

STAR GAZERS

SG 1808 – 5M

FEBRUARY 19-25, 2018

“Take The Venus-Mercury Challenge”

JAMES:

Welcome to Star Gazers. I'm James Albury, director of the Kika Silva Pla Planetarium in Gainesville, Florida.

DEAN:

And I'm Dean Regas, astronomer from the Cincinnati Observatory, and we're here to help you find your way around the sky. As we get into the month of March, James and I would like to issue you a challenge.

JAMES:

That's right Dean. We're looking for keen-eyed star gazers to locate the two closest planets to the Sun.

DEAN:

We're talking Mercury and Venus. Now, I'm warning you. This could be tough. Mercury and Venus are just now emerging from the far side of the Sun and will be popping out in the western sky just after sunset.

JAMES:

You will have to time this just right and have a clear view to the western horizon and even then you might not be able to see them.

They will slowly appear farther from the Sun as the month progresses.

DEAN:

The challenge is this: what is the first day you can spot them both in the sky.

JAMES: Oooh, I like it!

DEAN: Challenge issued.

JAMES: Challenge accepted!

DEAN: Let's head to the sky!

(STOP DROP)

DEAN:

Okay, we have the sky set for February 25th facing west.

The Sun is about to set and as it does we want to look for suspiciously bright lights near the horizon.

JAMES:

The brightest planet in the night sky is Venus and it should be the first of our two planets to pop into view as the sky darkens.

There it is just above the treetops. Now it will be extremely low in the sky so you will need a viewing spot free from trees or buildings. And of course it has to be clear out!

DEAN:

Mercury, on the other hand, may be the real challenge to find in February. It is way dimmer than Venus and tends to get lost in the haze above the horizon.

But as the weeks roll on, Mercury will become easier to spot. Here is the sky, same time of night on February 26... 27... 28... and March 1st.

JAMES:

Venus appears higher in the sky and you see that little dot next to it? That is the elusive planet Mercury. Most people have never seen

Mercury (or at least they probably never noticed it), but Venus will help. On March 2nd they'll be closer still and on March 3rd... They'll be in conjunction!

DEAN:

James' favorite time of the year! Let's fly up there to get a closer look at our two innermost planets.

(STOP) (In Space)

JAMES:

The reason Mercury and Venus can be so tough to see is because they're in between us and the Sun. They're up in the sky as much as any other planet but most of the time the Sun is there with them. It's so bright outside you can't find their feeble light.

DEAN:

But at certain places in their orbits we can see them either just after sunset or just before sunrise. These positions are called elongations when the Sun seems farthest from them

in the sky.

(STOP) (Same as 1724 read 3)

JAMES:

If we want to fly to Venus, it would still be quite a trip.

It is over 150 million miles from Earth this week. Unfortunately, from above, there wouldn't be

a lot to see.

DEAN:

Venus is perpetually covered in clouds.

The clouds reflect a lot of sunlight and trap in a whole lot of heat. So Venus, although farther from the Sun than Mercury, is the hottest planet.

JAMES:

That's right! The surface of Venus swelters at around 900 degrees Fahrenheit!

(STOP)

DEAN:

If we quickly hop over to Mercury we will find a very different planet.

JAMES:

Look, no clouds! We can see the surface of Mercury – every mountain and every crater. At least we can now thanks to the Messenger spacecraft which mapped out Mercury a few years ago.

DEAN:

We actually didn't know what half of Mercury looked like until 2011. It's so close to the Sun that it is really tough to view from Earth.

(STOP) Close-up ending

DEAN:

So take the Venus-Mercury challenge and see when you can first spot the two planets.

JAMES:

Look to the western horizon every clear night just after sunset. If conditions are just right and you have keen eyesight you may see them on March 1st, 2nd, or 3rd.

DEAN:

Or maybe you have such amazing, eagle-eyes that you may find Venus and Mercury in February.

JAMES:

We'll definitely be looking. Let us know when you see them and try to find them before we do.

DEAN: Accept our challenge as you...

BOTH: Keep looking up!
