MCPx to Bell 47G conversion

OK, let me start by saying that I am not really a "builder". Unlike my father, I've never had the patience to do a "from scratch" scale build so I tend to fly ARFs. But I do love scale aircraft and have a soft spot in my heart for the Bell 47G helicopter so this project was an ideal compromise.

When I read on an internet forum about someone who converted a Revell plastic scale model of the Bell 47G to fit the Eflite MCPx, my interest was piqued. I have an MCPx but the Revell kits were selling on Ebay for about $35 so I put it into the "maybe some day" file. But cruising a local shop the other day I found them for $12.99 and decided that "some day is now".

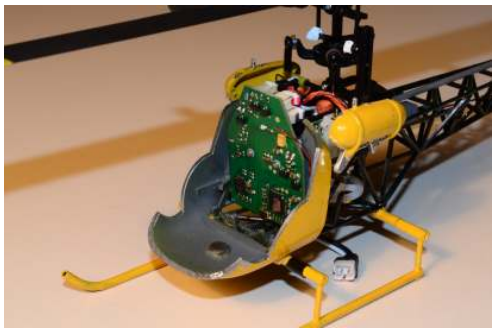
The kit is the Revell "Bell H-13H 2 in 1", part number 85-5313. This is a 1:35 scale static model in olive drab styrene. It is almost a perfect fit for the Eflite MCPx.

This article describes the project in general terms. You can see from the photos how I did most things, but I leave the tiny details up to you.

I did some head scratching as I built mine, trying to come up with the best way to fit the mechanics into the model but in retrospect, the kit can be built as-is with the exception of the cabin interior and bubble because the required modifications mostly consist of cutting a few pieces of plastic and using a Dremel to cut a slot in the cabin rear and relieving the bubble a bit. That's basically it!

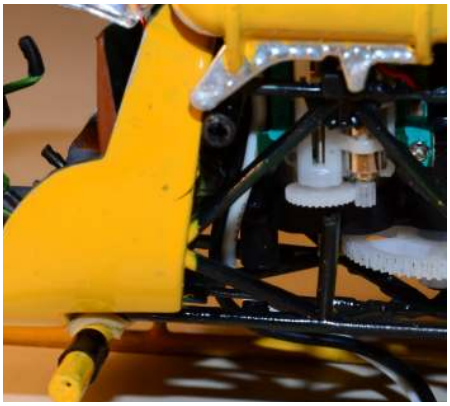
First, build the Bell 47 but do not add the cabin interior or canopy bubble. Omit the tail rotor.

From the MCPx, remove the canopy, skids and tail boom.



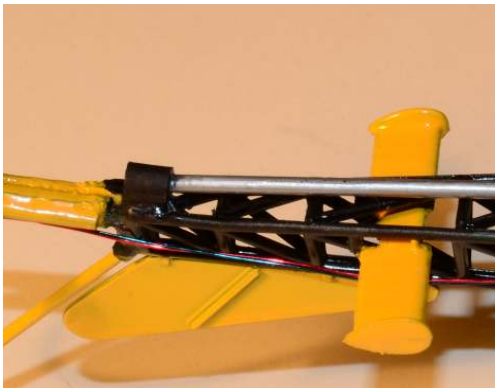
Lay the MCPx on the top of the Bell 47 with the control board ahead of the rear of the cabin. This will show you where to cut a slot in the rear of the cabin and also what supports to remove in the Bell frame so that the MCPx mechanics will fit.

Once you have the space for the MCPx mechanics, you will find that you need to shorten the front canopy mounting studs just enough so they will pass inside the Bell frame. This is the only modification required to the MCPx, and can be reversed by making "adapters" that consist of a 2mm ID CF tube to slip over the studs, with a 1.5mm CF rod CA'd inside to replace the portion you cut off.



The MCPx mechanics are held in the Bell frame with two pieces of 2mm ID CF tubes press fit over the shortened canopy mount stubs.

When you have the mechanics inside the Bell frame, you will find there is an interference with the left and right servos. Heat the frame gently and bend the frame so that the interference is cleared.



CA a short piece of CF tubing to the end of the Bell tail boom to accept the end of a dummy MCPx tail boom. This

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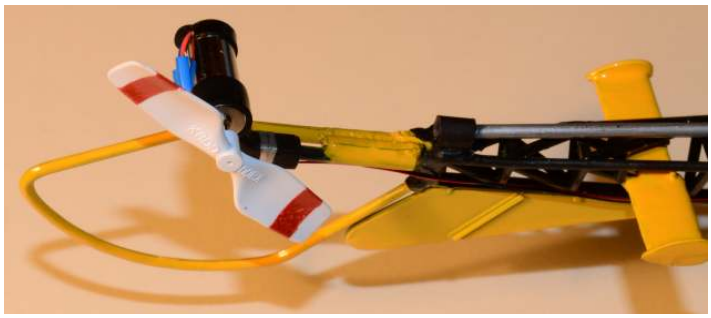
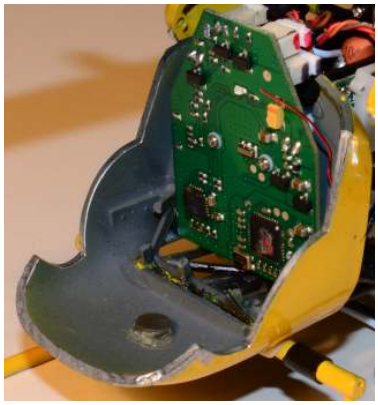
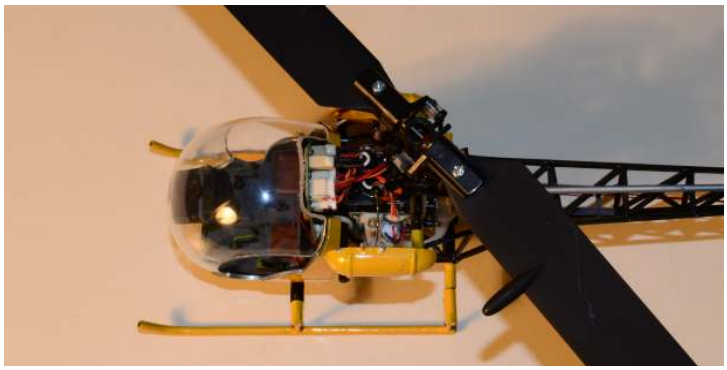
dummy boom acts as a rear support and also serves as a simulated tail shaft.



Grind a flat on a piece of 2mm CF rod and cut it so that when Ca'd to the tail cage, it will act as a mounting point for the MCPx tail motor.

The next bit is the only really tricky part. Cut the rear of the cabin floor (ie., the seat bottoms) short so the floor fits up against the MCPx control board and the front of the floor just touches the inside of the canopy bubble. Then add the avionics stack assembly and position it so that the front of the stack touches the inside of the canopy bubble with the rear of the floor up against the MCPx control board. Set up this way, the canopy bubble can be carefully glued to the floor and avionics assembly so it all comes out as one piece. Add a super magnet to the underside of the floor and to the bottom of the cabin and the cabin interior is removable.





In flight, the MCPx feels heavier and the flight time is reduced to 3 minutes with some reserves (more with Turnigy 300mH 35C cells). But it flies very well as long as you fly scale. And it looks WAY CUTE in the air!

You may need to reinforce the stock landing skids. Mine seemed a bit soft and tended to collapse under the increased weight of the completed model. I ended up breaking them in a crash and made more scale-looking replacements out of small diameter aluminum tubing and CF rod. Each side is separate and plugs onto CF rods passed through CF tubes glued to the bottom of the frame where the original skids mounted. They are (somewhat) held on with the black shrink tubing seen above, which also doubles as simulated scale anti-skid pads.

The battery just slips under a rubber band criss-crossed over the ends of the front skid mounting tube.

I painted mine yellow and black to honor N975B, the Bell 47G from the 1950s TV show "*The Whirlybirds*" with Ken Tobey and Craig Hill. As soon as I find some inkjet water slide decal material, I'll make some markings and add the Whirlybirds logo that will hide the ugly glue dot in the front of the canopy bubble.

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