

# ARIZONA Audio Video Club

August 2021

## Club Officers

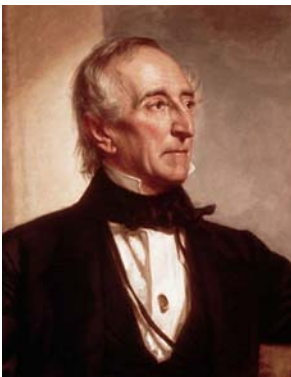
**President:** Paul Righello

**Secretary/Treasurer:** Joe Goswami

**Newsletter Editor:** Roy Cook

**SC Members:** Jeff Kalina, Bob Olivere, Ben Taylor, Darcy Righello, John Harvell, David Hjortland, Pete Eichen

**Photographer/Videographer:** Ben Taylor, Thomas Parker-Swenson



President's Message



Last Month's Meeting



Member Articles



Sundry Stuff



Dealer Area



Humor

Mailing Address:

AAVC C/O Joe Goswami, Treasurer  
4116 W Townley Drive, Phoenix, AZ 85051

Website: <https://azavclub.com/>

Facebook page: <https://www.facebook.com/AZAVClub>

Phone (623) 238-6884 (leave Message or send Text)

Email [Info@AZAVClub.org](mailto:Info@AZAVClub.org)

YouTube Channel: [https://www.youtube.com/watch?v=DT\\_nKeWE0S4](https://www.youtube.com/watch?v=DT_nKeWE0S4) (not quite loaded yet)

# PRESIDENT'S MESSAGE

Paul Righello

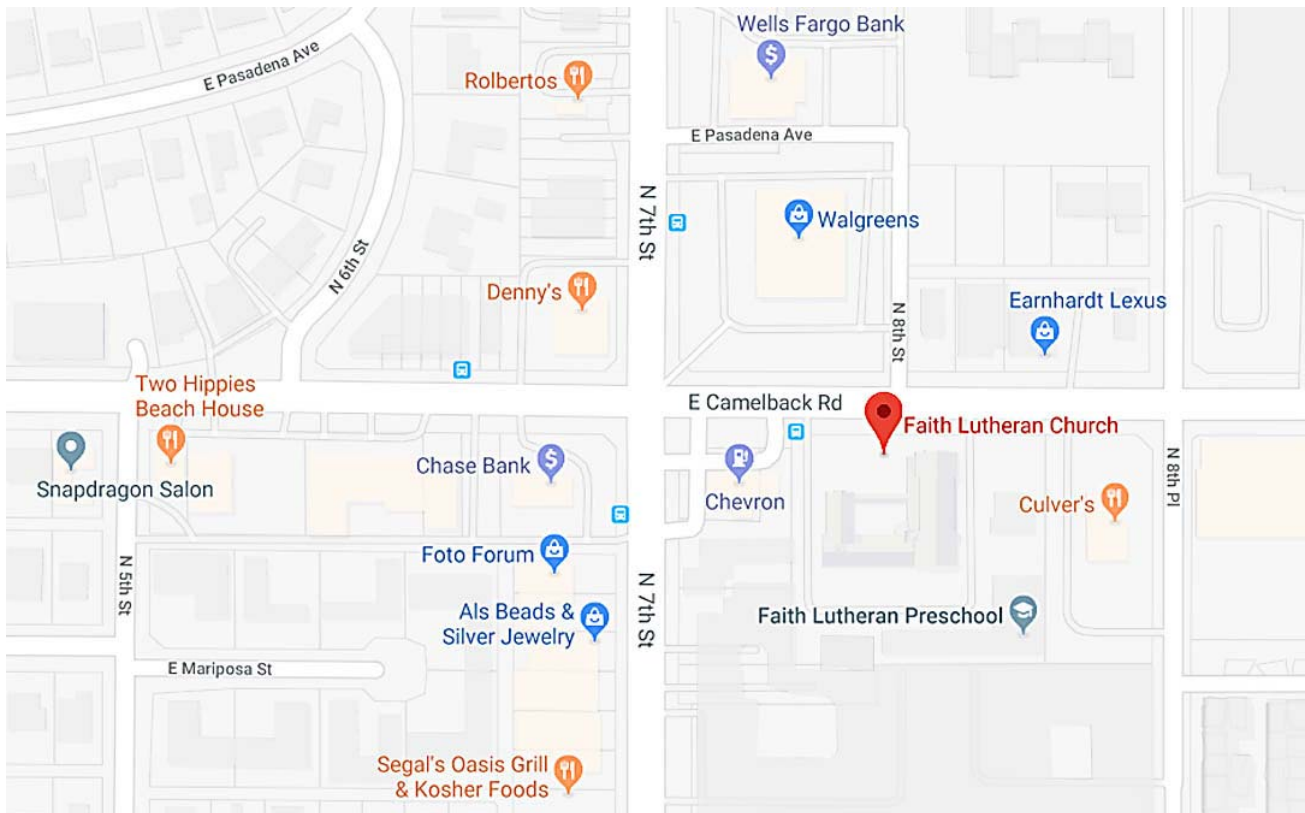
Hi Folks,

I hope everyone is having a wonderful summer. Our last meeting, member music night, was an intimate affair. We set up a simple system for the event that comprised a pair of Tekton Design Lore Reference speakers powered by an Onkyo A-9050 integrated amp. We had two sources: 1) an Onkyo C-7030 CD player and 2) a Raspberry Pi with HiFi Berry DAC+ PiHat I2S dac and Volumio operating system. Cabling was Mogami interconnects and Monster XP speaker wire. We played around 21 different tracks which I believe Roy will include in the newsletter. All-in-all it was a great time!

This month we are meeting again at Faith Lutheran Church on Camelback on August 25<sup>th</sup> at 7pm for a headphone listening event. Several members are going to bring their cans and we will set up a number of listening stations with assorted DACs, Amps, and sources. Schiit has also loaned the club an amp and DAC for the event. Some of the headphone brands represented at the event will be AKG, Koss, STAX, Sennheiser, and Audeze. If you have anything you would like to bring please do so!

Best,

Paul



# LAST MONTH'S MEETING RECAP

## Music Members Night – Tunes to Remember

Artist	Album	Track
Steve Perry	Best of Steve Perry	Foolish Heart
Deborah Liv Johnson	Across the White Plains	Across the White Plains
Barbara Carroll Trio	Livingston Binaural	???
Jacob Banks	???	Unknown
The Beau Brummels	Rock N Roll Golden Hits 65	Just A Little
Lenny Herman	Walk With Me	Will You
Alan Walker	Different World	Faded
The Church	Almost Yesterday	Under the Milky Way
Bobcaygeon	The Tragically Hip	???
???	???	Slaughter On Tenth Avenue
Island	EP	Stargazer
ZZ Top	Fandango	Heard It On The X
Shawn Colvin	A Few Small Repairs	Sunny Came Home
Dave Grusin	Nightlines	Boss Baroque
Lord Huron	Lonesome Dreams	Lonesome Dreams
Rush	Spirit of Radio	The Trees
Shawn Colvin	A Few Small Repairs	Get Out Of This House
Lee Ritenour	Wes Bound	4 On 6
Kygo	Cloud Nine	Someday
Trooper	Hot Shots	Santa Maria
Van Halen	Van Halen	Ain't Talkin Bout Love

# MEMBER ARTICLES

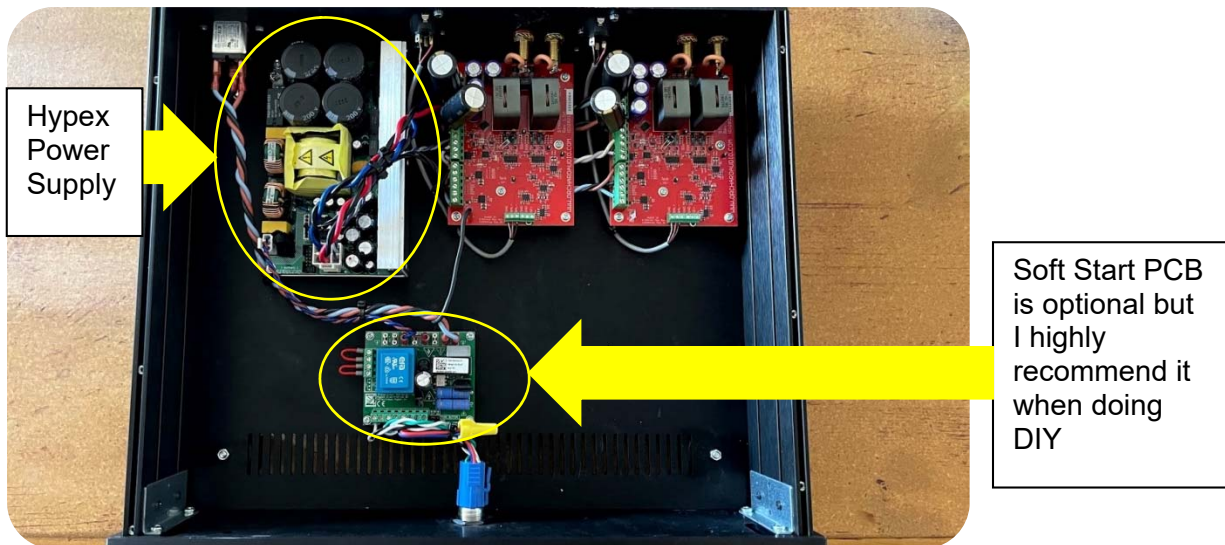
Joe Goswami

## *Orchard Audio StarKrimson Dual Monoblock Amplifier Review*

*(It's a long read but if you can tolerate Herb Reichert's musings – please read below)*

Well, here we go again. Leo Ayzenshtat, the designer and builder of the various Orchard Audio products (<https://orchardaudio.com>) has come up with another gallium nitride (GaN) amplifier gem to pass around to interested Club members. It's the StarKrimson Ultra-Dual Monoblock (<https://orchardaudio.com/stereo-ultra>).

Those who followed my journey last year with the Orchard Audio StarKrimson 1st generation amplifier modules (<https://orchardaudio.com/mono>) will be glad to know that Leo is now using a Hypex power supply and separate Hypex turn-on/protection module so that myself or anyone else **can't** blow them up anymore. There is now input protection on the actual amplifier modules themselves. Finally! I fried four of them on my KEF 105/3's and on a 104/2. (They literally went "up in smoke" without the pungent smell of electrical marijuana.) It's much needed, to be honest, and should have been there on last year's modules.



If you go the DIY route, the power supply & protection modules below are purchased separately. The fully assembled StarKrimson Ultra at \$2499.95 MSRP has everything inside (as shown above). <https://orchardaudio.com/shop/ols/products/strk-ltr-mdl>

Our demo unit is missing RCA jacks, but since I stopped using RCA's years ago it's not an issue for these rounds of listening tests. I used AudioQuest Mackenzie for the amplifier interconnects, Rocket 33 speaker cable for the Uni-Q KEF's & my open baffle tweeters. I have SVS SoundPath Ultra Speaker Cables that Ben Taylor loaned me for the mids on the OB's and lower bass on the

KEF R3's. Cables all sound the same to me. I only care about build quality and non-oxidation of copper. Those who wish to challenge me on this can KMBCA. I have Monster speaker cables over 20 years old that when stripped are like new. Left bare for all those years they have just darkened, but there is no green ooze.

### **The Chassis**

Orchard Audio's products have a definite DIY feel to them, but then so do the Audio Mirror, Pass DIY audio, and the Chi-Fi kits that are out there. But at the \$2500 asking price the competition is fierce. The old hot rod adage, "Chrome don't get ya home" comes to mind. If you want a brick schiithouse for a chassis, then you're gonna pay for it.

My thoughts on the chassis:

- Thin gauge metal is without any side or front to back support. Some manufacturers design these supports so that they double as a shields between the power supply and the amplifier boards. When I plugged in my XLR cables the whole back panel was flexing. The XLR connector is wired to the printed circuit board (previously direct soldered) and there are two additional mounting screws that hold the connector to the panel. Maybe a thicker gauge metal or a solid 1/8" chunk of anodized aluminum just for the back plate could strengthen things albeit at an additional cost.
- We have an on/off switch. Finally! Yay!



Now here's the specs, straight outta Jersey!

- Fully balanced from input to output (w/ differential input)
- Differential (XLR) and single-ended (RCA) inputs
- Extremely low noise and distortion
- Output Power: 125/250/500W into 16/8/4Ω
- 2-ohm capable
- Size: 45cm (17.72") x 36cm (14.17") x 11cm (4.33")

<https://orchardaudio.com/stereo-ultra>

The numbers say it will drive anything, from a pair of 16Ω Zu Audio speakers to an Infinity speaker that will dip down to 1.5Ω. But will it rattle the walls when I connect my 1968 Bose 901's? We'll find out later in this review.

### **The Setup**

- Ethernet (good 'ole Shielded Amazon/Fry's CAT6e) connected via Bluesound Node 2i for all PCM tracks from hard drive & network streaming (AmazonHD only)

- PS Audio DirectStream DAC Sr. connected to Bluesound & Sony, connected directly into the StarKrimson Ultra amplifier
- Sony UBP-X10000ES with integrated HDMI to I2S HDMI adapters for all SACD/DSD track playback. Network attached via DLNA to my homebrew Win10 HTPC/music server
- Audirvana for DSD files playback
- 8 Port Netgear router
- Audioquest Cinnamon HDMI Cables for all I2S related interconnections

Below are the **KEF R3's** that AZAVC's Ben Taylor has graciously lent me:



No Subwoofers!

Leo's design once again showed why last year I traded in my PS Audio Amplifiers for the BAT Preamp and 2 of Leo's v1 StarKrimson amplifier modules. Had things not blown up the way they did (twice), I'd would never have bought the Jolida 3502p. A tube preamp does "kick it up a notch" WRT smoothening things a bit.

For these rounds of testing, I did not want anything in the signal path that would influence the actual sound of the amplifier. With his latest triumph, I'm wondering why I'd need a tube input. He's actually improved things compared to what I heard last year. (Don't argue with me about auditory memory B.S. – I still remember listening sessions from 28 years ago.)

Tubey goodness is an overused and abused expression. When I'm done critical listening to the Ultra, I'll setup the BAT & Jolida in a showdown of sorts.

The KEF R3's are known for their ability to render image and soundstage amazingly well. (They were Ben's mixing desk speakers.) Give 'em some bass notes and you'll hit 40Hz with ease, but you'll need an amplifier with some juice. The Ultra has that and plenty to spare. It's nice when you stop listening to the equipment and just enjoy what music you are currently listening to. This combination does that in droves!

Describing what music I listened to won't really help. Needless to say, I pulled out all your usual audiophool dribble test tracks. You know what they are. No need to list them here. Jazz, classical, prog rock & classic rock. No country or opera, EVER!!

My **Bose 901's** Resto-modded 1968 Series 1's never sounded this good.



These are not your daddy's (or granddaddy's) 901's for sure. This is 2021, not 1968, and with DSP & about 10 lbs. of amazing class D amplification, you can join all the other audiophool's. No high's, no low's my BCA! BTW, these are all original cloth doped (no foam rot) CTS drivers with their original single conductor wiring wrapped on each of the speaker terminals. The previous StarKrimson amplifiers just couldn't reach my bowels the way these can!

What I heard was sweet, extended treble, midrange to die for, and bass that easily dips into the 40Hz region without sounding boomy. Not fatiguing at all. And there's even a decent phantom center! I don't use the noisy analog EQ's that used come with them. I've rebuilt quite a few of them and while they sounded good, they were hissy with the occasional electrical grunge caused by those terrible printed circuit boards whose traces would easily lift if too much soldering iron heat was applied. A balanced (XLR) mini-DSP 2x4 module with the original Bose EQ curve dialed in with a curve that can virtually work in any room is the best method – IMHO.

### ***My Open Baffle Debacles***



What you see is a stacked "H-frame" subwoofer with an open baffle board with three Dynavox 5.25" midrange drivers crossed over at 250Hz – 2500Hz, with a GRS planar magnetic tweeter taking over from 2500Hz to above 20kHz. I'll be showing them off at the DIY Fest in September 2021. Two very cheap high Qts GRS 12" woofers get down to 30Hz using some mini-DSP "magic" and a 1000W@4Ω ICE power ASW-1000 class D amplifier.

For the following listening session I didn't use the ASW-1000 ICE amplifier for bi-amping as I normally would. Instead, the whole thing was running off of the Ultra. My woofers are two 8Ω's in

parallel (so that's 4Ω – but you knew that, right?). Add the 8Ω series-parallel impedance of the 3 midrange drivers plus the 4Ω of the magnetic planar tweeter and it's actually 4.5Ω DC resistance using my trusty multi-meter.

Once I fired the open baffle Debacles up (that's the name I gave 'em), the 500WPC@4Ω (DC resistance) rating was put to the test, as was the 250WPC@8Ω when the 901's were in use (8.0Ω DC resistance).

It sounded full, open, sweet, and most importantly I wasn't missing the mini-DSP tuned bass with the ICE amp. (But I also can't bump the lower bass to get things down into the mid to low 30's. But then, that would be cheating for this listening session, wouldn't it?) So far, this amplifier doesn't care what I throw at it.

The amplifier has been on tour (of sorts). Below is Club member Craig Heyenga's rig with Pass preamp/amp, which we later swapped out for the Ultra. On his JBL L96's, vinyl & CD's came alive, filling the room with great sound while still giving a focused phantom center. The overused terms of "soundstage and imaging" were there in droves. To do a comparison of the two amplifiers isn't fair. What I can say is the tiny GaN chips (designed up in Ottawa, Ontario) that are used in the Ultra gave the big bad Pass amp a run for its money.

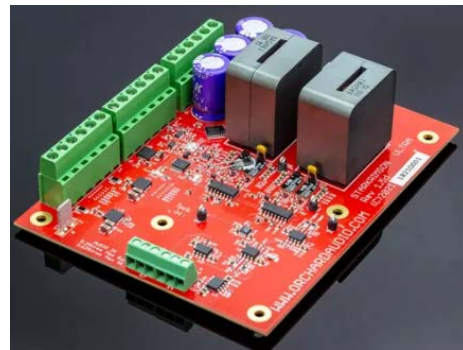


Craig's Rig

Craig's 50-year copy of George Harrison's classic **All Things Must Pass** album didn't stand a chance against his recently purchased version. The Purifi modules that my buddy Thomas over at Thomas & Stereo is playing with are in the same price range as Leo's amplifier modules. But do they sound as good? Maybe he'll do a video in the future. He gave Leo's amps a good review last year. While I haven't heard the Purifi modules by themselves or in any of the latest NAD and other OEM's that use them, I'm sure Leo's design would give it a run for its money – literally.



Purifi "EVAL1 is a kit combining two 1ET400A amplifier modules and a stereo front-end board

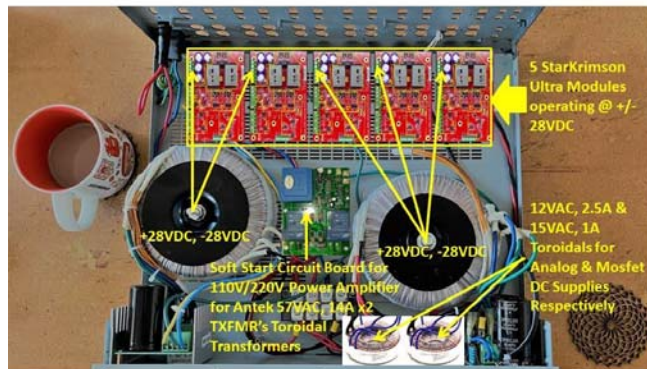


Orchard Audio Starkrimson® Ultra Mono Amp Module



Myself, I've decided to give Leo's DIY modules one last chance. I've signed an NDA with him for a 5-channel power amplifier that I'm slowly cobbling together. Here's a sneak peek at the concept. The big transformers are for the GaN Systems amplifier chips, and little transformer (not shown – hidden behind the front panel) is for the drive circuits. Honestly, a good switching supply can be as good as an analog power supply, but it just looks cool. (and heavy – I'm getting too old for the Schiit.) Plus, those transformers from last year's ill-fated BOSC/StarKrimson project were perfect for this build. I am hand placing/soldering all of the tiny caps, resistors, and chips (except a couple that are being done in New Jersey

5 Channel Orchard Audio StarKrimson Ultra Concept by Joe Goswami



The Since I'm reusing the Antek Transformers from last years builds, wiring them in series measured +28VDC & -28VDC WRT to GND after the filtered Bridge Rectifier.

Joe

# DEALER'S AREA

## Dealers Corner

Jeff Kalina

As always we want to recognize and thank all the local retailers who support our club so graciously

### DEALERS:

Acoustic Designs Group -- <https://www.adgroupaz.com/>

Dedicated Audio -- <https://www.dedicatedaudio.com/>

USA Tube Audio -- <https://www.usatubeaudio.com/>

LMC Entertainment -- <https://www.lmche.com/>

Woolson Audio -- <https://www.woolsonaudio.com/>

Arizona HiFi -- <http://tubeaudio.com/>

Audio Video Excellence -- <https://www.audiovideoexcellence.com/index.html>

Big Ear Stereo -- <https://bigearstereo.com/>

### VINYL:

Record High in Phoenix -- <https://www.facebook.com/Record-High-in-Phoenix-225931417539924/>

In-Groove Records -- <https://www.theingroove.com/>

### REPAIR WORK:

James Koch

[james@highendrepair.com](mailto:james@highendrepair.com)

Audio Doctor

<http://www.audiodoctor.biz/>

Jeff's Professional Audio Repair

Also Car Stereo work

4221 North 19th Ave

Phoenix, AZ 85015

602-274-0794

[jparepair@yahoo.com](mailto:jparepair@yahoo.com)

M-F 9:00 AM to 5:30 PM

Refoaming Speaker Surround Service:

Michael Mitchell

480-749-7003

[mmiller43228@yahoo.com](mailto:mmiller43228@yahoo.com)

Turntable Set-up and record cleaning:

Richard Jensen

ANALOG resource

602 717 2399 | [worksbau@gmail.com](mailto:worksbau@gmail.com)

# SUNDRY STUFF

## [Audio Publications](#)

Dave Hjortland recently published a list of audio-based newsletters he subscribes to.

There are a few I receive that were not mentioned.

**PS Audio's Copper Magazine** <<https://www.psaudio.com/copper/>>

This monthly publication serves a wide variety of audio interests, sans equipment reviews. There is typically an article or two that I personally find to be of interest.

**Part-Time Audiophile** <<https://www.psaudio.com/copper/>>

This is also a monthly publication that provides a decent variety of audio articles, from equipment reviews, record reviews, and sundry other subjects. This tome is unusual in that it covers audio interests on both sides of the Atlantic, but not Asia all that much. I would like to find a newsletter that covers Japan.

**Hi-Fi Pig** <<https://hifipig.com/category/news/>>

This publication primarily serves the European Audiophile and many of the products and subjects covered are not very prominent in the states. The writing is good and I enjoy the "Best Of" lists.

# HUMOR

More silly stuff and Deep Wisdom

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**"What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?"**

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www.glasbergen.com



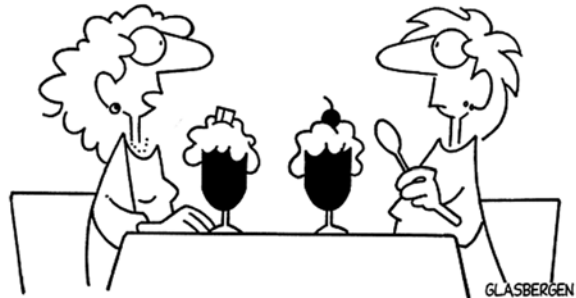
**"I'm going to order a broiled skinless chicken breast, but I want you to bring me lasagna and garlic bread by mistake."**

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**"Potato chips aren't rubbery and blubbery like fat. They're crispy and crunchy like lettuce. That proves they're diet food!"**

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**"If you put a crouton on your sundae instead of a cherry, it counts as a salad."**

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**"I was going to wake up early to go jogging, but my toes voted against me 10 to 1."**

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**"My doctor told me to start my exercise program very gradually. Today I drove past a store that sells sweat pants."**

ARE WE THERE YET?





Two little old ladies were attending a church service.

One leaned over and whispered, "My butt is ging to sleep."

"I know replied her companion, I heard it snore three times now."