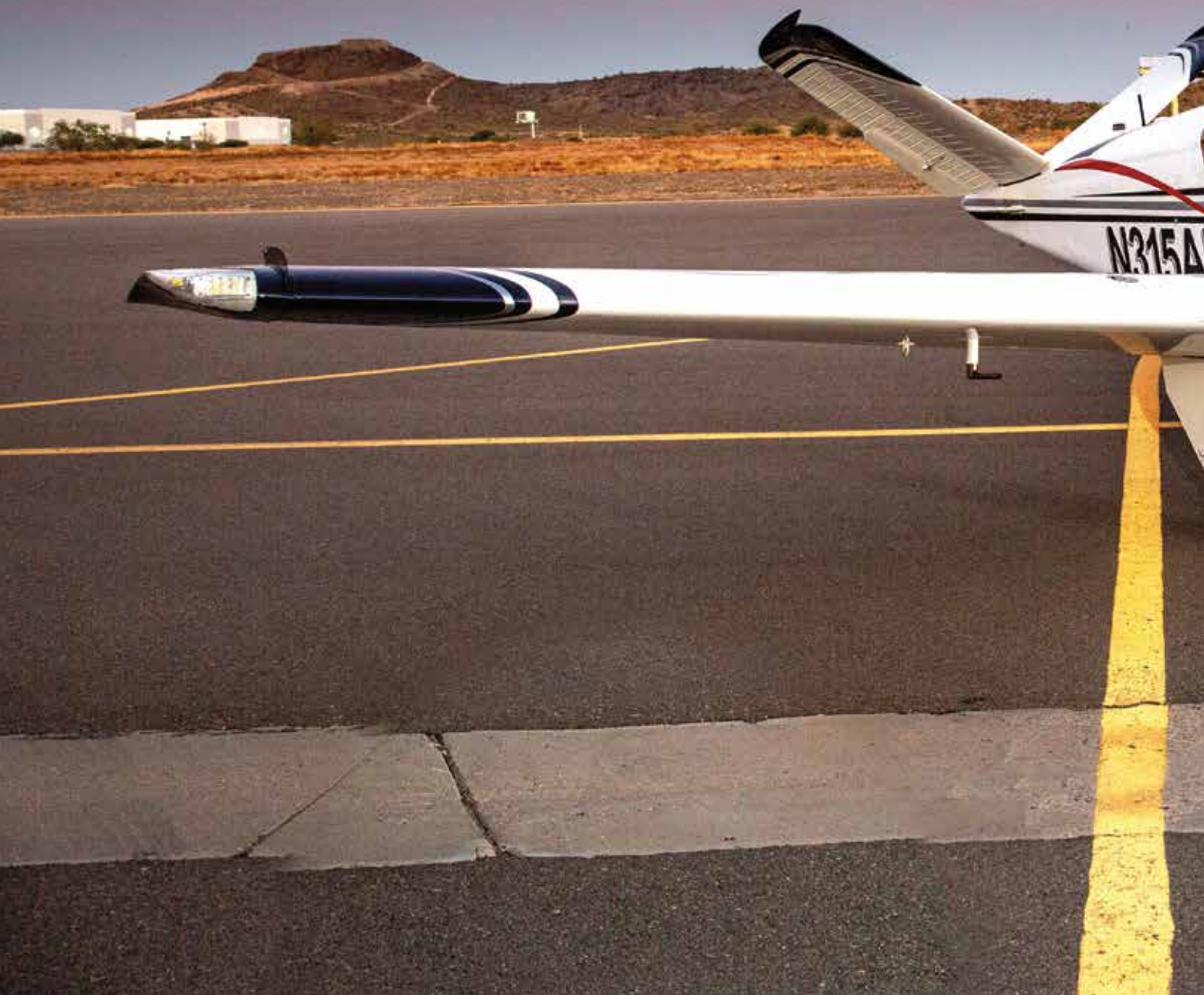


BEECHCRAFT OF THE MONTH

Dynonizing a

1975 V35B N315AB D-9740



Bonanza

Robert Colabianchi, Fountain Hills, Arizona
by Kevin Knight



Phoenix pilot Bob Colabianchi had a problem. After getting his Private certificate in 2015 and buying a 1975 V35B, N315AB one year later, he installed an Avidyne IFD 540 and Aspen Pro, and connected them to the existing Century IV autopilot. Unfortunately, they never worked well together. Since he's averaging 220 VFR hours annually and was about to get his IFR ticket, he wanted to be confident when flying his wife and two sons around the country.

When Bob started taking lessons in a Cessna 172, he was managing Chapman BMW in the heart of Phoenix. He thought an Arrow would be a good starter plane, but his broker suggested looking at a Bonanza. Bob feared it would be too much but was enthralled by the plane's flying qualities and spaciousness. "I knew I was going to be flying a lot," he said. "Our family bought a motorhome previously, which didn't suit our needs so we kept

trading up. Instead of doing the same thing with a plane, we decided to get something we felt we could keep for a very long time. The Bonanza was perfect."

While working on his IFR rating with instructor and Bonanza owner, retired Air Force Major General Hank Canterbury, he decided to upgrade the panel a second time. "I wanted my plane set up the way it would be configured long-term. The combination



Proud Bonanza owner Bob Colabianchi and Aerosecure Avionics founder Richard Snider with Bob's upgraded 1975 V35B

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of steam gauges and the Aspen felt clunky. The Century 4 autopilot was never rock solid. And the GDL 88 ADS-B didn't communicate consistently with the Avidyne."

Bob wasn't happy with the shop that did his first avionics upgrade but found a new one called Aerosecure Avionics at Glendale Municipal Airport, 20 miles northwest of Phoenix. Aerosecure was founded by Army avionics specialist and gunship pilot Richard Snider, who is buying and upgrading an F33A for his company.

Bob wanted to replace almost everything but the Avidyne 540. When he did the original upgrade and had some communication problems, Avidyne sent him a new remote transponder. He appreciated the company's responsiveness. Plus, the 540 came with built-in WiFi and Bluetooth, both a touchscreen and buttons, and powerful software.

Bob and Richard share pragmatic approaches to planning. When Richard meets a customer, "We first define needs and mission, then determine if the budget supports that. Some people are very specific. Others just want their plane looking better. My focus is on providing a solution that meets their mission. Looks are one thing. Functionality is another. We want to marry them." He's had clients request quotes on integrated Dynon systems versus separate components. Typically, the integrated system costs less and provides better functionality. "In Bob's case, he flies his

plane hundreds of hours annually all over the U.S. Setting it to be IFR capable made sense for long cross-country flights. A clean sheet design was ideal because integrating some of the older avionics with new ones can feel like death by a thousand cuts.”

The next decision was Garmin or Dynon for the glass panel and autopilot. “During my research, I saw Dynon got FAA certification for the Bonanza, and that Aerosecure was the local dealer and installer,” said Bob. “At first, I didn’t like the thought of it being new to market. However, I got more comfortable with the idea since Dynon systems are installed in more than 20,000 experimental planes. I talked with the guy whose plane was used for the original certification and he was very positive about it. I also liked being able to go on the website and see all of the pricing. It really helps to understand how to order everything.”

Dynon was founded near Seattle in 2000 by pilot, M.I.T. graduate, and former computer science professor John Torode, Ph.D. Among other things, he created a computer chip that was the basis for most of the touchscreen technology in early cell phones, iPods and iPads. The company manufactures most of its products in its Washington plant and has a close relationship with software provider Seattle Avionics. It provides Dynon users extremely robust chart data for just \$99 annually.

Bob went all in, ordering a pair of 10-inch high definition SkyView displays, a full-featured autopilot with yaw dampening, a mode S transponder with ADS-B in/out, an EFIS-D10A backup, and VHF com radio. He also purchased the autopilot servos, backup batteries, prefabricated harnesses, various probes for engine monitoring, and other components. His original budget was \$50,000 but some power ports, Whelan LEDs, and other extras were added, pushing it approximately to \$65,000.

When developing a budget with customers, Richard said, “I start with a rough quote. After it’s fine-tuned, I tell clients ‘This is what we’re starting with, but I don’t know what’s behind your panel.’ In most cases, we’re talking thirty to sixty years of people touching the airframe and



Before



During



After

electronics. God only knows what's been done. We're not working on commercial or military aircraft where wire 'X' is at this location and labeled. We'll extract lots of harnesses that are three inches in diameter which should be one inch in diameter. All that clutter takes lots of time to clear out. Nine times out of ten

it's going to cost more because we'll run into unforeseen abnormalities. When we come to something unexpected, we discuss it with clients before moving on. Our philosophy is to do it right so you can only do it once."

Bob's V35 was the first Bonanza Aerosecure Avionics has

upgraded to Dynon, and one of the first since the complete system got FAA clearance. That experience is part of what prompted Richard to purchase an F33A for his business. "I'm impressed with the Bonanza structure. They're extremely well built and their owners are really dedicated to their planes."



"All that clutter takes lots of time to clear out," said Aerosecure Avionics founder Richard Snider, who recently bought an F33A as his company plane.




While Bob's plane was being upgraded over two months, his Flight Review expired so he had to meet his instructor for a training flight after the Bonanza came out of the shop. "That was a bit crazy jumping right in with all new avionics. My first impression was how intuitive everything was. I'd read the user guide but it was easy


learning how things worked. The autopilot was rock solid out of the gate. It made a huge, huge difference. We tested it on a DME ARC approach and it flew it like it was on rails.

"Previously, I felt information overload because everything was on a small screen. It's lots easier with two 10-inch screens that are configured the way I want. You can actually select a steam gauge view if that's what you prefer."



With more than 50 hours of flight time logged since the upgrade, Bob continues learning new things. For instance, there are multiple ways to enter information into the system through an iPad, the Avidyne 540, or the Dynon SkyView HDX screens. He particularly likes entering flight plans since the system automatically loads all the frequencies into the radios for every step of the flight. It will tell you to update your altimeter by downloading data from the closest METAR.

One of the best things that occurred during the upgrade was an improved weight and balance. Bob's V35 was near the limit of its aft CG, which meant his wife had to fly in the back seat while his eldest son was up front. After removing more than 60 pounds of old wires and components, the CG moved forward 1.75 inches. Bob terms it a "massive, massive improvement" in utility.

Dynon systems can be installed by an owner with appropriate A&P/IA oversight, or an authorized installer. Bob said, "In my original upgrade, I never felt the people really knew the project. With Rich and his team, they were always up to speed on my project and knew exactly what to do, no matter when I called them. The plane's performed flawlessly since then and the panel is a dream." 


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