


HULL BUSTERS JUNE 1993



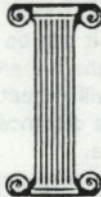
ACMESAN GENETICS  
MUTANT  
BALS A EATING  
PIRANHA

AXIS SHIPPING INC.

R. THIBAUT

I'D BETTER TELL ADMIRAL PATE ABOUT THIS!

## President's Column



Soon, the forces of good and evil will be gathering at a pond in Houston, Texas for the 1993 Nationals on July 26th. through the 30th. I hope to see many people who have not been with us at the more recent nationals, regionals, etc. I ask that you spend some time on camaraderie, fellowship, safety and sharing knowledge, while you are planning the demise of the evil (Axis or Ally) enemy. Don't get hung up on winning at all costs, remember that the prime purpose of the organization is to have FUN.

Recently certain members of the hobby have gotten involved in re-reading the rules (namely the southern allies) and have come up with new definitions of what they mean. While I understand that the rules are imperfect and leave much room for ambiguity, my opinion is that any change to the rules should be presented at the rules meeting at nationals and be voted on by the general membership before going into effect. In the past, others have thrown the hobby into a loop by re-reading rules (such as the turning motors rules) in mid-year causing waves that required several years of rule changes to clear up. I once stated in an article in Hull busters, go with the intent of the rule not the position of every period and coma. To write a set of rules that are perfect and did not have ambiguities is probably past the competence of the organization -- if you want a change: present it, vote it in.

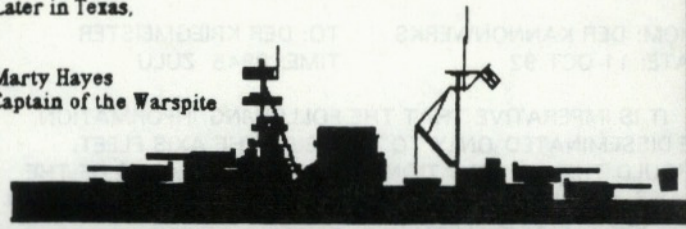
As to my personal situation, I was "RIF"ed (Reduction In Force (Laid off)) from Westinghouse. In my age group, I was allowed an early retirement. A retirement, for those of you who haven't dealt with it adds up to about one half of your salary. So while I am not employed at the moment, I will be returning to the work force after the summer -- if I can get a job. So that's the situation, and it's really not horrible but it's not great either. The good news is that going to Nats. in Texas will be easier, since I will be vacationing in that section of the country either before or after Nats. Anyone need a good used supervisor?

I just returned from lots of good fellowship and battling at Bart's place in Baxley, Ga. There were about 16 battlers on the pond and I think everyone had great fun. We missed the Texas group and Tom Jass. The winds in Georgia were rather strong however, and contributed to some of the sinkings.

Northeastern Regionals will be held on May 15th and 16th, and we are expecting about twenty battlers. Carl Camurati will be returning to the battle scene after a holiday of several years, the Massachusetts crew will be sending three, in addition to our normal group from Penn., Maryland, and Va. I'm sure someone will take pity on Hull Busters and write an article for it.

Later in Texas,

Marty Hayes  
Captain of the Warspite



### HISTORIC NON-TECTICAL INFORMATION

Saturday, April 28, 1984:

A day that will live in intamy to the Allied battlers of an Easter not soon forgotten.

It was about 45 degrees when battling began. The Allies consisted of James Foster, Steven Milholland, Stan Watkins, 12 year old LaDonna Poindexter and Jim Lisher. Axis representatives were Dr. Dave Garrett, Dr. Martin Schneider, David Haynes and James West. According to my notes only 'Ship to Ship Challenges' were conducted. During one such challenge; one of the most notorious acts of Axis conduct was displayed. LaDonna (remember she was just 12 years old) was returning to shore after her '5 minute rule' call had ended. David Haynes pointed his ship 'the Myoko' in the direction of LaDonna's 'Houston' and opened fire. This grievous act was witnessed by all present & cries of reprisals began emitting from those present. Had Admiral Fluegel been present he most assuredly would have been seen offering Haynes lucrative advances in the S.S. Not only had he battled and won against a little girl; he cheated too. (But to be fair, it was his first day to battle and he was using what he had heard from Fluegel to be 'normal' battling procedures.) Dave was also heard to say, "I only did what any good Jap captain would have done."

Because of this act of 'courage' He has been known as 'DIRTY DAVE' Haynes ever since.

The second day of this regionals was canceled due to typical Amarillo, Texas Spring weather. This consisted of rain, hail, snow and 50 MPH winds before noon. However it was calm and 70 degrees by 1600 (4:00 P.M.)

God be with you all; and maybe someday I will battle agian.--May 29, 1993--By Jeff Poindexter

### The First AND Second Stones of The 1993 Texas Triple Crown

June 12th, and 13th in Houston, will be the second stone of the TTC. It too will be a nonsanctioned battle. You need to contact Brian Craven for details. His address is 12310 Ocean Laurel Lane, Houston, TX. 77014. His phone # is 713-537-8722.

The new targets for Campaign, and a couple of new ships will be there for tests under battle conditions. We hope this doesn't conflict with the Springfield meet. The date for Springfield wasn't set for sure last Hull-busters.

Anyway, show up with your ship. No fees, memberships, no trophies, and no hassle. Just fun, nice people, pretty surroundings, and great hosts. Call Jim or Brian for a good time.

**TOP SECRET  
AXIS EYES ONLY**

FROM: DER KANNONWERKS      TO: DER KRIEGMEISTER  
DATE: 11 OCT 92              TIME: 0945 ZULU

IT IS IMPERATIVE THAT THE FOLLOWING INFORMATION BE DISSEMINATED ONLY TO THOSE OF THE AXIS FLEET. SHOULD THIS INFORMATION FALL INTO THE HANDS OF THE ALLIES, IT WILL BE THE CAUSE OF IRREVERSIBLE DAMAGE TO THE SHIPS OF OUR FLEET!!!

Having firsthand knowledge at this point in time of the operating characteristics of our two new battlecruisers; Seydlitz and Moltke, I am now in a position to ascertain with little or no margin of error the requisite distance between our ships and those of the enemy at which point we will inflict the optimum amount of damage.

This area will be henceforth termed "THE ZONE OF VULNERABILITY" and will be measured in inches. For test purposes, this zone will reflect damage to an enemy hull from 1" below the waterline to a point 1" above the waterline.

As the testing will be rather exhaustive and will inevitably involve many variables such as: impact distance, degrees of gun depression angle, angle of impact, etc..., the need may arise to separate this study into two or more sections.

Let us begin with several assumptions:

THE POINT OF EXIT OF THE ROUND FIRED WILL BE 2.5", ABOVE THE WATERLINE THE ANGLE OF DEPRESSION OF THE GUN WILL BE: 2.5, 5, 10, 15, and 20 DEGREES WAVE ACTION AND OTHER MOTION WILL NOT BE FACTORED IN.

Graph A is a standard XY axis chart which we will utilize first in an effort to visually show the point of exit of the round utilizing the above-mentioned exit angles and the resulting point of impact at the waterline of the opposing ship when the point of exit is 2.5", above the waterline of the ship firing.

Graph B will reflect the same data but will be utilizing a gun with a point of exit 4" above it's waterline. This will take into account the difference between barrel heights of those ships with a lower freeboard as well as those which may be housed in turrets placed on higher barbettes.

In order that the data be of any practical use it was necessary to ascertain the accuracy of the gun itself. Since the main thrust of this exercise deals with an impact zone of an enemy ship two inches in height, the ability of the gun to place it's rounds CONSISTENTLY into a very small target area is of the utmost importance.

For testing purposes, the Seydlitz was placed on it's cradle at a distance of 136 inches from the target. This distance is not to replicate any particular engagement distance, but is merely the maximum distance from the target I was able to get in the small confines of my second floor "munitions laboratory", in this case from my hallway (the gun) to the back room (the target).

The target consisted of a 7 1/2 inch square box with a facing of 1/32 inch balsa covered on both sides with one sheet of "00", grade silkspan. A second coat of dope was applied to the face of the target prior to it's attachment to the target frame. This would approximate the "armored" sides of an enemy ship and would allow for the observation of penetration at this range.

The gun tank was connected to the 30 LB refill tank in order that there be no major variations in tank pressure.

Initially, 10 rounds were placed into the target. As can be seen from the accompanying chart, the first two rounds were

somewhat "weak" necessitating a minor "tweaking" of the gun. Once this was accomplished, the remaining 8 rounds were fired. Of the latter, 7 were of sufficient force to penetrate the "hull". The target was then moved a bit to the right in order that a "clean" section be available for the next battery of fire. Ten more rounds were placed into the target, of which 9 penetrated.

This process was repeated several times with a total of 50 rounds being fired. of the fifty, 41 penetrated the target for a penetration rate of 82%

Of the fifty rounds fired, ALL WERE PLACED WITHIN A CIRCLE TWO INCHES IN DIAMETER, and this with a gun barrel length of only 2.75 inches. Under the rules the maximum length may be 5 inches from the "O" ring. The longer barrel should result in an even smaller pattern.

Having proven the accuracy of the gun, and it's ability to penetrate a hull at a fairly long engagement distance, the "zone of vulnerability" could be ascertained and the major questions answered.

One point which must not be overlooked, is the fact that the gun in question is "anchored" in place to the deck in order that recoil be eliminated. If your guns are not so "anchored" then your accuracy will be degraded and the results will reflect this degradation of accuracy.

Looking at Graph "A1" and tracing one's finger along the 2.5 degree line, it can be seen that a fired round will impact at one inch above the waterline of an enemy ship at a distance of 35 inches. It will impact at the waterline itself at a distance of 58 inches. At a distance of 80 inches it will impact one inch below the waterline.

Thus, the area between the ships from 35 to 80 inches becomes the "ZONE OF VULNERABILITY" for the enemy ship.

The optimum engagement distance would be 58 inches. Following the 5 degree line, one can see that the impact distances are 16 inches (1 inch above the W/L), 28 inches (Waterline), and 39 inches (1 inch below the W/L), the optimum engagement distance being 28 inches.

Note however, that the "Zone Of Vulnerability" has decreased with the decline of the gun angle from 2.5 to 5 degrees. Where the zone was 45 inches at 2.5 degrees, it has now decreased to a mere 11 inches in total length.

By following the remaining 10, 15, and 20 degree angle lines it can be seen that the zone get progressively smaller as the angle becomes more acute.

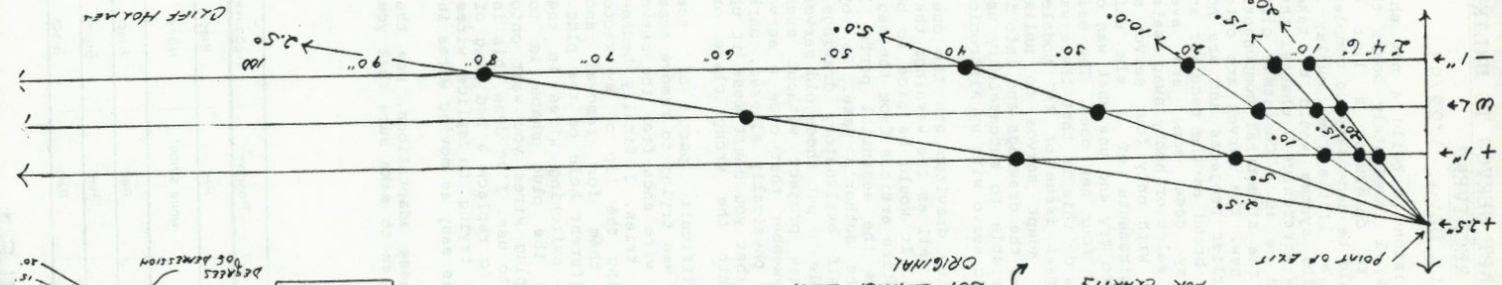
Of course, with the constant bobbing and weaving of our ships, this zone will be constantly shifting, and the various impact distances will be changing as well. So, how to minimize the effects of a ship in motion on it's armaments and their targeting ability?

The method I propose to utilize on my Seydlitz is to house two guns in one turret: one at 5.0 degrees and the other at 10 degrees. This will give me a Zone of about 9 to 39 inches when both guns are fired simultaneously. From a range of between 14 and 28 inches, it would be quite reasonable to assume both rounds would impact quite close to the waterline.

It is the belief of this office that the re-fitting of our battlecruisers with this configuration will increase considerably the ability of our ships to effectively target and destroy any and all enemy vessels when utilized in a carefully executed attack.

The main drawback of the two gun turret approach would appear to be that another quadrant would have to be left undefended. But, bearing this in mind and maneuvering accordingly, this problem will be minimized while the gain in effective firepower will more than offset any additional damage which may be sustained in the undefended quadrant.

Yours in Axis Victory!  
Von Holmes  
Der Kannonwerks



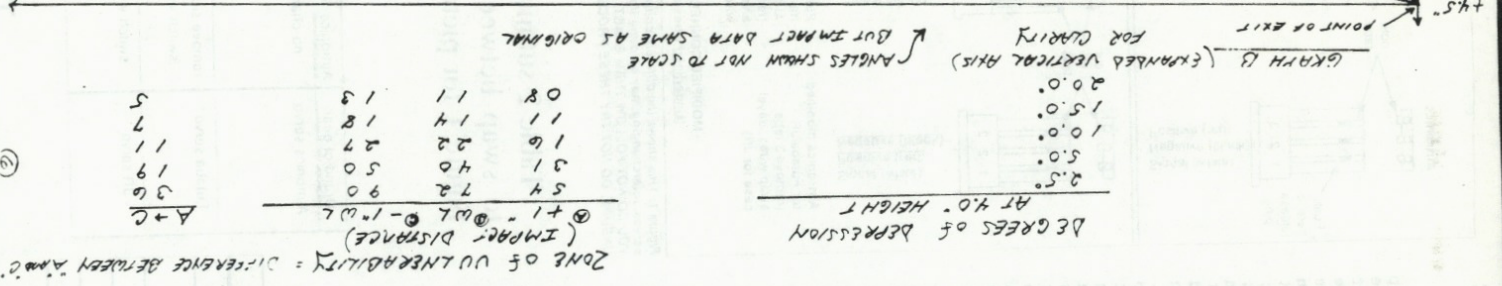
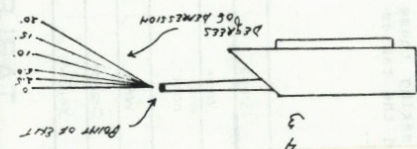
GRAPH A (EXPANDED VERTICAL AXIS) FOR CLARITY BUT IMPACT DATA SAME AS ORIGINAL

20.0°	04	07	35"	58"	80"
15.0°	06	09	13	13	10
10.0°	09	14	20	20	13
5.0°	16	28	39	39	18
2.5°	35	58	80	80	27
A+C		45		3	

DEGREES OF DEPRESSION AT 2.5" HEIGHT

IMPACT DISTANCE @ 1" W.L. @ -1" W.L.

ZONE OF VULNERABILITY - DIFFERENCE BETWEEN A AND B



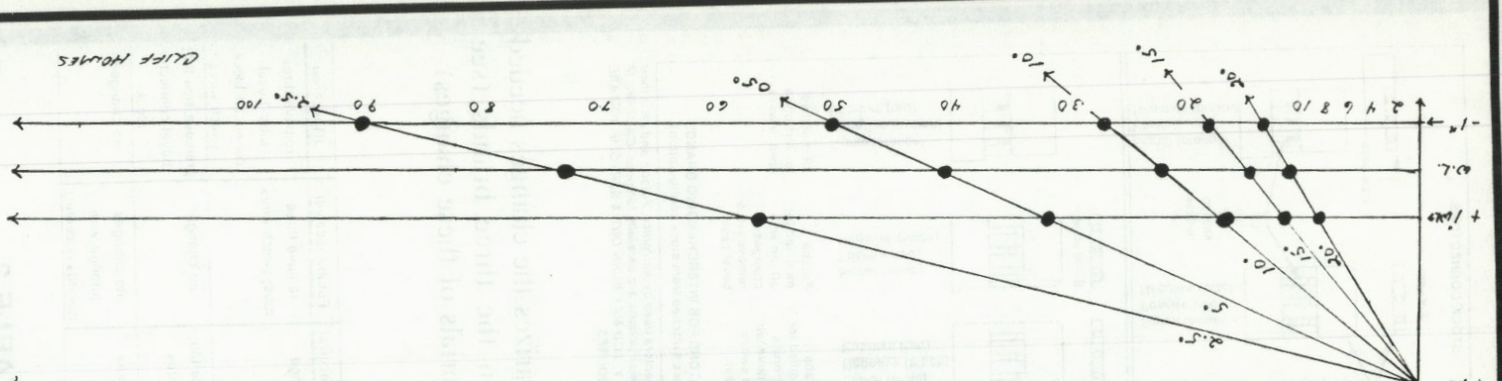
GRAPH B (EXPANDED VERTICAL AXIS) FOR CLARITY BUT IMPACT DATA SAME AS ORIGINAL

20.0°	08	11	54	72	90
15.0°	11	14	18	22	27
10.0°	16	22	31	40	50
5.0°	31	40	50	50	50
2.5°	54	72	90	90	90
A+C		36		5	

DEGREES OF DEPRESSION AT 4.0" HEIGHT

IMPACT DISTANCE @ 1" W.L. @ -1" W.L.

ZONE OF VULNERABILITY - DIFFERENCE BETWEEN A AND B



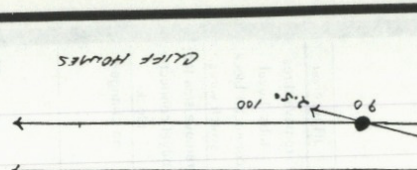
GRAPH C (EXPANDED VERTICAL AXIS) FOR CLARITY BUT IMPACT DATA SAME AS ORIGINAL

20.0°	08	11	54	72	90
15.0°	11	14	18	22	27
10.0°	16	22	31	40	50
5.0°	31	40	50	50	50
2.5°	54	72	90	90	90
A+C		36		5	

DEGREES OF DEPRESSION AT 1.0" HEIGHT

IMPACT DISTANCE @ 1" W.L. @ -1" W.L.

ZONE OF VULNERABILITY - DIFFERENCE BETWEEN A AND B



# HOW TO: ADAPT SERVOS TO UNLIKE RECEIVERS

By Dirty Dave. 3/22/93.

When the decision to build a new ship was reached by me, I immediately began the task of trying to determine a list of materials that would be necessary to complete the project with as little cash outlay as possible. The radio system would be taken care of by the new Airtronics 7 channel that my wife had given me as a Christmas gift; what a woman! As the structural components, wood, is always new, the servos are often left over from earlier projects and are not always of the same brand as the receiver and transmitter. In my case some are even products of garage sales or hobby swap meets. The new radio came with only four servos so to meet the requirements of a six unit warship I decided to try and use what was on hand to add to the four new ones. The main reason I decided to do this is that there was an article in a past issue of R/C Modeler that told how to adapt servos to unlike receivers. Following the drawings and info in the article, I was able to successfully use one JR and one Hitec servo with my Airtronics receiver.

The accompanying drawings are the ones from the article as well as the warnings that were with the info. It would be nice to be able to copy the entire article from the mag, but all I kept was the essential parts, I don't even have the author's name. So, by following these self explanatory drawings, anyone should be able to put those old servos to work in the new project without much difficulty. Just remember that once a servo connector has been physically altered, mark it in some way so that you don't mess it up by plugging it into the wrong place or backward.

The most difficult part of the modification for me was trying to remove some of those very small wire ends from the servo plug. After several tries, I finally became fairly good at using the tip of my xacto knife to loosen them for removal and relocation to a different hole on the plug. The alternative to switching wires in the plug and modifying the plug shape is to simply splice the plug wires you want onto the servo you want to use. I've done this in the past, but only to replace a bad plug of the same brand and trying to splice wires that small was not as easy as moving wires in the plug itself.

When making these adaptations, use the drawing and the tables to make sure that you do it right.

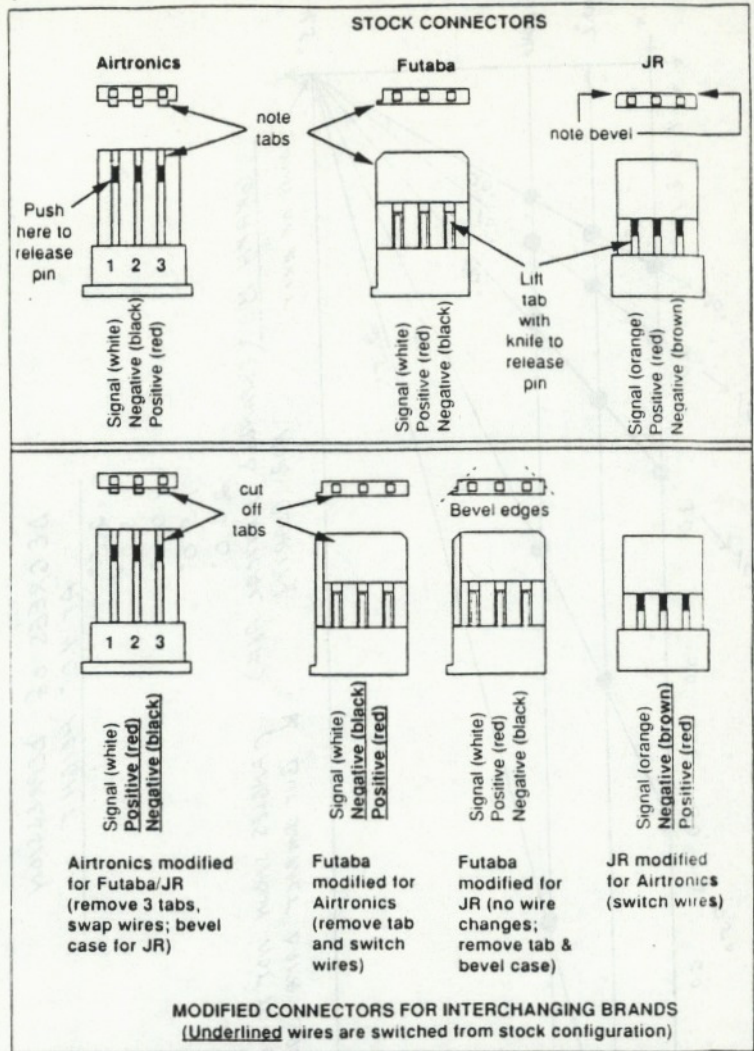


Figure 1: This shows the different connectors used by Airtronics, Futaba, and JR in their servos. Interchanging may be done if instructions are carefully followed. CAUTION: IF YOU DO NOT FOLLOW THEM EXACTLY, YOU MAY BURN OUT A SERVO. IF YOU ARE UNSURE, DO NOT TRY THESE PROCEDURES.

Table 2 summarizes the changes needed to swap between the three brands (see Figure 1 for pictorials of these changes):

Brand of gear	Signal	Positive	Negative
Airtronics (newer)	White	Red	Black
Airtronics/Sanwa (older)	none	white stripe	None
Futaba	White	Red	Black
JR	Orange	Red	Brown
Hitec	Yellow	Red	Black

TABLE 1

Brand of gear	Airtronics receiver	Futaba receiver	JR receiver
Airtronics servo	no change	remove three tabs; switch wires	remove three tabs, bevel connector block, switch wires
Futaba servo	remove side tab; switch wires	no change	remove side tab; bevel connector block
JR servo	switch wires	no changes (orange wire towards rx center)	no change

TABLE 2

# SKUNKWORKS NEWS

The latest scoop on whats new for R/C Warship Combat!

**AT LONG LAST !!!**, I've finally done it. I have given up the old 40 hour a week drag and am now working at SKUNKWORKS full time. For the last year and a half I have been debating and fidgeting over this decision and finally took the plunge. As of 3:30 PM on Friday May 7th, 1993, Captain Steven Milholland makes model ships for a living.



What does this mean for you, the club member and battler? The most immediate change will be availability of phone contact. While working a 40 hr job it was very difficult to maintain phone contact during regular work hours. Not so now. Except for brief periods away from the shop, I will be answering the phone on a business basis between 9:00 AM and 6:00 PM Monday through Friday and a personal basis other hours and weekends. If I don't answer, my machine will take messages.

The next big noticeable change is probably going to be the most awaited, or maybe I should say the one most likely to promote good will between me and my customers. In a word, **DELIVERY!** The one thing that has plagued the well being of SKUNKWORKS the most has been delivery time. Time, that ugly, short, four letter word. While working a job, it was very frustrating for me trying to juggle priorities of work, family, girlfriend, hobby, church, eating, sleeping, AND a business. It was very frustrating for customers as well. Hopefully, no more. Over the next couple of months the priority is to build up and maintain a working inventory of every item that I offer to the R/C Combatant, allowing shipment of orders within a day or two.



**PHOTO 1** DKM BISMARCK hull being prepared for cutting. 3/8 inch electrical tape shows rib location, top, and bottom of penetrable area. 1/8 inch tape shows stringer at top of armor belt.

Between a working inventory and available phone contact I should be able to maintain a semblance of a normal and respectable business. For those of you who have been customers of SKUNKWORKS MFG. I wish to thank you for your past patience and to let everyone know, past customer or not, that my goal is to get this business operating as quickly as possible to provide you with good quality products at a reasonable price and in as timely a fashion as possible.

Next on the agenda is a new catalog/price sheet. For the last year I have wanted to get something together for print but could not, now it is possible. As soon as some PR photos can be taken of all the new products this also will come to pass.

Some of the products in this new catalog will of course be the fiberglass ship hulls. The fiberglass Lutzow is probably the quickest to assemble ship I've ever seen and definitely the most reliable ship I've ever had. I really believe that fiberglass hulls will be the rage of the future in this hobby. They have too many advantages over traditional hull construction to be ignored.

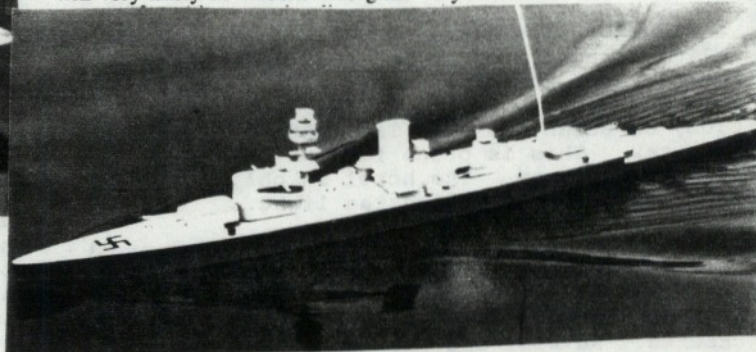
Starting the lineup will be complete fiberglass kits of the DKM Lutzow and the USS Brooklyn. The DKM Bismarck hull in fiberglass with deck will also be included in the catalog. Our newest BB cannons (more reliable than ever) using the new "wide



**PHOTO 2** Fiberglass hulls for USS BROOKLYN (front) and DKM LUTZOW (back).

base" piston which can be spring loaded without crushing the spring with several options of CO2 systems, including 12 gram capsules for small ships, 2 oz disposable capsules for cruisers, and 3.5 oz, 7.0 oz, and 12 oz refillable bottles for larger ships, all with reliable Williams model 105F regulators will be there. A 1/32 scale Higgins type PT Boat will also be offered for those folks who are just looking for a big boys toy without all the hassels of the larger scale warships. The PT will utilize a single motor, single rudder, single BB cannon, single Ni-Cad power pack, one pump, and a 12 gram CO2 system. Last but not least will be the old standby wooden cruiser kits, the USS Houston, HMS Exeter, and IJN Myoko.

As for new products for the future, the USS North Carolina is first on the list for fiberglass hull production. The North Carolina was supposed to be available by now but problems with the mold prevented it. With the time I have now, I'm hoping to have the problems rectified and hulls ready for sale by late summer. Due to its popularity and suitability as a beginners ship, the USS Houston will very likely be made in fiberglass very soon also.



**PHOTO 3** Fiberglass DKM LUTZOW slices the water at full speed. As "FAB" Baker puts it so eloquently, "a VERY sexy hull".

After this years battling season is over I am very seriously planning to produce fiberglass hulls for a variety of Battleships. In this list are the Iowa, King George V, Scharnhorst, South Dakota, Nagato, Kongo, Queen Elizabeth and possibly others. At this time I don't know which will be first, it will depend on what kind of response I get from customers about their preferences. If there is any other ship or ships you are interested in let me know and we'll talk about it.

Now for a change of subject. In the last couple of years U.S. Boat and Ship Modeler magazine has published a number of articles about the hobby of R/C Warship Combat. All of these articles have however, been written about the West Coast battlers, with their style of battling, construction, and rules. Every article has given the name and address of clubs out West for people to contact. As a result many of the people getting started or wanting to start in this hobby think that the West coast rules and style of battling are all that exist. I see this from the many phone calls and letters that I

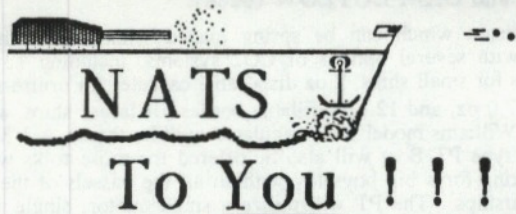
get from people looking for ship kits and BB cannons. I think that it is time to get the word out about the way ships are built and battling is done practically everywhere east of California, i.e. the way WE have been doing it for 15 years.

A couple of years ago I tried out an incentive program for aspiring writers, people who would be willing to help spread the word about this fabulous obsession. For some unknown reason, I had only one person in the club take me up on the offer then made. At this time I think I'll try again and see what happens. Here goes.

SKUNKWORKS is looking for a few good writers. Anyone willing to write an article or articles suitable for publication on subjects pertaining to R/C Warship Combat, East of the Rockies, IR/CWCC style, will be eligible for merchandise or credit with SKUNKWORKS. This is just for writing the article. If said article gets published in one of several magazines, I'll up the ante even further, with more merchandise or credit. More incentive, some magazines pay for articles that are published, sometimes as much as \$200, sometimes less, sometimes more, depending on length, quality, and photos.

If you are interested in taking advantage of this offer from SKUNKWORKS MFG. that could net you mucho bucks and ship stuff please contact me at (417) 831-2309 and we'll negotiate.

STEVEN MILHOLLAND  
Owner **SKUNKWORKS MFG.**



Wade Koehn

If you're reading this article and you haven't sent your \$85.00 NATS fees in you'll have to pay an extra \$15.00 late fee. The dead line was May 31st to get your fees in to Brian. Your fee is refundable if you don't attend. An extra \$8.75 is due if you plan to bring a person to the Friday night meal.

Hotel reservations should be made at the Holiday Inn on 3702 North Sam Houston Parkway. Phone number there is 713-449-2311. Please tell them your with the R/C Warship Combat Club, or Brian Craven. The cost is \$225.00 plus tax. This is price for one or more persons per room. The hotel is only 3 minutes from the lake, including the light.

You will need to be a member of NAMBA, and IRCMWCC to battle. We will be checking your cards and writing them down as you arrive. Also be ready to have your CO2, and your hull checked. We will use the 18 inch drop test for your hull. Ribs, length, width, weight, and rudders will be checked. We will start speed tests Saturday evening, and Sunday evening. We are not allowed on the water until the evening because of other events will at H and H Ranch at those times.

We our allowed access to the lake for only 10 hours every day. Small ship, and one on ones will not start on Wednesday until 1:00 P.M. Darkness for Night Battle usually isn't until about 9:00 P.M. This gives us 2 hours to get ready and battle. Dinner will be served Wednesday at 5:00 lakeside.

We will have very nice trophies this year. There are nicest I've seen for this hobby. I will be ordering ribbons in advance to hand them out Friday evening. We will be handing out Purple Sinkers this year. Also we will hand out some other awards we dreamed up. I know everyone will walk away with something.

Curly Barret wrote an article on how to shoot our boat hobby. Curly worked for ABC in Minneapolis for two years doing camera work.

He did a good job writing us a primer for camera work. Thank you Curly!! I hope Fluegel put it in Hullbusters this issue. I know it's not really the scope of this Rag to shoot video, but I have heard many people show interest in seeing good video documentation. Anyway after seeing the tangent Stan got into last year in one of his articles I don't think I'm that far off the mark. We will be including a copy of the how to shoot video primer in your NATS package. If you want a copy, and your not going to NATS, write me a letter and I'll send you a copy free.

I will be giving a prize for the best video at NATS. A battler who shoots good video and wins will get a NICE trophy with his ship on it, and a free NATS tape. If a non-battler wins I will get a trophy with a camera, or something related to video on top of it, and a free NATS tape, or \$10.00. I hope this will make people want to do a good job while they're using the video camera. The camera operator should give their name, the battle, and the date at the start of the tape. Brian and I will be the judges of the video. We will be judging them on slow panning, silent camera operators, and coherent footage. We don't need to see the date and time stamp at the bottom of the footage through out the film. The award will be decided on within a month after NATS. The winner(s) will be notified by mail, and announced in Hullbusters. Good Luck!

We will be roping off three or four areas just for the cameras. Two of the areas will be on the main lake, and are very nice. Only camera operators will be allowed in these areas. Tripods will be used in these areas. If you have a tripod, or a camera that uses a tripod please bring it. 95% of the hand held camera work is awful! We would like to take some good footage of the dockyards too. No gun tweaking will be allowed in the dockyards! Nobody likes to get hit with Fluegel's BBs while sitting down.

We are going to put all of the ships names in a hat at the beginning of each sortie. The camera operators job will be to follow that ship for that sortie. Of course if the ship that was picked is out of reasonable camera shooting distance, or a ship is getting ready to sink, the camera person will shoot another battle situation. After that ship's name is picked, it will be eliminated from the pool. The name of that ship will not be made public until after that sortie. I think this will make for better video. It will make the camera operators job easier by just following one ship around, instead of trying to guess where the action is. Also, I know we tend to just focus on just the big, or certain ships while shooting video. This will spread around the attention to most of the ships, and more captains can watch their ship for one sortie, instead of, "There I am, in the top right hand corner, I just went by."

Another advantage of following just one ship per sortie is it might cause a chicken ship to mix it up a bit more. Also, even through Brian and I aren't making a profit on these tapes, just enough to cover our expenses, we'll sell more tapes because the tape will feature more captains.

Everyone should check the height of superstructure, and masts. Clearance under the bridges is a minimum of 14 inches, and a

with two fleets. The Admirals have to decide who is in what fleet due to frequency conflicts and battle tactics. We've been allowing the Admirals to change the fleets between battles. This has many consequences. An Admiral may try to have a defensive fleet, and an offensive fleet. He will do this to try to win by hoping his choices will neutralize one fleet, and maul the other. This is good from a strategy viewpoint. It may cause ill feelings among captains because they feel they they've been made a sacrificial lamb. Or they wanted to battle against someone in the other fleet. Sometimes the other Admiral is upset because he feels his fleet list was somehow compromised, and the other Admiral took advantage of this information.

I feel strategy is a large part of gamesmanship of this hobby. Unfortunately sometimes people feel unhappy with a situation. The offensive fleet/defensive fleet, or strong/weak fleet, can play a large part in the outcome of NATS. The people in the weak fleet may have less of a chance of winning class trophies because they have less points to divide among them. I took great pride in being in the weak fleet, and beating the opposition. Sometimes you must do your part to help your side out, just like real war. Quite often peoples self interest supersedes the good of the fleet. I have fun no matter if we, I, win or lose. But I really enjoy beating the other side, just to give them a hard time, nothing personal.

There is a way to help the problems of fairness in two fleets. We could have both Admirals give the CD there A and B fleet list at the beginning of the day. We could have A battle A in the first battle, and B battle A in the afternoon battle. We could allow one change in each fleet between battles to allow for ship problems, radio problems, and minor strategy changes. Of course purists, would argue that this eliminates strategy. They would be right. We need to decide on if we are more intent on strategy and winning, or fairness and fun. Personally I'm going to have fun if I sink the first sortie, and can't return the rest of the battling. I enjoy seeing all of you. Of course I enjoy winning too.

max of 18 inches. Please set your clearance for 14 inches from the top of the waterline. this will clear both bridges. Thank you.

I got a fill station. We will have a 50lb. tank of CO2 lakeside. Brian found a place to fill your fill stations that is right at a half hour away from the lake. It looks like between the Texans and the rest of the battlers that are bringing their tanks that if we pool our supplies we shouldn't have to refill anyone. Please let Brian know if you are using and, or bringing a CO2 supply, and how big your fill station tank is.

Shirts and caps with the 15th Annual Nats in Texas logo on them. The shirt will have the state of Texas colorized, the battleship Texas, and the rest of the logo on it. The cap will just have the 15th Annual NATS on it with a picture of the Texas on it. You can get the shirts and caps customized with your name, ship, etc. if you want for a few more dollars. The shirts will be about \$22.00 and the caps will be about \$17.00. We get same day service too. If we get the orders for example Wednesday morning, we'll have them by dinner that night.

I don't know if we'll have to go to two fleets or not. We've tried to address the problem of frequency conflicts on the front end, instead of waiting until the last minute at the captains meeting.

We need to do a better job of dealing with radio problems. How about every time someone pays their \$6.00 to be a club member we have them submit what channel they plan to use. In the April or June Hullbusters we print all the names of members and the channel they use. Or at least print the channels that everyone used the previous NATS and the name of who used that channel in the April or June Hullbusters. These are just two ideas. We need to give the rookie, or veteran who plans to buy a new radio, some useful information so that they can choose a channel that no one else is on, or is rarely used. I think this would help. Let's bring up some good ideas at the rules meeting to help fix this problem.

Okay, for the near future we will be stuck

#### NEW RADIO ADVANCES by James Kantor

I have discovered a new device that may change some of the ways we build our ships. Currently, we must purchase a radio with at least four channels to battle anything larger than a destroyer. We also have to put in a servo (or servo eliminator) for every gun or pump.

However, JEM R/C ELECTRONICS RESEARCH has developed a 12 channel expander circuit. Basically, it takes a single proportional and converts it into 12 separate on/off functions. The outputs are capable of handling 5 amp loads and are low-voltage-drop MOSFETS. The JM-112 is set for momentary switching, with channels 1-6 switchable to toggle mode. The JM-112A is set for toggle switching, with channels 1-6 switchable to momentary. The decoder simply plugs into the receiver and you merely connect the battery (3-16 volts), ground, and the various devices to the terminal strip. The decoder is 3" by 4". You can run pumps, solenoids, lights, and more from a single channel. No more cramming

servos into tight spaces or trying to line up microswitches.

The expander comes with a keypad (similar to a telephone keypad) that mounts on your transmitter with two side foam tape. Simply press a button and the channel switches. You do have to open the transmitter and connect the wires from the proportional joystick to the keypad, but moving three wires should present few problems.

The one drawback to this marvelous product is the price, \$119.95 U.S. dollars. However, club discounts are available on purchases of five or more. I feel confident that enough interest can be raised to convince JEM to give us a discount.

If you wish more information on this device, contact

JEM R/C ELECTRONICS RESEARCH  
BOX# 28003, Crystal Beach P.O.  
Nepean, Ont. K2M 9R 7

or call after 6pm (EST) (613) 253-0204. If no one is available, an answering machine will pick up after four rings.

Talk to me and your Admirals to help us make NATS, and all battling more interesting, fair, and fun. I enjoy seeing everyone having a good time, win or lose, and leaving a battle with a smile on their face. I know this isn't always the case, but it should be the overwhelming majority most of the time.

The new targets for Campaign are ready. We don't have the shore batteries ready yet. I hope we can get them ready in time. We tested the targets at the first stone of the Texas Triple Crown. Brian made a few adjustments to the targets to make them work better. I think you'll like it much more than cups. With these targets you can instantly tell if they've been hit, or not. Target check will be very quick, and you won't have to get wet to do it.

I hope you have or will read the new Campaign rules. Tell your Admiral which Campaign you'd like to play, and why. We probably will not play the old Campaign, so it's a good idea to familiarize yourself with the new Campaign(s). We think we have worked out all the kinks, but we could be wrong. If you see something in the rules that doesn't make sense, or conflicts with something

previously written let us know. We have brainstormed, read, reread, and tried to apply all possible scenarios to test the rules. It looks good to us.

The one on ones after Fridays last fleet sortie will not count toward the Von Fluegel or Best of Class Awards, unless they are finished by two o'clock and observed by a reliable source. We need the time to tally up the points and set the awards straight, and get the ribbons together.

I'll have a cargo van to help transport people, ships, supplies, and video equipment to and from the airport and the lake. This should make it easier and quicker for everyone to get around. It's only 3 minutes from the hotel to the lake.

Well I can't think of anything else to tell you. I've tried to cover all needs and information in these articles. Here's hoping to see you at NATS. See you in July.

Wade Koehn  
1251 Wilcrest Apt. 103  
Houston, TX. 77042  
713-952-3078

## May Day in Texas

By Chris Pearce

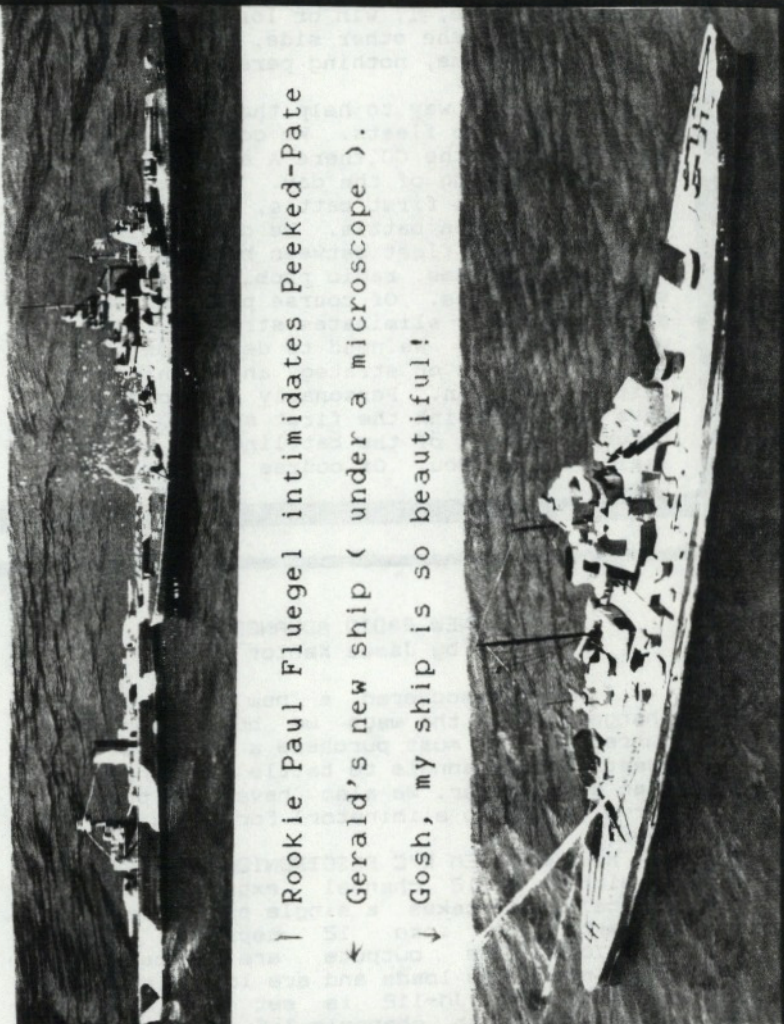
The 1993 Texas Triple Crown competition began on May 1, with great anticipation, and not so great preparation. In fact, two of the expected Axis were not able to attend, due to incomplete ships. Those that did manage to make it to Fredericksburg, home town of Admiral Nimitz (and Admiral Pate) were as follows:

The Axis were represented by two old faces and one new. In addition to his well prepared Bismark, Fluegel brought his son, Paul with the old Lutzow, not quite as old as the Bismark, but still, a ship with many years of experience. Interesting to note that the Bismark is older than Paul is... Also representing the Axis was Gerald Roberts, with his almost complete Akizuki class destroyer.

Against this meagre fleet was arrayed the Allied power in Texas, consisting of Admiral Pate with his effective (as always) Indiana. Brian Craven was present with his newly refitted South Dakota, but was having problems with his newfangled high performance guns. Lastly, the overly complacent Chris Pearce showed up with his Queen Elizabeth looking much the same as last year, patches included.

As the battlers were setting up on Saturday, it appeared unlikely that everyone would be ready for the first battle. Fluegel had decided that Paul should sit out and watch the first battle, Brian was having gun problems, and Gerald managed to capsize his destroyer on its trial run. The three captains who were ready to go agreed that a one-on-one-on-one "cutthroat" battle would be appropriate, and so the first battle featured Fluegel's Bismark, against Jim's Indiana, against Chris's Q.E.

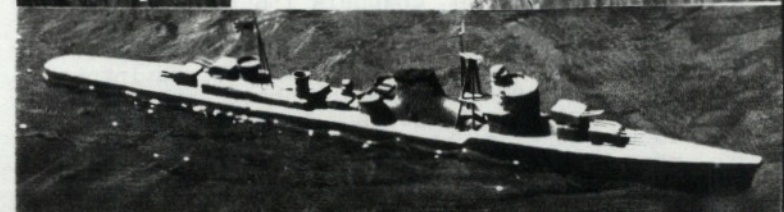
As the first sortie began, the two Allies concentrated on the Bismark, knowing that with his extra speed, Fluegel could leave the battle when he chose - we didn't want him to escape unscathed. The two captains attempted to use team tactics and their own considerable maneuverability to offset Fluegel's "sit and spin" tactics, with some effectiveness. This could not last forever, however, and soon the Q.E. and Indiana were slugging



| Rookie Paul Fluegel intimidates Peeked-Pate

← Gerald's new ship ( under a microscope ) .

↓ Gosh, my ship is so beautiful!





it out side to side. It was not obvious who was getting the better of the exchange, until the Q.E's pump lit off. The three battleships then pursued a general melee, until Fluegel called five and used his speed advantage to escape, at which point the Q.E. and Indiana emptied their remaining shots into each other.

At the end of the first sortie, the ships all appeared to have a similar amount of damage, with the exception being that the Queen Elizabeth's old and brittle hull skin had taken some huge holes, and not all of them above the waterline. Chris resolved to take it easy in the second sortie.

The second sortie began much like the first, except with the Q.E. playing a much more subdued role, stopping often to pump out. Soon, Fluegel called five and headed for safer waters, and the two Allies prepared to finish the battle in grand style. As the Q.E. moved to intercept the Indiana, she was seen to list to one side, but a quick rudder movement brought her back on an even keel. It was too late, however, as the Q.E. settled gracefully to the bottom. When the damage was counted, it was discovered that the damage was indeed close, with the sink of the Q.E. deciding the battle. The damage (and scores) are as follows:

Bismark:	(72-3-15)	1545
Indiana:	(50-6-14)	1350
Queen Ellizabeth:	(35-9-16+900)	2275
Jim Pate		1910
D.W. Fluegel		1813
Chris Pearce		1448

At this point, Fluegel and Chris discovered, to their dismay, that Fluegel's CO2 tank was empty. Fluegel decided to attempt a grand experiment and use "the F word" in a CO2 tank. Chris decided to wait, and see how it worked. Gerald and Brian were still dealing with their respective problems, so the second battle featured Jim versus the family Fluegel, in an Allied-Axis affair.

The first sortie began with an aggressive Paul attacking the Indiana with bow guns, and with some success, while the Bismark attempted to keep the big ship distracted. Still, the Indiana inflicted some telling hits on the Lutzow, and soon, Fluegel and son called five, heading for safe waters. It didn't help the the Bismark was suffering from wimpy guns... Fluegel tweaked up, and prepared for sortie two.



Paul Fluegel



The giant, Gerald, with his new Kongo.

### THERE'S NO PLACE TO RUN AND NO PLACE TO HIDE

By: Bart Purvis

At the Spring Southeastern Regionals pond there is a floating circle of PVC pipe about 15-20 feet in diameter. My neighbor uses it to constrain floating catfish food but I thought it might make an interesting obstacle for us to battle around this year. So, I moved this floating circle over to our battle site, anchored it at a strategic location and christned it Pipe Island.

For those who may not know me I would like to explain that while the guns on my U.S.S. Pennsylvania may not shoot very hard my mouth is always tweaked to the max and sometimes I aim in very inappropriate directions and shoot it off at the wrong time. Another problem with my mouth is that it usually shoots blanks.

Now, on Sunday morning while preparing for the first sortie of the fleet battle Will Montgomery makes some mild remark to me. I don't remember what he said but I responded, "Awright Montgomery, put it in the water after the battle. We'll meet at the O.K. Corral at high noon. This ocean isn't big enough for the both of us." As I was making this asinine statement I was pointing toward the water but not realizing that I was pointing

straight at Pipe Island. Will says, "O.K. Bart, you and me, inside the pipe, we'll have free-for-all to the death." I gulped, I turned pale, my blood pressure went up 87 points. Unfortunately for me all of the other battlers heard this exchange as did about eight or ten of my neighbors and friends whom I had invited out to watch me perform naval acts of great daring and heroism. It was either put up or crawl off like a yellow-bellied mangy cur dog. I gave very serious consideration to crawling but instead I said, "Sure pal. No problem. Let's do it." I was committed. I gazed out over the water. Suddenly, I realized that what had been Pipe Island, an innocuous piece of floating plastic, had become the sinister Circle of Death and I was going to put my own precious, beautiful Pennsylvania inside.

Oh woe. This is going to be like two cats in a bag with one of them being a tiger and all I can say is meow. Of all people to mouth off at. . . Willie the Kid, Killer Will, the Six Gun Samurai, The Meanest Mightiest Magot. And I'm going inside the Circle of Death with Willie the Kid. Woe is me.

The other battlers, for some reason, were most helpful. There were volunteers to load BBs, to help patch battle damage, to transport my ship to water's edge, to paddle out to the circle and put our ships inside. There were

In this sortie, the Bismark's guns were much more effective, but unfortunately, battery and control problems struck the Lutzow, followed by several salvos from the Indiana. Paul sank in relatively short order. The Bismark hung around and played with the Indiana for a while, but the rest of the sortie was relatively indecisive. The damage for this battle was as follows:

Bismark	(34-0-2)	390
Lutzow	(28-0-12+700)	1580
Indiana	(22-2-0)	270

Thus, the first Allied-Axis battle ended with a score of 1970 to 270. After the requisite glutton-fest at Pizza Hut, the captains settled in for a long night's work on their ships.

Sunday began with all ships ready to go, and it was decided that a full Allied versus Axis battle would be appropriate, featuring Bismark, Lutzow, and Akizuki(?) against Indiana, South Dakota, and Queen Elizabeth. For brevity, we decided that this would be a one sortie battle.

The battle began with the two American BBs in pursuit of the Bismark, and the Q.E. engaging the smaller ships. The Q.E. and Bismark seemed to be suffering from a lack of pressure, but their guns still had some punch to them. Battle had not progressed far when the South Dakota went out of control and backed into shore. The three Axis captains jumped at the opportunity, and provided nice stationary targets for the Q.E. and Indiana. First to go was the Lutzow, after which Gerald called five and ran for his hidey-hole. Indiana was soon on five, and that left the Q.E. to keep the Bismark off the South Dakota. Chris decided that the best way to do this would be with a little sidemount punishment, and soon the Bismark was on five, with the Q.E. in hot pursuit.

The Q.E. chased the Bismark around the perimeter of the small pond, cutting corners wherever possible to make up for her speed disadvantage. Finally, in one corner of the pond, Fluegel attempted a tricky move designed to thwart his shadower. As the Bismark went into a sharp 180 degree turn, she slowly rolled over to starboard, and sank, bringing glee to the Allied captains who minutes before had a great deal of cause to be concerned. When the damage was tallied up, these were the results:

Akizuki	(2-0-0)	20
Bismark	(66-0-9+1000)	2110
Lutzow	(18-0-8 + 700)	1280
Indiana	(17-1-1)	245
Queen Elizabeth	(5-2-4)	300
South Dakota	(12-0-0)	120

The Allies had netted their second victory for the year, with a 3410 to 665 score. Fluegel and son left soon thereafter, and Brian left after lunch, leaving Jim, Gerald and Chris to have one last battle, with the Akizuki, and Q.E. against the Indiana.

The battle started out with Gerald and Chris double-teaming Jim, but this strategy didn't last long. Gerald's batteries ran low, and the DD received some sidemount attention from Indiana before being able to make her escape. This left the Q.E. with decidedly wimpy guns (My kingdom for a bootle of CO2!!!) to take on the Indiana. As the sortie degenerated into a one-on-one stern gun battle, the Indiana wreaked wholesale slaughter on the Q.E.'s stern superstructure, while Chris attempted to bring his stern sidemount to bear. Jim took every available shot, to great effect, while Chris attempted to conserve his rounds for when the Indiana would run out of stern guns, and have to engage with sidemounts.

When Jim finally ran out (It seemed to take forever), Chris was ready with sidemounts and stern guns, and attempted to make up lost ground. However, his guns were wimpy, and what appeared to be beautiful shots and below the waterline hits, didn't seem to have the necessary power. Jim called five, and attempted to pursue him, but the Q.E. caught some moss and was quickly left behind. Thus, the sortie ended with Chris really wishing for CO2, and the following damage:

Akizuki	(6-1-0)	85
Indiana	(52-3-2)	695
Queen Elizabeth	(57-3-14)	1345

Fleet Admiral Pate, last year's Triple Crown trophy winner was the big winner for the weekend, winning in every battle, and gaining a considerable lead in the Triple Crown standings. The lessons we learned were really quite simple: 1) Don't get complacent (my lesson); 2) Start your refits and construction before March; and 3) CO2 works best in CO2 tanks, not that other stuff... Anyways, although it was a rough weekend, we all had a great time, and are looking forward to our next battle in Houston. So, until later, if we don't see you until then, we'll see you (sink you?) at Nats.

volunteers who offered strategy moves but none volunteered what I wanted most . . . a way out of this mess. I tried a little bit of crawfishing. I said something like, "Hey Will, I was just kidding, I was only putting you on." Oh boy, that was just the same as pouring gas on the fire and it was cooking my goose. I knew I would never see the Pennsylvania again.

The ships went into the circle. Everyone stood around discussing what type of rules we should play by. I said to myself, "Rules? Rules? Why am I worried about rules? This guy is gonna kill me and I'm worrying about rules?" So I eased up next to Will and loosed off four or five sidemounts. Bad move. This made him mad. This irritated him. By the way, anyone who thinks the Nagato only has six units hasn't been where I have. I would also note that Will Montgomery does not have an unguarded quadrant because anywhere I went in the circle he was drilling my liver and lights. With no room to maneuver all I could do was to try to stay away from him. I couldn't play on the outside because he would pivot in the center and trash me with his seven stern guns. Moving to the center where he could bring his sidemounts to bear would be like committing suicide to keep from getting killed.

But I made my best attempts and got off a few good shots while trying to utilize my low freeboard to my best advantage.

Meanwhile four or five other captains had put their ships in the water to fight in a regular free-for-all battle. One of these, the captain of the Invincible, is Steve Baker, my friend, my mentor, my roommate, my wingmate, a real Mr. Nice Guy. Well, Benedict Arnold Baker steams up beside me and, as if I don't have enough troubles, starts sidemounting me from outside the circle before going off to play with the other guys.

It seems to me that the only chance I have against Will is for his ship to malfunction. And suddenly it does. The Nagato settles low in the water and begins listing heavily to port because Will has failed to turn on his pump. However, I am unable to take advantage because my stern has brushed against several strands of 2400# nylon cord tied to the pipe. When I hit reverse throttle the props dig into these cords tighter than

an Alabama tick and I am totally immobilized. Now what? I've gotta do something before Will realizes that I'm completely helpless and at his mercy. I decide to use a naval strategy that will have the shades of Jones, Farragut, Spruance, Halsey and Nimitz spinning in their graves. I use a naval strategy as outlined by that famous British seaman Tom Jass. Admiral Jass has repeatedly told me, "Age and treachery will always overcome youth and skill." So, I casually stroll over next to Will and say in a low voice, "Hey Will, do me a favor? Don't sink me. Let's just call it a day. We've had fun so let's quit while we're both ahead and just watch the other guys battle." Will says, "O.K. Suits me. Lets take the ships out." So we paddled out, retrieved our ships and both survived. I knew Will would survive, I'm very glad that I made it out, by whatever means, with an intact ship.

I'd like to say that Will Montgomery-san is a gentleman and a true warrior in the ancient Samurai traditions. It was an honor to do battle with him. As for you, Benedict Arnold Baker--I telephoned Will and told him what you called him as he was riding off into the sunset. Will's gonna be waiting for you next year Benny . . . in the Circle of Death.



TOP SECRET

932

From: SS Secret Operations

To: Herr Fuhrer

Date: April 27, 1943

Herr Fuhrer,

In accordance with your wishes we have obtained the necessary personnel article, one handle of the most feared Allied Captain Trophy, for use to cast a curse on all of the Allied Fleet. We retrieved the item in Orlando Florida, U.S.A. It seems the recipient of the trophy of the year previous did not glue the handle back into the trophy after numerous repeated incidents of it falling out.

A fellow Axis captain and I found the item on the way to the Awards Banquet. We agreed to put it to use, as you planned, to beat the snot nosed, slug eating, Allied swine.

With your brilliant idea of using all powers of this world, and other worlds to beat the Allies, we have found a Voodoo Queen to put a curse on the Allies.

We attached the handle of the trophy to the Voodoo doll. Then the Voodoo Queen lit incense and chanted words not of this world. After the chant, she instructed us to insert pins into the doll with phrases of bad omens we wished to befall the Allies. Such as, "Pump fail, balsa shred from hull, sun in eyes, dead in water, and bad shooting," We did not put phrases like, "Ugly ship, smell bad, bad captaining, spineless, and British homosexuals," since we knew this was already the case.

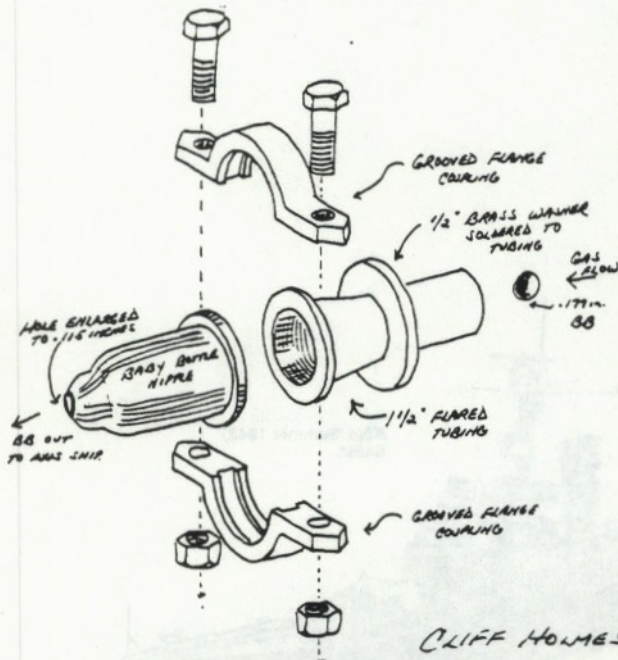
We have enclosed a picture of the doll as evidence of our work. We hope that this pleases you, and brings us the desired affect, an Axis victory.

The winner of last years trophy will have it returned to him anonymously before the Awards Banquet, since we will have won NATS and have no further use of it.

It is an honor to serve you Herr Fuhrer. I know the Axis will find victory, and peace through total world domination!

SIEG HEIL!

THE LATEST IN ALLIED WEAPONRY?



CLIFF HOLMES

The special agents of the Axis Intelligence Team have recently returned from a spy mission in Wrentham, and have brought back from The First Sea Lord's Mansion the following diagram for one of their latest "high tech" farces.

CO2 SUPPLIES  
BY GEORGE GOFF

4-7-93

I WAS ASK WHERE I GOT MY CO2 FILL STATION AND OTHER CO2 EQUIPMENT. WELL, I'LL TELL YOU. AFTER CALLING ALL THE DEALERS IN TOWN, AND ALL THE DEALERS IN A PAINT BALL MAG. I FOUND THE BEST PRICES AT THE FOLLOWING LOCATIONS:

- 7oz TANKS WITH ON/OFF VALVES \$31.00
- USI MINI FILL STATION \$34.00
- (SCALE NOT INCLUDED)

THESE ARE SALE PRICES BUT I THINK THEY WILL STAY CLOSE TO THOSE.

USI (THE ULTIMATE SPORT INC)  
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(508) 559-0777  
(ASK FOR JIM)

933

10 LBS ELECTRONIC DIGITAL SCALE \$24.95

WALMART (IN SPORTING GOODS)

15 LBS BULK TANK W/SIPHON (FULL) \$119.95

I&I SPORTS SUPPLY CO. INC.  
3840 CRENSHAW BLVD.  
STORE 108  
LOS ANGELES, CA 90008-1817  
(310) 715-6800

THESE PRICES ARE AS OF THE ABOVE DATE  
(I CALLED TO CHECK) I DON'T REMEMBER WHAT  
SHIPPING WAS, I GOT MINE ABOUT 9 MONTHS  
AGO AS CHECK WITH THEM BEFORE ORDERING.  
I HOPE THIS HELPS THE ONES WHO KEEP  
ASKING "WHERE DO I GET IT" AND "WHAT  
DID IT COST".

KEEP BATTLIN

GEORGE GOFF

# NATS 93 Entry Form

Capt Name \_\_\_\_\_

Phone Number \_\_\_\_\_

Ship Name \_\_\_\_\_

Ship Class \_\_\_\_\_

Model Length \_\_\_\_\_

Model Weight \_\_\_\_\_

Rib Count & Thickness \_\_\_\_\_

Bow/Stern Thickness \_\_\_\_\_

Crystals (eg. FUTABA AM 78)

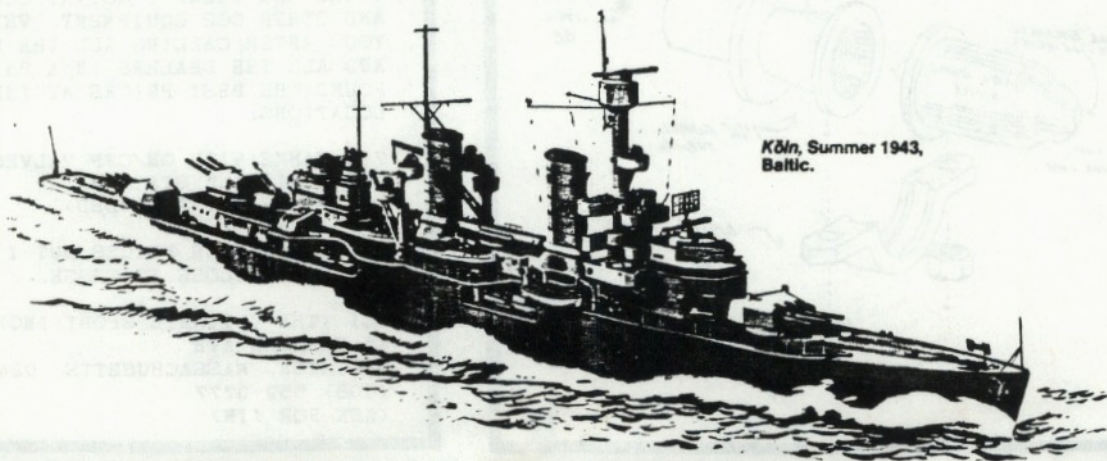
Brand	AM/FM/PCM	Channel
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Send NATS entries to:

Brian Craven Site Host  
12310 Ocean Laurel Lane  
Houston, TX. 77014  
713-537-8722

To subscribe, send \$6 to Fluegel.

HULL BUSTERS VERY LIMITED  
3524 GRAY DRIVE  
MESQUITE, TX 75150



Kön, Summer 1943,  
Baltic.