**TUCUMCARI (PGH-2) and Other Display Models (Collector's Items)**

Discussion, Advice, Information Sharing, Lessons Learned, and Networking

(Last Update 6 Oct 03)

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**TUCUMCARI Model Kits**

[23 Sep 03] For hydrofoilers in the USA: The History Channel will feature a high-flying segment about US Navy hydrofoils within its blockbuster MAIL CALL television series on Sunday night, October 5th, at 10 pm EDT/PDT and 9 pm CDT. This segment reportedly includes some never-before-seen archival footage taken in 1968 of the first fleet hydrofoil, *TUCUMCARI*, as well as a recent interview with her first Skipper (and IHS-member), Martinn Mandles. The International Hydrofoil Society is credited by the producers, and our IHS website is listed for viewers who would like to learn more about hydrofoils. The colorful host of MAIL CALL is a former Marine Corps drill instructor (and award-winning actor), R. Lee Ermey. This episode of MAIL CALL is a "must-watch" for all members and friends of the IHS! -- Martinn H. Mandles

(mhmandles@aol.com)
Beginning in 1952, the U.S. Navy sponsored a research & development program to construct & evaluate a number of hydrofoil test-craft. As a result of this program, in April 1966, the Navy's Bureau of Ships awarded contracts for two competing hydrofoil gunboats, the PGH-1 to the Grumman Corporation, and the PGH-2 to the Boeing Company. The contract to Boeing was for a fixed price of $4m. By July of 1967 the hull was completed in Portland, Oregon and transported to one of Boeing's...
plants in Seattle, Washington for completion and outfitting. At the launching, PGH-2 was christened *TUCUMCAR I* in honor of the City of Tucumcari, New Mexico. Upon completion of builders & acceptance trials, she was delivered to the Navy on March 8, 1968.

*TUCUMCAR I* was powered by a Rolls Royce Proteus gas turbine driving a water-jet propulsion system that gave this 57-ton hydrofoil a speed in excess of 40 knots. She was 72 feet in length with a beam of 19.5 feet, and a draft of 4.5
feet with foils retracted and 13.9 feet with foils extended. The Navy crew consisted of one officer and 12 enlisted personnel.

On November 9, 1969, to evaluate these craft in a wartime environment, TUCUMCAR I was deployed to Vietnam along with FLAGSTAFF (PGH-1) for river patrol operations out of Danang in Operation Market Time.

Following her tour in Vietnam, TUCUMCAR I was loaded on USS WOOD COUNTY and transported to Europe for a NATO tour.
and demonstrations. From April until October 1971 she operated in European waters while performing numerous demonstrations and participations in combat exercises.

Upon her return from Europe she was assigned to the Amphibious Force in the U.S. Atlantic Fleet. This resulted in a sad ending to a distinguished period of performance. In November 1972, during night operations off Vieques Island, Puerto Rico, she ran onto a large submerged coral reef. Fortunately, there were no serious injuries to the crew. She was finally dragged off the reef in a difficult salvage operation and transported to Norfolk, VA where the decision was made not to attempt repair of the extensive damage. During her short life, however, TUCUMCARI adequately demonstrated the value of this water-jet propelled design as a new naval combatant with very high maneuverability and the capability of very high speed even in very rough seas. She and the other Navy R&D ships and craft served to lay a solid technology foundation for the design and construction of a squadron of six Navy Patrol Hydrofoil Missile (PHM) ships built by Boeing. They were deployed to Key West, FL where they worked with the US Coast Guard in apprehending drug smugglers and conducting search and rescue operations. - - Wm. M. Ellsworth, P.E.

[4 May 01] Do you know what scale is this Aurora made TUCUMCARI boat? -- (vsokolov@et.ru)

Response...

[4 May 01] Based on the 71 feet length of the TUCUMCARI and the approximate 10 inches for the model, I calculate the scale to be 1/85. -- Sumi Arima (arimas1@juno.com)

[5 May 00] My number four son has located 2 Monarch USS TUCUMCARI (PGH-2) models in Virginia They sell for $125 and $160. If anyone is interested give me an e-mail and I will get ordering info. They are not too bad. I had two of them when I was still with Boeing. Several years ago now. They cost at that time $5. -- John Monk (marymonk@msn.com)

Response...

[23 Sep 03] These model kits go up for auction on www.ebay.com fairly regularly... most that I have seen have sold for well under $100. For eBay members there is an automatic search feature
under "favorites" in the "My eBay" section. This allows you to specify a keyword search with the option to receive email notification when new items are added that meet the search terms.

[11 Sep 98] In 1967 at age 27, I became the first officer-in-charge of the U.S. Navy's first fleet-operational hydrofoil, the Boeing-built TUCUMCARI (PGH-2). I bid and won an eBay auction for a brand new, original TUCUMCARI model made by Aurora Plastics and still in the box. Believe it or not, my name appears on the background/instruction page. I built one and kept one of these models at the time, but they were damaged or lost in the interim, and I had given up hope of ever finding another. So the IHS referral to eBay really paid off for me (and for the seller)! -- Martinn H. Mandles (mhmandles@aol.com)

[14 Feb 99] A good potential source of the TUCUMCARI kits is the online auction at eBay. I have seen half a dozen kits sold there in the last few months; most recently the selling price has been US$28.00 to US$32.00. Just log on and search for the key word TUCUMCARI. Eventually you are likely to find one. Another model kit that sold recently on eBay was a radio controlled PT 50 manufactured in Japan in the 1980s. -- Barney C. Black (Please reply via the BBS)

[4 May 98] I am trying to get some information for a friend of mine, who builds model for a hobby. He is trying to get some specific information about the TUCUMCARI hydrofoil. If you can direct me in the right direction it will be greatly appreciated. -- BM1(SW) E.W. Enzenauer (eenzenauer@acu4.lck.mrms.navy.mil)

Response...

[19 Apr 98] Photos of a completed TUCUMCARI Model Kit are now included in the IHS photo gallery, courtesy of IHS member Malin Dixon.

[20 Jan 98] I have a friend who has [another] model kit of the TUCUMCARI he would like to sell. He's asking $75 for the kit, which is unbuilt. Please let me know if you are interested ASAP. -- Bill Faulkner(WFaulk0001@aol.com)
[28 Oct 97] Hope you can help me find some info on the Boeing PGH-2 Hydrofoil TUCUMCARI. I have a model of this boat that I would like to build as accurately as possible to the real thing while it was stationed in the Far East. All I have to go on is the box art of the kit. The Model was made by a company called Aurora. The box is dated 1969, kit #727-250. The bad part is that Aurora is out of business, and the kits have become collector items (you don't want to know what they go for). It is no small bit of luck that I came to have one. The kit is titled "Boeing PGH-2 TUCUMCARI Hydrofoil." There is a sticker that says " Designed by Boeing Aerospace Group" on the box top. I checked the Boeing web page and found two references; the first is of a Naval Hydrofoil w/ missile launchers, the other was of a hydrofoil ferry. My desire is to do the most accurate job possible in the construction of this kit. These kits can sell for over $100, so I'm going to be real careful when I build it. So research will be very important. Unlikely but possible, there is a model company called Glencoe, that is digging up the molds from long discontinued models and reissuing them. On the Ship side the Savanna and the USS AMERICA have been reissued, so who knows maybe they'll do the TUCUMCARI someday. If they ever do, I'll let you know. When I finish the model I'll send some photos your way. -- Bill Faulkner(WFaulk0001@aol.com)

Response...

[30 Oct 97] Here's a TUCUMCARI photo I just scanned. Hope it comes out o.k. It's the only thing I have here at work. I'll check my stash at home. -- Joe Schobert (Dirigo99@aol.com)

Response...

[31 Oct 97] The TUCUMCARI kit was put out by Aurora Plastics Corp. as kit no. 727-250 based on data provided by Boeing. This was back in 1969. I do not believe they are in production anymore. Boeing was working with one of those kit manufacturer on putting out one for PHMs. I don't believe they ever did put it out, at least I have not seen any. I am not quite sure what kind of data is desired, but TUCUMCARI and FLAGSTAFF particulars and plan and elevation views are provided in "Boats of the USN", Navships 250-452 issued May 1967 and was available through Superintendent of Documents, US Government Printing Office. The booklet of general plans is PGH2-845-253352. I know the set of drawings originally held by SUPSHIP Seattle has been destroyed by the Archive people. I thought I had a booklet put together by Boeing providing general details of TUCUMCARI but am unable to locate it. There might be one hanging around at the Naval Surface Warfare Center - Carderock Division facilities. - Sumi Arima (arimas1@juno.com)

Boeing PHM and Jetfoil Models

[5 Jan 99] I am looking a model or a model kit of the PHM-1 Class of ships. If you know of any I would appreciate the help in this matter. -- Michael Brint (brint@maco.net)
Four Responses...

[13 Jan 02, updated 30 Dec 02] White Ensign Models (WEM) offers a new 1:350 scale model kit for PHM 1 USS PEGASUS, and it's a beauty. [Click Here for details/photo. The company ships orders worldwide. Felix Bustelo has created a webpage devoted to this model with photos, hints, and reviewer comments. That page is at http://warship.simplenet.com/wem_pegasus.htm. [regrettably, Felix Bustelo's site seems to have disappeared from the web. - Editor] Thanks to Steve Novell (steve.novell@av.com) for bringing this item to our attention. He notes that "The model thing is close enough that you can make just minor adjustments (adding H bits to the main deck, relocating the radar to the mast etc.)"

[6 Jan 99] I have heard of a PHM model, but I have no idea what makes or made it. There probably weren't that many made. By the way... I'm not at Boeing any more. This is my sixth day of retirement! -- Joe Schobert (DIRIGO99@aol.com)

[6 Jan 99] I don't recall a PHM Model, but there was a (primitive) video game in the '80's called "PHM" or "Hydrofoil" that used the characteristics of the ships. Boeing provided technical assistance to the manufacturer, as I recall. -- George Jenkins (georgejj@aol.com) (editor's note: this copies of this video game are offered for sale occasionally on the Ebay Auction website.)

[8 Jan 99, updated 8 Aug 99] There is a plastic model kit combination of the USS Missile Frigate FFG43 USS THACH and USS Patrol Missile Hydrofoil PHM1 PEGASUS Class to a scale of 1:700 in the "Sky Wave" series produced by Pit-Road, 5-10-3 Kajigaya Takatuku, Kawasaki City, Japan. The kit number is 55 and the box is also labeled SW-1300. The FFG is only modeled down to the waterline and is about 195 mm long. The PHM can be modeled either hullborne or foilborne as there is a split in the hull at the waterline. The down side is that the PHM model is only about 59 mm long. It is fairly cute through and has reasonable detail! The decals include pendant numbers for PHM-4 through PHM-6, AQUILA, ARIES, and GEMINI. Although you appear to be looking for plastic scale model kits, I am also reminded of an article on a radio controlled semi-scale PHM model included in a Dutch radio control modeling magazine on sale in December 1995 in the Netherlands. This model was scratch built rather than a kit, but may be of interest to you if you can still trace the article from the scant description I have given. Finally, you may also be interested to know that in the UK magazine Model Boats of April 1991 (Volume 41 Number 482) featured a small advertisement for 'Hydroflight Models, model hydrofoil and hovercraft specialists incorporating the Hydroflight Society (The Society for Model Hydrofoil and Hovercraft Enthusiasts)'. The advertisement announced that their first kit, a 48 inch model of HMS SPEEDY, a military derivative of the Boeing Jetfoil was to be released soon and included photos of the bare hull of this scale fibreglass model. The advertisement had this UK address: Hydroflight Models; Unit 4, Readers Farm; Readers Lane, Iden, Nr. Rye, East Sussex; Telephone: 0797 222406 -- Martin Grimm (seafite@alphalink.com.au)
[20 Feb 99] There was a 1/700 scale plastic model kit combination of the US Navy guided missile cruiser Vella Gulf, CG 72 that also included scale models of a Harpoon-armed Pegasus class hydrofoil, an LCAC (hovercraft landing craft), and some smaller boats. Don't have any other details. -- Barney C. Black (Please reply via the BBS)

**Other Models**

**High Quality Display and Test Models**

[17 Apr 03] We offer a professional modelmaking facility, tailored to suit individual requirements of our clients, which include shipbuilders, ship owners, museums, oil companies, and private collectors. Our marine modelmaking service provides exhibition standard models for marketing and boardroom, engine room and internal layout models, wind and wave test models for design, and interference models for feasibility study. Ship models can be either full hull type, mounted on turned pedestals, or waterline type set in a realistic sea. Ship model hulls can be authentically planked on scale frames, solid (bread & butter) using English Lime, or GRP and resin when multiples are ordered. Email: dsmodelmakers@aol.com ; website: www.dsmodelmakers.co.uk.

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<th><strong>PT-50 Final</strong></th>
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<td>[15 Mar 02] It's finished. Here's a few shots. I've sent off an article to <em>Classic Fast Ferries</em> (also will be published in the club modeling magazine). Here's a few shots of the finished model. I did end up putting a 1/2 dozen commuters on the back verandah - you can see the rest of the detail. Thanks for your help and interest on the way thru. And to IHS and CFF generally for the additional history and reference material. -- Ian Wrenford (<a href="mailto:iansharyn@bigpond.com">iansharyn@bigpond.com</a>)</td>
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Update on PT-50 Model Progress

[13 Jan 02] A further progress report on the PT50 FAIRLIGHT model. Couple more photos attached. I've now painted the basic hull (except for the black bits) and completed the foils. The lower deck windows were originally fitted as clear plastic sheet, the window positions then being masked over and paint applied to the remaining exposed clear plastic. Remove the masking and voila, nice clear windows. The main superstructure is also largely done and now I'm pretty much ready to start the detailing - rails, life rings, ventilators, antenna etc etc. In the photos - the foils are just bluetacked into position and the upper deck, roof and main antenna
are just glued on with gravity. The deck itself has a bit of red overspray on it and no attempt has been made to paint that yet. On the base, I've made some modifications to the wake pattern to fit those shown in the Dee Why shot (thanks Barney/Martin for the tip). Not finished with the base yet, I have to get the model into exactly the right position before getting into it with the artists acrylics - but I'm much happier with the effect. Early to mid-Feb for completion remains my estimate. --Ian Wrenford (iansharyn@bigpond.com)

[30 Dec 01] Just touching base again on the PT50 scratchbuild. I've settled on the FAIRLIGHT and am doing it in a (static) 1:72 scale. It will be for static display only. Here are a couple of shots of the model in progress. I will be mounting it foilborne on some modeled water, which you can see in one of the photos. I have made good progress with the basic hull (ex foils) now complete and have just commenced on the superstructure. I predict I'll have it finished by end Jan or beginning Feb 02. And I'm using plans Martin Grimm sent me (although have had to re-draw the superstructure to match the oz ones). A query: Is there any info on the deck finish on the Oz PT-50s? I'm not clear if they would have been wood, or a painted finish. -- Ian Wrenford (iansharyn@bigpond.com)
Response...

[30 Dec 01] The decks of the PT 50s, like the rest of the hull and the superstructure are fabricated from aluminum alloy which is riveted together. The foils, due to the need for strength are steel as are deck fittings such as bollards (stainless), hand rails etc. The Sydney foils has a rough anti-slip coating applied to the decks and this had a light matt grey finish (see aerial shot of DEE WHY or close-up of forward deck of LONG REEF below). The only significant external wood items were aft cabin doors and bench seat (as seen on CURL CURL photo). Given you will probably soon be starting on the foils, I take the opportunity to send you views of the bow and stern foil units of LONG REEF while on cradles at Balmain in the late 1980s. It is only when a hydrofoil is out of the water that it is possible to really appreciate the foil configuration. On the bow foils you should be able to see flaps on port and starboard side. Also, the thin strakes on the foils are called 'fences' and they help to stop air from being drawn down on the low pressure side of the foil. Likewise the pair of rudders on the aft foils (slightly inboard of the propeller shafts) each have four fences clearly visible with a further fence placed on the foils below each strut connection point. The rudder tiller assembly is visible just above the aft foil supporting cross structure which is bolted to the transom. If you need any other details or views to clarify any aspect of these hydrofoils during construction of the model, let me know and I may be able to find a photo that helps. -- Martin Grimm

(seaflite@alphalink.com.au)
(Above, Left, and Below). Thanks to Martin Grimm for providing various views of PT-50 hydrofoils to assist in modeling from scratch. Additional views, both of models and the real vessels can be found in our photo gallery and in the sections of the site devoted to radio controlled models and static display models.
Need PT-50 Plans for Model

[16 Oct 01] I live in Sydney and in my childhood we had PT50 Hydrofoils operating in Sydney Harbour. I was interested in scratchbuilding a (static) model of one and was wondering if you had any thoughts on possible sources for scale plans. -- Ian Wrenford (iansharyn@bigpond.com)

Responses...

[30 Dec 01] Note that Ian Wrenford's many impressive models are on static display at the website of the Australian Plastic Modelers Association, see specifically the following page: http://apma.org.au/membersmodels/ian_wrenford/wrenford.html. -- Barney C. Black (Please reply via the BBS)

[20 Oct 01, updated 6 Oct 03] I have a model PT.50. You can see it and other hydrofoil models at: http://home.wanadoo.nl/~hydrofoils1/dutchhydrofoilmmodels.htm. -- Mark van Rijzen (info@dutchhydrofoils.com) website: www.dutchhydrofoils.com.

[20 Oct 01] The radio controlled model I have (still unfinished and probably never will be at the rate I am going) is of a Rodriguez RHS 140 rather than the Supramar / Rodriguez PT 50. The RHS 140 was essentially a somewhat modernised version of the PT 50. It is a fairly similar size with similar passenger capacity and engines, but had a slightly different hull and superstructure. My model represents CURL CURL which you may still recall. CURL CURL was the only RHS 140 that was operated on Sydney Harbour. Most of the other Sydney hydrofoils were of the PT 50 type you mentioned, though the first one MANLY was a smaller PT 20, and the last two that were introduced, the MANLY [2] and SYDNEY were both larger Rodriguez RHS 160F types. More information on the
Sydney hydrofoils is provided in issue 5 of *Classic Fast Ferries* by Tim Timoleon at [http://www.classicfastferries.com](http://www.classicfastferries.com). I built my 1:20 scale *CURL CURL* model from plans I drew up (also to a scale of 1:20) from a combination of arrangement drawings in journals and my own set of photos of that hydrofoil. Those plans are also not complete, but were enough to be able to build the model from. The question now is, do you want to specifically build a PT 50 model or would the RHS 140 also be suitable? Also, how accurate do you want to make your model? I don’t have accurate drawings of either the PT 50 or RHS 140 from which to build a model, but [Click Here](http://www.classicfastferries.com) for the principal characteristics and general arrangement (this is a 1.3 meg Adobe Acrobat File). See also *Jane’s Surface Skimmer Systems* 1967-68, which shows some section views through the PT 50. Note that the PT 50 hydrofoils that operated on Sydney Harbour also had various superstructure configurations. Some, like *DEE WHY*, had a raised wheelhouse top, and others like *FAIRLIGHT* and *LONG REEF* had the wheelhouse at the same level as the rest of the superstructure. The PT 50 plans I provided here are of an older style of superstructure with less internal passenger capacity than those operated on Sydney harbour. I can send you a selection of scanned photos of mainly either *CURL CURL* or *LONG REEF* once you indicate whether you have a preference for building any particular one of the Sydney hydrofoils. I assume you would be building the model to around 1:72 scale? I look forward to hearing more about your plans to build the model. In particular, once you do build such a model, make sure to send a photo of it to the IHS. There is a page on the IHS website under the photo gallery where photos of various hydrofoil models are included. Two other modellers in Australia have built PT 50 models, but neither are complete as far as I am aware. They are larger scale models made of wood and one is radio controlled. They were built from plans provided by Rodríguez but I was told that the plans may have in fact been for a mix of PT 50 and RHS 140 types, so that made it a bit confusing to build the models. -- Martin Grimm (seaflite@alphalink.com.au)

[9 Dec 01] I am attaching some photos and a postcard image of the Sydney PT 50s. They include: (1) An old postcard featuring *FAIRLIGHT* sent to me by Andrew Gowanlock, a fellow hydrofoil buff in Sydney. The card by the Kruger company of West Germany and numbered 797/61 is titled “Sydney Hydrofoil Ferry with Kirribilli in background”. It seems like a composite photo to me! [Click Here](http://www.classicfastferries.com) for close-up of *FAIRLIGHT*. (2). A [photo taken by Andrew Gowanlock](http://www.classicfastferries.com) showing *FAIRLIGHT* in the foreground and *PALM BEACH* and *DEE WHY* (the latter two with raise wheelhouse) in the background after they were withdrawn from service; and (3). A [photo of *LONG REEF*](http://www.classicfastferries.com) of which I have a selection of other photos while it was in maintenance. *LONG REEF* and *FAIRLIGHT* had a very similar appearance. -- Martin Grimm (seaflite@alphalink.com.au)

**Chinese Military Hydrofoil Info Needed For Model**

[31 Jul 01] As a hobby I make 1/700 plastic models of warships from various countries, and I am interested in hydrofoils of the modern Chinese Navy. Does anyone know of a book or website that has pictures of these warships? I have researched various internet search engines to no avail. -- Chris King ([chris_a_king@hotmail.com](mailto:chris_a_king@hotmail.com))
Response...

[31 Jul 01] You can get some information from an old copy of *Jane’s Surface Skimmers*, say between 1979 and 1984, but not enough to make a model from. There were over a hundred hydrofoil torpedo boats of the Hu Chwan (White Swan) class active in that era, all built in Hutans Shipyard. Also, some were sold to Albania, Pakistan, Tanzania, and Romania. According to *Jane’s*, about 20 hulls of this design slightly modified were built in Romania. There was also a Hema class military hydrofoil about which I have no details. It may be worth the effort to inquire of the Naval Attaché at the embassies of the various countries involved to see if they would provide any info... it’s a small chance, but you have nothing to lose but the cost of the stamps.-- Barney C. Black (Please reply via the [BBS](#))

**Need FLYING FISH Design Details for Model**

[18 Feb 01] I'm searching for further information -- plans, etc., on the FLYING FISH for a model I plan to build. FLYING FISH was outfitted at Miami Shipbuilding Corp. for her role as the DISCO VOLANTE. In the limited edition DVD of the movie Thunderball, there is a section on the "Making of Thunderball" that has a scanned photo (b+w) of the FLYING FISH in the MSC yards.-- Doug Binish (email address withheld)

**Plans For BRAS d’OR**

[19 Feb 99] Do you know where I can get a set of plans of the BRAS d’OR?. I would like to build a model of her. Growing up in Nova Scotia, I got to see her in action. Quite a sight. -- Ron Schofield ([sco@hfx.andara.com](mailto:sco@hfx.andara.com)).

Response...

[19 Feb 99] [Click here](#) for present location of the Fast Hydrofoil Escort BRAS d’OR. Maybe the museum has the plans. -- Barney C. Black (Please reply via the [BBS](#))

**FHE-400 BRAS D’OR Dimensions for Model**

[8 Sep 00] Can you tell me where I can find "dimensional drawings" for the Canadian FHE-400 hydrofoil destroyer ? I wish to make a 40" model of her that actually flies ( yes I have the technical ability). The only thing I have found is the book "The Flying 400" by Thomas G. Lynch. -- The book gives the length as 151 Feet but no usable drawings -- Dan MacLean ([dmaclean@quik.com](mailto:dmaclean@quik.com))

Responses...

[13 Oct 00] The ship itself is on display, and there is a small museum associated with it. Good luck with your model, and by all means send some photos and details when you are done for possible publication in the IHS newsletter. There was also a scale model of the FHE400 on display at the Maritime Museum of the Atlantic in Halifax, Nova Scotia some years ago. I have...
uploaded a couple of scans of figures taken from old technical papers. Click Here and Click Here. You may need to use the View/Zoom feature on your browser or Paint program to read the dimensions on these, but they can be read. - Barney C. Black (Please reply via the BBS)

[20 Jan 03] Did you ever receive a response on your question as to drawings on the Bras D'Or? My father was the Principal Naval Overseer who laid her down...he suggests contacting the Hull Drawing Office who was the successor to the Naval Central Drawing Office. -- Anne Lynch (aelynch@shaw.ca)

[08 Aug 03] I have been building model Canadian warships for twenty years, and it was suggested that the Bras d' Or would make an interesting model. Are plans available for her? -- George E. Onley (ggonley@onlinl.net)