Inspector Statement September 17, 2010

On September 17, 2010, I inspected experimental aircraft N29WB following involvement in an accident on August 27, 2010. There was substantial damage to the airframe, wing mounting area and fuselage. The canopy was damaged as well. The ruddervators were also damaged. There was no visual damage to the wings.

The pilot is required to assemble the tail section for flight. This requires the pilot to position the two ruddervators for the stored position (vertical) to the flight position at an approximate forty five degree position. The pilot is required to position a spring lock forward and then lower the ruddervator into position and then release the spring lock so that the pin will slide through three pin holes and lock in position. A required force of approximately twenty five pounds is needed to move the spring pin. On N29WB, the right ruddervator spring pin was more difficult to move than the left spring pin. Once the spring pin is locked, the pilot needs to verify that the pin has indeed made it through the three pin holes as the pin will extend approximately a quarter inch in the locked position. The pilot then tapes up the one inch gap between the ruddervator and the tail section.

After a demonstration of locking the right ruddervator spring pin, it appears that the pilot did not sufficiently confirm that the pin was indeed locked (through all three pin holes). During our attempt, the right spring pin was moved forward with difficulty and the ruddervator was lowered into the flight position. Once the right spring pin was released, we heard the snap noise which is associated with the spring pin going into the locked position. However, when we visually checked the position of the pin, it did not penetrate through all three holes. The right ruddervator spring pin was inhibited between the second and third pin holes. The right pin was not observed to be extending past the third hole. Thus, the right ruddervator was not locked in the flight position. Without very close examination by the pilot, this would go undetected and the pilot would think that the right ruddervator was locked for flight when it was not.

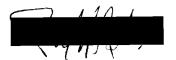
There is no inspection port, once the gap is taped for flight the pilot or wing runner cannot observe the spring pin position. I reviewed the aircraft logbook and glider experimental operating manual.

Paul H. Ascoli Aviation Safety Inspector Richmond FSDO, EA-21 Inspector Statement September 16, 2010

Phone interview with Private Pilot Claudio L. Palmaz Glider N29WB accident at Garner field on August 27, 2010

Mr. Palmaz stated that he knows he put the glider together correctly, he stated he did all the preflight checks, he is still not sure how it, the spring pins, became loose. He stated that before flight he completes several preflight checks and inspections. The previous owner instilled in him the importance of making sure you pay close attention to the pins and the ruddervator attachments. Need to triple check each pin. He stated the pin must have backed out by itself. Mr. Travis Beach is the co-owner.

Mr. Palmaz stated that the spring pins are pushed down and locked, requires some force. He is perplexed at how the pin could have come loose. The Vtail comes apart and folds together so the glider can be put into a trailer. Then before each flight the pilot needs to re-insert the pins. Claudio was alone on August 27, 2010 when he installed the spring pins. There are a total of nine pins for the tail and wings that require assembly. Mr. Palmaz stated that after assembly he climbs into the glider and completes his checklist and emergency briefings. The Tow plane then started to takeoff and about 10 to 15 seconds into the takeoff he realized something was not correct with the tail, he could feel it on the rudder controls. The wing runner saw the right ruddervator fin come off and up. Mr. Palmaz could not see this put he felt it on the controls. As soon as he felt no elevator authority, he released the tow line from the tow plane and reached for the flap actuator, but he was not high enough for flaps. Then he braced for impact. The nose hit first, the landing gear, tires and struts took the impact. Canopy was flattened. Mr. Palmaz received a compression fracture. He has a total of 89 hours in N29WB. Mr. Palmaz has over 300 hours in sail planes, and 250 hours in fixed wing airplanes. Mr. Palmaz took it to heart the importance of installing the spring pins, he wants to know what and why the accident happened. He always completes a safety briefing and had the presence of mind to release the tow line. Mr. Palmaz stated that there was a similar accident in UTAH, where the pilot was killed. He wonders if the two accidents are related. He feels he is certain that he installed the pins correctly.



Paul H. Ascoli Aviation Safety Inspector Richmond FSDO, EA-21