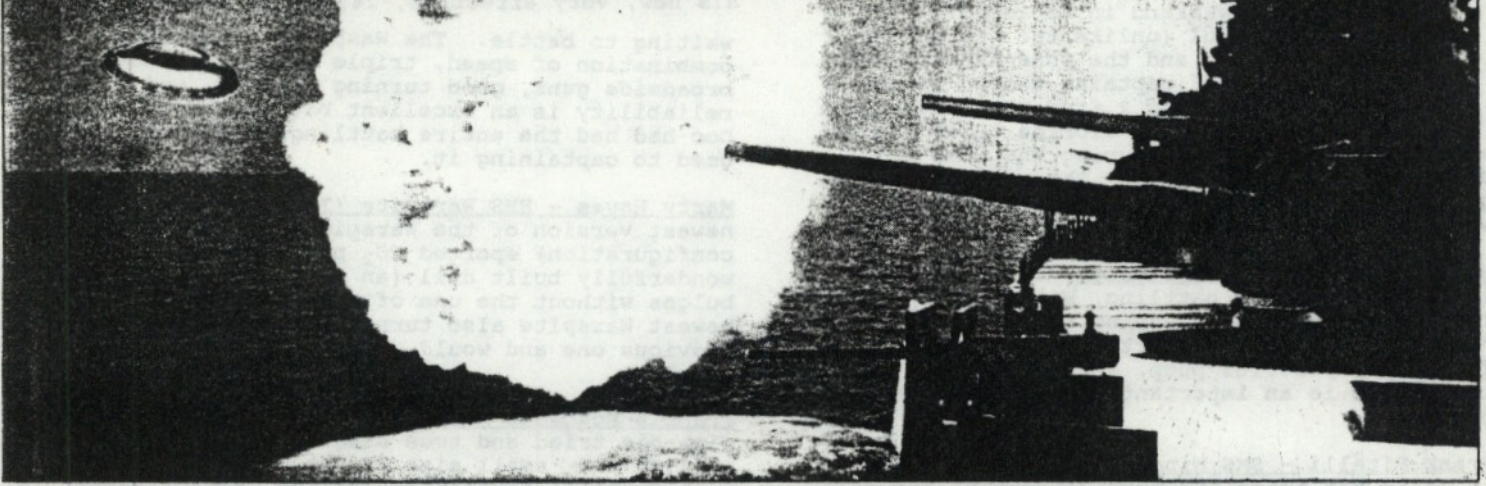
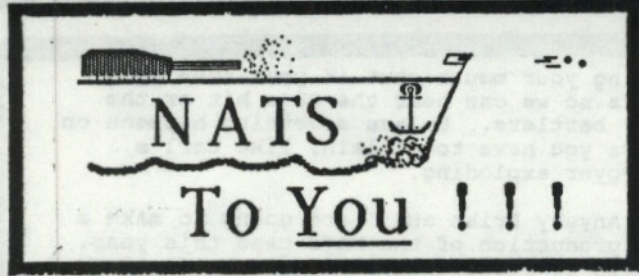


U.S. warship shoots down UFO in Persian Gulf



HULL BUSTERS APRIL 1993



Wade Koehn

IMPORTANT NEWS!! IMPORTANT NEWS!! LOOK!!!

NATS HAS BEEN MOVED!! NATS HAS A NEW DATE!! THE NEW DATE IS JULY 26 TO 30 !!!

Brian and I are very, very sorry about moving the date. The lady Brian talked to at H and H Ranch told us last year that July 12-16 was an okay date. BUT, when she wrote down the date she misplaced it. She took down a Boy Scout troop and put it on our date. She even took the deposit from them before we even got all of the votes in for the NATS date. We didn't even find this out until March 9, 1993. Brian came up with the deposit, \$750.00, to hold the new date before she made another mistake. Now the deposit just holds the date. We still need your \$85.00 by May 31, 1993 to pay for the food and drink. Brian seriously reprimanded her for her folly, twice. I've called many people March 9 to let everyone know ASAP about the date change. Brian and I would like to offer our sincerest apology for this Snafu. This was out of our control. We

are now doing everything we can to accommodate everyone. PLEASE let us know if we can help you in any way we can so you can make it to NATS. Again, we are very sorry for any problems this has caused anyone.

Well it's April and all ships going to NATS should be well under way. Everyone working on a ship should be in a hurry/panic to finish her in time. I received my beautiful fiberglass Bismarck hull from Skunkworks. She's light, clean, exact within one-eighth inch, and I can cut ribs where I want them. I gave Steve a Bismarck hull last August for him to make the plug with. I got my hull in January. I think fiberglass hulls are the future in this hobby, if a ship is to be massed produced. A one or two ship project is not worth the time or money it takes to make a fiberglass hull. But a kit form of a fiberglass hull for a larger market, or a club, or collection of people is worth it. I spent three years and a lot of money to get to this point. I'm hoping to get it together in time to get a few battles before NATS; time and money allowing.

Brian Craven has the hotel reserved for us. The Holiday Inn at Intercontinental Airport is where we'll be staying. It's the nicest hotel we've had to stay at for a NATS. The address is 3702 N. Sam Houston Parkway East. Phone number there is 713-649-2311. Ask for reservations for the R/C Warship Combat Club, or Brian Craven. The price for a room for a week is \$225.00 + tax. This is the price for the room no matter if there's one or four people in it. If you need to save money get as many people in your room as your

Blow-by-Blow

Battle Reports

FALL 1992 NORTHEAST REGIONALS

By: Ken Kelly

The end of another battling season came for most of us here in the northeast as the 1992 Fall regionals took place at Patuxent Pond during the second weekend in September. The weather was beautiful (unlike the wet spring regionals this year) and the pond had lots of water. A total of 13 captains showed up for the regionals, including 2 from Pennsylvania, 1 from Virginia, and 1 from Florida (Lief was on a business trip to D.C. during the week and decided to stick around for the weekend battling). The captains and ships present were:

Will Montgomery - IJN Nagato: By the end of it's first year of battling, Will's sharp looking killer BB had worked out whatever "bugs" it might have started with. With its five guns, powerful pump, and Will at the helm the Nagato is an important factor in any battle.

Frank Pitelli - SMS Hindenburg: Frank was back to using his tried and true Hindenburg for this event (Frank had used his Roma for the Spring Regionals). Does this mean that the Derfflinger class of boats are better battlers than the Littoria class boats?

Mike Blattau - SMS Lutzow: The "unsinkable" Lutzow was sporting a new (all black) paint scheme as well as many patches obtained during the 92 Nats. Mike is always effective at the helm of the Lutzow and was ready to get one more good battling event in sailing the Lutzow before building a replacement boat.

Nathan Blattau - SMS Von Der Tann: Nathan brought his old Von Der Tann hull out of retirement for this event. The Von Der Tann was nicely refurbished and was fitted out with twin stern guns (in a wing turret) and a stern mounted broadside gun. Many people commented that it was also showing a bit more freeboard than normal this year.

Paul "Doc" Broring - USS Washington: Doc had his new, very effective, 24 second BB ready and waiting to battle. The Washington, with its combination of speed, triple stern guns, two broadside guns, good turning ability, and good reliability is an excellent battling boat and Doc had had the entire battling season to get used to captaining it.

Marty Hayes - HMS Warspite (III): Marty's newest version of the Warspite (WWII configuration) sported CO₂ powered guns and a wonderfully built hull (an armored belt and two bulges without the use of a stringer!). This newest Warspite also turned better than the previous one and would definitely be a tough battler.

Francis Rogowski - Gangut: Francis was ready with his tried and true Gangut. The turning ability and small size of the Gangut, along with Francis' captaining ability, always makes the Gangut a tough boat to hit.

Danny Schultz - USS Maryland: A true battling veteran, the Maryland's guns were tweaked to perfection and Danny was ready to sail her into

comfortable with. The rooms have two large double beds. You could get two very comfortably, or three comfortably easy. Four people may get a little tight unless all of you can keep your equipment somewhere else, or you have small ships.

Accommodations are that we are all on the ground floor and pretty much side by side. It's hard for them to promise that we'll be right beside each other, but we'll be much closer together than NATS past. An added extra for free is that your room key will open a recreation area that has a bathroom, a TV, two couches, six chairs, a small stereo, a wetbar, and pooltable. This room is reserved for groups like us, and they only tell are group that our room key works. There MIGHT be a few other people that know their key works, but that would be only flight crews that have been there before. There is also a good restaurant, and a nice bar in the hotel. On the corner there's a convenience store.

I would like everyone who has a video camera, with or without a tripod to bring and use it. If we don't have enough people to use all the cameras you just let it run in a stationary position. There will be very few to none spectators at H and H Ranch. Your camera will be safe unwatched. A good place to leave a camera would be on one of the two bridges. Curly Barret is supposed to writing an article on how to use your camera. I hope he has it in this Hullbusters or at least in June's. He will have tips on how to pan slowly. shoot with sun at your back, and

keeping your mouth shut if your running a camera so we can hear the BB's hit or the other battlers. Unless something happens on camera you have to explain, like Carl's destroyer exploding.

Anyway Brian and I are going to make a real production of the NATS tape this year. We will be putting in dialog, introduction of captains and their ships, music, and computer animation of ships battling. We will spend a lot of time, and do the best job that two guys with three VCR's, a video camera can do. We will do a lot of editing in to give the best coverage possible. We would like to make the best NATS tape to date. But we need your help. The two things we need from you is good camera work, or a stationary camera, and your video tape. If you record a battle, battles, or campaign, at NATS we would like to borrow it. In return, we will make a copy of your original tape quickly and return it to you. AND after we get through producing the '93 NATS tape we will send you a copy of the NATS tape for FREE. You can't beat that offer! We will sell other tapes for NATS for the price of our cost of the blank tapes it took us to produce it. We are a non-profit organization. We just want to produce the highest quality NATS tape that we can that will be fun, and easy to watch. Please help us to make a video that non-battlers would like, and won't give you motion sickness to watch. Bring your cameras and shoot video!

Still pictures are nice to look at too. Bring color film if the pictures are for your

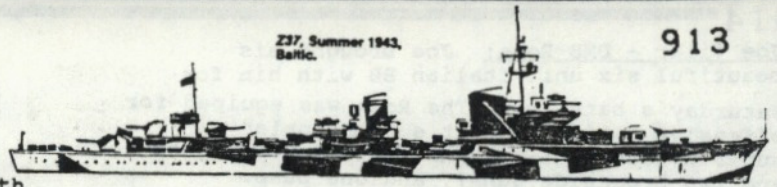
the thick of any fighting.

Steve Andrews - HMS Tiger: Steve, due to technical problems with the California, was without a boat this fall so he borrowed Doc's proven British battlecruiser HMS Tiger.

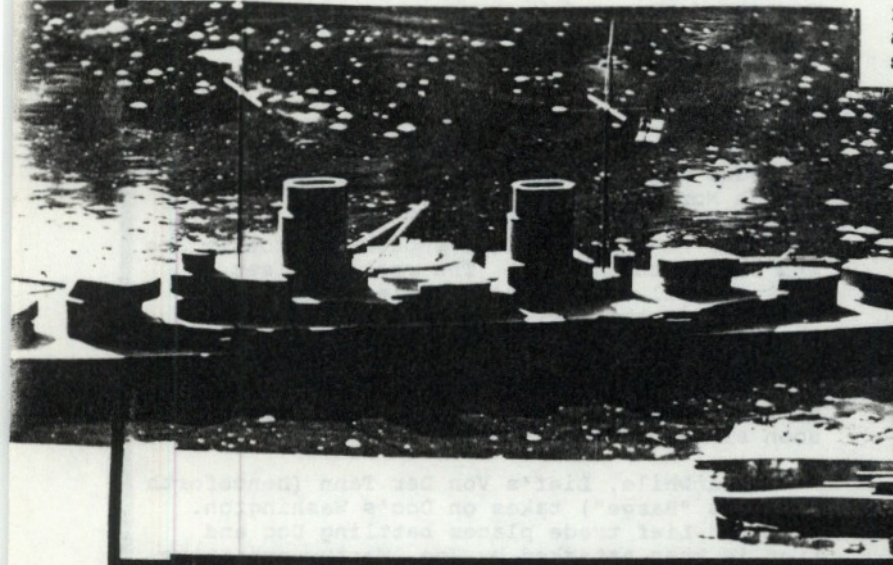
Ken Kelly - SMS Derfflinger: Ken was back with his new Derfflinger for this regionals and had solved the propulsion problems that had plagued this boat at the spring regionals. After receiving some abuse during the spring for the Derfflinger's lack of detailing, Ken also spent some time during the summer bringing the boat's appearance up to a more acceptable level.

237, Summer 1943,
Baltic.

913



Phil Richardson - IJN Chokai: Phil brought his best of scale contending Japanese heavy cruiser down from PA for the weekend. Phil had the boat configured with a 15 shot spurt gun as well as a 75 shot stern gun, a powerful combination. Being the only cruiser on the water, would the Chokai become a primary target for the opposing fleet or would it be ignored and able to sail circles around the other ships? Only time would tell...



album. If your trying to get your pictures in Hullbusters, or a local newspaper, black and white film is better. Black and white film shows up better when it is copied.

You should have paid your club dues of \$6.00 to Ron Thibault by now. Also you should have sent in your NAMBA dues of \$40.00. NAMBA fees should be sent to Cathie Galbraith, Executive Secretary, 1815 Halley Street, San Diego, CA., 92154, 619-424-6380. You to have PROOF of both of these to battle at NATS. NAMBA liability went up to \$2,000,000 this year with no additional fee increase. More money talk. You need to send Brian \$85.00 for NATS fees too. This covers all of your lunches, Friday nights meal, soft drinks all day at lakeside, trophies and awards. If you bring someone to Friday night's meal you should send an extra \$8.75 for every person beside yourself you bring. A \$15.00 late charge will be added if you don't get it in by May 31, 1993. We have to get the money together early for the deposit on the food services of H and H ranch.

When you send in your NATS fee your channel will be locked in your name. First come, first served! Be sure on your NATS entry form you put 1st, 2nd, 3rd, and etc. choices of the channel you want. If you send your money in and the channel you want someone else is already on it, and your 2nd, 3rd, etc. are taken too you will receive THE LETTER. In THE LETTER it will state that the channel(s) you wanted someone else is already on it. It will give you their name, address, and phone number. If the two of can work the conflict, great! Just make sure that the channel your own isn't taken by someone else! Give me a call, or write me a letter and tell or send you a list of what channels are taken and are open. As soon as I hear from you the open channel is yours. If you have to buy new crystals, so be it. If all else fails call, or write me and I'll talk to everyone I know

to try to get you an open channel. Now we're not going to make anyone buy a new radio just to avoid conflicts and two fleets, but it is up to YOU to resolve frequency conflicts. Most of Sunday night's captains meeting is spent resolving radio conflicts. It's easier, quicker, and SAFER if we all have our own channel. Thank you all for your effort in this trouble area. It will make all of our battling easier, and more fun.

Brian talked to the FCC here in Houston about us using airplane frequencies. They said it's okay, if there's no airplanes operating within one mile of us. Since no flies R/C airplanes close to the airport, we're alright. Brian then called Cathie Galbraith at NAMBA. She said that if it's okay with the FCC it's okay with NAMBA. We are covered with NAMBA'S insurance. This opens up airplane channels up for us. If you have an airplane channel bring it. We can use it. If we get enough people on aircraft channels we can go to one fleet. When I called everyone to change the NATS date about

22 people says they were coming for sure. About an even split in Axis, Allied ships.

Another item we've been working on is changing Campaign. The two Admirals; Jim Pate, Dirty Dave Haynes; and I have been looking at three new Campaigns for this year. All three have different targets. Two of them have a shore bombardment in the center of the target. A shore bombardment consists of a 75 round BB run that rotates, and elevates to the horizon. It will be remotely controlled by wires. The shore bombardment can be knocked out by hitting a reed switch with a BB. All three have slightly different ideas, and strategies. When you send you NATS fees in you will receive a copy of all three purposed Campaigns, and their rules. If you want a copy of the Campaigns before that, or your not planning on attending NATS and just want to see them call me and leave your address, or

Joe Vilar - DMB Roma: Joe brought his beautiful six unit Italian BB with him for Saturday's battling. The Roma was equipped for offensive action with it's "regionals" superstructure, five guns (triple stern guns and two broadside guns), and one pump.

Lief Goodson - SMS Von Der Tann: Lief had found out shortly before the regionals that he would be able to attend and therefore had little time to prepare his Von Der Tann. He was frantically working on it Saturday morning and was able to make the first battle but without superstructure and turrets. The Von Der Tann looked like a barge or CVL out on the water (there was no problem telling Lief's VDT from Nathan's VDT that weekend!).

Saturday dawned warm and sunny and as the mist lifted off of the lake the various captains began to arrive. As more and more of the captains showed it became obvious that the Allied contingent was somewhat outnumbered (7 Axis boats versus 5 Allied boats with Joe Vilar yet to arrive). The battlers present took a vote and much to the dismay of the "traditionalists" it was decided to run two "pick-up" battles instead of the standard Axis versus Allied affairs. The two captains chosen to be fleet admirals were Lief and Danny and they proceeded to choose their fleets from the assembled captains.

After the two admirals finished picking sides the chosen fleets kind of resembled the standard Axis and Allied fleets. Fleet A (Lief's fleet) consisted of the Nagato, Hindenburg, Lutzow, Von Der Tann (Lief), Derfflinger, and Chokai. Fleet B (Danny's fleet) consisted of the Washington, Warspite, Gangut, Maryland, Tiger, Von Der Tann (Nathan), and the Roma (when/if Joe would arrive). In number of ships and units, Fleet B had the advantage with 7 ships and 36.5 units versus 6 ships and 27.0 units for Fleet A.

As the morning progressed all captains readied their boats and tested them in the water. As the clock closed in on 10:00 (starting time for Fleet Battle #1) all captains, except Joe as he had not arrived yet, were ready and eager to start the action. Just before "War" was declared Joe did arrive and quickly started to get his Roma ready. The two fleet admirals agreed to start the battle and let Joe enter when he was ready. Bob Amend (who had traveled down for the day with his almost finished, very nicely built IJN Haruna) had the camcorder rolling as the battle commenced.

SATURDAY'S BATTLING

FLEET BATTLE #1

The first sortie started out pretty much the same way as almost every other battle here in the Northeast starts out, with Will sailing into the mass of the opposing fleet to battle who ever he can get close enough to (mostly Joe and Doc in this case). The rest of Fleet A follows Will and a general melee ensues. Maryland is the first of the boats to go on five and is chased into the small "Allied" launching area by Mike's Lutzow. Francis sails the Gangut over to help defend Danny but his valiant effort is fruitless as the Maryland soon sinks close to shore.

Meanwhile, Lief's Von Der Tann (henceforth known as "Barge") takes on Doc's Washington. Mike and Lief trade places battling Doc and Lief is then attacked by Joe, Marty, and Steve. These three captains press their attack and "the Barge" is soon forced to declare five. Ken's Derfflinger then comes over to help defend Lief and is in turn attacked by Doc, Marty, and Francis. The first sortie winds down with everybody firing off the last of their BBs and declaring five. ↗

write me a letter with return address and I'll send you copies for free. Also if you have any ideas for, or about Campaign let your Admirals know what you think. We haven't made any decisions yet. But I'm sure you will see at least one, maybe two new Campaigns.

Be sure to let your Admiral's know which Campaign you prefer. All three of the purposed Campaigns will be based on the Campaign we have already played. But each one has slightly different scoring. Each one has it's own strategy, and complexity. The more complex, the more strategy is involved. One

can last three hours, one can last about two hours, and one lasts about one hour. Read through each one of them and decide which one you would like to play. Let your Admiral know which one you like, and why you like it.

According to the rules we passed everyone will their hull checked for hardness. Also a new rule this year if you use CO2 is to have a 10/32 thread on the low pressure side that allows the CD to measure the pressure being delivered to the guns. CO2 pressure is only checked if requested by another battler. Take care of your hulls and your CO2 tanks before you get to NATS and save you and us problems. Brian is trying to find a place to fill up your CO2 tanks close to the battle site. We include the site location in the NATS package that's sent out, with the price.

You'll get your NATS package after you've sent us your money. In the package there will be a map of Texas, Houston, and the surrounding area of Houston. The maps will show you how to get to: H and H Ranch, The Holiday Inn, NASA, The Texas; the only surviving dreadnought in the world, and a shopping center; that has a grocery store, a big hobby shop, a Radio Shack, and a liquor store.

Marty sent me a letter about the possible frequency change because of cellular phones. I wrote to both of my senators, my district representative, and the FCC. My representative wrote me back and told me that the PR Docket 92-235 will accept opinions until May 28, 1993. In your NAMBA magazine you should had ↗

**The Thibault Family
(Ron, Kathy, Adam, & Matthew)**

Are pleased to announce:

The Commissioning

on 3/9/93

at 15:32 Hours

of a new Heavy Cruiser

The USS Nathan Roland Thibault

Length: 21 3/4 Inches

Displacement: 10 Pounds

Armament: 1 Water Cannon

At the end of the first sortie Nathan's Von Der Tann was pumping fully and the Fleet A admirals declare it a prime target for the second sortie. With this likely victim and Danny's Maryland already sunk the Fleet A captains felt pretty confident at halftime. Fleet B captains would likely concentrate their efforts on Lief's "Barge" as he was their most likely candidate to sink.

The second sortie starts with the Fleet A boats trying to get at Nathan's Von Der Tann (which is already pumping full blast) and all the Fleet B captains calling for Phil to bring his cruiser Chokai in to the middle of the battle. Will and Doc, two of the leading battlers for each fleet, are in close and trading broadsides early in the fight.

Early in the sortie Ken's Derfflinger crosses behind Steve's Tiger and is "spurred" by Steve's stern gun. Steve had had trouble getting the gun to fire in the first sortie so he had opened the interrupter a bit before the second sortie. Ken, not fully appreciative of what a spurt gun can do, sails behind the Tiger again and receives another well placed "spurt" below the water line. These two shots rip large holes in the Derfflinger and force Ken to call five early in the battle with pump running full blast.

As the battle continues Will can be seen attacking Joe's Roma with many broadside shots. Nathan, pump still going full force, refuses to exit the battle and stays in there dealing substantial damage with his Von Der Tann's twin stern guns. At this time Fleet B's efforts finally pay off as Lief's "Barge" slips beneath the surface of the pond. With one ship sunk for each fleet the battle is up for grabs at this point so both fleets press the attack.

With both sides looking for likely sinks Doc spots Ken's Derfflinger sitting still (trying to stay afloat) waiting out it's five minutes. Doc starts to chase Ken but soon turns away saying that the Derfflinger's pump wasn't pumping very hard. Luckily for Ken, Doc didn't know that that was as good as the Derfflinger's pump can pump and that as Doc was chasing Ken the Derfflinger was sucking more water in than what his weak little pump could handle. This is probably the only time a ship

FLASH!

"FAB" HAS A NEW HOME PORT!

TO: THE MEMBERSHIP
FROM: STEVE "FAB" BAKER
SUBJECT: NEW HOME PORT
CLEARANCE NO SECRET AT ALL

The membership (that's you guys) should be advised that my address has changed to 2270 Smokey Road, Newnan, GA 30263. The new phone number is 404-254-9697. I think I maybe a red neck because instructions to my house really do include "turn left off the hard road (pavement to you Yankoes)" We are indeed out in the sticks and loving it. Invincible is well along in her CO2 refit and I anticipate another full battling schedule for '93. So fill your bottles and grab your BB's.

Regards,
Lt - Senior Grade
FAB

form letters that you just had to sign and send in. Please lobby for our hobby. We need to protect our channels from the large telephone companies that Tom Jass works for.

By the way Tom, Nationals is in Houston this year. If you go to Dallas, you won't find Fluegel or Chris Pearce at home. You'll just end up in Soap Opera, and still five hours short of your destination.

Steve Milholland asked me if anyone was interested in scheduling a Heavy Cruiser, and smaller ship battle during the week. I told him that I would put it in my NATS TO YOU article to see if anyone was interested. If interested please call me, or Steve and let us know. Certainly there is no problem in doing it Wednesday. If there is enough interest, we might work it in during the week.

After reading Bart's article I took out the rules and reread the ones dealing with rams. Bart was right. We have been applying the ram rule wrong. The ramming captain DOES NOT have to bring his ship in; UNLESS the rammed ship has to be repaired. I will be enforcing the rule as written. We have all seen captains call a wimpy ram to get out a bad situation. If a captain calls a wimpy ram now the offending ship will stay on the water, unless the rammed ship needs to be repaired. The rammed ship can return, even if sunk, if he can get his ship repaired within five minutes. The ramming ship must withdraw, with penalty points from that sortie if the ship he rammed. cannot return. If the rammed ship cannot be fixed within the five minutes, but can be fixed between sorties, he can return

the next sortie. The ramming ship can return the next sortie after a ramming a ship that cannot return the same sortie. This should help us separate REAL rams from wimpy rams.

Once again Brian and I apologize for any problems cause by changing NATS to July 26 through July 30. We hope to be hearing from many of you soon. Call, write, or tape Brian or I if you need any help, information, or a ride from the airport. Brian is checking on the possibility of getting ships, and supplies on Continental Airlines for free. If you need to get your ship and or supplies to NATS, you could send them UPS to Brian's house. Just set it up with Brian so he can know when to expect in.

Oh, I talked to Brian and he said you can bring your CO2 tank on the plane, but it must be empty. You could put you CO2 in someone else's tank, and bring an empty one. Brian is finding a refill supplier as close as possible to the lake. I am buying a professional CO2 fill station, like the ones used in paintball vendors, from the same guy Bart and Steve Baker bought their tanks from. Brian is going to rent the largest CO2 tank we can get, and have it filled for NATS. This should take care of our needs easily if he can get a 100lb. to 50lb. tank. We might have to refill a 50lb. Wednesday. We will charge a nominal fee to charge from this tank. Just enough to cover the tank rental, and the CO2.

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

has been saved by a weak pump.

The sortie starts to wind down as first Nathan and then Frank declare five. Nathan's (unsinkable?) Von Der Tann lasts out it's five minutes but Frank's Hindenburg isn't so lucky and sinks close in to shore. Everybody else goes on five except Will who is still pressing home his attack on the Roma. Will's tenacity eventually pays off as Joe's Roma sinks with little time left on his five minutes.

FLEET BATTLE #2

As was done before the first battle, admirals were first chosen and captains then selected to determine sides for the second fleet battle. The two fleets ended up looking almost identical to those of the first battle except that Frank and his Hindenburg were now with Fleet B while Nathan and his Von Der Tann were now assigned to Fleet A.



This first battle was a great one with both fleets vying for victory until the last minute. Both fleets lost two boats (Fleet A lost the "Barge" and the Hindenburg while Fleet B lost the Maryland and the Roma) and the point totals were very close but overall Fleet A took more damage so Fleet B ended up the victor (My apologies for no point scores, I did not make a copy of the battle results at the time and I could not get a hold of them later).

With the clubs transition to CO₂ in mind I would like to mention a noteworthy feat accomplished by Joe Vilar during lunchtime on Saturday. Joe had just received a 7 oz. tank and regulator from Marty and wanted to see how CO₂ would work so, during lunchtime, he converted the Roma over to CO₂! Joe certainly made CO₂ conversion look easy and the Roma's guns fired very effectively in Fleet Battle #2.

The first sortie of the afternoon battle began with Mike's Lutzow and Doc's Washington trading sidemounts. Marty's Warspite is seen taking on the two Von Der Tanns and quickly achieves some most unusual results. As Marty is lining up his stern guns on Lief his props catch Lief's gun safety pin string which is trailing in the water. As Marty tries to go forward the Warspite literally pulls the "Barge" below the surface, water pours in the open turret barbet (remember, there is no superstructure or turrets on Lief's boat), and the "Barge" sinks. As Lief had taken no damage at this early stage of the battle this was classified as unseaworthy sink and Fleet B found themselves with an early lead.

Elsewhere on the pond, Will and Francis mix it up while the Washington and Derfflinger trade side mounts. Doc and Ken were so intent on aiming their shots that they failed to

SOLENOID WIRING

Ron Thibault
10/20/92

I discovered a problem with the way we install the solenoids for our guns. During Mats this year Paul (Doc) Broring's ship developed what, at first, appeared to be "Radio Death". He bought another radio to replace the "dead" one only to have it also "fry". He thought that he had something really shorted or crossed in his wiring. After looking at the ship we determined that the radios were OK but that all the servos had bit the dust.

While diagnosing the problem I discovered that every time the solenoids fired a fairly large spike was sent into the main power lines. As his radio was run off of the motor batteries this was bad news for the electronics.

I have been running my radio and solenoids together for two years with no problems, but I have my radio sore isolated than Doc's was, and have also been lucky, I guess. There is a simple solution to this problem. I had not installed it on my ship, but will before next year (I don't want to buy any more radios than I have to).

First a description of the problem. When any electro-magnetic device is powered on it generates a magnetic field. When the power is cut the field collapse (dies). This collapse generates a voltage spike, of the opposite polarity to the power input, that can get back into the wiring or blow out the electronic switch if one is used. This spike in the lines is what probably blew out Doc's servos.

There are two simple ways to solve this problem. The first is to run the radio off of a receiver battery. This will work only if the radio is otherwise totally isolated from motor power. The rest of the ship would have to be "controlled" thru mechanical switches

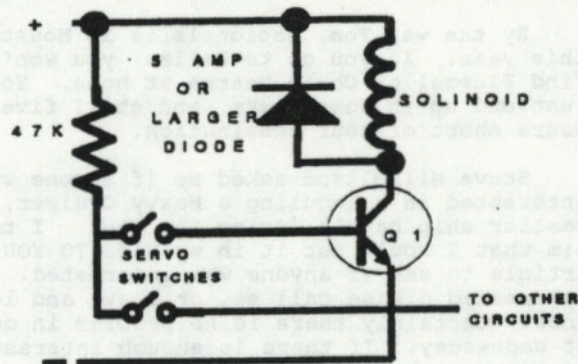


FIGURE 1

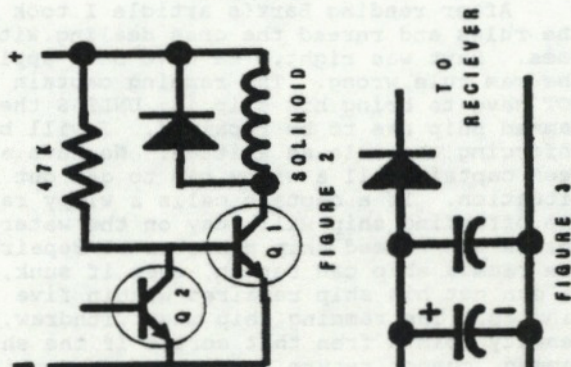


FIGURE 2

FIGURE 3

30 sec moss. Your average boat battler brouhaha ensues with the CD ruling in Ken's favor and the Derfflinger eventually heading out to sea with clean props and much damage.

No sooner does Ken regain control than Will's Nagato encounters radio problems. The Nagato is immediately set upon by the Tiger and Washington and suffers substantial damage. Francis' Gangut pulls itself off of the shore at this point (still out of control) and quickly begins to settle to the bottom with less than a minute left on its timer. At the last moment the Gangut turns its pump on (on its own initiative) and saves itself from sinking.

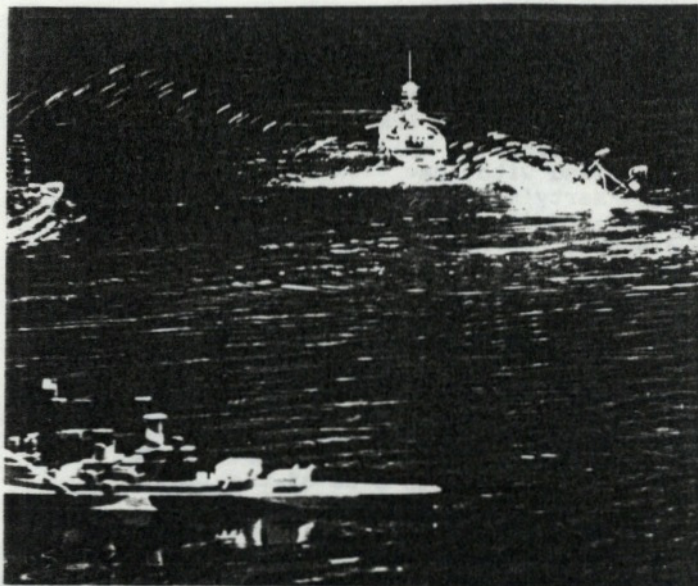
Most captains declare five at this point and the battle winds down. Marty and Joe are the only two captains not on five when Ken notices that Joe's Roma looks low in the water and advises Joe to turn his pump on. Joe moves the transmitter control but nothing happens. All the captains watch as the Roma fights to stay afloat for the next five minutes. As the Roma's stern dips below the surface (with less than 30 seconds left of its five minutes) Joe is heard saying, "Somebody convince me again why I don't need two pumps..."

Fleet Battle two thus ends with one class 3 and one class 4 ship of Fleet A sunk, one class 6 ship of Fleet B sunk, and a number of heavily damaged ships in each fleet. The point tallies eventually reveal that Fleet B wins this hard fought battle by something less than 200 points. Saturday's battling thus ends with two very enjoyable and closely fought battles going in favor of Fleet B. Everybody then bids farewell to Bob Amend as he packs up his Haruna parts and heads north. The rest of the captains clean up and head for a dinner rendezvous at the local eating spot where everybody relaxed and had a good time.

SUNDAY'S BATTLING

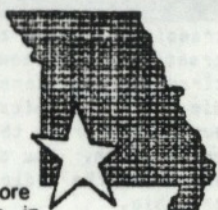
Sunday's weather also proved to be beautiful with sunny skies and moderate temperature, another wonderful day for battling. There were two less battlers for Sunday as Joe had departed for Virginia after Saturday night's dinner and Lief would soon be making the long drive out to Wisconsin (Lief did stay long enough to tape Fleet Battle #3 though - Thanks Lief).

Since the Axis were now minus two ships (Joe's Roma and Lief's Von Der Tann) it was decided to run Fleet Battle #3 as a standard "Axis vs. Allied" affair (it just wouldn't be a regionals without this battle). The Allied captains (who were all in Fleet B on Saturday) →



MO Notes:

by Steve Milholland
and James Foster



HELLO again, it's time for more news about our upcoming battle here in Springfield, MO.

The results of the poll are in and it was almost unanimous. The date of the first ever OZARKS SPRING BB FESTIVAL is May 22 and 23rd of this year. Though phone calls and cassette communication tell me that upwards of 25 battlers plan to attend this event, the actual number that entered the poll was pretty small. Because of this, we will probably not be sending out a contest package. Instead, we will give you most of the necessary information needed right here in HULLBUSTERS. Particulars are as follows.

MOTEL: Battlefield Inn, 2114 S. Glenstone Ave, Springfield, MO. 65804. Phone: (417) 883-1340. Room rates will be approx. \$41.11 per night (add \$2.50 per ea. extra body). **MAKE RESERVATIONS NOW, EVEN IF YOU ARE NOT SURE YOU WILL BE COMING !!!** Motels in Spfld. fill up fast during the tourist season. If you cannot get in at Battlefield Inn, an alternate motel is the Mt. Vernon Motor Lodge, 2006 S. Glenstone, about a block North of Battlefield Inn. Its phone is (417) 881-2833. Room rates are unknown.

CONVENIENCES: Burger King is right across the street, Red Lobster, a Sub Shop, and Village Inn are within walking distance of the motel, other eating establishments are within one mile.

THE LAKE: Burrell Park is located on the grounds of Burrell Mental Health Center at 1300 Bradford Pkwy, just 1/2 block off of S. National Ave. The pit area is flat, grassy, but un-shaded, bring a dining fly or a sombrero. There are only one or two concrete picnic tables here so you will also need a fold-up table or sit on the grass. There is a back road that we can drive right up to the pit and unload on but we cannot leave vehicles there. Parking will be on the street just to the west of the lake about

120 yds from the pit area. While the park is very nice, it is somewhat isolated. The nearest eating places (and a good hobby shop) are about 1 1/2 miles away. Unfortunately, there is not a rest room at this park, we are investigating the possibility of a Porta-John or access to facilities in the medical center.

THE CONTEST: Sat the 22nd, two fleet battles are planned and whatever one on ones anyone wants to get in. Sunday the 23rd, one fleet battle in the morning with whatever else can be squeezed in before you have to leave for home. There is no campaign planned for this event.

HOSPITALITY: We plan to provide ice and cold drinks at lake side but please bring your own cold cup. We also plan to provide a supply of CO2 (at a nominal charge) for those who will be using it. **WE WOULD APPRECIATE KNOWING HOW MANY BATTLERS WILL NEED A CO2 SUPPLY WHILE HERE !!!**

SAFETY: All safety requirements of NAMBA and IR/CWCC will be enforced for this event. All participants and spectators must have safety glasses or goggles with side shields. All gun firing will be done in the specified area only, and only during specified times. Spectators not having eye protection will be barred from the pit area during battle and gun firing time.

ENTRY REQUIREMENTS: A ship, \$10.00, a 1993 NAMBA card, and your presence. Like the Texas Triple Clown events we are not going to the trouble of sanctioning this event with IR/CWCC but do plan to sanction future contests (possibly starting with a FALL BB FEST later this year). In order to get the required insurance necessary for our use of this park and lake we will be sanctioned with NAMBA so all participants MUST be current NAMBA members.

TO ENTER: We would like to know in advance who is coming, and also need entry fees up front in order to cover expenses. To enter, please send your NAME, ADDRESS, PHONE NUMBER, 1993 NAMBA CARD NUMBER, NAME OF SHIP, WHETHER YOU NEED CO2, YOUR RADIO BRAND, AND CRYSTALS YOU HAVE AVAILABLE on a piece of paper with a check for \$10.00 to: STEVE MILHOLLAND, RT 2, BOX 81-A, SPRINGFIELD, MO 65802. Late entries postmarked after May 10th, and lakeside entries, make your check for \$15.00.

See you lakeside,

STEVE (417) 831-2309
JAMES (417) 886-0419

notice the sandbar behind the main island that they were sailing around. When they noticed what they were doing both captains put their ships in reverse. Doc's boat came back into view but Ken's didn't.

As the Derfflinger tries to pull itself over the sandbar behind the island Phil's Chokai, pursued by Danny's Maryland, runs itself aground in front of the island (in Danny Bottom Straits). Danny then proceeds to put 10 or 12 well placed shots below the Chokai's waterline. To Danny's immense joy the Chokai soon rolls over and sinks in the channel. Luckily for Ken, all of the Fleet B captains are busy watching the Chokai sink and the Derfflinger is eventually able to pull itself off of the sandbar unobstructed.

The battle continues after Phil picks the Chokai up out of the channel (Phil didn't even have to get his feet wet). Most of the battling continues to take place in the "Allied" side of the lake. Will and Frank exchange broadsides while Mike's Lutzow pounds the Maryland with some well aimed broadside shots. Marty's Warspite is very active in the battling and is somewhat low in the water due to damage (this ship however does not show any of the rolling tendencies of the previous Warspite - another one of Marty's many "Warspite" improvements). The Warspite's low freeboard and steady pumping attract the attention of the Blatau brothers and they sail their ships over to attack the Warspite. Marty calls five and avoids his attackers well enough to last out his five minutes. The sortie ends with Ken battling Francis and Steve in the middle of the "Allied" side of the lake.

Fleet B had a comfortable lead at the end of the first sortie with two Fleet A boats sunk (Lief and Phil), none of their boats out, and lots of damage among the rest of the Fleet A boats. Fleet A captains, with their backs to

the wall at this point (outnumbered 7 to 4), were hoping for an opportunity to get back in the battle during the second sortie.

The second sortie begins with all of the captains battling around Danny Bottom Strait. Frank has positioned the Hindenburg in the channel and the Fleet A captains try to line up decent shots at him while the Fleet B boats shoot at them. The battle moves into Vilar Bay with every ship of both fleets milling around firing broadsides into each other. The action centers around Nathan's Von Der Tann battling Francis' Gangut and Will's Nagato hitting Danny's Maryland.

With so many ships and captains in one small area things are bound to go wrong with radios, and they did. First the Gangut goes out of control and beaches herself in front of all the captains. The Fleet A captains, thinking that this is the chance they were hoping for, close in for the kill. Doc's Washington comes to the defense of the Gangut but the Fleet A ships are still able to inflict serious damage on Francis' ship.

At this point things start to go bad for Fleet A when Ken's Derfflinger, which is lining up shots at the Gangut, also encounters radio problems and drives itself into the lily pads right next to the Gangut. Ken declares five minutes/out of control and is immediately set upon by the triple stern guns of Joe's Roma and the double stern guns of Marty's Warspite. Joe was quite happy to be given the opportunity to test out his new CO₂ powered guns in this manner. Ken eventually regains control of the Derfflinger by holding his transmitter right above his ship but now his props are fouled by the lily pads. Ken announces that he has regained control of his ship and calls 30 sec moss. Joe, eager to continue testing out his CO₂ powered guns, insists that Ken wait out his five minutes/out of control before he goes on

run by the servo arms. Any other electronics would have to also be isolated from motor power. This will work but is not the best or even the easiest solution.

The second and standard method is to hook a diode directly across the solenoid leads. The diode is installed "backwards" (the diode negative lead on the solenoid positive lead, the diode positive on the solenoid negative lead), thus it looks like an open connection to the power wires (see Figure 1). When the power is cut the diode shorts out the negative spike preventing it from getting into the wiring.

The diode should have a current rating of 10 times that of the electro-magnetic source. For our 6 volt solenoids (about .5 to .6 amp draw) this comes out to a 5 amp diode. The highest rating that RADIO SHACK carries is 3 amp. This is low but may work for those who can not get their parts anywhere else.

There are two methods of turning on the solenoids: mechanical switches or electronic circuits. Hook up of these is shown in Figures 1 & 2. The main power diode (Q1) is a RADIO SHACK TIP120 catalog #274-2868 \$1.29. I connect the transistor to the solenoid leads close to the solenoid and dip it in DIP IT (the stuff they coat tool handles with). The signal wire of the transistor is then run to the "switch" in the radio box.

I recommend this method for several reasons. The first is that this means less heavy power wiring has to be run in and out of the radio box. Also along with this goes the advantage that the noise from turning the solenoid on and off is that such further isolated by distance from your receiver. Another reason is that if something should short or burn the most of the time the damage will be outside the radio box. The last reason is that smaller mechanical switches, or lower power electronic switches, can be used. For the electronic switches this also provides a measure of protection, in that a short at the solenoid will burn out the cheap

transistor rather than the expensive switch. I mount the transistor (and now the diode also) on a small piece of circuit board, connect the solenoid and signal wire, and dip the electronics several times until well coated. Be sure to separate the wires so that the DIP IT seals around them. You do not have to run a ground back to the switch if the radio shares the ground with the rest of the ship.

If mechanical switches are used only one 47K resistor is needed for all the switches. If electronic switches are used one 47K is needed for each set of solenoids. One switch can fire several solenoids for multiple gun setups. An important note if you are using electronics is that turning OFF Q2 (the output of the electronic switch) fires the solenoid, and turning ON Q2 turns OFF the solenoid. This is the opposite of a straight switch hookup. Keep this in mind when selecting or designing the electronic switches.

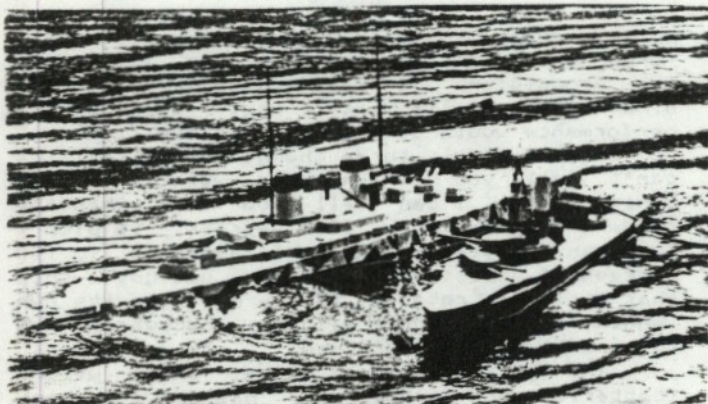
I run my radio off of the motor batteries and have always used the following circuit (Figure 3) to isolate it from the motor noise. The electrolytic capacitor (the one with the + & -) is a RADIO SHACK 470 uf 35 volt cat# 272-1838. The other capacitor is the same type as we use on our motors. The diode is a RADIO SHACK 3 amp cat# 274-1141. The larger capacitor smooths out any dips in the voltage when the motors are first started and the smaller (motor) capacitor filters out the higher frequency noise. The diode protects the radio from reversed battery hookup. The diode also drops the voltage from the battery (6.3 volt) a little closer to the regular operating range of the radio (6 to 4.8v).

In addition I use ACE NOISE TRAPS on any servos outside the radio box (generally the rudder servo) on smaller ships. On larger ships (more room) I put them on all the servos. This does not protect from voltage spikes but does help isolate the receiver from outside noise and radio interference.

felt very confident because of the superior performance of their boats during Saturday's battles. The Axis captains (mostly Fleet A captains of the previous day) were hoping to redeem themselves during Fleet Battle #3.

FLEET BATTLE #3

The Allies started the first sortie of Fleet Battle #3 by attacking Will's Nagato with Doc's Washington and Steve's Tiger. Frank and Ken sail the Hindenburg and Derfflinger over to aid Will and some heavy fighting ensues. Doc then brakes off and begins to trade sidemounts with Nathan's Von Der Tann while Will breaks off to tangle with Francis' Gangut (two "David vs. Goliath" type battles). The three Derfflingers are seen chasing Marty's Warspite across the Allied side of the lake. It's a wild battle with ships sailing everywhere at this point.



As the battle progresses Doc and Ken are seen exchanging broadsides while Will and Nathan take on Steve and Marty. Doc calls five minutes at this point because he is low on BBs and has discovered a large hole (just above the waterline) in the midships of the Washington. As Doc heads away from the battle the Warspite, with a sharp list to port, sails for the shoreline. The Warspite can't quite make it though and sinks by the stern just of land. Marty recovers the Warspite and discovers that she sank because of an unknown ram damage.

As Marty clears the water the battle continues with Mike and Ken's Derfflingers sandwiching Doc's Washington. They pump many broadside shots into Doc's boat trying to force him under before his five minutes end. The Washington, with pump running full blast, survives the attack and lasts out its five minutes.

The sortie then brakes up into a number of small (one on one) battles with Frank battling Francis and Will battling Danny. Steve eventually calls five and heads for the safety of the Axis side of the pond (via Danny Bottom Strait) chased by Will, Frank, and Mike. At this point Danny, who is battling Nathan, rams the Von Der Tann and puts a massive hole in her side. The Von Der Tann, quickly sinking by the stern, heads for shore. Ken, trying to help Nathan, reaches down and grabs the Von Der Tann as it sinks just off the shoreline. Busy helping Nathan, Ken fails to notice that the Derfflinger is heading straight for the shoreline. After the Derfflinger beaches herself, Francis (the only available Allied at this point) quickly comes to attack. A lack of BBs, a malfunctioning gun, and protecting Axis ships prevent the Gangut from seriously damaging the Derfflinger before Ken pulls her offshore. Francis calls five after this and evades the remaining Axis ships to end the sortie.

After a short break the second sortie

begins with Doc immediately calling five and heading for the far side of the Allied sea with Steve's Tiger there to defend him. The Nagato promptly gives chase to Doc but its guns are not working so Will declares five and calls for somebody else to chase Doc. Ken sails the Derfflinger over to attack but the Washington, low on its five minutes, is in no real danger of sinking. Ken and Steve therefore move off to battle leaving the Washington and Nagato alone to end their respective five minutes.

Elsewhere on the pond, Danny is attacked by Mike, Frank, and Nathan. Francis soon comes over to help the Maryland and some vicious fighting takes place. The Maryland and Gangut soon go on five and are perused by the Lutzow, Hindenburg, and Von Der Tann. The luckless Gangut now encounters pump problems and begins to sink in the center of the Allied side of the pond. Just as the Gangut's stern goes under the pump finally fires off and Francis labels the Gangut with a few choice names (the Gangut, sitting on the bottom of the pond, can still be seen from shore).

The Maryland, under attack by all three Derfflingers, also sinks at this time. A cease fire is called and Danny wades in and recovers both boats. After Danny is out of the water the sortie continues with Steve, the only Allied captain still sailing, calling five and being chased from one end of the pond to the other by the remaining Axis ships. The Tiger, a hard boat to sink, lasts out its five end the sortie ends.

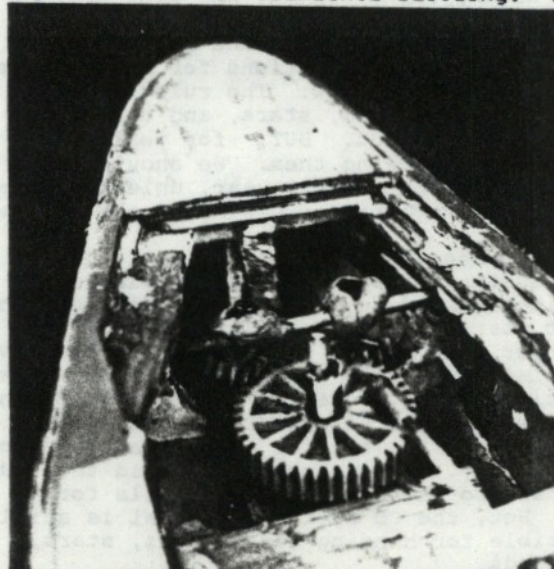
Needless to say, the third fleet battle ended up being a landslide victory for the Axis fleet. The rest of Sunday was spent in pickup and one-on-one battles as each battler packed up and headed for home. Overall, the Fall '92 Regionals ended up being a wonderful, fun event enjoyed by all captains able to attend.

How Did You Get Your Ship Turn Like That???

A Brilliant Expose
By Fluegel

The purpose of this article is to describe the things I did to my Bismark to make it turn so well. Many people asked me and my roommate (Bart) how I did it. The answer is partly "I don't know". But that's a cop-out. But let me tell you "what I do know".

It all started on one dark evening when we Axis gathered in an abandoned building. After



torturing several small animals and sacrificing a couple of goats, Frank read the entrails and determined that turning ability would be critical to the Axis future. The high priests, or I mean command discussed this, and commissioned their Admiral to seek the answers to better turning. Frank, however, was chastised for playing with the entrails. I determined that it would take several things to improve the Axis turning ability, aside from knowing right from left.

First, I have a reasonable length to beam ratio. The wider your ship, the better it turns. Second, it has twin rudders. Finally, she has a prop in the center, "blowing" water directly on the rudders. Those are three big advantages I got for building teh Bismark. Still, the same ship didn't turn (rotate) in '91 as it did in '92.

The changes include "Fat Rudders" (hydrodynamic) that are "teardrop" shaped asymmetrically. The keel side is shaped, and the outer surface is flat. At its widest, it is 11 mm wide, which is about 20% back from the leading edge of the rudder. The second change is the throw of the rudders; they rotate 180 degrees! The third change is the propulsion. Instead of having approximately 80% of the thrust coming from the center prop, helped by the outer two props supplying approximately 20%

of the trust, I made the outer two props static "drag" props and the central prop supply all the propulsion. I realized that this might hinder my reliability, but decided the performance would be greater than the risk.

As I did all three change in one refit, I can't tell you which ones were the most beneficial. I can tell you that when the rudders rotated only 100 degrees, it didn't turn any better. When I adjusted to 180 degrees, I expected bad things, but got a ship that literally rotates to the port (in its own length, really tight, slightly backwards) and turns well to the starboard.

The placement of the ships weight (batteries and propellant) has always been placed in the center of the ship, to reduce the amount of weight that has to be rotated when the ship turns.

Well, that's my story. I hope you can get your ship to turn as well as possible. I have wondered if the tear-drop rudder shape keeps the water from "stalling" as the prop wash wraps around the back side of the rudder. The reason the rudder's shape is asymmetrical was to maximize the lift of teh rudder that turns directly into the prop wash. These designs are pretty hypothetical, but I have never seen a ship turn better. Let us know if you have any insights or similar results.

RULE PROPOSAL

by

Wade Koehn, Brian Craven, and Lief Goodson

Since we are changing the ribbons this year, I typed up instructions for Secretaries in the future to follow. The rules clearly state how the ribbons, stars, and awards should be handed out. BUT, for years we aren't been following them. We shouldn't be handing out ribbons every year, unless your a rookie, or it's a ribbon you never got before.

We've been handing out ribbons every year. Instead of adding up total wins or participations of an event and handing out the correct star(s); Bronze, Silver, or Gold. I've never seen a gold star in our hobby, have you? Also we haven't been including the wins or participations of NE, or SE; Fall or Spring Regionals. Whoever is the CD at that meet should forward the tallies of the battlers to the Secretary. The Secretary should then add the totals to the pre-existing totals for stars. But, the CD of that Regional is still responsible for handing out ribbons, stars, and awards.

We suggest that ribbons should be handed out every three (3) years. Of course if you've never won that ribbon before, or if you're a rookie you should get a ribbon. We think three years is the proper time to hand out new ribbons because either your old ribbon will be full of stars, your old ribbon will be dirty, or torn up, or you will have lost it.

Nationals Drop Test & Ram Rule Clarification

Ron Thibault & E Board

03/14/93

In the past a various Regional and National events the Dreaded Drop Test has been invoked. Having never been challenged, I never paid attention when someone else's ship was tested. But, at the 92 Nats I noticed the drop test being performed using the 12 inch drop. When I was proof reading the rules package for this year as part of my E Board duties, I discovered a problem! The 12 inch Drop Test is the recommended test to do at HOME to ensure that you will pass the 18 inch Drop Test after you have done some patching!! The rules state that at Events an 18 inch Drop Test will be performed. As the 12 inch is defined, but the 18 inch is not, I consulted with some other (longer in the hobby) members. The 18 inch Drop Test is in all respects the same as the 12 inch

drop, except that an 18 inch tube and drop is used. As the Drop Test is now mandatory at Nationals I wanted to get this cleared up.

Now to the Raas Rule clarification. A Rassing Captain does not have to come in to shore, nor does he stop becoming a target for gun fire, unless the Rassed Ship must be repaired. He must remove his ship from the water during the time the repairs are being done. If the repairs take longer than 5 minutes, then he must remain out for the remainder of that sortie. If the Rassed Ship is Raas Sunk it may be returned to battle in the same sortie, if repairs can be done in 5 minutes. In this case if the Raas Sunk Ship returns to battle, the Rassing Captain is still penalized, but may also reenter battle.

CO2 Makes Us All Rookies.

By Fluegel 3/20/93

During Spring Break I had the goal of putting together a "fill station". A fill-station is the attachments one uses to fill a refillable CO2 tank from a larger (20lb) shore based tank. Dirty Dave gave me a free 20 lb CO2 tank (thanks thanks thanks) so I had a good start! The valve, dip-tube (siphon tube), pressure test, and 20 lbs of CO2 cost \$47.50. Did you know that CO2 has its own threads? I didn't. Any way, I bought a 3' long pressure hose for \$11.60 (and 1 hour on the phone, and two hours of driving, {Universal south west}). The tee cost \$10.00 (two hours on the phone, two hours driving, {Trinity, Welding "T-CO-2"}), and three adapters \$20 (two hours on the phone, and two hours driving). Happyco gave me the valve, with a pretty red handle, and the nesasary fittings for free (two hours driving).

OK, I live in the Dallas Metromess, and It was very difficult to find it all. So why didn't somebody tell me it was so difficult to put one of these together? And how did Bart, who lives in nowhere-ville, put his together? Am I stupid? Well maybe I found where they got thiers. "Kurt Bennett, R.C. Combat Supples, 1803 Myrtle, Corona Calf, 91720 Dept A", Wade gave me that address and told me that he ordered a really sweet fill-station for \$142.00, scales and a gauge are included. Well, that's a lot of money, but it's an option if you live in the sticks. That's almost \$100 more than I spent (I'm not planning on getting a gauge and for the scale I was looking at one for \$15.00 at Kmart) but what is 6 hours of driving and 5 hours of phone work worth? I wonder what else "R.C. Combat Supplies" has?

Well, I'm working hard and spending money on stuff that I'm not sure will be completeable. When the realization that Pierce may have the right idea, buy two 7oz ship board tanks, and have the paint ball places fill them for \$3.00. At battles somebody will have a tank you can fill from, and when you are ready, and other people have have figured out what's good and where to buy it, buy it then.

CONCLUSION

On 3/21/93, Paul Theoder Max Fluegel II, was granted the helm of the DKM Lutzow. R.C. warship combat is a wonderful tool to bring a Son and Father closer together. The old Gross Admiral has a twinkle in his eyes.

Thanks to the following contributing authors, WADE, KELLY, RON, RON, BAKER, And STEVE. That's only 6 authors. The only article that remains is a Dirty's "How-too" article on servos. Please contribute, do it!

It's going to be a really fun year. Best lake, and dear old and new friends.

Love Fluegel.

This is my 16th year to battle and I can't help but note some significant evolutions. We were poorer then, and our major tools were our own confidence that we could make things work (especially Stan). Almost nothing was bought, we even built our own valves. Props were cut out of tin can lids with scissors. It was almost unrecognizable to the hobby that now consumes us. The major tool now is the phone, and very little is constructed from things found around the house. The engineers, like Stan, have stepped aside to the business men, like Wade. In all of this we have remained a very exclusive group, if you want to battle there are alot of obstacles to "weed" you out. I have tried to chronicle what I have learned about CO2 in Hullbusters in order to reduce the obstacles. I feel a little defeated, because there are so many systems that must be successfully installed, and not much help. I salute the Mag group for their monthly building sections, this may be the reason they are the largest single combat group. What I would like to do to help is to encourage the readers to provide address, phone numbers, prices, and information that is specific. Don't tell rookies that they need to get rechargeable batteries, put in H.B. the Phone number where every battle will be empowered to get them.

I like the new hobby, but given the choice of the old hobby and the new one, I honestly don't know which one I would choose. I'm glad I have experienced them both. I suppose I would choose the current, expensive, but reliable hobby.

The First AND Second Stones of The 1993 Texas Triple Crown

May 1st, and 2nd in Fredricksburg, will be the first stone of the TTC. It will be a nonsanctioned battle. You need to contact Jim Pate for details. His address is HC 64 Box 21, Fredricksburg Texas, 78624. His phone

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

Send NATS entries to:

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

	in	out	total
Total at end of Nats. 7/1991	\$1,127.04		\$1,127.04
Rent Fire Hall Nats Banquet, Pittelli		\$150.00	\$977.04
Portable Toilet Rental, Pittelli		\$73.00	\$904.04
Knights Inn Conference Room Rent, Pittelli		\$133.20	\$770.84
Banquet Food & Paper Products, Pittelli		\$240.09	\$530.75
Sent to Dan Hamilton for Nats ribbons		\$150.00	\$380.75
Recieved Memberships (D&HB) (67 Members)	\$720.00		\$1,100.75
Sent to Fluegel for HB (53 Members)		\$318.00	\$782.75
Sent to Jass for rule packages		\$61.00	\$721.75
Sent Jass for 92Nats f-tree, bull horn, stamps		\$95.36	\$626.39
Sent Will Montgomery for 92Nats engraving		\$3.15	\$623.24

number is 210-669-2441.

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.

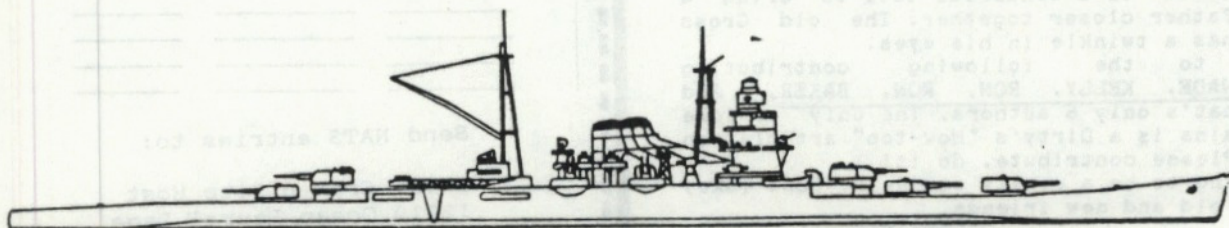
Anyway, show up with your ship. No fees, memberships, no trophies, and no hassle. Just fun, nice people, pretty surroundings, and great hosts. Call Jim or Brian for a good time.

Battler's Calendar

March 9/93	Nathan Roland Thibault launched.
April late?	Unsanctioned Battle, Houston?
April 17-18	Southeast Regionals, Baxley GA
	Unsanctioned?? Call Bart 912-367 4101 and gripe!
May ???	Northeast Regionals
May 9	Mothers Day.
May 8-9	Springfield MO. Sanctioned!
	OR
May 22-23	Call Steve or James for data.
May 17	Fluegel's 20th anniversary.
May ???	Unsanctioned Battle - Texas
May 25th	Deadline for June Hull Busters
May 29	\$85 received to Brian or Wade for Nats (\$15 late charge if later). [Entry form included in H.B.]
June 12-13	Texas Triple Crown. Houston, TX
	Unsanctioned
July 26-30	1993 Nationals - Houston, TX
July 31	Axies celebrate another victory!
????????????	Any post Nats battles?????????

To Subscribe, send me \$6⁰⁰/xx.

HULL BUSTERS VERY LIMITED
3524 GRAY DRIVE
MESQUITE, TX 75150



THANKS FOR THE ARTICLES, THIS WAS ALL BUT ONE OF THEM!