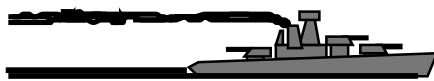
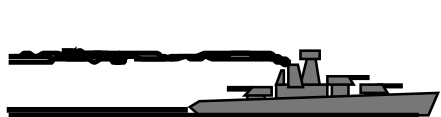


# TASK FORCE 144



The Official Newsletter of Model Warship Combat, Inc.

[www.mwci.org](http://www.mwci.org)

Spring - 2002



## CALENDAR OF MWC EVENTS

**April 13<sup>th</sup>-14<sup>th</sup>**

**Battle of Mobile Bay**

**Mobile, AL**

**\$5-\$8, CO2**

**SANCTIONED**

**Contact: David Evans 251-675-7820**

[homeportala@hotmail.com](mailto:homeportala@hotmail.com)

**Days Inn, 251-675-7800**

**May 25<sup>th</sup>-27<sup>th</sup>**

**Fray at Bray's**

**Siloam Springs, AR**

**\$12.00 CO2, Pop, Trophies**

**SANCTIONED**

**Contact: Kevin Bray**

**479-871-5162**

[brayka@cox-internet.com](mailto:brayka@cox-internet.com)

**Holiday Inn Express 479-524-8080**

**June 7<sup>th</sup>-9<sup>th</sup>**

**Baxley BB Bash**

**Baxley, GA**

**No Fees**

**SANCTIONED**

**Contact: Bart Purvis**

**912-367-7306**

[purv@altamaha.net](mailto:purv@altamaha.net)

**Pine Lodge Motel 912-367-3622**

**July 14<sup>th</sup>-19<sup>th</sup>**

**MWC National Championship**

**Houston, TX**

**\$110 CO2, Ice, and Brunch provided**

**SANCTIONED**

**Contact: Steve Reichenbach**

**214-454-3528**

[wtpat2@yahoo.com](mailto:wtpat2@yahoo.com)

**Houston North Holiday Inn**

**1-800-HOLIDAY, or 281-821-2570,**

**call After March 15, 2002**



Spring Regionals are good places to exercise those new ships, to work out kinks and gear up for the coming year. It's not bad exercise for the captains, either! Notice his ship is pumping a healthy stream!

Photo Supplied by Chris Au

## BOD NEWS: Last Open Spot Filled

The unusual election of 2001 had one more surprise to throw the MWC BOD. Region 5 had not had anyone running for the open spot vacated by Brian Eliassen. A write-in slot was provided, and two different members from Region 5 each received a single write-in vote. When first asked, both individuals initially refused to take the office, but after a bit of reconsidering, Dana Graham changed his mind and was welcomed onto the Board.

In other action, the 2002 BOD changed the bylaws, moving the general membership election from the month of November to the month of October. This should give us a bit more time to recover should similar problems such as we had this year re-occur. It should also allow the Secretary to complete the

change to the rules packet sooner and allow us to get it out to the membership in a more timely fashion.

The BOD is also close to finally having a contract signed and sealed so we will start paying our Web Provider, Brian Elliassen, for his services, which regretfully has not been done up to this time.

Late last year, due to a request from one of our members who was recalled to the armed services after the events of September 11, the 2001 BOD voted to accept the following policy:

"The MWC shall allow reactivated military personnel, who are members of the MWC, access to the Member Services section of the web site and access to the members-only mailing lists for subsequent years without paying dues until such time as they are able to rejoin the MWC after this period of military deployment."



## MWC OFFICERS and Board of Directors

### President-- Charley Stephens

1917 Bolado Pkwy  
Cape Coral, FL 33990  
941-772-3097 (home)  
941-574-3208 (business)  
WingMan174@aol.com  
president@mwci.org

### V.P.--Bryan Finster

PO Box 297  
Bentonville, AR 72712

### Secretary-- Lars Dahl

1486 Oakdale Ave.  
West St. Paul, MN 55118  
651-450-0275  
lsd@planet8.tds-eagan.lmco.com

### Treasurer--Ted Brogden

1703 Quail Valley  
Iowa Park, TX 76367  
940-592-5066  
tedbrogend@aol.com

### Chris Au

20461 Northville Place, Apt. 2219  
Northville, MI 48167

### Curly Barrett

2613 Wheeler St.  
Roseville, MN 55113  
651-639-8329  
barre010@tc.umn.edu or  
jbarrett@gillettechildrens.com

### Tim Beckett

1945 East Clinton Trl  
Charlotte, MI 48813  
517-749-4308  
beckett@msu.edu

### Dana Graham

5411 Bayridge Rd  
Rancho Palos Verdes, CA 90275  
310-512-0555  
danahgraham@cs.com

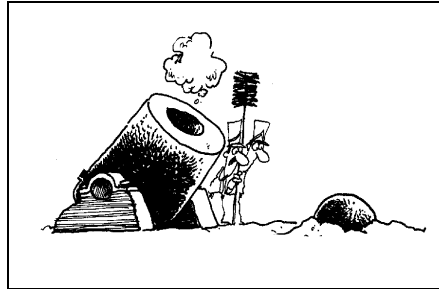
### Chris Grossaint

6384 S.Dexter St.  
Littleton, CO 80121  
303-694-1607  
grossaint@avaya.com or  
csg2@ix.netcom.com

### Richard King

157 Canal St.  
Sanford, FL 32773  
407-322-7750  
[Rking@lmco.com](mailto:Rking@lmco.com)

## Insurance Summary Snafu by Brian Eliassen



Every once in a while, strange things occur despite everyone's best efforts to prevent it. This is one of those times. Last year, in order to clear up questions about the Insurance, the BOD released the MWC Insurance Summary and mailed a copy to every MWC member. The BOD also decided that the Insurance Summary would become a regular item shipped with the MWC rules packet each year. Approximately six months ago, after a long conversation with our insurance agent, it became clear that what I understood the requirement for insurance coverage at events to be, differed from what our insurance agent understood. After a query to the company that actually provides the policy to the MWC, it was discovered that our insurance coverage was a bit broader than I had initially been led to believe. The new way of applying insurance would be for "MWC related activities" rather than "MWC sanctioned events". This meant that the insurance coverage was more like what the R/C airplane fellows enjoy with the AMA in that they have coverage for AMA activities. Due to this change, the Insurance Summary was edited to reflect the changes mentioned. Unfortunately, the document did not have a revision number. This is my fault entirely and due to this fact, the MWC Treasurer used the older, and now inaccurate, Insurance Summary from earlier in 2001 for the rules packet. I didn't know this until I received my own membership packet today

(2002-03-16). As such, I immediately contacted the Treasurer and he will be including the correct Insurance Summary henceforth. Also, I added a "Revised" entry on the page that should eliminate this problem in the future as everyone will know which version is more current.

If you are interested in more information about the MWC insurance, please check out the following web locations:

The main MWC Insurance Page  
<http://www.mwci.org/services/insurance.html>

The MWC Insurance FAQ  
<http://www.mwci.org/services/insurance/insurance-faq.html>

The MWC Insurance Summary  
<http://www.mwci.org/services/insurance/mwc-insurance-summary.html>

If you have any questions regarding the MWC insurance coverage, please send all inquiries to [insurance@mwci.org](mailto:insurance@mwci.org).

Thank you and sorry about the confusion.

A copy of the current MWC Insurance Summary is included elsewhere within this issue of TF144 for your perusal.

### LAST MINUTE FLASH! 2002 Nats T-Shirts for sale:

As not everyone can make it to Nats, we are making this year's Nats T-shirts available to everyone. This year's shirts will be of the same style but updated to represent Texas. If you are not attending, but would like a T-shirt, send \$20 (includes shipping) plus your shirt size (small thru XXXL) to the treasurer no later than 15 June. The order to the manufacturer must be made by 21 June so any order received after the 20th will be returned. Checks should be made out to the MWC.



According to Friedrich Prasky in Warship Volume 3, the following comes from an official document from the Austrian Naval Staff listing the faults of the *Viribus Unitas* class of dreadnoughts:

1. The ships were about 2500 tons too small for their armament.
2. In battle condition the bow lay 20cm too deep in the water.
3. The freeboard at the forecastle was too low; the ships were not ocean going types. The ram bow was obsolete.
4. Because of their low stability the ships heeled over very much even in turning at low speed. Turning at full speed during a battle was impossible otherwise the side armour would have come out of the water.
5. The ships were too slow. During the raid of the Austro-Hungarian Fleet against the Italian coast at the beginning of the war *Viribus Unitis* only reached 17.5 knots as maximum speed.
6. The openings in the ship's armoured decks were too large, especially around the smokestacks which were vulnerable to shells, whereas they carried nets on the tops of their funnels as protection against bombing.
7. Faults in the turrets included poor ventilation. Under battle conditions the gun houses could not be ventilated and the oxygen in them only lasted for 15 minutes. Before firing the ventilation

had to be turned off, otherwise the explosion gases would have been sucked in. The 15cm barbettes had no ventilation; when smoke got into them they were out of action.

Also in Warship Volume 3 is an article by D. K. Brown on "Roughness and Fouling". Thinking about our thirty second moss rule, I read on. Many of you probably know that copper sheathing was used extensively by the Royal Navy on their wooden warships to combat fouling. The copper sheathing has to dissolve before it begins to kill marine growth. The copper was effective for roughly a year when the

was found that the iron bolts used to hold the frames to the planking which corroded badly. This made it tough to use the copper sheathing on the iron hulled vessels, although in the latter part of the nineteenth century some ships intended for tropical waters, where the fouling is most severe, were given a watertight wood skin over the iron hull and the wood was then sheathed in copper.

The normal paint on iron-hulled hulls was red lead. When applied properly this paint was successful in preventing corrosion but did nothing for the problem of fouling. Ships in English home waters needed docking once a year

to remove the growth. Ships in the Med were docked every six months, and those in the Indian Ocean were docked every four months. At this point efforts shifted to work on Anti-Fouling paint. The first successful anti-fouling paint was developed in 1860, and used mercury oxide and arsenic, which was toxic to both barnacles and men. The Royal Navy used proprietary materials until the end of World War II. Not only was the paint needed on the hull, but apparently on the propellers too.

Not only does the fouling affect speed, but it also hits the pocket book. Brown says that a modern destroyer, after an interval of two years between dockings, required an additional 20% more fuel due to fouling than would a freshly scrubbed vessel. And I assume that this includes the application of modern anti-fouling paint.

Another little item he mentioned is that the frictional resistance of the hull accounts for about half of the hull's drag, the rest comes from 'wave making.'



This *Viribus Unitas* displays the low freeboard in the forecastle that was a problem in her prototype.

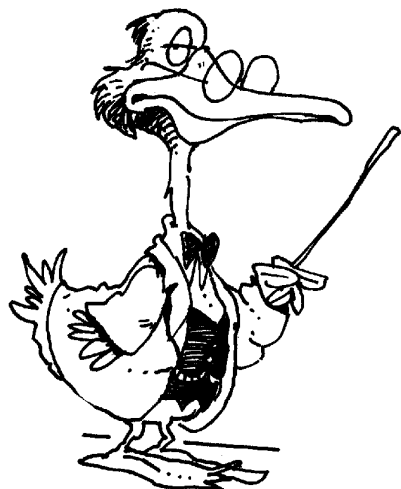
Photo by Chris Au

copper would develop the familiar green patina, which was insoluble and at this point the marine growth would begin growing at the normal rate. Attempts to extend the useful life of the copper sheathing were numerous but the rate at which the copper wastes away and its effectiveness in poisoning the plant growth were very sensitive to impurities in the metal. Those most attempts were brilliant failures.

Even before the coming of the iron hulled ship, naval builders were aware that when two dissimilar metals are connected together in sea water they form a weak electric battery and one of the metals will be corroded severely. On of the first copper-sheathed vessels it







## Web Site News

by Brian Eliassen  
MWC WebMonkey

Welcome to the first Web Site News article bringing you news from the Web. If you'd like to see something specific in the future please let me know at [webmaster@mwci.org](mailto:webmaster@mwci.org).

### Web Space

Time for the yearly reminder that free web space is available to MWC chapters and members on the main MWC server. With the recent secure FTP capabilities installed on the MWC server, maintenance of chapter and member sites can be directly controlled by individuals without all the content having to go through my hands before being uploaded to the server. This has lowered my workload immensely which always makes me happy and it also allows users to see immediate changes rather than having to wait for me to get around to doing it. So, in effect, it's more freedom for everyone.

### Chapters

Web sites are the best way to show the world what your chapter is all about. Even a single web page explaining where you meet or a person to contact will help grow your chapter. If



The crew on board the Moltke wish the North Carolina would just say it and not spray it.

Photo by Chris Au

locals see that you're active in their area, they are more likely to show up to an event. I know it works as I've seen it happen often with some people getting multiple inquiries within 48 hours of placing their web information on-line. I've often heard, "how many people do I need to have before I can be considered a chapter?" The simple answer to that is "one, yourself." If you're motivated enough to start up a chapter in your area, the MWC will help you to get established by allowing you space on their server.

New Chapter web sites on the MWC Server:

Florida Region Attack Group (FRAG)  
<http://www.mwci.org/chapters/FRAG>

### Members

Already have a web site but you're close to the maximum allowed storage allotment but you just developed 100 new photos of your most recent battle? Let the MWC

server host your photos and movies. This will help lower the bandwidth or storage limitations required on all the free web site servers. If you're tired of pop-up and banner ads, consider migrating your entire site over to the MWC server. The only requirement is that it be related to hobby of model warship combat.

New Member web sites on the MWC Server:

Kevin Bray  
<http://www.mwci.org/members/kbray>  
Rick King  
<http://www.mwci.org/members/rking>

### Statistics

The MWC web site continues to grow in use overall for each quarter. See the table below.

That'll wrap it up for this quarter. If you have any questions or you're interested in taking advantage of the free web servers capabilities, please contact [webmaster@mwci.org](mailto:webmaster@mwci.org) for more information.

Statistics for the last quarter of 2001:

Month	Hits	Files Sent	PageViews	Sessions	Kbytes Sent
October	161883	123001	22022	9704	4517049
November	181456	143021	22015	10592	5929730
December	190928	144659	23716	12716	6012911

## HULL BUSTERS 1745

By Fluegel

Lars, after providing Hull Busters with many articles over the years sent me an e-mail. It said the shoe was on the other foot and he would like an article from me. He said I could call it something like "Hull Busters Jr.". How could I refuse!

At the last meeting of "The Texas Navel Belgrade", we sat in a circle and each spoke of a material that was used routinely and uniquely in our ship construction.. For example, I said I often used popsicle sticks as a building material. A few members snickered at such silliness. No big deal, but, Steve Riechenbach had an original ship construction idea. Now let's admit it, we all have gone down the grocery store aisles looking at everything and asking ourselves, "how can I use this in my ship?" But Steve went the extra mile with his idea. Steve used, are you ready? Well he used...

toothpaste!! Yep, I told you it was, it was, it was new. Steve said he noticed how toothpaste got hard and the break through idea was, water channel construction material. I wondered how many tubs he had used, and was delighted to be continually amazed at this new thinker. He used, he used, well, he used SEVEN tubes! I hoped he had used a speasal brand, I don't know, something like "minty baking soda with fresh after glow", or maybe the kind that comes out in stripes. Alas it was just regular toothpaste. He said it didn't work, so all you allies, give it up, this is not a "How-To" article, it's a study of the mental break down that inflicts the brains of every true RC warship combatants.

On a more useful note, Steve Richenbach's out of the paradigm mind came up with a new and more useful idea. You know how ships have all kinds of windows of different shapes in their



Fluegel displays the proper touch.

Photo by Chris Au

superstructure.. Well, the port holes were a no brainer, just drill holes and maybe glue servo-mounting-eyelets into the holes. That takes a plane flat surface and gives it "shippy" character. But German ships, also had large rectangular windows. Its really hard to drill rectangular holes, so we lived our lives in scale infidelity. Oh the shame. Well, I cut small rectangular shaped masking tape pieces, put them on the surfaces and painted them. Still, that was a bit of work and did not last. Steve has a better idea.

To simulate the port hole windows, take a rod of the correct diameter, cut it to a length of about 4", and use it with a hammer to pound a circular imprint into the wood. Note to Allies, don't pound the wood on a completed ship. Take the wood and lay it on a flat table and pound away, then glue it up! OK, here is the good part, the rectangular windows. Well make a "window-punch" by taking a piece a

aluminum ( I think Brass would also work well) and grind off the metal till the end is that of the rectangle windows. Use the hammer and imprint the window shape to add the feel of a real ship. I was thinking I may paint the indention's with a darker gray and then the rest with regular gray.?

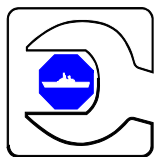
Steve is such a sweetheart. He left me the "punches" as gifts.



Photo provided by Fluegel

# The Triple Stern Cannon Test Circuit

by Chris Pearce



This little circuit allows you to test and tweak a set of triple stern cannons individually, and fire them simultaneously

on the water. It's a fairly simple little circuit that bends the mind a bit, but gets the job done.

Before getting into how to build one, let's discuss the basic concept first. The concept of this circuit is based around the interesting uses of the SPDT (single pole, double throw) switch. This switch allows you to take a "common" (C) output and switch either of two inputs to that common output. One input is the "normally closed" (NC) input. When the switch is not pressed, the NC input is always routed to the C output. Conversely, the "normally open" (NO) input remains open until the switch is pressed. (Just like a normal SPST switch...)

That said, let's look at this circuit as though it were a single cannon test switch. The first thing you'll notice is that the - (black) input goes directly to the solenoid. This is the common ground. Second, you'll notice that the common output from the switch goes to the other lead of the solenoid. Now, if we just consider the "NC" portion of the switch, you'll notice it's attached to the green, switched input from the radio box. As a result, when the switch is not being pressed, the normal radio controlled signal can pass through the switch to the solenoid and fire the cannon. So, basically, until you press the switch, it acts as though it's not even there. Now, the magic part of this arrangement is the red wire, which goes to the normally open part of the switch. When the switch is pressed, it disconnects from the NC (radio) input, and switches to the NO (positive) input, bypassing the radio box, and sending a direct voltage to fire the solenoid. And (of course) when you let go, the switch is released, and returns to the NC (radio) input. Great, isn't it??? Best of all, you'll notice that this circuit will work just as well with one switch for one cannon, or two switches, for two

cannons, three, or even four switches for four cannons.

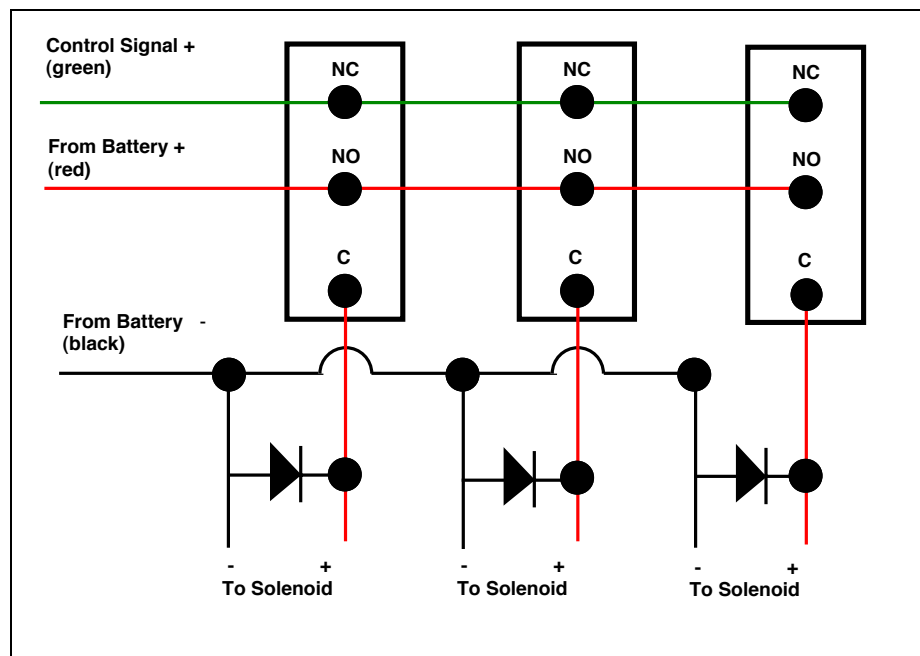
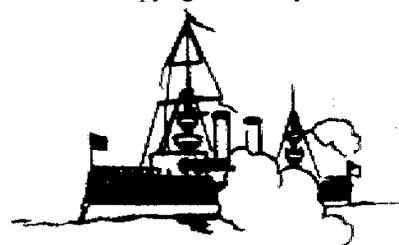
That said, there's one little detail to explain. The funny triangle thing below the switch is called a diode. A diode is basically a one way valve for electricity. It lets it flow one way, but not the other. The reason there are diodes in this circuit is because of one of the funny properties of solenoids. A solenoid is basically an electromagnet, and the funny thing about electromagnets is that they use electricity to generate magnetism. Well, that's not the really funny thing. The really funny thing about them is that when you turn them off, the magnetism takes a very brief instant to go away. During that brief instant, the coil of the electromagnet generates a backwards electrical charge. If this backwards voltage spike is not dealt with, it can eventually damage your switches, or even your radio, and can definitely cause radio interference. Enter the diode. If you buy some diodes (I use the 50V, 3A variety), you'll notice that they have a black (or silver, or other contrasting color) band on one end. This corresponds to the crossbar on the triangular "diode" symbol, and indicates the direction that current is allowed to flow. As a result, if you look at the diagram, the diodes are placed so that when the + side is +, and the - side is - (as it should be), the diode is inactive and preventing current flow. On the other hand, when the solenoid generates one of those nasty reverse voltage

spikes, the diode allows the current to harmlessly pass through it, saving your switches (and radio) from damage and interference.

To build this circuit, you merely have to pick up some diodes and SPDT switches from Radio Shack, if you want to, or you can order fancier stuff from your favorite electronics supplier. For those of you who want to get fancy, the switch I like to use is C and K #8121SHZGE, available from Allied Electronics ([www.alliedelec.com](http://www.alliedelec.com)), and their stock # is 676-0400, at a cost of about \$5 each. Also, if you really need details for the diodes, I like the 1N4004 type, which you can get from Allied, #568-0144. Or, you can deal with the tedious catalog search tool for your favorite electronics dealer.

Anyway, once you have all those fiddly parts, solder it all together like in the diagram above. You might just want to test it with a multimeter and clip leads before doing anything dangerous. Then, once you have it all put together, connect your solenoids, and away you go. Hope it works as good for you as it has for me!

Copyright 2001 by Chris Pearce





## MWC Insurance Summary      Revised 2002-03-16

The MWC has secured a \$1,000,000 per occurrence, \$2,000,000 annual aggregate, liability policy to help protect the organization, its members, and the site owner's where MWC events are held. The following summary explains how this policy affects each of these items specifically.

**1. Organization:** The MWC is the primary holder of the insurance policy. The policy protects the MWC in the event of a liability claim being brought against the organization.

**2. Members:** With regards to personal MWC activities, or any personal liability exposures, it is strongly suggested that every one of our members get in contact with an insurance agent and adequately protect themselves with their own personal liability insurance. This is not just for MWC activities; this is for all of lives possibilities. Possible applications of this are using a homeowners or renters policy with umbrella insurance coverage.

However, as an active member you have been added to the MWC liability policy as an additional insured for your MWC activities. This coverage is an excess coverage over and above any personal liability insurance and is subject to a safety code violation exclusion. This means coverage is only in effect while the MWC safety code is being followed while engaged in MWC activities.

**3. Site Owners:** To help protect and secure MWC sites, our insurance company will add the owner of a site, as an additional insured, on the MWC policy for MWC activities on their site. As an added benefit, this additional insured coverage has been amended to be primary coverage for the site owner and the safety code violation exclusion will not apply to them.

A certificate of insurance will be sent to the respective site owner to verify their additional insured status. This certificate is sent during the site-insurance process. To obtain a site-insurance form, contact the MWC Treasurer or go to the MWC website at <http://www.mwci.org/services/forms/siteinsurance.html> and fill out the on-line form. Site insurance is not mandatory for MWC sanctioned events and is only available if the site owner requests it.

**4. Incident/Claims:** If anyone is aware of any incident where they believe a claim could develop, please do the following: (Actual coverage acceptance, or denial, depends on the material facts of the incident and the applicable coverages, or exclusions, on the policy. The respective insurance company can only make final coverage determination.)

- A) Write a detailed description explaining exactly what happened, where it happened, who was present and list the contact information for all parties involved. In other words, list all the applicable information you can. There is no such thing, in this case, as too much information.
- B) Call Bob Blomster at the J. A. Price Agency, Inc. and immediately forward your information to him using any of the following methods:

Phone: 952-944-8790

Fax: 952-944-0097

Email: [bob.blomster@japrice.com](mailto:bob.blomster@japrice.com)

Mail: J. A. Price Agency, Inc.

6640 Shady Oak Road

Suite 500

Eden Prairie, MN 55344

**5. Questions:** If you have any other questions regarding this policy, please contact Bob Blomster at any of the aforementioned contact methods.

The MWC Board of Directors

### 2002 NATS ENTRY FORM

The 2002 NATS is in Houston, Texas on July 14-19. Please complete this form, for each participating captain and for each ship (including convoy ships), and mail to: Ted Brogden, 1703 Quail Valley, Iowa Park, TX 76367

Captain: \_\_\_\_\_

Address: \_\_\_\_\_

Fleet (circle): Axis    Allied

Shirt Size (Circle): S   M   L   XL   XXL   XXXL

Radio Channel: \_\_\_\_\_

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

Ship Class (circle): 1   2   3   4   5   6   7   8

Additional captains or ships (and radio channels):

\_\_\_\_\_ Entry Fee (# Captains X \$110 before June 1, X \$125 after June 1)

\_\_\_\_\_ USS Texas Award Banquet (# attending X \$15)

\_\_\_\_\_ Total Fee Enclosed (make checks payable to MWC, Inc)

## Gun Tweaking Safety

by Rick King



Most of us with Foster type breech guns are constantly playing with and tweaking our guns for optimum (meaning nasty hole making) efficiency. I use a piece of clear vinyl tubing to go from the barrel into a plastic jelly jar for collecting the bb's for disposal or reuse. Since my hearing isn't the best, the sound the bb's make when hitting the plastic and the vibration from the tubing give me great feedback as to how they're firing. Many of you probably use the same or similar methods on the bench. But did you ever wonder if all of your bb's have left the gun? I have. Remember, it's the empty gun that kills or wounds the most! So, I had been counting out a dozen or so rounds, firing, tweaking, firing etc. but this got tiring (I lost count a lot) so I was never really sure if the guns were empty, especially if they weren't firing consistently.

All of a sudden the other night, the proverbial light bulb went off in my head! As some of you know, I use the

zinc (silver) bb's. Mainly, because when I bought my first bb's at Wal-Mart, that's what I picked up. The carton said extra 1000, and you know I like bargains. So, I'm loading and counting bb's, when I pick up a copperhead that I had, thanks to some nasty Allied captain at Nats. You've probably already guessed where I'm going with this.

Since, I put the copperhead in last, after emptying my magazine, all I have to do is look in the jelly bottle and verify that there's a copperhead in there! So I can feel pretty confident that it's empty. You copperhead users just need one of my zinc Daisy's ! I'll be glad to share with you at the next battle!

No system is foolproof (you might accidentally load two of the odd color) So always pin your guns!

The other gun tweaking exercise I perform is aiming/aligning the stern guns. For this, I set up the ship on a workbench about 3' away from another bench, where I stand an empty, Xerox paper box on it's side. Inside, I've place a 2" thick piece of polyethylene. On the cover I tape a piece of old computer printout paper. After donning my safety glasses and clearing the garage of innocent bystanders, I fire the guns at the

box. I get immediate feedback: did the bb's penetrate at least the box lid, were the holes aligned on the paper, or one high or low, did both fire etc. I can then reposition the guns to try to get a nice, close pattern. I can change the paper as often as I need to check progress so I don't have to guess which holes I just made. The bb's are either embedded in the foam, if I've gotten them really hard hitting or if not, they're laying loose inside for collection and reuse or disposal.

Well, I hope this helps with your never ending gun tweaking chores.

See ya on the water!

Rick

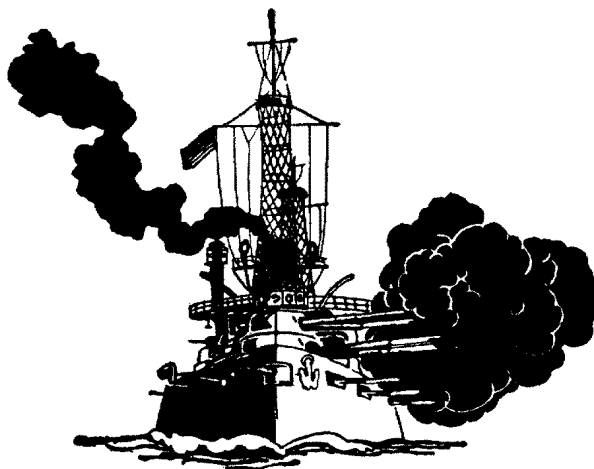
### Good Shot!

Last year, I negotiated with the Daisy marketing manager for a group discount. All you have to do is call Daisy (800)643-3458. Tell them you want the Olympic grade bb's and the Model Warship Combat club price. Tell them Joe Murfin authorized it.

Kevin Bray

(Kevin has also volunteered to pick up and deliver orders like last year)

**TASK FORCE 144**  
**1486 Oakdale Ave.**  
**West St. Paul, MN 55118**



"Nothing so comforts the military mind as the maxim of a great but dead general."

-- Barbara Tuchman (author, The Guns of August)