MilViz presents the Cessna C310R

MilViz or Military Visualizations recently released, via Flight1 their first and hopefully not their last GA (General Aviation) twin airplane. It all started years ago at the Cessna plant with a basic C310 model. Since we're dealing with an old aircraft, it wasn't easy to collect the necessary background and historical information. What you'll see is an extraction from*Wikipedia*, what I double-checked to be sure that the information is correct.

According to Wikipedia *"the Cessna 310 is an American six-seat, low-wing, twin-engine monoplane that was produced by Cessna between 1954 and 1980.The 310 first flew on January 3, 1953 with deliveries starting in late 1954. The sleek modern lines of the new twin were backed up by innovative features such as engine exhaust thrust augmenter tubes and the storage of fuel in tip tanks in early models. In 1964, the engine exhaust was changed to flow under the wing instead of the augmenter tubes, which were considered to be noisy."*

"Typical of Cessna model naming conventions, a letter was added after the model number to identify changes to the original design over the years. The first significant upgrade to the 310 series was the 310C in 1959, which introduced more powerful 260 HP (194 kW) Continental IO-470-D engines. In 1960 the 310D featured swept back vertical tail surfaces. An extra cabin window was added with the C310F model."

"The 320 Skyknight was developed from the 310F, which featured turbocharged TSIO-470-B engines and a fourth cabin side-window. The Skyknight was in production between 1961 and 1969 (the 320E was named the Executive Skyknight), when it was replaced by the similar Turbo 310.The 310G introduced the upswept 'stabilatip' tip tanks, while the 310K replaced the rear two windows with a single unit. Subsequent developments include the 310Q and turbocharged T310Q with redesigned rear cabin with a skylight window, and the final 310R and T310R, identifiable for their lengthened noses. Cessna C310 Series production ended in 1980.
Over the years there were several modifications to the 310 to improve performance. Noted aircraft engineer Jack Riley produced 2 variants: the Riley Rocket 310 and the Riley Turbostream 310. Only seven of the latter modifications took place and the Riley Turbostream is perhaps the highest performance civilian piston light twin in existence. Riley replaced the standard Continental 310 HP (230 kW) engines with Lycoming TIO540 350 HP (261 kW) engines. These turbo-charged intercooled engines were installed with 3 blade Hartzell propellers in a counter-rotating configuration to further increase performance and single engine safety. At 5.400 lb (2,400 kg).gross weight the aircraft had a weight to power ratio of 7.71 lb (3.50 kg) per horsepower. This resulted in a cruising speed of 260 knots (480 km/h) at 18,000 feet (5,500 m) and a rate of climb 3,000FPM."

"The Cessna 310 was a common charter aircraft for the many air taxi firms that sprang up in the general aviation boom. The advantages to the Cessna 310 over its contemporaries, such as the Piper Aztec, were its speed, operating costs and after market modifications such as the Robertson STOL kits which made it popular world wide for its bush flying characteristics. It could access short fields while at the same time carrying a large useful load of 2.000 lb (910 kg) or more at high speeds for a twin engine piston aircraft.
Other competitive planes to the Cessna 310 include the Raytheon (Beech) Baron, the Piper Seneca and arguably, some models of the Aero Commander."

"Although hard to believe, but as of 2006, many Cessna 310s are still in operation in air taxi service worldwide.
Finally, in 1957, the US Air Force selected the Cessna 310 for service as a light utility aircraft for transport and administrative support. The USAF purchased 160 unmodified 310A aircraft with the designation L-27A and unofficially nicknamed Blue Canoe, later changed to U-3A in 1962."

This Cessna 310 Series introduction tells me that we're dealing with an extraordinary aircraft from the Cessna Aircraft Company, situated in the United States. Hold on, it was not only manufactured at the Cessna Company, but also available for Microsoft Flight Simulator X byMilViz and distributed by Flight1.
With that in mind, let's have a look what Flight1 has to tell about this *high performance aircraft that's packed with features*.

- *It comes with three different VC (Virtual Cockpit) setups, one of which is fully customizable using your own gauge sets,*
- *By default, five different liveries are available.*
- *A high resolution paint kit is available.*
- *Highly detailed Pilots Operating Handbook of 116 pages written by a real C310 pilot and includes all performance charts and figures. If you choose to, you can fly by the numbers, or fly as casual as you wish.*
- *High quality sound set recorded from a real Cessna 310R, and programmed by Turbine Sound Studios.*
- *Extremely realistic night lighting, landing lights and custom effects.*
- *Flight dynamics tested and tuned by a real C310R pilot. The aircraft flies just like its real world counterpart model.*
- *Avionics suites include, but are not limited to, the Garmin GTX 330, Garmin GNS 430, Garmin GNS 530, EDM 700 and any other 3rd party add-on avionics that you have purchased that you wish to install.*
- *2D panel (16:9 only - widescreen) available.*
- *Aircraft features an exterior model manager that enables you to install/remove red gear, chocks, and show/hide the pilot (from external view only).*
- *Ability to hide the yoke in the VC or 2D cockpit, enabling the virtual pilot to access certain switches normally obscured from view by the yoke.*
- *Several functional opening doors, compartments and functional inflatable main door seal.*

I can tell you already, at the beginning of this review, that this first General Aviation MilVizaircraft is really special. How special and what to expect; please join me on my MilViz adventure.

Setting up your Cessna
Buying, the installation process and the manuals
Buying is not really a problem as long as your wallet holds enough credit cards since this highly accurate C310R cost you only $29.95. Once bought, the installation is initiated with the help of the famous Flight1 Wrapper, so before you know, you're done. The only thing you need for a successful installation is the Flight1 key file and a password.
The installer automatically detects the default FSX directory and as I just said; within an eye blink it's done. You could, if you want more liveries, take advantage of the additionallivery pack, available from the Flight1 website. Furthermore, MilViz offers also a "Legendary Birds" livery pack and the paint kit. Both can be downloaded via the integrated links. Keep in mind that the Flight1 livery pack doesn't change the aircraft.cfg file. This means you need to make yourself the necessary changes to get those liveries available in FSX.
Some words about the default C310R liveries; the five available liveries are **N50773**(MilViz 3D Analog), the **N5225J**(default FSX G1000), the **C-GTER**(Free Radio), the **D-IRFT**(MilViz3D Analog) and finally the MilViz house livery (Free Radio). What that 3D Analog, G1000 and Free Radio means, we'll leave that for later. In other words, there are enough cockpit layouts to choose!

MilVizprovides enough data to help you understanding all the ins and outs of this Cessna. The Adobe Acrobat manuals are accessible in the SimObjects\Airplanes\Cessna 310R MilViz\Manuals folder. It's shipped with the following handbooks:

- Military Visualizations **Cessna 310 POH** (Pilot's Operating handbook) – 116 pages.
  This is a modified copy of the original Cessna 310R handbook. In other words, all what you need or want to know about this aircraft is in this handbook including a walk-around check or preflight inspection, checklists, procedures and performance graphs. On page 80 you'll find a complete description of the MilViz cockpit systems, instruments, additional features like the miscellaneous installed systems and a preflight utility.
- Garmin **GTX 330** – 8 pages.
  Although this Garmin transponder manual is thick, it tells you all the ins and outs of this tiny instrument.
- Garmin **GNS 530**- 47 pages.
  What was applicable for the GTX 330 isn't for this Garmin equipment. Due to the complexity and the completely handmade device, it takes a little more time to read and understand. The MilViz GNS530 is designed around the generic Garmin 500 database provided with Flight Simulator X in order to maximize the utility of these units within the simulator. Great care has been taken however, to use vector graphic drawing instructions rather than fuzzy bitmaps as much as possible in order to speed up the gauge itself, but more importantly to produce crisp, clear displays. The result is that these gauges are *99% pure vector graphics*. The latter has nothing to do with the manual, but gives you already a good impression of the overall Garmin instrument. Anyway, this manual will help you using and understanding this great navigation equipment.Official Garmin information can be found via this [link](#).
- Garmin **GNS 430** – 36 pages.
  According to Garmin, the GNS 430 provides the pilot accurate navigational data and communication capability, along with non-precision and precision approach certification in the IFR environment. When you have the feeling you need more background information, have a look to this Garmin [link](#).
- **EDM700** – 2 pages.
  This manual offers you some background instrument information from J.P Instruments, which deals with precision engine performance. When this is not enough for you, have a look at the J.P. Instruments [website](#) and then in particular into this [manual](#).

Not directly related to the offered manuals, the MilVizC310R comes with three different cockpit layouts:
- Homemade instruments including all the Garmin- and JP equipment.
- Default FSX Garmin G1000 with additional MilViz equipment.
- Default FSX radio equipment with additional MilViz indicators, switches, knobs and lights.

Later you'll see what this all means and how it looks like.

Walk-around Inspection
Doing a GA aircraft walk-around check is easier and quicker, at least, when you compared with medium size or big jets. On the other hand, the smaller the aircraft, the more details you may or can expect although every 3D model does have*a kind* of polygon limitation. What I understood

from designers is that FSX doesn't really have a polygon limitation, but on the other hand, there's a FPS factor. A *too complicated* designed model with too many polygons reduces the FPS and that's something we don't want so there's always a balance between the amount of polygons and frame rate output.

Anyway, this multi engine GA model is small and thus you may expect lots of details. I can assure you, it does have it all. With the POH in my hand and doing the walk-around check procedure as detailed depicted in the book, I see an aircraft with so many details. The result is astonishing!Starting from the cockpit, right hand tail, left hand tail, logically the left hand wing with prop, engine cowling, aircraft nose with nose wheel assembly, and via the right hand wing back to the cockpit.

After leaving the cockpit, via the right hand door, I'm impressed by the overall skin quality of the wings, fuselage, gear, engine cowling and tail. It's a combination of a weathered look, all the rivets, oil smuts at certain areas, a limited glossy look, scratches and much more. In short, the overall look of the Aluminum skin is great and reflects based on my real GA practical knowledge, an*as real as it gets*GA FSX model. While I'm inspecting the right hand main landing gear wheel and strut, I've got the impression that the 3D developer didn't use photo-real material to cover the strut, but rather he or she tried to create a real looking strut with grease and oil on it. The outcome looks very nice as well as the main wheel rim and tire. It seems many polygons are used to create a more or less round wheel. The only thing I miss is the brake hydraulic line along the main gear struts and, but I'm not sure about this, an electrical wire for a temperature sensor. Not really a big deal since many flight simmers will not look at that much detail, but let's hope when MilViz offers a Service Pack, that the hydraulic lines will be included. Following my tail inspection I can't say anything else than great. However on the elevators and rudder, I miss seeing the static dischargers. Most aircraft have them and after searching Airliners.Net, it turned out that of the hundreds of pictures I've seen, some have on each flight control, 1, 2 or 3 static discharges installed. On some pictures it seems that nothing is installed, but more do than don't. Again boys and girls, this is not a hot item to worry about, but if they should be installed then it would be nice when a Service Pack could fix these missing parts.

Although these screen shots are not taken while doing my walk-around inspection, it will give you a good idea of the overall MilViz external model quality.

Looking at the left hand wing I'm checking the flaps, ailerons, wing tip and engine cowling, I'm very happy what I see. So many tiny details are visible that it's almost too much to write about every item. The screenshots above will tell you what I mean.

This is a good moment to check the navigation and landing lights but there's something weird with both landing light units or is it just me. The light units are mounted at the bottom aft wing tip-tanks. When OFF, you can see the shade of the landing light lamp itself. When switched ON with the keyboard command "L", the lamp unit only illuminates, but it doesn't extend. There's nothing wrong with this and it seems that to extend the landing light unit, you need to use the Landing Light switch on the electrical panel. My point is; don't use the keyboard "L" command in relation to the landing light unit and lamp. The three-position switch allows you to first extend the lamp unit without switching it ON, while the third switch position switches the lamp ON. For your information; switching the lamp OFF and/or retracting the unit, should be done with the right hand mouse button.

Looking at the engine with all that's built around it, it seems nothing is forgotten. The upper cowling screws look realistic including all the dents, scratches and weathered look. This is also applicable for the exhaust grill on top of it and don't forget to look at the spinner with the McCauley propeller blades. Just a small detail and worth to mention, the leading edges of the propeller blades are *simulated weathered*. This means that the grey paint on the leading edge of the blade is missing. Well done! While reaching the nose gear area as well as the fuselage nose section, the overall look and 3D work tells me that a lot of effort has been put into it. I can't say anything about the nose gear with hydraulic lines and/or wiring since the nose-landing wheel doesn't have a brake nora sensor. The only electrical wire I could think of is that for the nose landing

gear taxi light, but that's mounted on top of it and thus normally not visible. It's time to move on to the right hand wing and engine cowling. This is, as you can expect, the same as what I saw during my left hand inspection. By the way: via the FSX menu Views-Instrument Panel-C310 Preflight, you can activate the wheel chocks and pitot/engine covers. Additionally, you can individually open/close the LH/RH wing locker doors with Shift+E+3 (4), the RH cockpit door and the main baggage door (Shift+E+2). Except for the LH storm window, there are no other simulations added thus no engine cowling open/close command or the nose compartment baggage door.

I've made it. My thorough walk-around inspection has come to his end. Overall impression is a model full with tiny details. A high quality 3D modeling. Time to look to another set of screenshots made during the real ground inspection.

The *Office*

For which office shall I go …..the 2D or the VC (Virtual Cockpit)?

Let's start with the VC because my first impression is *awesome*. This MilViz Cessna comes with different VC's. It comes with an ordinary 3D MilViz 100% analog version with integrated Garmin GNS530, GNS430, GTX330 and JP Instrument equipment. Furthermore, you'll find some dedicated handmade Bendix/King equipment. This VC design is *top notch*. The instruments and then in particular what's visible on the IAS, VSI and horizon offers extremely high quality instruments I haven't seen before. That's probably the advantage when graphics are based on vector drawings.

Anyway, another VC option is the *G1000*. Apart of a few MilViz handmade analog instruments, the two glass panels are derived from the default FSX G1000 gauges. This is more or less the same for the *Free Radio* configuration. Except for the default FSX Bendix/King equipment, all the other instruments are MilViz creations. In other words; the 3D analog version is the only cockpit with 100% high quality MilViz instruments.

What I just tried to explain: all the MilViz instruments are of an extreme high quality and offer sharpness I've never seen before. Ok, you can't zoom in unlimited, but the following screenshots show you "zoomed instruments", so feel free to judge for yourself. You'll probably never zoom-in like this, but showing you this tells you something about the MilViz standard.

Now let's start at the beginning of my VC adventure.

While sitting on the left hand seat and looking around I see a few things worth mentioning. First the green tinted windows, which depends on the model you chose. Not dominant, but a green shade is visible. At the same time when looking to the left wing and engine, it almost looks like a real external view. Almost every dent, rivet and weathered spots seems as real as it gets. Also clearly visible and "as real", are the fuel inspection panels and the fuel caps, mounted on the main wing and tip tank. The leading edge wing de-ice boot looks nice, but I've got no idea if it's really simulated when de-icing is selected. No, I can't say anything else then WOW. Together with the instrument panel you've got the virtual cabin. If you like the carpet color and upholstery of the seats, that's something up to you, but MilViz tried to create an "as real as it should be" cabin. Looking and zooming around in this virtual cabin teachesme that MilViz succeeded in that. By the way, my switch and circuit breaker panel on the left hand side is superb. Is this another new FSX trick or is it all based on vector graphics? You can literally zoom-in unlimited. Ok, zooming in too far shows you a circuit breaker that's no longer round, but is that fair? No, it isn't since in real life you never do that either. I could make hundreds of screenshots from this VC however, that's not the intention of a review. Too many screenshots means that the review becomes more like a comic book. On the other hand, some screenshots are needed to express what I see while writing this review. It's really a pleasure flying with this MilViz 3D analog VC. Wherever I look, even to the compass in the middle of the ceiling or down to the throttle stand with fuel selectors, it's fun. It gives me, and definitely will give every VFR flight simmer that WOW effect or was it X-Factor? Sunlight reflection on the instruments is visible during a full 360 turn visible. There is, as far as I can see, no panel light reflection on the instrument panel, but there's a reflection visible on the left hand side mounted electrical panel.

It's time to have a look to a few Virtual Cockpit screenshots.

Changing from the 100% MilViz VC to the G1000 version, the whole instrument panel and cabin stays the same. This means the overall 3D quality doesn't change except for the implemented Garmin G1000, which is a default FSX instrument. The MilViz idea to offer this VC configuration is simple because some want to fly with it. MilViz wanted to focus them on a complete 3D analog cockpit, but offers the flight simmers other VC configurations that simmers may feel more comfortable with. Using default FSX instruments is not unusual and are used by other developers as well. This is more or less the same for the Free Radio VC configuration. This time the instrument panel offers some default FSX radio, AP and GPS equipment. Seeing this, the overall quality difference clearly can be seen between the remaining MilViz instruments and the FS default panels.

These six screen shots show you the preset Virtual Cockpit positions, but of course, any other position is possible via the NumPad or addon programs like Flight1's EZCA Camera.

The MilViz also comes with a 2D instrument panel with some sub panels for those who like the 2D more than the VC. Since it uses the same kind of instrument or gauges, the overall instrument quality is the same as the VC except that you can't zoom in … logically!Do I like the 2D cockpit views with the different panel configurations as seen with the Virtual Cockpit?

The answer is no, but this is only based on the VC's FPS. Together with my Flight EZCA Camera Addon; controlling, monitoring and flying the VC is a pleasure. On the other hand, there are enough flight simmers that only like to fly with a 2Dpanel so let's have a detailed look into this 2D cockpit.

The supplied 2D panel is based on a widescreen bitmap, so for those who have normal size TFTs, there's no correct bitmap available. By activating hotspots on the instrument panel, sub-panels can be requested or, if you're used to this, you select those sub-panels via the "Views - Instrument Panel" FSX menu. The cockpit comes with five "flight related" sub-panels e.g. GPS, Throttle, Copilot, Engine Panel and Electrical Panel. The last sub-panel in the list is not really a flight related panel. It's the "C310 Preflight". It allows you when on the ground to select the wheel chocks, pitot/engine covers and activate/deactivate the pilot. The 2D instruments are of a good quality, but the panel itself doesn't really look real. It misses something like a weathered look or realistic appearance. Have a look for yourself where you'll find a collection of the sub panels as well as the 3 different 2D layouts.

Regarding the co-pilot 2D panel, I need to make a remark about this. As usual when in 2D cockpit view, the main panel – read left hand side – is active. When you select the 2D co-pilot, which shows additional engine instruments, it is overlaid over the main panel bitmap. This is clearly visible on right hand lower screenshot above. This is not really an elegant way of adding a co-pilots panel since a small part of the main instrument panel stays visible. Hopefully MilVizprovide with a solution for this.

What's my overall *office cockpit* impression?
I'm impressed, in particular by the MilViz homemade **3D Analog Virtual Cockpit**. It offers good frame rates, great looking instruments, realistic switches and light units, sharp circuit breakers, nice knobs. The basic black instrument panel doesn't offer a weathered look, but this is not something for me to judge if it's ok or not. It's just a personal preference. The VC comes in three different flavors; the 100% MilViz 3D analog, the G1000 and Free Radio configurations. The last two VC's are a combination between default FSX instruments and for the rest; it's all MilViz quality and or instruments.
The 2D offers a total different look and feeling from the VC. What said before, the 2D is made for those flight simmers who prefer to fly the 2D

above the VC. The 2D offers a neat panel with the same gauge as I've seen in the VC. Also the G1000 2D configuration looks nice, which is the same as the 2D free radio lay-out.

Does it fly *as real* as they say?

Even for this GA aircraft, is it possible to simulate real Cessna 310R flight characteristics into a FSX model? I don't say it isn't possible, but I'll try to stay sharp while at the same time I'm also aware that I've got no clue how this C310R flies in real. I can and will try certain flight maneuvers and see how the aircraft responds. At the same time I also know that FSX isn't an unlimited source for all possible flight characteristics.

Taxiing this aircraft seems not too difficult while a good external view is possible via the windows. Brakes tested as well as different power settings. By the way, when you want to know more about all those "real" procedures, start looking atthe POH page 28, "Normal Procedures". Actually, since you did already the walk-around inspection, you should start at page 32.

Anyway, taxi to the runway, doing the checklist items and verifying that everything is ok. Yeah, it's time for the takeoff. Although it's a multi engine aircraft, you can fly it alone without any problems. All the information you need like speed, vertical speed, attitude and primary engine instruments are all in front of you, at least, when you've taken the right seat. This 310R accelerates during the takeoff run almost like a rocket and that seems correct in respect to the aircraft specifications. No, in those specs is not written that it's a rocket, but the engines are boosted with every C310 model upgrade. It seems with full throttle, mixture full forward, that the simulated C310R shows a stable flight profile although attention is constantly needed. In other words, you need to monitor what the C310R is doing and correct for yaw, pitch and roll when needed. The aircraft responds nicely on my inputs and an external view tells me that the flight controls are responding, as they should be. I know, it all sounds so logical, but it's not always the case with other vendors. While flying above Canadian ground, I'm also impressed by the sound. I suppose – sorry for the word – this is from a real Cessna 310R, but knowing that TSS (Turbine Sound Studios) is responsible for this, I've got a good feeling it's the right sound. Changing the throttle or mixture, results in realistic sound level changes. With external view active, even gear retraction or extension, is simulated. This is, by the way, the same for the flaps.

During my short test flight I tried some flight maneuvers like slow flights with and without flaps, low- and high-speed stall and steep turns. Not all those maneuver were easy to perform. Keeping that in mind, it was also fun trying to master this aircraft. I learned at least one thing and that's "use the throttle with care". While talking about the throttle, closing a mixture results in, as expected, a yaw and thus time is needed to correct for yaw and not only this. Even pitch and roll are needed. In that respect I've got the feeling that the simulated C310R flies very well. If this "very well" means the same as realistic, I don't know to be honest since, as I mentioned before that I've never flown this Cessna model, either as a PIC or as a passenger. I seems to me that this MilViz definitely doesn't fly as a default FSX Beech Baron or any other GA model, but that makes sense. So, since this C310R flies and feels different thus I do believe that real pilots assisted the MilViz developers.

While flying and exploring this Cessna 310R VC above Western Canadian ground with all sliders max and REX injected, I've got average FPS of 25-30. That seems not extremely high, but keeping my PC specs in mind with all FSX sliders max, that's not bad at all. Suppose you put certain sliders back without large environmental changes visible, you can get easily much higher FPS. Flying this aircraft with this Auto Pilot gives you some time to look outside or to explore the MilViz model in more detail. Flying the aircraft with the help of a connected AP means that you can't feel how this C310R flies. On the other hand, using the AP allows you to check the AP behavior and another advantage when you're not familiar with the environment, is that you can, with the help of the supplied manuals, learn a little more about the Garmin equipment and JP Engine instruments when you fly the 3D Analog cockpit configuration.

Short Interview with Colin Pearson, MilViz Project Leader

MilViz is probably for most of us an unknown name, but surprisingly a company that brings a GA aircraft on the market. Not just "a" GA airplane, but also straight away a multi engine version. Does it mean that this Canadian company, based in Montreal, is a new GA developer for FSX or even the X-Plane vendors? To answer these and other questions, I think it's time to contact Colin Pearson, Project Leader, from MilViz to help us out.

Question   *MilViz stands for Military Visualizations. What's the link with Microsoft Flight Simulation since for me, it's the first time I've heard about MilViz.*

Answer   In 2004, were asked to do an interactive video magazine for a large multinational. In doing so, we produced 72 different aircraft, all extremely detailed including full cockpits. About halfway, a good friend who is a simmer suggested that we contact Alphasim as they were in the business of military aircraft for simulation (FS9). We approached them and, over the next while, sold a bunch of models to them. We then decided to approach other developers with our models.
           We now have over 8 people on full time staff and are always looking for good modellers, coders and painters. Since then, we've sold a total of 38 different aircraft models and code, most military though some were GA to a variety of companies including Nemeth Designs, Captain Sim, A2A, Vertigo, Iris, FSD and Razbam. It's not really a surprise that you've not heard of us as we are generally asked to keep our name out of the "limelight". Developers don't usually like it known that they outsourced a particular product. Though we still do outsource work, we've decided that we wish to do our own aircraft as well. To that end, we've put together what we consider to be a "dream team" of sorts.

Question   *Is it correct that you're already in the 3D military business for years not necessarily flight simulation games?*

Answer   Milviz has been in business since 1997 doing, for the most part, military contracts for the likes of Lockheed Martin, Northrop Grumman, Boeing, the DoD and NASA but we've also done movie effects (2012, Die Hard 4), game models and cinematics (Ubisoft, Dice, EA, A2M) and books (Amber, Osprey, Squadron).

Question   *Any plans for X-Plane compatibility?*

Answer   At this time, we're working on getting the F6F Hellcat and the SF-50 Vision into X-Plane but they are just test beds.

Question *Can you tell us - our readers - something about your next FSX GA aircraft and will this be a single or multi engine model?*

Answer   The next FSX GA aircraft will be a multi-engine model and will be significantly more complex than the C310R. We expect to release sometime in the next couple of months but time will tell. We do have the T-38A/C and the F-15C/E coming very soon as well as several choppers in a joint effort with Nemeth Designs.

Question   *What's your background and the link with simulations programs/games in general?*

Answer   My background is as a 3D artist now turned Creative Director for a games company doing AA games. I`ve been in the 3d business for more than 19 years. Initially, I was doing TV commercials and film effect work as a freelancer, but now I have a "real" job and my concentration is games, games and more games.

Question   *Are you a pilot yourself?*

Answer   I have flown but do not at this time.
I just don't have the time, what with a new baby girl, a full time job and Milviz.

Question   *Is there a particular reason that, for example, no engine cowling panels etc. are simulated for opening/closing?*

Answer   Actually, they are simulated. The handles are there and they operate as they do in the real aircraft and cause no drag exactly as they do (don`t) in real life. If you do not see the handles, you are using an older version of the product. As well, it needs to be said that our main resource, Ken Stallings, owner of a real world C310R, informed us that the cowl flaps are, practically speaking, always left open and cause no drag whatsoever as they are totally internal to the engine nacelles. (if you don`t see the storm window on the pilot`s side you are definitely not using the correct patch).

Question   *Are there intentions for a C310R Service Pack or is there no need for?*

Answer   We have released several SP`s and, at this point, have dealt with every posted bug except one (sorry Ted).

Question   *Are there any plans for a flight tutorial although I'm aware that this GA model is simple,*
                 but the "3D analog" cockpit offers lots of Garmin equipment?

Answer   There are no plans for a flight tutorial at this time.

Will it meet your expectations?

Yes! Not the answer I normally start with, but for this reviewI'll make an exception. Let's have a quick summary why I came to this conclusion. The MilViz C310R offers a highly detailed external model and as far as I could compare it with the real images, it turns out that the models seems99% the same. Yes, you're right, you miss 1% because that's due to – as far as I've seen and known from aircraft in general – the missing static discharges. It could be that the real aircraft doesn't have static dischargers installed. Apart from this, having static dischargers installed are not a luxury item.

I'm in love with the MilViz"3D Analog" Virtual Cockpit. I do like the G1000 and Free Radio as well, but those VC's are a mix between MilViz instruments and default FSX gauges. Anyway, the virtual cockpit is not only a pleasure to work or to fly with, it's full of tiny details and then I'm not even talking about the sharpness and X-factor of the instruments itself. Whatever, the instrument needles, instrument plate with markings, knobs, integral lighting etc. are really awesome! I've seen other vendors making great instruments as well, but the way these instruments look

and how clear they stay even when zooming-in, is far beyond normal levels. As previously mentioned, this is not only applicable for the instruments, but also for all the switches, circuit breakers, levers, handles, knobs and what else more is mounted in this virtual cockpit.

The 2D cockpit is, keeping the FPS in mind, not really my favorite. Not because it's not good, but primarily because the bitmap background panel is not really refreshing and looks a little cartoonish. I know, these are hard words and I'm aware it's my personal opinion, but it should be mentioned. This has nothing to do with the overall quality of the aircraft.

Overall this MilViz Cessna C310R is a great GA aircraft that should be parked in your hangar!

Kind regards,
Angelique van Campen

Flight Simulation PC Specifications
- Intel Core Extreme i7-965 3.2Ghz
- 12GB Corsair Tri-Channel DDR3 1600Mhz
- EVGA GTX-285 1GB For the Winner
- Triple WD VelociRaptor 300GB HDDs
- Single WD 1TB Data HDD
- Windows 7 Ultimate X64
- Flight Simulator FSX SP2
- Flight Simulator FS9.1
- X-Plane 9.62
- Saitek Pro Flight System
- Saitek X-65F
- TrackerIR Pro 4 with TrackerClip Pro