

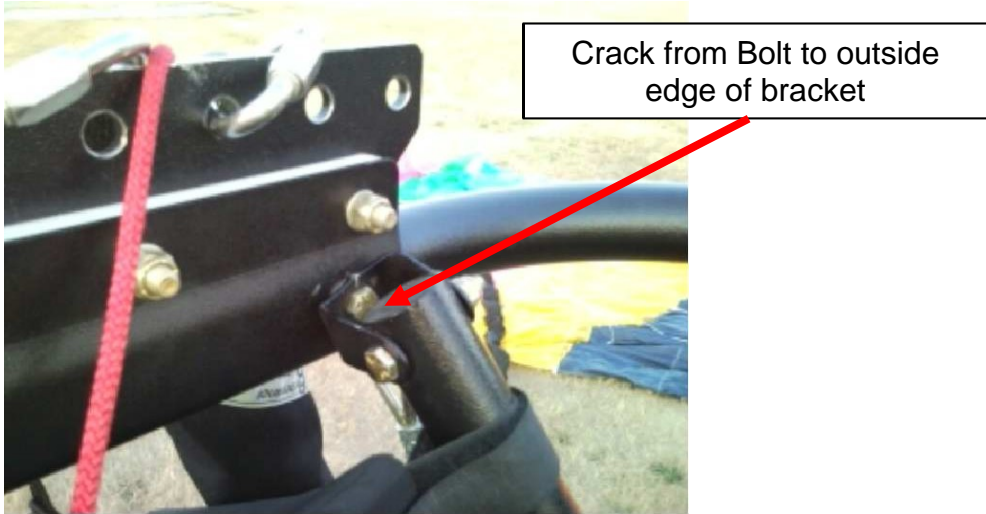


Six Chuter Inc.  
**SAFETY DIRECTIVE**

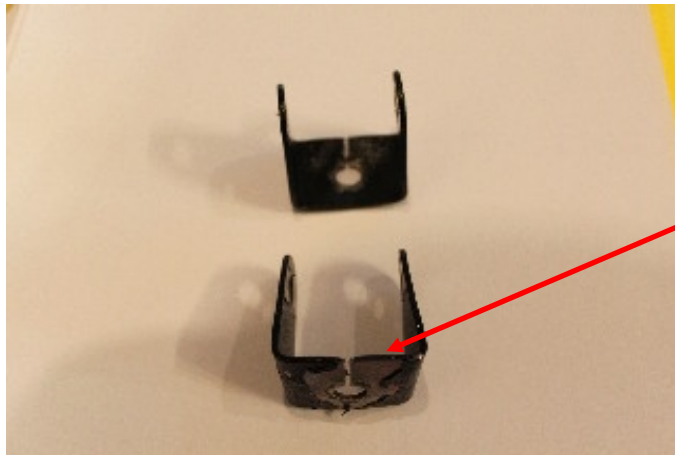
Safety directives are issued to all known operators when a condition is found to exist that may also exist in other aircraft in the fleet and which would cause a deviation from original design or unsafe condition for flight, rendering the aircraft unairworthy. This change, maintenance procedure, inspection procedure, or other procedures deemed appropriate by the manufacturer is mandatory and must be performed and documented in the individual aircraft logs in order for that aircraft to maintain compliance with ASTM standards.

<b>LEVEL</b>	<b>MANDATORY</b>
<b>DATE</b>	09/01/2009
<b>SB NUMBER</b>	SD 2009-01
<b>APPLICABLE MODELS &amp; CATEGORIES</b>	Legend XL Beginning Serial Numbers 3049

- 1.0 Planning Information
  - 1.1 Aircraft Affected
    - 1.1.1 Problem was noted on Legend XL 3091 and 3094. No other reports with this issue have been reported on any model
  - 1.2 Concurrent Bulletins
    - 1.2.1 Service Letter 2009-02 (2010 Outrigger Updates)
  - 1.3 Reason
    - 1.3.1 Stress crack in upper attachment bracket for rear outrigger support tube. Owner during pre-flight noticed stress crack in brackets on both side outriggers. Owner on second unit noted deformity of bracket and broke bolt while in flight. It was determined that on affected units the brackets were 1 ¼" 14 Gauge. The maintenance manual requires this bracket to be 1 ¼" 12 Gauge. It is additionally determined that the support cable tang that is installed under the bracket, can lead to unnecessary stress on this installation.
  - 1.4 Subject
    - 1.4.1 Outrigger support bracket stress crack



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Crack from Bolt to outside edge of bracket

1.5 Compliance

1.5.1 **CORRECT BRACKET** Owners of any Six Chuter with the new outriggers must check for signs of stress on brackets connecting the front and rear support tubes to the outrigger and to the deck. This inspection should determine whether the wrong gauge bracket is installed.

Incorrect 14 Gauge Bracket

Correct 12 Gauge Bracket



1.5.1.1 Owners who discover any signs of cracking on this component should not fly their aircraft until the crack is repaired by replacing the affected bracket. Six Chuter recommends replacement of these MA 3744 1 ¼" 14 gauge brackets with heavier bracket part number STP 115 1 ¼" U Bracket 12 Gauge

1.5.1.2 Owners who discover signs of stress or cracking of brackets on any Six Chuter Legend XL must notify Six Chuter Inc. **Doug Maas, ASTM Standards Compliance Manager,** [maas0755@comcast.net](mailto:maas0755@comcast.net) 360 771-4047.

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1.5.2 **BOLT PIVOT BRACKET** It has additionally been determined that the outrigger assembly can be strengthened by bolting the pivot bracket to the pylon. On previous models with adjustable c.g. tubes it is important that the pivot bracket remain free. On the 2008 Legends and later with variable c.g. adjuster bracket there is not need for the free movement of the pivot bracket. The current maintenance manual does not call for this but will be updated for 2010. Owners of Legends with this installation should make this modification as follows:

### 1.5.2.1 Use an AN4-24A bolt.

Modification to late model Six Chuter Legend with adjustable hang points instead of adjustable c/g tubes.

The procedure is as follows: Locate and center punch the hole location indicated in photo. (1/2" from the edge of the slight bevel and centered vertically. Mark this location on both sides of the bracket. Drill through one side of the bracket and pylon tube using a 7/32 or smaller drill bit being careful to maintain drill alignment so the drill passes through the center of and perpendicular to the pylon tube. Note: Sharp bits wander off center less than dull ones! Repeat on the opposite side of the pylon tube. **WARNING!!!** Do not attempt to drill all the way through the tube and bracket in a single operation. Maintaining drill alignment is much more difficult. Now, use a 1/4" drill bit to enlarge the hole. After enlarging the hole on one side of the pylon and bracket the drill may be carefully aligned with the 7/32" hole in the opposite side of the tube and the drilling operation completed in a single pass. Install the bolt from the front of the machine and place the nut on the rear. Repeat on other side of the aircraft.



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1.5.2.2 Owners can order the necessary part from Six Chuter Parts Service 360 904-8766 or directly from the Parts Center 509 264-0588

1.5.3 **REPOSITION LOWER CABLE TANG** A final modification should be made to reduce stress on this installation. The current maintenance manual specifies connecting the lower cable to the outrigger by positioning the tang **between** the support tube bracket and the c.g. adjuster bracket. This practice does not allow the bracket to seat against the outrigger bracket.



1.5.3.1 The recommended installation is to change the direction of the bolt insertion and secure the lower cable by positioning the tang between the bolt head and the bracket.

1.5.3.1.1 Insert the outrigger tube inside the outrigger bracket so the corresponding holes in the tube align with the lower holes in the bracket. In the rear hole from the inside: AN4-23A bolt, tang (outrigger cable), 1 1/4" U-bracket 12Gauge, Outrigger Bracket, Outrigger Tube, Outrigger Bracket, AN960-416 washer, AN365-428A nut. Tighten.

1.6 Approval

1.6.1 Dan Bailey, President Six Chuter Inc.

1.7 Manpower

1.8 The Owner-operator of any Six Chuter Experimental Light Sport or Special Light Sport aircraft is authorized to make this inspection. Owners of ELSA category are authorized to make the replacement. The replacement of these brackets on SLSA certified aircraft must be completed by a repairman with maintenance rating or an A & P rated repairman, **or person otherwise authorized by Six Chuter Inc.** Time to replace these brackets is estimated not to exceed one Hour.



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- 1.9 Weight and Balance
  - 1.9.1 There is no effect to weight and balance with this repair.
- 1.10 Electrical Load
  - 1.10.1 None.
- 1.11 Software
  - 1.11.1 None
- 1.12 References
  - 1.12.1 None
- 1.13 Other Publications Affected
  - 1.13.1 None
- 1.14 Interchangeability of Parts
  - 1.14.1 ***There are no other parts that are specifically approved by Six Chuter Inc. for this modification and repair.***
  - 1.14.2 ***The necessary parts are available from Six Chuter Parts Center, call Rolando Santiago 360 904-8766***