



# Runway 15



*The Monthly Newsletter for EAA Chapter 1541, Lincoln, California*

**September 2017**

## *Briefing Strip*

- Temperatures have cooled a bit. The monthly chapter meeting on **Wednesday, September 20**, will be back at the EAA Hangar at KLHM. Dinner (optional) at 1800, meeting to follow. Details are inside.
- Some big congressional votes are possible in September that may determine the future of the air traffic system. This effect all pilots and anyone who flies for fun or business. Make sure you are informed about what is going on and make your opinion known. Check out Ron Wright's column inside this newsletter.
- A special Saturday Presentation is set for **September 23** with Andy Bibber and the Bamboo Bomber. Check out the details on the last page of this newsletter.
- The annual **EAA Chapter 1541 Poker Run** is coming on **Saturday, October 14**. Set aside that date. We are trying to boost attendance and participation by local pilots from around the area. Spread the word and plan on attending. More details inside.
- Tentative date for the **Chapter Christmas Party** is **Wednesday, December 13**. Details to follow.
- Those organizing the **Chapter Poker Run** and the **Chapter Christmas Party** are looking for a few good prizes for raffles and such. If you have a line on something worthy for use as a prize, contact any of the board members with your thoughts.

## *Calendar*

- Wednesday-Sunday, September 13-17:** Reno Air Races
- Saturday, September 16:** Lincoln Airport Aircraft Display Day, 0800-1200.
- Wednesday, September 20:** Lincoln Airport Committee Meeting, 1000 a.m. in the First Floor Meeting Room at Lincoln City Hall.
- Wednesday, September 20:** EAA Chapter Member Meeting, EAA Hangar; Dinner at 1800, meeting afterwards. Details inside.
- Saturday, September 23:** Saturday Program and Pancake Breakfast featuring Andy Bibber and Bamboo Bomber. EAA Hangar, 0800-1030. Details inside.
- Wednesday, October 4:** Chapter 1541 Board of Directors meeting at 1800, House of Pizza on Nicholas Road.
- Saturday, October 7:** Pancakes and a Movie with Chapter 1541 0800-1000.
- Saturday, October 14:** EAA Chapter 1541 Poker Run; details inside

In addition to the events listed above, there are pancake breakfasts, fly-ins and other aviation activities scheduled for almost every weekend throughout the area. Check the chapter website calendar for the most current information: <http://eaa1541.org/events/>

*For the most up-to-date information, go to the chapter website*

<http://eaa1541.org/>

## *Newsletter Contributions*

Please help by contributing stories and photos that might be of interest to other chapter members. Perhaps where you flew, what you are building, or what you know about something. A few short paragraphs and a photo or two of your project or travels would be a great contribution. I'll take care of the rest. Please email me (Scott Thompson) at [sthompson@aerovintage.com](mailto:sthompson@aerovintage.com) or call me at 916-716-3442.

## *Tidbit from the AIM*

### **1-1-6. VHF Omni-directional Range/ Tactical Air Navigation (VORTAC)**

a. A VORTAC is a facility consisting of two components, VOR and TACAN, which provides three individual services: VOR azimuth, TACAN azimuth and TACAN distance (DME) at one site. Although consisting of more than one component, incorporating more than one operating frequency, and using more than one antenna system, a VORTAC is considered to be a unified navigational aid. Both components of a VORTAC are envisioned as operating simultaneously and providing the three services at all times.

b. Transmitted signals of VOR and TACAN are each identified by three-letter code transmission and are interlocked so that pilots using VOR azimuth with TACAN distance can be assured that both signals being received are definitely from the same ground station. The frequency channels of the VOR and the TACAN at each VORTAC facility are "paired" in accordance with a national plan to simplify airborne operation.

## *Chapter Information*

### **Meetings:**

Usually the third Wednesday of each month held at KLHM Hangar S-12. Details available at the website.

### **E-mail:**

[lincolneaa@hotmail.com](mailto:lincolneaa@hotmail.com)

### **Website:**

<http://eaa1541.org/>

### **Mailing address:**

EAA Chapter 1541, PO Box 1126, Lincoln, CA 95648

### **Chapter Hangar:**

Hangar S-12, Lincoln Airport

### **Chapter Officers**

President:

Ron Wright ([ronpw@hotmail.com](mailto:ronpw@hotmail.com))

Vice President:

Tony Kasabasich ([tonykasabasich@yahoo.com](mailto:tonykasabasich@yahoo.com))

Secretary/Treasurer:

Jim Hughes ([jim.hughes1@att.net](mailto:jim.hughes1@att.net))

### **Chapter Board of Directors:**

Bruce Estes

Tom Lieb

Bob Miller

Byron Maynard

Bruce Robinson

Dug Smith

Scott Thompson

Bill Wootton

### **Webmaster:**

Dug Smith

### **Newsletter:**

Scott Thompson (916-716-3442)  
([sthompson@aerovintage.com](mailto:sthompson@aerovintage.com))

### **Membership:**

Open to all. Chapter dues: \$20 per year.

# President's Corner



by Ron Wright  
Chapter President

## ATC Privatization

This month my article is short and to the point. This subject is probably the most important article I have ever written. PLEASE read the following and click on the attached links.

ATC privatization has been a subject that has been in the news a lot recently and some of us are up to date and many of us are not. Long term, this effort to privatize the ATC could have a very expensive and negative effect on general aviation users. EAA and AOPA are equally opposed to privatization for multiple reasons.

I have provided links to two "you tube" videos.

The first is from "Sully" Sullenberger and is only 32 seconds long; however, it gets right to the point as to why privatization of not a good idea. Please click on this link to view:

<https://youtu.be/nIr2UCLTXmo>



The second video is from AOPA. This video includes a phone number that will guide you to contact your federal government representative to voice your opinion.

[https://youtu.be/52nr0OoOx\\_g](https://youtu.be/52nr0OoOx_g)

As you follow the above links, take the time to view several more videos on the same subject. This is very important and will have a big effect upon our flying future. Please take the time to get informed and let your congressman and senator know how you feel.



photo: <http://www.sullysullenberger.com/>

# ***Upcoming Chapter 1541 Monthly Meeting***

***Wednesday September 20***  
***EAA Chapter 1541 Hangar***  
***1800-2100***

Were back at the hangar since temperatures have normalized. We'll have dinner at 1800 and then a brief chapter business meeting. After the business is over, we'll have a presentation on U.S. Coast Guard aviation. Come check it out....



## **Reno Air Races 1973**

*It's Reno Air Racing time, so here's a look back to the races of 1973. This is Ken Burnstine's P-51D, N69QF, carrying a complicated paint scheme and the name "Miss Suzy Q." Burnstine purchased the airplane the year earlier, in 1973, and raced it extensively for three years including the 1973 races at Reno. In 1976, the plane crashed at the Mojave air races and Burnstine was killed. (Scott Thompson photos)*



EAA Chapter 1541 presents the 2017



# **Poker Run**

## **Saturday October 14<sup>th</sup>**



**Lincoln Airport (KLHM), the Gazebo,  
(East of the transient parking, next to the fuel)**

**Registration opens at 08:00**

**First airplane takeoff at 09:00**

**Awards and Raffle at 13:00**

**Route: KLHM – KMYV – KRIU – O61 – KAUN – KLHM**  
(approximately 100 nm)

**Pick up a playing card in a sealed envelope at each airport.**

**The pot is 30% of the total entry fees, and is split between the high and low hands.**

**Limited to 52 entries, \$30 entry fee includes a BBQ lunch and 1 raffle ticket.**

**(Additional lunch tickets \$10, additional raffle tickets \$1)**

**Download a pre-registration form at <http://eaa1541.org/poker-run/> or register on the day of the event at Lincoln Airport.**

**Contact [pokerrun@eaa1541.org](mailto:pokerrun@eaa1541.org)**

## Maintenance Corner

by Jim Hughes



# Landing and Taxi Light Options

I'd been looking for alternative lamp part numbers to use as landing and taxi lights, for our 1961 Cessna 175B, since we were replacing the landing light every few months, [or so it seemed].

So, on with the search for something better that doesn't cost hundreds of dollars. The standard lamp is the GE 4509, which is specified as 100 watts at 13 volts and a life of 25 hours. The 25 hours part is very misleading, because our 12 volt aircraft actually run at 14.0 to 14.5 volts (assuming that your voltage regulator is set properly). This higher voltage is necessary to fully recharge the battery after the 200-300 amps used to crank the engine to life. But that's a whole different article!

So, having worked on designs with indicator lamps as an engineer, I know that a 10% increase in voltage will reduce the life of an incandescent lamp by 50% to 65% (see the graph, red lines).

So, now our 25 hour bulb may only last 12.5 to as little as 9 hours. That's why they seem to burn out so often....they do!

There must be something better that doesn't cost the \$250 to \$300 that an LED landing light costs. Well, there is! GE makes a quartz-halogen version, the Q4509. It looks a bit different, with a quartz bulb inside the sealed beam lamp shell...it was probably an FAA

thing. GE stopped selling it, but Martek and Galaxy both still make it.

Some of the good things are that this lamp is rated at 100 hours, and since it's a quartz-halogen, it is much less sensitive to applied voltage, so you can actually expect 100 hours from it...maybe more.! The current prices are about \$14, so it's only a few \$\$ more than the 4509.



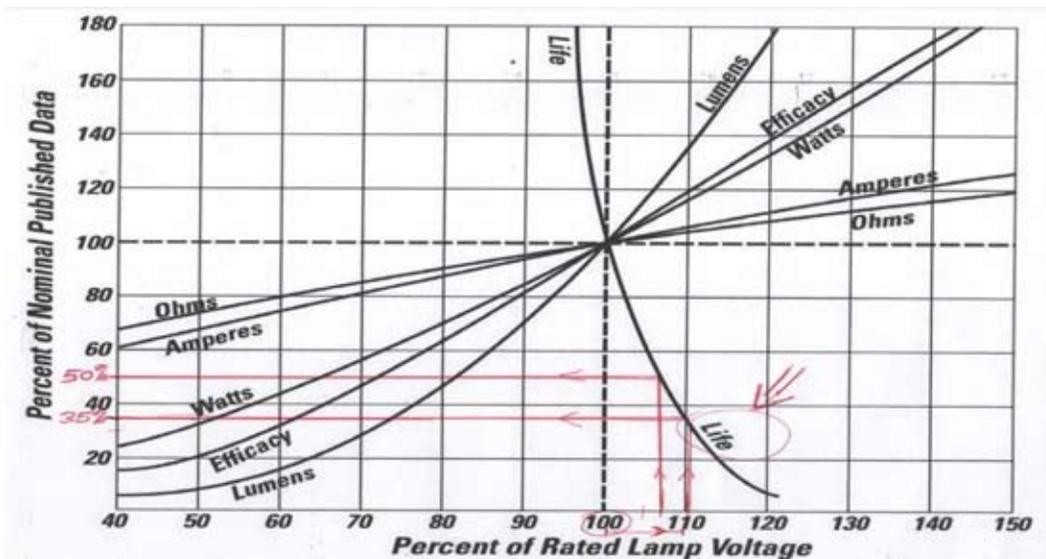
I like running the taxi light at all times when I'm moving, both taxiing and flying, so I'd like more life. It turns out that the 4595 is a somewhat wider beam, and is rated at an amazing 300 hours, Really? It's still rated at 100 watts, but a little less beam power. But at \$15 from "Bulbsamerica," it's a good choice.

I've been using both of these in our Cessna since 2011....and they're still working after 200+ flight hours. I did some bench testing of the 3 lamps, 4509, q4509 and 4595, to determine applied volts, 13v and 14.2v, vs amps, and compared the data to the GE specs, below.

I quickly learned not to stand in the front of the beam.! There is a huge amount of IR within 3-4 feet in front of the lamp!

The comparison chart from GE, that I've marked up has old costs from Aircraft Spruce, but the specs. are still good.

The 4909Q is a quartz version, which is a higher power (125w vs 115w), longer life (100 hrs vs 25 hrs), and a little more expensive bulb. The 4595 is a 100 watt, 300 hour bulb. It is really ideal for the taxi light since





it is a wider beam than the 4509, 14 degrees vs. 12 degrees wide. It has lower power draw, measured at 7.0 amps vs 8.0 amps for the 4509, and long life, at the expense of a somewhat dimmer light. The bench test data for the 3 bulbs at voltages of 13.0 and 14.2 volts shows the actual power draw vs. the GE table that lists 100 watts for all three. The 4509 is specified as a 100 watt bulb at 14.2 volts (normal operating voltage). It draws 115 watts at 8.0 amps. It is 100w at the specified 13 volts (7.6 amps) but no one operates it at this voltage. The 4509Q is also spec'd as 100 watts. At 14.2 volts



it is 125 watts and 8.8 amps. At 13 volts, it is 108 watts and 8.3 amps. Buy at Martek.com for \$14.00. The 4595 is again spec'd as 100w. It is 100 watts at 14.2 volts and 7.0 amps, but it is only 86 watts at 13 volts and 6.6 amps. Buy it at Bulbamerica.com for \$15.00. So there you have it; frugal choices in landing lights!



Products > Sealed Beam > PAR > PAR36 - Compare

GALEXY - 19.65 GE 13.85 GE 23.95  
 GE 834 6X - 87.95 GALEXY 9.85

Compare Products

	4509Q	4509	4595
	<input checked="" type="checkbox"/> Remove Item	<input checked="" type="checkbox"/> Remove Item	<input checked="" type="checkbox"/> Remove Item
	22109 - GE Quartzline® PAR36 - Aircraft	24650 - GE PAR36 - Aircraft	24892 - GE PAR36 - Aircraft
	<a href="#">VIEW MORE DETAILS</a>	<a href="#">VIEW MORE DETAILS</a>	<a href="#">VIEW MORE DETAILS</a>
<b>GENERAL CHARACTERISTICS</b>			
Lamp Type	Sealed Beam	Sealed Beam	Sealed Beam
Bulb	PAR36	PAR36	PAR36
Base	Screw Terminals	Screw Terminals	Screw Terminals
Filament	C-8	C-6	C-6
Product Technology	Halogen	Incandescent	Incandescent
Rated Life	100 hrs	25 hrs	300 hrs
Primary Application	Aircraft	Aircraft	Aircraft
<b>PHOTOMETRIC CHARACTERISTICS</b>			
Beam Spread - Horizontal	7.0 - 10.0°	12.0 - 10.0°	14.0 - 10.0°
Beam Spread - Vertical	7.0 - 10.0°	6.0 - 10.0°	6.0 - 10.0°
Max. Beam Candlepower (MBCP) (MAX)	140000	110000	60000
<b>ELECTRICAL CHARACTERISTICS</b>			
Wattage	100	100	100
Voltage	13	13	13

LANDING TAX)

P.S. Make sure that all of the connections are tight and secure. This landing light switch connection was loose and overheated, melting all of the insulation on the terminal and an inch of the wire, and could have caused a fire!

# *The Evolution of the Republic P-47 Thunderbolt*

*by Martin Maisel  
(photos as credited)*

## **Part 1 Alexander de Seversky**

Alexander Prokofiev de Seversky was born in 1894 to nobility in Tiflis, then part of the Russian Empire (now called Tbilisi, Georgia). His father was one of the first Russians to own an aircraft, and by the age of 14 Alexander had learned how to fly. Following the traditional path of nobility during that period, Seversky attended the Imperial Russian Naval Academy and graduated in 1914 with an engineering degree.



*Alexander de Seversky at the controls of an early aircraft (NASM 2003-18715)*

When Russia joined the World War I conflict, Seversky was selected for duty as a naval aviator. After completing a postgraduate program on aeronautics, he was assigned as a pilot to an aviation unit in the Baltic fleet. On his first mission his aircraft was shot down, killing his observer and severely injuring Seversky. Doctors amputated his leg below the knee

and declared him unfit for duty. However his persistent request to return to combat (while fitted with an artificial leg) gained the support of Tsar Nicholas II who intervened on his behalf, returning Seversky to an aviation fighter unit in 1916. He flew 57 missions and was credited with downing six German aircraft (his claim of 13 kills was not corroborated).

In March 1918, Seversky was assigned as an assistant naval attaché in the Russian Naval Aviation Mission in the United States. The Russian Revolution of 1917 had been making life difficult for members of the former nobility class, so Seversky elected to permanently settle in the US, instead of returning to Russia. His technical education and flying experience soon led to a number of aviation positions, including aiding General Billy Mitchell in his attempt to prove the effectiveness of air power by sinking a battleship. In the early 1920s Seversky submitted over 300 patent claims, including a gyroscopically stabilized bombsite, developed with the Sperry Gyroscope Company.

In 1923, using \$50,000 from the sale of the bombsite rights to the U.S. Government, Seversky founded the Seversky Aero Corporation, focusing on manufacturing aircraft parts and instruments. Although that company did not survive the stock market crash of 1929, Seversky re-entered the aviation industry with a new enterprise in 1931. The Seversky Aircraft Corporation, located in Long Island, New York, set out to develop an advanced, all-metal, monoplane. To accomplish that goal Seversky hired Alexander Kartveli, a skilled aeronautical engineer who was, like Seversky, from a noble family in Tbilisi, Georgia. Kartveli would serve as chief engineer.

The first product of the Seversky Aircraft Corporation was the SEV-3. Initially configured as an amphibian, the SEV-3 set world speed records, culminating with a speed of 230 mph in 1935. This record for piston-engine amphibious aircraft remains unbroken to this day.



Seversky first product, the SEV-3 Amphibian. (Frank Rezich, Aerofiles.com)



*Seversky BT-8 (USAAC image is in the public domain)*

In an attempt to sell the SEV-3 to the U.S. Army as a trainer, Seversky converted the amphibious aircraft to a faired, fixed landing gear arrangement. Originally powered by a 950 HP Wright-985, USAAC regulations limited trainer aircraft horsepower so the engine was replaced by a Pratt and Whitney R-985 with only 450 HP. While the U.S. Army Air Corps purchased 30 variants of the SEV-3 (designated the BT-8) in 1934, the severely underpowered trainer was soon replaced by the North American BT-9 that later evolved into the famous AT-6 trainer. However, the BT-8 has the distinction of being the first all-metal, enclosed-cockpit, low-wing monoplane to enter USAAC service.



*Alexander Seversky with the fixed, faired landing gear SEV-3XAR. (USAAC image is in the public domain)*

*In Part 2 of this brief history, the Seversky Aircraft Corporation develops its first fighter aircraft.*

(Adventure Flight Photo)



*Everything You Wanted to Know About the Bamboo Bomber  
(But Were Afraid to Ask)*

***When: Saturday, September 23 at 0800***  
***Where: EAA Chapter 1541 Hangar (S-12) at KLHM***  
***Who: Andy Bibber, owner of T-50 N1261N***  
***What: Walk and Talk Around a Cessna Bamboo Bomber***  
***Why: Because When Have You Ever Done This?***

Join EAA Chapter 1541 for a Special Saturday Presentation on September 23. We start with a pancake breakfast at 0800. Then, Andy Bibber, owner and chief pilot of Adventure Flight and this Bamboo Bomber, will spend some time walking and talking around his Bamboo Bomber parked on the taxiway in front of the EAA hangar. Andy is based at Lincoln and offers flight training and ride experiences in this rare twin engine veteran, as well as a SNJ *Texan* and N3N biplane, among others. Andy knows this airplane backwards and forwards and will explain and show some of the eccentricities about owning and flying such a unique aircraft. This is a rare opportunity so come on out and have an educational and fun Saturday morning.

The Bamboo Bomber is officially the Cessna T-50, built in Wichita between 1939 and 1944. It was designed as a five-place light twin with wood and tubular steel construction and fabric covering. The Army adopted it for a multi-engine trainer during World War II as the AT-8 and AT-17, both of which were called *Bobcats* in military service. Almost 5,500 were built for the war effort, 822 of which were sent to Canada as Cessna *Cranes*. The military scrapped most after the war, and the survivors did not fare well due to their wood and fabric construction. A good guess puts the number of surviving airframes at about 300, less of which are flying and very few of which you, Joe Pilot, can actually fly.

Andy's T-50 was built as an Army AT-17 with the serial number of 42-13635 but it went to Canada as a *Crane IA*. After the war it was sold as surplus and bounced around with numerous civilian owners through the years. Andy obtained the airplane in 2012.

[Check out www.adventureflight.net](http://www.adventureflight.net)