

# Pine Barren Modelers R/C Club

March 2026



## Club Meeting Highlights

*(Remember, these are NOT the minutes, so they don't contain sensitive information. The complete minutes will be sent out before the next meeting).*

### 4 March 2026

*Micki and I couldn't make the meeting, so President Dennis took notes for us (I'll explain in my corner). Thank you, Dennis! Ed. Bill*

#### Club Officers

President—Dennis Spatcher  
Vice Pres.—Mark Tilton  
Treasurer—Ralph Ferrara  
Secretary—Micki Bowne  
Safety Officer—Pat Lovenstein

#### Contact Us:

For website, classified ads, or any other club information, visit our web site at:

<https://pbm1727.org>

or our Facebook group:

**PBM on Facebook**

Links to club officer and other e-mails are via the website.

You can also mail us at:

Pine Barren Modelers RC Club  
P.O. Box 38  
Bayville, NJ 08721

**Next Meeting**  
**1 Apr 2026**  
**Bayville VFW**

Three officers and 14 other members were present.

Call to order was at 7:05 p.m., followed by the Pledge of Allegiance, then a moment of silence for our fallen military members.

**New Members and Visitors:** None

#### Field Reports:

##### ✈ Coyle:

- The police removed an abandoned car from by the big gate, after it had been left for 2 weeks.
- We hope to get the field cam up in March.

##### ✈ Temporary Field (Johnson's Pit):

- Most of the snow has melted.
- The dirt road is very muddy, with deep tire tracks.

**Safety Report:** All is well!

**Instructors' Report:** None, CFI Gary is healing from knee replacement surgery.

**Treasurer:** We're almost sold out of PBM watch/stocking caps.

**Web:** February website hits were 1286, Facebook group membership was 677.

## Old Business

- ✈ Former member Bob Gale donated a toy drone for the Ways and Means table. There will be more items from him in the future.
- ✈ Our Indoor Flying completed another successful season!
  - The school is working on fixing the basketball hoop that broke and wouldn't retract.
- ✈ We had the final reading and acceptance vote on the Bylaw changes. The changes passed.
  - Trustees can now be added.
- ✈ Paperwork for all our sanctioned events is done, and they are on the AMA calendar.
- ✈ Paul Meier's Glider contest rules have been posted to Facebook and our website.
- ✈ We are waiting from Pat L. and Brian Boyce on dates for the drag racing events.
- ✈ Due to the heavy snow, the NJIT Flylanders did not get in their test flights. Pete T. said they are heading to their competition next week. They are welcome to return to our field whenever they want.
- ✈ Our Gold Leader Club renewal Certification arrived and a picture was posted online.
- ✈ We haven't yet heard back about our field improvement grant.
- ✈ We'll be getting a dumpster in April for the cleanup. We'll rent one, if we can't get one from the town.

## New Business

- ✈ Three planes donated by former member Bob Gale were auctioned off, with the proceeds going to the club.
  - UMX Cub went to Dave Cowan
  - PBY to Al Simons
  - F4U Corsair to Joe Gross.
- ✈ As the Head Club Flight Instructor position is now an elected officer position, a motion to have Gary Santaniello stay on till the end of year election was made and approved unanimously. Congratulations, Gary!
- ✈ The Middle School Carnival will be Friday March 6<sup>th</sup>, at 6pm. We needed one more volunteer to assist President Dennis and Treasurer Ralph. Joe Gross volunteered to fill that slot.
- ✈ Upcoming Events:
  - Lebanon, PA Flea Market, March 14th.
  - Our Flea Market, April 11th. Talk to Ralph for Table Reservations. \$10.00

**Model of the Month:** None

# Freewing F-4 Phantom

By

Gary Santaniello

I purchased my model from former PBM member Ed Hollema. I used water-slide decals Ed purchased separately to make it an NJ Air National Guard F-4.

A bit about the full-scale F-4 and the kit:

## High-Performance Fun in Scale: The Freewing F-4D Phantom II 90mm EDF Jet

For fans of scale RC jets who love big birds with real presence in the air, the Freewing F-4D Phantom II 90mm EDF Jet delivers both thrilling performance and iconic style. This model echoes the legacy of one of the most versatile and widely-used fighters of the Cold War era — the McDonnell Douglas F-4 Phantom II — while giving modern RC pilots options to tune performance to their skill level and flying goals.

## A Legend in Full Scale

The full-size F-4 Phantom II entered service in the early 1960s and went on to become one of the most successful multirole fighters in history. Flown by the U.S. Navy, Marine Corps, and Air Force, the Phantom was known for its powerful twin-engine performance, high-altitude capability, and adaptability to air-to-air and air-to-ground missions. It saw extensive action in Vietnam and later conflicts, accumulating thousands of flight hours across multiple nations' air forces. Its distinctive twin-intake, anhedral-tail shape and impressive speed make it an enduring favorite among aviation enthusiasts.

## Foam, Fan, and Flexibility: RC Version Highlights

The Freewing 90mm EDF jet brings that same razor-jawed presence to the RC flying field. This PNP (Plug-N-Play) model comes pre-built with most major components installed, letting pilots focus on setup and flying rather than assembly. Built from durable EPO foam with scale details like retractable landing gear, removable ordnance (AIM-9 missiles and fuel tanks), and realistic lighting, the Phantom looks the part both on the ground and in the air.

## 6S vs. 8S Versions: Power to Match Your Style

**One of the standout features of the model is the choice between two power system versions:**

- ◆ **6S Standard/High Performance Version** This version runs on a 6-cell LiPo battery (typically 5000–6000 mAh) and offers an excellent balance of speed, thrust, and efficiency. It's a great option for pilots who want solid performance without pushing into extreme speed envelopes.
- ◆ **8S High/Ultra Performance Version** For those seeking maximum acceleration and vertical performance, the 8-cell setup cranks out higher thrust and faster climbs. This setup results in a noticeably sharper flight envelope — but also demands greater skill, as it becomes more lively and energetic in flight. It's recommended for advanced pilots who are comfortable managing faster jets. Both versions use a 90 mm ducted fan (EDF) system — with the 8S typically paired with a 12-blade unit and heavier ESC to take full advantage of the extra voltage.

By the time I was ready to work on the model, FPV Ron found himself with a high-performance setup without a home (due to a crash), so I was able to talk Ron into letting me have it for the F-4. I added one of my custom LED 'afterburner' setups, plus a FrSky 8 channel stabilized receiver. So now, it was time to kick the tires and light the fires.....almost.

As I've told many folks, when considering the purchase of a plane (new or used), I always try to find a thread on RCGroups and read what others have said about that particular aircraft (*Wise words! Ed. Bill*) During my research on this model, I read that the elevator servo was prone to failure due to the loading. So I followed the recommendations of the folks on the RCGroups forum to swap the servo for a stronger one and use a heavier push rod.

Now, it was time to take it to the runway for a range check and maiden.

### On the Flying Field

With a wingspan of about 103 cm (40 in) and a length around 155 cm (61 in), this Phantom is impressive in scale and presence. It isn't a beginner jet — the recommended skill level starts at advanced — but pilots who fly it often praise its smooth handling, eye-catching looks, and high-speed capability.

Whether you're doing long, graceful passes with the 6S setup or hammering verticals with the 8S "Ultra Performance" version, this model gives you real jet energy and scale realism in a package that's still accessible to experienced hobbyists.

Speaking of maiden flights, one feature of the FrSky radio series I've found very useful is FrSky's **Instant Trim**. Instant Trim simplifies model trimming an RC model by using a momentary switch to instantly apply the current stick positions as trims for elevator, aileron, and rudder simultaneously. No trying to hit trim buttons whilst trying to keep a model in the air or calling for a friend to hit the buttons (not that the F-4 was a problem, needing just a couple of clicks of elevator to lock her in). (*Now that sounds like a very useful feature! Ed. Bill*)



Left: Before adding the decals.....

Right: After the decals, ready for the maiden flight!



# Bill's Corner

First, an explanation: Micki had cataract surgery the day before the meeting. She couldn't drive for a few days, due to changes in her eyes' focuses and light sensitivities. That wouldn't have been a problem, as I would've driven us to and from the meeting...except I came down with an intestinal virus the day of the meeting. Of course, I was fine the next day, but not that night. So, Dennis volunteered to fill in for us, for which we are both grateful. Thank you, Dennis!

Now, on to my article:

## Shearly It's Worth It

When drawing up a new model, I usually follow some standard design bits. Built-up tail feathers, constant fuselage width from nose to wing trailing edge, and shear webs for an "I" beam spar. Built-up tail feathers are lighter, a constant-width nose leaves more room for fat fingers, and the I-beam...well, let's talk about that.

First off, the correct term is shear, not sheer. The word 'sheer' describes something absolutely complete (sheer terror) or something light and airy (sheer curtains – no negligee jokes, please). Shear also has many meanings, but the one we want applies to shearing as splitting force. We want to avoid that force!

Shear webs keep spar pairs from splitting apart (hence the 'shear') AND from being crushed together. Putting a spar on the top and bottom of an airfoil, at its thickest point, and joining the spars with shear webbing, makes about the strongest wing you can find (all other bits being equal).

(Before you say you have a sheeted foam wing, so you don't have shear webbing, let me point out that you do. The foam is a shear web, whilst the top and bottom sheet make up the spars—a whole lotta spars.)

I prefer to keep the shear web grain vertical, but there are those who've successfully used webs with the grain parallel to the spar. Not going to open that up to discussion as it's like the 'downwind turn' or 'Coke versus Pepsi' arguments – we could use up zillions of electrons and never come to agreement! Vertical I like, so vertical it is.

Anywho, there are two common ways to make shear webs, one making an "I" beam spar, the other a "C" beam. Both are strong, but each has its pros and cons.

**C beams** – The webbing is glued to the sides of the spars.

Pro:

Easier to do. Just glue the webbing to the spars and sand it flush.

Con:

Heavier

Weaker as it depends on the glue bond's strength.

**I beams** – The webbing is glued between the spars

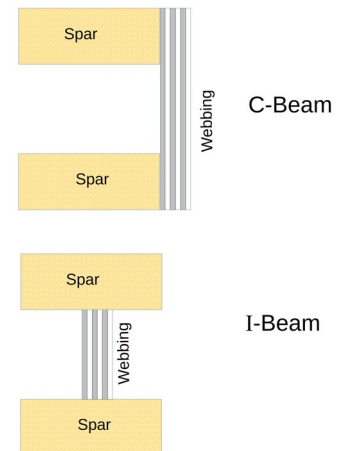
Pro:

Stronger

Lighter

Con:

Takes finicky, precise fitting



# Bill's Corner

Bill's Corner

So, as I'm always working towards the lightest, strongest model, you can see why I do "I" beam spars (that and my usual stubborn refusal to do things the way everybody else does -- note that my soft drink of choice is root beer, not Coke or Pepsi ;- ) ).

I start by gluing the ribs and bottom spars in place, then made a small mark (Sharpies are good for this) in the spar slot. That mark is to (hopefully) keep me from sanding down the rib too much when I sand the shear web tops parallel to the spar slots. Those are the blue marks in the pictures.

Next, I glue the shear webs to the bottom spar and the rib sides. I try to make the shear web tops just a bit taller than the rib slots, as it's easier (and safer) to sand the excess web length down than it is to build up a too-short web. I cut the webbing in one (per panel) long strip, marking the web tops with a red Sharpie, so they'd stand out in the imagery.

You readers know I'm fond of sandpaper, so you know what's coming....A dedicated sanding block, just for spar slots!

Strips of 120-150 grit sandpaper, glued to a length of 1/4" sq. spruce spar stock make up the sanding block. I only glued the sandpaper to two sides of the stock, as it has to fit within the spar slot in each rib. Next, I drew a line, 1/8" from the side, to indicate when the sanding block is deep enough, backing up the ink in the spar slots.

On this latest, ~46" wing, it took me about 20 minutes of careful sanding to get the webbing even (including repairing the rib I broke whilst sanding...oops...). Some trial fitting, sanding the spar butts at the center section, and it was time to glue the spars in place.

This is a good place for a slow-drying glue, such as my preferred Titebond II. It gives enough time to apply glue to each spar slot, plus a thin bead all along the web tops. Clamp down the spars with a series of big "T" pins, and I'm done for the day.

Tomorrow should bring getting started on sheeting the wing leading edge tops and, maybe, the trailing edge and ailerons. We'll see!



**(Left)** Composite shot of spar sanding block top & side. Note thin blue line marking spar depth in the lower shot.

**(Right)** webbing glued down, held with large T pins.

**(Bottom Left)** Webbing has been sanded flush with slots in ribs.

**(Bottom Right)** Bass spars glued in, held down with more large T pins.

