

Naomi Wildman, it is I, Seven of Nine. My ocular implant shows that the "Baden" is of an inefficient design. Questionable hull strength and inferior firepower leads me to suggest that quite frankly, it is not worth assimilating!



DECEMBER 1999

HULL BUSTERS

Waterproofing Servos

By Bryan Finster
WARNING

Experimental Technology

In December of 1999, my Yamato had its first battle.

During the second sortie, Yamato began to ignore helm control. My rudder servo had filled with water and would no longer respond.

When I returned to the shop, I tried to think of a foolproof way to keep water out of the servo. Many people use silicone on the servo case joints or tool dip the case, then put an o-ring around the output shaft in an attempt to keep water out. The problem is that water will always find a way in when you need that servo the most.

The first thing I tried was to fill the servo with silicone grease. The silicone would take the place of the water and prevent any water from entering the servo. The idea seemed sound, but the grease was too viscous and the servo would not function correctly. Rethinking was in order.

I now have a new approach that seems radical on the surface but I think will show great promise in the future. I had to

S.E. MO Regionals for 2000

Kevin Hovis

Mark Clauser and I are working on hosting regional meets in the Farmington, MO area in May and September next year. We have motel possibilities within 15 miles of the battle site and one I know has a group rate (\$40 single). Mark's family has a 3 acre lake on their farm a few miles outside town to battle on. We would like to know how much interest there is in coming to Farmington to battle. For those east of the Mississippi River, we are 3 - 4 hours closer to you than Springfield, but those in the western states (OK, TX, etc.) add about four hour depending on route. As I look at the calendar, the weekend of May 20 is most likely in May and any weekend in September is good. Please e-mail me at

james.k.hovis@boeing.com or by snail mail at:
J. K. Hovis 2295 Highway J Fredericktown, MO 63645
if you are interested in coming to the east Ozark mountains to battle. Note: If Swampy decides to host a battle in May, Mark and I will postpone the May battle to June or cancel it outright.

Thanks,
Kevin Hovis
SEMONAG
Kapitan zur See DKM Bismarck



ask myself, "why do servos fail?" Servos fail because the water shorts out the circuit board. Nine times out of ten, if you take the servo apart and dry it out, it will function again. Following this reasoning all I had to do was keep the circuit board dry and the servo would continue to work no matter how wet it was.

The solution is simple. I took the servo that failed and completely disassembled it. Then I covered both sides of the circuit board with gap filling CA glue until I had a smooth surface on the bottom and a majority of the components on the top no longer had exposed connections. All I'm trying to accomplish here is to increase the distance between exposed connections to prevent the current from arcing through any water.

After covering the board with CA, I plugged the servo in, submerged it in water, and tested the motor. Everything continued to work as expected. I then reassembled the servo and tested it again. It worked like new.

The next issue was the problem of water staying in the case and damaging the potentiometer or the motor. Since the circuit board was now waterproof, and since I'd already proved that the components would work correctly submerged, I then took the bottom off the servo case and drilled several large holes to allow water to escape. After further testing I may drill additional holes in the sides for additional ventilation.

I will continue to test this technology in Yamato's rudder. If the tests are successful, I will retrofit all of my servos and then see if I can do the same with the radio. If all the tests are successful, I may be able to do away with a waterproof box entirely. Only time will tell.

THE ANNUAL DECEMBER LIST

By D. W. Flegel, Hull Busters Editor, IRCWCC Treasurer.

This list represents the subscribers of Hull Busters. As I am the treasurer of the IRCWCC it is also a list of that club's members. Two columns include the MWC and Big Gun Club. Many subscribers may be members of those clubs, but did not inform me at the time they subscribed. Of course, I am certain that we all are members of Jeff's Club.

FIRST	LAST	STREET	CITY	STATE	ZIP	IRCW	BG	MW	H	Bu	PHONE	E-MAIL	Money	Remarks	Freq	Years
Willard	Adams	500 S. Ralston	Sugar Ck	MO	64054	6					9 816-833-1775				70	6
Steve	Andrews	106 Severn Ave	Severna Pk	MD	21146	6					9 410-544-1490	Spedraor2@AOL.com	15	Survey	54	13
Todd	Barrett	3730 N. Spider Lake Rd.	Traverse City	MI	49686	6					9 616-549-2580					
John	Barrett	2613 Wheeler St. N	Roseville	MN	55113	6					9 612-639-8329					
William	Blackman	3014 Lone Pine Rd.	Schenectady	NY	12303	6										
Timothy	Blackman	CNO C.O. 2849 Lyndius St. W	Schenectady	NY	12306	6										
Nathan	Blatau					6										
Mike	Blatau					6										
Kevin	Bray	12724 E. 89th Str. N	Owasso	OK	74055	6	x				9 918-272-0313	BRAYKA@juno.com	15	Survey	28	1
Pual	Broring	4411 Dresden St.	Kensington	MD	20895	6					9 301-530-4455	Pbroring@aol.com	9	Survey	39	2
John	Butler	PO Box 852	Pembroke	GA	31321	6					9 912-853-4692	Jandabutler@G-net.net	15	Survey	87	1
Carl	Camurati	69-52 181 St.	Fresh Meadow	NY	11365	6					9					
Robert	Clarke	1326 Lower Water St. #405	Halifax Nova S	Canada	B3J3R3	6										
Don	Cole	9000 Haywood Ct.	Orlando	FL	32825	6	x				9		15	Survey	72.610/41	3
Bill	Compton	5123 Pine St.	Seffner	FL	#####	6					9 813-917-3328	Bill.Compton@nexted.com	15	Survey	81	0
Larry	Davidson	137 N. Belmont	Wichita	KS	67208	6					9 316-684-0498	laad@fn.net	15	note Hbform		
Chris	Decker	28 Deer Run Rd.	Bellingham	MA	O2019	6					9 508-883-3281	cdecke@ptc.com	15		74	2
Michael	Deskin	6949 Shull Rd	Huber Heights	OH	45424	6					9 937-233-5251	mdeskin@aol.com	15	Survey	29/72.370	1
James	Ewers	103 S. Elwood	Tulsa	OK	74103	6	x				9		15			
Frank	Falango	1907 Robin Ct.	Sebring	FL	33870	6	x				9 941-965-2905		15		66	2
Ornil	Ferguson	248 Stadium Cr.	Inwood	WV	25428	6					9 304-229-5373	lutzow@hotmail.com	15		12	1
Tim	Filemyr	7876 Lakecrest Dr.	Breenbelt	MD	20770	6					9 301-474-4419	tim@ps.umd.edu	15	Survey	38	1
Robert	Finney	106 MacLaughlin St.	Camillus	NY	13031	6	x				9 315-672-8231	jfinster5@A-2Net.com	15	Survey	75.93	
Bryan	Finster	5436 Baker Dr.	The Colony	TX	75056	6					9					
Don	Fisher	P.O. Box 38	Wrentham	MA	O2093	6					9 508-384-6328	dFisher@Norfolk-County.com	15	Survey	68	3
Tony	Gamaly	95 East 10th. St. Apt #1	New York	NY	10003	6					9					
Christopher	Gamaly	61 Oliver St. Apt 2V	Brooklyn	NY	11209	6					9 718-836-2649	chris19@earthlink.net				
Rosario	Gianetti	PO Box 361	Jonesport	ME	O4649	6					9					
George	Goff	17330 S.W. 58th St.	Ft. Lauderdale	FL	33331	6	x				9 954-434-2574	Warship@Worldnet.att.net	15	Survey	84	8
Lief	Goodson	4419 Selkirk Lane E	Lakeland	FL	33813	6					9 941-646-8114					
Chris	Grossaint	6384 S Dexter St.	Littleton	CO	80121	6					9 303-694-1607	csg2@ix.netcom.com	15+9		67	2
Matrin	Hayes	1113 Crestview Dr.	Annapolis	MD	21401	6					9 410-757-5593					
Dirty Dave	Haynes	1141 Santos	Abilene	TX	79605	6	x				9 915-673-5130		15	Survey	19	x
James	Hovis	2295 Hwy J	Fredericktown	MO	63645	6	X				9 573-783-8381	Jhovis@mines.missouri.org				
Ronny	Hunt	2611 Stratford Dr.	Greenboro	NC	27408	6					9					
Camrmon	Hunt	2611 Stratford Dr.	Greenboro	NC	27408	6					9					
Clyde	Jones	5525 E. Bails Dr.	Denver	CO	80222	6					9 303-756-8466					
Wade	Koehn	2301 Edenborn Apt 1009	Metairie	LA	70001	6					9 504-828-0370	wwkoehn@juno.com	15	Survey	52	7
Joseph	Kutz	22214 Honeycomb Cir.	Leander	TX	78641	6					9 512-259-5351	Joe@Kutz.com				
David	Lawrence	1268 Courtney Ln	Belcamp	MD	21017	6					9 410-272-2443					
David	Lewis	10407 Balsamwood Dr.	Laurel	MD	20708	6					9 301-776-2329		6	Survey	84	5
Kurt	Lewis	10407 Balsamwood Dr.	Laurel	MD	20708	6					301-776-2329		6	Survey	85	5
Phill	Lowe	35631 39th Ave S	Auburn	WA	98001	6	x				9 253-838-6286	phill@eskimo.com	15			
Kevin	McGrath	1844 Western Ave.	Albany	NY	12203	6										
Dan	McGuffin	88 Bantling Cres	Brampton	ONT	16y 2k9	6					9 905-451-7065	jappyd@direct.com	10	Mutsu		
Steven	Milholand	1810 Farm Rd. 197 North	Springfield	MO	65802	6	x				9 417-831-2309		15			
Daniel	Moffett	10596 W. Twin Lake Rd.	Hayward	WI	54843	6					9 715-462-9060					
Will	Montgomery					6										
Matt	Moury	130 Smith ave.	Annapolis	MD	21401	6					9 410-263-7640	moury@cowxmail.com	15	survey	17	1
Cameron	Moury	"	Annapolis	MD	21401	6					9 410-263-7640	moury@cowxmail.com	6	survey	28	2
Brian	Mullaney	4 Glen Steward Dr.	Trenton	NJ	O8618	6					9 609-883-6390	mullaney@mcee.edu	15		50.880 (04)	1



OFFICIAL DECEMBER 99 TREASURER'S REPORT PER IRCWCC RULES, By D.W.

The club has grown financially, but shrank as far as number of members. In Dec 98, the news of the new club was first announced, that probably accounts for the shrinking in membership. Then we had \$2872 now we have \$3177 (our Nats made \$263 profit). Then we had 163 members, now we have 82. If both clubs are considered, the hobby is doing well. A BOD member said they had 120+ members, so the hobby has about 200. If you include Jeff's club, 500! or 202.

Fluegel.

FIRST	LAST	STREET	CITY	STATE	ZIP	IRCW	BG	MV	H	Bu	PHONE	E-MAIL	Money	Remarks	Freq	Years
Phillip	Osborne	312 W. Outer Dr.	Oak Ridge	TN	37830		6									
Jim	Pate	Antelope Ln	Fredericksburg	TX	78624		6				9 830-669-2441	jimpate@kfc.com	15		34	9
Stephen	Pavlosky	1737 Leslie Rd.	Baltimore	MD	21222		6				9					
Frank	Pittell	33 Wilelinor Dr.	Edgewater	MD	21037		6									
Jeff	Poindexter	422 East Bonita Ave.	Amarillo	TX	79108		6				9 806-383-2336		15			
Robert	Pottle	6328 Duncan St.	Halifax	N.S.	B3L 1K3		6				9 902-422-9639	Kap.rap@ns.sympatico.ca	15	Survey	61/75.410	3
David	Ricci	3 Atheny Ct. - Apt. 203	Timonium	MD	21093		6				9 410-453-6636					
Lawrence	Ricci	3 Atheny Ct. - Apt. 203	Timonium	MD	21093		6				410-453-6636					
Robert	Rucker	8300 NW 100th st	Oklahoma	OK	73126		6						15	Gave me a check at the reterant		
Coire	Ruff	70 Ridgefield Dr.	Middletown	CT	O6457		6				9 860-632-4749	cruff@raytel.com				
Larry	Sandborn	9583 Kent Rd.	Portland	MI	48875		6	x			9 517-647-7092		15	Survey	75/790	
Edward	Shepherd	38 Puritan Rd.	Swampscott	MA	O1907		6				9					
Robert	Smith	10715 Ayshire Dr.	Tampa	FL	33626		6				9 813-855-9027	robert.smith.fl@mailcity.com	15	Survey	73	3
Eric	Steinberg	2307 Harcroft Rd.	Timonium	MD	21093		6				9	Rico5156@aol.com	14			
Greg	Stephens	17042 E. Wagontrail Pky	Aurora	CO	80015		6				9 303-699-5055	gregstephens@juno.com	15	Survey		
Wayne	Stevenson	6134 Twin Oak Dr.	Greendale	WI	53129		6				9 414-421-5743	rerasq1	15			
Tom	Tanner	1121 Pemberton Ln	Lohian	MD	20711		6				9 410 741 1535	constellation@juno.com	15	HB form	55	2
Adam	Thibault	2103 North Ridge Rd.	North Augusta	SC	29481		6				803-279-3196	tedbrogden@aol.com	15	Survey	81	7
Matthew	Thibault	2103 North Ridge Rd.	North Augusta	SC	29481		6				803-279-3196	tedbrogden@aol.com	15	Survey	11	0
Doug	Torda	5722 Jester Dr.	Garland	TX	75044		6				9 972-496-0222					
Mike	Torda	212 Torda Trace	Waynesville	NC	28786		6				14 828-452-0899					
David	Tuttle	195 Old Post Rd.	Tolland	CT	O6084		6									
Seale	Tuttle	195 Old Post Rd.	Tolland	CT	O6084		6									
David	Vogtman	2616 Linwood Rd.	Balto	MD	21234		6				9 410-426-0342		15			26
Stan	Watkins	1042 Loveell View Dr.	Knoxville	TN	37932		6	x			9 423-675-7747	RCWCFather@juno.com	15	Survey		64
Rick	Whitsell	9820 N. Highland Ter.	Kansas City	MO	64155		6				9 816-734-4757	pinate@planetKC.com	15	Survey	39	5
Franklin	Whitsell	9820 N. Highland Ter.	Kansas City	MO	64155		6				816-734-4757	pinate@planetKC.com	6	Survey	17	5
Ted	Wilcox	17231 12th Av NE	Shoreline	WA	98155		6				9 206-365-1410	TEDHERE2@aol.COM	15	A form		
Alli	Zinat	5312 Dickens Rd	Richmond	VA	23230		6	x			9 804-261-6548	animal3603@aol.com	15	Survey	83	3
Ronald		2103 North Ridge Rd.	North Augusta	SC	29481		6				9 803-279-3196	tedbrogden@aol.com	15	Survey	21	3
Christopher	Au	253 Maplewood	East Lansing	MI	48823						9					
Michael	Auld	4910 NW Washington St.	Vancouver	WA	98663						9					
Randal	Austad	17718 31st Dr. NE	Arlington	WA	98223						9 360-659-9794	rvaustad@earthlink.net	9			
Rodger	Baker	437 N. Sanders	Ridgecrest	CA	93555						9					
Dan	Barrett	10846 Buchanan St.	Blaine	MN	55434						9					
Pete	Bec	19521 Hardy	Livonia	MI	48152						9					
Tim	Beckett	1945 E. Clinton Tr.	Charlotte	MI	48813						9					
Scott	Ben'e	P.O. Box 890703	Oklahoma	OK	73189			x			9 405-692-4243	ScottBene@juno.com	9	Survey	75.45/63	1
Timothy	Blackman	2849 Lydlus St. W	Schenectady	NY	12306						9					
Paul	Block	2830 Woodwick Dr.	Sugarland	TX	77479						9					
Joseph	Bovic	1106 Mercury Dr.	Schaumburg	IL	60193						9					
Mike	Boyles	8422 Garland Rd.	Dallas	TX	75218						9					
Ted	Brogden	1703 Quail Valley	Iowa Park	TX	76367			x			9 940-592-5066	tedbrogden@aol.com		Survey	15	1
Tom	Brown	2114 Cypress #10	Harrison	AR	72601						9					
Robert	Caplette	352 Shrub Rd	Bristol	CT	O6010						9					
Donny	Cicimaro	2018 Robinson Ave.	San Diego	CA	92104			X			9 619-295-7331	cicimar@nosc.mil	9	Survey		
Patrick	Clarke	3225 Red Robin Loop	Bryan	TX	77802						9 409-774-7226					
Mark	Clauser	314 Hickory St.	Farmington	MO	63640						9					
James	Cory III	751 Childers Rd.	Smithville	GA	31787						9 912-846-6653			Survey		
Larry	Dahl	1486 Oakdale Ave	West St. Paul	MN	55118						9					
Ray	Dallape	1250 Frances St.	Johnstown	PA	15904						9					

FIRST	LAST	STREET	CITY	STATE	ZIP	IRCW/BG	M/W/H	Bu	PHONE	E-MAIL	Money	Remarks	Freq	Years
Darren	Dickinson	3113 Glenview	Carrollton	TX	75007				9		9			
Brian	Eliassen	3735 Denair St	Pasadena	CA	91107				9	9 626-798-2744				
Marc	Erickson	P O. Box 548	Hill City	SD	57745				9	marctrog@aol.com	9			
Buddy	Friend	726 S 30th St. Apt D	Newark	OH	43058				9	9 740-522-3802	9			
Patrick	Hanelts	5082 Timber Ridge	Clarkston	MI	48346				9	9 248-623-7633				
Steven	Holcomb	5809 Syracuse	Amarillo	TX	79109				9					
Ron	Hurbul	360 Andover Blvd. NE	Bilane	MN	55304				9	9 612-434-9657	9	HB form	90	9
Charley	Jerden	6040 Walnut Dr.	Fl. Worth	TX	76114				9					
Kelly	Kaufman	P O. Box 228	Custer	SD	57730				9	adam@gwtc.net	9			
Tim	Krakowski	1479 Brookcliff Dr.	Marietta	GA	30062				9					
Pete	Mackay	137 Wharf Rd	Warwick	RI	02889				9	9 401-738-1024				
Mike	Maxwell	1030 N. State, # 27L	Chicago	IL	60610				9					
John	Mayer	6490 Hwy 49N Apt 291	Hattiesburg	MS	39401				9	9 601-584-7041				
John	Mayer	6490 Hwy 49N. Apt 291	Hattiesburg	MS	39402				9	9 601-584-7041				
Craig	McLean	P.O.Box 3017	Junction City	KS	66441				9					
John	Mianowski	2218 Village Crest Dr.	Garland	TX	75044				9	9 972-486-9086				
Don	Murray	1600 Magnolia Ln	Edmond	OK	73013				9	9 340-3524				
Edward	Noble	7133 Claybeck Dr.	Huber Heights	OH	45424				9	9 937-235-1061				
Chris	Pearce	6516 St. Johns Dr. apt. 3049	Fl. Worth	TX	76132				9	9 817-738-8942				
Bart	Purvis	1512 Highway 15 South	Baxley	GA	31513				9		9			
Steve	Reichenback	7555 River Pine Dr.	Cypress	TX	77433				9	9 281-550-5423				
Richard	Riegel Jr	5 Guyencourt Rd Box 250	Montichamin	Del	19710				9					
Gerlad	Robets	3314 Tahiti	Corpus Chisti	TX	78418				9					
Mark	Roe	1115 Dhenadoah	Clawson	MI	48017				9					
Jay	Russ	216 Round Up Lane	Mountain Horn	AR	72653				9					
Dave	Schnurbusch	Box 214 HCR-61	St Mary	MO	63873				9					
Ronald	Sellars	22850 Cymran	Warren	MI	48091				9					
John	Sellars	40886 Worthington	Canton	MI	48188				9	9 734-397-1394	9	Survey	60	3
William	Shepherd	17131 Wood Rd	Bow	WA	98232				9	John-Sellars@Yahoo.com				
Robert	Sinclair	3 Roxiticus Rd,	Mendham	NJ	07945				9					
Timothy	Slocum	9 Julie Ann Ct. Apt A	Washington	MO	63090				9					
Steve	Smith	1321 Prairie St.	Chaaska	MN	55318				9	9 612-448-6342	9	Survey	82/ 75.83	?
Charley	Stephens	1917 Bolado Pkwy	Cape Coral	FL	33990				9	smith303@tc.umn.edu				
Joe	Wooten	415 So. 55 W. Ave	Tulsa	OK	74127				9	9 918-592-0247	9			
Gary	Wurfer	824 Inwood Dr.	Campbell	CA	95008				9	HabFan36@Aol.Com				
FIRST	LAST	STREET	CITY	STATE	ZIP	IRCW/BG	M/W/H	Bu	PHONE	E-MAIL	Money	Remarks	Freq	Years

Some Frequency Of IRCWCC.

- Steve Andrews 54 Mid Eastern
- Orril Furgeson 10 Mid Eastern
- Chris Decker 79 North Eastern
- Don Fisher 68 North Eastern
- Marty Hayes 90 Mid Eastern
- J.K. Hovis 85 ?
- Joe Kutz 88 South Central/Central
- Matthew Thibault 21 Mid Eastern
- Adam Thibault 81 Mid Eastern
- Ron Thibault ? Mid Eastern
- Steve Milholland 71 Central
- Frank Pittelli 78 Mid Eastern
- Tom Tanner 55 Would Like 70 Mid Eastern
- Jeff Poindexter 80 South Central
- David Lewis 84 Mid Eastern
- Kurt Lewis 85 Mid Eastern
- Matt Moury 17 Mid Eastern
- Cameron Moury 28 and A3 Convoy Mid Eastern
- Ali Zinat 83 Mid Eastern
- Dan McGuffin 83 Canada
- D.W. Fluegel 56 South Central
- Everywhere Wants Surface
- Wade Koehn ? South Central
- E.P. Shepard 84 Mid Eastern
- Michael Blattau 78 Mid Eastern
- David Lawrence 13 Mid Eastern
- Will Montgomery 62 Mid Eastern
- Paul Broring 39 Mid Eastern
- Larry Ricci 60 Mid Eastern
- David Ricci 59 Mid Eastern
- Ron Hunt 30 Mid Eastern
- Cameron Hunt 31 Mid Eastern





Friday at the 1999 MWC Nats

By
Brian Eliassen



To say that it wasn't an exciting time on the water during the 1999 Nats would be patently false if you were Allied. Never had my adrenaline levels been higher. I even sank once which is something that's never happened to me during my four years in this hobby.

Fleet Battle #6 : Sortie #1

By this point, it was fairly obvious that the Axis had Nats all wrapped up. I calculated that even if the Allies sank every one of the Axis ships without their ships taking damage, they still wouldn't win. Amazing. During this first sortie, the big news was Chris Pearce being a little too eager to sink Joey Messere's little cruiser that had become beached on submerged roots. Chris's Nagato became stuck on the very same roots for the entire sortie and took a massive amount of stern gun damage. Things were not looking so good for the Nagato during the second sortie.

Some people sank during the first sortie. For the Allies; Stan Watkins, Frank Whitsell, Rick Whitsell, Larry Dahl, Dana Graham accidentally declared and was allowed back in for sortie #2 while being assessed the "declare penalty" rookie mistake, John and Joey Messere all tasted mud. For the Axis, Kevin Bray backed his ship under the water while looking for a shot. He was one of the many frustrated Axis rookies that didn't get much experience at Nats since Allied targets were hard to come by.

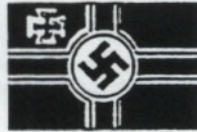
Fleet Battle #6 : Sortie #2

Chris Pearce's Nagato was in a bad way. Since he'd sink quickly if he ran due to the massive hole in his bow he stayed close to shore and didn't move. Since the Axis had an 8 to 14 ship superiority on the water, they protected their comrade quite well. He lasted his five minutes and pulled the crippled Nagato from the water. Others weren't so lucky. Both Robert Rucker and Dana Graham sank during the second sortie.

After the scores were tallied, it was a narrow victory for the Axis:

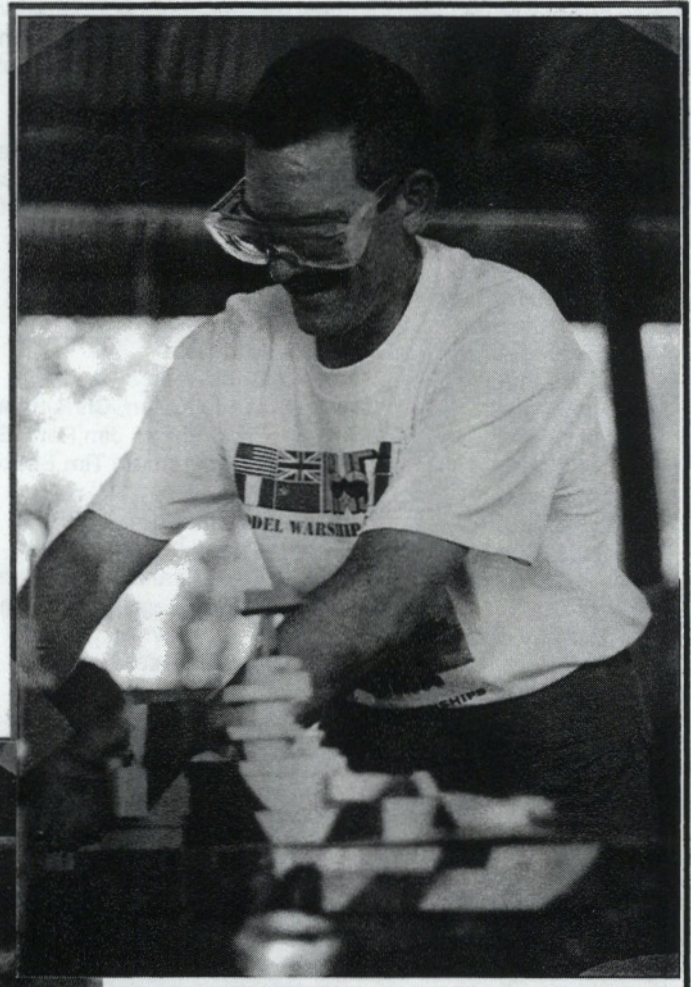
Axis : 148,950

Allies : 38,200



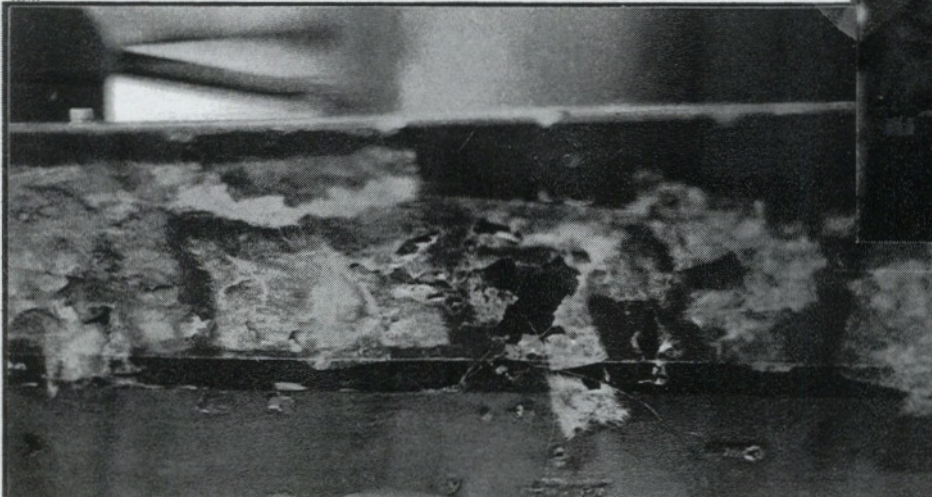
Fleet #6 Allied

Captain	Ship	Class	Above	On	Below	S1?	S2?	Pen	Damage
COLE, D.	MISSOURI	8	81	34	76				5460
RUCKER, R.	NORTH CAROLINA	6	102	13	1	Y			2895
WATKINS, S.	NORTH CAROLINA	6	42	7	8	Y			1995
WHITSELL, F.	NORTH CAROLINA	6	48	6	16	Y			2430
WHITSELL, R.	NORTH CAROLINA	6	31	7	23	Y			2635
BROGDEN, T.	QUEEN ELIZABETH	5	36	6	14				1210
DAHL, L.	BELLEROPHON	4	11	5	15	Y			1785
EWERS, J.	INVINCIBLE	4	5	1	3				225
GRAHAM, D.	INVINCIBLE	4	30	1	18	D	Y		3225
WHITSELL, J.	INVINCIBLE	4	3	0	1				80
JASS, T.	SUMATRA	2	0	0	0				600
MESSERE, J.	GEORGE LEYGES	2	41	2	4	Y			1260
MESSERE, J.	ATLANTA	2	2	0	0	Y			620
ZINAT, A.	ATLANTA	2	4	0	1				90
Totals			61	436	82	190			24510



Above; Ted Brogeden, Rookie of the Year!

Left; THE HOLE that sank several allied ships, it's in Chris Pearce's ship.



Captain	Ship	Class	Above	On	Below	S1?	S2?	Pen	Damage
HAYNES, D.	NAGATO	6	25	0	0				250
KOEHN, W.	BISMARCK	6	2	0	0				20
PEARCE, C.	NAGATO	6	80	10	26				2350
RAY, A.	NAGATO	6	7	1	7				445
FLUEGEL, D.	BADEN	5	34	4	3				590
PATE, J.	SCHARNHORST	5	2	0	2				120
REICHENBACH, S.	GNEISENAU	5	16	2	2				310
ASMAN, D.	NASSAU	4	3	0	0				30
AU, C.	HARUNA	4	38	0	8	100			780
AU, D.	VON DER TANN	4	5	1	6				375
BECKETT, T.	WESTFALLEN	4	7	0	0				70
GOODSON, L.	MOLTKE	4	40	2	7				800
ROBERTS, G.	SETTSU	4	6	0	1				110
BLOCK, P.	LUTZOW	3	2	0	1				70
BRAY, K.	LUTZOW	3	4	0	0	Y			740
Totals			69	271	20	63	100	7060	

One of the best features of the new MWC Nats is the lack of the standard "rules meeting" of the past. Basically, the battling members get a ballot with all the proposed rules. Only those rules that receive a majority were to be placed on the ballot. Since the proposals were handed out before the meeting, it took less than two minutes to be done with the rules meeting. The only thing that was left was a banquet with the knowledge that a long, boring, and if the past was any indication, hostile rule proposal meeting was not hanging over everyone's head later than evening.

The awards were handed out before dinner. Our banquet was hosted by The Sportsman's Club in Oklahoma City. Since there was very little ramming on the water, many awards had multiple winners.

Founders Trophy	Chris Pearce
Sportsmanship Trophy	David Au
Rookie of the Year	Ted Brogden
Most Feared Allied	Don Cole
Most Feared Axis	Chris Pearce
Best of Class 6	Wade Koehn, Chris Pearce, Andy Ray
Best of Class 5	D.W. Flugel, Jim Pate, Steve Reichenbach
Best of Class 4	David Asman, Tim Beckett, Lief Goodson
Best of Class 3	Paul Block
Best of Class 2	Ali Zinat
Individual Combat Trophy	Chris Au
Best of Scale	Dana Graham (USS Invincible)
Best of Scale	D.W. Flugel (Kormoran)
Axis/Allied Victory Trophy	David Haynes
Best Dressed	Joey Messere

The 1999 MWC Nats will long be remembered as one of the very best in the hobby of Model Warship Combat.

Fluegel,
Please announce in Hullbusters that I will be hosting an event on April 29th and 30th that will be MWC sanctioned...
Thanks,
Kevin

Best Dressed, Joey Messere. Sharp!



JEFF'S CLUB

December 1999

Financial Standing...Don't Know

Number of Members Location

3 Amarillo, Texas

7 Dallas, Texas

Officers

1 Dictator

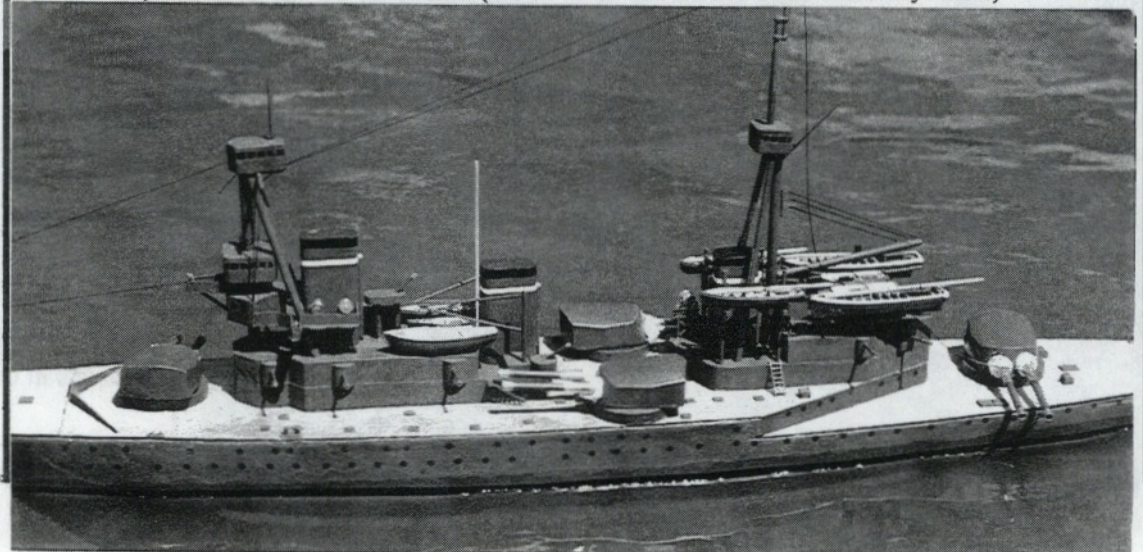
1 Sugar Daddy

Pending rules

No Speed Rule requirement on Dictator's ship.

No "Hull" Testing requirement on Dictator's ship.

Best of Scale, USS Invincible of Dana Graham (and he would take his fine model into heavy battle!)



David Au, Sportsmanship Trophy-like the Spycalsky trophy, old club.



		Points	Average
COLE, D.	MISSOURI	3109	1554
EAKIN, B.	WASHINGTON	727	363
ELIASSEN, B.	SOUTH DAKOTA	2076	1038
GROSSAINT, C.	NORTH CAROLINA	2410	1205
MAXWELL, M.	NORTH CAROLINA	0	0
RUCKER, R.	NORTH CAROLINA	2574	1287
WATKINS, S.	NORTH CAROLINA	2088	916
WHITSELL, F.	NORTH CAROLINA	2135	1068
WHITSELL, R.	NORTH CAROLINA	105	52.7
BROGDEN, T.	QUEEN ELIZABETH	2872	1436
POINDEXTER, J.	TEXAS	231	0
DAHL, L.	BELIEROPHON	2200	984
EWERS, J.	INVINCIBLE	3333	1564
GRAHAM, D.	INVINCIBLE	2221	1111
MILHOLLAND, S.	MICHIGAN	1357	678
WHITSELL, J.	INVINCIBLE	2580	1290
ZINAT, A.	ESPANA	293	146
JASS, T.	SUMATRA	1750	875
MESSERE, J.	GEORGE LEYGES	1626	813
MESSERE, J.	ATLANTA	1305	652
PURVIS, B.	JAVA	1246	623
ZINAT, A.	ATLANTA	1963	981

Admiral Milholland surrenders the "Axis/Allied Victory Trophy".



Chris Pearce wins the "founders Trophy". (High point Nats)



Fluegel, and Wade, the beautiful people...?



Totals Axis

Captain	Ship	Points	Average
HAYNES, D.	NAGATO	9772	4886
KOEHN, W.	BISMARCK	1545	5428
PEARCE, C.	NAGATO	11545	5428
RAY, A.	NAGATO	10856	5428
FLUEGEL, D.	BADEN	10391	4885
PATE, J.	SCHARNHORST	9770	4885
REICHENBACH, S.	GNEISENAU	10391	4885
ASMAN, D.	NASSAU	8684	4342
AU, C.	HARUNA	8736	4092
AU, D.	VON DER TANN	7048	3248
BECKETT, T.	WESTFALLEN	9236	4342
GOODSON, L.	MOLTKE	9236	4342
ROBERTS, G.	SETTSU	8484	4242
BARRETT, P.	LUTZOW	3234	1617
BLOCK, P.	LUTZOW	8082	3799
BOYLES, M.	LUTZOW	4856	2428
BRAY, K.	LUTZOW	7082	3299

DIFFERENCE -110,750

News from

SWAMPWORKS

Hi guys. It's been a busy year and looks to be even busier in 2000. I've been trying to get some new products in the production pipeline over the last several months and I guess now is as good a time as any to make the announcements. Some of these items have been available for awhile, but just not announced publicly, others are brand new. I hope that you find something that interests you. Here goes.....

NEW GOODIES FROM SWAMPWORKS !!!**NEW PROPS**

For all those guys who asked for them, I have now added 1.0 and 2.0 inch diameter props to my normal inventory of 1.25, 1.50, & 1.75 inch designs. For those "little ship" guys, I am currently stocking 1.0 inch dia. props with 3 blades in 27 and 35 degree pitch. For the "monster ship" builders amongst us, I am also stocking 2.0 inch dia. with 4 blades in 27 and 35 degree pitch. Prices are:

PROP100-3-27 \$ 16.50 pair

PROP100-3-35 16.50 pair

PROP200-4-27 18.50 pair

PROP200-4-35 18.50 pair

Remember too that these props made by SWAMPWORKS are of the "fat blade" design, which maximizes blade surface area and gives more "bite" in the water. Also remember that we can CUSTOM make any prop you need in our normal diameters with from 2 to 5 blades and in any pitch angle you need.

NEW IMPROVED BILGE PUMP IMPELLERS

In the ongoing effort to improve the serviceable life of our products, we've made a significant improvement to the design of the resin molded impeller used in our Bilge Pump kits. Each one that we make now has a solid brass insert that is "locked into" the center of the impeller, through which both the motor shaft and the stainless steel setscrew are positioned. This makes for a much firmer and straighter attachment of the impeller to the motor shaft.

As of November 15, 1999, all of our Bilge Pump Kits, both Large and Small, include this NEW and improved version of our molded impeller. If you need to replace an earlier design impeller from one or more of your bilge pumps, replacement impellers of the new design are available as follows:

IMPELR-S \$ 8.00 ea Impeller for 3/32 in. motor shaft.

IMPELR-L 8.00 ea Impeller for 1/8 in. motor shaft.

NEW WARSHIP HULLS

In recent months I've managed to complete molds for two new fiberglass warship hulls. They are the USS South Carolina-Michigan and the USS Arizona-Pennsylvania classes. I am very pleased with the finish and form of the hulls coming from both of these new molds.

Photos of the USS South Carolina that I built from one of these hulls and battled at Nats, Kevin Bray's August Battle, and the Ozarks Fall BB Fest can be seen on the SWAMPWORKS web site (Note: despite initial teething problems at Nats due to the rushed building, my little slugger has now been worked up to a point that I really feel confident in it's ability to "slug & be slugged"). Our South Carolina hull shells DO have the characteristic "armor ledge" of the class. I've already sold several hulls for this feisty little ship to new and experienced battlers. The Arizona mold is brand new, and while I've only made a few hulls from this one so far, I've already taken several orders for this most famous of American battleships. The mold of this ship faithfully represents both the prominent "torpedo bulge ledge" and the deck edge embrasures where secondary guns were placed at the time of launching. I expect both classes to have significant representation on the water at next battling seasons events.

These hulls are available as follows:

ARIZONA-HULL \$ 120.00

SOCAR-HULL 90.00

NOTE: I also have new resin molded main turrets for the South Carolina-Michigan class available for \$4.50 each. See photos on the web site. Sometime soon I hope to be announcing completion of another big Japanese warship hull mold. Think.... Kongo.

NEW PRODUCTS IN STOCK

Since several people have asked for them, I'm now stocking the little Dean's Mini-Whip receiver antenna. I've used this compact little antenna on all of my ships for the last 7 years and really like them. I know that many other folks do too.

Because some guys seem to have difficulty locating patching glue in their local hobby shops, I am also now stocking SIG-MENT brand cellulose hull patching cement in 4.0 ounce tubes. James Foster and I and several of the other regulars at the Ozarks BB Fest have been using SIG-MENT with good results. Note: for those who are not familiar with SIG-MENT, it is very similar to the popular Ambroid brand.

MINI-ANTENA \$ 12.00 ea

SIGMENT \$ 3.50 tube-4.0 oz.

That's all for now guys. If there is anything else out there that you'd like to see me carry in my stock of goodies, let me know. I'll do my best to track it down and get it into inventory. Keep watch in the next issue of HB for further announcements of what's new at SWAMPWORKS.

Bigger & better things are in the works.

Best regards to everyone...Steve SWAMPY Milholland

Online catalog: www.swampworks.com

CONCLUSION.

Thanks to Jeff Poindexter for his 16 Hull Busters logo! I think you can make a case for him turning into a dirty old man, if you look at his first logos, they were of ships, now they are scantily clothed women. He denies it. Subscriptions are up....perhaps a swimsuit issue? Thanks Jeff! Also, thanks to Kevin Hovis, Bryan Finster (wow, a "how to"?), Kevin Bray, Brian Eliassen, Milholland, Stan, and Lars. These are the people that made your Hull Busters! No them, No Hull Busters.

Six more issues and Hull Busters will have covered the hobby for 20 Years! That's

1600 pages, reduced to 74% size, or 2000 pages before reduction. I reduce the text to cram in all the information I can in 6 pages (one stamp). Before I published the first issue, I mailed out countless cassette audio tapes, often explaining the same thing, over and over. If the hobby were to get off the ground an information backbone needed to be established. Hull Busters filled that need, in a fun way.

Now, the Internet has replaced snail mail as the way to find out what you need to know in the hobby. It's fast, and if it's not posted, all you have to do is ask. A newsletter is still valuable, but not as useful as it once was. The new club has its own newsletter and the old

club uses Hull Busters. I think at a 20 year anniversary, an editor could ask if they should continue or retire. My first concern is the hobby. Subscriptions are over 100, that's better than average (I think subscriptions have grown because of the growth of the hobby, and that has happened because of the Internet and Swampworks). Well, the old club needs some notice if Hull Busters is to close down after the year 2000, so what I am saying is I am considering the end of Hull Busters, but before I decide I will give the clubs notice before Nats 2000, in the mean time, your impute is welcome.

This year, it was hard for me to cover

two Nats, to hard. Perhaps I should cover Nats differently, or not at all? Perhaps Hull Busters needs a 20 year make over. Still, hobby information is best (?) found over the enter net, so what is a newsletter for? Those without the enter net. The old club has had difficulty in using the enter net appropriately, hence one of the reasons for the new club. I feel I have kept the hobby's image positive (if that's possible

with a humorous pro Nati bias!). I know I am rambling, that reflect my own mind set, I will feel relief, and regret with either decision.

Did you like the rookie quiz? I will post the answers in the next Hull Busters.

The Millennium's Last Battles

(The 1999 Dallas Winter Micro-Mini-Nats
By Stan Watkins, 12/24/99

As the second millennium (since God chose to send his son to earth to save us from ourselves) drew to a close, there were hopes thoughts and dreams about peace on earth and good will towards men.

But in Dallas, TX the traditional enemies could not resist the opportunity to go to war one last time. Stan Watkins and D.W. Fluegel once again found themselves at Palos Verdes Lake armed and dangerous. On December 20, 1999 The USS Washington once again invaded the heart and soul of Axis country. To resist the threat D.W Fluegel sent the hurriedly prepared SMS Baden back to the water for the 51st time in her life. Short work would be made of this minor irritant American. However in this brief skirmish there was no clear winner.

On December 21 the ships engaged again. This time the Baden was better prepared. The results were considerably more damaging. The Washington foolishly made a close pass at the Baden and her bow caught the Baden's bow angled sidegun ripping it from its mount. It was now elevated skyward useful now only at shooting an occasional sea gull that ventured too close. This significant reduction in Baden's fire power enabled the Washington to more boldly engage her enemy. Then as the Washington closed on the Baden momentarily lost motive power. A submerged branch had fowled her single screw. Washington used the precious seconds to inflict considerable damage on Baden. Baden then broke free and put additional damage into the Washington's hull. The Washington then ran out of ammunition and was pulled from the water amidst a hail of BBs (as is the tradition of these events). The ship captains had both had a great deal of fun but neither could say who had won. From the sounds of the battle both captains thought Fluegel had won.

But, when damage was tallied, the USS Washington had wrested the Axis homeland Lake from the hands of herr Fluegel once more. Fluegel was somewhat rattled and Stan was elated.

The damage and score was as follows: Hits on USS Washington by Baden, 11 above, 0 on, and 2 below. Hits on Baden by Washington, 24 above (go triples!) 5 on, and 7 delicious belows. The Washington had won 715 to 515 points. Wow! The weather was acceptable and both parties agreed to an additional sortie that day.

In the second sortie the over confident captain of the Washington chose to once again directly battle the Baden. Baden caught Washington twice in a compromised position and unloaded. The results of this battle were much lower numbers of hits but an almost reversing of damage. The Baden had hit Washington for 330 points while Washington had only managed 145 points on Baden. For the day, however the Washington had eeked out a victory 860 to 845 and continued to claim the Axis heartland as Allied territory.

The next day the weather was so beautiful, battle had to be called off. We refuse to battle at the Winter Micor-mini Nats if the weather is too pretty. A day of measuring muzzle velocities and working on development of a cheap easy way to build velocity gage was attempted. The efforts were not very successful, but new ideas were developed and will be pursued soon. It was learned that the two test guns (one Washington bow sidemount and the Baden bow side mount were not very repeatable in velocities. About a plus or minus 20 feet per second was normal. Some of that is because of the low quality of today's BBs. Yes Chris I miss the old BBs too. The average velocities were about 190 feet per second. Then it was decided to determine if there could be battle with a muzzle velocity around 150 feet per second. The guns were adjusted with the aid of the chronograph to about 160 plus or minus 20 feet per second on one bow mount of the Baden and one of the Washington. The major question was will BBs at that velocity penetrate below the waterline. In other words can we have R/C Warship Combat at 160 feet per second muzzle velocities?

The two ships were sent to battle with only starboard side mounts tweaked to 160 feet per second. Some people think that guns of that velocity will not even penetrate balsa but the battle results proved quite a different result.

In this Battle the Baden's smaller size and better

maneuverability and gun angle (45 degrees off the bow) gave it advantages over the Washington. Both guns had down angles that caused the BBs to strike the water at from 13 to 18 inches from their own hulls. This is not a steep down angle. Some would say weak guns like these would not be able to penetrate water and still make a hole in the hull. The test results were to provide different results.

In the two sorties, the Baden firing 100 BBs shot a total of 38 holes in the Washington for about a 38 percent hit/hull penetration. This demonstrated that a fairly high degree of hit efficiency can be achieved with guns of 160 feet per second (average). The Washington did not have the opportunity to empty her guns on Baden as Fluegel immediately pulled the Baden out of the water when she ran out of BBs. But the Washington still managed 16 hits in Baden of 50 BBs fired or 32%. Still not too bad efficiency.

As far as where the hits occurred, the Washington took 29 hits above the waterline 3 on the waterline and 6 below the waterline hits. Some of these hits were 1/2 inch below the waterline and since the Washington's bow was somewhat down during much of the battle, the actual water position was such that some were probably more like 3/4 inch below the waterline. There goes another misconception about lower velocity guns. The Washington also managed 11 hits above the waterline, 4 hits on the Baden's waterline and 1 below. Clearly R/C Warship Combat can be conducted with guns as slow as an average 160 feet per second.

Fluegel noted that this lower velocity would really help the long term appearance of his ship's superstructure. That is probably true. But another fact came from the test. R/C Warship Combat with the lower velocity guns was lots of fun. Both participants felt that the guns were not shooting at peak power but that they were still highly useful guns in battle.

Merry Christmas and May God Bless you ! I care about you and your children !

Stan Watkins

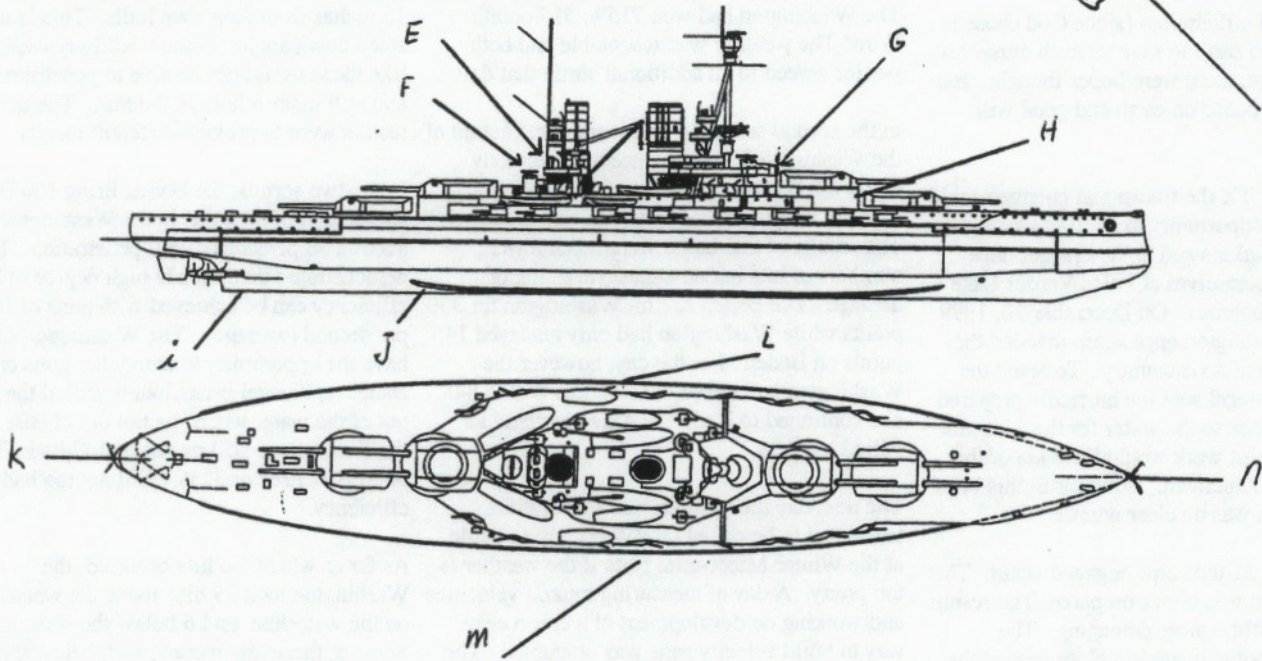
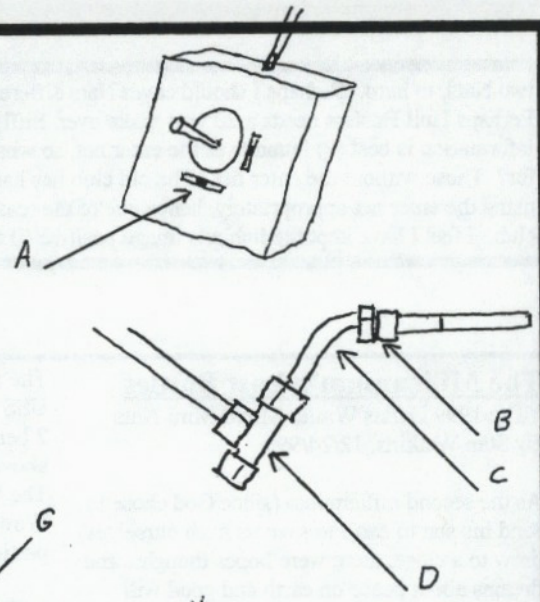
Editors note: The Allies were once again overwhelmed. Axes rule!

Rookie Test 1999

Ship Nomenclature

Word Bank;

- | | | |
|----------------------------|-------------------------------------|-------------------|
| 1 ___ Forecastle | 7 ___ Bridge | 13 ___ Mr. Hitler |
| 2 ___ Riser tube | 8 ___ Port | 14 ___ Skegg |
| 3 ___ AC Delco spark plugs | 9 ___ Stern | 15 ___ Bilge Kiel |
| 4 ___ Interrupter or tee | 10 ___ Bow | 16 ___ Batt II |
| 5 ___ Trim tab | 11 ___ Breach | 17 ___ Barbett |
| 6 ___ Starboard | 12 ___ Gun director or Range finder | |



HISTORY OF THE HOBBY

1. _____ is THE father of RC warship combat.
2. Who sank the first ship, using another ship?
3. The first battle was between a ship and a(n) _____
4. What does IRCWCC stand for?
5. The founding fathers had to build there own valves to fire the guns. T or F _____
6. The French were both Axis and Allied T or F _____
7. The Graf spee was considered to be a small (pocket) battleship by the Germans. T or F _____
8. The Axis won the first two Nats! T or F _____
9. _____ was the original gas propellant.

CONSTRUCTION

1. How many screws are need to attach your ships deck?
2. The pump should be in the bow, not the stern. T or F _____
3. A two quart per minues pump is about right for a heavy cruiser. T or F _____
4. Do not store or charge batteries on concrete. T or F _____
5. Pump outlet's may not exceed _____ diameter.

TACTICS.

1. There are two basic tactics, " hug and slug" or " _____ and _____"
2. The Stern gun is more important than the Bow gun. T or F _____
3. A rookies first tactic is to be in the second sortie. T or F _____
4. You can tweek your guns on moss check. T or F _____

RULES.

1. If the opposing admiral says you can enter into the second sortie, even though you missed the first sortie, you can. T or F _____
2. A hole in both the water line and the red (below the water line) counts for how many points? _____
3. French can either be Axis or Allied. T or F _____
4. Submarines are legal. T or F _____
5. A target is worth 100 points. T or F _____
6. Smoke bombs are illegal. T or F _____
7. The fleet admiral may declare "fleet five", at that time, his fleet may no longer fire. T or F _____
8. Your ship must have all superstructure parts that measure larger than _____ on the plans.

By Kevin Bray 7/22/99

It was thursday morning of the IRCWCC NATS 1999. On Monday, the Axis cause had mirrored the weather. Mondays rain made the ground muddy everywhere. The Axis had lost mondays battles by 10,000 points. The Axis were showing signs of greatness by winning the first campaign battle. Still, the point spread was tremendous. With the Axis admiral absent doing site host work, the job of ship assignments fell to the Fuhrer D.W. Fluegel. What the Axis fleet needed was some kind of victory upon which we could rally behind. After some consideration, the Fuhrer decided that we must sink the USS Texas. It's captain was Jeff Poindexter. He is an original founder of the hobby and has recently reemerged. His ship was slow (28 seconds) and was hoped to be somewhat unreliable. The Axis needed this victory. We were told at the captains meeting not to leave the water without this sink.

The plan was simple. We would form 2 fleets. The smallest of these fleets was a cruiser squadron comprised of the DKM Lutzow (captained by Kevin Bray), the DKM Graf Spee (captained by David Tuttle), and the SMS Von Der Tann (captained by Matt Moury). All of these

captains were rookies but had ship reliability beyond their experience. As we formed our ships together into this fast attack group, we talked about what might happen. This is when young David Tuttle spoke these words... "It looks like we are going to have to drive that Texas out from a protective screen and even if that means my ship has to sink, that is what we are going to do". These were brave words and not easily forgotten.

Battle was called and we rushed headlong into the enemy fleet. Due to our speed, we quickly bypassed the slower and more deadly ships of the Allied fleet. We reached our target with remarkable poise. The Lutzow was set with a twin stern gun arrangement so I had to turn her around to bring the guns to bear. David with his bow gun immediately began to fire. The report of that gun hitting the Texas is still ingrained in my memory. The Texas began to lurch forward in an effort to elude this attack. This brought him into my Lutzows stern gun range. I quickly opened fire and water could be seen splashing all around the Texas's water line. The Von Der Tann moved in and began to work side mount magic on the Texas which was now at full steam and headed out to sea. The allies finally moved to close on our cruiser squadron. It was time to run.

With the bow of the Graf Spee pointed toward shore, David Tuttle required more

time to evacuate and he sustained enough damage to sink. The Von Der Tann and the Lutzow escaped. Later that battle, the Texas was pummeled and sank by our perimeter fleet. This was in no small part because of the captaining of the Graf Spee. As the Texas sank, a huge round of cheers went up within the Axis ranks. David Tuttle was awarded that day, the Axis High Command Spirit Award for his bravery. David is but a rookie but as time passes, Allied captains will learn to fear him. His cool composure while under fire shows the finest spirit that has become a standard within the Axis fleet. David and his father plan to build 2 new German ships and further our grand cause.

I ask that all of you Axis captains send your congratulations on a job well done to young David Tuttle... His e-mail address is: daggerdt@aol.com

I must say that having David there to battle with was a sheer joy. After that battle, we continued to coordinate our attacks throughout the week with much success. I look forward to once again meeting this fine young man...

Kevin A. Bray
Captain - DKM Lutzow
2-1

HULL BUSTERS, 2000 SUBSCRIPTION FORM AND/OR IRCWCC ENTRY FORM.

Name _____ (if your address label in on the back of this form, you do not need to print your address on this side)

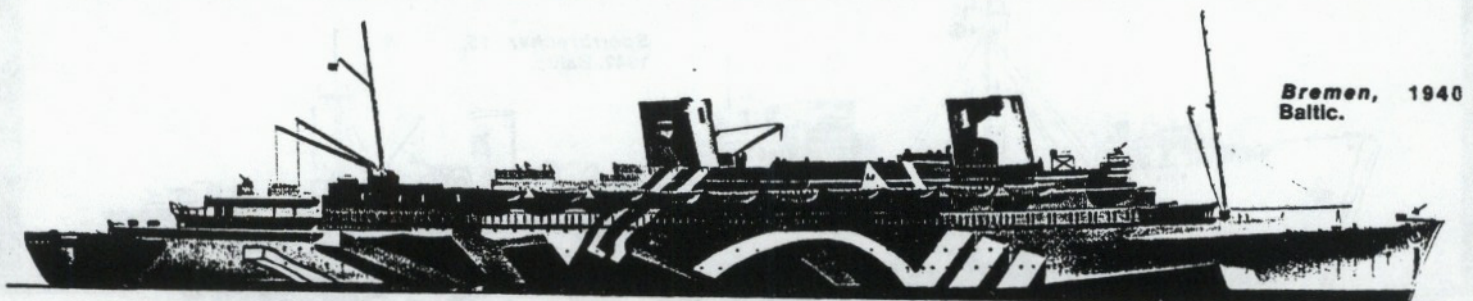
Street _____ City _____ State _____ Zip _____

Phone _____ - _____ - _____ E-mail _____

I have enclosed \$15 to subscribe and join _____ I have enclosed \$9 to only subscribe to Hull Busters _____

I have enclosed \$6 to only join the IRCWCC _____

Do not send me money to join the MWC, join them by..? looking them up on the internet, or their fine newsletter, Task Force 144.



Sinking ain't such a big deal.

By Lars

[editors note: this splendid article was forwarded to me by a friend from a inter-net chat list. I e-mailed Lars to get permission to use this article. I did not hear back from him. I feel he would not mind my use of his splendid article, so with some risk I will go ahead and publish it. Usually I want "exclusive" articles, not one's published else were, this is an exception, because it represents the fun material that Hull Busters would like to be associated with.]

You see, after a while, sinking begins to grow on you. It's no longer that "OH MY GOD I'M GOING DOWN" feeling. Instead, you start to enjoy the way the ship twists slightly as it goes under. You start looking for pictures or videos of your sinks so you can revive these feelings. You can appreciate it when another sinks, but there's still nothing quite like it when your own ship takes another plunge. You start thinking, 'That was one of my cooler sinks' just before you turn and ask the crowd, "Did anybody get a shot of that?"

Eventually you become a sink critic. When decks or turret covers pop off and float away, you mutter, "That ruined a good sink." You start classifying sinks as good sinks, or so-so sinks. Every so often you see a really great sink, like when an unsinkable ship is cornered, pounded on, and put under by 10 or so other boats, while the entire shoreline of captains cheers! You're thoroughly

disgusted when your ship wimps out and goes down with 1 below and a pump system foul-up. You slap the back of the youngster who leads a squadron of the enemy fleet back and forth through the heart of your own fleet, eventually sinking himself, but causing heavy damage and a sink or two to the enemy ships.

After actually recognizing that you're now classifying sinks, your next natural move is to become a sink connoisseur. You begin to take satisfaction in your ability to sink more than once a day, and still come back swinging. You take immense pride in your watertight boxes that don't leak, your electronics that don't short, and your guns that don't rust up. You build and rebuild sink recovery marker deployment systems that faithfully work each time you sink, and can't rest until you've discovered why on those rare occasions they do fail.

Sometimes you go into a slump, going a long time between sinks, and you begin to wonder if everything's still working properly. The doubt plays on your mind until you find yourself doing rash things, forcing yourself to be the meat in a enemy ship sandwich, hoping that the enemy gunners can put you down and thus once again test your systems and relieve your worries. You have to do this, as you can no longer just turn off the pump and let the ship sink, because that be a 'wimpy sink' and just ruin the whole thing. No, your aim is to sink gloriously each time, and if that cannot be attained, then the sink must be at least a respectable sink. After all, your pride is at stake.

Lars

Deadline for next Hull Busters is Jan. 25, this is traditionally the hard to get articles time of the year, so please consider contributing by e-mailing your articles to fluegel7@juno.com Do not send as an attachment, (I can't open them). If you can't just send them as html text, paste and copy into the e-mail to me. Thanks!!

HULL BUSTERS
917 Hudson Dr.
Garland TX
75043

