

# **Background – The World's First Aircraft Carrier:**

It was the ever aggressive Royal Navy seeking methods to attack the German High Seas Fleet in its bases during WWI that spurred development of the aircraft carrier. On December 25, 1914, seven float-plane aircraft from the seaplane tenders *Engadine*, *Empress*, and *Riviera* bombed German shore installations and Zeppelin hangars in Cuxhaven at the mouth of the Elbe River on the North Sea. Although the raid inflicted only minor damage and only three aircraft returned from the mission to be hoisted back aboard, the implications were clear. Ship-based aircraft could take the fight to an enemy increasingly reluctant to leave its bases.

The Royal Navy engaged in a great deal of subsequent experimentation. The drawbacks of the existing seaplane tenders were many: all were conversions from civilian craft; they could only carry limited numbers of aircraft; they were slow; and the aircraft had to be lowered over the side to be launched. Prevailing North Sea weather conditions often made this impossible. Recovery was perilous for both the ship, which had to stop, and for the aircraft, which frequently proved too fragile to survive landings in rough seas.

The take-off issue was solved by providing a ramp at the bows of seaplane tenders which float-planes equipped with a wheeled trolley could use to get airborne. However, recovery was still a problem.

Aircraft performance was another issue as the floats reduced speed and flight characteristics considerably. As the war progressed, land-based aircraft design progressed rapidly, producing newer and better aircraft almost continuously. This gradually drew naval attention away from seaplane

tenders with float-planes toward ships which could carry wheeled aircraft. With no alternative for recovery of wheeled aircraft except for ditching, this led to ships which could both launch and recover aircraft.

The first ships with both landing and takeoff decks were *HMS Furious* and *HMS Vindictive*, both cruiser conversions. *Furious* was originally an 18" gunned battlecruiser completed with a forward flying-off deck. Both ships entered service in 1918. The forward superstructure and funnel were left intact amidships with a landing deck built over the stern and a takeoff deck over the bows. Catwalks around the superstructure connected the two decks and a crash barrier was erected at the forward end of the landing deck.

Tests aboard *Furious* soon showed the impracticality of the scheme as the wind eddies created by the superstructure made most landings an adventure with the aircraft usually winding up in the crash barrier or over the side. *Vindictive* recorded only one landing.

The resolution of aircraft recovery problems came with *HMS Argus* in 1918, a totally flush deck carrier converted from the uncompleted hull of the Italian liner *Conte Rosso*. *Argus* had been designed with flight deck islands to port and starboard connected by a flying bridge, each with a single funnel uptake. In light of the problems caused by the superstructure aboard *Furious*, these were not fitted and *Argus* was built with a small navigating wheelhouse that was lowered into the deck during flight operations.

There was a problem of how to deal with the hot gasses from the boiler rooms. *Argus* had long trunking which carried the gasses to the very stern of the ship. This caused heating problems throughout the ships and also created eddies that interfered with landing, but not to the extent aboard *Furious*.

Wind tunnel tests with a single island showed some promise and during trials *Argus* was fitted with a dummy starboard side island. This proved to cause no problems with flight operations and the next carrier to be completed, *HMS Eagle* - converted from the ex-Chilean battleship *Almirante Cochrane* in 1918-1920, - was fitted with a flush deck and a starboard side island with funnels at the top. The funnel eddies had negligible effects on aircraft and the island provided much needed navigation and air operations space. The aircraft carrier was born.

In the midst of this continuous development of the converted ships, in 1917 the Admiralty initiated a program for purpose-built aircraft carriers. Once approved by the War Cabinet, in April of that year, sketch designs were submitted by the Director of Naval Construction. Detailed plans followed and the new ship, *HMS Hermes*, was laid down at Armstrong's Elswick yard on January 17, 1918.

Design specifications called for a 500 foot flight deck, capacity for 28 aircraft, the forward end of the flight deck to be completely plated in, islands to port and starboard connected by a navigating bridge, an internal hangar, a speed of 26 knots, two lifts, protection against cruiser gunfire, ten 6" guns for defense, four 4" AA guns, the ability to handle seaplanes over the stern, and a rotating catapult or rotatable forward portion of the flight deck to allow aircraft launches without having to turn the ship into the wind.

This was an extensive shopping list and was almost immediately changed. The catapult and rotatable forward flight deck were discarded along with the requirement to handle seaplanes. The 6" guns were dropped in favour of existing 5.5" mounts from ships being scrapped. Admiral Beatty insisted on the heavy armament as he wanted the ship to be able to fend off enemy cruisers.

Far more serious was the failure of the landing systems aboard *Furious* and *Vindictive*. With no sure ideas about how to configure the new ship's superstructure, the builders were forbidden to proceed with any work above the hangar deck pending further review. Extensive wind tunnel testing was begun. The ship was launched on September 11, 1919 and towed to Devonport for completion as the Elswick yard was being closed.

In March 1920, a single starboard side island was approved for *Hermes*. After *Eagle's* successful trials, more changes were applied: the lifts were enlarged and moved further apart, the 5.5" guns were reduced in number from 10 to 6, an anti-aircraft control platform was added, and heavy bracing was added to the control top to reduce vibration.

All these changes were incorporated and the ship was completed on February 18, 1924. Her protracted construction meant that while although she was the first ship in the world to be designed and launched as an aircraft carrier, the Japanese *Hosho* was the first ship designed as an aircraft carrier to enter service, which was in 1922.

As completed *Hermes* had a standard displacement of 10,850 tons, was 600 feet overall, and could achieve 25 knots at 40,000 SHP. The armour belt was 3" thick diminishing to 1.5" at the ends with a 1" main deck over the magazines. Armament was  $6 \times 5.5$ " single mounts and  $4 \times 4$ " single AA mounts. The massive mast atop the island was for fire control for the 5.5" guns. Endurance was 5,600 nm at 10 knots. Originally she had no arrestor gear; transverse gear was added in the 1930s.

Hermes proved to be successful in service, achieving 26 knots on trials and proving to be a very good sea boat, despite the ungainly appearance of the island and mast. The island did provide a large sail area making her difficult to control at low speeds or to change course quickly to leeward.

She served mainly on the China Station in the 1920s and 1930s, being based at Hong Kong with periodic refits at home in the UK. Upgrades were limited due to her small size, and as aircraft became steadily larger, *Hermes'* aircraft complement dropped until by 1939 she could only carry 12. She went into reserve in 1937 before being re-purposed as a training ship in 1938.

Plans were made to upgrade her AA fit to two twin 4" gun mounts, but the work was never done. Her AA armament was reduced to three 4" guns by 1927. Two quadruple 0.5" mounts were fitted in 1932. She was later fitted with single 20mm and may have shipped a quad pom-pom.

In August 1939, she was placed back on active service, conducting anti-submarine sweeps in the Western Approaches with 12 Swordfish embarked. From October 1939 to June 1940 she was based at Dakar conducting anti-raider patrols, sometimes accompanied by the French battlecruiser *Strasbourg*. When the port's commander declared for Vichy France on June 29, *Hermes* had to quickly leave harbour

but soon returned to mount an attack against the French battleship *Richelieu* on July 7. One of her motor boats daringly entered the harbour at night and dropped 4 depth charges alongside the French ship, but the charges did not explode. A subsequent torpedo strike from her Swordfish succeeded in damaging *Richelieu's* propellers.

On July 10, while returning to Freetown, she rammed the armed merchant cruiser *Corfu*, severely mangling the forward 30' of her flight deck above the water line. Repairs were carried out at Simonstown, South Africa from August 17 to November 2. Once back in service she carried out further sweeps searching for the German heavy cruiser *Admiral Scheer* which at that time was operating in the Indian Ocean. In February 1941 while participating in the blockade of Kismayo in Italian Somaliland, she captured an Italian merchant ship. From April to June she operated in the Persian Gulf in support of operations against Basra in Iraq. Patrols of the Indian Ocean followed until she underwent refit at Simonstown from November 1941 to January 1942.

In February 1942, she was assigned to Force B of the Eastern Fleet with the battleships *Ramillies*, *Resolution, Royal Sovereign*, and *Revenge*, based at Addu Atoll in the Indian Ocean. *Hermes* was carrying a single squadron (814) of 12 Swordfish. At this time, the Eastern Fleet was being built up to counter an expected sweep into the Indian Ocean by the same Japanese carrier force that had struck Pearl Harbour.

On April 5, the Japanese force struck Colombo, Ceylon with an air raid. In a misreading of further Japanese intentions, *Hermes* was detached to Trincomalee in Ceylon for refit. She was there on April 8<sup>th</sup> with her aircraft ashore when the Japanese carrier force was sighted, having remained in the area to conduct further attacks. All shipping in the harbour sortied, including the *Hermes*, but she did not reembark her aircraft. At dawn on the 9<sup>th</sup>, the Japanese launched a massive air raid on Trincomalee, but with no shipping in the harbour, the damage inflicted was minimal.

Despite being at sea, *Hermes* was spotted by a floatplane from the Japanese force and around noon came under attack from 50 Aichi D3A1 'Val' dive bombers from the Japanese carriers. In one of the most devastating aerial attacks at sea during WWII, an estimated forty 500 pound bombs hit the ship, sinking her in less than 20 minutes. Over 300 crew members were lost. Her escorting destroyer, *HMAS Vampire*, the corvette *HMS Hollyhock* and three merchant ships were also sunk in the attack.

# The Kit:

This features *Hermes* as she appeared when sunk by Japanese carrier based dive bombers on April 9, 1942.

# Packaging:

The kit comes in a well-constructed box featuring a dramatic painting of *Hermes* about to come under attack in the action that was to end with her loss. The plastic components are medium grey in colour. All the kit components are sealed in plastic bags, including the decals and the photo-etch sheet. There is

also a large full colour card featuring the box art on one side and a ship's history with general characteristics on the reverse.

The kit comprises 365 parts on 20 sprues with a further 140 photo-etch pieces. The hull, waterline plate, lower hull, hangar deck, flight deck, lower part of the island, and the underside of the flight deck are single pieces not attached to any sprue.

The very tip of the flight deck (less than 0.5 mm) was broken off on my example, and the bow end of the waterline plate was bent upwards. The flight deck can be easily fixed with a bit of filler, and the waterline plate is easily bent flat. As I understand this has occurred on another *Hermes* kit, this may be something that is occurring when the kit components are boxed.

The sides of the box contain a drawing of all the kit components, and a tantalizing preview of upcoming kits of *HMS Legion* and *HMS Kelly*. The full colour painting instructions are on the bottom of the box.





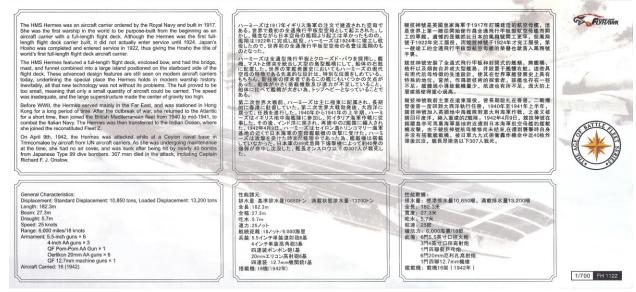


---- Box Art ----



---- Contents of box ----





---- Front and Rear of included card ----

### Hull:

The hull is one piece and scales out exactly to *Hermes'* actual 600 foot overall length. The very distinctive bow flare, overhanging transform stern, and armour belt are captured perfectly. There are large openings in the sides and the many portholes all have 'eyebrows'. The ventilator openings near the stern feature extremely fine moulded-in mesh.

Hull plating is depicted by slightly raised portions of the hull running fore and aft. It is slightly exaggerated in this scale, but so well executed that it would be a pity to remove it.

The positions of the port and starboard anchor hawse openings just slightly above the waterline match the locations found in the drawings by Alan Raven in Norman Friedman's book *British Carrier Aviation:* the Evolution of the Ships and their Aircraft.

A lower hull and waterline base plate with weight, to give some 'heft', are supplied giving the option to build either a full hull or waterline version. The lower hull has the docking keels, bilge keels, and the lower portion of the armour belt. Rudder, propellers, and shafts are included as separate pieces. When dry fitted, the two hull sections fit together perfectly with only the smallest indication of a seam which actually blends in well with the raised hull plating. There are no stands included; those wishing to build the full hull version will need to come up with some arrangement to display the completed model.

The waterline base plate fits perfectly. There will be a seam which can easily be filled and sanded as it is below any of the hull detail.

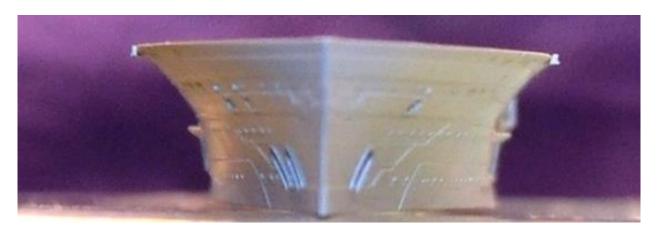
The hull in my kit is very slightly warped as the bow and stern sit a bit lower than the amidships portion but this can easily be corrected with the application of hot air from a hair dryer.



---- Upper and lower hulls and waterline base plate----



---- Upper hull from underneath ----



---- Upper hull from ahead -----



---- Hull weight ----

# Decks:

The hangar deck is one piece and extends from the bow all the way to the stern. It drops right into place inside the main hull resting on internal supports and two locating lugs. It consists of the deck and raised bulkheads on the sides and front which form the actual hangar. The after bulkhead is a separate piece and is actually a roller door which allowed access to the after elevator located aft of the hangar itself.

The deck features hatches and bollards and recessed elevator wells. The hangar bulkheads have vertical supports and various smaller structures; and, taken together, these features result in a fully detailed hangar.

Fitting between the hangar bulkheads and the sides of the ship are the two decks where the 5.5" guns were mounted. They are packed with detail with hatches, bollards, boat chocks, and bulwarks around the gun positions. They are to be installed in a specific sequence as noted in the instructions and on an included link to the Flyhawk website.

The flight deck is also one large piece. It has cut outs for the elevators, raised arrestor gear, hatches, positions for the 4" AA guns, and most significantly, the round down that extends over the stern and the slight round down just ahead of the after elevator well. Underneath it has fore and aft and side to side support beams. It too drops right into place over the hull and hangar deck. There will be a slight seam from the forward elevator well to the bow that will need to be carefully filled as portholes are just under it. Aft of this, the seam is hidden perfectly by the flight deck port and starboard overhangs.

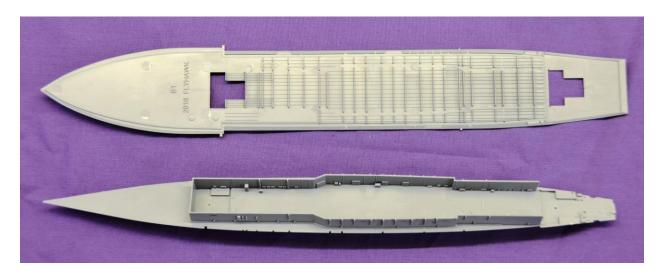
As noted, the aft elevator well is actually over the quarterdeck and separated from the hangar by the roller door at the aft end of the hangar. This leaves the aft elevator completely open with no surrounding bulkheads. This lends itself to interesting display options, the elevator could be positioned halfway down and any occupying aircraft would be totally visible on all sides.

There is a separate piece for the underside of the flight deck where it extends over the quarterdeck at the stern. The elevators are separate pieces with detailed ribbing on the undersides.

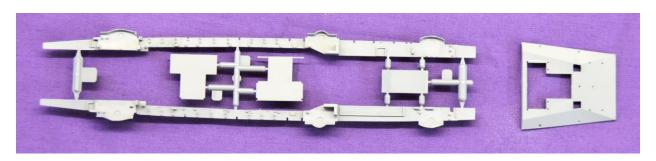
It is interesting to note that, once in place, the flight deck will completely cover the detail of the internal hangar leaving only a tiny bit viewable down through the forward elevator well. The modeller could choose to leave off the after hangar bulkhead roller door and arrange some internal lighting so that more of the hangar would be visible.



---- Flight and hangar decks -----



---- Underside of flight deck and hangar deck detail -----



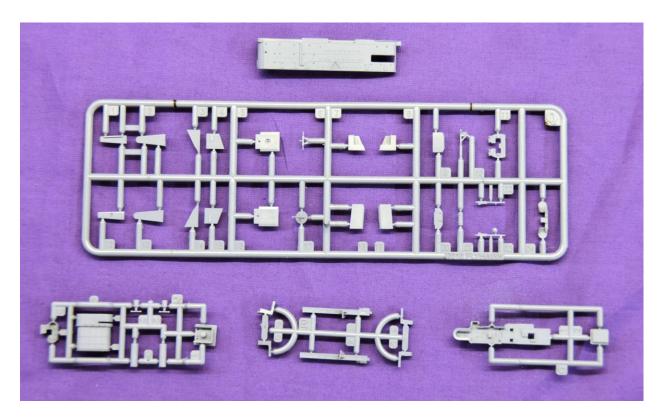
---- 5.5" gun decks, elevators, and flight deck rear underside section ----

### Island:

One large piece makes up the bulk of the island superstructure, from flight deck to the navigation bridge. It features detail on every face: hatches, doors, piping, ventilators with moulded in mesh, ladders, and portholes with 'eyebrows'. Over 30 pieces make up the rest of the island, with the one-piece funnel being the largest of those pieces. It features raised detail, two internal uptakes, and a two part photo etch grill. Searchlights, navigating equipment, and various smaller structures make up the bulk of the island parts.

The large crane present aft of the island is made up from three plastic parts, with very fine open lattice work. A four piece photo-etch version is also supplied for those who like even finer detail.

The very distinctive mast is composed of more than 20 parts with various platforms and supports. There are eight large life rafts to be fitted to the island. Sources disagree as to the precise location and number of these rafts; those desiring absolute accuracy will need to check photos and documentation relevant to the time period they wish to model.



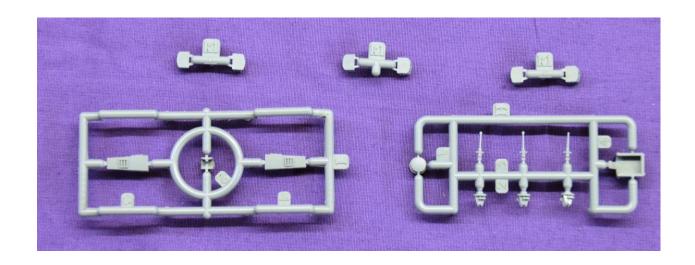
---- Island and Control Top pieces -----

## Weapons:

There are six 5.5" guns each made up of a gun mount and separate shield with the shields correctly shaped and with sighting ports. The gun mounts themselves feature plenty of breech detail.

There are four different types of AA guns. The 4" guns are made from two pieces, a mounting and separate barrel. The quad pom-pom is made up of three pieces. The single 20mm guns have a separate photo-etch shield. The 0.5" quad machine gun is a single piece. All of these parts are extremely well detailed. Flyhawk uses standard sprues for their light AA; there will be leftovers for the parts box when the kit is complete.

Again, sources do not agree as to the number and placement of the AA guns; references should be checked carefully for those in pursuit of absolute accuracy.



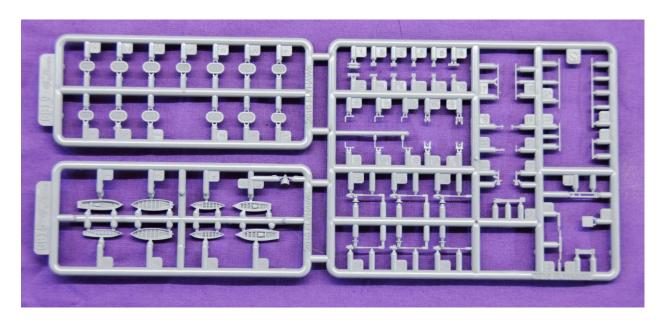
---- 5.5" gun shields, 4" AA guns, and flight deck supports ----



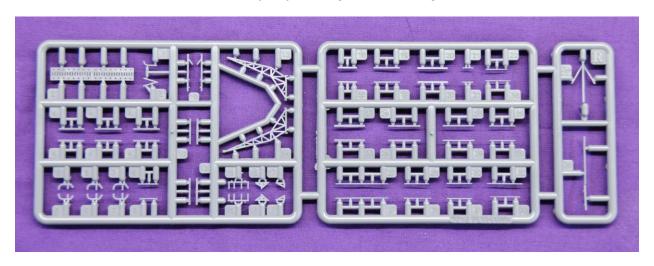
---- Light AA and searchlights -----

# Boats and fittings:

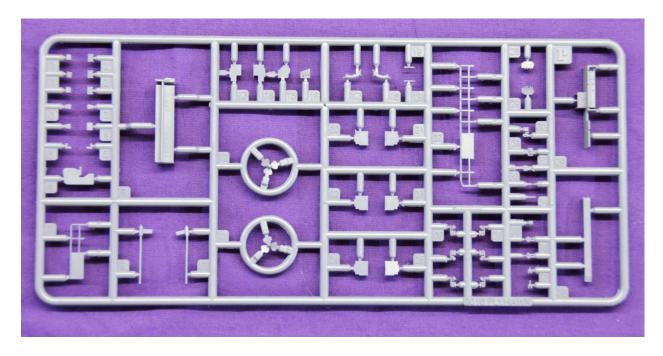
There are eight open boats, each one featuring deck planks; one of them has a separate cabin. There are many smaller fittings, every one of which is incredibly detailed. Life rafts are detailed top and bottom, deck winches have detailed motors, superstructure platforms have details underneath, and ventilators have incredibly thin louvres. There is a windbreak for the flight deck, boat booms, flight deck supports, elevator supports, and anchors - all executed to an amazing level of precision and detail.



---- Boats, Life rafts, 5.5" guns, and Fittings -----



---- Crane and Fittings -----

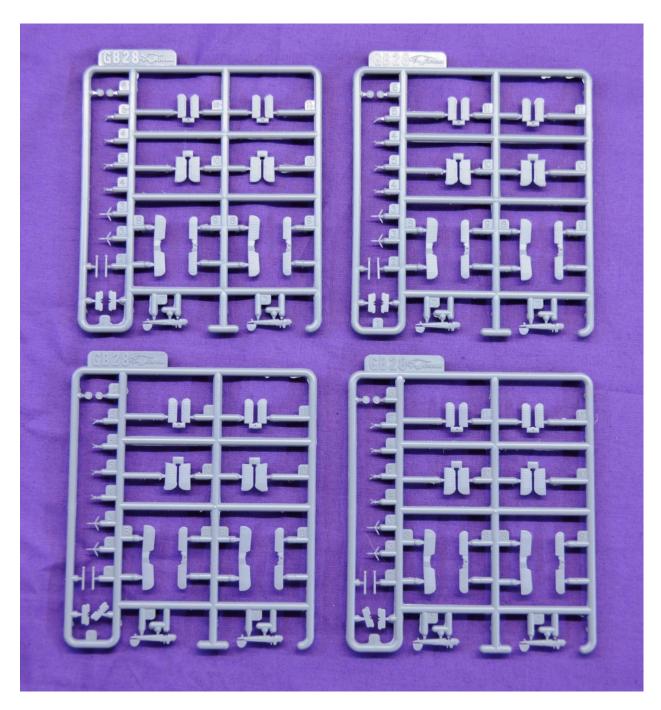


---- Fittings -----

# Air Group:

Four sprues with a total of eight Swordfish make up the air group. Each Swordfish is composed of 12 pieces: fuselage, upper and lower wings, engine cowling, propeller, tailplane, observer machine gun, landing gear, wing struts, and torpedo. Each aircraft can be assembled with folded or unfolded wings. The wing struts and the machine gun are from photo-etch. The struts are a 'box' when folded consisting of the inner and outer strut and the wire bracing in between. The folded and unfolded wings feature different struts with each version having a differing port and starboard strut.

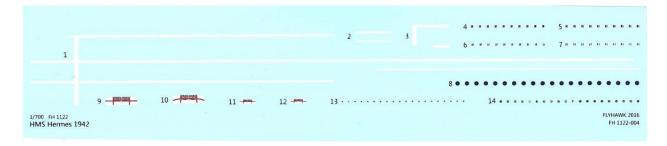
The amount of detail packed into each plane is phenomenal. The wings and tailplanes have raised ribbing, the fuselage and wing undersides have recessed panel lines, the observer and pilot compartments are recessed, the torpedo has fins, and there is a moulded on tailwheel.



---- Swordfish air group -----

# Decals:

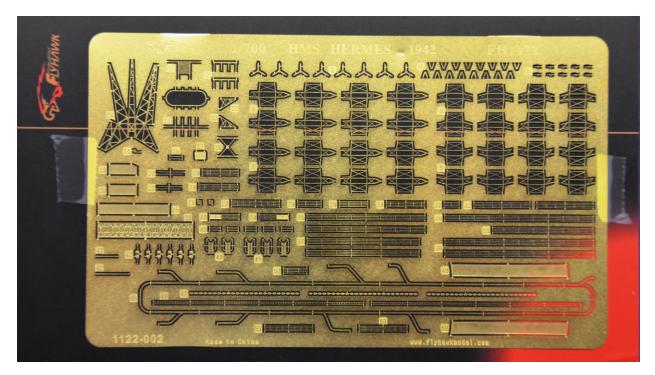
There is a single decal sheet consisting of flight deck markings, flags, and markings for the Swordfish. The flight deck decal is very large and the instructions make the helpful hint to cut it into smaller pieces for placement. Having destroyed several flight deck decals in my time, I agree with this advice! There are alternate fuselage roundels and tailfin markings for the Swordfish, enough being supplied to equip the entire air wing with the same markings if desired.



---- Decal Sheet ----

### Photo-Etch:

A very comprehensive photo-etch sheet is also included with all the flight deck and superstructure railings, accommodation ladders, mesh platforms, and grilles needed for the kit. It also contains an alternate crane and flight deck windbreak, an overhead piping network for the hangar, as well as the struts, machine guns, and alternate propellers for the Swordfish. Alternate boat davits for the boats that hang under the after flight deck are also present. There are no railings for the quarterdeck.



---- Photo-etch sheet ----

# Instructions:

The instructions come on a single large double-sided full colour sheet. They are very clear and comprehensive. Each sub-assembly is logically grouped and there are full instructions for assembling the Swordfish. Flyhawk uses colour coding to assist with placement of smaller parts; this is a very good

feature which eliminates a lot of guess work. They also contain the helpful advice to omit the aircraft if modelling Hermes on the day of her loss, April 9, 1942, as she had no aircraft aboard at the time.

Placement of the various railing sections around the flight deck is clearly shown.



#### READ BEFORE ASSEMBLING

組み立て前に必ずお読み ください

- · Please check out the instruction before assembling.
- Glue and paint are not included.
  Glue,paint and other tools are not allowed to be reached by children.
  Please take care while using toolsglue and paint should be kept away from fire and be sure not working with models in confined chamber.
- The suite may contain metal parts, please be careful while working.
- 組み立て前説明書をよくお読みください。
- 本キットは接着剤とペンキを含みません。接着剤とペンキと道具などを子供に接触しないでください。
- 医倫朗に ペンイと温柔などをすがいるないでください。 ご 耳具を使用する時安全に注意し、接着割とペンキは火槽に近づかないでください。また、密封の場所で模型を制作しないでください。 ◆ 本キットは金属パーツがある可能ですから、制作する時気を付けて ください。
- 組裝前請仔細閱讀說明書。
- 本套件不含膠水和油漆。 膠水、油漆、丁具等不可讓小孩接觸。
- 使用工具時請註意安全,膠水和油漆請勿靠近接觸 火種,請勿在密封的地方制作模型。
- 套件中可能帶有金屬零件,請小心制作。

#### ICON INSTUCTION











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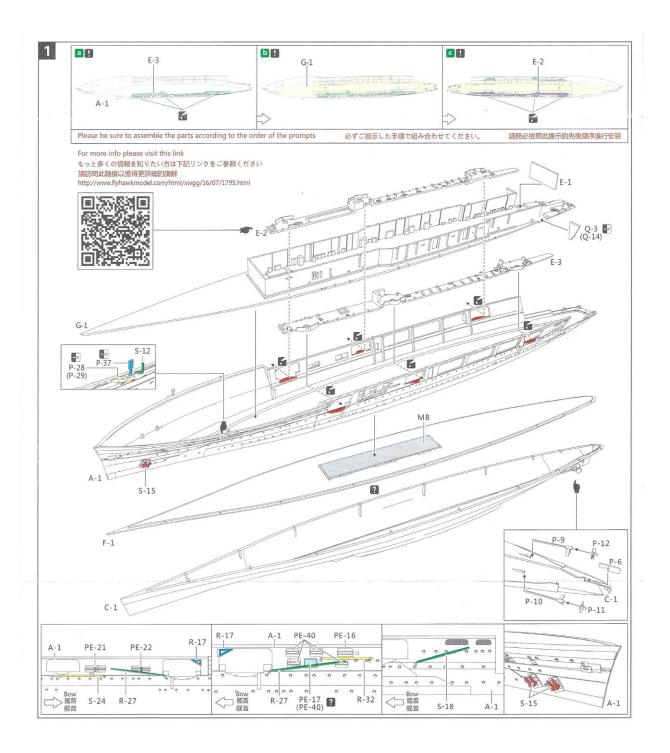


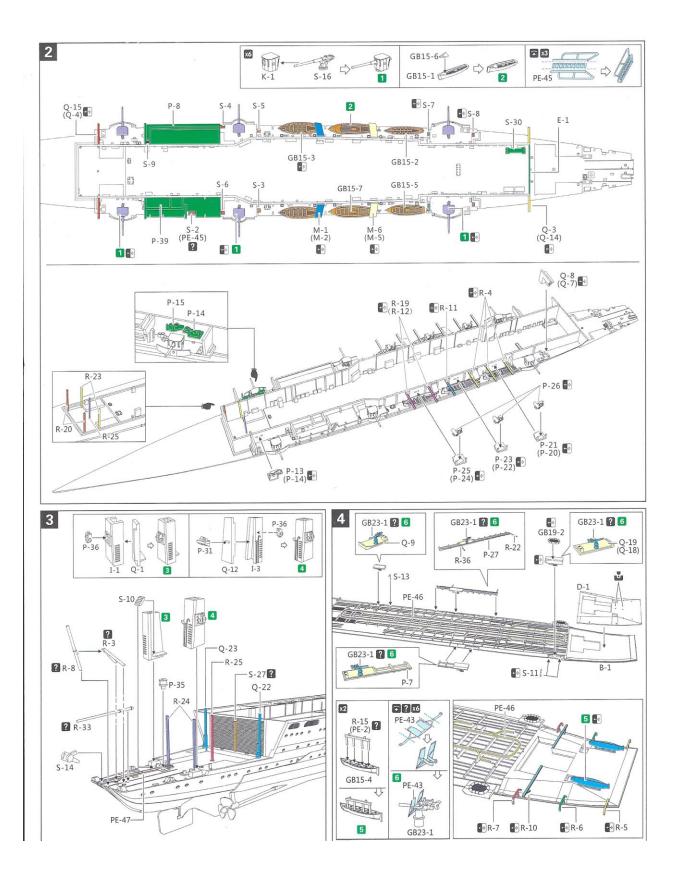


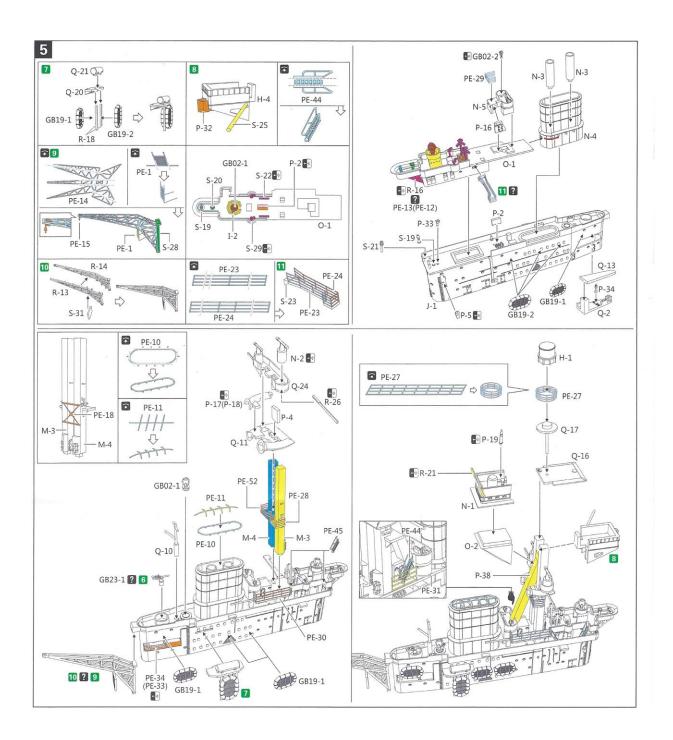
Dealing with PE requires more patience and technology, please according to your own conditions to decide whether to use it or not, however, models after being upgraded

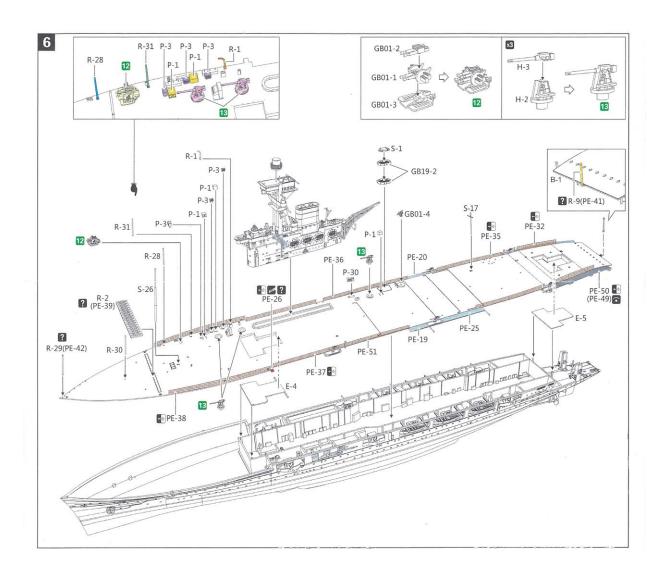
フォトエッチングを処理するには、多くのペーシェンスと技術が必要です。ご自身の状況によって、使用するかしないか、自分で決めてください。でも、改造した後の模型はきっともっと素晴らしくなりますよ!

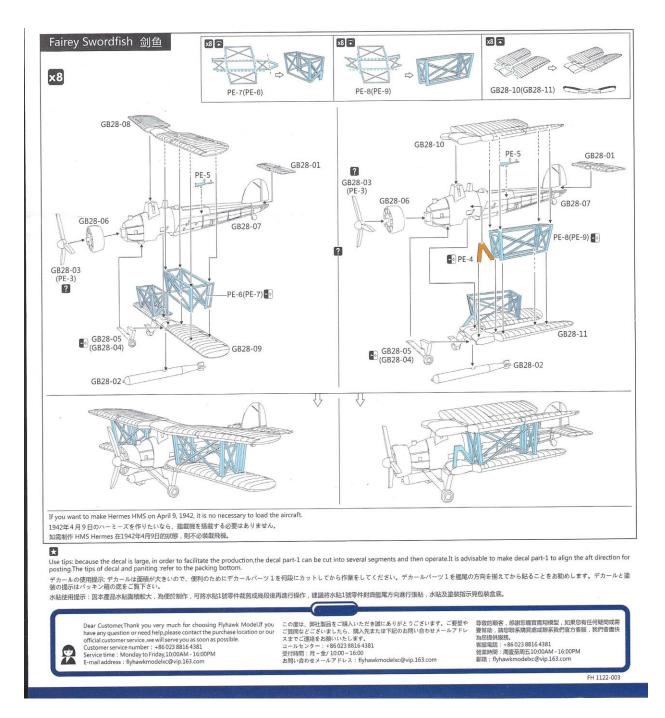
處理蝕刻片需要您更多的耐心和技術, 請根據自身情况决定是否使用, 但經過改造後的模型一定會更加精彩!











---- Instructions -----

### Colour scheme:

On the bottom of the box there is a full colour diagram of the camouflage scheme carried by *Hermes* at the time of her loss, along with colour schemes for the Swordfish and the ship's boats with references for the Mr. Hobby, Tamiya, and Colourcoats paint ranges. Decal placement for the flight deck and the Swordfish are also shown. Decals 2 and 3 are not noted in the diagram, but they are for the elevators should the modeller wish to display them in the down position.

The camouflage scheme matches the drawing on page 34 of the Warship Perspectives title *Camouflage Volume One: Royal Navy 1939-1941* by Alan Raven. Colours of 507A, 507B, and 507C are specified.

Photos taken showing the mangled bow after the collision with *AMC Corfu* in July 1940 show her in overall light grey, so the camouflage scheme was applied after that either at Simonstown or elsewhere as she never returned to the UK after the collision. This makes it possible that the colours were something other than those noted as ships on foreign stations often had to 'make do' with whatever paint stocks were available.



---- Colour scheme ----

#### Overall Impression:

Another masterpiece by Flyhawk - this is a superb kit. The commitment to detail and precision comes through in everything: instructions, decals, photo-etch, and plastic components. It's a measure of Flyhawk's painstaking attention to detail and precision that they chose to provide a fully detailed hangar and underside of the flight deck even though they will not be visible once the model is completed. The extremely fine moulded in mesh on the intake ventilators has to be seen to be believed.

The instructions are well laid out, each sub-assembly is straightforward and the use of colour makes it easy to place the smaller pieces. All the main pieces fit together perfectly when dry-fitted leaving very little, if any, filling and sanding to be done to hide seams.

It is also very accurate, matching up well with the drawings and photos in my various reference books. The only areas of contention are the placement of life rafts and the type and number of the small AA guns. Modellers who strive for accuracy will enjoy the search for the definitive answers and making the requisite small adjustments. For those who just like to build, the kit will provide an extremely accurate representation right out of the box.

While the sheer number of parts may appear to be intimidating upon first inspection, most modellers will have no problems assembling the kit. Those who don't wish to add the smaller pieces can simply leave them off - the level of detail present will still result in a spectacular model. The choice of photo-

etch or plastic for the crane and the flight deck windscreen will be welcomed by those who don't like working with photo-etch as the plastic versions are superbly detailed and intricate.

The amount of detail is incredible, considering that the model itself is just over 10" long. There is absolutely no flash on any of the pieces and none of those lines that result when two mould halves are used to make a single component.

My only (very minor) criticism is the uncharacteristic lack of railings for the quarterdeck. There are two unused lengths on the photo-etch sheet (part 53) but they are not long enough. Quarterdeck railings will need to be found in the spare parts box.

There is very little scope for after-market items, other than additional types of aircraft. Flyhawk does make an RN Aircraft set with Fulmars, Swordfish, and Sea Hurricanes for those who wish to beef up their air group.

This is a highly recommended kit. If you are going to build only one aircraft carrier, this should be the one! *Hermes* may be more obscure than the carriers that came after but she was the first and this kit does her ample justice.

Flyhawk continues to raise the bar for plastic kits; if anything this kit is even better than their outstanding *HMS Naiad* and *HMS Aurora* kits. Congratulations to Flyhawk for such a well-researched and well-engineered kit and for their commitment to providing injection moulded kits of previously unreleased Royal Navy subjects. I eagerly await their next releases, and their previously announced *HMS Illustrious*.





---- Dry-fitting of decks and main island piece ----

## References:

- Aircraft Carriers of the World, 1914 to the Present by Roger Chesneau. Arms & Armour Press 1984
- British Carrier Aviation: The Evolution of the Ships and their Aircraft by Norman Friedman. Conway Maritime 1988
- Carrier Operations in World War Two: Volume 1 The Royal Navy by David Brown. Ian Allan 1974

Review kit courtesy of Flyhawk Models	• Warship	Perspectives Camouflage Volume 1: R	oyal Navy 1939-1941 by I	Alan Raven. WR Press 2	000
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