

AMA GOLD LEADER CLUB

RC Propbusters of Salem CT

www.rcpropbusters.com

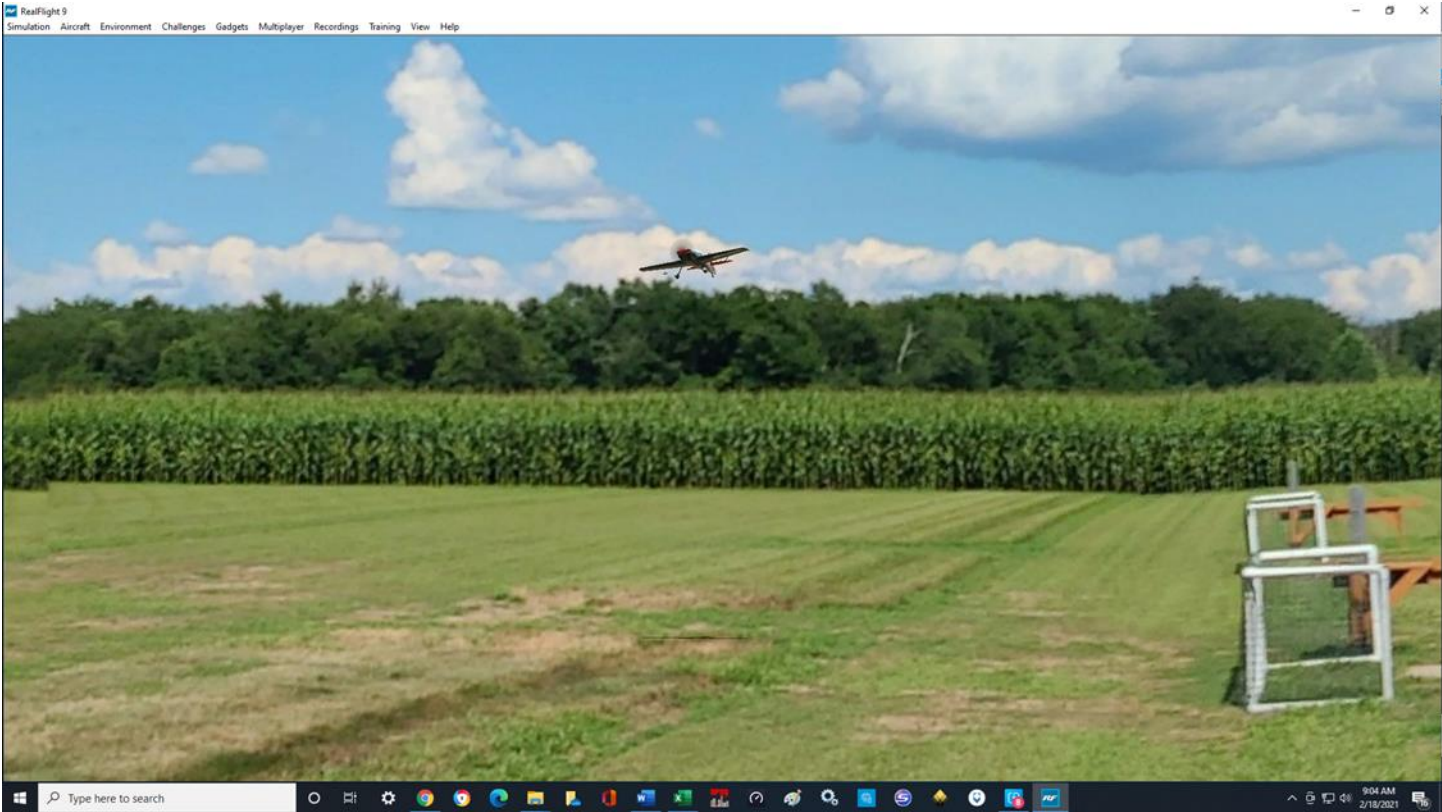
AMA Club No 191
Founded 1937

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RC Propbusters, Inc. ©

February 2021 Newsletter

Renew your annual RC Propbusters membership online at: <http://rcpropbusters.com/>
RC Propbusters Field now available on *RealFlight* Simulator. See below and page 8.

Look familiar?



(RealFlight screenshot credit: Jim Holzworth)

Now you can enjoy the corn 24/7 all year long with RealFlight Simulator at RC Propbusters Field. Thanks to Peter Sylvester, we can practice flying at our own field. See page 8 for details.

RC Propbusters meetings are usually held on the third Tuesday of every month @ **7:30 PM**. Meeting location is **Salem Public Library**, CT Route 85, about one mile north of Salem Four Corners (Circle). Under present (coronavirus) circumstances, the library is not available for meetings, so meetings are now conducted virtually with Google Meeting.

Learn to Fly!

If you have an interest, come to our field. There is usually a member there who will give you the opportunity to try flying a trainer type model either powered by an electric motor or fueled engine. The gentlemen listed below have generously offered to help you learn to fly r/c airplanes, helicopters, drones, and gliders.

INSTRUCTORS

TOM VERNON	CHIEF PILOT	860-859-1548	JOE COMEROSKI	HELICOPTERS	860-848-3184
DENNIS DUPLICE	FIXED WING	860-376-6230	ED DEMING	HELICOPTERS	860-884-3222
ROBERT LARSON	BOTH	860-526-2267	MARK O'CONNELL	BOTH	860-460-8835
KYLE SWAIDNER	** GLIDERS	860-405-5304	LEN BUFFINTON	* GLIDERS	860-395-8406
DAVE GRAINGER	FPV RACING	860-302-3169	RICHARD CROOKS	FIXED WING	860-271-5154

* Len Buffinton is a Glider and Aero-Tow expert who can also help you with fixed wing flying.

** Kyle Swaidner flies everything, and also is offering to introduce you to sidearm and discus launched GLIDERS.

If you are a student, hook up with one of these men and get trained.

Any club pilot can train you, but an instructor must sign you off.

R/C Propbusters, LLC. Officers for 2021

President:	Ed Deming
Vice President:	Dennis Duplice
Treasurer:	John Banks
Secretary:	Peter Sylvester
Safety officer:	Tom Vernon
Newsletter Editor:	Jim Holzworth
Field Marshal:	Shane Duffy
Board of Directors:	George White, Richard Cavanaugh, Dave Hoffman, Chip Allard

CHECK OUT OUR WEBSITE:

<http://rcprobusters.com/>

Please submit ideas and tips for the newsletter to Jim Holzworth at jimholzworth@gmail.com

RC Propbusters Outerwear
available at

NOTICE (from the Editor): Do we have your correct email address?



26A Bushnell Hollow Rd., Baltic, CT 06330
Phone: 860-822-9777
Email address: info@jdembroidering.com
<https://jdembroidering.com/index.php>

If you are currently a member of R/C Propbusters in good-standing and can only receive the monthly newsletter from our website (<http://www.rcprobusters.com>), maybe your email address has changed, or was incorrectly entered on our membership list. Monthly newsletters are sent individually (directly) to each club member at the email address listed on the membership list. If you have a new email address, or need to make a correction, please contact Jim Holzworth at jimholzworth@gmail.com. Our membership list will be updated.

February Events & Milestones

18 February 1832 (France) — Octave Chanute (1832-1910), first great historian of aviation, is born in Paris, France. Brought to the United States when young, Chanute was a civilian engineer before turning to aviation. In 1894 he published *Progress in Flying Machines*. The book became a bible for the Wright brothers.

4 February 1902 (USA) — Charles Augustus Lindbergh (1902-1974), one of the most famous aviators in history, is born in Detroit, Michigan.

21 February 1911 (USA) — A new 1910 Wright “Type B Flyer” owned by Collier's magazine publisher Robert F. Collier, arrives at San Antonio, Texas on rent to the United States Army for \$1.00 per month to supplement the aging Wright biplane first accepted on August 2, 1909.

23 February 1945 (Iwo Jima) — Flag Raising on Iwo Jima.

6 February 1956 (USA/France) — William Judd lands his Cessna 180 in Paris after a solo flight of 25 hours 15 minutes across the North Atlantic from the United States.

7 February 1958 (Germany) — One of the best British soccer teams, Manchester United, has been virtually wiped out in an air crash. The team was returning from Belgrade after victory against a Yugoslav opponent when their British European Airways (BEA) Airspeed AS.57 “Ambassador” failed to take off and crashed into a house in Munich, Germany.

20 February 1968 (USA) — A standard Learjet 25 sets a new “time-to-climb” record by climbing to 40,000 feet in 6 minutes 29 seconds.

9 February 1969 (USA) — First flight of the Boeing 747 “Jumbo Jet” airliner takes place in Seattle, Washington. The wide-bodied, long-range transport is capable of carrying 347 passengers, and is the largest aircraft in commercial airline service in the world.

<https://www.skytamer.com/February.html>

"COMMON SENSE, RESPECT FOR OTHER PILOTS, AND GOOD FIELD ETIQUETTE ALL GO A LONG WAY TOWARDS MINIMIZING REQUIRED RULES. REMEMBER: IT'S ALL ABOUT HAVING FUN WITH AVIATION MODELING IN A SAFE AND ENJOYABLE MANNER. SAFETY IS EVERYONES RESPONSIBILITY! IF YOU HAVE ANY QUESTIONS OR DON'T UNDERSTAND ANY OF THESE RULES, DON'T HESITATE TO ASK YOUR CLUB SAFETY OFFICER, ANY CLUB OFFICER, OR ANY EXPERIENCED PILOT FOR CLARIFICATION."

R/C Propbusters Flying Field Rules PFFR 9/10, REV. 3 10/19

Save these dates!

Mike DeFranzo is pleased to announce our Propbusters Memorial Fun Fly is scheduled for June 12th and 13th, and our All-Electric Fun Fly and Swap Meet is scheduled for July 17th. More info to come.

NASA's Ingenuity Mars Helicopter: Attempting the First Powered Flight on Mars

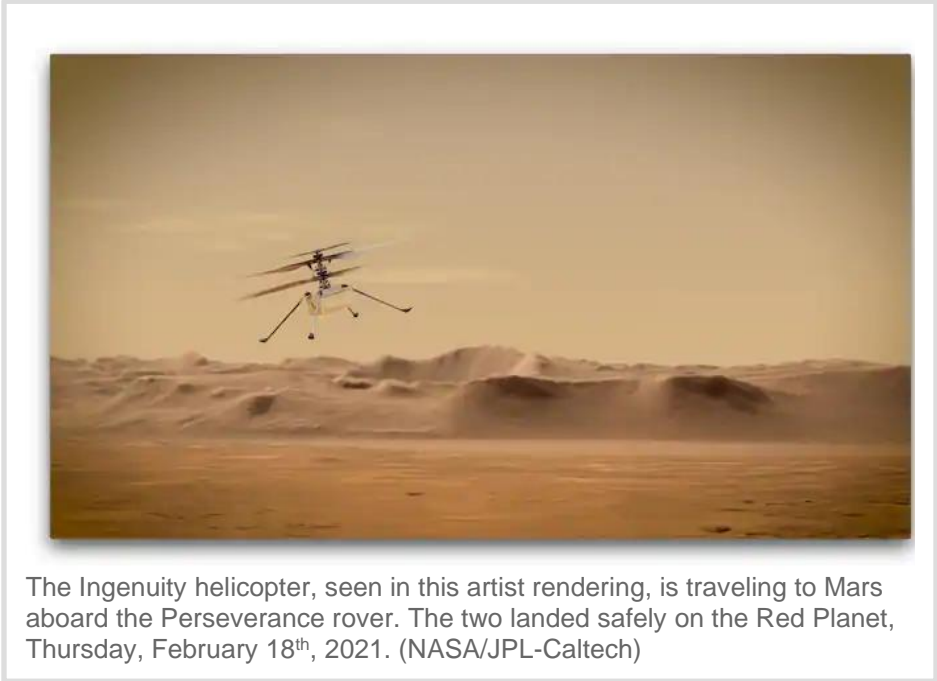
•Jul 14, 2020



[NASA Jet Propulsion Laboratory](#)

NASA's Ingenuity Mars Helicopter will make history's first attempt at powered flight on another planet next spring. It is riding with the agency's next mission to Mars (the Mars 2020 Perseverance rover) as it launches from Cape Canaveral Air Force Station later this summer.

Perseverance, with Ingenuity attached to its belly, will land on Mars February 18, 2021. As a technology demonstration, Ingenuity is testing a new capability for the first time: showing controlled flight is possible in the very thin Martian atmosphere. If successful, Ingenuity could lead to an aerial dimension to space exploration, aiding both robots and humans in the future.



The Ingenuity helicopter, seen in this artist rendering, is traveling to Mars aboard the Perseverance rover. The two landed safely on the Red Planet, Thursday, February 18th, 2021. (NASA/JPL-Caltech)

See this video at:

https://www.youtube.com/watch?list=PLTiv_XWHnOZoPT2VCxZJOF7Vg1VTNuGj4&v=qwdfdE6ruMw&feature=emb_logo

For more about Ingenuity, visit <https://mars.nasa.gov/technology/heli..> Credit: NASA/JPL-Caltech

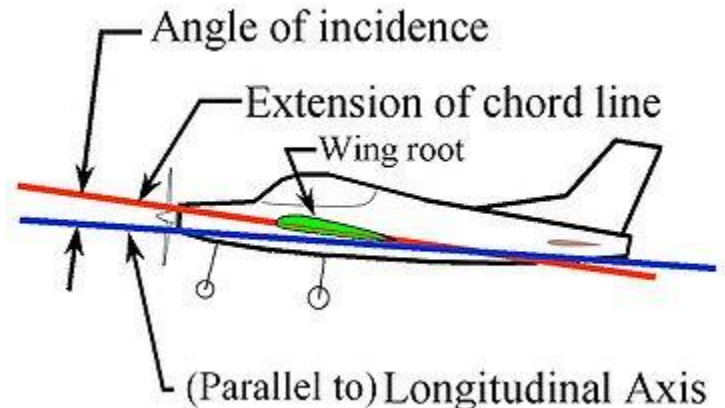
Angle of incidence (aerodynamics)

From Wikipedia, the free encyclopedia

On [fixed-wing aircraft](#), the **angle of incidence** (sometimes referred to as the *mounting angle*^[1]) is the angle between the [chord line](#) of the wing where the wing is mounted to the fuselage, and a reference axis along the fuselage (often the direction of minimum drag, or where applicable, the [longitudinal axis](#)). The angle of incidence is fixed in the design of the aircraft, and with [rare exceptions](#), cannot be varied in flight.

The term can also be applied to horizontal surfaces in general (such as [canards](#) or horizontal stabilizers) for the angle they make relative the longitudinal axis of the fuselage.

The figure to the right shows a side view of an airplane. The extended chord line of the wing root (red line) makes an angle with the longitudinal axis (roll axis) of the



aircraft (blue line). Wings are typically mounted at a small positive angle of incidence, to allow the fuselage to have a low angle with the airflow in cruising flight. Angles of incidence of about 6° are common on most [general aviation](#) designs. Other terms for angle of incidence in this context are *rigging angle* and *rigger's angle of incidence*. It should not be confused with the [angle of attack](#), which is the angle the wing chord presents to the airflow in flight. Note that some [ambiguity](#) in this terminology exists, as some engineering texts that focus solely on the study of airfoils and their medium may use either term when referring to angle of attack.^[2]

[https://en.wikipedia.org/wiki/Angle_of_incidence_\(aerodynamics\)](https://en.wikipedia.org/wiki/Angle_of_incidence_(aerodynamics))

Angle of incidence vs angle of attack.

•Oct 7, 2015



[flight-club](#)

A nice simple video explanation of angle of incidence vs angle of attack, and stall at:

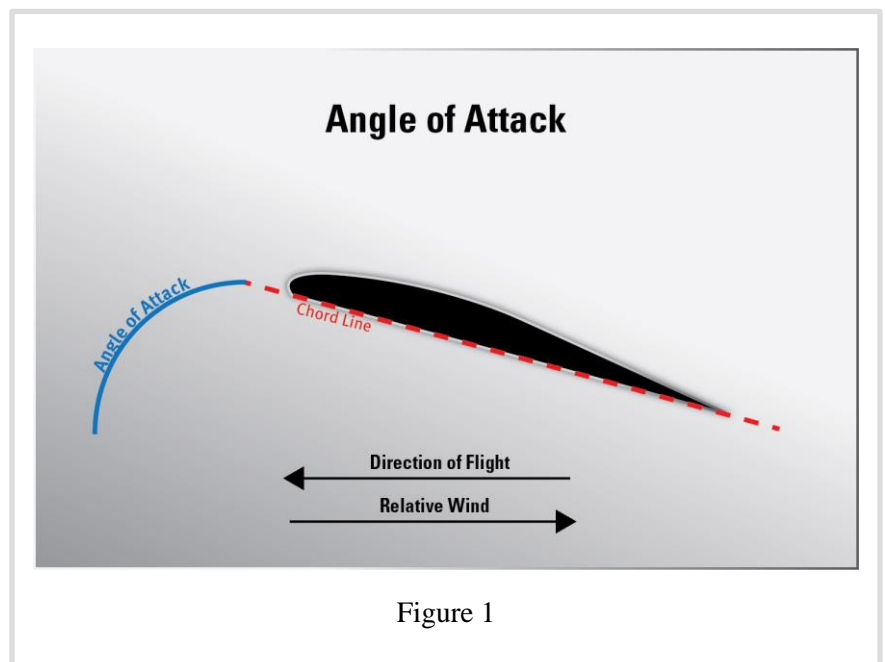
<https://www.youtube.com/watch?v=AUmL8mIUxyc>

Understanding Angle of Attack (AOA)

Edited excerpt of article written by Scott Stoops Flight Training Column As seen in the February 2013 issue of Model Aviation.

... AOA is the difference between the chord line and the flight path or relative wind of a wing. Not unlike sticking your hand out the window of a car with it tilted slightly up, a wing creates down force through both its shape, but primarily, the angle it addresses the oncoming air. This is AOA (see Figure 1).

... Although the basic shape of the airfoil contributes to the efficiency of the wing and its ability to create lift, the primary factor in lift creation is AOA. Based on the design of the wing and airfoil section, there is a maximum AOA at which the wing section will continue to produce lift. Flight beyond that AOA causes the airflow to become extremely turbulent and detach from the upper surface of the wing. This detachment results in a loss of lift, or a stall. The specific stalling AOA is a constant for that particular wing. Stalls have absolutely nothing to do with a power failure of the motor or engine. In fact, unpowered aircraft such as sailplanes can also stall. Stall is an aerodynamic term that only relates to exceeding the critical AOA. During normal flight in most types of airplanes, we avoid flying the aircraft at or close to the critical AOA.



... As the aircraft exceeds the critical AOA, airflow over the wing will “detach” from the wing’s upper surface, causing some buffeting and usually a pronounced pitching moment toward a nose-down attitude. Most models have a critical AOA of approximately 17°.

Stalls in All Attitudes

... Stalls occur when the critical AOA is exceeded, which means they can occur in any pitch attitude. A stall can occur when the aircraft is pointing straight up, straight down, inverted, or at any pitch attitude as long as the critical AOA is exceeded. This is generally tied to a large elevator input, but can also occur with small inputs at higher speeds. A stall can occur at any airspeed (it is not necessarily a slow speed event, but rather, a high AOA event). This can be confusing to new modelers, because the traditional diagrams of the stalling AOA depict an aircraft in level flight as I have explained. A model can be stalled going straight up in a loop. If the pilot pulls too hard on the elevator control stick (displacing the elevator up), the critical AOA can be exceeded and the wing will stall while the airplane is pointing straight up. The same is true if the pilot pulls too hard on the elevator during the backside of a loop while pointing straight down. A good indicator that the model’s AOA is near the critical AOA is the position of the elevator. For the AOA to be high, the elevator has to be significantly displaced. So, wings stall at a specific AOA, not at a specific pitch attitude (see Figure 2).

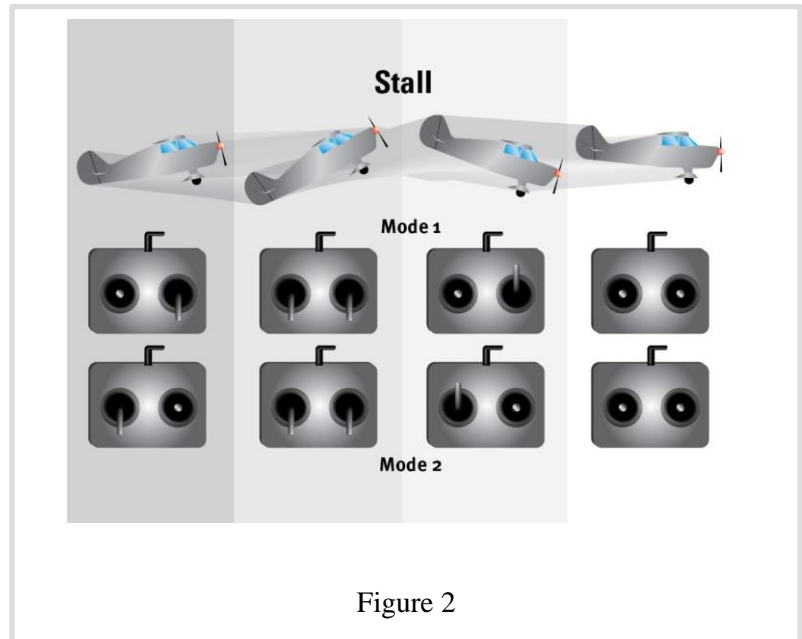


Figure 2

Take-Away

Although it can be scary to slow your model to the point where you’re uncomfortable with how it is going to perform, learning stalls and stall recovery is critical to becoming a well-rounded RC pilot. Start high, and with a buddy box if necessary. Most importantly, remember that simply releasing the elevator input will often allow the model to recover on its own! ... Fly safely, and remember that learning is fun, and fun is what this great hobby is all about. -Scott Stoops

Read Scott’s entire article at: <https://www.modelaviation.com/angle-of-attack>

<https://www.modelaviation.com/print/1581>

Editor’s Note: Mode 1 refers to transmitter settings mostly used in Australia and Europe. Mode 2 refers to transmitter settings most typically used among USA flyers, controlling the aileron (roll) and elevator (pitch) with the right hand, and the rudder (yaw) and throttle by the pilot’s left hand. See

<https://www.modelflight.com.au/blog/difference-between-mode-1-vs-mode-2>

How can some airplanes fly with thin, flat wings and zero angle of attack (e.g., the F22 and the SU-37)?

Read this interesting Q&A at: <https://www.quora.com/How-can-some-airplanes-fly-with-thin-flat-wings-and-zero-angle-of-attack-e-g-the-F22-and-the-SU-37>

F-14 High Angle of Attack Flight Test

•Aug 13, 2009



[NASA Langley CRGIS](#)

High angle of attack maneuvers flown by a modified F-14 test airplane during a joint NASA/Grumman/Navy flight program at the NASA Dryden Flight Research Center. <http://www.nasa.gov/centers/dryden/ho...>

<https://www.youtube.com/watch?v=yPrVwJmfl8w&t=67s>

F-15 High Angle of Attack Flight Test

•Aug 3, 2009



[NASA Langley CRGIS](#)

Test conducted at NASA Dryden Flight Research Center. Langley Film [#645](#)-45. Long version available on request.

<https://www.youtube.com/watch?v=ZpxD6n9ZWYQ>

The Aerodynamics of a Turn

By [Swayne Martin](#)

09/29/2015

In simple terms, **your aircraft turns by redirecting the lift created by your wings.** And to maintain altitude in a turn, you need to create more total lift, so that your vertical component of lift opposes your aircraft's weight. Easy enough, right?

Although not intended for RC pilots, it might be worth reading this article (with diagrams) at: <https://www.boldmethod.com/learn-to-fly/aerodynamics/the-aerodynamics-of-a-turn-in-an-airplane/>

Tips & Tricks

THE RIGHT GLUE FOR THE TASK

Posted by Motion RC on November 11, 2019 |

Once you get started in the RC hobby, you will quickly learn the “must-have” tools and accessories you will always want on hand in your workshops and field boxes. The right glues and adhesives for the type of models you work with are imperative. Here are some of the most popular glues our staff and customers use for the types of products carried by Motion RC.

<https://www.motionrc.com/blogs/motion-rc-blog/benchcraft-accessories>



Model Airplane Glue

In this hobby, model airplane glue is your best friend. Whether you're building your first plane or piecing it back together after a devastating crash, it's critical to know what adhesive to use for each application.

<https://www.hooked-on-rc-airplanes.com/model-airplane-glue.html>

Model of the Month

RC Propbusters Field now available on RealFlight Simulator

Peter Sylvester announced his creation of our flying field environment for RealFlight flight simulator. He introduces it on our RC Propbusters webpage: <http://rcpropbusters.com/index.html>

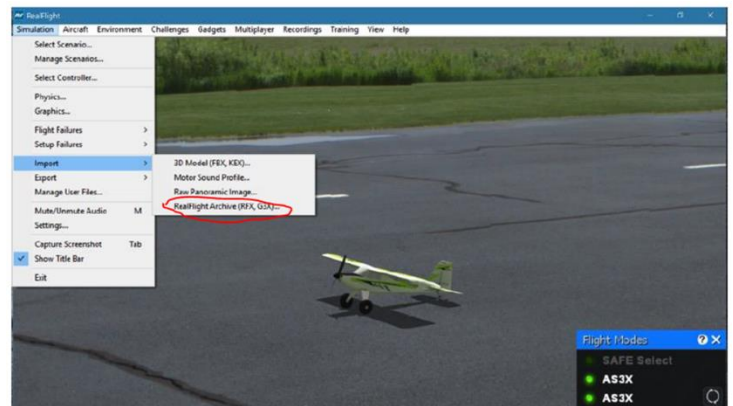
RealFlight - Panoramic Photo field

[Download File: rcpropbusters-20200801-panoramic.rfx](#)

1) On our Propbusters website, download the "rcpropbusters-20200801-panoramic.rfx" file by clicking "Download File"

2) To import the site into your RealFlight G4 or above In RealFlight simulator's menu go to

Simulation => Import => RealFlight Archive



Read page 4 of the RealFlight manual. The manual can be accessed from the RealFlight simulator's menu at: **Help => RealFlight Help...**

Find the rcpropbusters-20200801-panoramic.rfx at: https://microdeskco-my.sharepoint.com/:u:/g/personal/psylvester_microdesk_com/EXHUF3V2k-1GmBmJU6dbRrwBlnj3OPr6_jcYStSMSEqlw?e=hLbVbp

Minutes of the February 16th, 2021 RC Propbusters Meeting

The meeting was called to order at 7:30 PM with 13 members present.

Minutes of the January 2021 meeting were read and accepted.

Treasury report:

- | | | |
|------------------------------|-----------------------------|--------------------|
| ○ Opening balance: \$2384.10 | ○ Expenses: \$166.88 | ○ Savings account: |
| ○ Income and dues: \$930.13 | ○ Ending balance: \$3150.35 | \$34042.23 |

Events:

- Michael DeFranzo did talk to AMA – they are hoping for the best.
- We will schedule some events with AMA because we get credit for last year's 2 events that we couldn't have because of COVID-19.
- Neighborhood Fun Fly in June
- Electric Fun Fly end of July

Old Business:

- Porta-potty still 'in flux'. Company will replace it if it gets damaged because of freezing. We have to pay more attention to this next November.
- By-laws were sent out to the board of directors. Changes will be made finalized during the next few weeks and sent out to the whole club membership.
- John Banks did reach out to FAA about the CATO rocket club and we were granted a waiver for our site with 2500ft limit.

New Business:

- AMA renewal will happen in the next 2 weeks.
- John Banks will check with Lenny about gliders flying below/above the 400ft FAA limit.

Good and Welfare:

- Please renew your FAA registrations.
- We have to keep an eye on the FAA remote ID rules.

New Members:

- Tom Thornton and Ed Durrva voted in.

Show and tell:

- RC Propbusters Photorealistic field for RealFlight can be downloaded from our website.

Club Officer attendance:

X President X Vice President X Treasurer X Secretary X Safety Officer Field Marshal

Meeting adjourned at 8:15 pm.

Respectfully submitted by Peter Sylvester.

HOG HEAVEN HOBBIES
494 MAIN ST. FISKDALE, MA 01518
508 347 9350
info@hogheavenhobbies.com

28TH ANNIVERSARY

SALE

MARCH 12-21

15% OFF

RADIO CONTROL:

- RC AIRPLANES, RC BOATS, RC CARS, RC HELICOPTERS & RC DRONES
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EXCLUSIONS: FUEL, CONSIGNMENT, & MAGAZINES.

CANNOT BE COMBINED WITH ANY OTHER DISCOUNT.

Thanks to Carl Barker for sharing this announcement.
