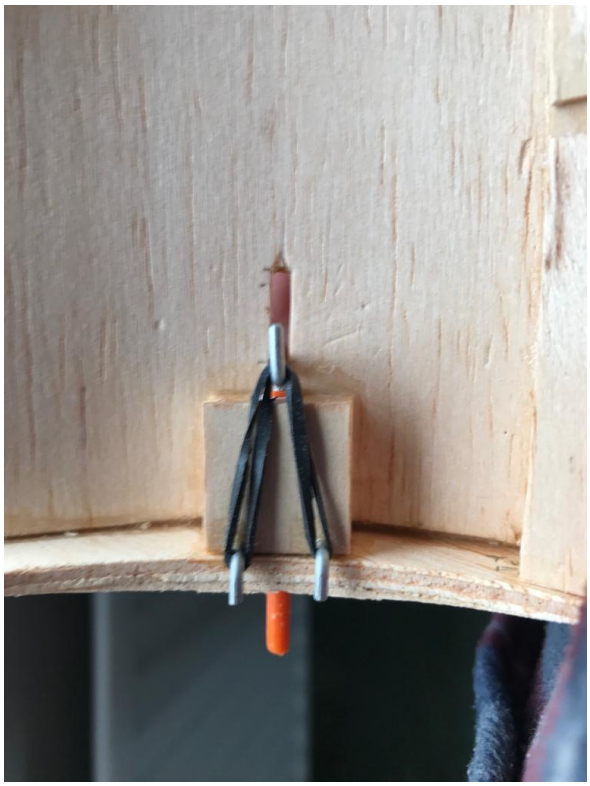
Fuselage

This was stripped and the elevator and rudder removed and re-installed with Robart pin hinges, again due to defects in the original assembly. The rear wheel area was carved out and a scale retract set bought from FlightLine RC who happen to do a foamy about this size. Unfortunately, the retract was rubbish save the wheel and leg Luckily, I had an E-Flite retract that could be modified which saved the day. Next the elevator and rudder controls were changed to be inside the fuselage and lights also fitted. It took some time to decide whether the upper fuselage and lower fuselage flashers were scale or not and what flash period and colour, so it is what it is.

A big decision was to make sure the receiver ariels were 'visible' this has been achieved by the vertical one poking up in the cockpit and the lower one along the fuselage under the covering by the back of the wing. They can be 'seen' from above, side and below and hopefully front and rear.

A new servo mounting plate was made and the fuselage 'D' connecter installed, petrol tank installed and an electrical access panel formed. Securing the control snakes in the fuselage to prevent bending was quite a job.
The engine opted for was a DLE20RE which has, for some reason, a slanted spark plug. It would have been better with a regular side exhaust on reflection. The exhausts were intended to be scale and the fuselage was modified to fit custom made fibreglass moulded fairings but due the spark plug and rear exhaust this may have to be left.
Due to the length of the engine the cowl is right on the edge of the bulkhead but a bit of research shows that the fuselage on the real aircraft is curved under the cowl so an extension was made and fitted.
The next job is to cut the cowl and fit, cover the fuselage and fair in the tail-retract. Then balance, hopefully using the battery without any ballast? Also hoping weight is somewhere near the original? Should be only the extra for the engine and retracts???
Then try and solve a wheel diameter problem that I thought I had designed out.
Can I get those nice leg covers on or should I leave it?
Line up the wheels, check the throws and varnish in fuel proof clear satin. Radio checks, taxi and run-in etc before its maiden.

Looking good Neil, I hope to be doing a Maiden flight article soon!!



Neat latch

impressive retracting tailwheel

Did you know?

The Corsair was designed to meet a 1938 U.S. Navy requirement for a single-seat shipboard fighter. The Navy wanted the fastest fighter ever built so Rex Beisel, head of the Vought engineering team, made it clear that speed for the proposed aircraft was king. The design team focused on maximizing thrust and minimizing weight and drag.

A prototype of the F4U Corsair.

The new fighter would incorporate the largest engine under development at the time: the 18-cylinder Pratt & Whitney R-2800 Double Wasp twin row radial. The powerplant delivered an impressive 2,000 hp. Water/alcohol injection in later versions added another 450 hp. Calculations suggested that the new fighter needed a propeller over 13 feet in diameter in order to exceed 400 m.p.h.

Wind tunnel tests indicated that to minimize drag, the wing had to be faired in where it joined the bottom of the circular fuselage. Several configurations were considered but each required an abnormally long landing gear which would take up precious space and be heavy and complex.

Rex Beisel came up with the idea to bend down the inner wing to allow a shorter undercarriage. With that, the Corsair's most distinguishing feature, the inverted gull-wing, was born.

The first production contract for 584 Corsairs was awarded on June 30, 1941. The first F4U-1 was delivered to the U.S. Navy on July 31, 1942.

The initial carrier-landing qualification for the F4U Corsair was a disaster. The long nose restricted forward visibility and stiff undercarriage struts often resulted in the aircraft bouncing off the carrier

deck. The Corsair also had a vicious stall resulting in a sudden loss of lift on the left wing. Attempts to recover the situation by applying power just made things worse due to the torque reaction of the massive propeller. This led to the early marks being called the “Ensign Eliminator.”

For these reasons, most Corsairs initially went to Marine Corps squadrons which operated off land-based runways.

It was the involvement of the Royal Navy’s Fleet Air Arm that finally resulted in an aircraft that was much better suited to carrier operations.

The Corsair and the Royal Navy.

In the 1940s the Royal Navy lacked a modern purpose designed carrier aircraft. The Sea Hurricane and the Seafire lacked the range required for operations in the Pacific and were prone to overheating. During WW2 the Corsair was offered to the Royal Navy under a licence agreement with the American government. The Corsair was robust, fast and had good range and payload.

In Royal Navy service, because of the limited hangar deck height in several classes of British carrier, many Corsairs had their outer wings "clipped" by 8 in (200 mm) to clear the deckhead. The change in span brought about the added benefit of improving the sink rate, reducing the F4U's propensity to "float" in the final stages of landing.

A Royal Navy Corsair aboard HMS Glory, 1945.

The Royal Navy developed a number of modifications that improved visibility and made carrier landings more practical. Among these were a bulged canopy, raising the pilot's seat 7 in (180 mm), and wiring shut the cowl flaps across the top of the engine compartment, diverting oil and hydraulic fluid spray around the sides of the fuselage. A turbulator was added to the right wing, this ensured that both wings stalled at the same time making the low-speed handling more predictable. The poor view around the long nose was countered by developing a curved approach technique. This was something they had already encountered with the Seafire. Finally, the response of the undercarriage oleos was improved by adding a bleed valve.

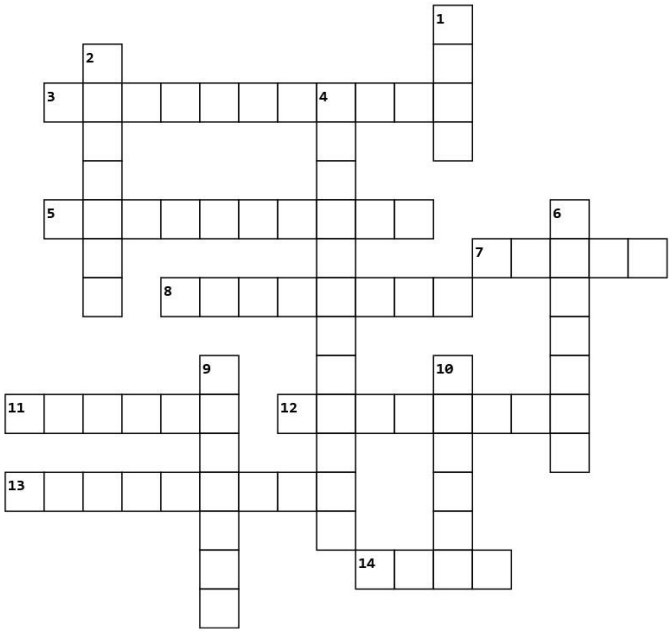
In total the Royal Navy took delivery of 2,012 Corsairs, most of them were operated from British carriers in the Pacific in the latter stages of WW2. After the war the loan agreement stipulated that the UK paid for the aircraft or scrapped them. The cash strapped government couldn't afford to pay so the majority of the aircraft were dumped into the sea!

Some Corsair Interesting facts:

- On May 29, 1940, the XF4U-1 made its maiden flight, more than two years before the F4F Hellcat and North American P-51 Mustang flew.
- On a test flight on October 1, 1940, the prototype XF4U-1 flew at 404 m.p.h. making the Corsair the first U.S. single-engine airplane to exceed 400 m.p.h. in level flight.
- The last of 12,571 Corsairs rolled off the assembly line on January 31, 1953, earning the distinction of the longest production run of any piston-engine fighter in American history.

Crossword

Some gentle exercise for your brain, no prizes !!!



Across

3. BMFA headquarters
5. Designer of the Tyro major
7. Wott Cristian name
8. aircraft body
11. Japanese radio manufacturer
12. The wooden wonder
13. Ace model kit manufacturer
14. Aircraft company that made the Anson

Down

1. fighter aircraft by Mitsubishi
2. Home of the fighter collection
4. home of the Blackburn B-2
6. Engine in the MK24 Spitfire
9. Keil kraft glider
10. yaw control

What's on

Hale Hall Events

The club have the following events planned this year, exact dates may be weather dependent!

Mince pie meet – between Christmas and New Year

Parting shot

So that is the end of another newsletter, I hope you found it interesting. For future newsletters I would like to include as many of your projects and especially first flights as possible. So please document the occasion with a few photos or contact me and I will try to come down with my camera. I do have some ideas for future articles, but the success of the newsletter will only continue if you, the members, provide me with some copy. Anything aircraft related will be more than welcome, days out, trips, build logs, full size or something for the Curiosity Corner.

Don't be shy; if you don't fancy writing a full article, just send me a few notes and I will do the rest.

If you have any suggestions on subjects to be included in the Newsletter, drop me a line.

In these days of data protection we need to ask members if they have any objection to be included, either by name or photograph, in the Newsletter. If you do not wish to be in the Newsletter please let me know.

Cheers,

Andy Holden.

You can contact me at andy.holden56@btinternet.com