# Hangar Talk

# The "Lightning" Newsletter

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Mark preparing the first Lightning LS1 export, to Dennis Borchardt in Australia



Almost ready to go.

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## Introduction

Last issue I was remiss in failing to acknowledge the fine editorial assistance that Linda Mathias always provided in helping Buz to prepare the newsletter. She did a great job and set the model for readers of this publication who also contribute to its content. Many thanks, Linda!

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#### Service Bulletin AASB-1-1-2011

Find the official service bulletin at <u>www.flylightning.net</u> under the "Support" heading on the Main Page.



- **1. Applicability:** Lightning LS-1 SLSA or ELSA aircraft in the effected serial range of SN87 thru SN107.
- 2. Background: Aircraft in the above serial number range were manufactured with a rear spar box V1, which if landed hard enough or landed over the 1320lbs gross weight limit on SLSA aircraft may deform at the gear attach points. Static testing of the structure per ASTM standards showed no deformation when loaded to the max landing loads, however it has been noted in the field that the spar box has on rare occasions deformed. The deformation of the rear box has been limited to the gear attach point and does not appear to cause an issue with the spar truss carry thru, thus not requiring immediate action. Damaged rear spar boxes were examined and a solution to prevent the deformation has been devised. The addition of compression tubes starting at the gear socket plate which run to the upper cross members have been added. In addition a gusset across the socket plate has been added to prevent it from deforming. In no cases have the spar box gear attach points failed.





Figure 1: deformation of rear ½" tube box V1 socket plate V1

Figure 2: deformation of lower





Figure 3: Compression tubes added V2 plate V2

Figure 4: Gusset added to lower

#### 3. Compliance with- Implementation Schedule.

An inspection of the gear leg attach socket must be completed within the next 25 hours of service or at the next scheduled service interval, i.e. oil change or head torque, whichever comes first. Additionally, if the aircraft has sustained a hard landing the spar box must be inspected in accordance with this SB.

**Refer to figure 1**: The lowest and most aft tube adjacent to the gear plate must be inspected. This tube is about ½" in diameter and should be flat with no upwards bowing to it. If deformed upwards it will be the greatest at the outboard end of the lower socket plate. Use a straight edge on the tube to determine if it is bent. Any deformation in this tube is cause for replacement.

**Refer to figure 2:** The lower socket plate must be inspected as well. This plate may have up to 1/16" flex upwards and be with in serviceable tolerance. However should more than

that be found upon inspection the box should be replaced. Check by using a short straight edge set between the spar box tubes across the plate. Measure the deflection if any.

If the spar box does not show signs of deformation than no further action is required, however the box should be inspected in accordance with this Service bulletin at each 50 hour service interval.

If it is found that upon inspection the rear spar-box has deformed, section 4 of this SB must be complied with, within the next 25 hours of service. Arion Aircraft LLC must be notified before any service is to take place.

#### 4. Procedure:

Arion Aircraft LLC shall complete the required work at the Shelbyville TN manufacturer's facility at no cost to the owner. It is the Owners responsibility to get the aircraft to Arion Aircraft LLC in Shelbyville TN, and arrange pick up or delivery after the work is completed.

#### 5. Level of certification required for SLSA Lightning LS-1.

Any work required by this bulletin must be carried out by personnel holding a Light Sport Repairman / Maintenance rating or a licensed A&P mechanic or licensed A&P with IA. On completion of the work, the authorized repairman must note the completion of the actions required by this letter in the aircraft's maintenance logbook. This note should specify what work was carried out, reference this Notification, indicate the date of the work and the identity (including license number where appropriate) of the person carrying out the work.

# An Unusual Day at the Airport As told by Buz Rich

Over the many years (about 44) that I have been involved in general aviation I have had some pretty unusual requests that involved flying my aircraft for a special event. The usual requests varied from taking a local special person flying, such as mayors, local TV / radio personality, or photographers, and to the other end of the requests spectrum, such as fly bys at everything from funerals, weddings, or local school events. In all cases, I was able to accommodate the request while still following the FAA rules. Other requests have involved giving briefings to schools and other not aviation groups, or having groups of kindergarteners visit the airport to try out the pedal planes. I always try to accomplish all of these requests in order to show non aviators just how

much fun and accommodating aviation and flying can be. Besides, I love to share my passion for aviation with everyone that will listen.

This past weekend included another "aviation" type request, but I am guessing no one would ever guess what the request actually was. Let me set the stage by asking all of you, "What is the most unusual request involving an airplane that you have ever had?" I know, someone out there is going to tell about a buddy asking you to take him and his lady friend up for a mile high indoctrination flight. And that might be pretty unusual, but this request I am going to tell you about didn't even involve actually flying; just using my airplane.

To set the stage, this past Saturday had winds at 35 knots with gusts to well above 40. A local photographer friend of mine had booked a wedding and she was supposed to also include some "artsy" photos of the bride and bridesmaids in an outdoor setting. Well, wedding dresses and 40 knot winds just don't go well together, so the photographer called me wanting to know if she could use my hangar and shoot some "artsy" shots with the "girls" around the airplane. You can guess my answer. I mean, not too many things can be better than pretty young ladies all dressed up and posing around your airplane. The bride and bridesmaids really enjoyed the shoot and were all very thankful for the opportunity; they kept saying, "We love you, Buz." And of course, now the photographer owes me one. Most of the time she calls me for photographic help, it is to take some aerial photographs and we use the J3 Cub for those shots.

The photo below will give you an idea of the unusual day at the airport.



Can you find Buz?

## January Sebring Light Sport Expo Photos

Here are some photos from Mark Stauffer of the Lightning display and the trip home to Tennessee.



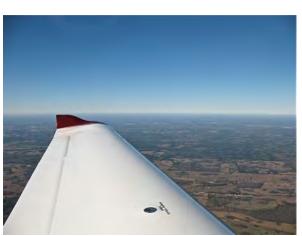
The Lightning booth



Paul and Olena



Max and Nick



Heading home

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