

REPLICCA



Newsletter of the National Association of Scale Aeromodelers

Jan/Feb 2013

NASA Airplane Raffle

To raise funds to help with the expense of the Scale Nats operations, in last year's board meeting at the Nats, the board approved the motion to have an airplane raffle this year.

Horizon Hobbies donated an 88" Tiger Moth ARF, I donated a DLE-20 gas engine and Dick Petit donated his time (& digital JR servos) to assemble the airplane for us. Barbee Concrete donated the tickets.

Dick was also instrumental in getting several other companies to donate items needed to complete the process. The aircraft is ready to fly, all except a receiver (Dick kept his receiver). Just add your receiver of choice.

The engine has been test run and adjusted. The aircraft is eligible to enter in fun scale competitions with the appropriate photo and any giant scale fun-flies (IMAA).



Renew your NASA membership! Fill out the form on the back page and mail it in today!

Tickets are \$5.00 each, 3 for \$10.00 or 6 for \$20.00 and can be purchased from Mike Barbee, Mark Lanterman (thru the NASA website using PayPal) or Jim Martin. We can send any number of tickets to those willing to sell them. The drawing will be held Saturday night at the Scale Banquet at the Nats, July 13, 2013. We have acquired the Claude McCullough Education Facility building (by the AMA Museum) for the banquet again this year.

I hope everyone will help sell tickets and support NASA in our quest to make the Scale Nats better than ever.

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President's Notes

Hello everyone. I hope you are enjoying the winter with some quality shop time. Barb and I were in Florida last week and the weather was fabulous. I joined the Cape Coral Club last year and renewed my membership for this year, but this trip I never made it to the field. Our vacation seems to consist of working on the house and a little beach time but no flying. I did make a day trip to Sebring for the light sport aviation show. After two weeks I am happy to return home and to the shop for a couple of intense 12 hour days of work on my new T-34-B. I hope to have it ready to fly by the Toledo show. If you are at the show stop by the NASA booth and do some catch up maybe even renew your membership.

Jim Martin and Shannon Ort are making big plans for the 2013 Nats. We need your support. Jim has gleaned some donations from the hobby industry of a scale plane, engine, and servos for our raffle. Yes NASA is having a raffle fund raiser for the Nats. The first prize is a built, scale Tiger Moth donated by Horizon Hobbies, powered by a DLE-20 engine. Tickets are \$5.00 each, 3 for \$10.00, or the most attractive way to win is 6 for \$20.00. The drawing will be held at the Saturday evening banquet.

There are a couple of contest I would like to mention. First, is the Mint Julep, one of, if not the oldest running with the exception of the Nats. This year will be their first at a new venue, the Ohio River Valley Fliers field in Rosewood Indiana. The leadership of the event is the same with Paul Cain as the CD and Dale Arvin is the MC. They have the support of a great group of club members to make your contest experience the best. The club field is a beautiful field with both paved and grass runways, camping sites, and shelters for pilots and planes. This is a model field built by a modeler, Mr. Bill Beach. Put it on your calendar June 7-9.

The next event will be the Nats. Our dates are July 12-14. This year with the help of the consummate party planner Shannon

and other volunteers should be a great fun event. We will have the Friday hangar party and Saturday evening banquet with an auction and the grand raffle award. Come to Muncie and enjoy the AMA site and NASA fellowship.

The third event will be the Columbus Scale Classic. This will be the first year of the event. I am the CD. It will be held at the Dinneen Field. The sponsoring club is the Westerville Model Aeronautics Assoc. Our web site is www.wmaa-wags.org. We fly at Alum Creek State Park on the east side of Alum Creek Dam. We have a very well-manicured 900 ft. grass runway, suitable for jets and all scale planes. There is camping at the state park camp grounds, sorry no camping at the field. This is an AMA sanctioned event, dates are August 17-18. The field will be open for practice all day Friday the 16th. We will have a Saturday evening cookout and hangar party free for pilots, wives, and guests. It will be at my house about 2 miles from the field. Bring your electrics. I have 2.5 acre front yard great for flying. The Monster Hangar will be open for emergency repairs if needed. I hope you can attend our 1st annual Columbus Scale Classic.

As you all know NASA is the special interest group of the AMA for scale this includes Control Line, Gliders, and Helicopters. We need your continuing support so please renew your dues. We could also use some volunteers for the Nats. If you would like to help get in touch with Jim Martin, the contest coordinator.

That's all for now so get in the shop and shine up the old plane or build a new one and come out and ENJOY SCALE MODELING. Get a friend started building and bring him along we will all help with his new scale experience.

MIKE BARBEE
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12 Inches to the Foot

A new year, new events and even a new model or two on the way. These are some of the highlights I look forward to during the wet/cold/damp winter weeks ahead.

Time to make plans for upcoming events like the Nationals in July, the Mint Julep in June at it's new site. Hope to hear more on this from Dale Arvin, you out there Dale?

We would really like to make it back out to Blakesburg, Iowa this year to the AAA Fly-In for full scale antiques. This is a laid back event and lots and lots of antique aircraft there to photograph and maybe even get a ride in if your lucky. The Airpower Museum and Library are there too. Best library I've ever been in. Lots and lots of stuff to look at during a hot day. Oh, yes it's also a good time to check out the homemade pies from the ladies at the Blakesburg Historical Society which are sold on the front porch. The only catch is you have to be a member of the

Antique Airplane Association. Just check out their website at www.antiqueairfield.org

The event is held during the pre-Labor Day week at the end of August, 1st of September. You won't regret it.

I've been looking for a new project and I've found it. A quarter-scale Cessna Airmaster C-165. The airplane should come out to 102.5" with a DLE 30 for power. There is a lot to this model, not as much as some, but more than many. It looks



like fun and I'll keep you updated in different areas when I get started on it.

There are a lot of airplanes I want to build but work seems to continually get in the way for most of these. Thing is, I really enjoy building, sanding, putting sticks together, and the fun part of detailing the models. This appeals much more than ARFs in any shape form or function.

After selecting an event to attend, get out your list(s) for stuff you need to bring. Don't forget the radio, transmitter and all of the simple stuff you will need. Then of course you need the canopy, and some sort of table. This helps to put your model on especially if its very large or small. I won't go into all the little bits and pieces you need to bring, but don't wait until the last minute then travel 300 miles and find out your transmitter is at home.

Na, I haven't done that one...yet...



Fair Skies & Tail Winds,

STAN ALEXANDER
stanwing4602@att.net



Penetrating Oils

"The Machinist's Workshop" recently published information on various penetrating oils. The magazine reports they tested these products for "break out torque" on rusted nuts and bolts. A subjective test was made of popular penetrating oils, with the unit of merit being the torque required to remove the nut from a "scientifically rusted" bolt.

Average torque load to loosen nut:

No Oil used	.....	.516 foot pounds
WD-40	.....	238 foot pounds
PB Blaster	.....	214 foot pounds
Liquid Wrench	.....	.127 foot pounds
Kano Kroil	.....	106 foot pounds
ATF/Acetone mix	.....	53 foot pounds

The ATF/Acetone mix is a "home brew" mix of 50/50 automatic transmission fluid and acetone. Note this "home brew" released bolts better than any commercial product in this one particular test.

Our local machinist group mixed up a batch, and we all now use it with equally good results. Note also that Liquid Wrench is almost as good as Kroil for 20% of the price.

ATF/Acetone mix is best, but you can also use ATF and lacquer thinner in a 50/50 mix. ATF = Any type of Automatic Transmission Fluid.

GEORGE MAIORANA
georgegpm67@gmail.com

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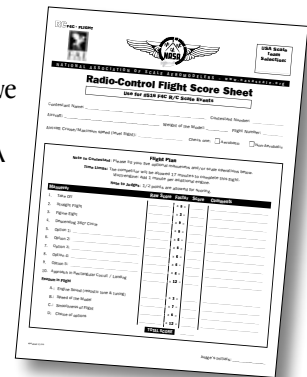
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www.NasaScale.org

NASA NEWS AND INFORMATION ON THE INTERNET

If you have internet access, you owe it to yourself to visit NASA's web site - www.nasascale.org. The NASA site was designed from the start to be the only place you need to go to find out everything that's happening in the world of scale aeromodeling - whether it's here on the National front, or on the International front - the domain of the FAI.



COMPETITION DOCS/FORMS

This is one of the more exciting features of the web-site. We have all the competition forms and documents for scale competition online in pdf form. Not only are the documents up-to-date, but we now have two versions of each.

One is the regular pdf that we invite contest directors to download and printout for use in their contests.

The second (and more exciting) version of the form is the "intelligent" form. Using this version and an up-to-date version of Adobe's Acrobat Reader, you can fill out all your information using your computer, then pre-print copies to take to your next scale event: information about yourself, your plane and your maneuvers/options. All AMA rule book maneuvers/options (as spelled out in the current AMA rule book) can be selected from pull-down menus; right on the .pdf. Imagine not having to spend time at your next contest filling out forms!

Oh, one more thing - the forms do NOT allow you to fill in your own scores! Sorry - some things are best left up to the judges!

The forms are online now for all Control-Line and RC events - from Fun-Fly up to FAI! Download your forms today!

If you're faced with a forced landing, fly the thing as far into the crash as possible.



NASA Local Contests

Hello everyone. My name is John Boyko, I've been an R/C competitor for the past 14 years, first in IMAC and now in R/C scale. I currently am a committee member of NASA and sit on the board of Scale Masters.

To me building and flying scale models is the most challenging aspect of modelling. For the past several years we have all seen the decline in our part of the hobby. As I've looked at all the different reasons that may be happening, something became apparent.

NASA is a special interest group of the AMA, and like the other SIG's, is responsible for putting on the Nats for that discipline. Unlike the other SIG's, NASA does not (as far as I know) promote or facilitate any events at the local level. Most other SIG's have events during the flying season. Pylon, Pattern, IMAC, to name a few, all have local events that are a part of the larger group, and support the SIG nationally.

Why can't NASA members do the same thing? The best way to grow interest in ANY type of "sport" is to hold an event. I've seen a significant increase in scale interest in my area with the addition of just one new contest. I believe that if there were more local level contests, both R/C and control line, using the AMA/NASA rules, our friends would get involved. When IMAC really exploded in the North Central region several years ago, I believe in part it was from the sheer number of events that guys could go to. Its a lot easier to drive 2-3 hours to an event than 6-7 hours.

I know that there are several things that make putting on a contest more difficult first is getting judges, and the second is tying up a club field for an entire weekend. I understand that some of this stuff could require some rule changes, but if it facilitates getting more contests then we ought to think about it.

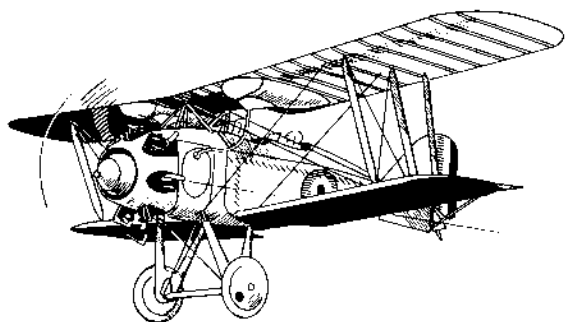
First is to use contestant judging at the local level. Before everybody say's NOOOOO!!!!!! Lets think about it. IMAC, and pattern use contestant judging, just saying. My thought is to have guys in different classes judge each other.

My other thought is to hold one day events. There are several in the Ohio/Michigan and seem to be growing. In fact the Mint Julep started as a pattern event and one day scale event.

I'm looking at this from a person that flies R/C scale, but I'm sure the control-line guys could do the same thing. If there is interest in doing these things I know the NASA board is willing to look into the rules and make sensible changes to help grow contest at the grass roots level.

JOHN BOYKO

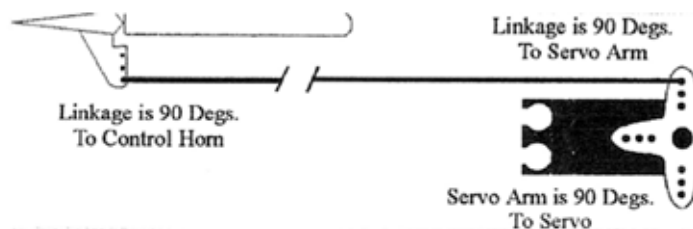
sir-smoothie@earthlink.net



Sub Trim & Linkage Setup

Sub trims are intended for minor adjustments to servos linkages. Since excessive sub trim values (percentages) can cause servos to be over-driven where they try to move past their internal stops. This can cause servo damage.

The diagram below illustrates an ideal servo/linkage setup when the servo is at neutral. Notice that the servo arm is positioned at a 90° or perpendicular to the servo. Also note that the linkage or rod is attached at 90° to both the servo arm and the control surface horn. This setup will result in the same amount of throw in both directions (0 differential throw).



Follow these steps to help ensure the proper use of sub trims and to achieve an optimum servo/linkage setup:

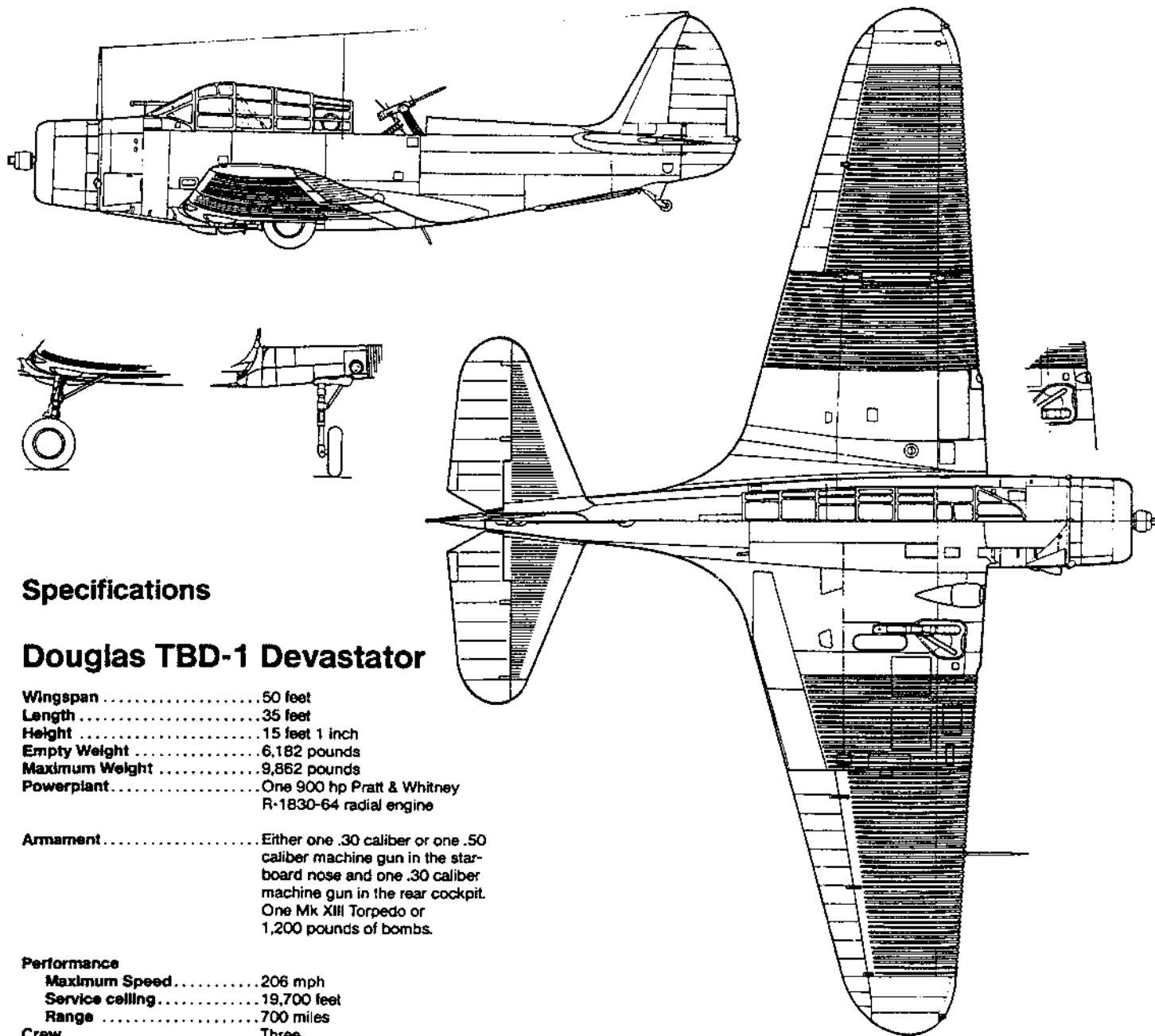
- Access the Sub Trim function on your radio and make sure sub trim settings are set to zero (0).
- Access the Trim Offset function (another name for Trim Memory) and clear any offsets. Also make sure that the mechanical trim levers on the transmitter (TX) are centered in their center dents.
- Plug the servo in the appropriate channel of the receiver (RX). Turn on both the TX and the RX. The servo should now be at its electronic center position.
- Test the fit of the servo arm to the servo, trying to get the servo arm to be at 90° to the servo as shown in the illustration. Try different positions if necessary, removing the arm, rotating it 90°, and inserting it back onto the servo output shaft. Use the position that is closest to 90°.
- If the servo arm is not at 90° or perpendicular to the servo, use the Sub Trim function to adjust the arm so that it is at 90° to the servo.
- Position the control surface so that it is in its neutral position. Now make and adjust the linkage. Adjust the linkage so that the control surface is at neutral when the servo is in its neutral position.
- If the mechanical linkage cannot be adjusted precisely enough, get it as close as you can and then use the Sub Trim function to make the final adjustments.
- Now use the Travel function (or ATV or EPA depending on your radio) to adjust total travel in both directions.

Fly the aircraft and use the trim levers for trimming. Now use the Trim Offset function (or Trim Memory—your radio should have a similar feature) to store the trims, allowing the trim levels to be returned to their center positions. If excessive amounts of trim are required, it is best to mechanically adjust the linkages and try to keep the servo as close to its electronic center as possible.

RICHARD LINDBERG

Rocky Mountain Flying Machine club, Albuquerque NM

Douglas TBD-1 Devastator Multi-View



Specifications

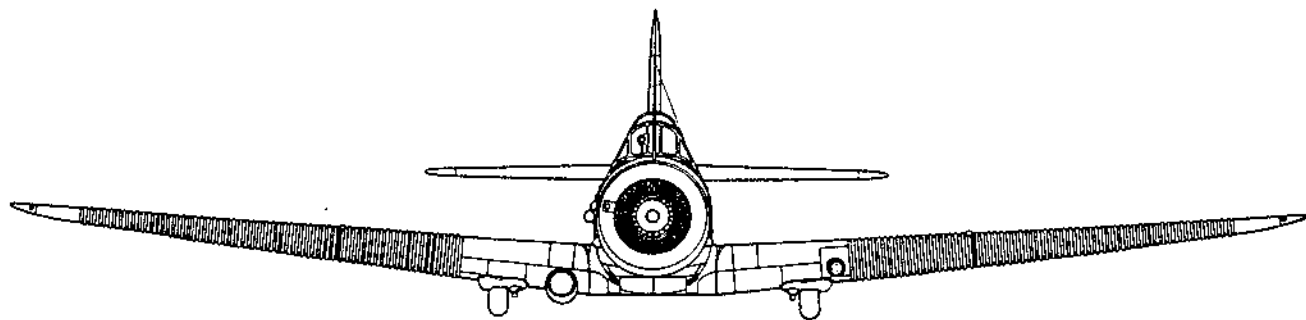
Douglas TBD-1 Devastator

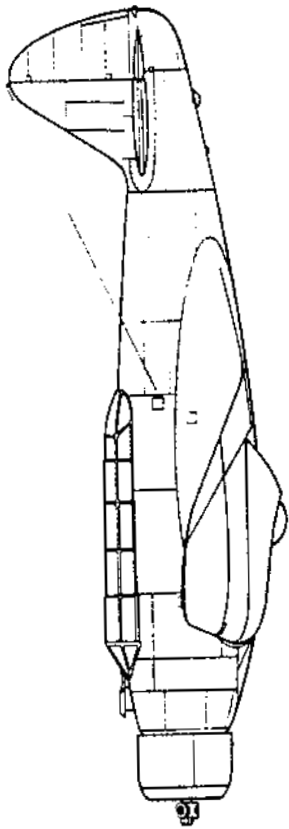
Wingspan 50 feet
Length 35 feet
Height 15 feet 1 inch
Empty Weight 6,182 pounds
Maximum Weight 9,862 pounds
Powerplant One 900 hp Pratt & Whitney
R-1830-64 radial engine

Armament Either one .30 caliber or one .50
caliber machine gun in the star-
board nose and one .30 caliber
machine gun in the rear cockpit.
One Mk XIII Torpedo or
1,200 pounds of bombs.

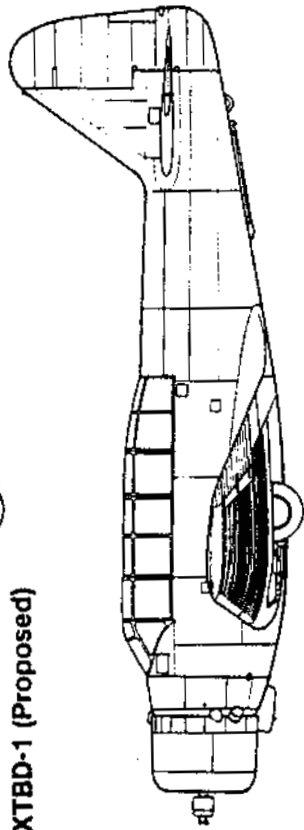
Performance

Maximum Speed 206 mph
Service ceiling 19,700 feet
Range 700 miles
Crew Three

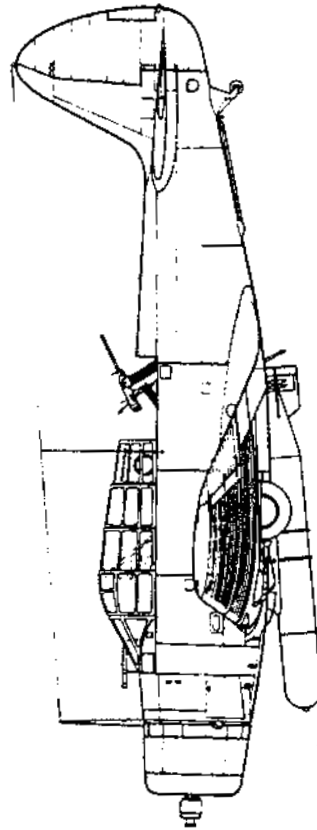




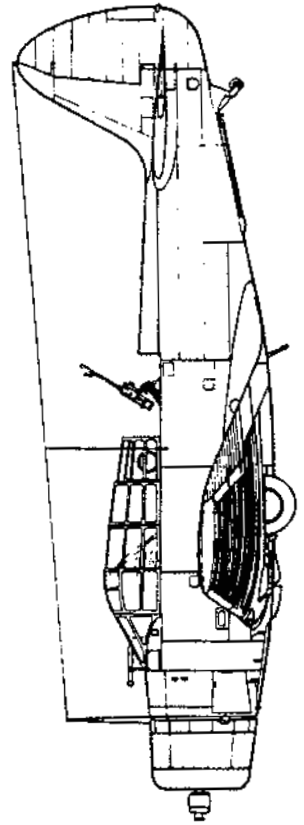
XTBD-1 (Proposed)



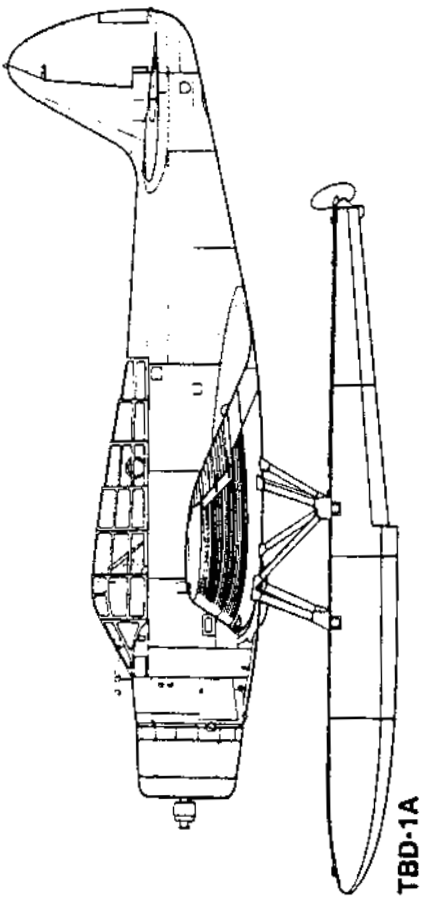
XTBD-1 (Early)



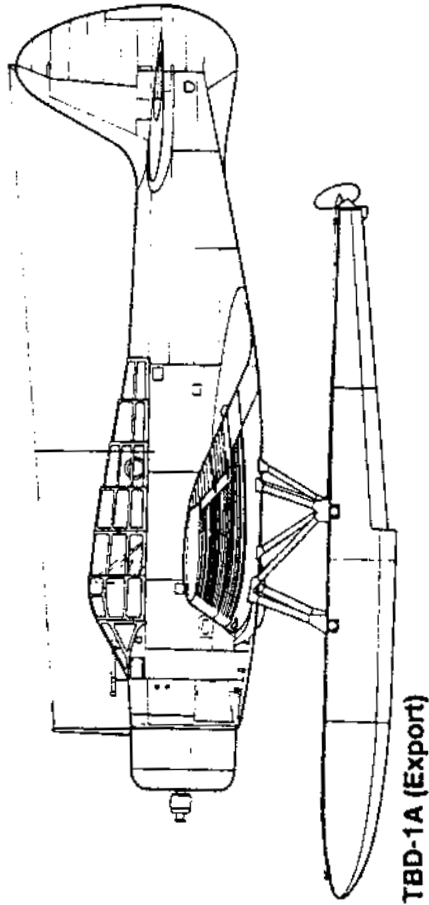
XTBD-1 (Late)



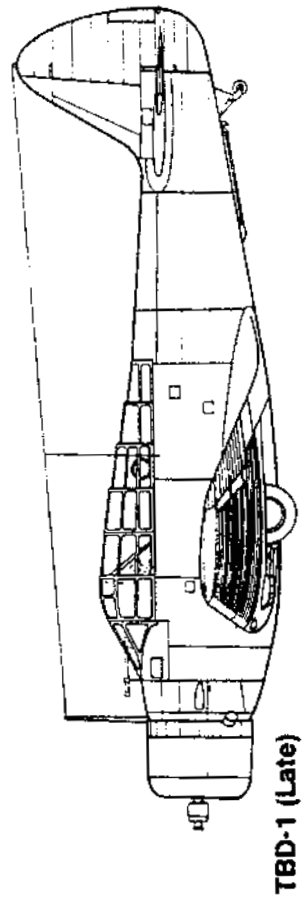
TBD-1 (Early)



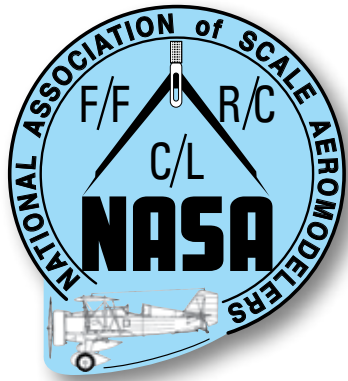
TBD-1A



TBD-1A (Export)



TBD-1 (Late)



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