

# TASK FORCE 144

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**MAY 21-22, 2011**

**MAY MAYHEM**

**POOLER, GA**

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**MAY 28-30, 2011**

**TANGLER AT ENGLER**

**FARMINGTON, MO**

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**JUNE 19-24, 2011**

**NATS**

**ELK RIVER, MN**

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**AUG 27-28, 2011**

**BUZZARD BLAST I**

**HINCKLEY, OH**

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**SEPTEMBER 3-5 2011**

**FALL REGIONAL AT**

**IRCWCC**

**OAKBORO, NC**

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## 3<sup>rd</sup> Annual Brouhaha Declared a Good Time by All

**By Tyler Helland**

Once again the formula: number of captains + number of sorties > number of hours traveled proved its worth. Twenty-eight captains hit the water at one point or another and we battled fourteen sorties therefore the 36 hour round trip was declared worth it by Bob and Tyler. The Norsemen left their frozen home early Friday morning and got in late Friday night. They received the typical phone call here and there from a few of the several battlers already testing their ships at the pond. How long is your drive? You guys should be declared insane. Why doesn't my ship work?

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<b>President:</b> Chris Pearce	Region IV
<b>Vice President:</b> Brandon Smith	Region V
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<b>Boardmember:</b> Pete Demetri	Region III
<b>Boardmember:</b> Tim Beckett	Region IV

## By Leaps and Bounds ...

By Mike Mangus

81 amps. That is what the Watt™ amp meter read as the brushless motor on the pump sang a high pitch tune in my bathroom. The HMS Erin was half submerged in the bathtub as water sprayed crazily out of the double-tapered 1-unit outlet to shower the floor, vanity cabinet, mirror, myself and anything else within four feet of the tub. Luckily nothing was smoking or melting under the jaw dropping current flowing through the extra thick wiring I had foresight to install. The Lithium Iron Phosphate (LiFePo4) battery pack, rated for 120 amps of continuous draw wasn't even getting warm. Still, rather than temp fate, I shut everything down and started cleaning up the watery mess. As I sopped up standing water from the floor before the wife finds out I'm already thinking of alternative brushless motors that may be more suitable for the pump. Thus continues the quest for improving Model Warship Combat technology.

As long as there had been Model Warship Combat captains have been trying new, and sometimes even old, technology to find that little extra that will give an advantage over other ships. The advantage might be a performance increase. It might be better ship reliability. Sometimes it's just a desire to have something different that the average captain. In my case it is all three.

Sometimes the quest leads to interesting results such as the 81 amp pump born out of the latest brushless motor technology. Brushless motors, along with advances in battery power, have revolutionized the model airplane world. Electric planes fly long, have more power and are lighter than many of their gas powered counterparts. Today's electric power systems have grown by leaps and bounds over the brushed motors and NiCad battery technology from a decade ago.

I want that in my ship! Out

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## Photogenic

By Bob Hoernemann

It's said that a picture is worth one thousand words. The photo above is from NATS 2006 in Coco Beach, Florida. It was taken by someone on Wednesday during the Hug-N-Slug battle. The big white ship in the middle of the photo is Joel Goodman's HMS Hood. Since the Hood is not a great ship at five units Joel set it up to run operate with six units. It's still not a great ship even with six units but Charlie Stephans wanted to join our battle. Having his supper NC in the mix had some people

worried. The NC is not really a Hug-N-Slug type of ship and Charlie is pretty scary in it. Charlie thought he would take the Hood out for a spin. Now the Hood is not really a Hug-N-Slug type of ship either. It's long, it can't turn and it has tons of freeboard but you use what you can in Wednesday pick up battles. During the first sortie Charlie stayed on the outside of the battle and no one really played with him. Between sorties he couldn't get anyone near him saying, "I feel like a fat chick in a bar." Our fleet took this as a challenge and

targeted Charlie in the second sortie. This photo was taken during the middle of the carnage. The Warspite (Bob H) is in the process of dumping all of its stern guns into the Hood. The black VDT (Randy S) is moving in for some sidemount shots. The VDT (Lief) and the I-boat (Steve R) on the right are trying to get into the mix also. In the photo it looks like Lief's VDT is hitting the Hood really hard but it is really just a light tap. The SoDak at the top of the photos is Joel Goodman's. He is tripling the Warspite hoping to help out his teammate. It didn't work. The hood sank with over 200 above. That's worth 323 words.





### 3<sup>rd</sup> Annual Brouhaha

#### -Continued-

When you get here you should help me fix it. Did you hear that so and so did this to their ship? I preemptively declared this weekend an axis victory. I softened my balsa with smurf blood this weekend and so forth. By the time battle started on Saturday it was evident that it would be a great weekend for battling. Lots of good captains, friends and for the first time in the three year history of this battle, perfect weather. Bob and Tyler did declare that it was a bit warm for their liking with highs in the 80's and no wind. Oh, and let's not forget the seven declared sinks? Jeff was having radio problems after he converted his older 75MHz radio to 2.4GHz. As a result Jeff's Mutsu declared sunk three times, twice in one battle. Jeff's Fuso on loan to Brandon declared sunk two times, Brian L once and Lou in Bob's NC once. By all accounts this was the most number of declared sinks over the course of seven battles in anyone's recent memory.

#### **Saturday #1: I Declare this Battle an Axis Victory**

On Saturday morning by the time everyone was ready for

an Axis verses Allied throw down the dense fog that had settled in overnight had lifted and instead anticipation filled the air for the first salvos after a long and dormant winter. The battle started very predictably with all of the ships in the channel stern to stern, almost as predictable as it is for Jeff to show up at the door of you hotel room at 10 p.m. waearing only his underwear. The Japanese heavy Axis fleet consisting of 2 Nagatos, 4 Kongos and 1 Fuso got off to a good start. Rob Stalnacker's NC sank early when he forgot to turn on his pump; it doesn't take much damage when you aren't putting out any water. Bob and John S double teamed the Invincible until she could

take no more. Soon after John's brand new Hiei tipped over and sank due to problems with heavy superstructure that would plague his battling all weekend until he later switched back to his tried and true Westfallen. In his own word the Hiei turns like a brick and can't fight its way out of a brown paper bag. It sounds like a refit is in order. Awhile later Randy's Frog cruiser had main battery power issues and was sidemounted to an early grave by Jeff. Jeff was also able to hammer some belows into Tim Becket's NC which proved to be just enough to slowly overwhelm her pump.



**West Virginia going down!**

### 3<sup>rd</sup> Annual Brouhaha -Continued-

This was the first battle with his new LiFe batteries and his ballast was a little off so he was a bit easier to sink than normal until he moved his pump outlet on Saturday evening which seemed to solve the problem. As Tim was sinking he spun down by the port bow leaving the stern in the air long enough to get rid of some triples into Rick King's Deutschland as he drove past. Rick would later recall, 'the battling was good today, I even got shot by a sinking ship'. Also, somewhere out of camera frame and out of my memory, Brandon's Fuso and Doug's We Vee sank. The sinkers patched and were allowed to come back in. During the second sortie Jeff and Tyler thought it would be a good idea to once again chase Tim until he sank. Jeff did most of the heavy lifting but the result was the same; Tim was sunk again. Although Rob decided to try the sortie with his pump on this time his vessel was overwhelmed by the incoming water due to holes from Axis bbs. Many people contributed but as he sank Johnny 'Lurch' Adams was making hay much to the delight and cheers of the

onlookers. Since he was closest to the ship sunk he gets credit for sinking him. That's how it works. No matter who put the most holes in the ship, the one that is the closest when the sink picture is snapped gets credit for the kill. Also in the sortie Palmer's WV, Mike M's Erin and DW's VDT sank. Axis won by more than 12,000 pts

#### Saturday - 1

Axis	A	O	B
Tyler Heland – Nagato	26	3	19
Jeff Lide – Mutsu	50	5	27
Lurch Adams – Baden	10	5	15
Brandon Smith – Fuso	46	10	8 Sink
John Stangel – Hiei	18	6	21 Sink
Dirty Dave – Kongo	18	13	42
Gerald Roberts – Hiei	82	6	11
Bill Byrnes – Vibrus Unitis	12	7	10
DW Fluegel – VDT	27	8	20 Sink
Rick King – Deutschland	13	2	3
Allies	A	O	B
Tim Becket – NC	36	12	48 Sink x2
Robert Stalnacker – NC	21	1	14 Sink x2
Steve Reynolds – Valliant	52	5	13
Brian Lamb – Iron Duke	56	11	12
Tom Palmer – We Vee	67	25	40 Sink
Doug Hunt – We Vee	67	25	40 Sink
Don Cole – Iron Duke	65	9	22
Ron Hunt – I Boat	46	15	56 Sink
Mike Magnus – Erin	17	8	24 Sink x2
Rick Whitsal – SLC	3	2	3
Randy Smurfy – Cruiser	11	4	10 Sink

#### Saturday #2: Close but no De-sheeter

Since the first battle was not very close Flag and No-Flag fleets were drawn up by the

elected admirals for the weekend: Steve Reynolds and Paul Fluegel. Battle started with Tim's NC coming in late. Tyler's strategy was to stay away from Jeff until his wingman made it into battle. Jeff's strategy was to chase Tyler for the first five minutes of the battle. Jeff did eventually get bored and went to sink some other ships but as

he was doing so he began to have transmitter problems that would never really be resolved all weekend. He lost control and backed all the way across the pond and into the far bank. Right as Tyler pulled his Nagato up for some free-bees Jeff declared sunk. Later Tim pushed Bob into the shore and the Kongo lost some teeth on the drive gear. As Bob was grinding up his drive system trying to get off of the shore Tim sup and shot seven to ten salvos into Bob's

bow. He felt bad about making Bob grind up his gear so he only have him a few holes before leaving with ammo left in the magazine. In retrospect



### 3<sup>rd</sup> Annual Brouhaha -Continued-

Tim said that at Nats he would have de-sheeted the Kongo's bow with his triples. Other sinks were Rob's NC, Johnny's Baden and John's Hiei. For future reference, if you ever find yourself behind the video camera recording the action, never shut the camera off, ever, until the end of the sortie when they say, "pull 'em off". Don't worry, we will charge the camera in between battles and we will edit out stuff if nothing is going on. Sinkers patched for the second for the second sortie. The second sortie is a blur and the video is zoomed in way too tight; although it has some good action it is difficult to tell what happened as a whole so you will receive a skewed report of the sortie. Tim and Tyler were working together and picking one target at a time. Brandon's Fuso was first. For a few instances they were able to corral the defenseless bow of the Fuso and stern gun it. When that became tiresome they went in for some side-mounts and eventually put him down. Later they went for the Erin but were unable to do too much damage. Ron Hunt's

Invincible, Gerald's Hiei, Wade's Bismarck, Bill B's VU, Rick's Deutschland also sank. No-Flag fleet won by only 400 points (21,180 to 20,780). We probably should have left the fleets the same.

#### Saturday - 2

Flag	A	O	B
Robert Stalnacker – NC	12	5	15 Sink
Jeff Lide – Mutsu	27	7	17 Sink
Brian Lamb – Iron Duke	34	5	8
Brandon Smith – Fuso	40	14	21 Sink
Ron Hunt – I Boat	80	18	39 Sink
Mike Magnus – Erin	54	6	24
Bob Hoernemann – Kongo	71	4	22
Dirty Dave – Kongo	65	9	9
Gerald Roberts – Hiei	22	7	11 Sink
DW Fluegel – VDT	13	5	8
Rick Whitsal – SLC	8	0	0
Paul Fluegel – PE	2	0	0
No Flag	A	O	B
Tim Becket – NC	27	5	25
Tyler Heland – Nagato	50	11	26
Wade Koehn – Bismarck	5	5	5 Sink
Steve Reynolds – Valliant	36	2	25
Tom Palmer – We Vee	108	17	37
Lurch Adams – Baden	10	5	15 Sink
Lou Mezarouis – Westfalen	6	4	6
John Stangel – Hiei	20	2	12 Sink 2x
Bill Byrnes – Vibrus Unitis	15	9	42 Sink
Randy Smurfy – Cruiser	1	1	2
Rick King – Deutschland	13	2	3

#### Saturday #3: When the Sun is Shining, You Make Hay

Tim was doing a great job as CD and keeping us on track for the third battle of the day. You know what they say, "When the sun is shining, you make

hay." Fleets were once again reconstructed into different Flag and No-flag fleets. I have no idea what happened in the first sortie. Only Tim Becket's NC sank. I think he lost a drive gear and

was not moving very well making him cannon fodder for the flag fleet. He patched and returned to battle. Second sortie saw the early sinking of both Steve's Valliant with an impressive 65-10-57 and Gerald's Hiei, which if I remember correctly they did to each other. Later the Flag fleet sank Doug's We Vee with 107 aboves. He was shot up in a five verses one, mostly by Johnny 'Lurch' Adams and Brian Lamb but Bob, Ronny and Mike M. also threw a few his way. Later in the battle the numbers were not in favor of

the No-Flag fleet and every time Tim and Tyler tried to get in to shoot at Bob's Kongo they had several ships keeping them honest. Eventually he did sink though. Jeff was once again having radio

### 3<sup>rd</sup> Annual Brouhaha

#### -Continued-

problems and came in very late to battle with his guns fully loaded while Tim and Tyler only had a few rounds left. They decided to play any way since it was the last battle of the day. Jeff was able to get several nice passes in with his starboard guns but when they ran out Tyler stayed on that side of the ship for the first two minutes of his 'five'. Eventually Jeff caught up to him with port guns and was able to score numerous hits but it wasn't enough to finish Tyler off. As odd as it sounds this was Tyler's most

memorable few minutes of battle at the Brouhaha because he was able to drive his ship hard defensively and see what type of damage it could take with relatively fresh sheeting. The damage Tyler absorbed was 51-13-60 without sinking. Ships that did sink were Brandon's Fuso and John S's Westfalen. The Flag fleet won by 8,175 (22,000 to 13,825).

#### Sunday #1: The Dumbest Battle Ever

Someone thought it would be a good idea to do a Japanese verses the world battle. Doing so would result in very unbalanced teams, six verses

#### Saturday - 3

Flag	A	O	B
Jeff Lide – Mutsu	17	2	5
Brian Lamb – Iron Duke	68	12	21
Lurch Adams – Baden	16	1	22
Brandon Smith – Fuso	71	4	18 Sink
Ron Hunt – I Boat	54	9	17
Mike Magnus – Erin	28	0	0
Bob Hoernemann – Kongo	65	0	34 Sink
Gerald Roberts – Hiei	40	5	10 Sink
Rick Whitsal – SLC	6	0	0

No Flag	A	O	B
Tim Becket – NC	38	13	51 Sink
Tyler Heland – Nagato	51	13	60
Steve Reynolds – Valliant	65	10	57 Sink
Tom Palmer – We Vee	90	5	19
Doug Hunt – We Vee	107	4	26 Sink
John Stangel – Westfalen	21	11	41 Sink
Bill Byrnes – Vibrus Unitis	15	9	42 Sink
Randy Smurfy – Cruiser	7	0	2
Rick King – Deutschland	1	0	0

sixteen so it was decided that the Japanese fleet would include Randy's CL and Steve R's Valiant. Randy and the Japanese, kind of like that song *Benny and the Jets*, and Steve versus the world. Most people did not object but Bob was of the opinion that it would be the dumbest battle ever. We proceeded anyways; shows you much swing Bob really has in the hobby. Before the battle Jeff had brewed up a plan. We would all go shoot our ammo off really fast and then declare sunk with little damage to ourselves, reload

for the second sortie and do it again. This was funny at the time but it turned out to be even funnier as the weekend progressed and multiple captains, including Jeff, would end up declaring sunk after losing control. Jeff's second and real plan was to surprise everyone and all pack into the channel sidemounting people into oblivion since the whole fleet only carried eight stern guns but had twenty sidemounts. As we all converged on the

channel someone noted that if it were up to Jeff then Wad wouldn't have dug a pond but instead would have made a small channel or hot tub sized hole to battle in. It made for a lot of close action and good video. The first sortie saw the sinking of DW's VDT, John's Westfalen, Bill's VU, Dirty's Kongo, Gerald's Hiei and the declared sinking of Brian Lamb's Iron Duke when he became beached deep inside the channel in the middle of the Japanese fleet. Brian decided he would rather not re-sheet his ship after that

### 3<sup>rd</sup> Annual Brouhaha

#### -Continued-

sortie. Brandon's Fuso also declared sunk when he again had transmitter issues. Second sortie sinks included Rob's NC, Johnny's Baden and Jeff's Mutsu when he decided to break for open water and caught about 150 sterns from Tim and a bunch of holes from other people. Brandon's Fuso had transmitter issues in the second sortie and he declared sunk.

Surprisingly the Randy and the Japs fleet won by almost 5,000 points (27,405 to 22,470). The Japanese forced six sinks and one declared sink while sustaining four sinks and two declared sinks. When trying to reconcile the reason for the victory we plugged in the formula Bob uses to find shooting accuracy statistics for his 'NATS By Numbers' articles. It turns out that 'The World' fleet shot 19.5% while the Japanese shot a remarkable 40.1%. At NATS the week long average has been hanging steady near 15% for several years. As a fleet 'The World' made 397-68-184 holes and the Japanese made 378-85-282 scoring nearly 100 more belows than their opponents. Looke out for those stern

sidemounts! The Japanese while fewer in numbers fielded twelve stern sidemounts that battle while 'The World' only had nine.

regained control and was allowed to come back in. Then he lost control again, then regained control and came back in. Some

interesting exchanges occurred when the fleets finally mixed it up a little and Mike's Erin and Brandon's Fuso tore into each other. Meanwhile Jeff and Tyler chased Tim and later Steve. Gerald went out of control but Bob and Tim didn't have enough bbs left to finish him off. Flag nation lost Mike's Erin in the first sortie. No-Flag nation declared sunk the Mutsu and Rob's NC which was being captained by Lou. Sinkers patched and came back in. Lou again lost control of

#### Sunday - 1

The World	A	O	B
Tim Becket – NC	37	8	34
Robert Stalnacker – NC	49	2	23 Sink
Brian Lamb – Iron Duke	19	5	28 Sink
Tom Palmer – We Vee	57	10	17
Doug Hunt – We Vee	29	1	11
Don Cole – Iron Duke	45	7	23
Lurch Adams – Baden	13	2	12 Sink
Ron Hunt – I Boat	14	4	1
Mike Magnus – Erin	40	16	32
Bill Byrnes – Vibrus Unitis	30	9	21 Sink
DW Fluegel – VDT	21	5	37 Sink
John Stangel – Westfalen	16	16	41 Sink x2
Rick Whitsal – SLC	6	0	2
Rick King – Deutschland	2	0	0

#### Randy, Steve and the Japanese

	A	O	B
Tyler Heland – Nagato	49	5	23
Jeff Lide – Mutsu	122	19	40 Sink
Steve Reynolds – Valliant	64	8	22
Brandon Smith – Fuso	32	6	13 Sink x2
Bob Hoernemann – Kongo	54	3	33
Dirty Dave – Kongo	33	13	25 Sink x2
Gerald Roberts – Hiei	32	12	23 Sink
Randy Smurfy – Cruiser	11	2	5

#### Sunday #2: Is Jeff in or Out?

Fleets were again divided into Flag and No-Flag fleets. The two fleets lined up stern to stern in the channel as usual. Early in the battle Jeff was losing control of his ship, not his mind, well maybe that too, and declared sunk. He later

Rob's NC just as battle was called and had to pull it, not wanting to get a ship that wasn't his trashed. Tyler found Tom's We Vee stuck behind his sterns for what seemed like an eternity. As the dual stern guns were emptied Paul said, "Boy, he's just leaving that there for you.



### 3<sup>rd</sup> Annual Brouhaha

#### -Continued-

How does that make you feel Tyler?” Tyler responded by saying, “I was kind of trying to save them but then I was like ... well maybe not.” Gerald sank with lots of help from Bob. Jeff again lost control and declared sunk. He later gained control and came back in. No one could figure out if Jeff was in the battle or not. Brandon’s Fuso was badly shot up from the first sortie and did sink in the second. Steve’s Valliant went down. He said that Gerald and him exchanged sidemounts and that did most of the damage. Jeff and Tyler were opportunistic enough to find him pumping hard and removed all doubt. They next moved on to Brian’s Iron Duke and put her down. Randy’s cruiser and John’s Westfalen also fell. Flag fleet won by 1,995 points (20,230 to 18,275).

#### Sunday #3: The Little I-Boat that Could

Once again a fast paced day let us get in a third battle. Tim and Jeff were sick of shooting each other up so they were put on the same fleet. Early on as people were jostling for position Johnny, I mean Lurch, caught Bob’s Kongo by

#### Sunday - 2

Flag	A	O	B
Tim Becket – NC	27	7	20
Steve Reynolds – Valliant	72	9	30 Sink
Brian Lamb – Iron Duke	26	9	7 Sink
Tom Palmer – We Vee	90	4	31
Don Cole – Iron Duke	40	6	15
Mike Magnus – Erin	30	7	27 Sink x2
Bob Hoernemann – Kongo	63	6	21
Dirty Dave – Kongo	36	2	5
DW Fluegel – VDT	11	3	18
Randy Smurfy – Cruiser	5	0	5 Sink
No Flag	A	O	B
Lou Mezarouis – NC	5	0	0 Sink
Tyler Heland – Nagato	47	5	7
Jeff Lide – Mutsu	47	5	7 Sink x2
Doug Hunt – We Vee	64	6	9
Brandon Smith – Fuso	7	3	16 Sink
Ron Hunt – I Boat	45	4	24
Gerald Roberts – Hiei	46	11	23 Sink
Bill Byrnes – Vibrus Unitis	15	3	6
John Stangel – Westfalen	20	7	25 Sink
Rick Whitsal – SLC	9	1	5
Rick King – Deutschland	0	0	0

surprise and was able to stick a bunch of haymaker in his starboard side. He blew out a big chunk of balsa or two just below the casemates at the

waterline. As he pulled away the biggest one could be seen from shore. When his pump lit off Bob knew it was just a matter of time. In a remarkable turn of events Adams was ble to ‘youtube’ someone instead of the other way around. A few minutes and bbs later and Bob sank with holes that were low in quantity but high in quality. Meanwhile John’s Westfalen and Ronnie’s Invincible tangled in the corner and the Westfalen got the wrong end of the barrel. The sortie ended with Johnny, Tim and Doug trying to prop wash the Erin under. It didn’t work. Mike didn’t have enough damage and he also builds



Deutschland looking proud

### 3<sup>rd</sup> Annual Brouhaha -Continued-

great deck seals. Sinkers patched. Early in the second sortie Gerald went dead in the water next to the water fall. Bob was first on the scene with some sidemounts. Tyler was right behind him with some stern guns. A few team mates showed up to ward off the two Japanese battleships. Rick W's Salt Lake City was an annoyance for 100 rounds of stern guns. As he was getting low on ammo he said, "There's only so long I can do this Gerald ... and that's it" as he ran out three shots later. Gerald made it off of five but right next to him Brian L's Iron Duke was getting caught up on shore next to Jeff's Mutsu. The two exchanged pleasantries and the Mutsu sank. At the same moment Doug's We Vee sank due to lots of attention and the 156-10-45 pounding that resulted. The rest of the sortie was spent working on Tim's NC. He was having problems with a sticky throttle switch and was sunk. Next was Ronnie's Invincible. Though many ships were still on the water to Hunt him down, pun intended, the little I-Boat that could made it off of the water. Flag

#### Sunday - 3

Flag	A	O	B
Tyler Heland – Nagato	58	6	18
Steve Reynolds – Valliant	51	15	13
Brian Lamb – Iron Duke	85	5	17
Tom Palmer – We Vee	42	2	10
Don Cole – Iron Duke	51	11	32
Mike Magnus – Erin	35	4	3
Bob Hoernemann – Kongo	20	1	12 Sink
DW Fluegel – VDT			
John Stangel – Westfalen	24	6	27 Sink
Randy Smurfy – Cruiser	2	1	0
Wade Koehn - Lutzow			

No Flag	A	O	B
Tim Becket – NC	57	13	52 Sink
Jeff Lide – Mutsu	78	16	39 Sink
Doug Hunt – We Vee	156	10	45 Sink
Lurch Adams – Baden	15	1	9 Sink
Ron Hunt – I Boat	47	6	21
Gerald Roberts – Hiei	69	8	20 Sink
Rick Whitsal – SLC	2	0	0
Rick King – Deutschland	4	0	0

fleet won by 6,975 points (20,130 to 13,155).

#### Monday #1: Last Call

Many of the guys and their ships had had enough over the course of the six prior battles. A hardy few showed up on Monday to get it none last battle. Fleets were divided up into Flag: Tom – We Vee, Mike – Iron Duke (Don's), Bob – Kirishima, Brandon – Bike and No-Flag: Tyler – Nagato, Gerald – Hiei, Rick Scheer – Salt Lake City, Randy – Frog. The Flags concentrated on Gerald's Hiei and put him down. The rest of

the sortie was spent with Tyler bouncing between the remaining flag ships with the cruisers finishing off their ammo opportunistically. Gerald was not able to return for the second sortie so we flipped Bob to the No-Flag fleet and Randy to the Flag fleet. Tom ran out of bbs first and went on 'five' while Bob and Tyler worked on Mike. Bob was a little too eager to trade sidemounts and was sunk. At approximately the

same time Gerald's Hiei was able to make it back out onto the water. Gerald and Tyler chased the Iron Duke for the rest of the sortie but were unable to do much damage. This battle was not scored. Time for fun in the sun was over and the time to depart was now upon us. Overall it was a great weekend for battling. The weather was flawless. The level of skill of the battlers present averaged very high which made for a competitive weekend on the water when the ships were working right and people were



### 3<sup>rd</sup> Annual Brouhaha

#### -Continued-

not declaring sunk. The combined hit percentage was an amazing 24.9% for the whole weekend compared to 15% for almost every NATS for the past several years. We had two great Cajun meals at Zydeco's and drive through daiquiris. Wade was nice enough to have some awards made up.

Kaiser Cup: Paul Fluegel,  
Best of Class 3: Rick Whitsell  
Best of Class 4: Bob Hoernemann  
Best of Class 5: Steve Reynolds  
Best of Class 6: Tyler Helland

You should come next year!

Writers note: This is my account of the weekend's events. Names and details have been forgotten. I apologize if I talk about myself and my wingman a lot; that's what I remember best if the video can't help fill in the blanks. If you want your name dropped more write an article yourself, be my wingman or attack my ship more.



Bernoulli's principle applies to NC's also



This may hurt a little

### By Leaps and Bounds ...

#### -Continued-

with ten year old technology!  
In with something more powerful and reliable!  
I'm not the only person that wants these things. Nearly every captain in our hobby or sport wants an advantage. Be it a performance boost or

simply a more reliable ship that doesn't break down at the worst possible moment during a battle.

There are guys out there experimenting right now with new ideas and new technology.

And guess what? They are willing to share with everyone



else too!

## Batteries

So here is what I hope to do: if possible I will try to write something for each TF144 about the latest trends, experiments and hopefully successes in model warship technology.

Starting now...

The core of any warship is the battery. It is what makes it move, pump and even shoot. Without a battery a ship is a floating target waiting to sink. Appropriately enough we will cover battery technology in the first installment. There are three prevalent battery chemistries out there: lead-acid, nicad/nickel metal hydride and lithium. Each has advantages and disadvantages. The oldest type of battery is the lead-acid type. It has been around since 1860 after being invented by a Frenchman. In gratitude, all other ships must allow French ships five seconds of unrestricted side-mounting before returning fire. Variations have cropped up over the years including sealed, gel and glass-mat lead acid cells. The most commonly used lead-acid battery in our hobby is the sealed lead-acid or SLA type. SLAs are robust, tolerant to

abuse and low in cost; ideal for the environment we subject them to. The downsides to SLAs are the weight, shorter effective life cycles and a steady drop in voltage as the battery discharges. While SLAs can physically last a long time as they age the voltage under load degrades to the point of being ineffective for *competitive* battling. The next oldest battery chemistry is the nickel cadmium, NiCad, and nickel metal hydride, NiMH. Although NiCad cells were invented in 1899 they didn't really gain popularity and weren't mass produced until the 1960's. NiCads feature high discharge rates up to ten times the battery's capacity, holds a constant voltage under load until nearly exhausted and tolerant of quick charging. NiMH cells do not have the high discharge rates of NiCads but make up for it with much higher capacities. The downside to NiCad and NiMH cells is shorter life cycles; they are only good for 500 charge/discharge cycles. NiCad and NiMH also cost more than SLAs, are less tolerant of abuses such as overcharging and are susceptible to a 'memory'

effect that can reduce battery capacity.

That brings us to the newest battery type to enter our hobby: the lithium cells. Introduced in the 1970's, rechargeable lithium cells were expensive and difficult to manufacture. Within the last decade different lithium chemistries were discovered to make the cells safer and maximize the electrical properties of the lithium element. Today's typical lithium chemistry types are lithium-ion, lithium polymer, LiPo, and lithium iron phosphate, LiFePo4 or LiFe. The LiPo and LiFe are best suited to the model hobbyist. LiPo and LiFe cells feature four times more energy per ounce than an SLA battery and can handle discharge rates up to sixty-five times the battery capacity. In addition LiPo and LiFe cells have the NiCad/NiMH's ability to hold a strong constant voltage under load but in contrast with the NiCad/NiMH they have a very long life, 1,000 to 3,000 charge/discharge cycles, and feature a higher voltage per cell than SLAs and NiZCad/NiMH. Sounds like the perfect battery right? Unfortunately the downsides to lithium cells are higher costs, moderately



## By Leaps and Bounds ...

### -Continued-

slow recharge times and little tolerance for incorrect charging practices.

Out of all of the disadvantages the low tolerance for incorrectly charging is the most dangerous. LiPo cells are well known for being temperamental when charging and can explode or catch fire if overcharged or shorted.

Luckily today's chargers have built in safeguards that have made LiPo useable for model airplanes. But for combat models which take deliberately inflicted abuse perhaps the LiPo isn't the right choice.

Enter the LiFe batteries. LiFe cell chemistry keeps all of the LiPo advantages while eliminating hazards such as catching on fire. They are robust and if overcharged or shorted they simply melt down without a fire. You may remember from high school chemistry that pure lithium reacts with water. The mixed element chemistries of today's lithium cells are water safe.

Dave Rainier, Don Cole, Ronny Hunt, myself and a few others have been using LiFe batteries this past year. So far the results are beyond expectations. The LiFe cells

are lighter, have more capacity and most desirably hold a strong voltage under high current loads.

Dave and Don are using two 20 amp hour (Ah) cells in their Iron Dukes. Each cell weighs approximately 16oz holds a 3.2v charge. Two cells in series yield 6.4v and 20Ah with a total battery weight of 2lbs. A comparable SLA is the 12Ah 6v battery that weighs 4.5lbs. That is half the weight and 40% more battery capacity than the SLA. The cells are difficult to find individually but can be purchased as a 12v battery at:

<http://elitepowersolutions.com>

The battery part number is GBS-LFP20AHA and has



**20Ah 3.2v LiFe cell**

four cells inside that can easily be separated into individual cells. A good tutorial can be found at: <http://www.ebikeforum.com> The cost is about \$30 per cell. A two cell 6.4v 20Ah LiFe battery will end up costing \$60. In contrast a 6v 12Ah SLA costs about \$15. It is important to remember that the LiFe battery will last over four times longer than a comparable SLA so in the long run the LiFe cost is very similar to the SLA cost.

For smaller ships such as cruiser and pre-dreadnaughts I've found the Headway 10Ah and 16Ah cylindrical cells work nicely. At 11.6oz per cell a two cell 6.4v 10Ah battery weighs 1.5lbs. A comparable SLA is the 6v 7Ah battery which weighs 3lbs. A similar 'D' cell 6v 10Ah NiMH battery weighs 2.5lbs. The Headway battery is half the weight with 20% more capacity than the SLA and 1lb less than the NiMH pack. The Headways can be found at:

<http://currentevtech.com>

The battery part numbers are 38120S and 40160S.

For large ships the 40Ah LiFe cells are a good choice. Each cell weighs 3.3lbs. A two cell



20Ah 3.2v LiFe cell

## By Leaps and Bounds ... -Continued-

6.4v 40Ah LiFe battery weight about 6.7lbs. A comparable 6v 36Ah SLA weighs around 13lbs. The LiFe battery is half the weight with 10% more capacity. The 40Ah LiFe cells can be found at:

<http://lithiumstorage.com>

Part number SE40AHA

<http://currentevtech.com>

Part number SE-40

LiFe cells **cannot** be charged with typical SLA or NiCad/NiMH chargers. To do so would invite disaster. Dave Rainier found a plug and forget type lithium charger for a modest price. They fast charge a single cell at a time and do not have a display to check charging data. They are safe and easy to use. Dave and Don typically plug a charger into each cell over lunch to top off the pack for the afternoon battle. The charger is available at:

<http://www.batterspace.com>

The part number is CH-

LFP3.2V6A. When using this plug-n-play charger plug the cell into the charger first before plugging the charger into the electrical outlet else the charger may not fully charge the battery. For those who desire multiple cell charging capabilities there are other chargers available.

Turnigy, a Chinese company with a good reputation here in the USA, makes the Accucel series of chargers that can charge any of today's battery types and cell counts. Two of their popular chargers can be found at:

<http://hobbyking.com>

Product ID: ACC6 and Accucel8150

The key to any charger is to make sure it will charge LiFe batteries. If the charger specs do not specifically state LiFe

charging do not buy it!

These are only a few of the many sizes and shapes of LiFe cells available. Some researching on the internet will yield more varieties of cells and more suppliers. As new as LiFe technology is it may be

some time before the market settles on pricing and sizes. In the meantime explore and experiment! Isn't that what drives progress?

With that I'll bring an end to the first rather long installment of By Leaps and Bounds. We covered a lot of information. If you have any questions or just want to chat please feel free to send an e-mail to [pbpow@hotmail.com](mailto:pbpow@hotmail.com) or use the MWC e-mail lists.



Two 3.2v 40Ah LiFe cells next to a 6v 12Ah SLA





## Control Freak

**By Bob Hoernemann**

This photo was taken at NATS 2008 during Monday's campaign battle. Jeff's Japanese airplane tender is just finishing its forward run and pulling into the Axis base. John Bruder's sunken freighter has enough air trapped in its bow to kind of stay afloat and is still driving towards shore. In the back ground floats the front half of Bob's French cruiser the Montcalm. Those facts by themselves are not that interesting; what's interesting and humorous

the developing events. Bob and a promising young rookie named Tyler were cruiser wingman for campaign. After shooting at targets and convoy ships they both called 'five' and went to the Allied port to reload. Bob gave Tyler his transmitter while he ran up the hill to get bbs. Bob got back down the hill and asked Tyler what happened to his ship. Tyler said, "It sank." It had no damage and the pump was on so Bob was curious how it sank. Tyler told him the sad story. Jeff's Fuso was

escorting the Airplane Tender which was coming into base. Jeff didn't know the cruises were on 'five' and harmless. He charged them to keep them off of the convoy ship. With Tyler holding two radios he was only able to back up one ship. He chose to back up his ship. Jeff then ran over the Montcalm, sinking it. This was the first sortie in the first battle for Bob's new cruiser. Just like the Bike in 2002 it was sunk by Jeff in campaign. The lesson here is to never give your transmitter to anyone already holding a transmitter during battle.





## **TASK FORCE 144**

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**“Building slow destroyers! One might as well breed slow race horses.”**

**- Sir Winston S. Churchill**