

INTRODUCTION

Rattle Stations! Rattle Stations! It's war! Two large battles have been concluded since the last Hull Busters. A fleet battle exploded in Amarillo, Texas and the war correspondents from channel 8 (Dallas, Texas) flew up to report on it. It's nice sitting home watching our hobby on T.V. The Axis won.

The second big war was in Decatur, Alabama. You can't imagine how good the hospitality was or how bad the mud was (gracious slop). Obviously the Axis won.

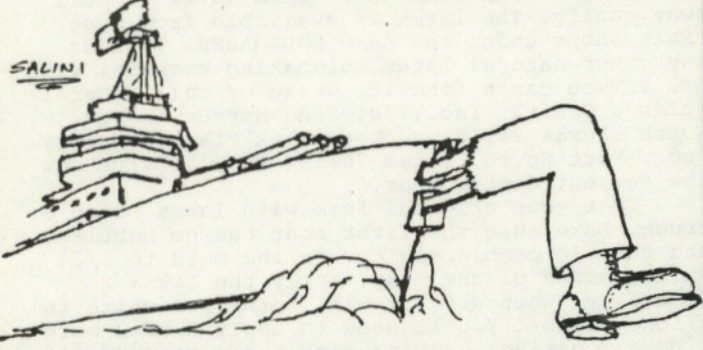
Martin Schneider and myself had an article printed in Scale Ship Modeler. SSM articles have done more to get our hobby growing than any other single thing and we're surely indebted to SSM.

Well, that's enough of an introduction. Sit yourself down to witness the greatest waste of paper ever assembled. Never in the annals of journalism has such pure, undiluted, pollution been compiled on so few sheets of paper. A standard that Hull Busters leads the field in, gosh, I'm excited!

JUNE 1983

# Hull Busters

The Strictly R-C Warship Combat Publication



## How to



### BUILD PROPS AND SHAFTS

by Dan Dees

Although the primary purpose of this hobby is combat, scale appearance is also an important factor. True, the props, being below the waterline and unseen when in the water, are not as critical as other details. But I like to build fairly realistic looking ships and I prefer scale-looking props.

I found that it was easy to construct very realistic props by the following method. The shaft housing is basically the same as the type recommended on the IGP Co plan sets. I built all four props and shafts for my new ship in about three hours.

#### Prop Shaft Housing

(1). Cut a piece of 3/16" brass tubing to the appropriate length. Determine this length from the hull plan. A fine Hacto saw and a small Hacto miter box work well for cutting brass tubing and rods.

(2). Solder a 5/32" brass tubing sleeve 1/2" long into each end.

(3). Drill a 1/16" hole just behind one sleeve. Insert a piece of 1/16" brass tubing, making sure it does not extend into the housing past the sleeve, and solder in place as shown to form a lubricating tube.

You may want to make this tube larger or omit it entirely, depending on the type of lubricant you choose to use.

Note: Be sure to deburr all pieces. A small round file works well.

#### Prop Shaft

(1). Cut a length of 1/8" brass tubing 1/4" longer than the shaft housing.

(2). Insert a piece of 3/32" brass rod about 1" long into one end. Solder in place with about 1/2" protruding from the shaft for the motor coupling.

Once again, this will depend on the type of coupling you use. If the coupling takes a 1/8" shaft, just omit step 2 and cut the shaft 1/2" longer.

#### Prop Assembly

(1). Mark thin sheet brass with the blade template and cut out 3 blades per prop with metal snips or an old pair of scissors.

(2). Cut a 3/16" brass boss tube 5/8" long. Cut three slots 3/16" long evenly spaced (every 120°) around the boss at 45° to the centerline (here's where the miter box really comes in handy). It's actually a lot easier if you cut the slots first then cut off the tubing.

(3). Insert the blades into the slots, making sure they're properly aligned. Insert a 5/32" brass tube 1/4"

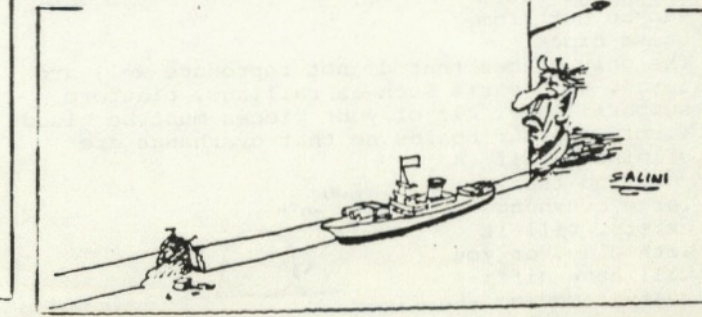
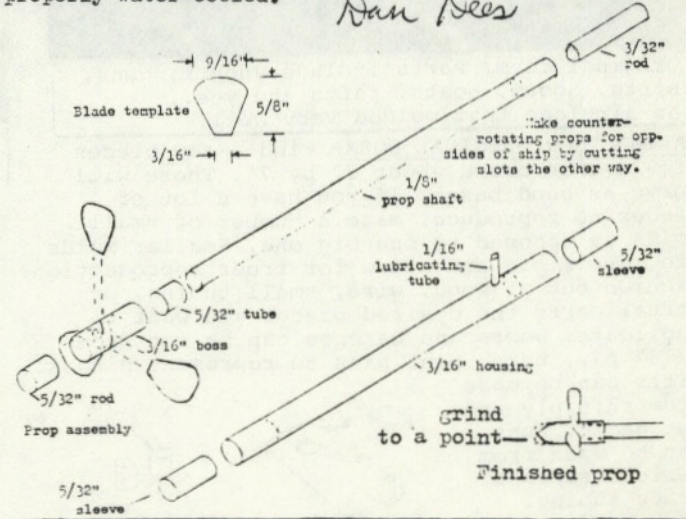
long into one end, a 5/32" brass rod 1/4" long into the other end. Slide this assembly carefully onto the shaft and solder into one unit.

After the prop shaft and prop assembly are soldered together, slide the shaft into the housing and couple a motor to the shaft with a piece of plastic tubing an appropriate coupling. Start the motor and, with the prop spinning, hold the end of the boss against a grinding wheel or a sanding disc and shape the end of the boss to a point. Then hold the spinning boss against fine sandpaper. When done polish the prop assembly with a Dremel wire brush attachment.

If you cut the prop blades to the size shown, the prop will be about 1 1/2" diameter. However, when I made mine, by the time I was done filing and sanding on them the prop came out a little over 1" in diameter, which was what I wanted. If you want a different size prop, you should cut the blades accordingly.

If you are building an Axis ship, do not solder the prop assembly to the prop shaft. A slip fit will work just fine. Also, for the pieces of brass rod substitute brass tubing. This will assure that the motors will be properly water-cooled.

Dan Dees



# How to BUILD DISPOSABLE DETAIL

By Larry Manofsky

You've just spent your last week of vacation finishing up your newest combat warship. There she sits, the terror of the waves (or ripples). The guys are really going to be impressed, right?

Well, not really. The only thing that draws attention to any model is detail. The more, the better. So, you scrounge up all the model accessory catalogs you can get.

Let's see, you'll need airplanes, guns, bits, davits, anchors, chain, doors, hatches, stairways, railings, etc., etc. That all comes to \$67.95 plus shipping.

Yeah, right. You're going to spend \$67.95 just to decorate the bottom of some duck pond. Wouldn't it be great to have a way to cheaply mass-produce those detail parts yourself? Well, read on captain.

What you need to do is make a reinforced latex mold. By using fiberglass resin as your plastic, you can duplicate as many of any kind of detail part that you want. Here's how:



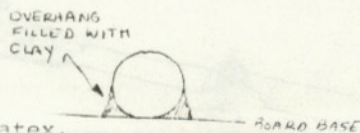
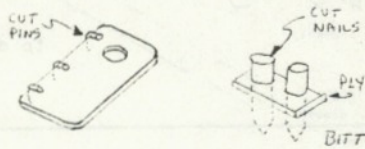
Original form. Parts include anchor, guns, bits, doors, boats, rafts and yes.. an airplane that molded very well.

**MAKING YOUR ORIGINAL FORM-** Find a few pieces of 3/4 inch board about 7" by 7". These will serve as good bases. If you have a lot of pieces to reproduce, make a number of small molds as opposed to one big one. Smaller molds are more rigid and allow for truer reproduction. Fashion out of wood, wire, small tubing, or actual parts the desired pieces you want to duplicate. Doors and hatches can be cut from 1/16" ply, using bent pins to represent hinges.

Bits can be made from thin ply and cut nails. Guns can be made from various sizes of brass tubing. Boats and rafts can be cut from balsa block.

The only pieces that do not reproduce well are large, thin parts such as railings, platform supports, etc. All of your pieces must be glued firmly to your boards so that overhangs are eliminated. If

you find that a large overhang exists, fill it with clay, or you will have difficulty removing the latex.

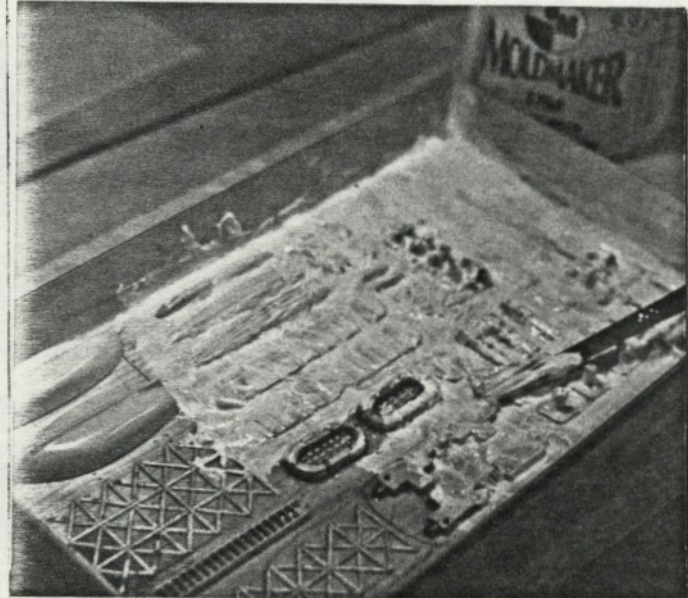


After finishing all of your parts. Cut strips of plywood to border them. You'll have to tape these strips down to form a tray so the latex can be poured in.

**SEAL YOUR FORM-** Coat the form with two or three coats of polyurethane varnish or enamel paint. This will close all of the wood pores and smooth out the surface.

**MAKING THE LATEX MOLD-** When the paint or varnish coating on the form dries, spray it down with a silicon spray such as LPS or WD-40 (PAM might work). This will allow the dried latex to pull away easily. The latex is available from most craft shops under the name MOLDMAKER. This or any other natural latex moldmaking material will do. If you can't find it, write or call General Molds & Crafts, Inc., 7701 Sand Street, Fort Worth, Texas 76118 or, Deep Flex Plastic Molds, Inc., Fort Worth, Texas 76110. They'll give you the nearest distributor.

Coat your original form with latex using a brush. Make sure the first coat has no bubbles, and that it completely covers the mold to 1/2" up the sides of the tray. Apply the latex liberally. When dry, it will turn from white to a honey color. You'll need to apply 2 or 3 more liberal coatings, giving each a day to cure. If you want to speed up the drying time, bake in the oven on a low temp. (But make sure there are no plastic parts on your form, or they will melt!).



Applying the latex. Make sure all is thoroughly covered. The latticework at the bottom of the picture did not mold well.

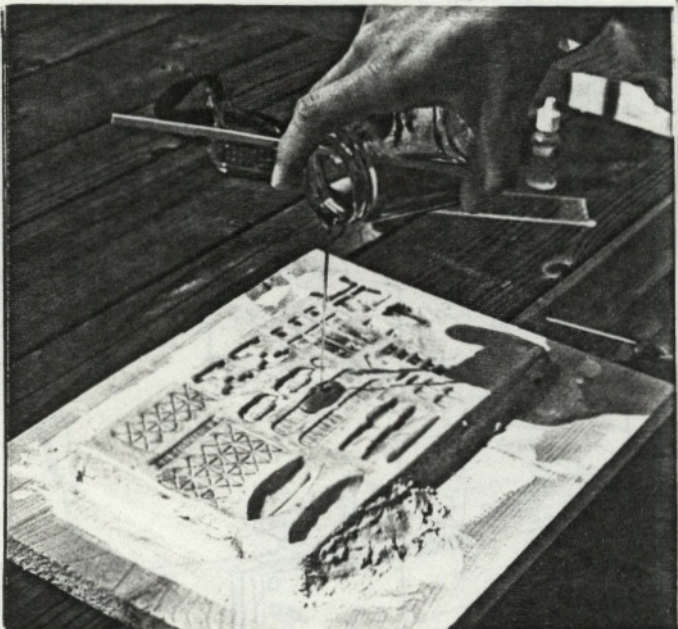
**REINFORCE THE MOLD-** After about the third coat of latex, the mold should be from 1/8" to 3/16" thick. If you peel the mold from the form now, it will be too flimsy to use, so you have to add reinforcements. Pour a final layer of latex on and imbed in it lengths of closely spaced music wire or chicken wire cut to completely fill the tray. This will give the latex "Backbone". The more latex you put on in this final coating, the better. Aim for about 1/4" thickness in the mold.

**SETUP FOR POURING-** Once the latex is completely dried, remove the mold from the form. Make sure there are no milky areas in the latex before you do this! The latex must be a uniform tan color. If the latex is removed before it is dry, you just ruined it. With the latex removed, it still might be a little floppy or flimsy to use. Staple it to a wood frame to give it more support. Do not use plaster or wet sand under the mold to add support. The water in both will react with the fiberglass resin and won't allow it to cure properly. The latex mold must be completely dry in order for the resin to harden.

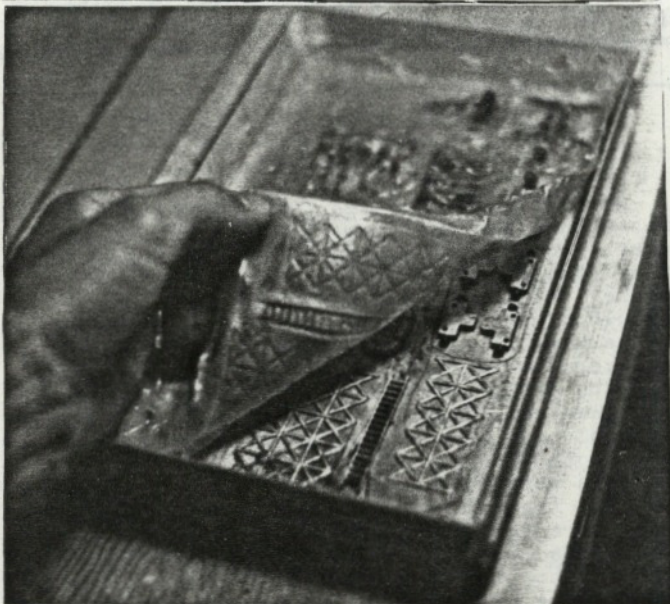
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DISPOSABLE DETAIL Cont.

**POURING YOUR PARTS-** Fiberglass resin and its catalyst is available from most all hobby, hardware and auto parts stores. Mix one ounce resin to 12 drops catalyst for a normal mixture. It usually takes a good hour or so to harden. You can speed up this time by adding a few more drops of catalyst. Spray your latex mold with silicon spray to insure proper separation. Pour the resin directly onto the mold, filling all depressions. You might want to use a toothpick to remove air bubbles from the deeper parts. When the resin has cured, pop the parts out of the mold and trim all excess. If the parts are a little sticky, it's because the latex still has a little water in it. Lay all your parts out in the sun for a while to dry out.



How to ruin a good mold. I used plaster to reinforce on my first try. When things screwed up, I kicked my cat into a coma.

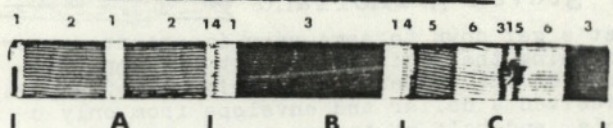


If this seems like too much trouble to go through, then you shouldn't have read it in the first place. But, from the parts I've made, it sure saves a lot of time compared to carving each piece out of balsa wood. You can mold a box full of spare parts to carry along to the meets. When you get shot up, just slap them on and you're ready to go.

And remember... Allied ships make good fishing reefs.

*Larry Manofsky*  
Larry Manofsky

**RIBBON DOCUMENTATION**



The ribbon above was awarded to myself at the sanctioned peccatur, Alabama April 1983 battle. Almost identical ribbons were awarded to all participants. Hull Busters is taking to task the job of documenting all sanctioned ribbons. The numbers above the ribbon depict colors. 1=white 2=light blue 3=dark blue 4=gold 5=red 6=yellow.

The letters below the ribbon represent A=participants, B=participant in fleet battle, C=participant in ship to ship challenge, and the star represents participating in an additional ship to ship challenge. Fluegel

**START YOUR OWN R/C COMBAT CLUB**

How is that for a title. The following article is a club bulletin which 3 club officers participated in composing. (T. Darby, J. West, J. Poindexter).

Dear Prospective R/C warship Combatant,  
We of the R/C Combat Club would like to invite you to create your own local subsidiary club affiliated with our national organization. You may start your club by having at least two members.

To charter a new club send the list of names of your members plus \$5.00 for a charter fee along with the name of your club as you want it to appear on your charter certificate.

To become a member of the national club each of your club members will have to send an annual \$10.00 dues fee which entitles each member to a subscription of THE NEWSLETTER OF R/C WARSHIP COMBAT "Hull Busters" and a membership card. All memberships expire on December 31 of each year so join in January to get your maximum benefits and all six annual bimonthly Hull Busters' issues.

If you do not wish to form your own local club you may simply send your \$10.00 membership fee. You will then be a member of the national R/C warship combat club and will not be a member of any local club. Your voting privileges will be the same.

Most modelers choose to procure liability insurance. The R/C warship combat club is affiliated with the North American Model Boaters Association (NAMBA). An insurance policy for \$1,000,000.00 is available for \$18.50 per year. This policy also expires on December 31 of each year.

To participate in sanctioned (major) battles, combatants must have the insurance coverage and must build ships to the official Rules of R/C Warship Combat and battle within the guidelines of these rules.

Each year changes to these rules are voted on. As a member of the R/C Warship Combat Club organization you may submit and/or vote on these changes if you have participated in at least one sanctioned battle in the last two years.

Rule suggestions appear in the Hull Busters newsletter to inform all members of the legislation that is pending. Members who will not attend the National Championships are required to send their votes to the Contest Director of the Nationals at least two weeks before the Nationals begin. Members who attend the Nationals will have their votes counted twice.

That's the way the organization works, if you would like to join send the appropriate fees along with a self addressed envelope to the club Treasurer; Terry Darby, Chilhowee Station, Tallassee, TN 37878.

Thanks for your interest, welcome aboard, and Let's Battle!

## NATS TO YOU

By Steven Milholland



Let's get down to some very important matters concerning the Nationals. WHERE is YOUR request for the contest package?!? As of May 24 I received a dollar and envelope from only 8 people, and half of those are rookies. To all the rest of you out there who have sworn to attend, don't wait till the Last Minute! Send \$1 and a self-addressed stamped envelope NOW! If you do not request a contest package, you will not have an entry form to send in for registration. Pre-registration is not mandatory but is helpful to organizing a smooth running contest. It will also be cheaper for you to pre-register. The basic pre-registration fee (postmarked by July 4th) will be \$25 per entrant plus \$7.50 for each additional family member who enters. The first \$10 of the base registration will be put into the chemical fund for clearing Sequoia Lake. The remaining \$15 of the base fee entitles a person to enter any or all events and compete with as many different ships as they wish. The same holds true for additional family members who have paid the \$7.50 entry fee. Late registration will be \$30 for basic entry, plus \$7.50 each for additional family members. Anyone who pre-registers out for some reason does not attend will have their entire fee returned.

If, after all entries are in, there is still some of the chemical expense that has not been covered by the \$10 per entry allocated, the remaining expense will be divided equally among all who compete. If any cash is left over, it will go to the club treasury.

Motels. Springfield, Mo. is right in the center of a major tourism area. In July, motel rooms can be in short supply. Make your reservations ASAP! Do not count on finding a room where you want after you arrive. Below are listed the only 3 motels in southeast Springfield (where the lake is), Battlefield Inn, Mount Vernon Motor Lodge, Sheraton Inn.

The Battlefield Inn is a nice economy class motel about 5 minutes from the lake and 1 minute from Wallace Hobbies. The latest word on weekly rates are; one double bed \$110, two double beds \$120. Most of the experienced battlers will be staying here, indeed, several already have reservations. How about you?

It is suggested that you bring the following items with you. A felt tip pen, grubby shoes, extension cord, clip board (for your damage report forms), and eye protection with temple shields. This last item is mandatory for all competitors.

One last note. After the Nationals there will be a special edition of Hull Busters to be mailed out in early september. This issue will be

### CURRENT POINT STANDINGS 5-20-83

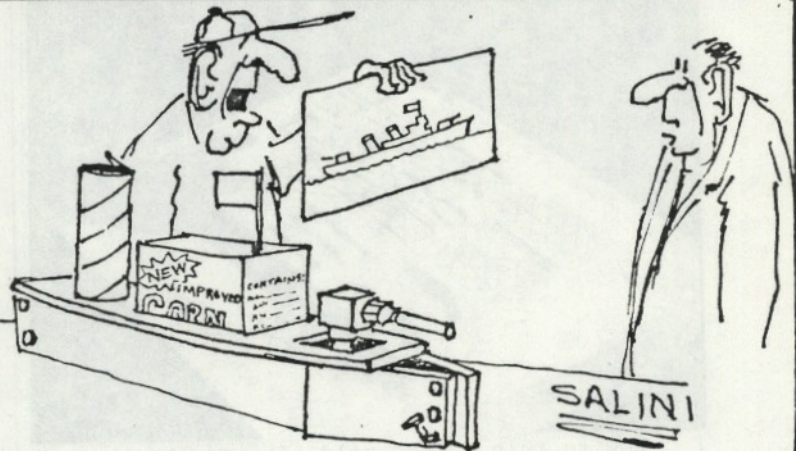
1	M. Schneider	3829	Axis
2	Fluegel	2873	Axis
3	J. West	2494	Axis
4	J. Poindexter	2122	Allie
5	T. Darby	2017	Allie
6	S. Watkins	1584	Allie
7	S. Milholland	681	Allie
8	D. Hamilton	507	Axis
9	K. Poindexter	503	Axis
10	B. Gainer	460	Allie
11	B. Spychalski	349	Allie
12	T. Pace	334	Axis
13	L. Manofsky	279	Axis
14	D. Garrett	267	Axis
15	D. Murphy	96	Axis
16	T. Darby	40	Allie
17	L. Rasmussen	0	Axis
18	D. Beaver	0	Allie
19	D. Jackson	-12	Allie
	Total	10,675	Axis
	Total	7,748	Allie
	Average Axis	1,186	
	Average Allie	775	

an in depth report on the Nationals. If you want a copy of this special edition, send \$1 and a note requesting it to Herr Fluegel.

The week of July 10-16th, 1983 promises to be the biggest and best R/C Combat event to date. Do yourself and me a big favor and make your preparations now. See you at lakeside, Steven D. Milholland/Rt 9 Box 492/Springfield, Mo. 65804/phone 417-869-0025/work 417-881-7440 P.S. You must be a NAMBA member to participate. If you participated in a sanctioned battle in the last 24 months and will not be at the NATS to vote you may mail in your vote to S. Milholland. He must receive all votes by July 8th. Simply list the number of the rules you vote yes on and another list for your no votes.  
P.S.S. Battlefield Inn phone # 417-883-1340.

### MISCONCEPTIONS

17) During a days battle one should routinely fill their freon spheres to insure they don't run out in combat.



"IT WAS SUPPOSED TO LOOK LIKE THIS BUT SOMETHING WENT WRONG ON THE ASSEMBLY LINE."

### SITE FOR THE 1984 NATS

By Fluegel

Where can we have the 1984 NATS? If nobody has a lake and the time required to host the event, somebody in Amarillo will probably volunteer (that's why 3 out of 5 NATS have been there) and that's great but not the way it should always be. I would encourage somebody in Germany or Hawaii to host the NATS there, however, be prepared to also be a fund raiser for the "Help the impoverished publisher go to the NATS campaign". At the risk of appearing sensible somewhere in mid-America would probably be the fairest-to-the-mostest.

This wonderful person who would volunteer to host the NATS would not have to be the Contest Director, though it is customary. He would need to get written permission from the city authorities, including the law enforcement agencies. This is because they take your exacto and dremmel tools away when you're behind bars! The lake should be shallow and I prefer to walk on rescue grass, also the shade from Chinese elm trees would be pleasant for the Axis pit area. Oh yeah, the Allied harbor needs plenty of moss, of the "prop squasher" variety. Instead of listing all the lake requirements it would probably be a better idea if this martyr, I mean host, had already participated in a sanctioned battle. That way he would already know about the little things, like the limousine service for the press must have a luggage rack.

# THE ALABAMA "MUD FEST"

By Jeff Poindexter

On Wednesday, April 20th Jeff Poindexter, Stan Watkins, and James West headed for Dallas in Stan's recently purchased station wagon to pick up D.W. Fluegel. They were headed to Decatur, Alabama to participate in the "Spring Fest FANA" battle (2nd annual Southeast Regional battle) hosted by Dan and Mary Hamilton with Terry Darby as the Contest Director. Yep, that's right, the Boys from Texas were actually going to someone else's battle.

The following day, (Thursday) the group left Fluegel's house at 7:00 AM with his Bismarck, Martin's Tirpitz (Martin flew to Decatur and back) and Jeff's Houston tied to the luggage rack. James' Graf Spee, Stan's Salt Lake City and his Tweedy were loaded in the back cargo hold. The rest of the car was filled with clothes, sleeping bags, tools, batteries, four officers and all the other goodies needed to do battle.

We arrived in Decatur about 9:00 Thursday night and unloaded the ships into the work house (dock yard). Next we unloaded our sleeping gear into the home of MR. and MRS. Rodgers. They are the parents of Mary Hamilton. The fourteen combatants who were there from out of state roomed in the Rodgers. Can you imagine doing that to your parents? D.Q. Wedvick, who drove down from New Jersey to watch the battling, also stayed there a couple of nights. The lodging for four nights and three days, breakfast, lunch and supper everyday and all the ships a combatant wished to enter was included in the (now get this) \$10.00 entry fee. Talk about your southern hospitality! Oh yeah, we also got battle ribbons and cake, etc., etc.

Friday, the 22nd, we waited for all the other battlers to arrive. (Terry Darby with his cruiser Astoria, Dennis Murphy with his Battleship Yamato, and Bob and Brian Spychalsky with their Cruisers Pensacola and Salt Lake City showed up Friday morning). It was raining that morning so we all worked on our ships. Stan went to pick Martin up at the airport about 3:30. About 4:00 we decided, rain or no rain, going to battle. Because of the rain the ground around the lake was very muddy, but that didn't stop the battle from beginning.

The Astoria participated in and won two snip-to-ship challenge sorties. One against the Graf Spee and one against the Houston. The Bismarck and the Alabama then engaged in two individual challenges that encompassed almost the whole lake. Fluegel won 85 to -25. When Martin put the Tirpitz in the water, nobody would challenge it. Finally Jeff walked over to Martin and said that he would battle. Martin declined saying that he was having gun problems. Jeff figured he was just bored with sinking the Houston.

It was getting dark now so we headed back to the shipyard. That evening Dan Hamilton had been test firing his guns in the house. Dennis was also in the room working on his ship. Most everyone else was asleep. Suddenly Mary came out of the house saying Dan's ship had blown up. We went back into the house to inspect the damage. The port side of Dan's cruiser Exeter had the balsa blown out between ribs 3,4, and 5. The starboard side had the balsa blown out between ribs 4,5, and 6. Mary had become a little frightened when she called out to Dennis, to see if he was alright, and he did not answer. When we got to the room he said "I'm too tired to panic". He told them after the ship blew up he turned around and saw a cloud of white mist flowing out of, beneath, and around the mangled cruiser. Dan had just refilled his storage tank and did not vent his tank a full 2 seconds (as per gun instructions), after he filled it. As the freon in the tank warmed, the thermal expansion was too great for the tank and caused it to burst.

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On Saturday, the breakfast was great but the weather was lousy. We did not get started battling until about 3:00. The mud, around the lake, seemed worst than the mud under the water.

As we were unloading our ships, Larry Manofsky showed up with his Zara. (Dan Dees, You have "Best of Scale" competition now.)

The first sortie consisted of 9 ships which tied a '82' record. The Axis fleet included the Tirpitz, Bismarck, Yamato, Graf Spee and Zara. The Allied fleet included Houston, Astoria, Alabama, and Stan's Salt Lake City. Brian Spychalski couldn't get his Salt Lake City in the water in time.

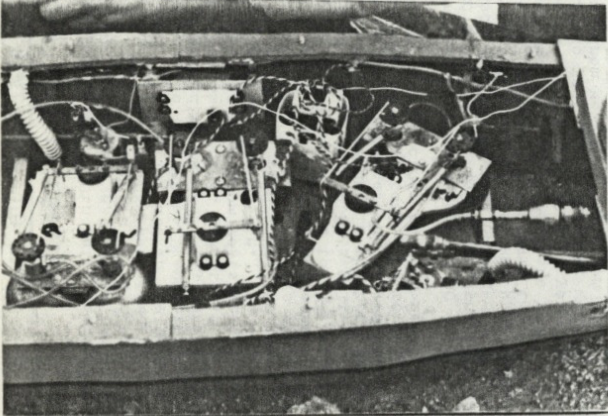
As the first sortie commenced the Allies were spaced about 10 feet apart and all facing the Axis horde. The Axis were scattered all over their end of the lake. The Alabama and Houston had both decided, before hand, to attack the rookie Yamato from opposite sides. The Houston's shots looked pretty ineffective. As the battle progressed, the Bismarck rammed the Salt Lake City. Stan and Fluegel both thought there would be no damage, until the Salt Lake City up-ended and sank about 10 seconds later.

The Alabama, with the help of the Astoria had riddled the Yamato by this time. As the pumps of the mighty Yamato came to life they killed the radio receiver reception. As the 'out of control' Jap battleship was approaching the other side of the lake, the bow suddenly took a nose-dive. During this time the Tirpitz was engaging in a game of cat and mouse with the Houston. As the American cruiser passed by the Alabama, the Tirpitz's interest was drawn toward the bigger game. The Houston then took this chance to run and hide as she was on the '5 minute rule'. The Alabama sank very shortly afterwards. Steve had forgotten to turn his pumps on before the sortie started. So the pumps sat silent as the only Allied battleship settled, once again, to the bottom of an unfamiliar lake. Due to the lack of ship identification the Graf Spee and Zara had an exchange of BB's during the first sortie but no damage was inflicted. Finally everybody's '5 minute rule' had run out. The Astoria had once again played havoc with the Axis fleet and had not been seriously damaged in the process. The Houston, with pump going full tilt, was the last into port as she was a far piece away from the battle. The Graf Spee had received no damage even after exchanges with Astoria, Alabama, and who knows who else. The Zara had only been hit a few times which is pretty good considering that this was her captain's first battle.

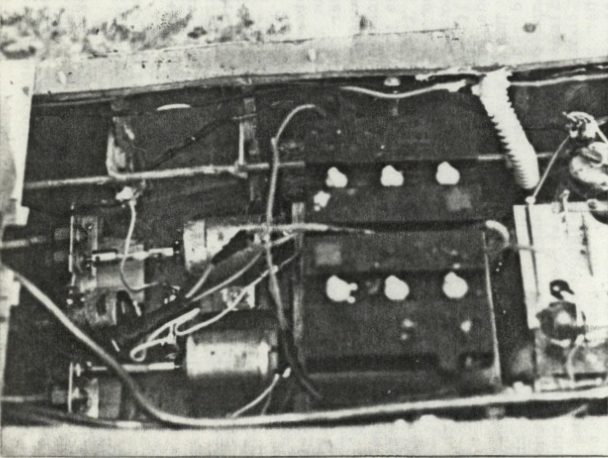
The Allies were busy drying out radios, reloading and tweaking guns and all other tasks involved with combat. The Axis waited patiently for the second sortie during which time Martin demoted Fluegel from garbage collector to Garbage Collector's Dog because of the ram sink of the Salt Lake City. (Editor's note: Bark, Bark)

The second sortie of the fleet battle proved to be one of the most exciting battles of recent history. The Axis fleet was minus the Yamato, so that left the Tirpitz, Bismarck, Graf Spee, and Zara to defend the lake against the Houston, two Salt Lake City's (Brian was allowed to enter this sortie) and the Astoria. Soon after battle was declared the two outboard motors of the Houston were ripped from their supports by some unseen mysterious force. (The fallacy of using epoxy where ambroid was really needed.) The two in board motors were not enough to control the Houston in the huge waves and high winds. When the cruiser passed by a deserted island an enormous wave picked her up and threw her against the rocky beach with about 1/4" of her red colored hull showing about the water. The Bismarck, after several passes failed to do any real damage to the Houston. The Graf Spee then went around to the other side of the island and fired over

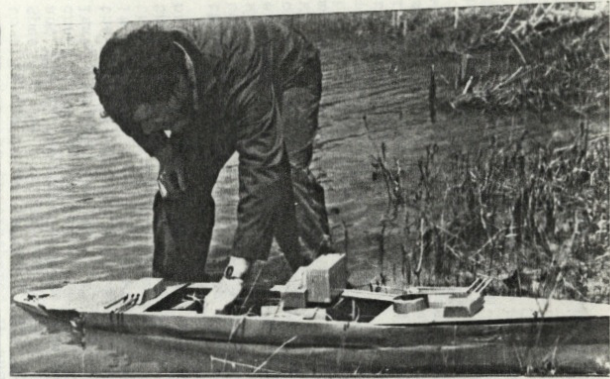
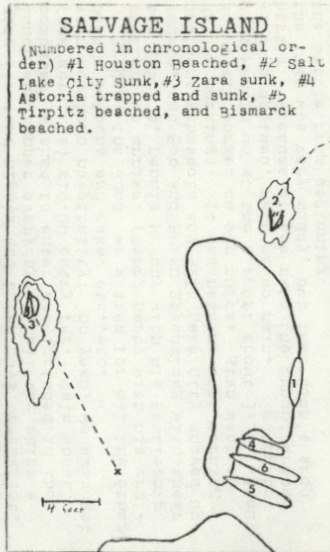
The **GIANT** ships of Decatur.



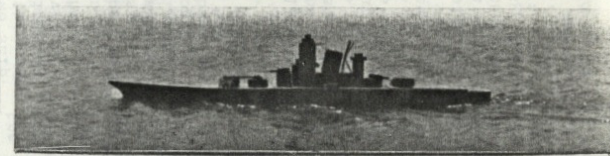
The fire control of the dreaded Tirpitz.



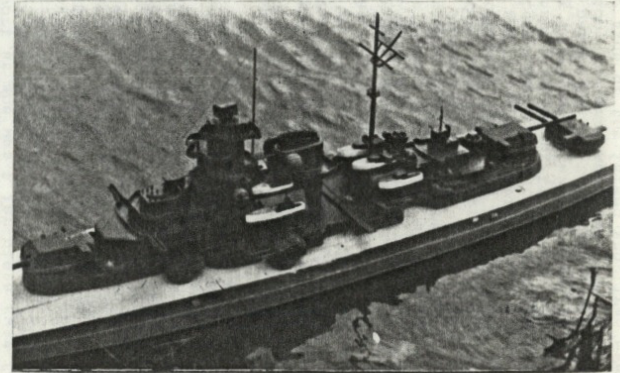
The Tirpitz's propulsion compartment



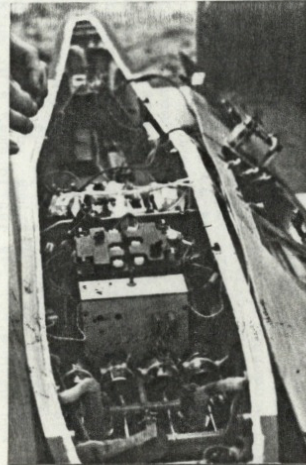
The Yamato prepares to battle.



The Yamato in search of Allied Cruisers.



Bismarck waits to battle the Alabama.



The Alabama's Guts.

the island into the starboard side of the Houston several times. As this one sided battle continued, Stan's Salt Lake City passed through the channel between the main land and the now famous Salvage Island as did the Tirpitz. One large hole suddenly appeared in the starboard side of the Salt Lake City as the guns of the Tirpitz came to life. The Salt Lake City started listing to port, away from the entry hole. This greatly relieved Stan. As the Salt Lake City made a 180° turn toward the far side of "Salvage Island" two larger BB exit holes were seen taking on large quantities of water. She sank 2 feet from Salvage Island. Martin then called to the other Axis Captains and said "Hey guys, come over here, the pickin's are good." (Some German accent). The Zara soon showed up to help in the onslaught. The Astoria then started picking fights with any Axis ship in sight, which turned out to be all of them. The first to take to the chase was the Bismarck. The American cruiser led the unsuspecting battleship under the, still active, guns of the beached Houston. The hull of the Bismarck was holed by the ground cruiser. The Astoria was leading the Zara through the same trap when the Graf Spee holed the hull of the Astoria. But the Houston was able to hole the hull of the Zara, also because of the determined fighting spirit of the Astoria. The Zara went dead in the water after the Astoria made a couple of passes at the Italian cruiser. She drifted about 15 feet past Salvage Island before she rolled to port and sank.

As the Astoria was going past the Houston, the Tirpitz made an heroic charge and beached herself in front of the Astoria. This caused the Allied cruiser to turn hard to starboard in an effort to avoid contact. The Tirpitz's bow wake caused the stern of the cruiser to be pushed onto a rocky section of the island just to the starboard of the Houston's bow. The Bismarck then intentionally beached herself between the Tirpitz and Astoria to start blasting the Astoria with her side mounted guns. The battleship's guns were too high to do anything except some superstructure damage. Shortly, after this the Astoria's massive pump suddenly quit. The forward deck was soon under water up to her bridge. The sortie ended and the carnage was viewed, cleaned up, and transported back to the work house.

As the ships were being dried out, repaired, and inspected two pump problems were discovered. Terry found a piece of balsa (that had been blasted out of his hull), had entered the intake of the pump and had jammed the pump blades against the pump housing. This stopped his 3 1/2 gallon/minute pump, which resulted in his Astoria's sinking. Stan found that the inducer blades had slipped and had caused the pump propeller blades to cavitate on his Salt Lake City's pump.

The last day of the Spring "Mud" Fest (Sunday) started off with rain as the first two had. We went back to the location of Salvage Island but this was now a continent because the lake's water level had dropped. So all the balsa and BB's that were expended the day before for that worthless rock were to no avail. Such, it seems, are the fortunes of war. After we cleaned the site up we found a new set of worthless rocks to battle at.

The wind and waves were still very high, so everything smaller than a battleship had to be careful. The third and final sortie of fleet action was the first action that Sunday. Jeff had patched his hull, but decided to drill out his hull patches and risk sinking. Had he left his patches in tact he would have forfeited a 250 pt bonus to the Axis. At 1 PM the fighting began. The Alabama, Astoria, Houston and Brian's Salt Lake City took on the Axis Tirpitz, Bismarck, Yamato and Graf Spee. The Zara had withdrawn before the battle started due to speed control problems. Stan's Salt Lake City

had become flakey overnight so it also withdrew.

The Axis decided not to waste BBs on the Astoria because her mighty pump made her almost unsinkable. Their guns would seek out the Houston and Brian's Salt Lake City. As the battle progressed the Houston fired at all the Axis ships before exhausting her magazines. She then retreated to the safety of a remote bay to wait out the remainder of her '5 minute rule'. This safety was interrupted when the Bismarck decided to throw a few rounds into the Houston. The battleships bow wake combined with the already high waves caused the Houston to get hung up on the rocks along the shore. The Bismarck's props then fouled on some moss allowing the Houston to be saved from further damage. Meanwhile the Alabama and Astoria were terrorizing the Axis. The Tirpitz was firing at and hitting (but not penetrating) the Salt Lake City. The Salt Lake City was getting lower and lower in the water until her pump was overloaded and she sank by the stern. When recovered she was assessed a 50 point penalty for unseaworthiness because no damage had been inflicted (this allowed the Allied fleet to do a little better point wise instead of being charged with a sink). The Astoria and Graf Spee were the last to call '5 minute rule' and the fleet battle was over. The Axis had won again, though the scores were close for a change.

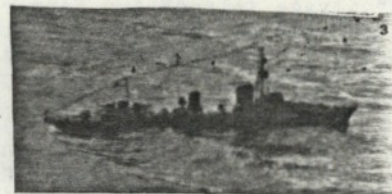
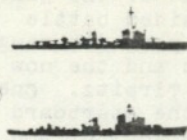
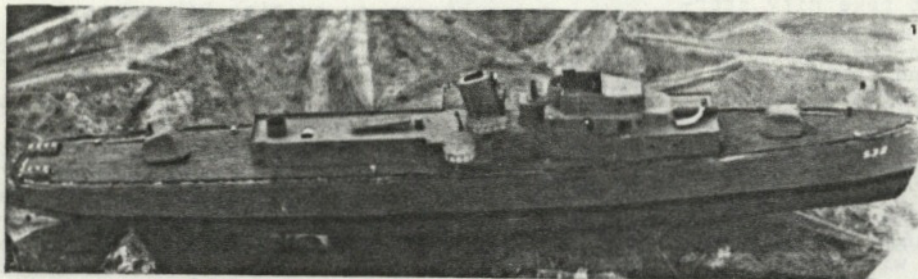
The end of fleet battle meant individual snip to ship challenges could start. The first action pitted Jeff's Houston against Larry's new Zara. Larry had borrowed a battery for his Zara from Dan Hamilton. The battle started and almost immediately the Zara went dead in the water, Larry called, "5 minute rule". The Houston's captain breathed a sigh of relief realizing that this might be the only battle he could overwhelmingly win and gain some points for his personal score. As the Houston came around the stern of the Zara the Zara's rear gun fired into the starboard side of the Houston. Larry was jubilant about the hit! But Jeff informed him he was on 5 minute rule so he could not fire. Larry said he called the '5 minute rule' because he was out of control and thought he could still fire. Jeff informed him he should have called 'out of control 5 minute rule', and agreed to change Larry's status to the latter. The Houston then came around to the port side of the Zara and shot 2 holes in the hull (gray) and two into the superstructure. The Houston then ran out of BBs and went on the clock. After 3 1/2 minutes of Larry's '5 minute out of control' status the Zara drifted to shore. Larry then reached down and plucked his cruiser from the water. Jeff informed Larry that he should have left it in the water for the full 5 minutes. Upon inspecting the Zara the problem appeared that had caused her to go dead in the water. The starboard motor's plastic parts had all went into thermal run away and melted! The cause of the melt down appeared to be props that were 3 times larger than the motors were able to handle. The Houston had received no damage and since Larry had to decline battle the score was Houston 300, Zara 0.

The next few sorties pitted the Astoria against the Graf Spee (the fight of the bulldogs pulling at their chains); the Graf Spee against the Exeter (three full sorties) and the Yamato against the Exeter. Unfortunately the scores of those battles are unknown to the author.

The Tirpitz then challenged the Alabama to a one on one. Both snips danced around the lake as if it were a calm day. BBs could be seen and heard hitting both ships. The Tirpitz's side guns (all 4) were either empty or not working after several passes. The Tirpitz then aimed her bow gun at the Alabama and started blasting away. The Captain of the Tirpitz forgot where reverse was (Allied propaganda) and rammed a large hole in the starboard side of the Alabama, taking out one of her pumps in the process.

## The tiny ships of Decatur.

Photo #1 is Stan's Famous Destroyer Escort Tweety. #2 is Loy's Narvic Class Destroyer. #3 is Dan & Mary & Salini's version of another Narvic Class Destroyer.



Steve immediately threw the Alabama in reverse which headed the Alabama towards the nearest shore. As the Allied battleship sped closer to the beach the bow completely sank, however, her powerful motors were pulling her practically underwater until she reached shore. In self-disgust Admiral Schneider demoted all Axies to non-officer status due to our ram sinking misfortunes, (he included himself in the demotions-bark, bark).

It should be noted that there was only one BB hole in the Alabama and there were 2 BB holes in the Tirpitz. Had there been no additional damage this would have given the Alabama the honor of being the first ship to cleanly defeat the Tirpitz in a ship to ship challenge.

The next sortie was between the Houston and the Bismarck. As the Houston was lining up for a shot at the Axies pig ship the Houston's receiver batteries must have went dead. The speed control locked into a full speed reverse which eventually beached the Houston. The Bismarck then made a slow pass by the Houston firing 15 holes into her hull and several into her superstructure. The Bismarck once again became fouled on some moss. The Houston declined further battle because of the damage, which gave Plugel an additional 250 points. The score was approximately 700 for the Bismarck, zero for the Houston.

After this came a peculiar sortie between Stan's destroyer escort (Tweety) and Loy Rasmussen's German destroyer (Z-38). The Tweety fired one salvo from her tiny-Tweety-gun that hit the port side of the Z-38 and cracked its balsa. The Z-38 shortly afterwards went dead in the water, drifted within 10 feet of the shore, capsized and sank. The Tweety received 520 points for sinking a ship with one BB blast.

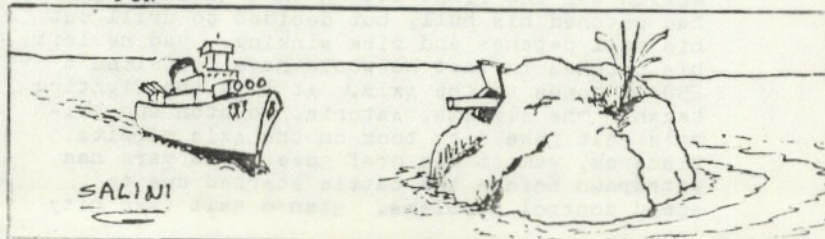
After this sortie the author had to take Martin to the airport. My absence at lake-side prevented me from seeing the battle of the Alabama and the great (sperm whale) Bismarck. Therefore I have reluctantly asked Bark, Bark Plugel to share this battle story with the rest of us. However, before he rattles on I would like to say we all had a great time even though we only had 9 hours of "lake time" of which only about 2½ hours were spent in battling. We also thank Dan and Mary Hamilton for providing us with a place to stay and all the good food we could eat.

See you at the nationals and good hunting.  
Jeff

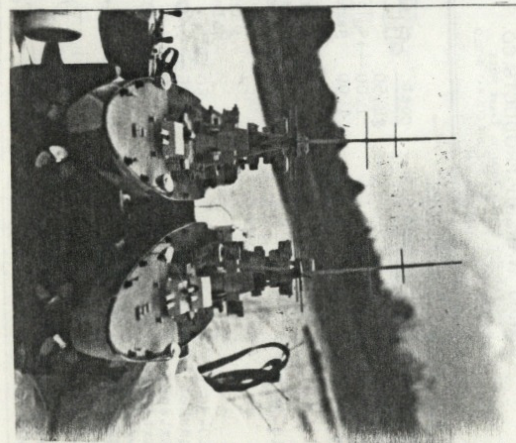
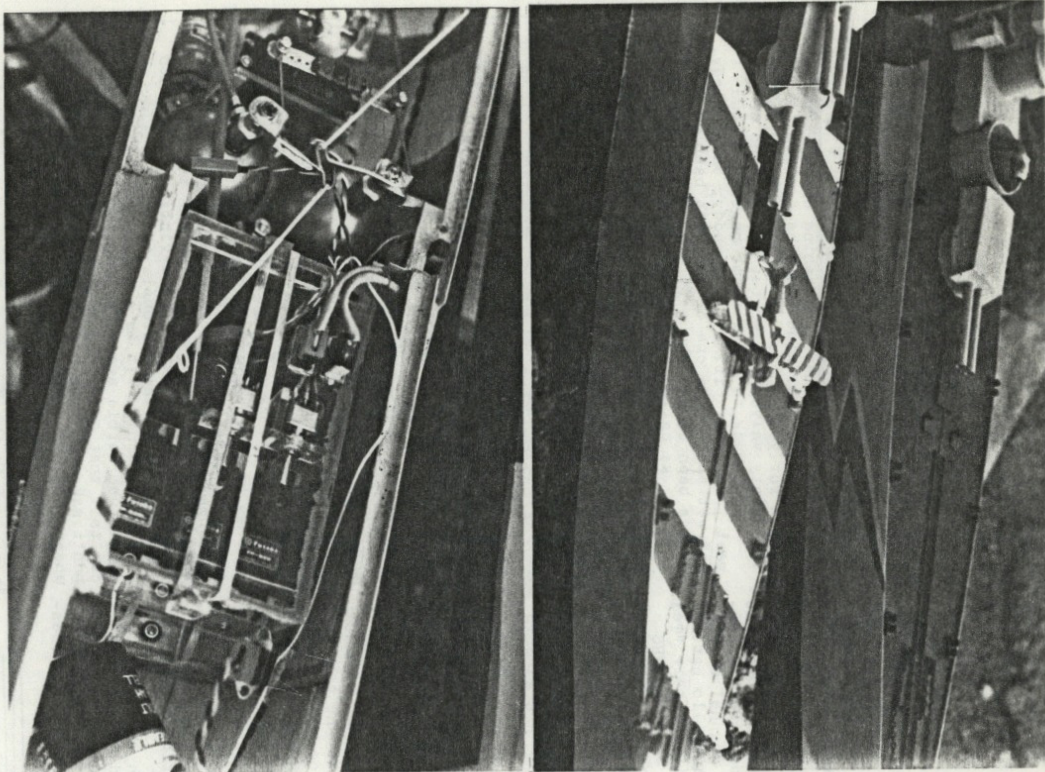
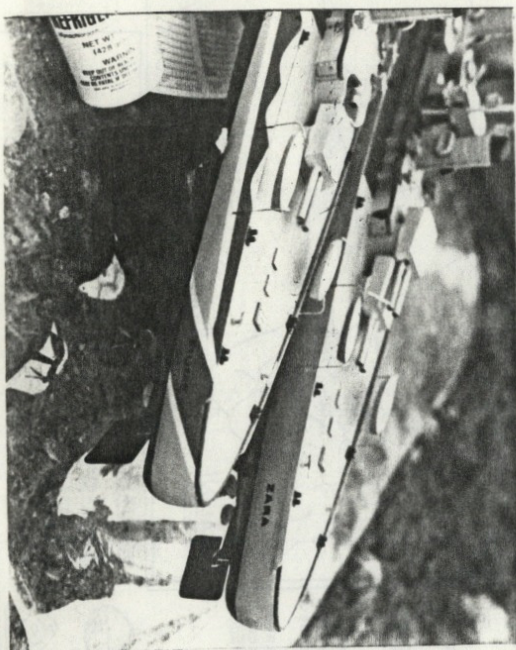
Thanks for the kind introduction Jeff, you Allies are good losers and you should be with all the practice you've had. This is Plugel. The battle between the Bismarck and Alabama was the last battle of the Alabama event. It was a fun one to watch because the two battleships went out into the big waves. I had a peculiar advantage because I was faster. This edge was gained prior to the battle at the negotiating table. I refused battle under the rule that allows slower ships that right. My batteries were on the lowside (two balls) and I had lost

my port engine. Steve volunteered to reduce his voltage from 12 to 9 volts so I accepted. This it turned out was about the correct voltage drop as the two ships were about the same speed. Actually I was a bit faster, and he was more maneuverable. I guess that's even..? The battle was more playing in the waves as opposed to serious battling. I was impressed that the Alabama was even fighting after the severe ram sink it had suffered earlier that day. Both ships were pumping water. I inflicted 6 hull hits into his Alabama, hence he had more water to play with. My water came from the large waves breaking over the bow and leaking into my deck seal (not much of a seal...). This leakage was pumped out of a hole in my deck and straight up into the air, oh, about 15' high, in ½ second surges. The bilge water fell back down onto my ship which cleaned her up before the long trip home. I'm planning on installing red and green lights around my pump exits. I believe it could make a really fine looking fountain. The problem is the Allies just can't seem to get a hull hole in the Bismarck, so my pumps are always thirsting for water. We Krauts have a whole different set of problems. Steve did manage to land three good hits into the Bismarck's superstructure. I guess the score was about 175 for the Bismarck and 15 for the Alabama. you Allies are really improving! There was some mumbling about the Germans having planked our ships with hard wood. To demonstrate the fallacy of their thinking I took one of the Bismarcks weaker guns, test fired it into the Houston's hull to show that it was a more or less average gun. They felt it was weaker than average. Then I shot my Bismarck from an average battle distance into the random spot they selected. A hole appeared (to my relief). They then selected another spot and I shot a hole there also. Terry started enjoying this activity and selected a host of places I should shoot holes into the Bismarck. James then requested a test be made on his Graf Spee. To their surprise it also penetrated. I believe the Axies superior navigational skills simply give the Allies poor glancing shots at best. The Allies feel they need to practice tweaking their guns. It doesn't matter, we all had fun.

By the way. The hosts and contest director did a good job and everybody appreciated it. Also, Dan and Mary, don't feel bad about the mud, wind, rain, waves or temperature. We all realize they are a part of the hobby and don't you feel guilty about that kind of stuff. It was FUN!







### SHIP(S) of the MONTH

Hull Busters is proud to show off how well our combatants can build. Larry Manofsky's (Knoxville, TN) Zara and Piume Italian cruisers look emaculate. I predict the Zara will be a strong candidate for "Best of Scale" at the 1983 NATS. Above and beyond their beauty is the fact that they are Larry's first R/C ships and that both were built in 3 months! Way to go Larry. Let it be noted that the editor of Hull Busters resents rookies building better looking ships than his own. Especially TWO in 3 months!





**OBSERVATIONS OF THE FOUNDING FATHER**

The Alabama spring regionals and Amarillo post Easter battle have come and gone. I personally enjoyed both battles. Channel 8 WFAA of Dallas filmed parts of the Amarillo battle and had a 2 minute show about it on their "Texas Tales" show. I have a copy of it in VHS stylenow. A highlight of the battle was the USS Tweedys challenge of the Tirpitz. Yep, Tweedy finally met her match. After it sank it was a bit hard to find. The Axis fleet also sank the Houston and Helena.

There is some talk of several different kinds of guns being developed for R/C Warship Combat. I expect the old MK IX GCH type gun to be around for a while and if need be we could set up different classes for other type guns. It would be nice to have some type of standard gun and right now the old MK IX type is it. The design is simple, cheap, and maintainable. Most people modify theirs in some way to help it fit their ship better or be reloaded without removing the deck.

I developed this gun to help get this hobby going. I encourage combatants who can build their own guns of this type to do so. I consider the design to be the "property of the R/C Warship Combat Hobby". I would like to supply you with barrels and other parts but if you want me to build your guns it is going to cost you for my time as indicated by the new \$39.95 price.

Also I've been having a problem getting the right (functional and repeatable) o-rings for the safety valve.

The Exeter's tank explosion which blew out some of her hull skin reinforced my basic belief that a safety valve is needed. People cannot be depended upon to vent enough freon after filling their tanks to provide the necessary gas bubble for liquid expansion.

you people that I am behind on gun orders, Thank you for your kind patience. I feel a burden for your needs. I still have not solved the safety valve problem but I'm working on it.

Now, back to the Alabama regionals. Mud Fest 1 we called it. It was muddy, cold, windy, and wet and we had one of the best battles ever. It has been called the Battle of Salvage Island.

It was called that because it looked like a breakers yard with all the ships laying around. It was the second sortie of the first Fleet battle on Saturday April 23. My Salt Lake City was sunk by a single powerful salvo of the Tirpitz. Houston, Tirpitz, Bismark and Astoria were all aground on the island. Zara like salt Lake City sank just off shore.

The main Allied warship Astoria blasted the whole Axis fleet so badly that the Allies won the sortie. It was another glorious performance by Terry Darby and his New Orleans class Heavy Cruiser Astoria. Well Done!

The Axis battleships had a bad case of the rams. They sank the salt Lake City (Bismarck) and our Battleship Alabama (Tirpitz).

In the end the Axis won but not by the normal overwhelming margin.

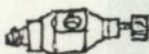







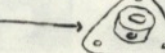
Dan and Mary Hamilton were superb Host's and we were all disappointed that the weather of the state of Alabama was not nearly so hospitable as our Hosts.

On behalf of everyone I'd like to welcome our new battlers Dennis Murphy, Larry Manofsky, and Loy Rasmussen to the active legion of fighting ships. We welcomed them well (they all were sunk in battle). Loy's Z-38 became the USS Tweedy's first combat sinking victim. I hope to see everyone at the nationals in Springfield, Missouri in July. It is a super bonus that the people who battle are superfine to work with. I can tell that god Truly smiles on our hobby. Don't ask me why because I don't even pretend to understand his magnificent generosity and grace. He likes it! Let's Battle! Stan

P.S. 1 But, He never said it would be easy. P.S. 2 Would the spectator at the Lake in Decatur please write about some of his experiences in WW II on the real USS Tweedy.

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# ACHTUNG ALLIES

by Fluegel

After last years Nationals, we Axies were very benevolent to the conquered Allies. The only wrath we displayed was throwing their Admirals hat into the lake (with great pomp and ritual). We Axies after all have all we ever wanted, peace (and global dominance). This peace seems to be decaying. First, our covert intelligence uncovered Allied Admiral Watkins war plans, and secondly a band of these rebels had the gall to engage us in battle in the remote waters of Decatur Alabama. Obviously we had to squash this rebel uprising. However, it is clear that benevolence is only for dealing with the civilized (Heil Hitler to that). Therefore the Axies do hereby lay down the law to the Allies. The Axies graciously will allow the Allies to keep their current ships, and will even allow unlimited construction of new ships, however, all Allies must now wrap their receiver antenna around their propulsion motors. Is this too much to ask from a conquered population? Absolutely not!

This law will be enforced at the Allied Springfield maneuvers festival and should it be violated our massive naval units will be there to crush all Allied warships. To further promote the current peace, the following 'Terms of surrender' will be invoked as the new policy of the Axies should this war develop.

## Terms of Surrender, July 1983 (to be signed by the top two Allied War Criminals)

We do hereby humbly admit that we are in fact, Pig-breathed Yankee dogs. We also acknowledge that our greatest pleasure in life is the supreme honor of knowing the charming Axies Officers. We recognize the evil ways of our past, and do happily donate one dollar each to the club treasury as war reparations.

Chief Pig-breath War Criminal \_\_\_\_\_

Assistant Chief Yankee Dog War Criminal \_\_\_\_\_

(The Chief Pig-breath war criminal shall now throw his Naval hat into the lake.)

# President's Column

110  
*Schneid*

I had written this article prior to the Decatur regionals but the topic was discussed there and the article has consequently been changed to include suggestions members more or less agreed on there. They are suggestions-not rule changes. I have chosen to discuss something that has been hashed over a lot. This concerns how much relative advantage one should give big ships over little ships. We have been over this many times and most of the significant rule changes have been over this (for example, the elimination of the 4 gun-one pump cruiser). A lot of these have born good fruits. The evolution of the battleship would have come at least 1-2 years later had this rule not been made. The thing that always bothered me about this was that the intention of the rule was to make it simpler for one to enter the hobby and to avoid making hobbysts feel like they had to have 4 guns on a cruiser to be effective. I feel that quite the opposite has occurred and now instead of having to build a 4 gun one pump cruiser to be competitive one probably has to build a 6 gun 4 pump, expensive and time consuming battleship to be a winner. Yet to maintain a semblance of reality battleships should be able to defeat cruisers the majority of the time. I think that Dave Garrett has came up with the best partial solution to this that anybody has ever suggested. The bigger the ship the more points one gets for sinking it. This maintains battle realism while still giving smaller ships a chance point-wise. I would weight the scale heavier, though. Perhaps 1000 points for sinking a battleship, 800 for a battlecruiser, 500 for a heavy cruiser, 350 for a light cruiser and 200 for a destroyer. Armament should be limited to four guns on battleships and battlecruisers. Cruisers would remain with 2. Speed for all ships should be limited to 30 seconds per 100feet. This, according to the last Scale Ship modeler, is scale anyway. I also personally feel that if the absolute speed rule is passed, we should eliminate our present rules against changing batteries for 3 sorties to give the destroyer boys a break. Limiting pumps was hashed over a lot. Pump size should be limited by absolute capacity. It was decided that cruiser should have one pump big enough to pump the amount of water 2 BB holes would let in 1/2 inch below the water line. A battlecruiser would have 2 pumps with a total capacity of 4 BB holes below the waterline and battleships should have the total capacity of 6 BB holes below the waterline but the number would be unlimited. I have measured how much water 2 BB holes 1/2 inch below the waterline will let in and it is 3 cups per minute. This would give a cruiser 3 cups per minute, a battlecruiser 6 cups per minute, and a battleship 9 cups per minute. It was also agreed that there would be no routine check of pump capacity but that if somebody was pumping too much he could be protested and pump capacity measured.

We all had a good time at Decatur and I again would like to express appreciation to Dan and Mary Hamilton for everything.

As axis supreme commander I would like to report that there are no more commissioned officers in the axis fleet. No member of a fleet with as many ram sinks that we produced should be a commissioned officer (I am including myself). Commissions will be reinstated when performance worthy of them has been demonstrated.

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# HULL BUSTERS

**RULE RECOMMENDATIONS**

- 35) In fleet battles, if a ship ram sinks or sinks by gun fire another ship, and it is obvious whose ship was responsible, then the ship responsible will receive the penalty or bonus points on his own personal point standings. To determine the winning fleet all points will still be included. Fluegel
- 36) For any and all ram damage (scratch to hole) a 50 point penalty will be assessed the rammer. If rammer sinks 500 points will be assessed. Fluegel
- 37) Club officers shall have a two year term. Fluegel
- 38.) Battleships may not have guns pointing directly off of the bow. Poindexter
- 00) All Axes have to fill their ship hulls 1/2 full with water before battle. Poindexter

**RESULTS OF DECATUR, ALABAMA BATTLE**

April 1983

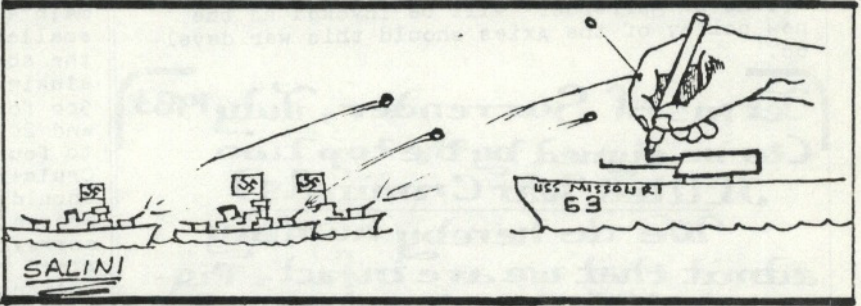
PLACED	PARTICIPANTS	POINTS	# of SORTIES
1	D. Fluegel	1693	8
2	S. Watkins	826	3
3	J. Poindexter	625	6
4	T. Darby	585	9
5	J. West	381	10
6	L. Manofsky	279	3
7c	B. Spychalski	267	2
8	M. Schneider	223	4
9	S. Milholland	114	6
10	D. Murphy	96	2
11	D. Hamilton	20	4
12	L. Rasmussen	0	1
13	R. Spychalski	0	0
Axes fleet 2672		Allied Fleet 2437	
Average Axes 445		Average Allies 348	
Average Axes per sortie 95			
Average Allies per sortie 81			
Axes were penalized 1000 pts due to ram sinks.			

**NOISITONOC**

Yeah, another perfect issue of Hull Busters completed! I'm still working on the list of "where to buy...for your ship" article. I did get M.W.P. CO. to itemize the gun goodies so progress is being made, maybe I can put it in the next Busters. The motor problem may also be solved by then, but for now the only available motor is the 4.8 volt pumas motor which is expensive (approx \$6.50). This motor works well with 3 "excell" batteries in cruisers (so I'm told).

Flash, last minute battle report. In Tennessee Terry Darby has sunk Dale's Hood, score 840 to zero. Terry also defeated Larry's Zara, the battling was fierce and the scores close (unofficial news flash). Terry has the "makings" for an average Axis or an outstanding Allie. Speaking of "makings", Schneider made a new baby boy named John Max...Congratulations! At this time dimensions and displacement remain unknown for John Max.

The Allies have an 11th hour program to surpass the Axis in numbers of Battleships at the NATS. Read all about the results of the NATS in the special issue of Hull Busters, edited by Flip Milholland. See you at the Battlefield Inn, Fluegel



Fluegel  
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