

# **DIGITAL AVIATION DIORAMA TUTORIAL #1**

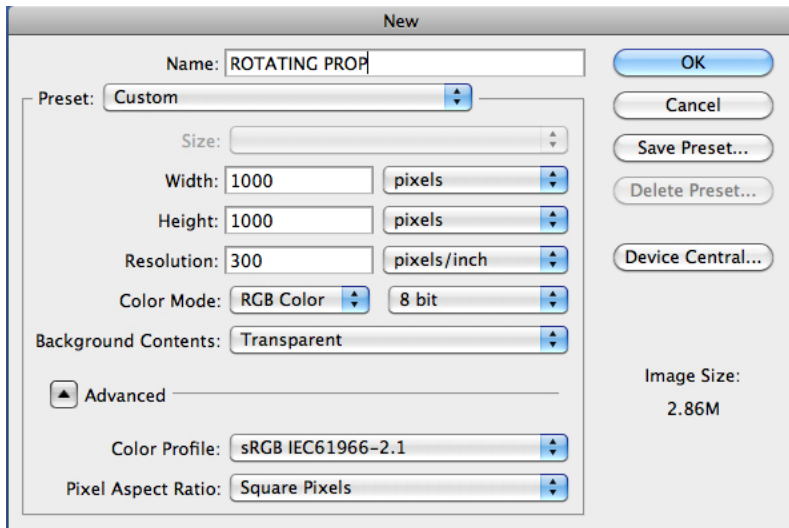
## **PROPELLERS, CANOPIES ETC**



**Jon Davison**

# PRELIM WORK - setting up your workspace

**A.** Create a new document (**Co-N**) of 1000 x 1000 pixels. RGB, and click OKAY in the next window that follows.

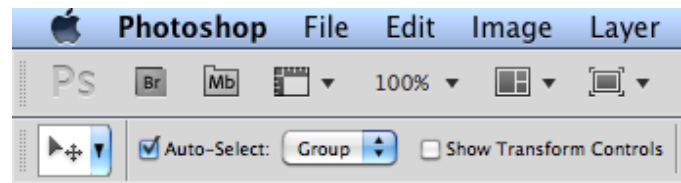


Make sure that you use these settings, esp Transparent. Note the file size for the blank window is 2.86MB

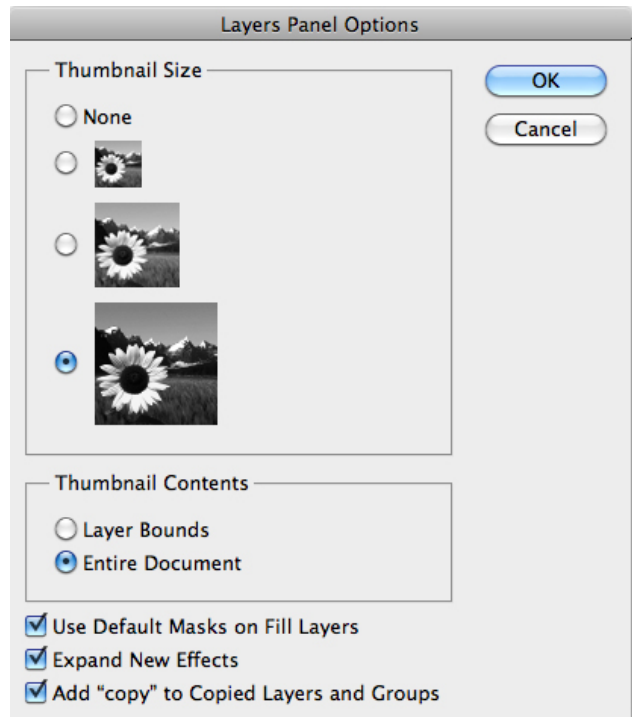
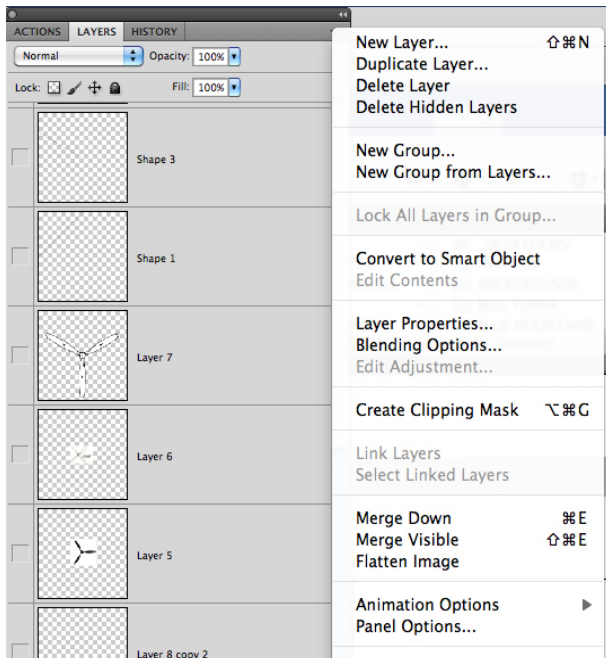
**B.** Default your colours to Black and white by clicking the **(D)** key and make sure **WHITE** is the **foreground** or top colour by clicking the **(X)** key.

**C.** If not already on, turn on your rulers (**Co-R**).

**D.** Click your Move Tool (V) and at the top menu make sure that **AUTO SELECT** is ticked!

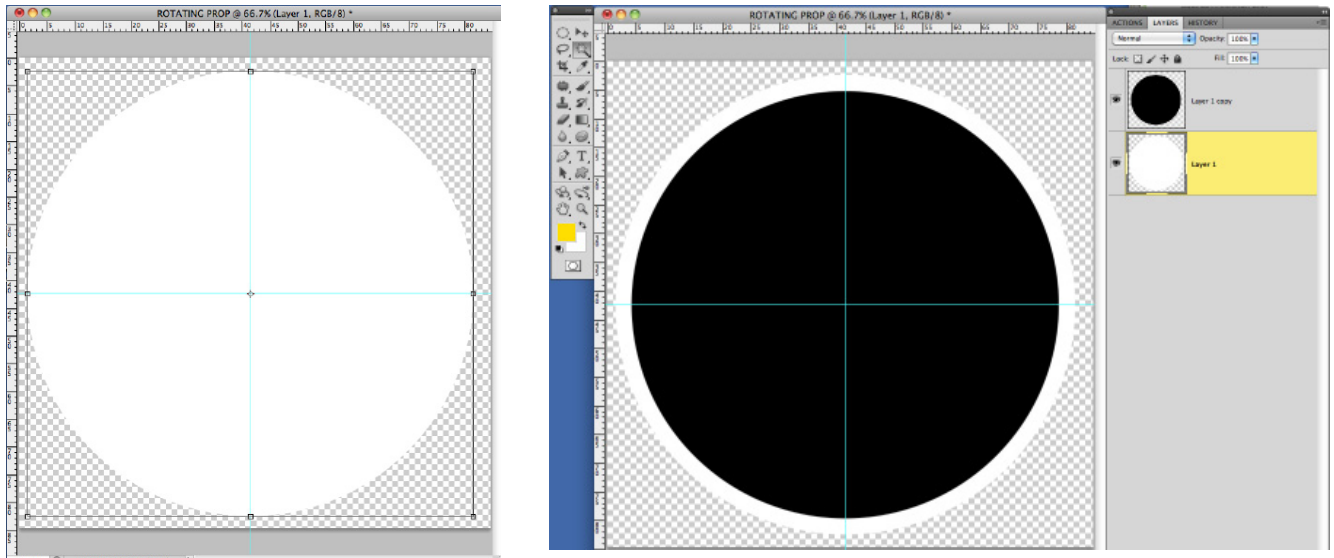


**E.** In your Layer Palette, click the small dropdown arrow at the top left, then choose Layer Options. Here you can adjust the size of your Layer icons. Lets make them Large.

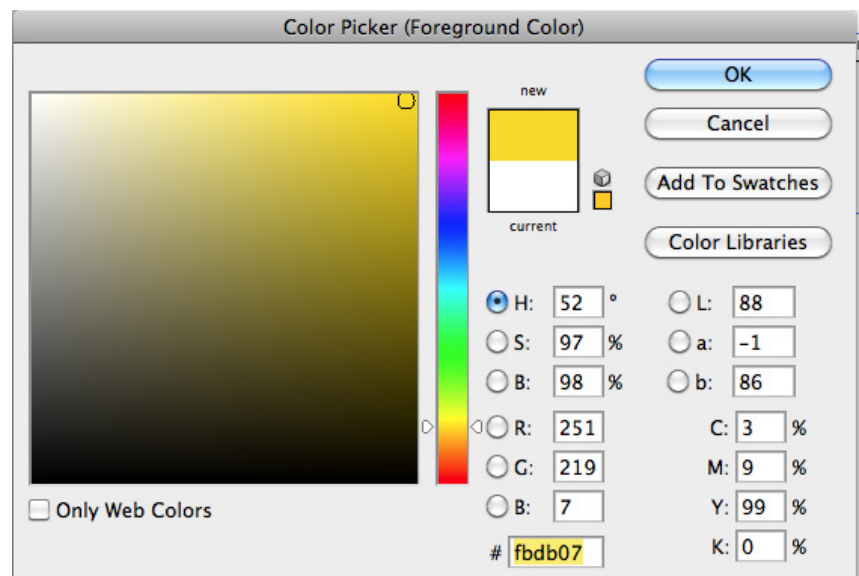


## THE PROP - *creating the illusion*

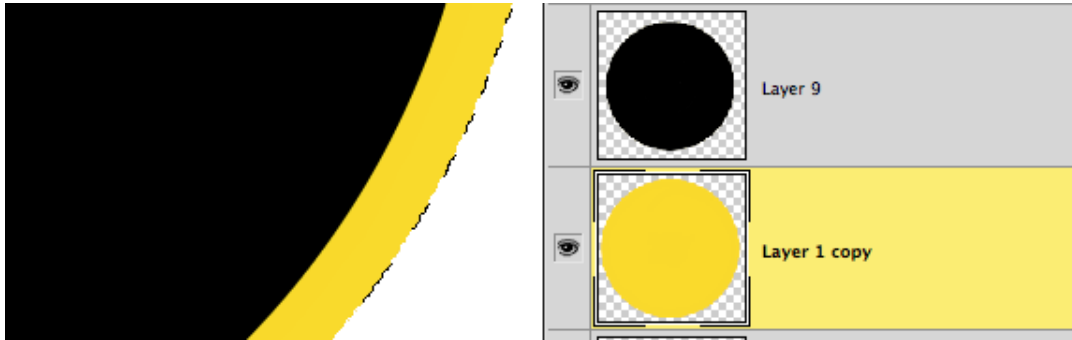
1. With your Elliptical Marquee tool (**M**) and whilst holding down the **Shift key**, to constrain the tool, create a circle so that it almost covers the window by dragging top left to bottom right.
2. Fill this selection with white. (**Option-Delete**).
3. Now go (**Co-T**) as if you were going to transform the circle. This will give you your centre points. Now drag a ruler from the left and one from the top, both into the centre, so that you now have visual centre guides. If you cannot see the blue lines, activate them by (**Co-;**). Hit **RETURN** to commit this action.



4. Duplicate this layer (**Co-J**), then INVERT IT (**Co-i**). So now you should have two circles with the black one on top. Trust your Layer Palette to show you this as you probably won't see it.
5. We are now going to Transform this new circle so that it is slightly smaller than the one beneath. (**Co-T**), and with finger on **SHIFT** (to constrain of course!), lets make it smaller like so. Here's where the blue lines will help to center the new circle.
6. Click on your top colours swatch, when the Colour Picker appears, type this code in to the bottom panel; **fbdb07**. This will set your foreground colour to yellow. Just check this is the foreground colour, on top. If not click **X** to bring it to the top.

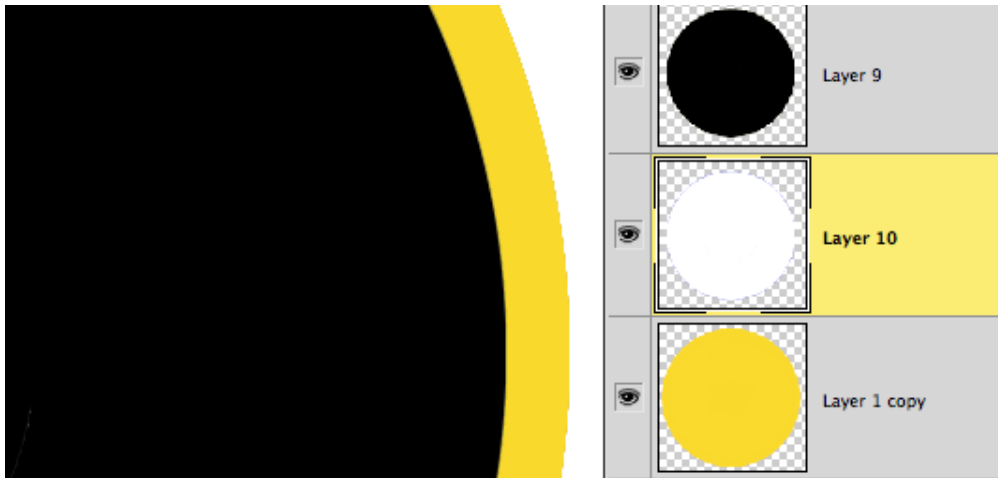


7. Click on the larger white circle in your Layers Palette to activate it. Now keep your finger on the Command (Apple) key and click the white circle in your Layers Palette. This will select it, and you will see the 'marching ants' surrounding it.

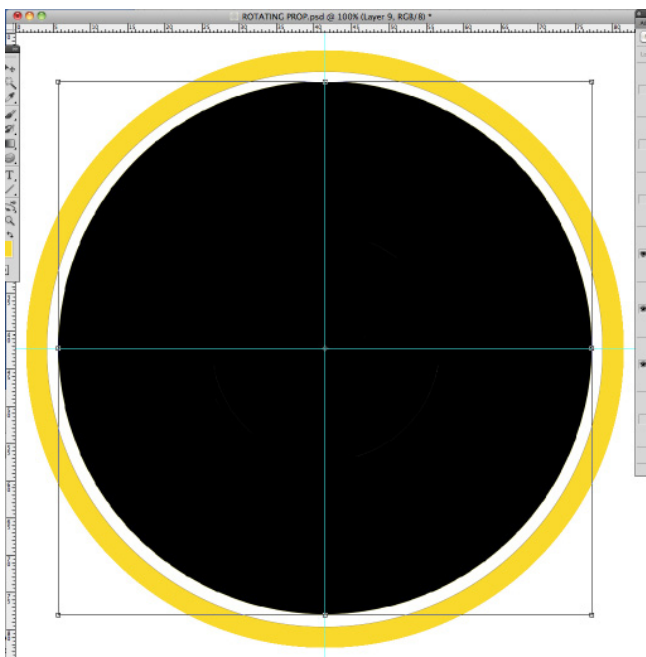


8. We can now fill this with the new yellow, by; (Co-Option). So now we have a black circle on top of a larger yellow one.

9. Lets make a smaller white circle in between these two as a trial, try this. Click on the black circle. Go (Co-J) to duplicate it. Then Invert it by (Co-i) so that it is now white. Drag this layer BENEATH the black one.



10. Now Transform the black on (Co-T) so that a small white ring is visible. Then hit RETURN to commit this action.



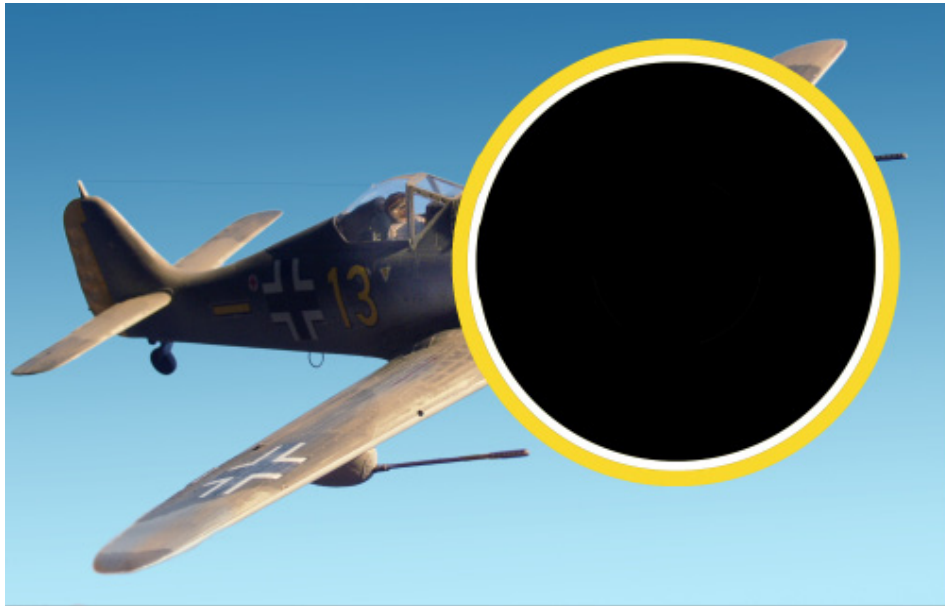
You can see how the rulers are helpful in situations like this as centering the layers is important.

11. It is up to you whether you chop out the centre for the prop boss to occupy, or erase it later once we get it on the model itself. I tend to do this later.

12. Now, merge all three layers together (yellow, black, white) so they are one. From the top one (**Co-E**).

13. Open the aircraft image you want to work with. In this case I am using an FW190 with a Gradient of two tones of blue as the background.

14. Drag the compressed prop-circle layer onto your aircraft image. It will appear as a new layer on top.

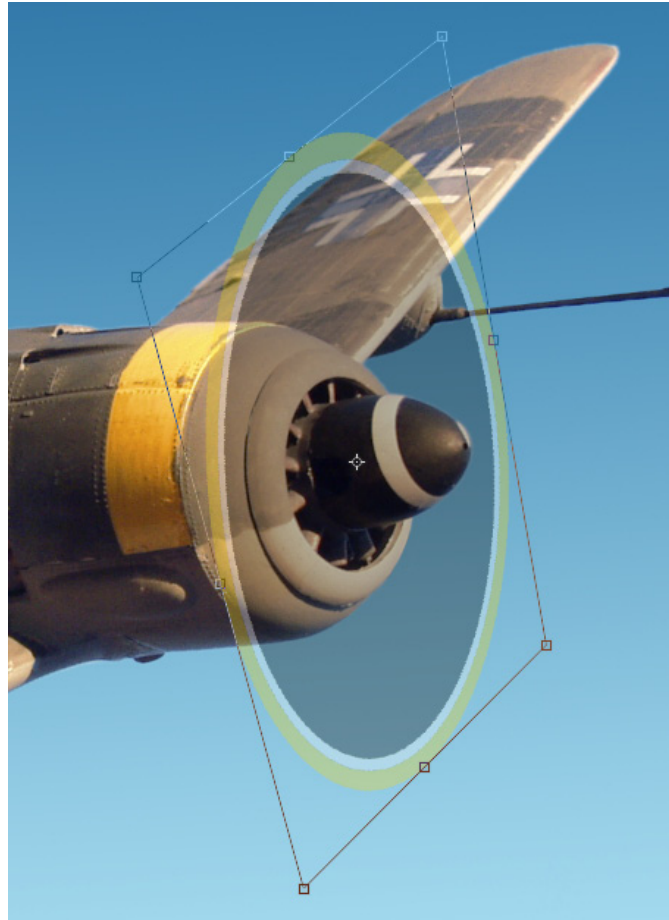
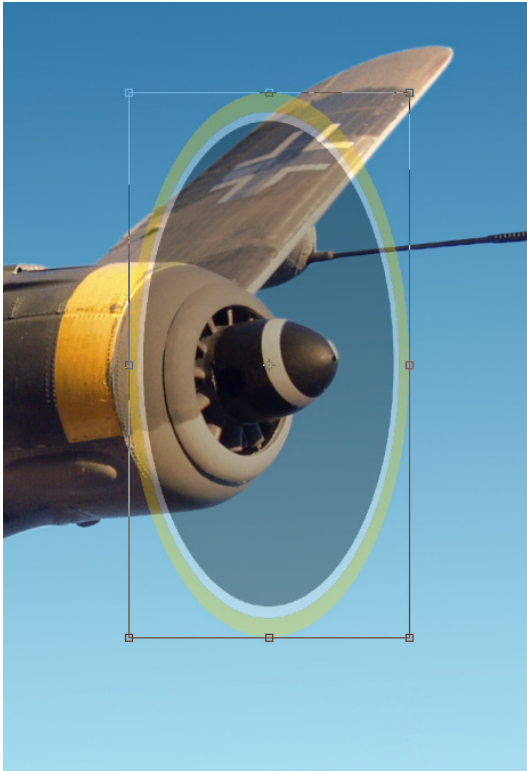


15. Change the OPACITY of the circle (**1 to 0** on the keyboard) so that you can see the aircraft beneath.



Now the fun begins. We need to change the perspective to fit the angle of the aircraft. Yours will be different but the principle is the same.

**16.** Go **(Co-T)** to transform the prop, but keep your finger also on the **Command key**. Now drag one corner at a time to replicate the aircrafts perspective like so;

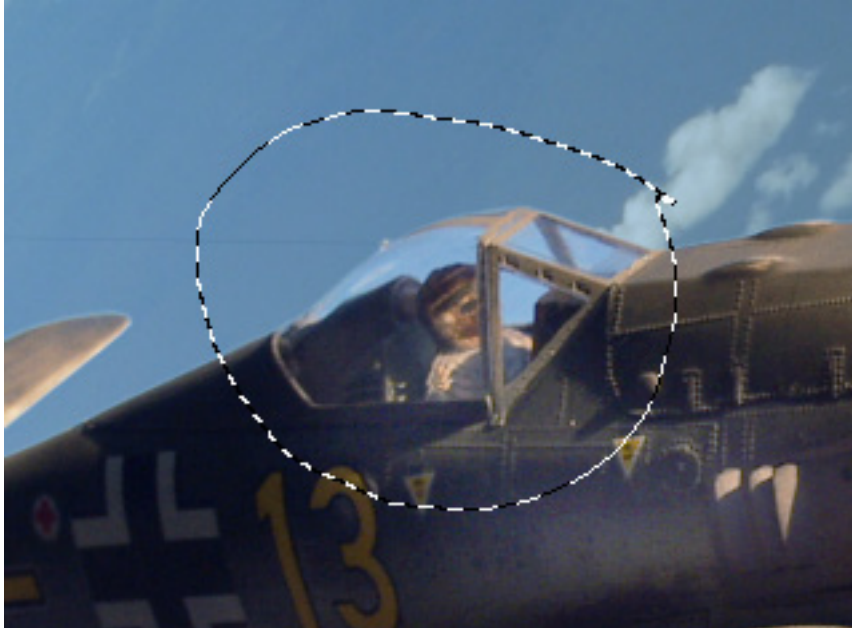


Nearly there! it's up to you how you create the three or four bladed prop blur. But it's easy to simply erase elements here to make it look how you want. Also erase the bit over the prop boss. I added a background element here as another layer, then rotated it to make it a bit more dynamic. I changed the Opacity as well to allow for UV haze at this height.

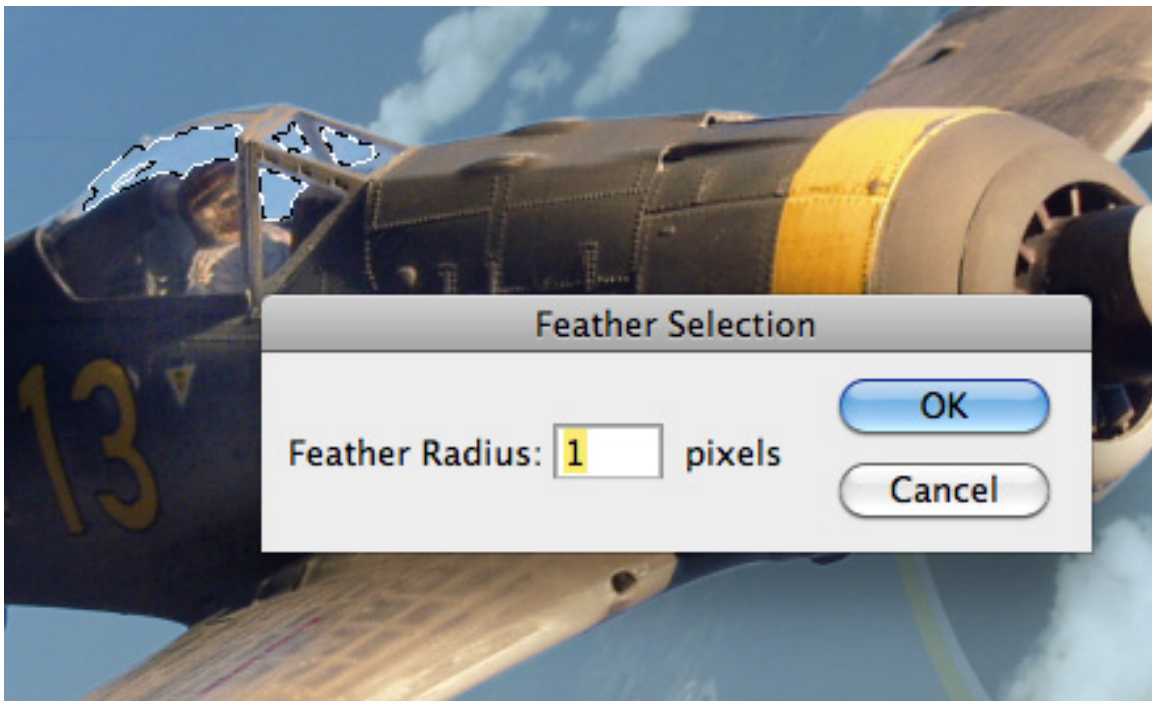


One last important detail. You need to add transparency to the canopy so that you can see a bit of background beneath. This just adds to the visual plausibility of the diorama.

17. Make a selection roughly around the canopy on the aircraft layer. Go **(Co-J)** to make a new layer so it is above the aircraft.



18. Click on the aircraft layer now, and with your MAGIC WAND **(W)** Tool, select the blue sky within the canopy, or any areas that are transparent, like so. Then FEATHER it by one pixel **(SHIFT-6)**. Now cut it out **(Co-X)**.



To see what you have done you will need to go back to the canopy layer you made earlier, and change the opacity by something like say 4. Try it and find your own percentage.

This lets you see some of the cloud or wahtever it is in the background, just ading to the realism of the scenario.

Good luck!  
Jon Davison  
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