

# The Flightline

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Newsletter of the Propstoppers RC Club

AMA 1042

February 2001

## **Editorial - Overwhelmed By Good Stuff**

I suppose that its one of life's good news bad news stories to have kids living in distance parts, but you can put a good face on it if you try. Take my case for instance. My youngest daughter lives 2500 miles away. But she lives in Pasadena, California and I had to make an unexpected long-weekend trip this month. Good Lord is that a model airplane show and symposium I see, well I'll be!

Yep, the International Modeling Show or IMS, is held in Pasadena each January. Originally owned and run by Bill Northrop the show is now owned by "us" or the AMA. They did ask you before they laid out the Long Green, didn't they?

So I thought, so long as I have to be in Pasadena I suppose I should go, and while I am at it I should write up a description for my mates.

Well, I tried but the whole thing overwhelmed me. There is so much to it and so much going on and so much new stuff that I just felt like I was in a frenzied daze most of the time.

First you wait in line to purchase tickets then you rush around to make sure you see everything while keeping an eye on the clock so you don't miss the next lecture.

The IMS includes a trade show, a model static display area, a flea market, indoor flying and beginner construction clinic and a seminar. It is also the occasion that the AMA holds its business meetings with the various area VP's and committees.

The trade show includes the major manufactures displaying their product lines and highlighting their new offerings. There are the second tier specialty suppliers and a few odd ball booths such as the one selling "putt putt" boats, you know, the kind made of pressed tin that you power with a small candle and they "putt" "putt" along. I'll show you at the next meeting. You do know how they work, don't you?

Of course all of the vendors sell their stuff, usually at reduced rates with some "must have" show specials. You can always tell what they are as half the attendees are carrying them around. This year both Aerospace Composites and Superior Balsa were selling graphite tubes, two for a dollar. You were continually impaled on these things as you pushed through the crowds.

My friend Dan Kreigh was so busy selling IFOs and accessories at his booth that I made three laps before I could catch his eye.

Actually, one of the more interesting aspects of the show is that the specialty vendors, such as Dan, give you a chance to see the new cutting edge developments in the hobby up close and in detail. Of course indoor and park flyers were everywhere.

I particularly enjoyed the booths, which featured the various forms of RC Combat. One booth was dedicated to the 1/12 scale powered variety. It had a whole cloud of these models impressively hanging from above the booth, turned out in realistic scale markings. Several booths had the rugged non-scale combat models including some similar (but not as clever) as our Marty Bakalorz's drainpipe, yardstick and Coroplast design.

There was one vendor who had the scaled combat models used in slope combat, also well turned out in scale finish.

The specialty materials and tool suppliers naturally drew my attention and pulled on my "plastic". Aerospace Composites and Composites Structures Technology booths continue to increase the scope and quality of their offerings. I attended lectures by both of these companies, the first for vacuum bagging wings and the second for the construction of moulded parts. I just have to have one of those vacuum bagging setups.

There was one booth where a new foam wing supplier was demonstrating his unique approach. He has developed a computer controlled hot wire cutter. You tell him the dimensions and airfoils of your wing including the twist and provisions for spars, he programs the computer and the computer cuts your cores. The impressive thing is that the machine is calibrated to cut at a speed so the wire doesn't actually touch the foam. The result is a dead-strait wire and absolute precision and finish. Just as well that this is a service

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## Calendar of Events

**Club Meeting and Annual Club Auction**   
 Tuesday 6<sup>th</sup> February 2001  
 Marple Newtown Library, 7:00 p.m.  
 Supervisor's Board Room  
Note Time and Place Change

**SAE Technical Meeting Tuesday 13<sup>th</sup> February**  
 "Advanced Programs at Scaled Composites, Burt Rutan Reaches for Space"

**Project Engineers for Proteus and Roton Rocket Programs, briefing and videos.**  
 Dinner Program           \$26  
 Towne House Media  
 Call Dave Harding for details.

**Central Penn Flea Market 10<sup>th</sup> March**  
 Lebanon, PA  
 See flyer in March Newsletter.

**Regular Club Flying At Moore Field**  
 Every Saturday and Sunday weather permitting

Daily	10 am til Dusk
Saturday	10 am til Dusk
Sunday	12 p.m. till Dusk

## Propstoppers RC Club of Delaware County, Pennsylvania. Club Officers

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## The President's Message

**Mike Black**

Dear Fellow Propstoppers

Its time to venture far into the nether reaches of your basement and attic for that plane that hasn't seen the light of day for a while. Look for all of those discarded goodies, tag them and bring them to the auction.

You can sell items on the market table or auction them off in the absolute auction. Your cost is a mere 5%. You can move an item from market to auction at the end of the auction for an additional 5%.

In the past the club has benefited from generous individuals, who have donated items for the club to auction off. You may auction or market any airplanes, related gear, tools, parts, motors, engines, radios, etc. Last year we saw a few nice toolboxes, tools, flight boxes, etc. Don't be shy join in the fun. Make room for that new model you are working on. All of our workshops and storage areas are finite. If you are anything like me they are always too crowded.

Last weekend saw a few good flying days. Saturday, January 14 was absolutely gorgeous. Rusty, Dave, Ray, Marty, Mark (a prospective member) and his father all enjoyed a beautiful, warm afternoon.

I must warn everyone that by late that afternoon the dirt road was very smeary on top. I understand that Ray and Marty had a tough time getting up the hill. Please be careful in there.

No one seemed to have any problem flying in the newly designated fly zone. The runway is in great shape.

I was the lone flyer Sunday afternoon, unless someone arrived after 2 PM. It was a bit raw, but I managed to get in five nice flights.

Please make it a point to read Chris's letter. Hopefully, we will have some good field news by meeting night.

Well, I hope to get some building done over this miserable weather weekend. I hope all of you are in good construction spirits. I always look forward to those shiny new machines at show and tell although there will be no show and tell this month due to the auction. Please plan to bring them in March.

See you at the field.

**Mike** 



## January 2<sup>nd</sup> 2001 Meeting Minutes

### **Russell Neithammer.**

The meeting was called to order at 7:35 PM at Marple Library by Vice President **Dick Siewell**.

Membership Chairman **Ray Wopatek** read the roll call - there were 28 members and 3 guests present. The minutes of the December 2000 meeting were approved as published in the January 2001 newsletter, by the membership.

Treasurer **Al Gurewicz** gave the treasurer's report with income of \$827.00, expenses of \$430.40 and a new balance of \$2509.03 reported.

It was noted that, after the January meeting, membership dues will increase from \$55.00 to \$60.00. It was also noted that, after the February meeting, any unfilled membership slots will become open to those on the waiting list, based on the order in which new membership applications were received by the membership chairman, except that priority will be given to former members, if any.

### **Old Business**

**Ray Kiker** has the distinction of making the last flights at Dallet, on Friday, December 29, 2000. Due to the snow and wind, the planned closeout for December 30 did not occur.

Thanks to the Chester RC Club for inviting the Propstoppers to attend their New Year's Day Freeze Fly.

New field selection chairman **Chris Catania** had the following news to report:

Propstoppers board members visited the potential sites at the Sleighton School and the Delaware County prison.

The site offered by the Sleighton School is usable, but will require removal of a small pump house and leveling of the runway area. It is also bordered by trees the are sure to snag a few planes. Beyond the tree line is a cornfield, owned by the school and leased to a farmer. Chris will inquire with both the school and the farmer as to whether or not a portion of the cornfield can be used as a runway. This would be an ideal site, with a large overfly area and no nearby residences.

The prison site has several large fields, which would be suitable, but there are some nearby residences. Our request to use one of these fields has been sent to the Delaware county

council. As noted in previous minutes, the initial reaction is favorable, but no official reply has been received.

Changes at Moore Field: (as per last month's meeting minutes) In order to make flying easier at Moore, and to help prevent planes from overflying the residential areas, the runway has been re-oriented and widened. Even the larger planes will be able to fly there most of the time, except under very adverse wind conditions. Pilots who have not flown at Moore before should make their first flights there with help from someone (i.e., **Mike Black, Dick Seiwell, Jesse Davis, Al Tamburro or Al Gurewicz**) who are familiar with Moore field.

Hats, same style as before (orange and white) are available for purchase by the membership at \$6.00 each. See Al Gurewicz if interested.

Additional keys have been made for the lock at Moore Field. See **Ray Wopatek** if you need one. The lock has not been changed, so members who already have a key should continue to use the same key.

Send classified ads for sale items or items wanted, to newsletter editor **Dave Harding**, for free publication in the newsletter.

### **New Business**

The annual club auction will be held at the next meeting, on February 6. The meeting will start at 7:00 PM and will be kept short so as to permit the auction to start at 7:30 PM. **Al Tamburro** will again be the auctionmeister, and has advised the following:

- Items can either be auctioned or offered for sale at a pre-determined price.
- Separate tables will be set up for each category
- In either case, 5% of the sale price goes to the club treasury.
- Items which are initially put on the sale table can later be moved to the auction table, in which case and additional 5% (total of 10%) of the sale price will go to the club treasury.
- Donations of auction items are of course welcome. Please tag your items with you name.

Jim Foster has obtained the video of "Warbirds of WWII", which is available for members to borrow from the club library.

### **Break**

The 50-50 winner was **Phil Davis**, who generously donated his portion to the club treasury.

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## Show and Tell

**Rusty Neithammer** showed an aluminum tool case, which will be used as a transmitter case. These are available from Home Depot (\$20.00) and also possibly Walmart and Lowe's. Foam rubber for interior padding can be obtained from Jo-Ann Fabrics and also the "Foam Fair" in Secane (at the intersection of Oak Ave and Providence Road, behind the Giant supermarket, 3 Merion Terrace - 610 622 4665 - ask for Lee).

**Phil Davis** showed an article from "National Defense" magazine, which covered small RPVs using twin electric motors for flight power.

The meeting was adjourned by Vice President **Dick Siewell** at 8:15 PM.

**Rusty** 

*Editorial continued from page 1.*

company as I lust after that machine, techno junkie that I am.

As for the symposium, in addition to the construction sessions I attended on composites, I also went to a lecture on the history of electric flight given by Bob Boucher of Astroflight. This was really interesting as Bob is clearly one of the pioneers of electric development; I had not realized that much of his early work was fostered by the Department of Defense. Actually, the sponsors were Dr Foster, who went on to become Secretary of Defense for Bush the 1<sup>st</sup> and Kent Kresa who became President of Northrop, modelers both.

Bob and his brother built really large electric powered airplanes in the 70's. They had the capability to fly for hours and to altitudes of over 20,000 feet. The Astroflight motors you can still buy, like the one in Rusty's Lazy Bee powered most of these models. Of course the batteries were kind of special and the models were beautifully designed and constructed. Bob told the story of an electric powered adjunct to one of Paul McCready's manpowered airplanes. It seemed that when they built it then ran the calculations they needed an 80-pound pilot. One of the guys said, "My 12 year old son can do that" Well, he really had no experience flying airplanes but he persevered until a sudden decent from twelve feet altitude wadded up the airplane about the stricken kid. Although he wasn't really hurt they all kind of realized that he sure was at risk and when his mother found out that was the end of that!

I also attended a lecture by Bob Hunt, the new editor of Model Aviation. Bob gave an interesting talk on writing for a National magazine.

He explained that in the definition of his role and expectations that the AMA have for the magazine development they insist that he operate from his home near Allentown, PA rather than move to Muncie. It seems that the politics rolling around in Muncie provide hazards to the free development spirit they want to foster for AM. Bob has lots of ideas to take the magazine beyond the "house organ" it looks like at times; he knows that he has to break some eggs to make this omelet. Interestingly enough, when we talked after the meeting and I told him I was from the area he asked if I worked at Vertol because he won one of his early contests at the Vertol CL meet in 1967. I was the president of the club at the time and was pleased that he cherishes the rotor blade trophy he won as his favorite.

In the indoor flying area Tony Nacarelli of T&A models and the Black Sheep Squadron maintained a non-stop flight demonstration. Of course, these masters of the art wowed the crowd with their super light and super detailed rubber powered scale flyers but the astounding model was an indoor RC biplane doing touch and goes.

It wasn't the flight demonstration that was astonishing, although it was impressive, it was the flight gear. I quite literally had to put on my glasses to see the servos and pull-pull control wires when right up to the model. This gear is from the Defense Research Projects Agency's Micro Air Vehicle program that we heard about last year. Paul McCready's folks are continuing to develop this stuff in the name of saving our Nation. Way to go team.

In the model display area there was a large water tank where the boat modelers displayed their stuff. Most impressive were the submarines and the rowboats. The latter because they are so realistic as the oarsman rows and steers in a completely authentic manner, the former because it can be done! Apparently radio waves in our frequencies penetrate water down to a depth of twenty feet so control is possible with antennae buried in the models. The larger ones also launch torpedoes.

As an old street market vendor I just had to visit the flea market. Such "junque", although I did find a fist full of APC 7x3 props at 5 for \$3.

So, what did I buy, well I since I went to Pasadena to help my daughter to buy a house I was severely constrained by my "boss". But a few little goodies slipped through but wait till next year, I hear that the daughter needs help in fixing a new kitchen and what better time to be in Southern California than January. Perhaps I will start a new piggy bank.

So many models, so little time (and money)!

**Dave Harding** 

## **Flying Field Search News**

### **Chris Catania**

I finally met with Rick Schlossberg, the farmer at the Sleighton School. We took a look at the site, I told him what our deal with the school was. He said that he couldn't just give us the land because it's how he makes a living. I told him that we understood that and that maybe we could come to some sort of financial arrangement.

We discussed what we needed, the number of club members, flying days and hours, etc. Overall it was a really good meeting and Rick's parting words were, "I think we can work something out. I'll call you this week!"

This guy is all right. He Knows the Dallets, he knew about our old-field, etc. He did ask me what we were paying Dallet and I told him \$500.00. He asked about Insurance and I gave him the spiel.

I think we'll be in good shape here. The only problem I see, and I think I can rectify it, is in the length of the lease. I didn't push for multiple years and I should have...I'll work it out. I'll keep you posted.

Chris 



## **Aileron Efficiency**

When you look around at our models (excluding Scale), you will notice that practically all aircraft have strip ailerons, that is, full length from the tip to the center of the wing, with one central servo activating both ailerons via a wire torque rods.

Being a person who appreciates improving efficiency in our hobby, I decided to experiment with my Tucano trainer wing. With a span of around 1.7 meters, my strip ailerons did exhibit a measurable amount of flex from the center of the wing to the tip. I cut the aileron length by nearly one half, but kept the same width. I fixed the center portion of the ailerons to the trailing edge, and used filler where necessary to flair in before re-covering.

Of course, an additional servo must be used in this setup, and being a foam wing, I was able to lay the servos on their sides in a recess cut in the foam. A balsa platform was fitted between two wing ribs to enable each servo to be adhered into position using silicone after neutralizing the servo arms. Two short pushrods were used to connect each servo to its respective aileron horn. Don't forget to face both servos either outward or inward; otherwise you will finish up with a great set of flaps!

A conventional four-channel radio will require both servos to be connected through a Y connector. If your wing is foam, a neat recess groove can be formed for the leads by gently running the tip of a soldering iron along the foam, and under each riblet. If you have a multi-channel computer radio, you may connect each lead separately to the receiver. This will give you the added advantage of differential and/or flaperon positions, and exponential if required. (Refer to your RC manual for the correct setup procedure).

When completed, the difference in weight was negligible. Being only half-length ailerons, I initially set them up to give more throw than before. Now for the real test. Let's see how it performs in the air.

Immediately after lift off, it was obvious that I had far too much aileron throw. I quickly switched my rates down to 50% and still too much! It was interesting to note that following further adjustments on the ground, the final aileron throw was far less than that of the original strip aileron wing to obtain similar results.

The aircraft felt good. The elevator and rudder felt more responsive, particularly when banking. This would be due to the "clean" air over the tail area, which also produced minimal height loss on tight turns. Knife-edge performance was also noticeably improved.

I guess to summarize, I would have to say that the main impressions noted would be the general improvement in stability, and accuracy of all controls.

A great flying aircraft made even better. Try it, you will like it!

*Ray Dixon*

*From Tingalpa Model Aero Club, Australia.*

*<http://www.tmac.asn.au>*

## **Bill Ross's Story RC V-1's?**

Immediately following the publication of the January Flightlines I received a call from club member Bill Ross. He was quite animated and explained how my story of the V-1 brought back memories of his own WWII experiences. Bill explained that he served aboard LST's and during the invasion of Southern France the fleet was attacked by a radio controlled V-1 launched from a Heinkel. He said that the V-1 menaced them before being driven off by the flack and attacked his sister ship. The ship was hit adjacent to the mast completely destroying it. It burned for five days. It was still burning when his ship returned for a second landing.

Well this was certainly exciting but I hadn't heard anything about air launched radio controlled V-1s! It was a most interesting story and my curiosity was raised so I began some research. Over a two-day journey via the World Wide Web I was able to uncover the details of Bill's story and much more.

There is a tremendous amount of information on WWII on the WWW. It is in many forms including official histories, unofficial histories, weapon group histories, squadron or fleet histories, first person stories and even stories of individuals who made the ultimate sacrifice as told by their parents. There are not only the narratives but also pictures, movies and sounds only a search and click away. I stumbled onto a picture of a V-1 and when I double clicked on the picture the sound of the V-1 assaulted my ears. I sat transfixed listening for the engine cutoff so I could scramble under the table, just as I did over fifty years ago. It was real and horrible.

The rate at which you can acquire this information and the detail and color is overwhelming; I was reduced to tears more than once.

The 19-year Bill enlisted in the Navy in February 1943 and after his training he was assigned to LST's.

The LST or Landing Ship Tank, sometimes called Large Slow Target, was specially designed to transport and deploy troops, vehicles, and supplies. LSTs were designed during World War II to disembark military forces without the use of dock facilities or the various cranes and lifts necessary to unload merchant ships. They gave the Allies the ability to conduct amphibious invasions at any location on a foreign shore that had a gradually sloped beach. This ability permitted the Allies to assault poorly defended sectors, thereby achieving operational surprise and in some cases even tactical surprise.

The LST had a crew of 100 men and could

carry over 2000 tons of material or 20 Sheridan tanks. It could land them from offshore via LCVP's and LCT's that it carried on aft davits, over the beach while afloat using the Rhino Ferry device or by beaching and off-loading directly. In any case the mission was extremely hazardous.

The LST was built in large numbers all over America. Over 1000 were produced but it was such a utilitarian machine that they were not given names, just numbers. LST's were used in the landings in Sicily, and Italy before the primary assault of Europe in the Normandy and Southern France invasions.

Bill joined his ship LST 283 at the builder, American Bridge Company, in Pittsburgh and sailed down the Ohio and Mississippi rivers to New Orleans.



*LST 282 on the Mississippi. Note that the mast was not erected until they reached New Orleans*

Then, with its sister ship and only a Corvette escort for protection they sailed up the East Coast to New York. They loaded in New York then proceeded to Halifax Nova Scotia to form up with a convoy for England. The convoy took 33 days, most of it in fog. The LST could only cruise at about ten knots.

They arrived in Milford Haven in February 1944. To enter the harbor it was necessary to raise the anti torpedo nets. While they were there a German E Boat jumped the net, raced around the harbor then jumped out to sea again. Talk about fox among the chickens.

Bill told me that he was well familiar with the small towns and harbors of Southern England because that is where the LST's were based and trained before the Normandy landings. During one of these exercises, Operation Tiger, a practice assault was conducted on Slapton Sands, a place where I had vacationed as a kid.

Nine U.S. LST's were preparing to assault the beaches in secret. Nine German E-boats intercepted and crippled the convoy, sinking two LST's, severely damaging a third and killing more than 750 men. The incident was not publicized and the Germans never knew that they had come upon the convoy that was a prelude to D-Day. Bill was in port to

assist when the stricken survivors returned. Bills ship participated in the Normandy landings arriving at Utah beach at noon on the first day, 6<sup>th</sup> June 1944. He distinctly remembers the eerie sound of the Black Watch bagpiper marching the beach and piping the Scottish troops in the assault. Imagine how the German defenders felt listening to that sound. (I'll bet you could find it somewhere on the web if you tried).



*Sister ship LST 282 on Omaha Beach in Normandy*

LST 283 made continuous round trips between France and England over the next month, removing dead and wounded and returning more men and material. Subsequent landings were made on Omaha, June and Gold beaches.



*The Normandy Beachhead, LST's in a Row*

On 9<sup>th</sup> July their flotilla departed Normandy and sailed for Gibraltar and the Mediterranean.

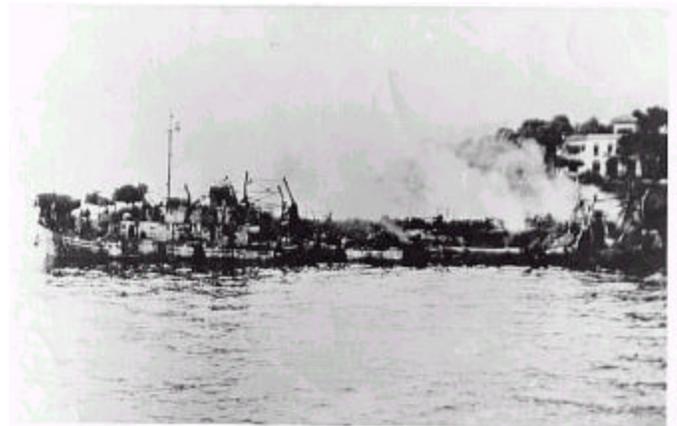
We all know the magnitude and sacrifice involved in these landings but perhaps we haven't realized that those sailors in the amphibious force continued to perform such landings for the duration of the war.

Bill Ross was in the English Channel in June but in July he was in North Africa then on to Italy to load and then to the invasion in Southern France on the 15<sup>th</sup> August 1944.



*LST 173 on the beach during the landing Southern France*

My search for Bill's story led me to the "Official USAAF History" web page among others and the official history is that there was little Axis threat from the air and what there was had been dealt with by the layered air defense. No corroboration of Bill's story there. Then I discovered it in a first person story about a sailor Thomas Aubut with a story just like Bill's except his LST, 282, was destroyed during the landings. Destroyed by a Dornier, which dropped a radio controlled bomb!



*LST 282 destroyed by an Hs 293A radio controlled glide bomb launched from a Dornier Do217, on the beach in Southern France.*

LST 282, the sister ship to Bill's LST 283, was loaded with 155mm Howitzers and ammunition when it was attacked while making a landing attempt ahead of Bills ship. The Dornier launched the bomb which first menaced the ships unloading on the beach then the flak drove it away whereupon it was guided to impact LST 282 adjacent to the ship's funnel. The explosion and subsequent fire destroyed the ship and its systems killing many men in the process. The ship ran aground where it burned for days.

The Thomas Aubut web page contains the transcript of the official secret Navy report of the incident. An excerpt describes the attack;

4. *The Executive Officer reported what appeared to be a single rocket fired at the plane from the beach. Upon examination with binoculars directly under a twin engine, twin rudder plane. The object was apparently motionless. The object began to move ahead of the plane and downward on the same course as the plane until its elevation was approximately 25 degrees. At this point it turned approximately 90 degrees to starboard and apparently headed for the LST 282. Bright red flame and white smoke were seen coming from the tail of the object, which resembled a miniature plane. The speed of the object was exceedingly fast. The Captain told the Gunnery Officer it was a radio controlled bomb and to open fire. The number one forty millimeter located on the bow opened fire. The bomb came in across the starboard side at an elevation of approximately fifty feet. It appeared to be about to cross the ship when suddenly it turned about 45 degrees to port and dove into the ship. An explosion followed immediately. Several guns in the forward battery had opened fire on the bomb and plane just an instant or so before the bomb dove. The bomb apparently hit a few feet forward of the superstructure, to the left of the centerline, penetrating the main deck and exploding below. All guns that could bear were firing, after the bomb hit, until the plane was well out of range.*

<Snip>

6. *All hands assisted in the evacuation of injured of both ship's company and army personnel. Boats standing by were the LST 282 LCVP numbers one and two, six LCVPs from the **LST 283**, at least one LCVP from the LST 50, several LCVPs from the LST 491, and one U.S. Navy tug, which remained well off. The ship was abandoned approximately fifteen minutes after the fire started. Ammunition in ready boxes and in gun tubes had already started to explode as had explosives and gasoline in the vehicles.*

Bill tells the story of the LCVP's from his ship picking up these survivors while under attack by German 88mm guns from shore.

The Germans had developed an effective anti-shipping weapon system by combining a development of the Dornier Do 17 into the Dornier Do 217 with two different guided bombs, one, Fritz X, purely a glider and the other the Henschel Hs 293 winged missile powered by a Walter rocket.

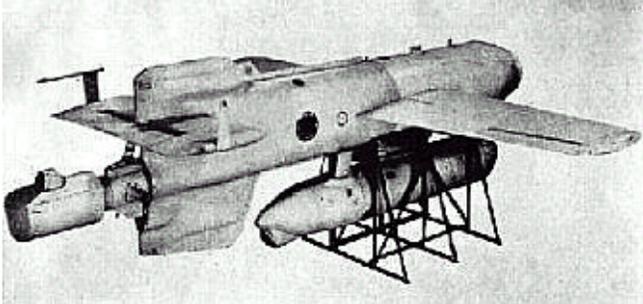
Early in 1943 Do 217s were training and perfecting guided bomb and missile attacks against naval targets. The first operational sorties of the Do 217 as a missile carrier came in August of 1943. A British sub was attacked with Henschel Hs 293A missiles when it was on the surface but it escaped harm. Two days later the British corvette, Egret, was sunk and a Canadian destroyer damaged by Do 217s launching Hs 293 missiles.

On Sept 9, 1943 two Fritz X guided bombs dropped from Do 217s sank the Italian battleship Roma, with the loss of 1,255 of her crew. Further attacks crippled the Italian battleship Italia. The British battleship Warspite, a British cruiser Uganda and the U.S. cruiser Savannah (CL 42) were sunk or damaged during the Anzio landings in January of '45 as was another British cruiser and a destroyer.

*Dornier Do217 with Hs 293A and Fritz X guided bombs*



In operation, the carrier aircraft generally carried two Hs-293As, one under each wing. Engine exhaust was piped into the bombs to keep the propellants warm. On release, the flare in the tail of the bomb and the booster rocket were ignited. The operator tracked the bomb by watching the tail flare, and used the joystick to keep it lined up on the target. Depending on glide angle, the bomb could reach terminal velocities of 270 to 560 MPH. With release from an altitude of 3,000 feet, the Hs-293A could glide as far as 7 miles.



*Heinschel Hs 293A rocket boosted guided bomb*

Both missiles were guided by the Kehl - Strassburg FuG 203/230 guidance system. In this picture, the bombardier is using the joystick of the Kehl IV guidance system.



*RC WWII style, Dornier Do 217 control station.*

However, the days of the Luftwaffe's success with the glide bombs were short-lived. Allied air superiority was steadily growing, and when the Allies landed at Anzio in January 1944, German bombers encountered fierce fighter opposition and suffered badly, though they did sink the cruiser HMS Spartan.

The Allies also introduced electronic countermeasures against the Kehl-Strassburg control system. One system was a broadband jamming transmitter that simply disrupted the control transmission with radio noise. Another system was more subtle, "spoofing" the bomb by sending false control signals to the Strassburg controller that slammed the weapon's control surfaces to an extreme

position, causing it to stall and tumble, or drop in a spiral.

Of course, the Germans responded with the development of wire guidance, which is hard to jam!

Bill's memory of the Hs 293 attack was vivid. The bright red tail flare and the deliberate flight path and final attack were well controlled for an accurate impact on the 282.

What happened to the brave men of the LST's once Fortress Europe was breached? Well, there was another war going on in the Pacific and many of them sailed to those waters and continued their break-and-enter mission for the duration.

Bill sailed back to the US in another convoy, this one taking 30 days in the hazardous Atlantic to Norfolk then New York when after 30 days leave he was reassigned to the new LSMR rocket launching assault craft. He remained States side with this ship until the cessation of hostilities and was demobilized in February of 1946. Quite a journey in three years.

The ubiquitous LST sailed on for another war and another mission in the Inchon landings in Korea but that was their last hurrah that is until this last few months. As I was doing my research I found a web page describing a journey of an LST across the Atlantic. Something about the page was different and then I realized that this was a live web page describing a journey that was taking place as I wrote. By now you have all read about the last remaining sea worthy LST 325 the Greek Navy gave to the US LST Association. Twenty WWII veterans with an average age of seventy-two were sailing this ship to its birthplace in Alabama. So perhaps the story won't end here and if you see Don at the field this spring, when he returns from Arizona ask him about it, I bet it is worth your time.

But you know what, V-1's were carried under Heinkels and there may not have been radio guided V-1's but there were *manned* V-1's.....but that is another story.

### **Dave Harding**

*The sources for this article were entirely from web pages found in yahoo searches on LST's, landings in Normandy and Southern France, V-1's etc.*



Dave Harding – Editor  
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# Propstoppers R.C. M.A.C

<b>Dornier Do217K-2</b>		Country: Germany	Service Entry Date: Dec. 1942
A/C Type:	Missile carrier		
Engine(s):	Two BMW 801D radials		
Eng. Pwr:	2880-3400 hp, air-cooled		
A/C Crew:	Pilot, navigator, radio-op/gunner Bombardier		
Maximum Speed:	267 mph at 19,685 ft.		
Maximum Ceiling:	26,400 ft.	Class: M	Victory Points: 9-18
Defense factor:	6	Size Modifier:	+1
Damage Factor:	20/30	Endurance:	310
Cockpit View:	Fair	Blind Area:	None
Protection:	Cockpit +1	Fuel:	+2
	Engine:		+1
Climb/Decel/Dive Accel.:	2.0 / 1.0		
Weight and Load Limit:	7,700 / 8-18		
<u>Wpn Stations</u>	<u>Weight</u>	<u>Allowed Loads</u>	
1,3 ETC-2000(XII)	3,500	1x Torpedo (K-1)	
		1x FX1400 (K-2)	
		1x Hs293 (K-3)	
2 BB (K-1)	2,750	Bombs or 2 torp.	
2 BB (K-2/3)	1,600	255 gal Fuel Tank	

**Annual Propstoppers Auction at the February 6<sup>th</sup> Meeting - Next Tuesday**  
**7:00 p.m. Marple Newtown Library.**

*Go right now to the shop and set aside that model or kit you know you won't build in the New Millennium.*

*Put it in the trunk and bring it to the auction.*

*Note the time of this meeting; we will meet at 7:00 p.m. so as to allow plenty of time for you to peruse the stuff that your fellow Propstoppers bring to replace the stuff you sell. Terms and conditions in the Minutes.*

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