AeroStats

The Monthly Newsletter of the
Willamette Aerostat Society

December 2020
Volume 22, Number 12

Please join us for a virtual WAS Holiday Party

Wednesday, December 9
7:00 PM on Zoom

It's casual — It'll be fun

A link will be sent to all paid members

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2020 WAS Officers

President:
Shari Gale

Vice President:
Marianne LeDoux

Secretary/Treasurer:
Dale Justice

Others:

Newsletter Editor:
Shari Gale

Activities Director:
Pasha Luber

WAS website:
http://www.wasballoon.info

Email: ExecComm@wasballoon.info

Here's What You Need To Know

The Annual WAS Christmas Party will be held virtually on Wednesday, December 9 at 7pm.

It's not the year to gather a big group of people together in a small indoor space. To be sensible and safe the club membership voted to hold a ZOOM meeting instead. It will be a time to just sit back in front of your computer and enjoy the company of your fellow aeronauts.

Wear your favorite holiday themed sweater/sweatshirt; or dress up in your most dazzling evening outfit. Or just wear your holiday socks while you prop your feet up in front of your computer.

Feel free to consume a glass/mug of your favorite holiday beverage.

You can, also, eat to your heart's content. Make us all drool as you eat gorgeously crafted Christmas cookies, gingerbread smothered in whipped cream, or pecan pie with French vanilla ice cream. Do your best to make the rest of us jealous.

Sitting in front of your Christmas tree or fireplace will make it more festive. Another choice is to use the Zoom option to put in your own background. You'll get bonus points if you let us peek at a Christmas memory from your childhood.

Don't forget to introduce us to your furry family members that never get to join you on the launch field. You can dress them in holiday outfits or antlers, or you can curry their favor by not humiliating them.

The central idea is get together as best we can to have a club get-together this year in spite of the pandemic challenges.

Now is the Time to Vote for WAS Officers

Have you voted yet?

The current Executive Committee members have agreed to run for office again in 2021. They are:

Shari Gale - President
Marianne LeDoux - Vice President
Dale Justice - Secretary/Treasurer

Just because Shari, Marianne and Dale have offered to run again does not mean you can't write in a different candidate for an office. Feel free to do it. Just write down who you want to serve in any of the positions. If you want the job yourself, organize a write-in campaign and go for it!

Obviously, since the Christmas Party won't be held in person this year. ***All ballots this year will have to be by email.*** Just vote and send the email to our secretary/treasurer, Dale Justice. It's as easy as that!

An email was sent out recently. If you haven't voted yet, please do.

Worthy Cause

Long-time WAS member, Laura Hancock has asked us to publish the following link. Her family and friends are trying to establish a charitable trust in honor of her nephew Jackson Edwards.

Feel free to click on it to learn more.

GoFundMe, https://www.gofundme.com/f/jackson-edwards-technology?utm_source=customer&utm_medium=email&utm_campaign=p_cp+share-sheet.

Meet Carrie Thacker

By Shari Gale with a lot of help from Carrie

There's a pilot in Oregon who seems to always be smiling and laughing as she lifts off. You can't help but notice the happiness that radiates from her basket. Her name is Carrie Thacker.

She has been involved in hot air ballooning for over 31 years. She got into ballooning "many, many moons ago" while she was living in California's Napa Valley. For years that area has been a very successful balloon ride location. Originally, Carrie hooked up with one of the big ride balloon companies as crew. She quickly decided she wanted to become a pilot. She got her private certificate in September 1995, and her commercial rating in November 1996.

Carrie soon started flying for a commercial ride operator in Napa. She recently commented, "I loved it and miss it very much, mostly I miss seeing balloons every day. Flying for a commercial ride operation is very different than flying for fun, an example of this is doing double hops. Most private/fun flying pilots do not like doing double hops, but those of us with a commercial background know that it is part of doing business and it is all in how you "sell" the second hop. The part of commercial ride business that I don't much care for is how large the baskets have become. I believe that hot air ballooning is very romantic and personal. When you are in a basket with 35+ people I believe you lose some of this. With that said, I love both aspects of ballooning and do miss being involved in the commercial ride business. Who knows, maybe a ride business in Turkey is looking for an old female balloon pilot!"

During this time Carrie had to work full time outside the ride business. When she was crewing, she worked weekends and holidays for commercial ride company, but once she became a pilot she also had to juggle going to events to fly in other areas. "So I probably wasn't the best employee," she commented.

After 15 years of this life Carrie moved back to Oregon in 2001. She grew up on the Oregon Coast in the Reedsport area. All her family lives in Oregon.

She is a member of the Karuk Tribe which is located in Northern California along the Klamath River. Their headquarters is in Happy Camp. Carrie's family attends several Powwows every year — except this year, of course. She's looking forward to getting back together soon.

Carrie lives and works in Eugene. She's an Enterprise Resource Planning (ERP) consultant. She spent 13 years working for System Applications and Products in Data Processing, and the last 10 years working as an Oracle consultant. She works on the finance team, but crosses over to Operations/Customer Service/ Human Capital Management as needed.

Balloon rallies are one of Carrie's favorite aspects of our sport. When asked which rallies were her favorites she commented, "Any balloon event is my favorite! I love the social aspect of ballooning and miss it very much. I hope next year we are able to get together again."

We all know Carrie is a marvelous cook. What most of us probably don't know is that Carrie spent 20 years in the wine business. She loves a good bottle of wine. She says, "Anyone looking to go wine tasting, please send me an invitation."

You won't find a more positive wine tasting partner than Carrie!

Tim Gale Receives the Ed Yost Award

Tim Gale was recently awarded the prestigious Ed Yost Award from the Balloon Federation of America (BFA). The award recognizes pilots who have "demonstrated professionalism, skill and aviation expertise by maintaining safe operation for 40 or more consecutive years as active pilots." Usually, the award is presented at the annual BFA meeting in Albuquerque. This year, of course, the meeting was held virtually. That meant Tim did not actually receive the plaque which acknowledges the award.

Tim was nominated by Koh Murai. The plaque initially went to Koh. When Tim was at Lindan Hot Air Balloon Services for the annual inspection of his balloon. Koh made the presentation directly to Tim. Carmen Blakely, Dale Justice and Alan Sanderson were there as witnesses along with Tim's wife, Shari and their two granddaughters.

Tim's first balloon flight was on New Year's Day 1978. He first soloed on March 8, 1980. He earned his private certificate in April 1980 and his commercial certificate the following August.

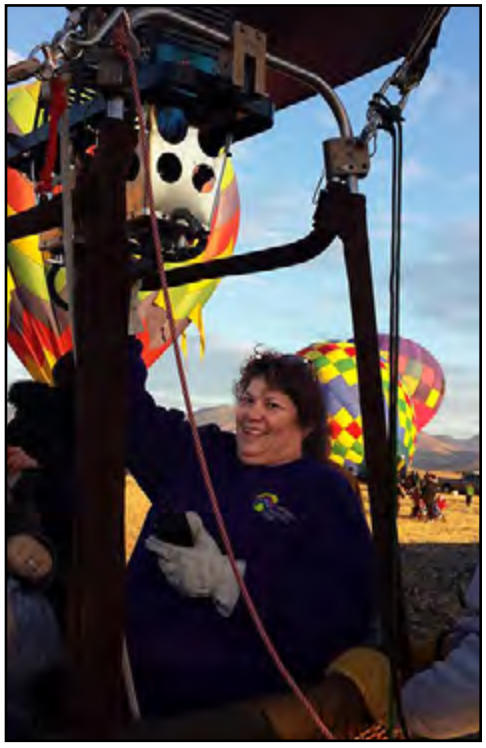
Tim and Shari jointly received a BFA Director's Award in 1991 for their work in both the defunct 45th Parallel Aerostat Squadron and the regional Northwest Balloon Association organization. In 2004 Tim received another BFA Director's Award for his years of service as the BFA Chair of the Education Committee. Currently, Tim is a member of the FAA's Safety Team.

Congratulations, Tim! Way to fly!

Tim Gale (left) received the BFA's Ed Yost Award from Koh Murai (right) on November 29th. Koh had originally nominated Tim, and was asked to present the plaque after the inperson BFA annual meeting had to be canceled. Koh, also helped with Knight-N-Gale's annual inspection. It was a win-win for Tim.

Carrie Thacker

Continued from page 4



Note from the Editor

A big thank you goes to Carrie for being the first to volunteer to have a profile printed in the newsletter.

I hope to make this a regular feature showcasing WAS members, both pilots and crew. I might very well be reaching out to you in the future.

Thanks in advance for your help in making this newsletter relevant to our local ballooning community.

You Know You Are A Balloonist When…

• You know you are a balloonist when the first thing you look for in the Christmas ornament display is balloon ornaments! (Dale Justice)

• You know you are a balloonist when every time you go on a road trip you're looking for areas that are good landing zones. (From Jim Bentley)

• You know you are a balloonist when you keep waking up before sunrise, even when you know the weather is bad. (Carmen Blakely)

• You know you are a balloonist when you're in the car, you're looking at every field as a potential landing site. (Kelly Haverkate)

• You know you are a balloonist when every cloud in the sky says: "flyable" or "not flyable". (Kelly Haverkate)

• You know you are a balloonist when you are happily in bed by 8 pm. (Alan Brandt)

• You know you are a balloonist when you look forward to 5 am weather checks. (Alan Brandt)

• You know you are a balloonist when all of your friends and family members give you balloon gifts like cups, cards, jewelry, ornaments, and art work. (Norma Ashley)

• You know you are a balloonist when you're up before 0600 even when there is rain on the roof (this morning). (Alan Brandt)

• You know you are a balloonist when you look to the sky with mid-level clouds and think of winds aloft. (Tim Gale)

• You know you are a balloonist when you check for power lines around flat fields without crops as you drive past. (Tim Gale)

• You know you are a balloonist when a room is dedicated just to balloon stuff. (Cheryl Isaacs)

• You know you are a balloonist when champagne and propane happen before 9:00 AM. (Carrie Thacker)

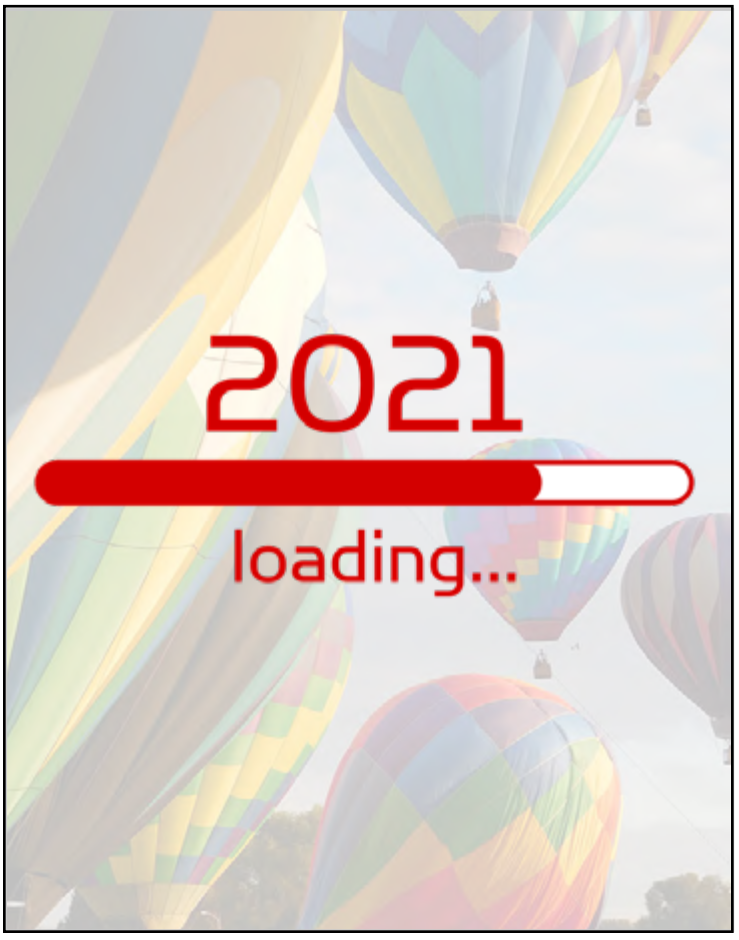
• You know you are a balloonist when you check the wind report regardless of what you see outside. (Marianne LeDoux)

• You know you are a balloonist when your Whatsapp notification sound is a recorded T3 burner burn sequence. (Alan Brandt)

• You know you are a balloonist when you drive along country roads pointing out all the fields where you've landed in the past. (Shari Gale)

• You know you are a balloonist when you look forward to the next rally — and this year any rally would be wonderful. (Tracy Rollman)

[Editors Note: Thanks to all the wonderful WAS members who contributed their ideas. Alan Brandt submitted the most entries. If there were a prize to award he would certainly receive it.]



Hope springs eternal! Merry Christmas and Happy New Year everyone!

Flying the Parameters

by Tim Gale

We've generally learned to fly balloons through rote, feel and recollection of past actions, yet how many of us have looked at the parameters of flight to evaluate performance? Do we keep track of fuel use, envelope temperatures, recovery from descents? Each of these conditions has a numerical quantity to allow comparative evaluations. How many of us have built a base case of system performance when getting new aircraft? If we do, the condition of the system can be evaluated years later to check for deterioration from age.

Your flight manual, the one that's supposed to be in your aircraft while in flight, has charts that can be used for evaluating envelope temperatures under various conditions for a new aircraft. It was established during testing when the manufacturer was preparing for the aircraft type certificate. How many of us have checked the data in the chart as compared to what we see today on a balloon with 100 hours or 400 hours? How much capability have we lost?

Each evaluation of the anticipated envelope temperature requires the following: altitude with ambient temperature, and gross load to lift. When collecting the data, keep the period short, like fifteen minutes and use mostly level flight. Avoid venting or quick ascents. If your system allows, you might use one tank for the test and fuel it separately to measure the fuel use. On my system, the total weight without persons or miscellaneous stuff is 516 lb. I'd allow 15 pounds for radios and the various items that reside in my glove box, netting 531 pounds. (If you want to be certain, you can haul your basket to a platform scale and weigh the assembly.) I set the ambient temp at 60° F and flight at 3,000 ft MSL. The two passengers and pilot add 535 pounds, so the total load is 966 pounds, still well below the structural limit. Another factor: your system will weigh less for loss of fuel. I allow four pounds loss per gallon of fuel burned reducing lifted load. The value is small and tends toward the safe side so it can be ignored in many cases.

In this scenario, there's plenty of excess lift to allow for acceleration like slowing descents or clearing obstacles. If you fly this arrangement, will it feel sluggish or lively? What's not indicated is the fuel consumption. One manufacturer, Firefly, has a procedure to formalize this analysis and measure the fuel usage through tank weight change over a set time. It's a fussy job, yet it gets a more accurate performance analysis. I don't know anyone who has gone through the procedure with their system.

As your system ages, what changes? With porosity, the zero pressure line rises in the envelope since the heated air seeps out of the tiny holes in the fabric. More porosity is from more holes and more lifting (hot) gas passing outside of the envelope. Ambient air enters from the bottom to fill the void and you'll have an envelope with the same mass as a new one yet less of it is lifting. Your 77 becomes a 65 for lift. On the other hand, the ambient temp air at the bottom remains as a part of the envelope volume and a part of the mass to be heated to gain lift. The result is an envelope that lifts like a little one yet still reacts like the same old size. As the degradation continues, it demands more fuel yet still takes the same time to react.

The other effect of porosity is thinning of the boundary layer on the interior of the envelope. With new fabric, the hot lifting air near the surface builds a gradient between the interior and the fabric acting as a blanket to insulate the fabric and reduce heat transfer. The temperature sensor is near the surface and well within the boundary layer. As the fabric become porous, the boundary layer thins and the temp sensor sees higher temperatures. The working bulk temperature inside the envelope is also warmer since the smaller effective volume of lifting air is working harder to achieve the same lift. All of these factors will be seen in envelope performance and the parameters seen in operation.

All of this is predictable as fabric ages. Some go faster than others. Some fabric coatings are sensitive to moisture and heat, causing more aging. Note that the effects I've cited, all are performance related. Fabric strength is another factor. Your annual inspection is more focused on strength where you could find a catastrophic failure. The parameters addressed above are performance based, not structural. Tracking the fuel consumption will offer another data point for tracking the health of your system. Whether you keep them in mind, on a sheet in your flight manual or in a file at home, these data can be useful for tracking system health.

See graphic "Appendix A" on the following page.

FIGURE 1

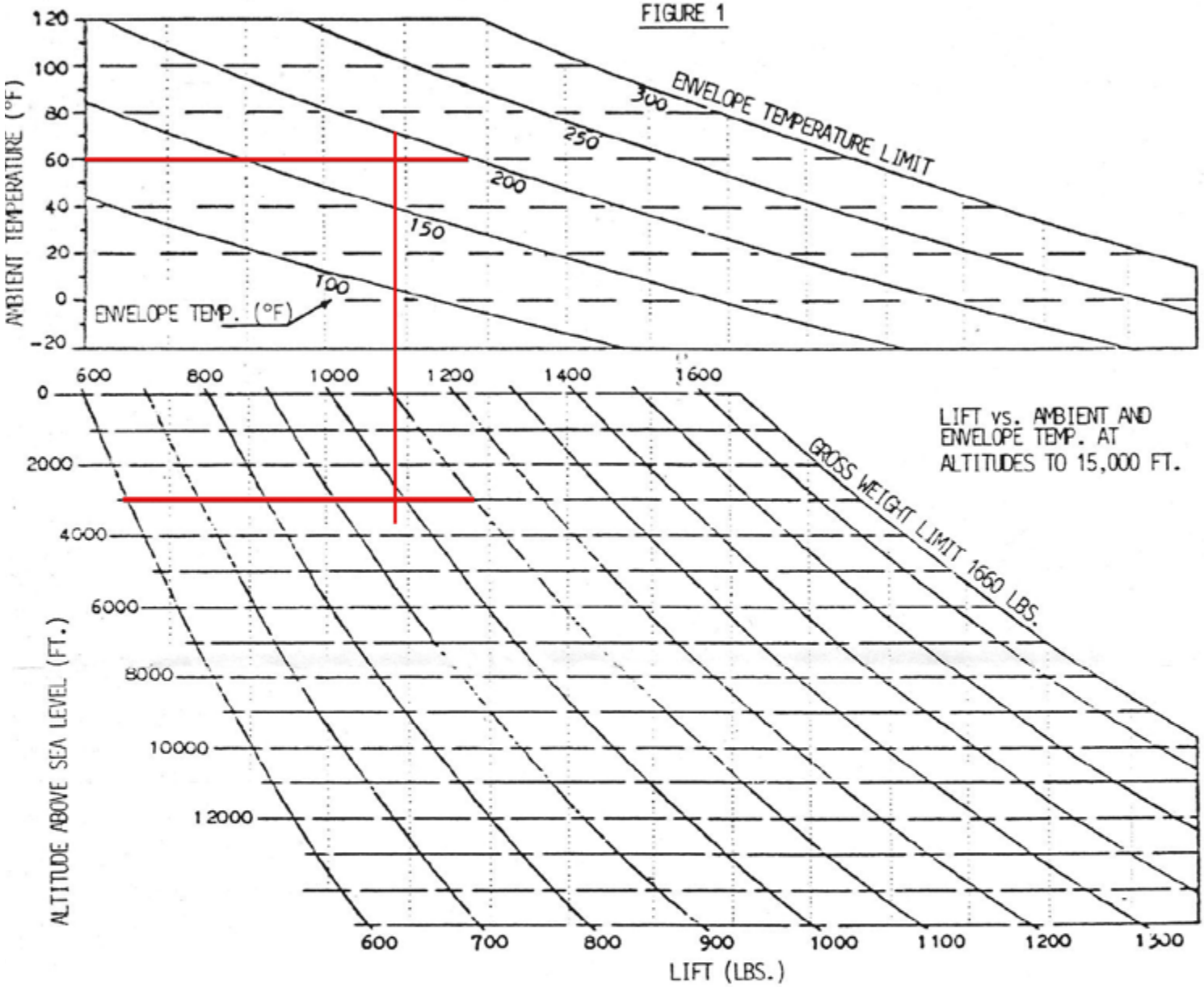


Figure 1 shows the effect of varying conditions on the lifting capability of a fully-inflated FireFly 7 envelope.

Available lift must always exceed gross weight. Excess lift is called "free" lift and it is the lift necessary for climbing.

Gross weight is the total weight to be lifted: balloon system, tanks, fuel, passengers and equipment.

Do not exceed the limits shown for gross weight and envelope temperature.

Directions and examples for Figure 1 are on the following pages.

2021 WAS Membership Application

Name: _____

❑ Pilot ❑ Crew ❑ Interested in hot air ballooning

Birthday: Month _____ Day _____

Address: _____

City: _____ State: _____ Zip: _____

Date Submitted: _____

Home Phone #: (___)_____

Cell Phone #: (___) _____

E-Mail Address: _____ @ _____

BFA Membership #: _____

Pilot/Crew Achievement Awards

BFA Crew Level: _____ BFA Pilot Level: _____

FAA Wings Level: _____ Other: _____

Family Member Information

Name: _____ ❑ Pilot ❑ Crew

Name: _____ ❑ Pilot ❑ Crew

Name: _____ ❑ Pilot ❑ Crew

Name: _____ ❑ Pilot ❑ Crew

Name: _____ ❑ Pilot ❑ Crew

Membership Type

❑ Charter ($20) ❑ Single or Family ($20) ❑ Newsletter Only ($10 outside Oregon & SW Washington)

Membership

The Willamette Aerostat Society communicates via e-mail, the WAS Facebook page and the website. We recognize and respect our member's privacy. If you do not wish personal information about you shared with other members, please indicate below. Your personal information will *never* be published on our website. It might be shared with other club members if a request is made unless you prefer to opt out.

❑ *Do Not* share name
❑ *Do Not* share address
❑ *Do Not* share phone number
❑ *Do Not* share cell phone number
❑ *Do Not* share e-mail

Please use a 2nd page if there are two pilots in the family, or if you have family members with additional information such as cell phone # and/or BFA #'s.

Mail completed form with fees to:

Willamette Aerostat Society
c/o Dale Justice
2902 E. 2nd St. Unit 76
Newberg, OR 97132

Willamette Aerostat Society

Willamette Aerostat Society Mission Statement

- To promote the sport of Hot Air Ballooning
- To educate new balloonists and the public
- To embody safety in all aspects of Ballooning
- To do all we can to support and encourage land owner relations
- To support our fellow balloonists and crews personally and in our sport

To obtain Member Contact information, send an e-mail to the Secretary/Treasurer.

For Privacy reasons, ***AeroStats*** will not publish member contact information without their express permission.

Contact and Submissions

Submissions of articles and photographs are encouraged and welcome! The editorial staff reserves the right to determine the suitability of a submission for inclusion in the newsletter.
Please email your pictures, articles, and comments to:
sharigaleOR@gmail.com

Advertising Policy

Club member's ballooning related or event information is published on a space available basis at no charge.
Business Advertising by Club members is considered Commercial Advertising, subject to fees shown below.
Material must be submitted in computer word processing format with pictures in JPG format.

AeroStats reserves the right to decline publishing submitted information.

Commercial Advertisement Space Rates

Full Page — $30 1/2 Page — $20
1/4 Page — $15 Business Card — $10

Ads will be published for 3 consecutive months, or until withdrawn, for the fee shown above.

The publishing of advertising in ***AeroStats*** does not imply an endorsement of the ad or its contents.
Text and images will be printed as submitted by advertisers.

Front Cover Photo:

Carrie Thacker's balloon graced the Pacific Northwest skies in years gone by. Photo by Shari Gale.

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Publication deadline is the 2nd Saturday of each month.

AeroStats reserves the right to deny publication of submitted material for any reason.

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