

To All Axis (plus Lars)

Tri-Pact Engineering has just received a shipment of absolutely gorgeous and authentic Camurati Pumps. The pumps include a finely milled case and a perfectly balanced impeller. They only need the addition of a motor (set screws and O-ring included) to become fully operational (sorry no batteries).

The pumps come in two impeller sizes, 1" and 1.25", with the smaller size suitable for high speed, low-torque motors. Both sizes will be tested and certified for Axis operations by Tri-Pact (Sorry, Lars, but the test results can't be disclosed to non-Axis captains).

Tri-Pact is now accepting orders for these pumps while supplies last.

Frank Pittelli Dir. of Sales and Marketing Tri-Pact Engineering

APRIL 199

FIRST OFFICIAL RULE PROPOSAL

Proposed by Wade, Koehn. Signed by Mike and Karen Deskin, Lief Goodson, and Steve Milholland.

I am writing for new rule concerning class 4 through 8 ships and their cannons. This rule will simplify ships and give more firepower in a certain area of a ship, if a captain so wishes. The rule is: "All class 4 through 8 ships may count 2 (75) shot cannons as 3 units." This will simplify a 4 unit ship from 1 pump and three cannons to 1 pump and 2 guns. A five unit ship could have 1 pump and three cannons; 1 50 shot cannon and 2 75 shot cannons. A six unit ship could have 1 pump, 2 50 shot cannons, and 2 75 shot cannons. A seven unit ship could have a pump, and 4 75 shot cannons. Also a class 7 ship could have 1 pump, 2 75 shot cannons, and 3 50 shot cannons. A class 8 ship could have 2 pumps, and 4 75 shot cannons. Or a 8 unit ship could have 2 pumps, 2 75 shot cannons, and 3 50 shot cannons. Of course you could put in more or less pumps, or 50 shot cannons as you so desire.

What about 1/2 unit guns and pumps you say? We already have a rule that states that only class 2 and 1 ships can divide a 1/2 unit as a gun or pump. We don't need to worry about 4.5, 5.5, and 6.5 ships because both of these rules cover all of theses ships. This rule will simplify ships, and will help certain ships that only have a limited number of turrets to let them put the cannons where they need or want them.

Passing this rule leads to the next rule proposal, found latter in this issue.

MAKE MY GUNS SHOOT.

BY D.W.FLUEGEL 2/14/97 and 3/25/97

Years ago (1985) I switched form popet valves to solenoid valves. For you rookies, the device that opens to allow gas to flow and propel the bee's has either been a popet valve or a solenoid valve. A popet is a type of valve with a "button" on it's top; push it down and the gun fires. It is pushed mechanically, usually some sort of servo arm or linkage with a cam. That means your puppet valve Is often forced to be placed by the radio. In contrast to the solenoid valve which is operated by electricity (electromagnetic) and that is really it's advantage (location). The servo arm can easily operate a micro switch that is connected to the solenoid by electric wires (or multiple solenoids if your firing a turret full of guns). Switches and wires are allot better for arranging your ship's lay-out than a traditional popet valve setups.

Well, the last time I bought Kip co. brand solenoids (the only brand I trust) they cost \$30 each, and it took 10 weeks for delivery. I was'ent looking foreword to reordering, and they wanted me to order 24 minimum! That's allot of money, and the reason I needed solenoids is because two of the three I had last ordered were leaking. I decided to explore new options.

1200

1200

Life is a series of beginnings and endings.

By D. W. Fluegel 3/30/97

I am not sure, but it is my opinion that hobby magazines have brought more members into the club than any other single source. Lief tells me that <u>U.S. Boat and Ship Modeler</u> has stopped publishing. This publication was our main source of potinsal new members. Its loss is significant to our current growth. I hope that the internet or some other publication picks up the momentum that the magazine (and Swamp works) has started.

Nats to U!

Not much I can tell you right now. — we plan to have our regionals at the same lake as Nats so we can give you a better report when the regionals is completed. So far no one has signed up for Nats, so I can't give you a list of who is coming. We have set up the contracts with all of the vendors but will not be signing them until Nationals is closer and we get some sort of body count. If the attendance is under 30, we will have to go with cheaper contracts and less benefits, so we are holding our options open at this point. One plan is to rent tables and chairs for the lake but that is dependant upon the number of registrations.

Don't forget to call in your reservation to the Hotel, Days Inn, phone number is 301-739-9050. Mention the "Model Boating Group" to get the discounted rate of \$45.00/day /double occup. Don't forget to ask for a ground floor room. Send your Nats reg. to me: Martin Hayes, 1113 Crestview Dr., Annapolis, Md. 21401, together with a check or money order made out to me for \$120.

Below (if Fluegel can convert it) is a sketch of the pond/lake and the layout. I don't claim to be an artist but this may give you some idea of what the set up is. The hill located between the portion of the lake we use and the rest of the park is easily 20 foot high and should aid us in make this a very save Nats. The lake itself is quite large and we will be using a shallow portion of the lake that is easily secured and is still quite large. The bottom looks to be some sort of sandy gravel or stone. Moss, algae and shoreline weeds should not be a problem at all, and the side chosen for the pit area is completely free of all lakeside vegetation.

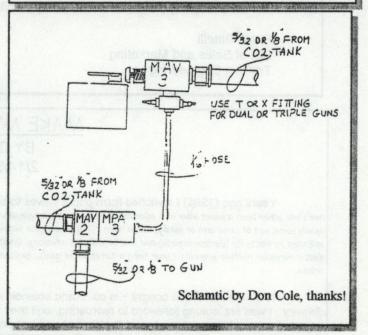
Fluegel could not convert it, sorry.

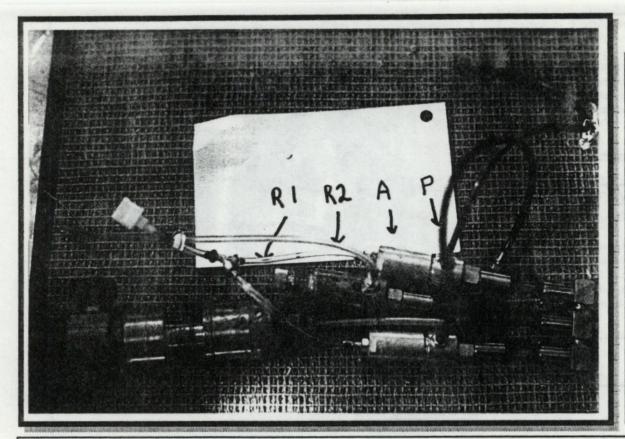
Ronny Hunt was using a good new system at the 96 Nats. It wasent really new, Milholland used it 5 years earlier at the Florida Nats. Also, Don Cole sent me a nice drawing of the system (I will be sure to include it), so it's really not new new, I just wasent very interested because I liked (and had) solenoids.

The thing that is different is the nomadic (air powered) popet valve actuators. A device that "pushed the button" on the puppet valves. It's used kind of like a relay is used in electric circuits, they use a low powered switch to turn on a high-powered switch. Well, this system uses a small CO2 puppet valve to turn on an actuator that turns on a larger CO2 puppet valve. Ron Hunt's article on this very system is printed in the Feb issue Hull Busters.

Like most new systems there were problems, but a happy accident was the addition of a second small regulator (this one adjustable, Clippered brand) that lowered the pressure to 40 pounds. I still have 150 psi to the guns, but only 40 psi to the system that operates the shooting of the guns. I say "happy accident" because I didn't have to journey out to find it, Bart had mailed it to me 3 years earlier, it was a gift. Acutely, this was originally Garret's idea, that I just copyed. It worked very well. Before the second regulator, the subminiture popet valve leaked pretty seriously. Also, Ronny's system blew-up hoses at the higher pressures, the second regulator solved both of those problems. A new and maybe unrelated problem was the regulator started allowing liquid CO2 into the lines. This was fixed by elevating the regulator up about 0.5" above the CO2 tank.

Going into this project I had thought It wouldn't cost me much money (rookies, these projects often cost twice as much in both time and money, than originally projected). I already had several popet valves from the old days and that would keep the costs low. Well, the popets valves that are pnumatically actuated have a small hole drilled into there stem, so I had to buy new ones, be sure to get the popets that are designed for the pneumatic actuators. I got my equipment at a Clippered dealer in Irving Texas, but I think Swampworks also sells it.? Anyway, I used two mavo-3 (3 N/O 3W VLV A) popet valve that cost \$5.90, be sure that this is the one with the tiny hole it its stem that lets it





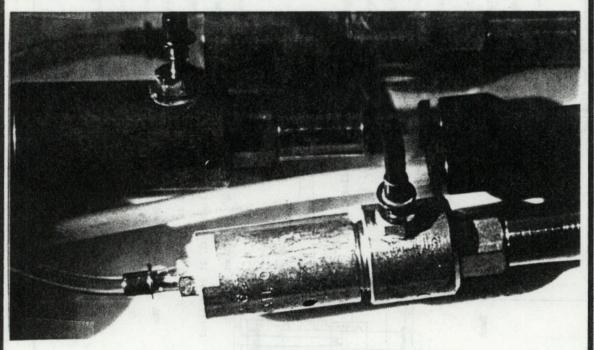
R1 Swamp Works, or William brothers regulato.

R 2 Clippered regulator, adj.

"A" Activator.

"P" Popet valve.

work with the pneumatic actuator. I used one SMAV- 3 (3W/ NO/NC S.M. VLV A) for \$8.45, this is the very small popet valve that turns on the actuators that turn on the bigger popet valves that fires the gun. In a solenoid system, it replaces the micro switch. A small Item that we should all use is a device that holds the hoses onto the barbed fittings. These hose clamps cost 40 cents for a pack of 10 (5000-4-PKG). I don't know the number for the small adjustable regulator that Bart mailed me, just tell the sales people you want a small Clippard, adjustable regulator that will step down from 150 pounds to 40 pounds. The actuator is mav-3 (3W-NC-10-32A), they cost \$5.25 each and the cruiser needs two. Do not use Clipered brand quick connects, I like Parker brand, but the Legris 3171-04-20 are working well so far and are more available for me (my clippered store stocks them). They cost \$1.20, and I used several, it all depends on how you install your system. You will need the small hoses your already using so be sure to order more hose if your supply is low.



Actuator on popet valeve, adjustable regulator in background.

A draw back, besides money, is the weight. With the Admiral Shear, this is no problem, but with honest ten thousand ton cruisers, there is not the weight savings that is normally associated with choosing popet valves over solenoids.

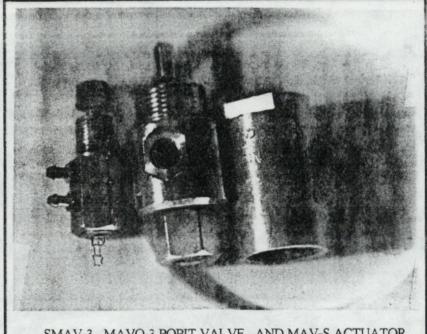
I still prefer solenoids to this newer option, but I have enjoyed exploring new stuff. It seems illogical, but it seems to be the fastest firing gun system I know of. Micro switches should be faster,

but that is not how I hear it. In armed 1202 sea trials this Christmas, with Stan, was pleased with their high rate of fire. I need to use them at a Nats before I recommend the system, but they seem to be a genuine, third option. I may like this system better, if it really fires as fast as they seem. Fluegel

WE ARE MAKEING THE NEWS.

by Fluegel

RC Warship Combat is making inroads into NAMBA. I was pleased to note a gun article in volume 27, March 1997 Page 18-20. Its an odd gun, I think a Californa style gun, but still, its our hobby, and with every exposure, we become less odd.



SMAV-3, MAVO-3 POPIT VALVE, AND MAV-S ACTUATOR.

I want feed back By Danny Boyd Danny sent this to me and I think he wanted some feed back. I have not studied the gun, but I wish the article were typed in single spaced lines. Nice drawing. I really don't like guns without some sort of O-ring. That is just a personal preference. How dose it work Danny? Give us some feed back. A-This is the discharge valve actuator plunger. This shown in cross-section and B-This is an O-ring seal to keep air from leaking by design I was telling you about. filed off to fit inside the "T" fitting. It must not valve used for discharge, the threads must turned off, "Flug", this is samething of the Compression or is the part the servo or solenoid will push to fire just outline drawn. I'll point you can see, some of it compression nut. Starting with letters: turned too small or it will pull out of the collar the parts and explain how they used in tire rims with the rubber cut off. In the standard filler Barrel is plain 1/4" S.S. lower end. It is drilled about 3"

as straight tube stock with an i.d. of .177"-.180". You can get it bigger (not recommended) or smaller (not much better). Try not to get under .172". You'll have to drill out both ends if you use too small. From the diagram, the lower end has to be drilled big enough to pass b-b's around the elbow bend. When they hit the end of the section drilled 13/64" or .2031", they hit the original i.d. of .177". There is a momentary hesitation while the b-b's line themselves up in the bore. This allows the pressure to build up to full strength in the magazine section of the barrel. In attaching the collar, use good silver solder as you don't want this piece to break. G-standard, run of the mill tire fill stem valves.

X-This is a piece of the barrel stock used as an extension for the fill valve.

H-These are standard automotive freeze-plugs. They may be silver soldered or welded into the tank tube. Heli-arc looks real nice. As long as it is pressure tested and does not leak.

Once you have it assembled, it is easy to see how to "blueprint" the gun for better performance, a little work on the clearances will deliver some outstanding range, power, and RELIABILITY!

As you can see from the design, I need help in the servo/solenoid department.

If you come up with something, give ma a holler!

And the survey

says.....

By D. W. Fluegel 3/29/97

Much thanks to those 25 people who took the time and went to the trouble of filling in and mailing the surveys. It was a lot of work to produce the print out and I kind of wander what it means. It was fun to discover that there have been three other surveys and to find similar questions. Some questions where interesting because they are so meaningless now, and I suppose meaningful at one time. In the Feb 84 survey, 72% wanted some sort of speed rule, yes, in those days your battery capacity was the determining factor in how fast you could go. An interesting question was asked "I have a workable understanding of the rules", 86% said they did. I liked my disclaimer, "The accuracy of this highly scientific survey has a +50 to -50% margin of error.

The Feb, 85 issue was kind of sad, Brian Spycalsky, a 17 year old combatant, had died in a car crash. The old issues bring back a lot of memories. Some interesting survey questions included: "I plan on participating in the following events, Single shot, yes 16, No 2, and Unlimited, Yes 10, No 4." Also 22 to 2 wanted to legalize rotating turrets. I quess we did, but only to the larger ships.

The April 86 survey results had a question I want to include in future surveys. "I wish the ships were less destructive, yes 0, no 21, no opinion 4". I know some old captains would have voted yes nowadays. A fun question; "I wish moss was a different color, yes 17, no 0, no opinion 6". A old and now odd question was "I wish the target in campaign was out in the water, yes

11, no 3, no opinion 8". Another question to add to the future survey was "I wish we had less sinks, yes 1, no 18, no opinion 7" and "I wish the ships were simpler, 8 yes, 7 no, and 6 no opinion".

Back to this years survey, I now realize how tricky it is to put together a good set of well worded questions, do you have some to offer us? Me? The suprize for me was 13 yes to 8 no to legalize maximum gun power. This idea wont go away, I guess I don't understand the majority on that one. One guy wrote in on his survey that "we already have a maximum", I thing he is thinking about the 150 pound regulator spring ect. I also thing he is right. I guess I like the big splashes, and the loud sound of strong guns. Another issue that stays around is # 20 " Allied / Axis teams are destructive to the hobby, 3 yes and 11 no." I liked that one. Some people, unsolicited, wrote remarks about mostly that question, I think it was a good question and because it was the last question there was room at the bottom of the page to comment. Next survey I will solicit a comment on whatever you want to say, and publish them. The comments can be tied to the individual surveys logged on the spred sheet, by looking at the bottom row and matching the letter with the comment and the survey. I will list the comments now.

B "Needs to be a little less emphasis on Axis / Allied".

D "Tom Jass is gone now, need I say more?", I guess I should have counted another No for that one!

E. "When taken to extremes, yes, normally no." Well, I could have added another yes for this one.

F "No way".

J. "Has anyone considered state or regional fleets? This would build "team" cooperation, planning and spirit without the limitations of Allied/Axis. I believe that ad hoc red/green fleets would be dull. Standing fleets are needed be they Allied/Axis or state/state."

K. "I think propellers should not be bigger than 1½" in diameter, Make your ship to scale, including size of propellers". A different topic, but remember, these a comments written on the bottom of the ballet, no topic was requested.

L. "Good for the games-man-ship", but he voted No!

M. "I feel the main problem in this hobby is that it has gotten too competitive and that makes fore less fun. When I got into it in 83 it was a bunch of friends getting together to have fun. Now its a bunch of combatants who want to compete to win."

N. "Yes and no, I think mixed fleets are more fun."

P.. "Its real life".

R.. "esspeicially Fluegel (Ha Ha)."

X..."At times. People need to loosen up and understand that winning at all costs is not winning at all",

I included the first digit of the zips because the batteries in the "9"s may meen something different when they say there coming to Nats 97. I think its also interesting to see how the rookies voted. How come so few Axis filled in surveys? 5 Axis and 16 Allies and some "who knows what"??? Some dreadful French stuff? The hobby looks OK, only 5 think it's ruled by a "click" and 16 feel it's governed fairly, that's a little bit better that 1985. The average rating of "the health of the hobby" was 6.6 with 1=very bad and 10= very good. That's a new question so there is nothing to compare it with, still, it looks like the hobby is rocking along OK.

Thanks again to the 25 that participated, I have about 75 subscribers at this time, so that looks like a typical American voting participation

percentage. Thanks again..

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I want to legalize rotating turrets. 12	17 Yes 5 No	Yes	Yes	No	Yes	Yes	18		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
I want to legalize thicker balsa wood. 13	6 Yes 11 No	No	Yes	No	Yes	1 17	1,0	14	No	No	Yes	Yes		?	No		No
Legalize a maximum gun power. 14a	13 Yes 8 No	No	Yes	Yes	No	Yes	E FROM		No	No	Yes	Yes	Yes	Yes	Yes		No
I feel the hobby is controlled by a "click". 15	5Yes, 9 No, 6?	7	No	No	Yes	Yes	12.8	L Bo	Yes	- 8	No	No	No	?	No		7
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First digit of Zip	7	7	5	3	3	2	9	4	9	F	1997 results	1988 results	1985 results	1984 results
I have batted. 1	1	Yes	Yes	Yes	No	No	No	No	Yes	Yes	19 Y 6 N	17 Y 7 N	16 Y 9 N	5920
I am building a ship. 2	Yes	No	Yes	Yes	Yes		Yes	Yes	Yes	Yes	20 Y 2 N	18 Y 3 N	25 Y 1 N	1 6 8 14 8
Likely be at 97 Nats. 3	No	Yes	Yes	Yes	No	No	10.6	Yes	Yes	?	14 Y 5 N 5 ?	1 3 2 1 3 5	15 Y 9 N	95% Y 5% N
Fleet.		Yes	Yes	Yes		T 15 0	U 14	Yes	Yes	Yes	16 Y	1 11 11 11 11	?	
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My primary frequency will probably be. 6			82		Pr. ba	2 to 14	1	4-8	89	88	1.2 NO. O.E.	10.00		SA SE SE SE
I am a club member. 7	Yes	Yes	Yes	Yes	Yes	Yes	0.8	Yes	Yes	Yes	23 Y	6943	18 Y 5 N	8 4 8 5 8
NAMBA insurance is a good deal. 8	Yes	No	Yes	Yes		The "			Yes	Yes	14 Y 3 N 3?	7N,11Y,6?	13 Y N 6	61%Y,11%N
I voted on last years rule proposals. 9	No	Yes	No	Yes		No		No	Yes	No	10 Y 9 N		9 Y N 14	U U U 0 U
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Scale speeds	X	X						X	X	X	15		11	
other	10		X					1000	X		4 As it is now.	And to de	2	72% A rule
eattles would be be more fun if they were: 11 Less scale	X	X	?			X		X	X	X	19 More 1?	0 00	18	
Less scale			?				1 3				1 Less 1?	1 20 10 14 17 13	1	
I want to legalize rotating turrets. 12	Yes	No	No	No	Yes	Yes	1 4	Yes		Yes	17 Yes 5 No	1000	22 Y 2 N	
I want to legalize thicker balsa wood. 13	No	No	No	No	Yes	No		Yes		No	6 Yes 11 No	T 5 5 5 5	11 Y 14 N	100
Legalize a maximum gun power. 14a	Yes	No	Yes	No	Yes	Yes		Yes		No	13 Yes 8 No	40553	11 Y 8 N	
I feel the hobby is controlled by a "click". 15	?	?	No	No		?	-	Yes	Yes	No	5Yes, 9 No, 6?	A G tola	7 Y 11 N	
I feel the hobby is fairly governed. 16	Yes	Yes	Yes	Yes	Yes	Yes	10	?	8 4	14	16Yes,1 No, 2?	8 8 4 8 3	16 Y 3 N	
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I feel RC Warship combat is mostly a; 17 sport	-			7					-		1 Sport 23 Hobby	10.00		
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magazine	X	v	X	X	X	X		X		X	8			
a friend or family member other		X	4 5 5						NET	X	2	1000000	-	1
	10	7	0	0	12	10		1	NET	0.5		0.00		1
Hobbies Heaths. (1=very bad, 10=very good) 19 Ilied / Axis teams are destructive to the hobby. 20	10	7	6	8	3	10		4	3.5	8.5	Avg 6.6	9 5 5 5	-	1
	Yes	No	No	No		No	-		-	No	3 yes, 11 no	-		-
Unsolicited comment ID notation									X		1			1



News From The Great Northwest

Well we have had a large spurt of growth of new people. This has resulted in a large building program going on. A new chapter has started out of the Seattle area called the Cascade Column with Al Schumer. This group is hard at work on their ships. The following is what is in the dock yards.

HMS INVINCABLE
USS HOUSTON
DKM LUTSOW
DKM NASSAU

DKM GRAF SPEE IJN MOYOKO

They have regular meetings every first monday of the month. With this a Regatta was planned to be held in Yakima, Wash. this worked out to be the half way point for most of the battlers.

Working with other battlers in Oregon and helping to spread the word more in Idaho as brought me to realize that those interested in ships are scat tered over a pretty good distances, but we are getting there. The following program goes for Oregon

USS OREGON CITY refit
FNS Glorie refit
HMS EXTER building
USS ST LOUIS building
USS ASTORIA building
USS BROOKLEN building
DKM GRAF SPEE refit
HMS INVINCIABLE building

We have word of others interested in ships but have not been able to make contact with them yet. Also have been talking with some of the retired battlers here and had some luck in getting them to come to Yakima in Mar.

The interest in Idaho has been very slim to say the least, do have two that are working on ships around the Lewiston area, that is surprising due to the small size compared to the bigger Boise where none have showed. One is working a USS Houston with ideas as a scale ship but he also might turn it back into a combat vessel, he is right on the border line. The other is still un decided as to what ship he likes. There is still rumors of others but have yet to find them.

We have run into a few problems though due to the small size and populations of finding parts. The only pneumatic out fit around closed recently so we are looking for another if any one knows of a mail order store it would sure be a lot of help. I am looking for a plastic tee that I beleive was made by NYCOIL, it is for 11/32 tubeing, quick connect, color was a gray. Please help if you can guys. Would like to hear what others are useing for motors to replace the magic motors also have a lot of new ships comeing.

Due to the small interest in ships we are also working with other modlers whose interest is not in cobat ships. This allows us to swap alot of ideas and tips, plus alot of them are really nice people also. Have made contact with members of the Queens Own, another group of battlers, but their ships are of a bigger scale and they dont have a lot of interest in our scale. Their DDs are the size of our cruisers! I have fought against a couple of their ships and had my hands full in doing one one!
Well thats it for now, will fill you in about the Regatta in Yakima in Mar. Take care and smo oth sailing for all.

Buddy Friend

SECOND OFFICIAL RULE PROPOSAL

Proposed by Wade, Koehn. Signed by Mike and Karen Deskin, Lief Goodson, and Steve Milholland.

"The Bismarck is a seven unit ship." This rule almost passed this last year, but Fluegel lobbied against it and it lost by a very small margin. The Bismarck is one of the largest ship in the hobby. There is only two of them in the hobby. Fluegel has his 150th scale Bismarck grandfathered which helped his length and turning out. I have a 144th scale ship and it doesn't turn as well. The Bismarck will never be a turn and shot ship. It shouldn't be battled as one. I run with mine and it still isn't enough. Of course having 4 or 5 ships targeting you doesn't help. I NOT complaining about being a target. If I'm on the water I'm a target as far as I'm concerned. All I want is the chance to run 2 pumps and 5 cannons so I can defend myself, and have a chance to survive a battle without running and hiding all the time. Usually at NATS the Allies have a 3 to 2 ship, and cannon advantage over the Axis. The Axis counter this by usually having more experienced captains, and greater firepower per ship. Just like real life. The last time I can remember parity of ships was at Maryland in 1990. I wasn't at Springfield 1995 so I can't speak to that.

I don't think you will see more Bismarck's on the water because of this rule change. The Iowa got 8 units and rotating turrets to the same side, and it needs it, but you still don't one on the water. Many people have tried to talk me into a Von Der Tan, and other class 4 and 5 ships, but I love the Bismarck, and with just 1/2 unit more, and of course more reliable pumps, better gunnery, and practice. I can make it into a viable ship into the next century.

THANKS FOR YOUR SUPPORT!

Wade Koehn

March 14-15 Fredricksburg TX Host Jim Pate, 210.669.2441, Tentative?

April 12/14 Host, Mike Torda, article on page 1188 HB, North Carolina.

April late Houston TX Host Wade, 713.952.3078 Also unsanctioned.

May 10/11 Lansing Michagan, Sanctioned! Contact Chris Au @ 517-351-5364

17/18 Northeast Spring regional Host, Marty Hayes (?) MD May

17/18 Spring BB Fest, Springfield MO, check 'MO notes:" this May issue of Hull Busters.

May late Abilene TX, Host Dirty, 915.673.5130 Tentative or early June

July 20/26 Nationals! Very Sanctioned! Refer to Nats to U articles. Rookie uses the system the way it's support to work! By Fluegel

Gerret Durham (terrible spelling or miracle spelling) from Ft Worth Texas is not certain about a rule. Instead of waiting for the contest director to make a ruling at Nats, he mails the item to the president (Frank) and asked him to "make a ruling". Way to go Gerrit! The rules say that the e-board has the obligation to make rulings on questionable topics, then to make a rule proposal for the next ballot opportunity (this second part may be more tradition than procedure?) to allow the club members to have the final word. Had Gerret waited till the battle, it

would have been the contest directors duty to make the ruling. This second option has some down sides. What if its illegal, but the ship was built depending on it being legal? Or maybe, in order to be competitive the ship needed it to be legal. If its illegal, than the captain has to take it out and some building tasks are not meant to be done during an event. I personally like to try things out alone, then at a small event, then modify, and practice and finally show up with a system I am comfortable with and confident about for Nats. For me to wait for the event is not fair as I would worry about the ruling. It's also not fair to the contest director. He knows that the captains have spent a lot of time and money to be at Nats, and this puts a pressure on him to approve what may be a difficult issue, on the spot, without time to sleep in it and review the rules. Its not fun to say (in effect) "your preparations are wasted, take your plans and hopes home, fix it, and come back next year, nothing personal". The contest directors already have enough headaches without us showing up with another decition for him to make. Let the eboard make the destion well ahead of the event, then go to the event confident that your squeaky clean legal. Way to go Gerrett.

Top Secret: Log of the H.M.S. Untakeable. by Lars.

Okay, so the ship is fictional. But I consider the suggestion of keeping a ships log, given to me when I was a r/c combat rookie, to be one of the best I have ever received. In this log I was advised to keep accounts of:

- 1. Technical systems: What worked, what didn't. Also, include comments on why you liked it, or why you didn't. Should you ever decide to review a system, these comments will help.
- 2. Tests. Running tests on ships systems? El Cheapo Motors pulling 7 Amps? Log it for future reference. Pumps throwing out 1.2 gallons per minute? Log it. Guns firing through 30 Bounty Paper Towels from 6 feet? Log it.
- 3. Test Runs and Battles: Describe your ship in operation, ie. what worked, what was lacking. Describe the action, what you tried to do and how successful you were. Describe what your opponent(s) did or tried to do against you, and how successful they were.

Remember to write things down when they are fresh, you can always add explanations or excuses later. Remember to add the amusing things that happened, and the smart-aleck remarks made by your opponents, it adds to the entertainment value when you review. You'll get pleasure in your later years when you realize you finally made your opponent eat his words, and it

only took 5 years.

For an example where the Log helped me, this past year I was suffering from intermittant loss of radio control. During the winter refit, I re-discovered a partially melted wire in the radio receiver power lead. It was working fine at the moment, but could it be the cause f the intermittant problems. I couldn't remember exactly when I started having radio problems with this Airtronics unit, but according to the log, the first case of losing radio control happened just before that glorious puff of white smoke came out of the Tiger's three stacks in the fire that caused the melt-down. (The smoke coming out of the three stacks was really pretty, and impressed the heck out of my kids. ("Do it again, Dad!") I had to admire it even as I scrambled to shove the ship under to douse the fire before it became catastrophic.) After the fire, I had tested the lead on the bench, and it had worked fine for the short little test ! ran on the bench. But after reviewing my log and discovering all my problems came after the fire, I ran another bench test. After a period of running the main drives, I lost radio control. Pinching the frayed power lead restored control. You can bet I replaced that power lead pronto.

After more than 10 years of battling, I now have three logs, one for each ship. The logs are filled with many items, some fun, some depressing, others just matterof-fact. Some places I wish I had included more data. Other places I have added additional comments as I learn more about this hobby. The only entries I really regret making in my logs are the ones which read "Didn't make an entry here." To me, those battles and refits are now lost.

So, rookies, become a Loggerhead. You won't regret it.

Motors and gun brass.

By Flugel, and Bob Eakin 3/30/97

At the last Texas Axis slotter, I noticed the thick brass gun barrels on Bob ship. I really like Stanless Steel for my barrels, but its hard to get and it's even harder to soulder. Brass is a pleasure to use but thin K&S brass, easally dents under mild BB gun impacts. This brass could be used by noting a bb impact, and replacing at lake site with a new, inexpensive brass barrel. The Thickness of this brass means two things, one, a soft impact will not shut your killing machine down, and two, that you can drill out many of the dents later on your drill press. I asked Bob to Email me the facts, and told him I would turn it into an article. Bob did send the information, and I will include this information at the end of this introduciton. The Small parts cataloge is somthing every modeler should have, espesilly as there free. There Number is 1-800-220-4242.

DW, as promised or agreed to here is the brass tubing # from Small Parts;

wall .049 price - 12" \$4.87----36" \$10.05 I drill out the brass with a .177 dia. drill bit. I don't have the part # for 1/4" the drill bit, but I bought it from Grainger, its 5 3/4" long.

You can get on a mailing list from the company that we buy the cheap motors from,

e-mail them @---- www.herbach.com

I know Dirty was interested in buying the 550 motors, if you buy 6 you can get them for \$0.75 each, you can also get the small cruiser motors for the same price.

Herbach and Rademan

Battleship motor TM93MTR2354

\$1.00 ea or 6 @ .75 ea

Cruiser motor TM93MTR2355

If you will pass on this motor stuff to Dirty.

Later, your friend, Bob

1997 Nationals Registration

Captains Name		
Street Address		
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NOTE: Frequency Czar is in charge of the assignment of all primary frequencies. If your frequency has not been registered with the Frequency Czar, you may be in conflict and will possibly not be able to battle.

\$20 (after May 31st.)

Send to Marty Hayes, 1113 Crestview Drive, Annapolis, Md. 21401 *

Registration fee \$120 (before May 31st.)

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Total

AXIS FLEET ADMIRAL STEPS

DOWN. by M.W. Deskin

I know it is kinda late in the year but I must take this oppertunity to inform the club that I have decided to step down as the axis fleet admiral. At this time there is a slight chance that I may be at nats but I think it would be wise to give someone else the chance to do the planning that will lead the axis fleet to victory at nats this year. The axis admiralty has gone over a lot of the theory that could lead to victory or defeat but have not come to any solid conclusions until we get a better idea of who will be at nats and with what ship. I would like to thank the axis team for giving me the chance to be part of the team and I wish you all the best of luck at nats 97. M.W.D.

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Modernized Californa Battleship, hull and superstructer.

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Japanies I-400 submorine, 1:144 scale with Attack two channel radio. Bathtub tested. Call Buddy Friend @ 53862 Hwy, Union OR, 97883, 541-562-5171

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WILLIAMS MODEL WORKS

10022 Garret St. Vienna, VA 22181

15 February 1997

International R/C Warship Combat Club Mr. D.W. Fluegel 3524 Gray Drive Mesquite, TX 75150

Dear Sir:

I am writing as a fellow ship modeler who has, over the past 15 years of modeling U.S. Navy ships from scratch, had to develop many parts (e.g., inclined ladders, stud link anchor chain, steel grating, etc.) that I could not find in the ship modeling catalogs, in the detail and quality I wanted. These parts I am now offering for sale in my own catalog, which I have just put up on the Internet.

I would be most grateful if you could include my Internet address in your club newsletter. I think I may have some items that may be of interest to your members. The internet address is:

http://www.wizard.net/~wmwships/wmw1.htm

Or, I can send illustrations and free samples if members will send me a self addressed envelope at the above mailing address. Thank you in advance!

> Yours Truly, Williams Model Works

> Ralph Williams

CONCLUTOION

Big thanks to Frank, Wade, Me, Marty, Danny, Buddy, and Lars for there generous contributions! Bryan E has a "Diary/Article" coming for the next issue of Hull Busters, and a Battle report from Buddy F is what's in the pot for the next issue of Hull Busters. The 25th (like Christmas, the 25th) of Odd (like Hull Busters) numbered months is the "dead line" for getting articles in. Often, that is a meaningless date, because I am short on articles! I hope every potential author got there articles in for this issue.

Nats is coming sooner than we know, get your fees, and memberships paid.

.As an Admiral on the Axis team, I want to assure you that everything is under control in the Axis camp. The turkey is roasted, it's academic who slices it up. Admiral Broring and myself are interviewing some big name talents, and will take care of this bump in the road.

Fluegel

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