Runway 15

The Monthly Newsletter for EAA Chapter 1541, Lincoln, California

November 2017

Briefing Strip

• The November member meeting will be held on **Wednesday, November 15,** at **Cattlemens Restaurant** in Roseville. Note the location change...not at the EAA hangar at the Lincoln Airport. Meeting starts at 1800: come for dinner or just come for the meeting, or for both. Details inside.

• One of items to be conducted at the November member's meeting is the election of the chapter's board of directors and officers for 2018. Our chapter leadership sets the course for the chapter. To remain a vibrant chapter, it is vital for all to stay or get involved in some way.

• The Chapter Holiday Party is being planned for **Wednesday, December 13**. More details to follow but it will be held at the Old Spaghetti Factory at 731 Sunrise in Roseville. Set aside the date and make plans to attend. Tickets will be $25 per person and are available from any chapter board member.

• The world-class Planes of Fame air museum, currently based at Chino Airport in southern California, is in active discussions with the city of Lincoln to move the museum to the Lincoln Airport. This could be a game changer for the airport. More information inside.

• As part of the transition process from Nunno hangar management to city hangar management, there are thirty of the ex-Nunno hangars for which the city has yet to receive any information from the existing tenants. The city is seeking to immediately get in contact with these tenants to establish the new rental agreements. More information inside.

Calendar

Wednesday, November 15: Lincoln Airport Committee Meeting, 1000 a.m. in the First Floor Meeting Room at Lincoln City Hall.

Wednesday, November 15: EAA Chapter Member Meeting, Cattlemens Restaurant, Roseville; Dinner at 1800, meeting afterwards; 2018 board of directors and chapter officers to be elected. Details inside.

Saturday, November 18: Lincoln Airport Aircraft Display Day, 0800-1200.

Saturday, December 2: Pancakes and a Movie with Chapter 1541 0800-1000.

Wednesday, December 6: Chapter 1541 Board of Directors meeting at 1800, House of Pizza on Nicholas Road.

Saturday, December 9: Saturday Program and Pancake Breakfast, EAA Hangar, 0800-1030. Program to be announced.

Wednesday, December 13: EAA Chapter 1541 Holiday Party at Old Spaghetti Factory, Roseville.

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 or call me at 916-716-3442.

Tidbit from the AIM

4−5−6. Traffic Information Service (TIS)

a. Introduction.

The Traffic Information Service (TIS) provides information to the cockpit via data link, that is similar to VFR radar traffic advisories normally received over voice radio. Among the first FAA−provided data services, TIS is intended to improve the safety and efficiency of "see and avoid" flight through an automatic display that informs the pilot of nearby traffic and potential conflict situations. This traffic display is intended to assist the pilot in visual acquisition of these aircraft. TIS employs an enhanced capability of the terminal Mode S radar system, which contains the surveillance data, as well as the data link required to "uplink" this information to suitably−equipped aircraft (known as a TIS "client"). TIS provides estimated position, altitude, altitude trend, and ground track information for up to 8 intruder aircraft within 7 NM horizontally, +3,500 and −3,000 feet vertically of the client aircraft (see FIG 4−5−4, TIS Proximity Coverage Volume). The range of a target reported at a distance greater than 7 NM only indicates that this target will be a threat within 34 seconds and does not display an precise distance. TIS will alert the pilot to aircraft (under surveillance of the Mode S radar) that are estimated to be within 34 seconds of potential collision, regardless of distance of altitude. TIS surveillance data is derived from the same radar used by ATC; this data is uplinked to the client aircraft on each radar scan (nominally every 5 seconds).

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

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)
Vice President:
Tony Kasabasich (tonykasabasich@yahoo.com)
Secretary/Treasurer:
Jim Hughes (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)

Membership:

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

President's Corner

by Ron Wright

Chapter President

Our chapter is facing a very serious situation

As most of you know, every two years we elect new chapter officers and board members. That time is now. The vote for the new board members and officers will be held at this month's general meeting. Although we have nearly 100 members, we are not getting interest from members to participate in the running of the chapter. Most importantly, we are needing a President and four board members. Tom Lieb has offered to be Vice President (Thank you Tom). Please don't put our club in danger of dissolving. The time commitment to being a board member is not excessive and it provides a great opportunity to build friendships through getting involved with your fellow members. We have built a great club; don't let this situation ruin what we have built for the last five years! You might even want to volunteer with a friend. That might get rid of any butterflies you could have (if you are a little shy at first).

Here is what to do: contact me at 916 240-5980 and let me know that you would like to help. Tell me if you are interested in being a board member or possibly even President. My Presidency ends next month. The club needs new ideas and energy every two years. This is what keeps meetings and activities fun and new. Bring your thoughts and ideas to keep Chapter 1541 moving forward providing information, education, and fellowship. I can't overstate how serious this is. Without your help, this could result in the closure of our club. Step up, get involved. You won't regret doing so and I assure you that you will discover that participating is actually fun!

November Member Meeting
Wednesday, November 15
Dinner starts at 1800; Meeting to follow

Plan to attend the November Member Meeting on November 15. It will be a busy evening with the optional dinner beginning at 1800 or so, with a business meeting to follow. The business meeting is important because we are going to elect our 2018 chapter Board of Directors and also our Chapter Officers, these being the President, Vice President, and Secretary-Treasurer. As our current president, Ron Wright, notes above, we are still lacking volunteers for some critical leadership positions. The chapter will not run itself, so we are hoping some new folks will step up and get involved.

After the business portion is concluded, we will have a presentation by Randy Sharp on Cal Fire, the Air Attack Base, TFRs around fires, and the hazards involved in flying near a active fire fighting area.

The meeting will be held at Cattlemens Restaurant located at 2000 Taylor Road in Roseville

Need a Place to Fly?

Looking for a different airport to fly to for breakfast? Try Modesto (KMOD). The Commemorative Air Force's Central California Valley Squadron at Modesto hosts a monthly breakfast on the second Saturday of every month. They serve between 400-500 meals and have been doing it for over 10 years. The menu is great, and the setup is great. Modesto is a friendly, towered airport, and the controllers will direct you to the breakfast location on the West side of the airport. It's fun. Put this on you list of places to fly to. (Bruce Estes)

Don Bradley gave a presentation on the Magni M-16 gyrocopter at EAA's breakfast meeting on October 28th. After the presentation, Don gave rides to a few lucky members. The look on Danny Hull's face says it all. If you missed this breakfast, you missed out. (Bruce Estes)

Carburetor Icing

by Dug Smith

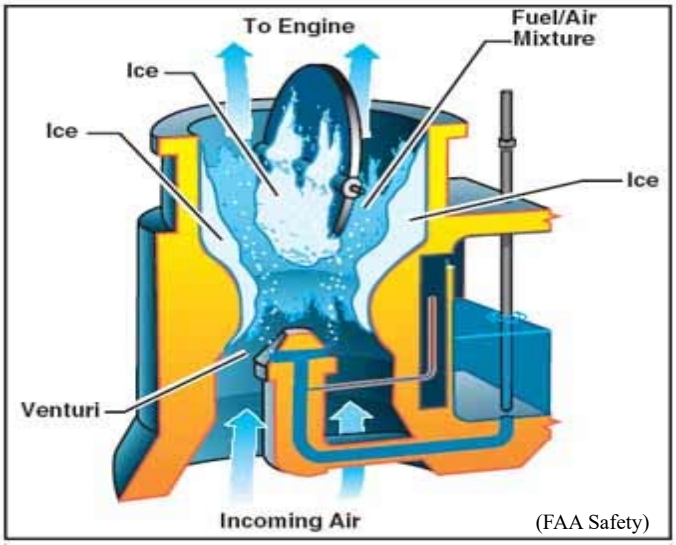
As we're getting into winter, it's worth looking into carb icing. While lower temperatures themselves don't help, the increased humidity is the real problem.

The Venturi effect states that if you push air through a constriction, its speed will increase, but its pressure will decrease - this is how our carbs work, after all. Unfortunately, this pressure drop also creates a drop in temperature, and that can be 30F or more. Gasoline evaporating lowers the temperature of the incoming charge even further.

As we know, when the temperature of the air cools lower than the dew point, water condenses. Even when it's a humid 60-70F outside, the temperature drop will often cause ice to form. This ice can build up as a restriction in the carb throat, causing more of a constriction and decreasing the pressure even further, and that will cause the engine to run rich.

Ice can also form on the butterfly valve that's used to restrict the incoming air flow and controls the amount of fuel the engine receives - left long enough, this will stop your throttle from working at all. Of course, those of us with 2 stroke engines are usually using slide carburetors, and won't have this particular problem.

The solution is to warm the air entering the engine with carburetor heat, where heat from the exhaust manifold, coolant or an electrical circuit, is used to prevent icing.

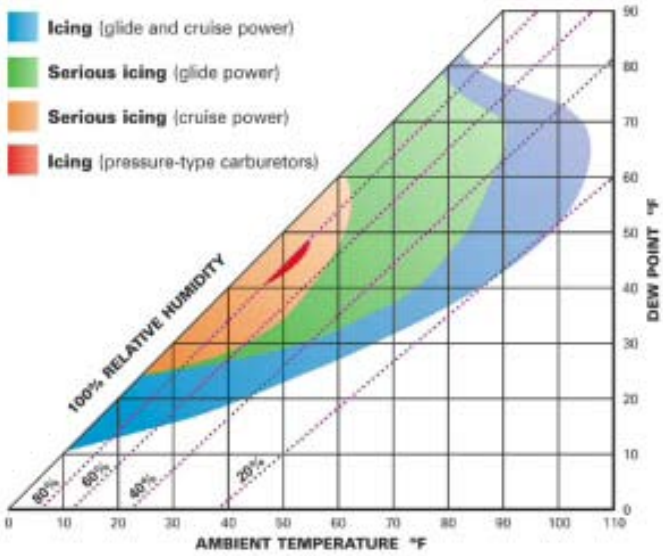


(FAA Safety)

As the air filter is often bypassed when using carb heat, it's usually not a good idea to use it on the ground (however carb heat can help out when the air filter is clogged).

Carb heat will cause an engine to produce less power, as the incoming air is less dense. If applying it increases the power output, there's a good chance that ice buildup had started. Water ingestion will cause an engine to run rough, but that doesn't mean carb heat should be turned off.

Full throttle applications restrict the air flow less than partial throttle, so carb heat is generally less necessary, but long descents can be problematic because there is a large restriction in the air flow, and less exhaust heat to melt any ice that's being formed. Clouds are formed by moisture in the air, so carb heat is more frequently used in and around them.



AOPA has this handy chart that shows when you can expect to see problems with carb icing. As I'm typing this on an early November day, it's 60F outside, with a dew point of 40F, so I could expect to see icing at cruise power and serious icing in a glide.

Planes of Fame Air Museum and the Lincoln Regional Airport

The world-renowned Planes of Fame (PoF) Air Museum may be establishing an air museum at LHM. This is a potential game-changer for both the Lincoln Regional Airport and the city of Lincoln.

The Planes of Fame has one of the largest collections of Warbirds and classic airplanes. Their fleet includes 40 flying aircraft, ten aircraft in active restoration, and another 100 on static display in their two locations: Chino, CA (primary location) and Valle, AZ (south of the Grand Canyon). It's a "living museum," where aircraft are not just displayed, but flown.

What does this opportunity mean for us? It makes Lincoln a destination location for pilots and tourists. It means aerial activity (an annual air show and monthly flying demonstrations), new and expanded business activities, and assuredly a restaurant!

Informal discussions between the PoF and the City have been going on for months, culminating in the City Council's approval for the Administration to enter into formal negotiations. While there is a lot of work involved in this opportunity, and a reasonably long lead-time to do the entire transition, both sides are committed to designing a win-win solution.

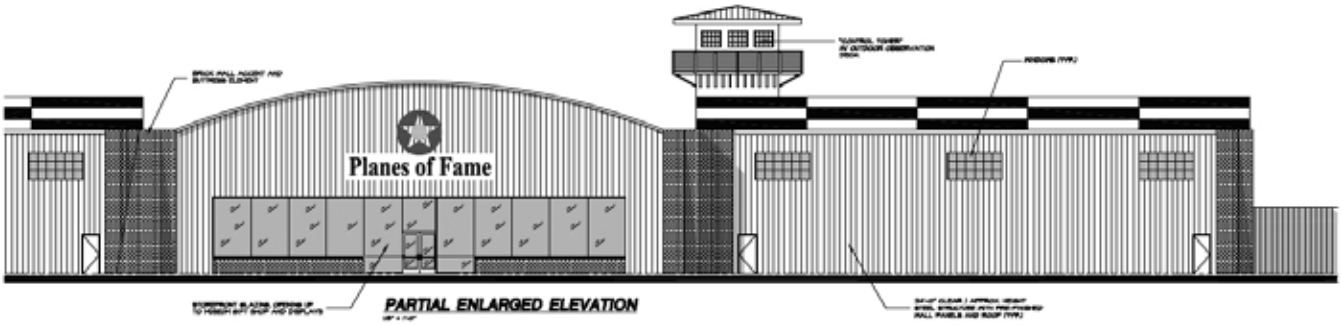
The PoF's executive team includes Steve Hinton Sr., Steve Jr., PoF founder Ed Maloney's daughter Karen Maloney Hinton, and marketing director Jane Lynch. Both Steve's are medal winners at the Reno Air Races in various categories, and Steve Jr. recently established a new world speed record for piston single aircraft at 531.3 mph.

There are four potential sites to house their museum, offices, aircraft restoration facility, and static display area: three potential sites within the Airport grounds and one just north of the City's Corporation Yard/Public Works office, but with through-the fence capability.

Recommendations for a path forward will be brought back to the City Council by March 30th, 2018. There are a lot of hurdles to overcome: financing, environmental issues, design, and construction, but the first steps have been taken.

So, stay tuned and we'll post periodic updates as they become available.

Richard Pearl
Chair, Lincoln Airport Committee
EAA member, chapter 1541
Lincoln Regional Airport Association



Conceptual drawing of the envisioned Planes of Fame museum facility at the Lincoln Airport. This view is contained in the planning document approved by the Lincoln City Council on October 11, 2017. Museum president Steve Hinton made a presentation at the council meeting.

The Legacy of Ed Maloney and his air museum

The Planes of Fame air museum is a nationally known and well-established facility whose origins date back to the 1950s. It was the vision of just one man, Ed Maloney, to create an air museum back when there were no such things as air museums.

Maloney grew up enthralled with airplanes in aviation-rich Southern California during the pre-World War II years, Then he watched with dismay as our World War II armada of aircraft were scrapped by the tens of thousands after the war, with a major scrapyard right in his backyard at what is now the Chino Airport.

He decided early on to try and save some of these aircraft, and slowly began collecting cast-off or abandoned fighters and bombers, particularly seeking out the unusual or rare airplanes. He opened the first iteration of his vision in 1957 in Claremont, calling it simply "The Air Museum." It was the first museum dedicated just to airplanes established in the western U.S.

Maloney continued to collect airplanes and he soon outgrew the Claremont location so the museum was moved to the nearby Ontario Airport. In the days before there were such things as "warbirds," many thought him a fool only collecting scrap and junk.

Funding was non-existent but Maloney and a small group of supporters could see what many others could not: there would soon enough be great historical value in the military airplanes that had played such a vital role in World War II.

Maloney managed to collect some very rare aircraft, including a Japanese Zero, a Boeing P-26 Peashooter, and a Seversky P-35 fighter. In the earlier days, few of the airplanes were airworthy. There was no money to operate, much less restore, such aircraft. The Air Museum obtained, on loan from the USAF, a B-17G in 1960. The B-17 was featured as the *Picadily Lily* in the TV series *12 O'Clock High*, which was filmed largely at Chino between 1964 and 1966.

Ed Maloney (1928-2016), visionary and founder of The Air Museum. (photo via Planes of Fame)

Then, in the early 1970s, a joint venture was initiated to move some of the collection to a more tourist-rich area in Orange County. Located in Buena Park not far from Knotts Berry Farm, the Planes of Fame/Cars of the Stars facility was opened but it was not particularly successful.

After a few years, it was closed and the airplanes were trucked back to Ontario. But the name "Planes of Fame" stuck. The entire museum was moved to Chino in the mid-1970, where it has been ever since.

In the early days at Chino, when funding and support remained scarce, the aircraft collection suffered. But through the 1980s and 1990s, as interest grew in warbirds and the museum gained a firmer financial foundation, the Planes of Fame museum gained a reputation for putting a growing number of its rare aircraft back into the air and flying them in some amazing annual airshows.

Maloney's two sons, John and Jim Maloney, and their elementary school buddy Steve Hinton, became the up and coming generation that pushed the museum toward maturity. Though John Maloney was killed in a 1983 plane crash, Steve Hinton is the current president of Planes of Fame, and Jim Maloney remains a critical element in making the museum run smoothly. It's a bit of a family affair also, as Steve Hinton married one of Ed Maloney's daughters, Karen, and she also is part of the museum management team. Ed Maloney passed away in 2016 leaving his vision fulfilled.

Now, in 2017, it is exciting to think that Planes Of Fame is looking northward to Lincoln as its new home. The whole equation that equals our airport would change for the better and the possibility for a very positive outcome now exists. (Scott Thompson)

The Evolution of the Republic P-47 Thunderbolt

by Martin Maisel

(photos as credited)

Part 3
The Republic Thunderbolt

By 1941 the P-43 Lancer was regarded as obsolete because it lacked adequate maneuverability, protective armor, and self-sealing fuel tanks. Furthermore, recognizing that the P-43 and its derivatives would be inferior to Luftwaffe fighters, Republic and the USAAC elected to develop a new aircraft designed around the Pratt & Whitney R-2800 Double Wasp engine. Again Alexander Kartveli led the design team.

Using a designation given to an earlier, but now abandoned, Republic lightweight fighter (the XP-47), the XP-47B would be designed to be faster, fly at greater altitudes, and be capable of longer range than other fighter aircraft in the USAAC inventory. Specification targets included a speed of 400 kts at 25,000 ft with at least six .50 caliber machine guns (eight preferred). The aircraft would also have self-sealing fuel tanks and protective armor for the pilot.

Republic P-47B (USAAF photo is in the public domain)

The first flight of the XP-47B occurred on May 6, 1941 and initial deliveries of the P-47B were made to the newly organized United States Army Air Force just over a year later. Named the Thunderbolt, the P-47 was affectionately known as the "Jug".

A number of P-47B design, production and maintenance problems were addressed with the P-47C variant, and deliveries of that model began in September 1942. Configured with the "razor-back" fuselage like the P-47B, later production "C" models featured all-metal control surfaces (replacing fabric covering that could fail during high speed dives), a mass-balanced elevator and rudder to avoid flutter, and an extended fuselage (forward of the cockpit) to resolve a center of gravity problem and ease engine maintenance. In addition, the aircraft was fitted with a belly shackle for a bomb or for an extended-range fuel tank. By the end of 1942 most problems with the aircraft had been worked out and P-47Cs were sent to England to join the Eighth Air Force.

Continuing refinements of the P-47 at Republic led to the P-47D. Later "D" models incorporated a bubble canopy for improved visibility. Empty weight of the P-47D-30 had grown to 10,000 lb, with a maximum take off weight of 17,500 lb, making the P-47 the heaviest single-seat, single-engine fighter of World War II.

P-47D with bubble canopy (USAAF photo is in the public domain)

The P-47D was capable of 433 mph in level flight at 29,000 ft (550 mph in a dive), had an 1800 mile ferry range and a combat range of 800 miles.

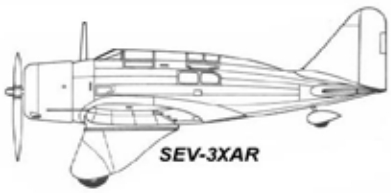
The final variant, the P-47N with increased internal fuel capacity and external drop tanks, was designed as an escort fighter for Boeing B-29 bombers flying raids on the Japanese home islands. The last Thunderbolt, a P-47N-25, rolled off the production line in October 1945.

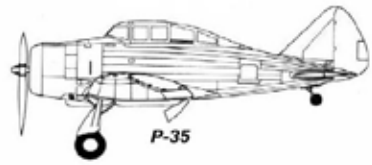
P-47N Thunderbolt (USAAF photo is in the public domain)

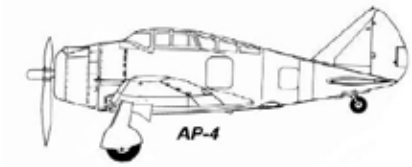
A total of 15,636 Thunderbolts of all types were built - more than any other WWII U.S. fighter. Of that number about 3,500 P-47s were lost to all causes in combat.

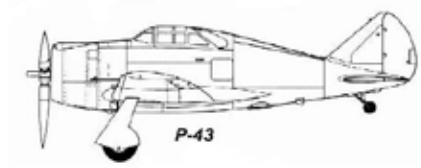
During WWII P-47s flew over a half million missions, dropped over 132,000 tons of bombs and destroyed over 3,661 enemy aircraft.

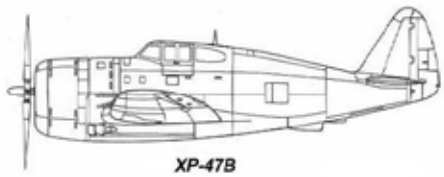
The powerful, robust, well-armed P-47 Thunderbolt was considered to be one of the premier World War Two fighters by U.S. Army Air Forces commanders, along with the P-51 Mustang and the P-38 Lightning.

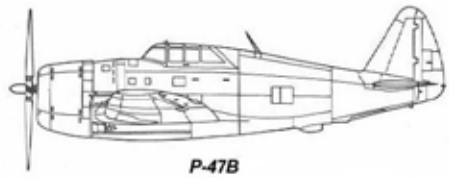


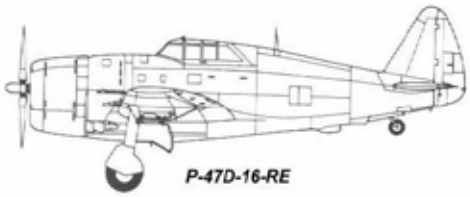


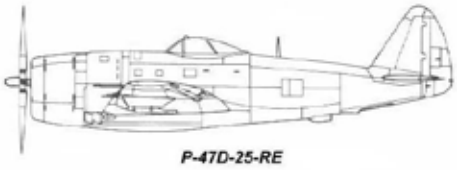


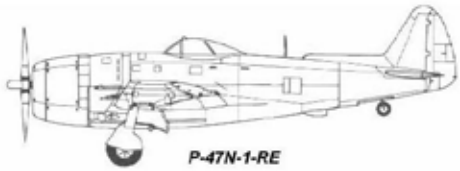












Update on Lincoln Hangars

The process of switching management of some of the airport hangars continues. In a process that began in August, the City of Lincoln has taken over management of those airport hangars once managed by the Nunno Corporation.

The city held two Stakeholder's Meetings on October 19 to provide information about the transition and to receive comments on the process. The transition will be effective on December 1, and the city is making new rental agreeements with the tenants of the old Nunno hangars, and new ground lease agreements with Porta-a-Port hangar owners. The rental and ground lease agreements will set rent and lease payments at market rates.

As part of the old Nunno lease agreement, ownership of some of the fixed hangars have reverted to the city of Lincoln.

Also as part of the change, some new things are coming, including a Common Area Maintenance (CAM) fee that will fund runway and taxiway work and also entrance/exit gate improvements. Planning is also underway to replace the fuel farm in a new location with new equpment.

Hangar and ramp maintenance will be included as part of the monthly hangar rent. Individual ground leases for those Porta-a-Port hangars (rows P, Q,R, & S) are also being implemented.

At this writing, there are thirty hangars for which the city has not yet been able to contact the current tenants. The hangars are:

N1, N1A, N2, N3, N4, N5A, N6, N8
P1, P3, P4, P10, P11, P12
Q1, Q4, Q9, Q10
R8, R13
S1, S2, S3, S7, S8, S9
T3, T4, T8, T9

The city provided the following message in an email to the EAA Chapter.

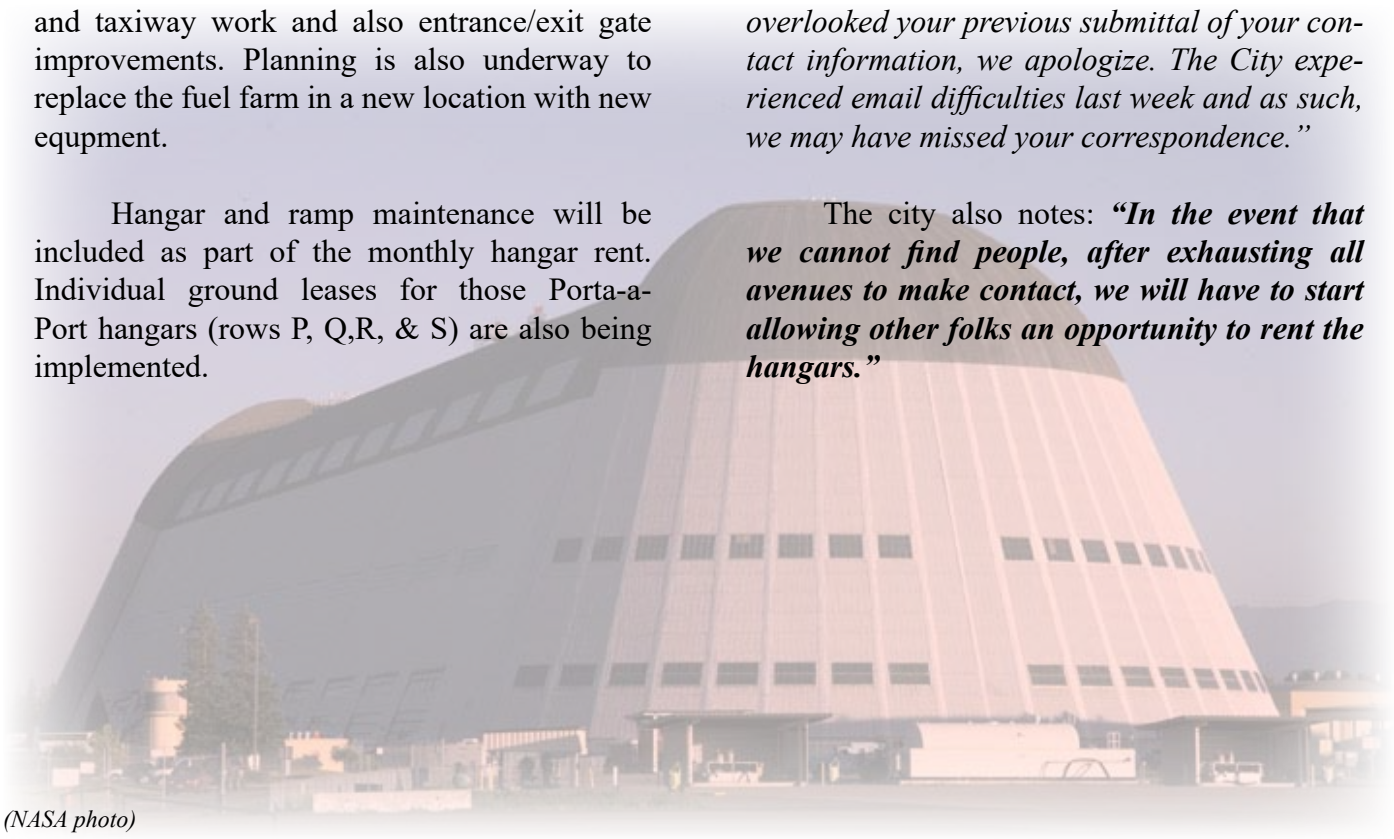
"We are asking all current tenants that are occupying the hangars list above to contact the City by emailing: airport@lincolnca.gov.

Please state in the email:

- *Your name*
- *Hangar Row and Number*
- *Phone Number*
- *Email Address*

We sincerely appreciate everyone's assistance with the matter. If we have inadvertently overlooked your previous submittal of your contact information, we apologize. The City experienced email difficulties last week and as such, we may have missed your correspondence."

The city also notes: ***"In the event that we cannot find people, after exhausting all avenues to make contact, we will have to start allowing other folks an opportunity to rent the hangars."***



(NASA photo)