Thank you very much for your generous contribution to the community. You have built a wonderful model which is a pleasure to fly. Congratulations!  
  
After flying the Titan for several hours I made some changes to your panel, which I submit for your consideration.  
  
**Observation**: The VOR display is tied to NAV2, while the plane is equipped with a single nav radio, NAV1. This makes VOR navigation impossible.  
  
**Solution**: Replaced the combined COM / NAV radio with separate COM1 / NAV2 radios. Since I like using VOR navigation, I went the extra step of replacing the basic GPS with the Garmin 430, which also provides a NAV1 radio. The VOR display was then replaced with the RMI\_N12\_GA.png display, providing directional needles for both NAV1 and NAV2. Now the plane has excellent radio navigation, and since you already provided dual ADF radios and DME nothing else is required. p.s. The Garmin had to be scaled up by 25% to match the size of the other instruments.  
  
**Observation**: The panel has no provision for monitoring exhaust gas temperature. This makes fine tuning the mixture more difficult.  
  
**Solution**: Added the multi\_EGT.png exhaust gas temperature gauge. Now fuel consumption can be maximized. While I was at it (and because I like gauges) I added oil pressure, oil temperature and cylinder head temperature gauges, all on the co-pilot's side of the panel. It is now possible to know what the engine is doing.  
  
**Observation**: The plane is not equipped with electric systems monitoring gauges. What is the state of the battery? How close to the edge are you running the generators?  
  
**Solution**: Equipped the panel with two sqr\_gen\_amps.png gauges (1 for each engine), one sqr\_batt\_amps.png gauge and one sqr\_batt\_volt.png gauge. They fit beautifully under the HSI. Now we know what's happening with the juice.  
  
**Observation**: No fuel shutoff or tank management controls. What if there is a fuel leak or weight imbalance?  
  
**Solution**: Added but\_fuel\_012\_all.png and but\_fuel\_crossfeedl.png selectors. They fit easily on the right side of the panel.  
  
**Observation**: The turn coordinator ball is largely hidden by the yoke.  
  
**Solution**: Moved the turn coordinator to the left. Now the rudder can be trimmed easily in level flight. I also added rudder and aileron trim wheels and indicators to match the elevator trim controls you provided. I managed to fit them above the throttle quadrant.  
  
In addition to the panel changes, I made a few small adjustments to the aircraft specifications as well.  
  
**Observation**: Fuel consumption is too low. This gives the aircraft unrealistic range.  
  
**Solution**: Increased the Specific Fuel Consumption (SFC) of the engines to 0.580. I have no idea if this is the correct number, but with this parameter set the plane cruises at 10,000 ft. with 28 inches of manifold pressure, prop at 3,000 rpm, using 23 gph. This matches the published figures for the Titan.  
  
**Observation**: The fuel tank is too small. All the info I could find states that the big Cessna can carry 2,064 pounds of useable fuel, whereas you have set the tank capacity at 1,800 lbs.  
  
**Solution**: Set the tank capacity to 2,064 lbs. This change, in conjunction with the increased SFC provides the correct range for the aircraft. In addition, with full tanks the plane can now carry 1,535 lbs. of passengers and / or cargo. This matches published figures very well.  
  
There are a couple of factors which I have not addressed, and offer no solution for at this time.  
  
The first is that there is not enough rolling friction from the tires. At idle, the plane will happily accelerate to over 20 kts. It should take some throttle to do that.  
  
Secondly, and perhaps most importantly, the Titan has not quite enough lift and a smidge too little drag. For example, published figures say that at 65% power at 10,000 ft. the plane should cruise at 188 knots. With your model 63% power results in 199 knots. In addition, I cannot match the published initial climb rate of 1,900 fps. I suspect that the wings used in your model are lower lift, lower drag profiles than the NACA 23018 / 23019 airfoils used on the actual Titan. A higher lift / higher drag wing should bring the model into agreement with published specs.  
  
**Please** do not take any of the above as criticism of your fine model. The plane is very well crafted and great fun to fly just as it is. The changes and observations I have made merely enhance the experience from my own personal point of view, based on my tastes and opinions. I submit these observations as a compliment to your model, and hope that you take them as such.  
  
Tech info: I am running an old dual processor G5 Mac (2 GHz, 2.5 GB RAM, 128 MB Radeon 9600video card at 1680 X 1050 resolution) with X-Plane 9.50. The changes I have made have no discernible effect on frame rates.  
  
  
  
With respect,  
  
Sharptail