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Suddenly I felt guilty and distressed. I'd flown the Pulsar for more than two years and put 350 hours on it. I'd criss-crossed Florida and made a cross-country from Florida to Bar Harbor, Maine. Flying the Pulsar was like slipping on a glove. It was the Mazda Miata of the skies. I was spoiled.

I wondered which would win out: my love for the Pulsar or being able to build another, different type of airplane? As I surveyed the kit vendors before us, I knew the answer.

After deciding on my next kit, I returned home and put the Pulsar up for sale. I was still feeling guilty. The ad caught attention quickly, and I received a call from Raleigh, North Carolina.

"I'll come down there this weekend and see it," a young computer programmer said. "I think it is exactly what I am looking for."

The visit went well, and the buyer was very happy with the airplane.

"I'll fly it home in a few days if that is okay," he said.

"Who will you have inspect it?" I asked.

"Inspect it? Why would I have someone inspect it?" he asked, and looked at me quizzically.

"A pre-purchase inspection," I replied. "Ask someone independent of the owner to evaluate the airplane. Buying an airplane is a big investment. You want to make sure that you're not only getting what you expect, but that everything is per regulations and is as safe as possible."

"Naw, I don't need it," he said. "I trust you."

For a moment I was speechless. I knew that I couldn't sell the airplane without someone else looking at it, even though I had done the condition inspection less than three months ago.

"Hey, let me do this," I replied. "I'll pay the local A&P to inspect it, okay?"

"If you want, but you don't have to," he said. "I wouldn't know a screw from a bolt."

I drew up a statement for the A&P mechanic to sign to protect myself, and the A&P signed it.

Can you identify the problems in this narrative?



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**LISA TURNER**

**PROBLEM 1**

**THE BUYER DOESN'T THINK HE NEEDS  
A PRE-PURCHASE EVALUATION.**

**HOW TO SOLVE:** Always do your homework on an aircraft purchase. Even if it is your neighbor's airplane, and he or she is an A&P. This rule is simple. Follow it always, and you will eliminate 80 percent of the buyer surprise stories.

**PROBLEM 2**

**THE PERSON DOING THE PRE-BUY  
WAS PAID BY THE OWNER.**

**HOW TO SOLVE:** Make sure the person you engage to do a pre-buy evaluation does not have any conflicts of interest. This keeps them unbiased. This sounds intuitive, but you'd be surprised what I have seen in these complex transactions with who knows who and who owes who.

**PROBLEM 3:**

**THE PERSON DOING THE PRE-BUY WAS NOT  
A COMPLETELY INDEPENDENT EXPERT.**

**HOW TO SOLVE:** For the best pre-buy experience, find an expert who knows the aircraft model but has never seen the specific aircraft. This allows them to see all aspects of the airplane with fresh perspective.

In addition, the person doing the pre-buy in this scenario had no idea what he should be looking for on the experimental aircraft, even though he was an experienced and competent A&P with inspection authorization. This is typical and certainly not a reflection on the A&P. Contact the manufacturer of the kit and ask for a pre-buy checklist. If few airplanes were sold, contact the builders' group if there is one. As a last resort you can use a generic checklist along with the list in the sidebar in this article. If the aircraft is popular (Van's for example), the manufacturer and the builders' group can give you a lot of information and likely a list of people qualified to do a pre-buy.

**PROBLEM 4:**

**THE A&P AGREED TO SIGN A DOCUMENT THAT  
SAID HE INSPECTED THE AIRCRAFT PER THE  
OWNER'S CHECKLIST AND THE AIRCRAFT WAS  
FOUND TO BE IN AIRWORTHY CONDITION.**

**HOW TO SOLVE:** The mechanic or other knowledgeable person doing the pre-buy is not going to certify that the aircraft is airworthy. The report he or she generates will render an informed opinion and typically contain a list of concerns (or not). The reason for this is that the evaluation is not a formal inspection (annual or condition), and the scope of the work and the report will vary from aircraft to aircraft and person to person.



## EXPERIMENTAL AIRCRAFT — WHAT'S DIFFERENT ON PRE-BUYS

While the checklist here can be applied to any aircraft, the following items are critical for homebuilts in making sure you do not miss important areas. Because experimental aircraft are hand-built and often are the first project of this type for the builder, the pre-buy should include extra attention to the following:

- History — Talk to the builder if you can. Ask about quirks, and ask for advice. Let your sixth sense tune in to any discrepancies that you should check on later.
- Aircraft wiring — type, gauge, assembly, routing, how it's secured, and connections.
- Clearances between components (for example, between muffler and cowling) and rubbing or interference (for example, between hoses).
- Flight controls for complete and full movement without binding, and to specifications.
- Fuel systems — Where are the filters located, and what is their condition? Where is the fuel selector, and is it easily reached in flight, and fuel line type and routing.
- Documentation — Operating limitations, airworthiness certificate, and weight and balance information should be in the aircraft.
- Make sure you are buying the aircraft from the person who legally owns it.
- Logbooks — Make sure the aircraft graduated officially out of Phase I testing, and look at any flight-test data that was collected. The thoroughness of the testing and attention to detail reflect on the quality of the build.
- Are there any SBs (service bulletins) or ADs (airworthiness directives) applicable to the aircraft, components, or engine? "It's experimental" is the wrong answer to this question. Safety is paramount.
- Hardware, control cables, turnbuckles, and safetying. This can be a weak area for builders. I have found everything from missing nuts and bolts to cables routed incorrectly (yes, on flying airplanes). It's a good sign if the builder used torque seal (not a sealer, but an indicator of movement).
- Safety items, labeling, and placards. Often these are missing or not labeled correctly.
- If you engage an A&P, offer this checklist if they don't have their own when inspecting homebuilt aircraft.
- EAA technical counselors and builders with lots of experience with a specific aircraft can be invaluable in assessing an experimental aircraft.

**Avoid unnecessary surprises.  
Every cent you spend on a  
pre-purchase evaluation  
will be worth it.**

A pre-buy is not a condition inspection. Nor is it recorded anywhere in the logbooks. Because a pre-buy is an informed opinion, it may be better to call it an "evaluation" since pre-purchase "inspections" do not fall under any FAA inspection regulations.

Whether you are considering a secondhand certified aircraft, experimental aircraft, light-sport aircraft, ultralight aircraft, antique or classic aircraft, or anything else that will get you into the welcoming sky, follow the pre-buy advice that the experts give you. Avoid unnecessary surprises. Every cent you spend on a pre-purchase evaluation will be worth it.



I was overcome with emotion as I drove the golf cart out to the runway while the buyer taxied the Pulsar XP for takeoff. The little craft quickly gathered speed and lifted off gracefully as I snapped photos through my tears. Then it was just a white dot on the horizon, disappearing into the deep blue sky. **EAA**

**Lisa Turner**, EAA 509911, is a manufacturing engineer, A&P, technical counselor, flight advisor, and former DAR. She built and flew a Pulsar XP and Kolb Mark III, and is currently restoring a Waco UPF-7 with her husband. Lisa is a member of the EAA Homebuilt Aircraft Council and Women in Aviation International.