Comet - Aluminum Foil Paper-in-Oil Capacitors, Mineral Oil

21st Oct. 2023

Shirokazu Yazaki

Mr. Cristopher, I find it difficult to give an objective evaluation of Comet in terms of sound quality by myself. That's because I came across the following surprising and perplexing facts below and so I'm just something confused and excited right now.

As you know, I had involved in the development and also market introduction of Arizona Red, Blue and Green in the past. And I have felt that the Arizona series would be a very rare example of the achieving the full potential of hermetic seal oil filled capacitors for the audio applications. Yes, that's what I thought or believed it until only a few weeks ago.

However, when I heard once the sound of this Comet, Aluminum Foil Paper-in-Oil Capacitors, Mineral Oil, in last week, this thought and the premise, full praise and my commitment in the Arizona series so far has totally collapsed. I was so shocked that I really told to my close friends, if I had discovered this Comet 10 years ago, I would never have released Arizona Red, Blue, and Green.

Of course, I believe that each of Arizona Red, Blue or Green is still splendid sounding capacitor, far comparable to any other capacitors in the present market, but the each has the characteristic or the tendency that has both strengths and weaknesses in sound quality and also tonal character. For example, Arizona Red's dielectric is made of only kraft paper, so its natural beauty in the mid-high range is indescribable, but it somewhat lacks richness in the low range. Additionally, Arizona Blue is characterized by the thickness of the mid-low range, which inherited the lineage of the former West Cap, and so it can be said that Red and Blue are complementary to each other. On the other hand, with this Jupiter Comet, I can only feel its strengths or positive points and no weaknesses at all. So I guess it's no wonder that I was too much surprised. Well, before I talk about the details of this wonderful, dream-like sound quality, I would like to specifically explain how we, Nishikawa-san, my close friend, and I have evaluated this capacitor, the Red Comet.

First, we replaced with the Comet, which is the main capacitor of the low-pass filter, at the final stage of the Class D amplifier, which I have been improving the sound quality for 15 years, from Arizona Green. This low-pass filter is an extremely sensitive determining factor for the sound quality, as it should extract audio signals of relatively low voltage and large current in the audible band without any losses. And this amplifier is currently being used in Nishikawa-san's audio system, so I asked Nishikawa-san to give a candid report on how the differences in sound quality from Arizona Green to the Red Comet reflects on his higher musical sensibilities he has cultivated over a long period of time.

Well, I tried to use the remaining one more pair of the Comet as a coupling capacitor for my PX25A (DA30) non-feedback single-ended amplifier, which I have been improving for half a century. As for this coupling capacitor, this Comet is the 5th one, and I have selected the best one available at each time. In any case, over the past 10 years, I have become familiar with Arizona Red's beautiful tonal character and have been enjoying music without any particular complaints. Needless to say, the coupling capacitor inserted between the plate of the driver tube and the grid of the power tube has been applied a high voltage to one end, and is an extremely important capacitor that should extract only the AC type waveform of audio musical signal, which is constantly changing on the time axis . In addition, in my experience so far, I would also like to mention that each actual effect of improving the sound quality when replacing capacitors, although the usage situation is different, as the capacitor for the low-pass filter of our Class- D amplifier and also as the coupling capacitor of my simple configuration single-ended amplifier, has been almost the same one.

Well, I received Nishikawa-san's first impression of the Red Comet on the 3rd Oct. and the very next day, I handed over the capacitor to him. This was extremely unusual for him, who is usually cautious about evaluating sound quality, so I remember being surprised as well. The following is my translation of his email into English as accurately as possible ----,

"In preparation for this day, I listened to and checked the sound quality of the current Class D amplifier with Arizona Green and confirmed once again how good Arizona Green is. Then, I replaced this Arizona Green with this Jupiter Red COMET and started listening. I first listened to the Elly Ameling's song, ANDIE

Schubert: An die Musik, D. 547 - YouTube

From the first listening, I was very impressed Ameling's smooth, clear voice, the texture of the piano's touch, the perfect distance from each other, and the location of the stage felt natural to my liking. Immediately after turning on the power of this Class D amplifier, the entire band was clear with good S/N, but especially the mid-low range with a good density and visibility from 500Hz to 100Hz was something I had never been able to get before. From there, the S/N feeling increases over time, and the center of gravity of the music sinks, giving me a sense of uplifting, the performer's breathing, the defined intonation, and the open-air feeling without any sense of oppression. I was so surprised to see such a change in less than an hour. I can't say it in a few words, but the sound stage becomes far more spacious, and each tone becomes with more density, and it also brought me the sense of transparency, as if a veil had been removed. I think this change is something that could not be achieved with any conventional hermetic seal capacitors, I've heard. Now on the second day, it was still about 10 hours in total, the changes slightly continued. Even at lowest volumes, the form of the music does never collapse, and even the texture and sense of reality do not fade. For me, often listens to music late at night, this is a change that I had hoped it will come true. I am once again realizing the true value of good sounding parts, such as this Red Comet. These are a quick breaking news from me."

Well, I replaced the coupling capacitor with the Comet from Arizona Red in my old PX25A (DA30) single-ended amplifier, and I also felt just as Nishikawa-san pointed out, just on the moment when I powered on, a lustrous tone reached my ears. It may be an exaggeration to say that it was instantaneous, but for my experiences so far, it would be extremely rare to hear such a beautiful tone from the very beginning. Previously, it required dozens of hours of use to reach a certain level of sound quality. This can be said to be a big advantage of this Comet. And it would be true, the Red Comet's mid-high range is also incredibly beautiful and natural just like as Arizona Red's unique charm, because that both are made of only kraft paper as its dielectric material.

However, the thickness, richness and density of lower its mid-low range seem to far exceed not only Arizona Red, but even Arizona Blue. The realistic sense of sound images, such as the clear contours of low-frequency instruments is worth listening to. In short, now the scale of the music played by my PX25A single-ended amplifier has bigger, and the energy of the whole band has increased. Therefore, in this realistic music playback, I was able to immerse myself in the music and found myself feeling truly relaxed. And now I'm able to realize that because I have long wanted to hear this kind of "Real-Sound", I have spent many years on my audio adventure.

And for the past few weeks, I've been talking with Nishikawa-san on the phone every day about the great improvements made by this Comet. Furthermore, we were able to deepen our communication and audio thoughts with the Red Comet. What a wonderful blessing we have received!!

Thank you very much, Christopher-san!! We so much appreciated for giving us the chance to experience the sound of **Comet - Aluminum Foil Paper-in-Oil Capacitors, Mineral Oil**, the best hermitic seal oil filled capacitor ever made.