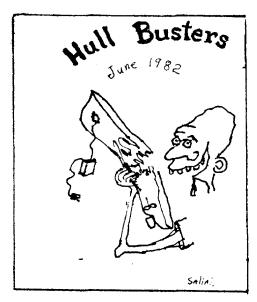
Keith Wesler
Keith Wexler



Dear Fluegel, My name is Keith Wexler. I just recieved your hull busters news letter and I am very pleased to find out that one does exist. Enclosed is \$2.50 for one year more of the letter. Right now I am building the Exeter. I will use the 75.640 frequency. I will now answer your question on which frequencies can't be used except for in planes. I fly model planes and I do know which frequencies can't be used. "BAD NEWS" FOUR frequencies on the sheet you send out are "Air Craft Only" "YOU ARE ONE OF THEM" the three are as follow: 72.080,72.240,72.400, and 75.640 which I will use. It doesn't realt matter because I dont know any one who follows them. I use air craft frequencies fo cars, tanks, planes, and almost all my other models. By the way a firm in New York sells receivers ,battery, and for \$99.98. The system is available on 72 and 75 MHZ frequencies. They are good systems, great for R/C combat. I have gotten mine wet with no problems. This is great for someone on a limited budget who wants to start our sport. Its Consumers Hobby Corp. phone toll free 1-800-221-0841. I have just finished putting the decks on my boat and hope to be done for the 82 NATS which my choice for a sign is first Knoxville second Idont have because I live near Chicago its easy to get to Knoxville but no where else . Its been nice writing with but ive GOT TO GO. sincerly yours

Fluegel;

How to cut down your turn radius; This is simple, put in a simple MECHANICAL circuit that causes the engines on the inside of the turn to slow and/or reverse when the rudder is moved. This will help the rudder to turn the ship (yes, real ships do this). How to do this? One way is to rig a simple double-gang slide switch to a bar from the rudder. By connecting the rudder to your ground and then, through the slide switch, to the ground (negative pole) of your engines. As there are two poles, positive and negative, reversing them, unlike AC circuits, will cause the engines to also reverse. Port and starboard engines will go to separate parts or gangs of your switch. Each "gang" will have a single(conducting circuit) surface on one side and two or more separate sections on the other. A. On the large surface no change in the current flow will occur. On the other side is another story. The first section simply adds some resistance, say 10 ohms, to the circuit. This will slow those engines connected to it. This may also be done for a second, third, etc. section, increasing the resistance each time. The last section would go to a solenoid. When the solenode is activated it flips a DPDT toggle switch, thus reversing the current to those engines (at full or partial power as you like).
When the rudder returns to center a spring returns the

DPDT switch to normal and returns the engines to normal As the rudder runs through the sections the engines SLOWLY return to full power. See fig. B for DPDF circuit.

Increasing your received signal; Last year I noticed that almost EVERY ship had the entenna wire inside the that almost EVERY snip had the entenna wire inside the hull. Some even wrapped this wire around itself. DO NOT DO THIS! Radio waves are just that, waves. A radio signal through a wrapped wire works just like a transformer. As the wave pulses (yes, pulses) it induces current into ANY nearby wire. When this happens in an antenna wire it is like building a lot of little dams into a stream. A certain amount of power is lost at each dam, if there are enough of these "dams" in the wire not enough of YOUR COMMAND SIGNAL will get through to defeat the normal outside noise that the receivers gets. Thus, at a certain distance (about fifteen reet at Amarillo) you have so lit-

tle control that you get SUNK.

If you lay your wire along the bottom of the hull, looks good, not wrapped around itself, no "little dams". One problem, Water is a ground. It absorbs radio waves better than a sponge. The NANO-Second that ANY water touches the wire you lose ALL control. Not one micro-volt of signal

will get the signal receiver, SUNK AGAIN.

Tack the wire in an elongated S along the bottom of the deck, insure that NO water gets to the receiver even when it is on bottom. Water in the coils of the tuning circuit does weird things to your radio until it is gone, none or it good. Even better is to run the wire along the rigging

above the deck.
LOSING YOUR SAFETY PINS; I noticed a lot of you doing that. Not very easy to find in the grass are they? Sure a magnet works, so does a metal detector. You need that little pin. How about when you launch, attack, and hear a THUNK? Try this, put a little red or yellow electrical tape (NO, not BLACK) on the pin. Now what topside on your ship is red or yellow? Try it, and save a lot of grief. How about a circuit that senses another ship in range and then allows the guns to fire. Fire is still controlled by you but if there is no target in gun range. No

led by you but if there is no target in gun range, no

MINING IS fired. Try wiring up the little sensor circuit from an auto focus camera, one of those little sonar jobs. What about a circuit that senses when your ship is done on and shuts off ALL power to save your expensive elecDear Keith,

Thanks for the feed back. The flight pack sounds like a good deal.

Fluegel model underwater. It exists, it's called a water sensor -----

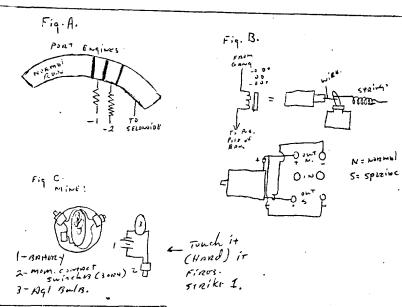
for basements, costs about five bucks to build. How about colored running lights for night fighting. Use the Coast Guard's standard. By varying the positions you know which is YOUR ship, which way it is going, and how fast.

What about a warship (by class) race through buoys? When do we fight subs?

Or aircraft?

What about a mine field for each side. A ship touching one sets off a light-only flash. (maybe AG-1 bulbs, one shot). Two hits or three and your sunk. No damage to the ship but puts it out of action for a set length of time. What about a mine field for each side. Use those clear plastic bulbs for mines (the ones fishermen use as floats).

What about a camera ship? Use two movie cameras for stereo shots. Add sound and you have a good thing. Note if attacked camera ship may ram or run. Thicker hull of course.



David, You obviousl have been thinking a-You obviously bout the battles vou saw quite a bit. I feel your Ideas are both good and bad, fur-

Derspective will be better focused once you participate thermore, I believe your in a battle. Keep in touch.

May you fly as high

Now that I have covered my hull, how do I know where to cut the exit holes for my prop shafts and how big should they be? These are good questions and the answer is even more wonderful (Hopefully you did "pre-drill" your rib holes as per Jeff's instructions).

Simply slip a brass tube through the rib holes and rotate

it as you push (fig. 147).

The results of such an action will be a correctly sized hole in your hull skin and it's in the correct location. A few obvious comments. The brass tube size should be the same size as you plan to use for your "stuffing box". It should also fit the rib holes as snuggly as possible without binding.

One other tip, burr the cutting end of the brass tube. This will make it much easier to cut with.

Stan showed this technique to Dan Hamilton last Christ-When I saw this I was shocked. I thought I knew it all, but I must humbly admit I was wrong. Now I know it all.

AT THE DOCK VARDS

TEXAS: Van Smart is building another Pensicola. Van's ship was attacked by his son and was "snapped in half" (I tell you, the safest place for a ship is in combat). Van's Pensicola will be powered by two electric window motors and Dumas gear redu-Van tells me "If she doesn't move I'll eat my rudder".

I believe Van intends on participating in the 82 NATS. Like all R/C'ers Van has his next project in the back of his mind. The Texas (10 guns,

5 turrets).

ARKANSAS: Dave Garrett is building the Bolzano (10,000 tons). Dave explains that the Bolzano is similar to the zara class and that she will be flying the Axis Flag. Dave is installing two guns, one in turret #2 and the other in turret #3. He hopes to make them rotate. Dave plans on attending the 82 NATS, (Dave and I will share 72.240, the most over used frequency in Axis history). I'm sure we will bring pride to the frequency.

OHIO: Brian Spycalsky's Pensicola has been launched with questionable success. He was impressed with the speed, but had radio battery problems. Brian also had a motor burn out. He said it was due to improper installation. Spy said he will make the 82 NATS, by the way, Brian is only 15 years old. Brian's Dad, Bob is going to build the New Orleans.

(72.400 and 27.?)

Loy Rasmussen is building the Jap ship Kako. ALABAMA: The Kako is a sister to the Aoba, but it has more superstructure. Loy started this project July-81 and is about ready for sea trials. The ship mounts two guns, one bow and one starboard (interesting). She also hosts two lights. Last winter Loy and his wife visited our home, it was obvious then that Loy was building a quality ship.

ILLINOIS: Ed Bedard has an interesting ship called "test Hull". Ed started test Hull July-81 (same time as Loy). The ship has one gun, one pump, two batteries, two motors and elevate. Ed reports "Modifications under way. Cannot get gun to fire with any power". Have you tried kicking it?

THE SERMON

We're living in the quiet before the storm. I believe that R/C combat is about to erupt into a hobbysport of significant numbers and dollars. I don't know of an R/C hobby that hasn't taken root and grown once

the seed has been planted.
The variety of appeals that the hobby has to offer to the participants seem odd in their diversities. History meets art, strategy mingles with eye-hand coordination, creation and destruction gush forth from the same spring. A lake-side sport dwells with the show-piece on the fireplace mantle. The one constant is the quality of the participants.

Two years ago the hobby revolved around one man, Stan. Now Jeff, Oswald, Pace and myself have all made contributions. The hobby has become bigger than one man.

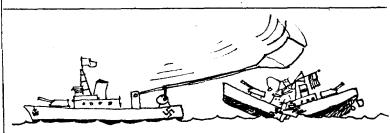
The responsibility of the Hobby is now all of ours. The challenge is to create a quality product out of a powerful Idea. The Idea won't die if we fail, it is bigger than its creators. If we fail, then another group will take our place. When? no one can know, but Ideas have an eternal quality, they survive when humans fail.

Pig. 147

What then is our task? First we must know our plac we are servants to the Idea. Power struggles, selfishness and other human frailties shall be set aside. Saf ty, realistic sea combat, and fun are the guidelines. With such an attitude the storm before us will be weathered with direction, and constructive purpose. Rev. Fluegel

STUFF

1.) Loran Perry will have two hard back books pub lished on R/C ships. The second volume will have 11 photos of R/C combat ships. We will let you know more about it as we learn more about it.
2.) Statistics on gun sales:
1979 - 2, 1980 - 71, 1981 - 131.



THE OLD FLY-SWATTER TRICK

Salini

als have presented a treaty he text of the treaty they are naturally superior r all waterways unconditions they will turn their seconstructs. of construction of Royd Poot ize that the Axis are n efore, we surrender all is speculated that the to factories for the co g some com Admirals 1 In the The Allies are showing s delegated group of Allied Ad to the Axis high-command. I state "we realize that the A warriors, therefore, we surrionally". It is speculated naval yards into factories f mas ornaments.

RUMORS

VISCIOUS

the club. Everything (good or bad) he's constructed he has saved, and some of it is mounted. Now, he has purchased a camera that works with a play-back-system, on one's T.V. What does this mean to me? I'm going to be on T.V.! I've already practiced my "Hi-Mom's" and am currently working on "We're Number One". That ones really tough because it has hand signals that go with it.

Anyway, Stan feels he will be shire. signals will be roll of

PLAY THING OF THE MONTH

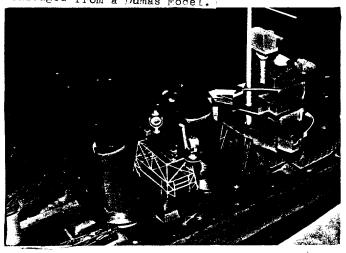
MISS JUNE ASTORIA

11.15

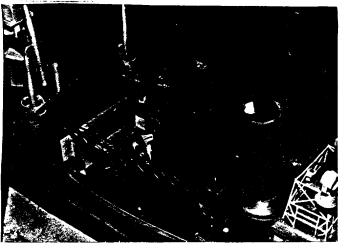
Terry Darby's Astoria. 1981 New Orleans Class. Ships first Action. (Damage by Prinz Eugen- Prinz wasn't hit)



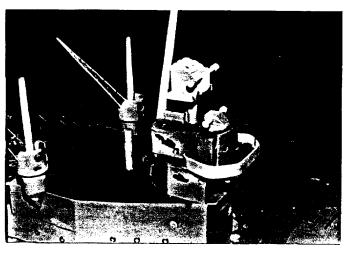
The railing is by BLISS, The lights and aft are salvaged from a Dumas Model.



Notice the open door on the hangar.



Notice undetonated Beebee in Bat-two.



BALLET

This is the Ballet for the 1982 R/C Combat rule changes. Please return your ballet to the Contest Director "Jeff Poindexter" or call in your vote at 806-381-1312. Cast your vote as soon as possible and we need it no later than July 16, 1982.

RULE LEGISLATION

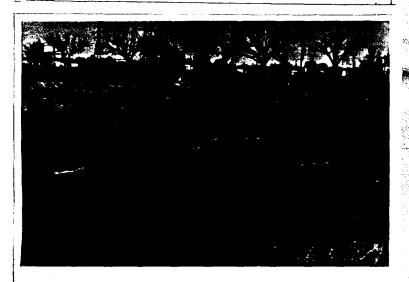
NO

I			1. To be a registered voter, one must
			have participated in a battle within
			the prior 24 months of the vote. Fluegel
!			2. Registered voters who have partici-
1			
			pated in one of the two most recent
,			ChampionShips, will have their votes
Ī			count twice. Fluegel
٠			3. Rudder size must not be larger than
			J. Madder Size Must not be larger than
ı			scale on ships smaller than battle crui-
			sers. Fluegel
			4. Battle Cruisers may have six stand-
,			ard guns. Fluegel
1			
•			5. "Retreating from Battle" 250 pts
			awarded for causing a ship to withdraw
i			from battle - if a ship withdraws from
Ī			battle (Battle consisting of three (3)
			sorties) after a completed sortie, due
			to bettle deer a completed sortle, que
1			to battle damage, i.e., Hull Hit result-
ļ			ing in water inside the hull 250 points
			are awarded the the ship that caused the
1	-	*	
1			6. "Batteries in Battles" A ship
+			must finish a battle with the same bat-
			teries it started with. (Battle consis-
1			ting of three (3) sorties). Terry Darby
ŧ			7 and of three (5) sortles). Terry Darby
		-	7. All ships at an "Annual Championship"
			Dattle must have full set of main turrets
1			to legally enter a sortie. Fluegel
1			8. No ship shall exceed a speed of 25:
			9. If two ships contact, the collision
ı			
1			rule must be invoked, even it the two
			ships are on the same team (is this al-
		4.5	ready a rule?). Fluegel
ı		Х	10. Only men can vote. Jeff Poindexter
t			11. The target for "target gunnery"
			should be changed to an abtack the
			should be changed to avobject that can
1			be hit from any angle (360°). Fluegel
•			12. Guns may be mounted in superstructure
			if the main turret is physically too
ı			small to house the gun. No tactical ad-
ł			Small to house the gun. No tactical ad-
			vantage may be gained, such as peculiar
			trajectories due to the flexibility this
ı			rule allows. Fluegel
ì			13. It is understood that rules may be
!			changed only once a mark rules may be
			changed only once a year. Let it be for-
			malized. "Rules may not be changed but
			once a year. The time and place of the
1			annual voting shall be announced at least
1			30 days prior to the event." Anonymous
			The All mule comments." Anonymous
			14. All rule suggestions can be made only
			by R/C Combatants who have participated
			and inflicted damage on another ship in a
•			declared battle or challenge within the
			lost 2 months before the
			last 24 months before the election.
1			Fluegel, Poindexter, Watkins
1			15A. It is legal to use Vacuum-formed plas-
			tic ships or portions of ships in R/C War-
1			ship Combat Warding of Ships in A/C war-
1			ship Combat. Handicap factors acceptable
			to 2/3 rds majority of the combatants en-
i			gaged in the contests will be incorporated
			to compensate for any advantage that the
1			vacuum-formed parts have over balsa parts.
			Fluegel, Poindexter, Watkins
			15B. Handicap Factors shall be determined
'		-	by tests established by 2/3rds majority
			of the contest participants.
1			Tivered Deindenter Webb!
,			Fluegel, Poindexter, Watkins
	Again	we no	sed your vote by July 16, 1982, send your
10	1mn 1 ++	nd ha	llet to : Jeff Poindexter
			CLEV GO T. JELL POIDOSTERP

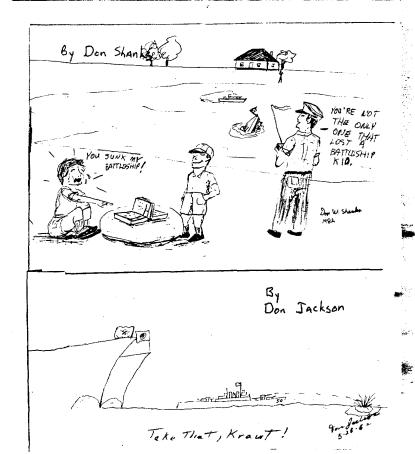
Contest Director

4409 Brown
Amarillo, Texas 79108
or call806-381-1312

1982 POINT STANDII	NGS	
Current totals in R/C Warship	Combat as	of April
10, 1082.		
1. Martin Schneider	965 pts	Axies
2. Stan Watkins	432 pts	Allied
3. James West	370 pts	Axies
4. D.W. Fluegel	320 pts	Axies
5. Jeff Poindexter	152 pts	Allied
6. Terry Darby	100 pts	Allied
7. Steven Milholland	25 pts	Allied
8. Don Jackson	12 pts	Allied
9. Tom Pace	0 pts	Axies
10. The rest of the world	0 pts	
(You're a bunch of zeros!)		



Sherry Watkins captured this record setting moment, seven ships in one battle! Notice that the three battleships are in the center of the four cruisers. Left to right: Wichita, Graf Spee, Tirpitz, Bis - marck, Alabama, Helena and Houston. April 10, 1982 Regionals, Amarillo, Texas.



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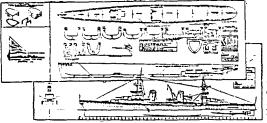
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CROWS LINE

Boy, I wish this hobby was just like all the other ones, and I could buy a plastic kit that would work just like the wooden ones! You big sissy.... I mean, you can! Who? What? When? Where? Whow much? Question, Who?; T. Pace, Stan and Jeff. Question, What?; They're working on vacuum formed hulls (and I guess superstructures). Preliminary tests indicate they will receive battle damage nicely. Question, When?; The machine is battle damage nicely. Question, When?; The machine is purchased, the tests are "on hold" until NATS are over. Question. Where?: M.W.P.Co. I quess. Question, Whow much?; It's not for me to say, but preliminary figures seem cheap to reasonable (intentionally ambiguous). Someday this hobby won't be only for the creative, self-confident, persistant individual, but for everybody (There goes the neighborhood)

CONTRIBUTING AUTHORS

When you send stuff already typed, would you mind single spacing it and type 5% inch length lines. It seems a waste for my wife to type stuff that's already been typed. don't think I'm complaining, I'm not. You can send it in on toilet paper, and I will still value it Thanks.

OBSERVATIONS OF THE FOUNDING PATHER (X-CHAMP). OL My Fellow Combatants, Greetings! In two consecutive Major Contest's, the Axis fleet has rallied around Martin Schneider's capable leadership and "cut-up" the Allied fleet. Why has this happened? Is it the superiority of Battleships over Cruisers? Is it the superiority of "Kraut-lovers" over Patriotic Americans? Is it a Japanese plot? No! It is, as it normally is, "Attention to Detail". Well then, what can we do about it? First, Luck can help but don't count on it. Be prepared! Don't be a "slackly prepared reservist! #1.) Practice cruising, to determine the reliability of your engine and guidance systems. #2.) Practice gunnery to check out the reliability of your guns and to learn about their quirks. #3.) Have redundant parts supplies.

I know these things, and still I lost because

I did not follow this advice!

Do as I say, not as I do. I will try harder and then in 1982 as in 1942 the Allies will once again turn the Axis tide (until they loose their over confidence by sinking to the bottom).

The Axis fleet will then incorporate these necessary "Rules for Victory" and once again if

they do a better job they will win.

Some people seem to start out better prepared and thereby require less time to become good combatants. One such individual is Don Jackson of the USS Helena fame. The Axis fleet justifiably is wary of his potential. In his first battle he proved an elusive target through his remarkably skilled helmsmanship. In such a short time he has gone from non-R/C combatant to pride of the Allied flett.

This whole scene is very reminiscent of, the pop singer, Fabian's Phenomenal rise to fame from

a complete unknown.

I guess some of us are born R/C combatants. welcome aboard, Don. The hobby needs you.

The lastest news from Model Warship Products is the experimental new "plastic hulls" being evaluated in Amarillo.

I will soon give my "USS General Belgrano III" its static load launching trials while visiting southern Oklahoma and Dallas. I anticipate that this concept will soon revolutionize R/C Warship combat. Growth of the hobby should be dramatic in the next 18 months.

Also, as the first historian of R/C Warship Combat I am acquiring a Video Tape TV camera and re-

corder.

Purchased at a price that would equip the greatest Fleet R/C has ever known, this outfit will enable color video sound tapes (VHS Format) to be made of Battles and ship construction. These can be reproduced and sold through Model Warship Products probably for \$20.00 each plus \$1.50 postage. You guys who live "in the sticks" (anywhere but Amarillo) can then see and hear the action on any video (VHS type) cassette recorder through

your own TV. Highlights of a whole championships can pro-

bably be recorder on one 6 hour tape. So, we now have a way that you new guys can better compare your performance to that of us

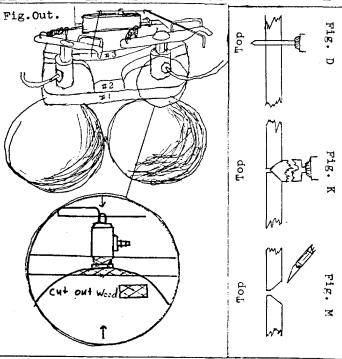
old salts. So until the next "Busters".

Let's Battle! Ata Watkins

_					
S	HTP	TNF	ORMA	ATTON	FORM

Your name	How many seconds to	OTHER INFORMATION
Ships name Date started	travel 100 feet from 1.) running start	Whole your ractio Freq ?
Ship will have "how many" Gunsmounted	2.) standing start How many seconds to turn 360° from running start	Marker of Serves used?
Pumps	•	
Motors Props Batteries	STATUS OF SHIPS CONSTRUCTION	
Lights		

Fig. 13 #3 #2-#/ #3 #2 # 1 Arm Servo Arm



There comes a time in every man's life when he simply wants more. "I want two guns in my ship", O.K. here's how you can make one servo operate two guns. This system requires a reasonably powerful servo, my servos have 32 inch-ounces of torque, I don't know what the minimum torque requirements are. The system is set up to fire one

gun at a time.
"Fig 13" is the only actual size sketch. This was traced out around my system, so it has been successfully op-

erated in several battles.

The wood is 4" ply, though I have used panelling. -The tricky part is the way one screws the valve into the freon tank through the beveled out hole in the wood. The fit must be adequately tight to seal the valve to the tank and at the same time snug the tank up into the wood so it won't move.

In "fig's D.K.M." I show the three step process I use to make the holes the correct shape. (1) "Fig D" drill the hole just large enough to slip the base of the valve in, (2) "Fig K" Drill with a large bit about two-thirds into the wood. Now try to screw the valve to the tank through the wood. It probably won't work. (3)"Fig M" shows an exacto enlarging the bevel. Keep on whittling and trying to screw the ball to the valve until it works, then test for freon leaks.

In "Fig. out" you will see that plates #2 and #3 are "risers" to get the servo at the same height as the "valve arms". One could use two blocks of wood to achieve the same purpose. I suppose that my technical dept. got car-

ried away.

The servo arm was lengthened to the point that the center of the holes are 13/6 from the center of the servo arm. The thing you solder (I love these sophisticated terms) on top of the valve has two purposes. One side has a spring that shuts the valve and the other side has a notch that a sliding rod can pull the valve open with. My "thing" is | 1/6 in total length.

The approach my R & D team used to develop this system has been its most productive approach. They copied it...Thanks Stan. Fluegel

CONGRATULATIONS

David J. Oswald has done it again. Scale Ship Modeller has published his "part II" Article on building Combat Ships. I know Scale Ship Modeller has really done a lot for our hobby so thanks to Scale Ship Modeller and Congratulations to David.

CONCLUDING REMARKS

The Next Busters will probably be Dominated by the "Battle Report" of the 82 NATS. The Allies won the first 3 NATS and the Axis own only last years. I'm Axis, so I'm bias, but I really believe the Axis have a slight advantage, Luck may determine the winner.

The Allied strategy seems to be built around a superior number of small ships. Stan will be the chief Allied Commander. His guns have always been a threat to the Axis, nevertheless, Don Jackson's Helena has dominated the Axis conversations. The Helena's rookie performance at the "Easter Battle" was very impressive.

The Axis strategy seems to revolve around a few big ships. Stable gun platforms with side mounted guns are the Fad at Deutchland ship yards. Grand Admiral Schneider will lead the Axis. Schneider dominated the 81 NATS and the Easter battle, so as Schneider goes, so goes the Axis.

-				 		
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