

## RV-14 Owner Brian Peck on his Aviation Career

An interview by Susan Krueger

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Susan,

Sorry this took so long, I got busy with my annual and the wheel pants and it slipped my mind. I've attached a picture of my plane with your wheel pants, now with doors! Feel free to make any editorial changes necessary and to use any of the pictures on my website: <https://u2drvr.smugmug.com/U-2>

Brian



1. When did you become interested in flying?
2. Describe your first flight.

My uncle, who was a pilot in WWII took me flying in 1970 when I was 5 and from that point on, I was hooked and decided to become a pilot. I was about 10 when I decided I wanted to

fly in the Air Force. I joined Civil Air Patrol as a cadet when I was 12 and joined AFJROTC in High School and AFROTC in college



### 3. What led you to become a U2 pilot?

I took a tour of Beale AFB as a CAP cadet sometime around 1981 and saw the U-2 and SR-71 and that made me aware of the program. While I was in USAF pilot training, some U-2 pilots came and gave a presentation on the program to the base in order to recruit some of the instructors. About 5 years later I met the requirements to apply, so I submitted my application in 1994 and interviewed and was hired that summer. I arrived at Beale in December of 1994.



4. Describe your most memorable experience as a pilot.
5. Describe your most challenging experience as a pilot (and how did you meet that challenge?)

I have had lots of memorable and challenging experiences, but there is one that probably answers both of these questions:

It was 2003 and I was working as a test pilot for the U-2 out of Plant 42 in Palmdale, CA (KPMD). We were in the latter stages of testing the glass cockpit upgrade to the U-2 and I was flying a mission to test the integration of our electronic warfare system into the new cockpit displays and controls. This involved flying over the electronic warfare test range in Nevada. It was a very busy mission with the range sending lots of different signals at me and I had to talk on a datalink to tell the flight test engineers what I was seeing on the display. It was a constant barrage of information and the only break in the action was when I was in a 90/270 turn to reverse course.



I was in a turn and looking outside when I heard an unusual sound that I thought came from the air conditioning system. I wasn't sure where it came from because it's difficult to determine the direction of sound when you're wearing a full pressure suit. I looked around the cockpit and quickly noticed that the engine RPM was rolling back. I checked that I was still full throttle and tried moving the throttle with no response. I put the engine control mode to secondary, but that didn't help. I then put the throttle to cutoff and then back to idle to reset the fuel system. The engine continued to roll back and I knew I would soon lose the generators and pressurization and be left flying a glider with only my standby flight display. I quickly pulled down my helmet tiedown (keeps the neck ring from going up to your nose when the suit inflates) as the cabin pressure went from the normal 29,000' to my current altitude of 68,000'. My next challenge was figuring out where to go. I was in a turn when it happened and I knew I was very close to Tonopah (KNTX), but I couldn't see it (it turns out it was directly below me). What I could see directly in front of me was Groom Lake (KXTA aka Area 51), the birthplace of the U-2! I got overhead there at about 38,000' and started to spiral down.





A brief explanation of the U-2 engine is necessary here. The U-2 program went through an engine upgrade program in the mid 90s (I was in the second class to do initial training in the new S-model) and the new (and current) engine is a version of the GE F118 that is used in the F-16 and B-2 and was modified and derated for the U-2. During development, GE was confident that if the engine ever failed, it would be a catastrophic failure and a restart wouldn't be possible. The Air Force insisted on a restart capability, so they developed a one shot start system powered by Hydrazine (a very toxic rocket fuel). The system was tested in flight test, but to this point had never been used. There were two engine failures prior to mine, one was a student on takeoff who brought it around and landed without attempting restart, and the other was a bearing seizure that resulted in an ejection. While I had a restart capability, I didn't expect it to work.



In order to attempt a restart, I had to be below 25,000' and ideally at 20,000' and within a certain airspeed envelope. I spiraled down to 20,000' and went through the checklist and to my surprise, the engine stard! I had no idea why it quit in the first place, so I didn't want to mess with it and set a know power setting that would keep me at my current altitude of 18,000'. I spent about 10 minutes bringing my systems back online, aligning my navigation system, and coming up with a plan. I had the necessary security clearances to land there, but I knew none of our maintenance or operations people did. If I landed at Groom lake, the plane would probably be there a very long time and the logistics of retrieving it would be a nightmare. So, I plotted a route that would keep me in glide range and in site of a suitable landing field at all times.

The flight back to Palmdale was interesting because I had to fly through multiple restricted areas and ranges that were hot. The range controllers were yelling at me to stay out of their range, but I told them I was an emergency aircraft and was going to go where I needed. I stayed at 18,000' until I was overhead Edwards AFB and then pulled the power to idle and glided to a precautionary flameout pattern at PMD. Coincidentally, I landed exactly on my scheduled landing time!

Because it was a test mission with a full instrumentation package, including a video camera in the cockpit, we were quickly able to determine where to look for a cause. The fuel system

is controlled electronically (FADEC) but has a hydromechanical fuel control (MEC) as a backup. Small shavings of metal left over from manufacturing were in the MEC and tripped a valve that shuts off fuel in an overspeed situation. Fuel flow was shut off for 53 seconds and was restored when I put the throttle in cutoff and back to idle. Initially, we grounded the fleet, then just the airplanes that had MECs from the same lot. Further investigation found the same metal flakes in the MEC of one other aircraft and two MECs that were on the shelf.

So, that how I got my 36 minutes of glider time in the U-2!



6. When and how did you decide to build your own experimental aircraft?

I decided to build a Kitfox in 2001 and visited the factory. On the way home from that visit, 9/11 happened and being in the military with a war about to happen, I decided to wait. Two weeks later we found out my wife was pregnant with our son, so I decided building an airplane was off the table for a while. I ended up buying a Kitfox, but still had the desire to build an airplane. Circumstances finally allowed me to start that dream in the fall of 2020.

7. Where are you in the build process?

I received the airworthiness certificate on 2/28/2024. I just completed my annual condition inspection!

